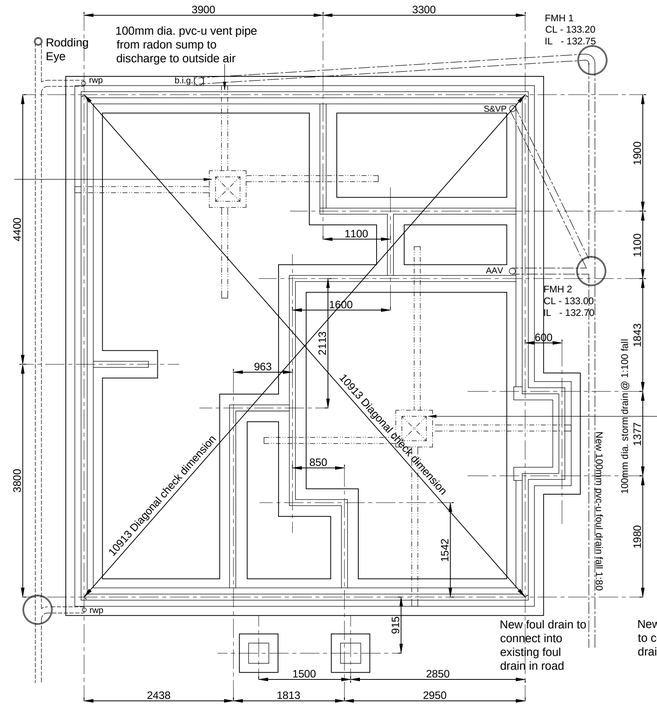


Foundation Plan

Drainage - Below ground
Foul - 100mm dia. hepsleve flexible jointed/PVC-u pipework bedded and surrounded in gravel. Minimum gradient 1:80. manholes to be constructed of 100mm Class 'A' concrete blockwork, Class 'B' engineering brickwork, 50mm thick precast reinforced concrete manhole sections, all on 100mm thick concrete base , or preformed PVC-u manhole units as per Osma.
Drains passing through substructure to be protected with rc lintels built in over to provide 50mm clear gap all round pipes.
Drainage to connect into existing foul drain on site.

Rainwater - 100mm colour pvc-u gutters with 65mm matching downpipes where shown, all properly fixed and jointed together as manufacturer's instructions, and to connect into underground drains via gulleys. Below ground drainage to be 100mm dia. PVC-u pipework laid at min. 1:100 fall to new rainwater harvesting system in Plot 3. Recycled water for toilet use and water gardens for both plots.

Foundations
Foundation type and design to comply with BS 8110 and be suitable for site conditions and to the approval of Building Control Officer.
Foundations to be 600 x 200mm concrete strip foundations for cavity walls, and 450 x 200mm for internal walls. Depth to suit ground conditions and to be inspected & approved after excavation by the Building Control Officer.

Radon sump constructed from loose laid paving slabs & bricks surrounded with coarse gravel fill - size of sump min. 600 x 600mm to be agreed with Local Authority

New foul drain to connect into existing foul drain in road

New storm drain to connect into drain in road

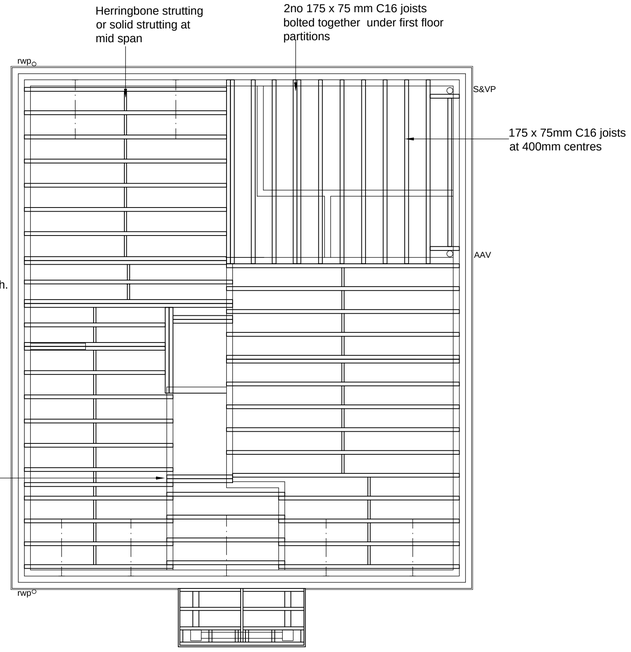
NOTE:
All structural timbers shown are for C16 grade except where stated.

All timbers to be pressure impregnated (Vac-Vac) with preservative.
Ends of timbers, where built into walls must be treated with preservative where there is a risk of damage.

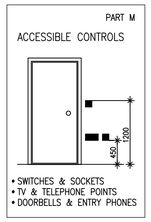
All internal wall & ceiling finishes to have Class 'O' finish.
Any steelwork to be protected to give min. ½ hour fire protection.

Lateral restraint to floor joists to be 30 x 5 galv. straps @max. 2m crs .

2no 175 x 75mm C16 joists bolted together as stair trimmers around staircase opening. Dimension to be checked on site.



First Floor Joist Layout



Electrics
Electrical works to be carried out by a registered professional Electrican and compliance is necessary with the Electricity at Work Regulations 1989 as amended, and BS 7671
Wall-mounted switches and socket-outlets should be located at a height between 450mm & 1200mm above finished floor level so that they are easily reachable where this is necessary to comply with Part M of the Building Regulations. Accessible consumer units should be fitted with a child-proof cover or installed in a lockable cupboard.

Maintenance & operation instructions for the fixed building services are to be provided for the building owner/occupier.

Provide the in-building physical infrastructure (from the service provider's access point to the occupier's network termination point) so that, in future, copper or fibre optic cables or wireless devices capable of delivering broadband speeds greater than 30mbps can be installed al to meet Part R Building Regs.

Lighting Efficiency
Provision to be made to enable occupants to obtain the benefit of energy efficient lighting by the lighting capacity having an initial (100 hr) lamp plus ballast efficacy of not less than 45 lamp-lumens per circuit watt.100 % low energy lighting

Smoke Detectors (BS5839 Part 6 2004 LD3) to be fitted where shown and to be wired inter connectable type (with battery back up).

Fire Suspression System
Residential automatic fire suspression system to be installed to meet B. Regs Part B1. - Section 2 (Reg.37A & 37B) and to meet requirements of BS 9251:2014.

First Floor Internal Walls
100 x 50mm studwork at 400mm centres faced both sides with 12.5mm plywood (for loadbearing walls)/ 12.5mm Soundbloc plasterboard with skim finish.
Stud cavity to be filled with mineral wool insulation.

Heating
To be gas fired combi boiler to Specialist Manufacturer's/ Supplier's details with balanced flue outlet. Rating output up to 45Kw. Boiler to provide central heating & hot water. Central heating system to be thermostatically controlled.Boiler SEDBUK 90.7%, min. 89%. Heating to Ground Floor to be underfloor, First Floor to be radiators.

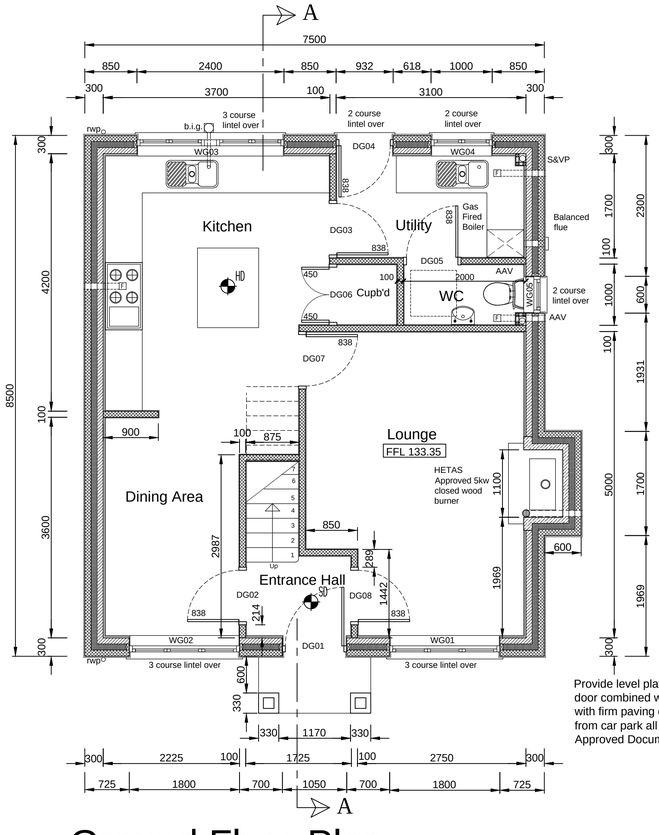
Primary hot water pipes to be insulated
System to have programme, room thermostat, TRV's, hotwater controls & Time & Temperature zone controls & delayed start thermostat & weather compensator.
A control or safety device is required to prevent the temperature of hot water at the boiler from exceeding 100 deg. C
2 heating circuits to be included with heating system.
Gas boiler to have commissioning certificate provided by Corgi qualified Engineer on completion and displayed in prominant position indicating details of system & flue size installed.
Full SAP certificate to be provided together with EPC prior to occupation.

Hot Water
Any hot water storage vessel that is provided shall have at least two independent safety devices in addition to a thermostat to ensure the following:
a) To prevent the temperature of the stored water from exceeding 100 deg. C
b) To ensure that any discharge from safety devices are safely conveyed to where it is visible but it will not cause danger to persons in ,on or around the building.
The temperature at the point of delivery into a fixed bath shall not exceed 48 deg.C. Devices must be incorporated into the system to prevent the temperature exceeding this limit.

Water Consumption
Reg G 17K -The potential consumption of wholesome water by persons occupying the dwelling to which this regulation applies shall not exceed 125litres/person/day .Calculations based on the methodology shown within "the water efficiency calculator "for new dwellings .The certificate must be delivered to Building Control within 5 days of completion of the work.

Plumbing
32mm dia. waste to basins, 50mm dia. wastes to sinks,shower and washing machine. WC to have 100mm dia. waste. S&VP to be 110mm dia.
S&VP to be boxed in with 25 x 25mm studwork faced with layer 12.5mm plasterboard. Suitable insulation to be provided around S&VP to ensure adequate sound insulation. S&VP to terminate at roof level with roof tile terminal min. 1000mm above any opening lights or to terminate with bird proof cage.

WALL CONSTRUCTION KEY
- Random stone
- Approved Facing brickwork
- 100mm Insulating Blockwork
- 100mm dense concrete blockwork
- 100mm Non structural studwork
- 100mm non structural studwork with sound insulation



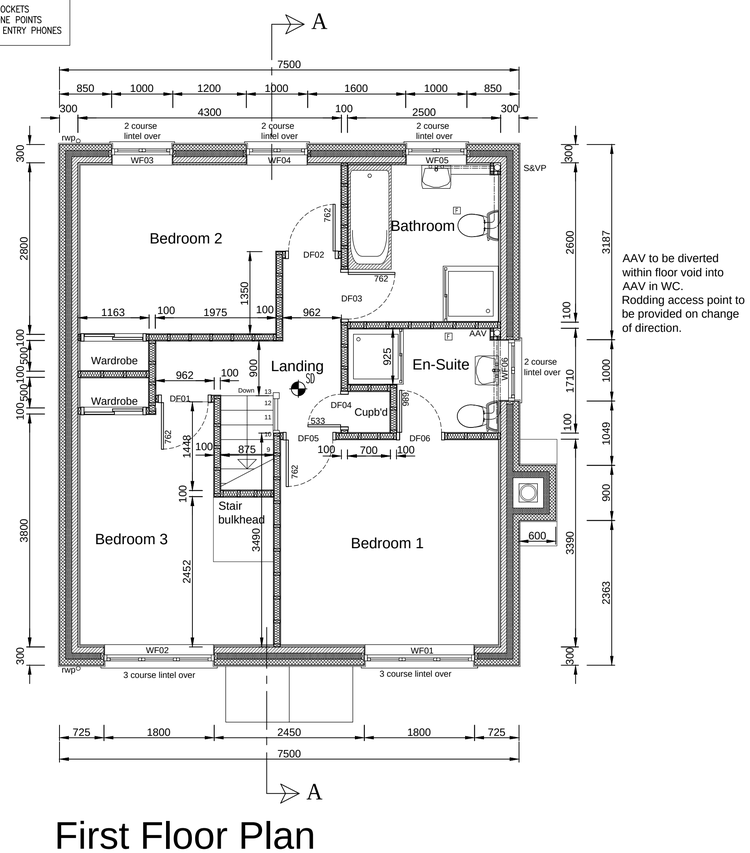
Ground Floor Plan

Ground Floor Internal Walls
100mm concrete blockwork faced with 12.5mm plasterboard on dabs both faces with skim finish or 100 x 50mm studwork (where shown) at 400mm centres faced both sides with 12.5mm Soundbloc plasterboard with skim finish.

Wood Burner (5Kw)
215 x 215mm air brick connected to 100mm dia. upvc pipe under floor via telescopic wall vent providing combustion air equal to at least 50% of appliance throat opening area. Vent to terminate on hearth with brass grill. (Vent not mandatory for 5Kw unit but advisable)
A carbon monoxide detector to be installed within room to give warning of excessive levels of the gas.
Detector to be installed :
1. On ceiling situated at least 300mm from any wall, or if it is located on a wall as high up as possible (above any doors & windows) but not within 150mm of the ceiling.
2. Between 1000mm & 3000mm horizontally from the appliance.

Chimney & Fireplace
Min. 225mm internal diameter or square section clay liners with rebated or socketed joints as BS1181:1971(1977), sockets or rebates uppermost, liners to be jointed with fireproof mortar, space between liners & blockwork to be filled with weak mix concrete on insulation concrete.
The flue size should be min. of 15% of the recess opening. Form openings as shown in blockwork/brickwork.Certificate and robust flue notice to be provided and displayed in prominant position within the premises to indicate details of system & flue size installed.
Combustible materials to be separated from chimney min. 400mm

Provide level platform outside front door combined with a level approach with firm paving or similar surface from car park all in accordance with Approved Document M Section 6



AAV to be diverted within floor void into AAV in WC.
Rodding access point to be provided on change of direction.

First Floor Plan

A 14/05/19 Bathroom & En-suite altered.
Revision

- Project:
  Proposed New Dwelling, Plot 2, Quarry, Tan-Y-Graig, Cefn Maw Wrexham.
- Scale: 1:50
- Project Ref: 1210/237.10a

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