GENERAL NOTES
It shall be presumed that the Contractor has visited the site and the boundaries before tendering, inspected the form of tender and conditions of contract, drawings and specification and made himself thoroughly acquainted with the nature and requirements of the proposed works, and has examined the approaches and levels of the site and all the conditions under which he is to carry out the Contract. No extras through lack of knowledge of the site conditions will be entertained by the Architect.

All dimensions to be checked by contractor/fabricators prior to construction/fabrication of materials (floors, windows, doors, drainage etc).

Contractors shall comply with CDM regulations and Health and Safety legislation.

All works shall be carried out in accordance with accredited construction details (DCLG publication)

An air permeability rate of 8m3/(h.m2) @ 50Pa or less must be achieved by test on completion of the dwelling if required by the Building Control Authority.

All fixed services shall be properly commissioned and signed by a suitably qualified person and a copy given to the building owner and District Council.

The building owner shall be given sufficient information on specific apparatus/systems installed, including operational and maintenance instructions, to enable the dwelling and its fixed services to be used in an energy efficient manner.

An energy rating for the completed dwelling will be calculated using the same software that is used to calculate the DER and TER and a notice stating this rating will be fixed in the dwelling.

On completion, Contractor to ensure that everything is left clean, tidy, watertight and structurally sound, to employer's entire satisfaction. All materials and workmanship to be in accordance with all relevant British Standards, codes of practice and Building Regulations NI 1990, with amendments.

FOUNDATIONS
900x300mm concrete to new cavity walls. 600x300mm concrete to new 100mm wide walls. Depth of foundation to suite site conditions, bearing depth to be minimum 750mm below ground/path level. Foundations shall be taken down to solid bearings being class III to table 5.1 Technical Booklet D. If this cannot be achieved an amended design and soil investigation report will be forwarded to building control on request.

FOUNDATION CONCRETE
All concrete works to be carried out in accordance with bs8110. Grade c25 Mesten at 28 days. Minimum cement content 330kg/m maximum aggregate size 20mm. All structural concrete to be thoroughly vibrated. All concrete work to be carried out in accordance with cp110:1972.
Mudmol: 75mm C7 Newton. Concrete cover to reinforcement shall be 75mm unless stated otherwise. All concrete delivered to site to be within 50-5 slump range unless otherwise agreed. No water to be added to concrete after its arrival on site unless by agreement. All concrete curing procedures to be carried out below a steady shade temp. of 36eg.C or 5deg.C and falling. Max. Assumed ground bearing pressure of 100kn/m sq. The builder shall notify the local building control (in normal procedure) of foundations being ready for inspection. Min. Overlap to steel mesh (where indicated) to be 450mm throughout. Day joints between adjacent discontinuous concrete foundation pours shall be reinforced to 1200mm on each side of the joint with BS03 steel mesh top and bottom. The concrete is to be given min. 14 days to set before building commences. Building is to be evenly distributed across the foundations during construction.

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:	610x610mm
	610-915:	760x760mm
	915-1850:	1000x760mm
	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 than 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 inlets 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, an 150DC 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.

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 (300mp) across the whole of the ground floor (excluding 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 in 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 supplier/mers.
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.

A factory-made metal chimney shall be –
(a) a component system independently certified as complying with the relevant sections of BS EN 1856 – 1: 2003 or BS EN 1859: 2000. Installed in accordance with the relevant recommendations in BS 7566 Part 1: 1992, BS 7566 Part 2: 1992, BS 7566 Part 3: 1992 and BS 7566 Part 4: 1992 (1998); or (b) a twin wall component system for an oil fired appliance and a single wall component system for gas complying with the recommendations of BS EN 1856 – 1: 2003 and BS EN 1856-2: 2004 and installed in accordance with the recommendations of BS 5440-1: 2000, where the flue temperatures will not normally exceed 250°C. Where a factory-made metal chimney passes through a wall, sleeves shall be provided to prevent damage to the flue or building through thermal expansion. To facilitate the checking of gas-tightness, joints between chimney sections shall not be concealed within ceiling joist spaces or within the thickness of walls. A factory-made metal chimney shall be installed so that the appliance can be withdrawn without the need to dismantle the chimney. A factory made metal chimney shall be kept a safe distance away from any combustible material. For a chimney that complies with the recommendations of BS EN 1856-1: 2003. The following provisions are a reasonable method of achieving this – (a) locate the chimney not less than the distance 'XX' from the combustible material, where 'XX' is the dimension defined in BS EN 1443: 2003 as shown in diagram 1.5 of TGD L ; or (b) where the chimney passes through a cupboard, storage space or roofspace, a suitable guard shall be provided no closer to the outer wall of the chimney than 'XX' as specified by the manufacturer in accordance with the requirements of BS EN 1443: 2003 (see Diagram 1.5 of TGD L). In no circumstances shall the separation 'XX' between the chimney and the combustible material, or suitable guard be less than 25 mm.

TRICKLE VENTILATORS
All windows to be fitted with trickle ventilation having an area of 8000mm sq. to all rooms

TRICKLE VENTILATORS
All new windows to be fitted with trickle ventilation having an area of 8000mm sq. to all rooms .

RAPID VENTILATION
All habitable rooms, kitchens, bathrooms & ancillary accommodation to have ventilation openings equivalent to not less than1/20th of floor area.

WINDOW CILLS
Unless otherwise specified to be pre-cast concrete, 100mm face depth with 2 no. 10mm bars reinforcing for handing bedded on DPC.

TRAP DOOR
Provide Glidevale LA1 trap door where indicated on plan. Fully insulated hatch with rigid insulation providing U-value of 0.35 W/m2/K. 520 x 680 hatch opening. 555 x 717 structural ope. required.

PLUMBING
Allow for all connections to all sanitary ware, sink units, etc also allow for plumbing in washing machine and dishwasher where directed on site. Allow for fixing where directed on site above a suitably positioned gully, an outside cold water tap from mains water supply. Provide means of drainage in cold weather. Hot water pipes under floors and in roof space to have Armaflex insulation equal to the diameter of the pipe or 40mm which ever is lesser, also within 1m of hot water tank, Thermal Conductivity shall be not more than 0.045w/mk.

WATER TANK
320 litre pvc cold water storage tank . Water storage tank on aluminium drip tray on 25mm plywood on 72x47mm bearers on 120x47mm bearers on 72x47 bearers on joists.

LINTOL SCHEDULE.

SPAN	SIZE and TYPE	REINFORCEMENT : HIGH YEILD BARS	
		TOP	BOTTOM
up to 1.000	150x100 r. conc.	1no. 10mm bar	2no. 10mm bars
1.000 - 1.200	ditto	ditto	ditto
1.200 - 1.500	ditto	1no. 12mm bar	2no. 12mm bars
1.500 - 2.000	220x100 r. conc.	ditto	ditto
2.000 - 2.500	ditto	1no. 16mm bar	2no. 16mm bars
2.500 - 3.600			

USE KEYSTONE SK90 LINTOLS OVER OPENINGS WITH FACING BRICK AT LINTOL LEVEL AND OVER OPENINGS WIDER THAN 3.600m
150mm END BEARING UP TO 2.000m SPAN ; 225mm THEREAFTER

VISITABILITY FOR DISABLED
Provide a level threshold not exceeding 15mm at the principal entrance of the dwelling.
Access to the principal entrances should be firm & level. Any ramp should not exceed 1 in 20.
Provide a 1200mm x 1200mm landing area outside entrance. (Refer to plans & elevations for position).
Door at principal entrance must provide a clear opening of 775mm(structural opening 1000mm).
Doors to the entrance storey should comply with the table below.
MINIMUM WIDTH OF CIRCULATION ROUTES & CLEAR OPENING OF DOORWAYS.

Clear ope. of doorway	Direction of approach.	Min. Width of circulation route.
750mm	head on	900
750	not head on	1200
775	not head on	1050
800	not head on	900

Entrance storey shall contain a W.C. with suitable access as diagram 10.1 & 10.2 of Technical Booklet R.
Electrical switches, sockets and pull cords to principal entrance should be sited at a height of between 450mm & 1200mm above finished floor level.

FLOOR AREA:
Ground floor 158.80m²

INTERNAL JOINERY
150 x 19 moulded redwood skirting.
100 x 14 moulded redwood architrave.
50 x 14 moulded redwood door stop.
150 x 25 redwood window board.
Provide 750 x 750 trapdoor to roof void

INTERNAL DOORS
Doors to BS 1942(8)supplied in 4 panel pine.
Furniture to be regency design in brass.
Doors to have clear opening width of 750mm

FLUES & LINERS
Clay flue liners to be socketed or rebated to BS1181: 1988. No combustible material shall be within 50mm of chimney face. Stepped dpc to chimney shall discharge above lead flashing.
Flues to vertical where possible in any case at an angle to the horizontal of not less than 45 deg. Manufactured bends to be used, liners shall not be cut for bends.

Flue pipe between cooker central heating boiler (if shown nex) and flue shall be cast iron to BS41: 1973. Flue liners to be filled with sockets or rebates uppermost. Liners to be joined with heat and shrink resistant cement, any space between liners and brick/blockwork to be filled with weak mortar.

Flue to condensing combustion appliance to be lined with impervious, corrosion resistant components and provided with means of draining condensate.

All flues to be checked upon completion to ensure they are free from obstruction, satisfactorily gas-tight and constructed with materials and components of sizes that suit application.

RADIATORS
Provide convection radiators to complete dwelling, size of radiators to be adequate for heating area of room or passage and to manufacturers recommendations, positions of radiators to be agreed with Client. Fix towel radiator in bathroom. Fix radiators to each wardrobe and in coats area. Use thermostatically controlled valves to all radiators.

FLOOR MATERIAL AROUND OIL FIRED COOKER
Provide non-combustible floor covering around cooker, i.e. glazed concrete tiles, for a distance of 300mm to front and sides of cooker. This is to be a stop line for any combustible floor covering. Worktop to abut cooker as shown, but kitchen floor units to be set back 150mm from sides of cooker.

OIL STORAGE TANK
Provide 2500 litre (550 gal) plastic storage tank, bolted down to all the feet provided to 4 no. 900mm high piers, rendered and sited where directed by employer. Oil tank to be constructed in accordance with the recommendations of OFS T 100: 1995.
Where a steel tank is provided it should be installed in accordance with BS 799-5: 1997.
The oil tank should be installed no closer than 1800mm from any building or 750mm from a boundary unless it is protected by a firewall.
The fuel pipework from the tank shall be fire resistant and fitted with a fire valve system where it enters the building.
Oil tank to be bunded to a capacity of 110% of its maximum capacity.

HOT WATER STORAGE CYLINDER
Hot water cylinder to comply with BS 1566: 2002. Cylinder to be fitted with thermostat to limit temperature of stored hot water, also fit timelock to hot water storage system. Fit 3kw immersion heater. Cylinder to have min. 50mm thick factory applied coating of polyurethane foam. Capacity of storage cylinder to be suitable for size & occupancy of house.
Manufacturers details including heat loss specification to be forwarded to Architect for approval.

HOT PRESS
Form hotpress where indicated on plan with factory insulated unvented indirect cylinder, allow for fixing 4no. Row 44 x 20mm slats at 75mm ctrs. Shelving to hotpress.

ELECTRICAL
Wire complete dwelling for electric light and power points.
Electrical work to conform in all respects to current edition of IEE regulations.
Provide lighting points to each room and passage.
Lighting to incorporate at least 30 percent energy efficient fittings which should be installed in the most frequently used areas.
Allow for providing 2 no. external lights, min. output of 150w per fitting with automatic day/night sensor.
Allow for slip light/shaver socket unit above WHB in bathroom.
Allow for bell, push button, bell chime, clock point, fan point, thermostat and heating pump points.
Socket outlets as follows:
Living room:- 3 twin
Dining room:- 2 twin
Kitchen: – 4 twin + cooker control unit
Bedrooms:– 2 twin + 1 single
Hall/landing:– 2 single
Provide spur outlet for immersion heater in hotpress with pilot light on/off switch for same in kitchen.
Allow for providing 3 no. Telephone points, 3 no. TV points, positioned as directed by employer.
Provide external meter cupboard, position to be agreed.
All positions for power sockets, light switches etc. to be agreed with Client.

MAINS POWERED SMOKE ALARMS – (to BS 5446-pt 1–2000)
Provide photo electronic smoke alarms with battery back up, permanently wired on a seperate circuit fused back to the distribution board. No other equipment to be connected to this circuit. Alarms to be inter-connected. Alarms to be located where shown on floor plans, fixed and positioned in accordance with manufacturers recommendations. Smoke alarms to be fixed in principle living area and circulation areas on all floors, min 3.0m from bedroom, Heat detectors to BS5446-2:2003 to be fitted in kitchen.

MECHANICAL VENTILATION
Kitchen: Allow for supply and fixing cooker hood above electrical or gas cooker position in kitchen units. Fan to be capable of extracting at least 30 litres/second (108m/hr).
Utility Room: Fan to be capable of extracting at least 30 litres/second (108m/hr) and shall provide min. of 3 air changes/hr with 15 min overrun.
Bathroom: Fan (including en-suite if shown) shall be capable of extracting at least 15 litres/second and shall provide min. of 3 air changes/hr with 15 min overrun.
All internal rooms above should also have a permanently open air inlet having a minimum free opening area of 9000mm2.

LIMITING AIR INFILTRATION
To reduce the infiltration of cold air, leakage paths throughout the building shall be adequately sealed in the following locations:
At the edges of openings such as windows and doors and at junctions with walls, floors and ceilings.
Gaps between frames and openings and draught proofing the openable elements of windows, doors and rooflights.
Hatches to unheated floor and roof voids.
Service penetrations of floor and ceiling junctions where services are not boxed in.
Around joist ends where joists are built into the external walls.
Vapour control membranes in timber framed construction.

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 anodorous felt or non-bituminous backin. All lead work to be carried out in accordance with BS6915:2001 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 cooled 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 1800mm above finished floor level.
Obstructed – maximum 1700mm above finished floor level.
Windows will be cleaned by specialist window cleaning company.

INTERNAL PLASTERING
Internal block walls, sand/cement render and skim finish. Ensure that plastering is stopped short of finished floor screed by 25mm. Use aluminium angles to all internal exposed corners. Internal walls to garage where shown, smooth sand/ cement wood float finish.

CEILINGS
Unless otherwise stated provide 12.5mm plasterboard to all ceilings with 6mm bonding and skim finish.
Where the ceiling finish (e.g. Plasterboard) is fixed directly to the underside of rafters in a pitched roof a vapour barrier should be inserted to the warm side of the roof insulation before fixing the finish.

LATERAL RESTRAINT
Where rafters, ceiling joists, floor joists and trusses are parallel to masonry walls they shall be restrained thereto with 30x5mm thick M.S. galvanized straps at not exceeding 1500mm crs
The restraint straps shall be restrained to at least 3 No timbers with No 8 screws with solid bridging / packing between timber and wall spiked in position.
For concrete floors provide 30x5mm thick M.S. galvanized lateral restraint straps @ n/e 1500 crs built lightly into wall (turned down) and screwed and plugged to tops of slabs with 4 no M6 screws

Table F1 – Limiting thermal transmittance for roofs, walls and floors (other than doors, windows, curtain walling and rooflights)
SPACE HEATING PROVIDED BY RADIATORS – NOT UNDERFLOOR HEATING
Dwelling constructed to the DER published by Accredited Construction Details (version 1.6)

Element	Limiting thermal transmittance (W/m²K)
Roof	Area per unit of dwelling from which heat is lost (e.g. ceiling, room in roof, sloping roof)
Wall	0.35
Floor	0.25
Swimming pool basin	0.25
Exposed floor	0.25
Basement floor	0.25
Semi-exposed wall	0.35
Party wall	0.20
Party floor or party ceiling	0.20
Sheltered wall	0.35
Sheltered floor	0.25
Unheated basement wall	0.35
Unheated basement floor	0.25
Unheated semi-basement wall	0.35
Unheated semi-basement floor	0.25
Unheated swimming pool basin	0.25
Unheated swimming pool wall	0.35
Unheated swimming pool floor	0.25
Unheated glazed roof	2.20
Unheated glazed wall	3.30
Unheated glazed floor	2.20
Glazed roof	2.20
Glazed wall	3.30
Glazed floor	2.20
Glazed rooflight	3.30
Glazed curtain walling	3.30
Glazed door	3.30
Glazed window	3.30
Opaque door	3.00
Opaque door in glazed curtain walling	3.00
Opaque door in glazed window	3.00
Opaque door in glazed rooflight	3.00

CENTRAL HEATING
Central heating and hot water systems to be designed, installed and commissioned for the purposes of conservation of fuel & power and heated over in efficient working order. Systems should be commissioned in accordance with the procedure given in the DCLC publication, 'Domestic Heating Compliance Guide'.

Boiler interlock – Boiler based systems should have boiler control interlock in which controls are wires so that when there is no demand for either space heating of hot water, the boiler and pump are switched off. The use of thermostatic radiator valves (trv's) alone does not provide interlock.
Space heating zones – Dwellings with a total useable floor area up to 150m² should be divided into at least two space heating zones with independent temperature control, one of which is assigned to the living area. Dwellings with a total useable floor area greater than 150m² should be provided with at least two space heating zones, each having separate timing and temperature controls. Single storey open plan dwellings in which the living area is greater than 70% of the total floor area – sub zoning of temperature control is not appropriate.
Water heating zones – All dwellings should have a separate hot water zone in addition to space heating zones. A separate hot water zone is not required if the hot water instantaneously, such as with a combination boiler.
Time control of space and water heating – Same control of space and water heating should be provided by: 1. a full programmer with separate timing to each circuit. 2. two or more separate timers providing timing control to each circuit or, 3. programmable room thermostats to the heating circuits, with separate timing of the hot water circuit. For dwellings with a total useable floor area greater than 150m² timing of separate space heating zones can be achieved by, 1. multiple heating zone programmers; or, 2. a single multi-channel programmer; or, 3. programmable room thermostats; or, 4. separate timers to each circuit; or 5. a combination of (3) & (4) above, where hot water is produced instantaneously, such as with a combination boiler, time control is only required for the space heating zones.
Temperature control of space heating - Separate temperature control zones within the dwelling should be provided, using; 1. room thermostats or programmable room thermostats in all zones; or 2. a room thermostat or programmable room thermostat in the main zone and individual radiator controls such as trv's on all radiators in the other zones; or 3. a combination of (1) & (2) above.
Temperature control of hot water service system – Domestic hot water systems should be provided with a cylinder thermostat and a zone valve or three port valve to control the temperature of stored hot water. In dwellings with a total floor area greater than 150m² it could be reasonable to provide more than one hot water circuit, each having separate timing and temperature controls. This can be achieved by; 1. multiple heating zone programmers; or 2. a single multichannel programmer; or 3. separate timers to each circuit.
The use of non electric hot water controllers does not meet this requirement, also, in some circumstances, such as thermal stores, a zone valve is not appropriate; a second pump could be substituted for the zone valve.
* an acceptable alternative to these controls is any boiler management system that meets the specified zoning, timing and temperature and boiler interlock control requirements.
Central heating to complete dwelling to be provided by oil-fired condensing boiler as indicated on plan. Boiler to be fitted with flue 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 as described above. Room thermostats or thermostatic radiator valves shall be as noted above.
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 gully.
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).

GROUND FLOOR PLAN SCALE 1:50

TO DRAIN

Rev	Date	Description

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

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The CHARTERED INSTITUTE of BUILDING

Client
KEN AND CHRISTINE CRAWFORD

Project Title
NEW DWELLING AT
GRANSHAGH BIG, CULKEY
ENNISKILLEN CO.FERMANAGH

Drawing Title
GROUND FLOOR PLAN
AND DETAILS

Drawing Status : PRELIMINARY

Scale	Date	Drawing No.	Rev.
AS SHOWN	JAN 10	01	

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