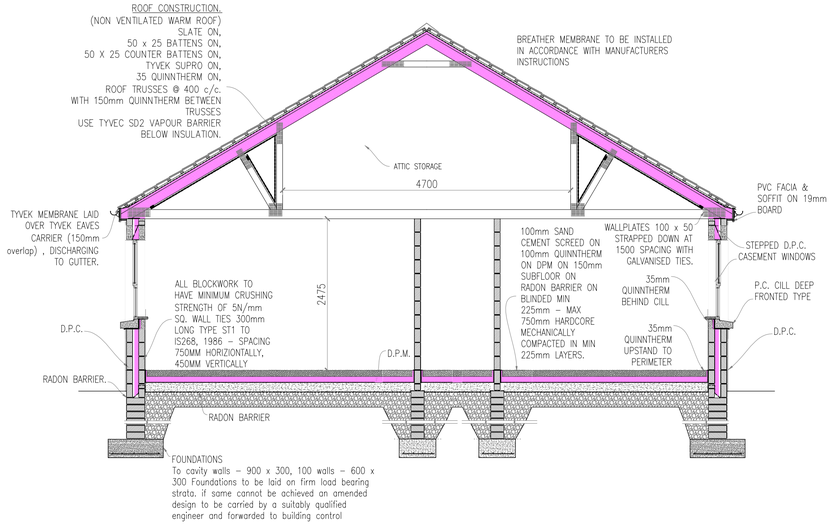
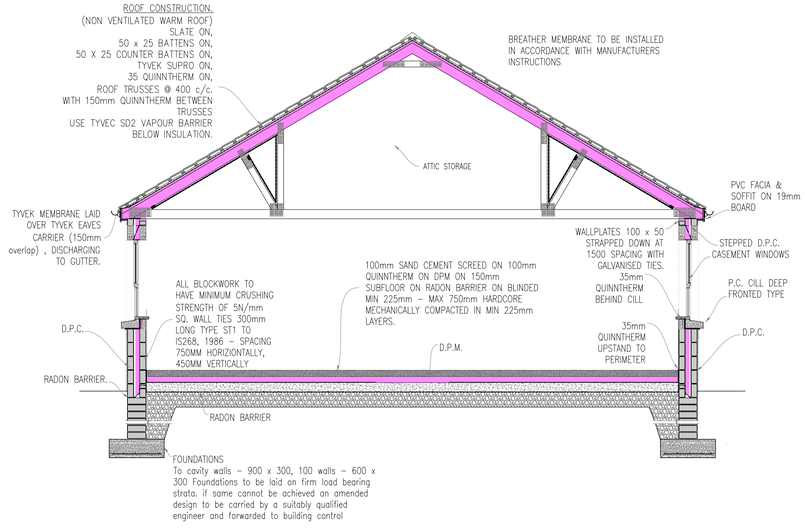
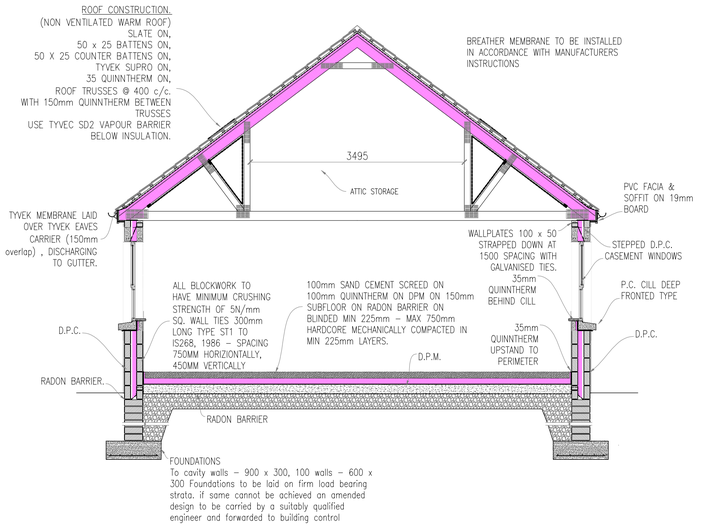


SECTION B SCALE 1:50



SECTION C SCALE 1:50



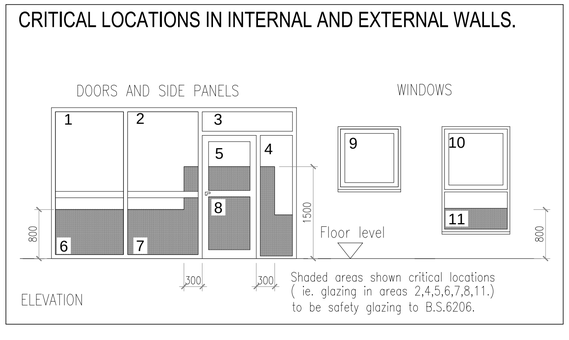
SECTION D SCALE 1:50

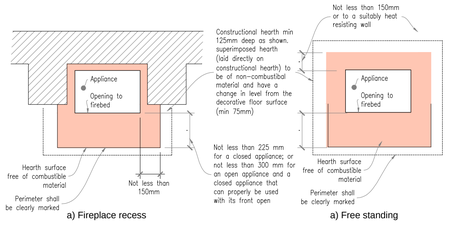
FLASHING – leadwork
Provide code no.4 lead flashing around all chimneys and valleys. Max. Length of lead run in valleys shall not exceed 1500mm, max. Girth 600mm laid on inodorous felt or non-bituminous bidim. All lead work to be carried out in accordance with BSs6915:2001 and the "Lead Association Complete Manual 2000"
VENT/SOIL PIPE
100mm pvc soil vent pipe, with wire cage, projecting 1m above window heads. If within building, covered with 6mm plywood, screwed to allow access, packed with fibre glass insulation around soil pipe within access chamber.
Vent/soil pipes terminating within roof space to be fitted with air admittance valve [subject of a BBA certificate].
WINDOWS & ROOFLIGHTS
All window frames to be timber or uPVC. Window unit to incorporate argon filled doubled glazing with 16mm Cavity & Low E coated glass (0.05 soft coat)
and achieve a U-value with an average weighted performance of 1.8W/(m2-K) or less
All double glazing units to comply with BS5713.
Any glazing in new windows below 800mm and in doors/sidelights below 1500mm shall satisfy the test requirements of Class C of BS 6206. Where it is installed in a door or sidelight and has a pane width of more than 900mm it shall satisfy the test requirements of Class B of BS 6206.
All safety glazing to be identified by a permanent symbol distinguishable on site. (symbol S.G. on drawings).
Controls to windows, skylights and ventilators should be sited as follows:
Unobstructed – maximum 1900mm above finished floor level.
Obstructed – maximum 1700mm above finished floor level.
Windows will be cleaned by specialist window cleaning company.
CENTRAL HEATING
Central Heating and hot water systems to be designed, installed and commissioned for the purposes of conservation of fuel & power and handed over in efficient working order. Systems should be commissioned in accordance with the procedure given in the DCLG publication, "Domestic Heating Compliance Guide".
Central heating to complete dwelling to be provided by oil-fired condensing boiler as indicated on plan. Boiler to be fitted with flow control anti-cycling device. The heating system to have a load and/or weather compensator installed. Time clock shall be provided to heating system to control period of heating. Room thermostats or thermostatic radiator valves shall control temperature to independent zones (sleeping and living).
Condensate disposal – Boiler shall be supplied with a factory fitted, self sealing condensate trap. The drainage pipe shall be plastic and have a min. fall of 1:20. Drain to be a max. of 3.0m from burner and to discharge to an internal waste pipe or soil stack or to an external gulley.
Fitted appliances shall have a spillage test carried out under fire.
A durable notice shall be fixed at an appropriate location in the building for each hearth, fireplace and flue stating the location, type of appliance that can be accommodated, type, size and manufacturer of flue or liner and the installers name and date of installation.
Provide 150mm dia. permanent vent to rooms containing heat producing appliances where mechanical ventilation is present (kitchen, utility).
FLOOR INSULATION
SOLID CONCRETE GROUND FLOOR – Floor Insulation to be Quinntherm 100mm thick, with low emissivity composite foil facings on both sides. Insulation to be installed in strict accordance with Quinntherm instructions. Floor construction to achieve a min. "U" value of 0.22 W/m2K
RADON
Lay a continuous Visqueen radon proof membrane/barrier [300mµ] across the whole of the ground floor [including floor, walls and cavity]. All joints in membrane/barrier to be in strict accordance with manufacturers instructions and to have a minimum lap of 150mm and be bonded using radon-proof butyl jointing tape. Where pipes pass through membrane/barrier they are to be sealed using radon propriety pipe seal.
DAMP PROOF COURSE
At the base of walls or pier's [except retaining walls], D.P.C. To outer leaf to be 150 min above finished ground level. DPC in walls shall be continuous with DPM in floor
Under all copings and chimney caps.
Behind and to ends of all cills.
Through all chimneys in lead.
At jambs, and heads of openings and elsewhere where cavity is bridged. All horizontal D.P.C.'S to be stepped outwards so as to discharge moisture externally.
At all abutments of roofs with walls in the form of patent cavity trays stepped to follow roof and discharge moisture externally. Provide stepped DPC to all lintels over all doors & windows.
TIMBER
All timberwork to be carried out in accordance with BS 5268
All timber used to be structural class C16 (sc3) or C24 (sc4) as specified on plans and shall be stamped accordingly when delivered to site.
Architecturally exposed timbers shall not be visibly stamped but must be similarly stress graded and supplied with an accompanying stress grade certificate from the suppliers.
All timber to be used must be kiln dried and must be stored under sheltered dry conditions such that moisture content does not exceed 18% at any stage during supply, storage or erection (7% for truss members)
All structural timber to be pressure impregnated
Steel connector bolts shall be grade 4.6 black bolts (diameter as specified)
Tooth plate connectors shall be 50mm round or square galvanized steel and shall be fully embedded in the timber members by pre-compression and rebating where necessary.
Principal nailed connections shall be formed using a minimum of 4 no 3.75mm diameter round wire nails.

DRAINAGE
Manhole Covers – BS EN 124 Classification
Group 1 min. A15 areas accessed by pedestrians or landscaped areas.
Group 2 min. B125 footpaths, car parks and private drives.
Group 4 min. D400 carriageways including pedestrian streets, hard shoulders and parking areas.
Group 6 min. F900 areas subject to high wheel loads.

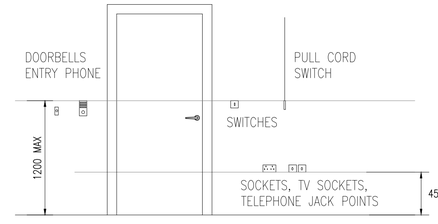
Concrete Manholes to conform to BS 8301.
Internal MH sizes : Depth to invert Length and Width;
610: 610x460mm
610–915: 740x570mm
915–1850: 1000x660mm
1850–4550: 1350x800mm
All manholes over 1200mm deep to be provided with step irons.
Last manhole to be within 12.0m of public sewer connection.
Installation of sealed rodding access eye (r.e.) to be in accordance with manufacturers instructions. Foul gullies to be back inlet type with 100 diameter branch taken underfloor to position of appliance. Wastes to be not less in diameter than outlet with increase in size where necessary to prevent syphonage.
Rodding access to be provided to all wastes at any change in direction. Provide deep seal traps to all appliances inside building. Provide precast concrete surrounds to all gully traps. All 100mm dia. Upstands to be fitted with reducers to suit of approaching pipe.
100mm dia uPVC foul and rainwater sewer pipes to BS 4660, laid to a fall between 1:40 and 1:50 with movement joints at 6m ctrs. Sewer pipes to be surrounded with 150mm pea gravel, covered with a 150mm concrete slab for width of trench.
Where cover to sewers in vehicular is less than 600mm then sewers to be wrapped in polythene and completely surrounded with 150mm concrete.
All sewer/waste pipes laid under solid floors to be wrapped in polythene before placing concrete.
Provide lintels over sewer/waste pipes where same pass through walls.
Where sewer pipes are laid within 1 metre of foundations, then the trench to be filled with concrete to underside of foundation level.
CAVITY WALLS
300mm concrete block cavity walls, 100mm inner and outer leafs with specialist wall ties at 600mm ctrs. Horizontally and 450mm ctrs. Vertically in offset pattern wall ties spaced 225mm ctrs. "in-line" at all window and door openings and construction joints, etc. Cavity fill shall be 1:3 cement/sand to within 225mm below d.p.c. Level. All cavities shall be closed along gable ends. All concrete blockwork where specified shall be 7kn/mm sq. (or as specified by Structural Engineer). Concrete blocks shall be to BS5628 with class iii mortar, i.e. 1:3 cement/sand with plasticizer. Rate of construction shall not exceed 1.5m height per day. Allow for forming openings in blockwork/stonework to receive exterior meter box, extract fans and duct from tumble drier etc.. Joining of new blockwork/brickwork to existing by means of forming pockets in existing walling. Alternatively by means of specialist galvanised steel profiled fixed to existing wall with adjustable wall ties built into new brick/block coursing.
FLOORS GROUND
Floors shall be 100mm C35/20 cement/sand screed on 100mm thick QUINNTHERM, on 1500G DPM continuous with DPC in walls on 150mm 1:2:4 concrete sub-floor on radon barrier on 225mm blinded hardcore. Hardcore consisting of clean broken stone shall be mechanically consolidated in 225mm layers to a depth not exceeding 600mm. Laps in DPM shall be not less than 300mm.

Table F - Critical Specification to achieve a Design DER lower than the notional TER	
SPACE HEATING IS PROVIDED BY RADIATORS – NOT UNDERFLOOR HEATING	
Dwelling constructed to DCLG published "Accredited Construction details for Part F	
Internal energy efficient fixed lighting – minimum 30%	One per 25m² of dwelling floor area (excluding garages) or part thereof; or One per four light fittings. Whichever is greater.
HWC capacity	145
HWC Factory insulated jacket	50mm thick
Oil boiler to have SEDBUK efficiency rating of	97 %
Full Zone Control to Space Heating and HWC and delayed start thermostat and weather compensatory control	Full Zone control
HETAS approved Dual fuel open fire with efficiency rating of	37%
All external Glazing is Double Glazed with 16mm + air gap	Soft Coat Low E (en= 0.05)
Design Air Permeability to be not more than	8m³ /(h.m²) @ 50Pa
Wire type wall ties to be used in cavity wall	Wire type
Inner leaf of cavity wall to be 5N/mm² block work with a density of	2000kg/m³
Block Cavity Wall insulation has the thermal conductivity of not greater than 0.023 W/m k (e.g. Quinntherm in 105 cavity wall)	65mm thick
Timber Frame Wall insulation has the thermal conductivity of not greater than 0.023 W/m k. 100mm between timber studs plus 25mm to inside face (e.g. Kingspan K7).	100mm plus 25mm (U value = 0.24 W/m²k)
Floor insulation has the thermal conductivity of not greater than 0.023 W/m k (e.g. 100mm QUINNTHERM)	100mm thick
Pitched Roof insulation is 200mm Fiberglass between trusses plus 50mm quinntherm below trusses with a thermal conductivity of not greater than 0.023 W/m k	200mm Quinntherm between trusses PLUS 50mm Quinntherm below trusses (U value = 0.165 W/m²k)
Coved Roof insulation has the thermal conductivity of 0.023 W/m k. 100mm quinntherm between trusses plus 50mm below trusses (e.g. Quinntherm).	150mm plus 50mm (U value = 0.165 W/m²k)
Dormer Cheek has 100mm insulation between studs plus 50mm on inside face of studs. The insulation has a thermal conductivity of not more than 0.023 W/m k (e.g. Kingspan K7).	100mm plus 50mm (U value = 0.25 W/m²k)
Stud wall to roof void has 100mm insulation between studs plus 25mm on inside face of studs. The insulation has a thermal conductivity of not more than 0.023 W/m k (e.g. Kingspan K7)	100mm plus 25mm (U value = 0.25 W/m²k)
Insulation to jamb/head/cill is to have a minimum thermal resistance path through the cavity closure of not less than 0.45m²K/W.	20mm thick polystyrene – dense block with cement render. (R-value = 0.57 m²K/W)
Insulation between upper corner of wallplate and sarking board has a minimum R-value across the thickness of the insulation of not less than 1.2 m².k/W	65mm thick fibre glass. (R-value of 1.63 m².k/W)
Insulation to vertical edge of floor screed has a minimum R-value of not less than 0.75 m²K/W through the depth of screed. The insulation has a thermal conductivity of not more than 0.023W/mk (e.g. 30MM QUINNTHERM)	30mm thick QUINNTHERM (R-value = 0.87 m²K/W)





Non-combustible hearth surface surrounding a solid fuel appliance



HEIGHTS OF SWITCHES AND SOCKET OUTLETS

FLOOR AREA DWELLING
Ground floor 216.65m²
FLOOR AREA GARAGE
Garage 50.75m²

FINISHES

ROOF:-	BLACK SLATE OR FLAT TILES
WALLS:-	OFF WHITE WETDASH
WINDOWS:	WHITE DOUBLE GLAZED U.P.V.C.

Rev	Date	Description

ALL DIMENSIONS TO BE CHECKED ON SITE.
DO NOT SCALE, USE WRITTEN DIMENSIONS ONLY

JOHN O' BRIEN M.C.I.O.B.
ARCHITECTURAL CONSULTANTS
'Ardvarna', Bellanaleck,
Co. Fermanagh, N. Ireland. BT92 2BZ.
Telephone / Fax 028 66348455
e-mail :- obriendesign@btinternet.com

The Chartered Institute of Building

Client

Project Title
NEW DWELLING AT CULLITAGH, DERRYLESTER Co. FERMANAGH.

Drawing Title
CROSS SECTIONS AND DETAILS

Drawing Status : PRELIMINARY

Scale	Date	Drawing No.	Rev.
AS SHOWN	MAR 12	003	–