A1

0m 1m 2m 3m 4m 5m

Visual Scale 1:50 @ A1

BRICKWORK BLOCKWORK CONSTRUCTION
The external facing materials will be of a suitable material approved by the Local Planning Authority, comprising of 103 thickness facing brickwork to the external leaf constructed with 1:1:6 cement:lime:sand, with 45mm thk Kingspan Thermawall TW50 insulated material with 50mm clear cavity. 100mm thickness THERMALITE SHIELD blockwork on the internal leaf constructed with 1:1:6 cement:lime:sand with 13mm lightweight plaster surfaces internally finished. (ALL TO ACHIEVE A U VALUE OF 0.28 W/M2 deg C) The external and internal leaves are to be securely retained with approved wall ties spec DD140 type 3 to BS 1243: 1978.
Positioned 450mm apart vertically and 750 apart horiz.

All cavities will
be closed at the jambs and the eaves with blockwork materials and suitable Hylood damp proof course system. All cavities closed at the jambs, cills,and head situations will be suitably insulated to prevent cold bridging. Lean mix filling to cavities below ground levels and terminating 225 mm below the lowest damp proof course system. Brickwork below ground levels will be built with special quality brickwork as described in BS 3921 CLASS B Engineering brickwork. All the external walling situations will have ventilation openings in the form of air bricks to BS 493 ensuring that the ventilation air will have a free continuous path between opposite sides and to all parts of any enclosed floor voids. The openings shall be large enough to give actual openings of at least equivalent to 3000mm2 for each metre run of walling. Any trunking of pipework needing to carry ventilation air will have a diameter of at least 100mm. Movement joints to the external walling will be filled with Servicised Aerofil materials with Evode Low Modulus Silicone Sealant to brickwork faces. Foundations supporting any masonry structure will be in accordance with the approved document A1/2 SECTION 1E 2010 BUILDING REGULATIONS. All foundations are subject to existing ground conditions and will have not less than 600mm cover below ground levels. When the route of any drainage comes into contact with any external loadbearing structure supported with foundations then that foundation will be suitably positioned at a depth below the invert of that drain. Any oversite concrete floor slab will be level with or above the finished ground levels. Foundation designs must be approved by the local authority building control officer and subject to site investigations revealing the loadbearing strata. An unsuitable strata will necessitate the deposite of supporting structural information. Any steel reinforcement to foundations to comprise of mesh steel fabric ref: B283. Any steel reinforcement to oversite concrete floor slabs to comprise of mesh steel fabric ref: A142

DAMP PROOF COURSES AND MEMBRANES
The horizontal and vertical damp proof courses will comply with the requirements of BS 743 and will be of a pitch polymer DPC material such as RUBEROID HYLOAD and will be incorporated in the following locations:
(a) Not less than 150mm above ground levels to all loadbearing walls and continuous with the inner leaf and with oversite concrete floor slab damp proof membranes.
(b) Positioned vertically and built into the jambs of all external door and window openings and behind cills and door thresholds.
(c) Positioned horizontally to all external door and window openings and behind all cills and door thresholds.

BELOW GROUND DRAINAGE SYSTEMS
Below ground drainage pipes will comprise of either 100mm diameter Hepworth vitrified clayware to BS 65 or 100mm diameter PVCU to BS 5481/ BS 4660 laid on granular bedding materials to BS 882 Table 4. The selected fill materials should be free from stones larger than 40mm, clay exceeding 100mm, timber, frozen materials or vegetable matter. Where rigid pipework of less than 150mm diameter have less than 300mm of cover or a rigid pipe of 150mm diameter or more hass less than 600mm of cover, then these pipes should be suitably encased within 150mm of concrete surround. Where flexible pipework are not located under a highway and have less than 600mm of cover then these pipes should be suitably encased within 150mm of concrete surround. When drainage runs are within 1.000m of any foundation and the level of the drainage trench is below the level of the foundation then that trench should be suitably backfilled with concrete. Any drainage pipe which may penetrate through a building structure below the finished ground level will be protected with a lintol support and a settlement gap of not less than 25mm which incorporates a flexible material to provide necessary protection to the drainage. All gravity drainage will have a minimum fall requirement of 1:40 to provide for self cleansing velocities. All gulley systems will be back inlet trapped type unless otherwise stated. Inspection chambers/ manholes up to a maximum depth of 900mm may be a proprietary system of PVCU material otherwise they will be constructed of 150mm thickness concrete base slab 1:2:4 mix with benching formed in 1:2 concrete mortar to 1:12 gradients. all trowelled smooth with appropriate channels, branches and connection bends. The walling of the chamber will be constructed with 215mm thickness Class B engineering brickwork to BS 3921 formed in English Garden wall bond to the required invert. 150mm concrete cover slab with the appropriate haunching forming the cover levels and frame. The inspection chamber cover will be mild steel and medium duty screw down sealed type unless otherwise stated. On completion of the works the entire drainage system will be tested for water tightness to the satisfaction of the local authority building control officer. (APPROVED DOCUMENT H 2010 BUILDING REGULATIONS)

ABOVE GROUND DRAINAGE SYSTEMS
proposed pipework for internal uses applicable to BATHS, SHOWERS, URINALS SINKS ETC. pipe fittings and accessories PVCU to BS4514/BS5255 waste size 42mm diameter via 75mm deep seal traps. proposed pipework for internal uses applicable to WASH HAND BASINS ETC. pipe fittings and accessories PVCU to BS4514/BS5255 waste size 32mm diameter via 75mm deep seal traps. proposed pipework for internal uses applicable to WC wastes and soil and vent stack systems etc. pipe fittings and accessories PVCU to BS4514 size 110mm diameter via appropriate branch type trap. proposed pipework for thr use of rainwater outlets etc. pipe fittings and accessories PVCU to BS4576 (APPROVED DOCUMENT H 2010 BUILDING REGULATIONS)

INTERNAL LIGHTWEIGHT PARTITIONING
The internal partitioning will comprise of 75 mm x 50 mm vertical softwood timber studding secured at 400 centres with 75 mm x 50 mm head and sole plates. 75 mm x 50 mm horizontal noggins secured at 600 mm centres all faced both sides with 12.5 Gyproc plasterboard and skim finishes. Where specified on the drawings to provide acoustic control the partitioning voids will receive 75 mm thickness RODCSIL acoustic insulation material. The designed floor joists will be doubled up when running parallel with and under the lightweight partitioning.

ELECTRICAL INSTALLATIONS.
The proposed Electrical Installation earthing and bonding shall be strictly in accordance with the 16 th Edition of the I.E.E. Regulations N.I.C.E.I.C. and Gas Safe STANDARDS and will comply with the requirements of BS 7671 1992.The contractor shall provide all installation test certificates and notifications for early approval to the required statutory authority. All the sockets switches and lighting requirements shown on the drawings are indicative and should be used for tender quotation purposes only. Client agreement and detailed requirements must be obtained thereafter. Fire detection and Alarm systems will be installed and wired in complete accordance with BS 5839. Part 1. Smoke detection systems will be optical and obscuration pattern type and will be fed exclusively from an uninterrupted mains feed supply. Emergency Lighting systems will be designed in accordance with BS 5266 Part 1.
Notifiable works are to be carried out by a "competant person" registered with a part P self certification scheme.

At least one third of new rooms are to be fitted with high efficiency light fittings and positioned in rooms most frequently used.

Any new external lighting to be energy efficient and run off a light sensor or similar.

DOORS/WINDOWS/GLAZING REQUIREMENTS.
Specification for the use of Doors and Windows will generally be manufactured from either softwood, hardwood, or UPVC materials.(Client Consideration) The glazing requirements will be double glazed sealed units to BS 6206 fitted with trickle vents (see vent. spec.) When any glazing systems is within a height of 800mm from a floor level in internal or external walls and 1500 mm from floor level in a door side screen then safety glazing will be introduced to comply with the current codes of practice and with Part N Building Regulations and BS6262.
ALL TO ACHIEVE A U VALUE OF 1.8 W/M2 for doors and 1.6 W/M2 for windows.

LINTOLS SUPPORT OF STRUCTURAL OPENINGS
All lintols unless otherwise stated will be BIRTLEY hot dipped galvanised mild steel cavity tray combined steel lintols to BS 5977 to the sizes and grades as recommended by the manufacturer. All lintols must achieve a minimum end bearing support of 150 mm. When the bearing is less than 150 mm a concrete padstones will be designed to accommodate the desired loading criteria. All lintols will be installed with insulated voids to prevent cold bridging. All lintols will receive plaster finishes to the backs and soffits to provide for half hour fire protection of the surfaces.

NATURAL/MECHANICAL MEANS OF VENTILATION
Ventilation openings to any habitable room to be in accordance with the approved document F1 2010 Building Regulations. Natural ventilation openings to be not less than one twentieth of the floor area of the room. All windows to have permanent ventilation louvres in the form of trimvents fitted to the head of the window frames to provide 8000mm2 of additional ventilation. In addition the Domestic kitchen will have an extractor fan capable of extracting at least 60 litres/ second (216m3 per hour) air replacement control. Domestic bathrooms and shower rooms will have an extractor fan capable of extracting at least 15 litres/ second (54m3 per hour) air replacement control intermittently. Domestic independant toilets will have an extractor fan capable of extracting at a rate of at least three air changes per hour air replacement control wich can be operated intrmittently and which has an overrun period of 15 minutes.
All ducted to external air.

PROPRIETARY WALL TIE SYSTEMS.
The special wall tie systems will comprise of drilling holes into the existing masonry structure at intervals of 600 centres to receive a HILTI wall tie system comprising of 6 mm diameter stainless steel grade 316 steel anchor wall ties with threaded rods penetrating 75 mm into the existing structure and anchored with HIT C50 Epoxy resin using the HILTI HIT SYSTEM. Testing on the ties using a torque wrench which breakes at the pre-set value of 6.5 N to result in a minimum pull out value of 5.0 kN.

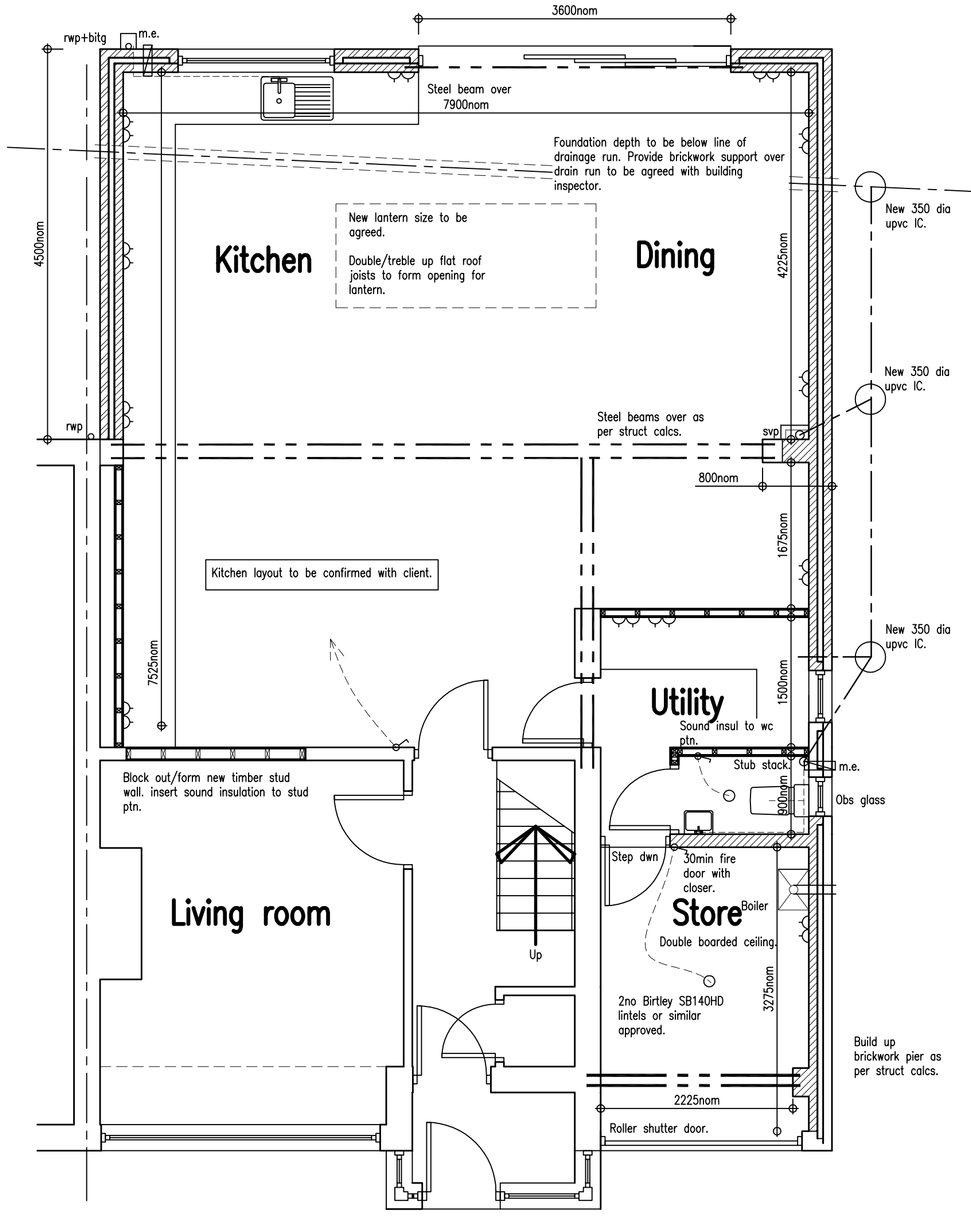
LATERAL RESTRAINT TO FLOORS AND ROOFS.
All floors and roofs should be suitably anchored with BIRTLEY or CATNIC type metal anchors comprising of galvanised mild steel straps having a cross section of 30mm x 5mm x 1000mm secured to brickwork and timbers at intervals not exceeding 2m to provide horizontal and vertical restraint

SUSPENDED TIMBER UPPER FLOOR:
19mm t&g flooring grade chipboard V313 moisture resistant to B.S. 5669 1979 nailed to 200x50 timber joists at 600mm ctrs. S.C.4 graded, built into inner leaves of cavity walls. Lay min 150mm thick quilt fibre insulation between joists. Where joists run parallel to external walls, once bent 35x5mm mild steel straps to be built into inner leaf and carried over the last three joists with noggins at strap positions, straps to be fitted at 2.0m ctrs. Herringbone strutting to be fitted at mid span whre span exceeds 2.0m. 90mm min end bearing to joists. 12.5mm plasterboard and skim to form ceiling. Where the floor separates a garage from a habitalbe room or is semi exposed then install a vapour control layer behind the floor deck and install 75mm thick extruded polstyrene cut to fit tightly between joists and supported on 25x38mm battens fixed to the sides of the joists. Fix 2 layers of 12.5mm plasterboard fitted to break joints to give ½ hour fire protection opply skim finish.

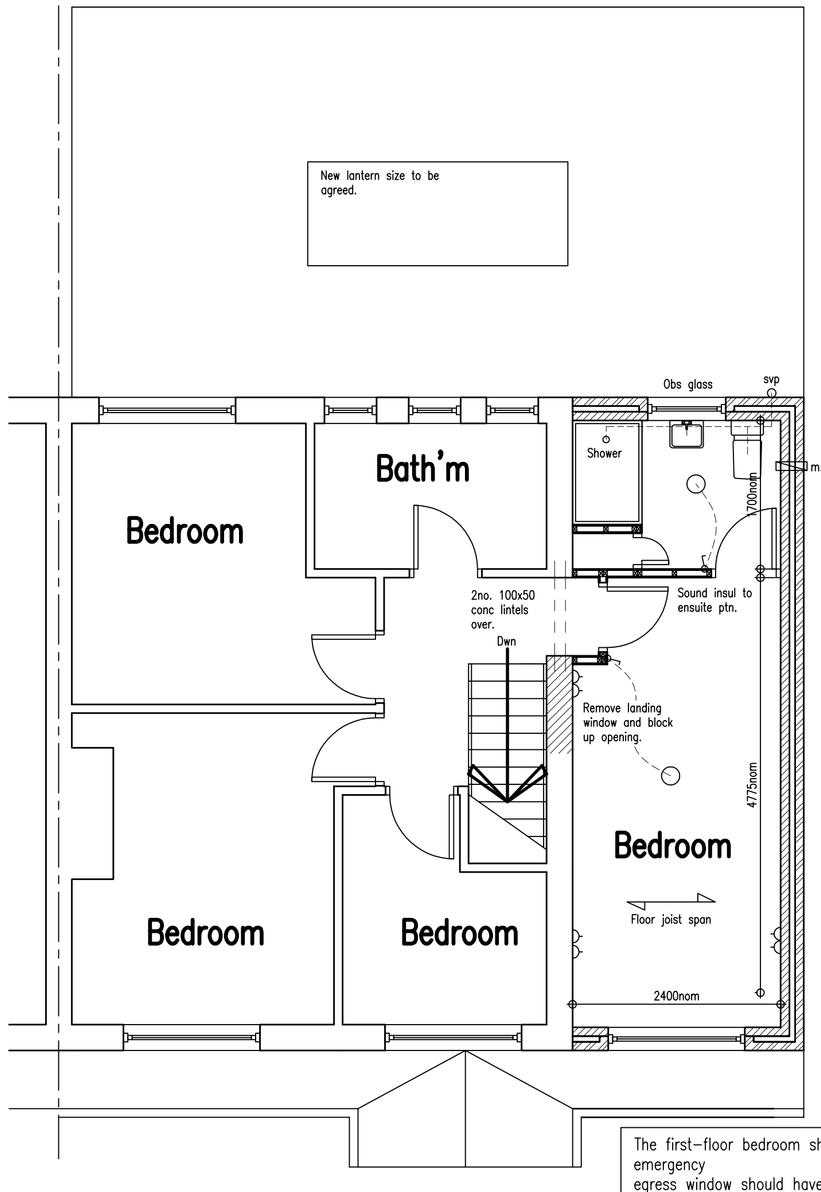
PROPOSED PITCHED ROOF CONSTRUCTION
The finished roofing materials will comprise of either NATURAL GREY SLATES or CONCRETE INTERLOCKING TILES approved by the Local Planning Authority. Laid to the required gauge on 38x25 softwood treated timber battens. On Monarflex or similar breather membrane underfelt. All secured to common
rafters (as specified)
The rafters will be secured at
the eaves with 100x50 softwood timber wall plate secured to the top of the inner blockwork cavity closer of the external walling, 100x25 longitudinal, diagonal and chevron bracing will be secured to the rafters in accordance with BS 5268 1985. Horizontal and vertical holding down straps for lateral restraint to floors,rafters and wall plates will comprise of Birtley 30x5 galvanised mild steel proprietary straps secured at intervals not exceeding 2.00m. 100mm Kingspan K7 insulation material will be incorporated between the joists with 42.5mm Kingspan K18 plasterboard under.
A proprietary eaves
ventilation system will be secured comprising of 1000mm x 10mm continuous strip ventilator secured to the top of the fascia board and running the entire length of the roof structure to provide a continuous flow of unobstructed air supply to the roof voids. Accessories will include the likes of underfelt supports, ventilation trays, profile eaves fillers and eaves vent clips etc. Any valleys to be constructed from either Code5 leadwork or with the use of proprietary valley materials as recommended by the manufacturers.

U VALUES.
The construction will achieve compliance with the current insulation standards and will achieve the following 'U' values (w/m2k):

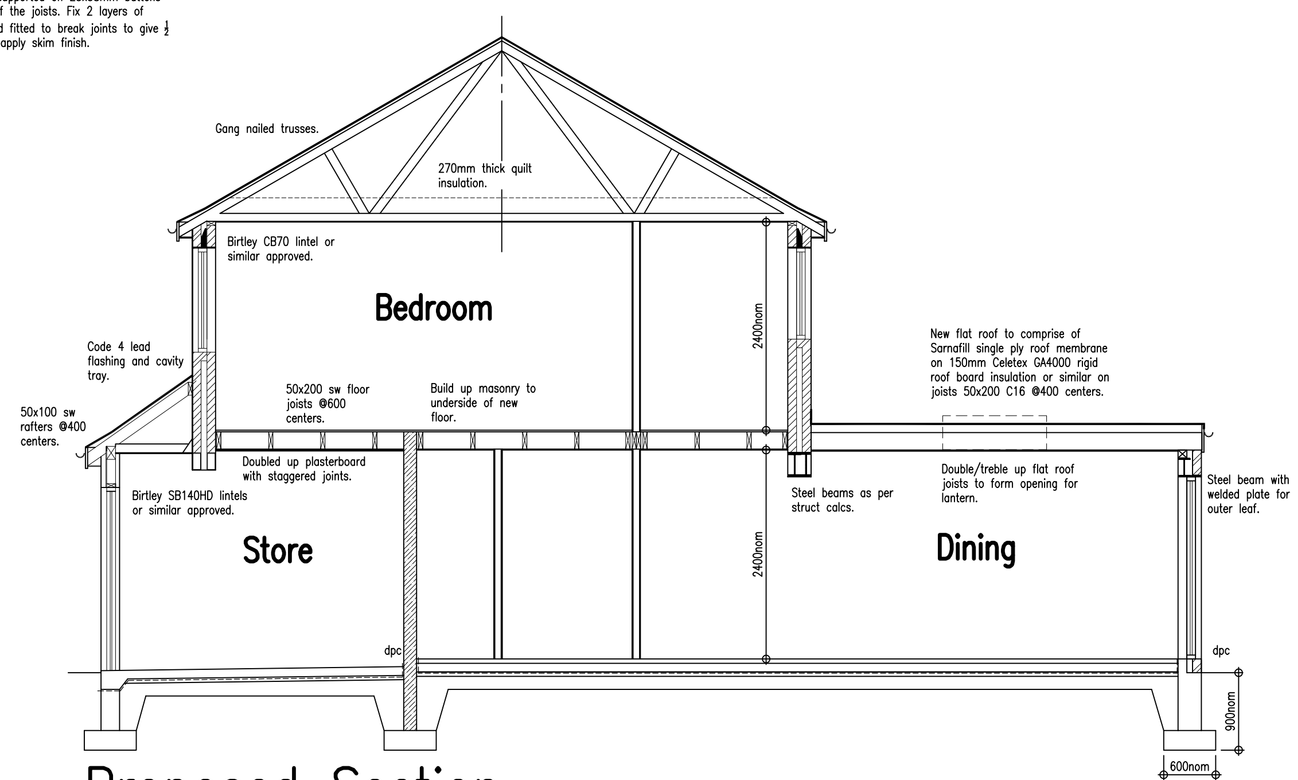
a. Floors – 0.22
b. Walls – 0.28
c. New windows – 1.6
d. Pitched roof with insulation fixed to rafters – 0.18
e. Doors – 1.8




Proposed Ground Floor




Proposed First Floor




Proposed Section

REV D – REAR EXTENSION MOVED OUT TO 4.50m FOR DRAIN AND FLAT ROOF ADDED 22/02/24
REV C – FIRE ESCAPE WINDOW ADDED TO NEW BEDROOM 6/10/21
REV B – NO SET BACK TO FIRST FLOOR. 21/9/21
REV A – UPPER FLOOR SET BACK FOLLOWING PLANNING RECOMMENDATION. 20/7/21

The first–floor bedroom should have an emergency egress window. An emergency
egress window should have an unobstructed openable area of at least 0.33m2
with no dimension less than 450mm. The bottom of the openable area should be
no more than 1100mm above the floor. Approved Document K: Protection from
falling, collision and impact specifies a minimum guarding height of 800mm,
except in the case of a window in a roof where the bottom of the opening may be
600mm above the floor.

DO NOT SCALE FROM THIS DRAWING
THE ELECTRICAL LAYOUT IS FOR INDICATION PURPOSES ONLY.
ALL SITE DIMENSIONS SHALL BE VERIFIED BY THE CONTRACTOR ON SITE PRIOR TO COMMENCING WORKS
ALL DRAINAGE RUNS SHOWN ARE ASSUMED. THE CONTRACTOR IS TO CHECK LAYOUT PRIOR TO BUILD.

NMS Building Design
(0191) 488 1928
Mob. 07534 416 370

Proposed Extension
19 Abernethy
Ouston
DH2 1RX

| DATE | SCALE | DWG NO. |
|---|---|---|
| JUNE 2021 | (A1)1:50 | 21-387-03 REV D |

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