

Table F - Critical Specification to achieve a Design DER lower than the notional TER	
<b>SPACE HEATING PROVIDED BY RADIATORS - NOT UNDERFLOOR HEATING</b>	
Dwelling constructed to DCLG published 'Accredited Construction details for Part F	
Internal energy efficient fixed lighting - minimum 30%	One per 25m <sup>2</sup> of dwelling floor area (excluding garages) or part thereof; 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 (e=0.05)
Design Air Permeability to be not more than	8m <sup>3</sup> (h.m <sup>3</sup> ) @ 50Pa
Wire type wall ties to be used in cavity wall	Wire type
Inner leaf of cavity wall to be 5Nmm <sup>2</sup> block work with a density of	2000kg/m <sup>3</sup>
Block Cavity Wall insulation has the thermal conductivity of not greater than 0.023 W/m k (e.g. Quintherm 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 on inside face (e.g. Kingspan K7).	100mm plus 25mm (U value = 0.25 W/m <sup>2</sup> k)
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 quintherm below trusses with a thermal conductivity of not greater than 0.023 W/m k	200mm Quintherm between trusses PLUS 50mm Quintherm below trusses (U value = 0.165 W/m <sup>2</sup> k)
Coved roof insulation has the thermal conductivity of 0.023 W/m k. 100mm quintherm between trusses plus 50mm below trusses (e.g. Quintherm).	150mm plus 50mm (U value = 0.165 W/m <sup>2</sup> k)
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/m <sup>2</sup> k)
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/m <sup>2</sup> k)
Insulation to jamb/head/cill is to have a minimum thermal resistance path through the cavity closure of not less than 0.45m <sup>2</sup> K/W.	20mm thick polystyrene - dense block with cement render. (R-value = 0.57 m <sup>2</sup> K/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 m <sup>2</sup> k/W	65mm thick fibre glass. (R-value of 1.63 m <sup>2</sup> k/W)
Insulation to vertical edge of floor screed has a minimum R-value of not less than 0.75 m <sup>2</sup> K/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 m <sup>2</sup> K/W)

**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 (firms, 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 8m<sup>3</sup>/(h.m<sup>2</sup>) @ 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, waterlight 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 suit 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 Newton 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, Mudmat; 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 5degC or 5degC 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 B503 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.

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

**RAMP**  
Ramp to be provided to principal entrance to dwelling as shown on plan. The ramped approach shall be firm and even, have an unobstructed width of 900mm and a gradient not exceeding 1:12 (length up to 5.0m) or 1:15 (length up to 10.0m). Driveway to be finished in bladed compacted hard-core, concrete or tarmac. Loose laid material such as gravel is unsuitable.

**TRAP DOOR**  
Provide Glisolex LA1 trap door where indicated on plan. Fully insulated hatch with rigid insulation providing U-value of 0.35 W/m<sup>2</sup>/K. 520 x 680 hatch opening, 555 x 717 structural open, 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 YIELD BARS	REINFORCEMENT : HIGH YIELD 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	ditto	ditto	ditto

USE KEYSTONE SK100 LINTOLS OVER OPENINGS WITH FACING BRICK AT LINTOL LEVEL AND OVER OPENINGS WIDER THAN 3.000m  
150mm END BEARING UP TO 2.000m SPAN; 225mm THEREAFTER

**VISIBILITY FOR DISABLED**  
Provide a level threshold not exceeding 15mm at the principal entrance of the dwelling. Access to the principal entrance should be firm & level. Any ramp should not exceed 1 in 20.  
Door at principal entrance must provide a clear opening of 775mm (structural opening 1000mm). Doors to the entrance should comply with the table below.  
MINIMUM WIDTH OF CIRCULATION ROUTES & CLEAR OPENING OF DOORWAYS:  
Clear open. of doorway head on Direction of approach. Min. Width of circulation route.  
750mm not head on 900  
750mm not head on 1200  
775mm not head on 1050  
800mm not head on 900

Entrance slope 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.

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

**FLUES & LINERS**  
Clay flue liners to be socketed or rebated to BS1181: 1989. No combustible material shall be within 50mm of chimney face. Stepped gpc 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 neat) and flue shall be cast iron to BS41: 1973. Flue liners to be fitted with sockets or rebates uppermost. Liners to be jointed 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, satisfactory 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 wall 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 gpl) plastic storage tank, bolted down to all the feet provided to 4 no. 900mm high spigots, 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: 1987. The oil tank should be installed no closer than 1800mm from any building or 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.

**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 timeclock 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 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 slots at 75mm ctrs. Cheeking 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 strip 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.

**MANS POWERED SMOKE ALARMS** - (to BS 5446-pt 1-2000)  
Install smoke alarm system to BS 5893-6:2004 of at least grade B category LD2. 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, design and commissioning certificate to be issued to building control on completion of works

**MECHANICAL VENTILATION**  
Kitchens: 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<sup>3</sup>/hr).  
Utility Room: Fan to be capable of extracting at least 30 litres/second (108m<sup>3</sup>/hr) and shall provide min. of 3 air changes/hr with 15 min overrun.  
Bathroom: Fan (including air-suit 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 9000mm<sup>2</sup>.

**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 operable 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 joint ends where joints are built into the external walls.  
Vapour control membranes in timber framed construction.

**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 boards.  
Provide 750 x 750 trapdoor to roof void

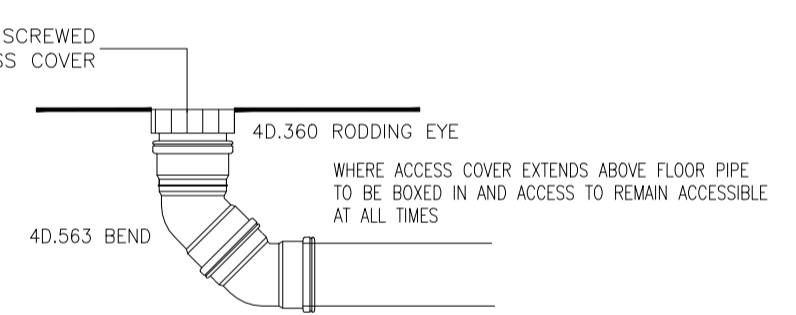
**INTERNAL DOORS**  
Doors to BS 1942(B) supplied in 4 panel pine.  
Furniture to be regrey design in pine.  
Doors to have clear opening width of 750mm

**INTERNAL PLASTERING**  
Internal block walls, sand/cement render and skim finish. Ensure that plastering is stopped short of finished floor screen by 20mm. Use aluminium angles to all internal exposed corners. Internal walls to garage where shown, smooth sand/ cement wood float finish.

**CEILING**  
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 30x3mm thick M.S. galvanized straps at not exceeding 1500mm c/s. 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 30x3mm thick M.S. galvanized lateral restraint straps @ n/e/ 1500 c/s built tightly into wall (turned down) and screwed and plugged to tops of slabs with 4 no M6 screws

**FLOOR AREA DWELLING**  
Ground floor 216.65m<sup>2</sup>  
**FLOOR AREA GARAGE**  
Garage 50.75m<sup>2</sup>



TYPICAL DETAIL OF RODDING EYES

Rev	Date	Description
A	AUG 12	REVISED FOR BUILDING CONTROL F/2012/0566

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

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Client

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

Drawing Title  
**FLOOR PLANS AND DETAILS**

Drawing Status : PRELIMINARY

Scale	Date	Drawing No.	Rev.
AS SHOWN	MAR 12	002	A

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

**WALLS**  
All cavity walls shown to be insulated with 65mm QUINNTHERM in 105mm cavity walls

**GULLIES**  
All gullies connected to storm drainage must be roddable type where they do not connect directly into a manhole on the drainage line.

100mm SVP BROUGHT UP THROUGH SOFFIT AND ALONG SPACE BETWEEN RAFTERS AND TO TERMINATE IN PATENT TILE VENT MIN 1.0 M ABOVE UPPER LEVEL LEVEL

TO ENABLE TRANSFER THE WHEELCHAIR SHALL BE ABLE TO APPROACH WITHIN 400mm OF THE FRONT OF THE W.C.

MECHANICAL EXTRACT TO BATHROOMS, TOILET AND EN SUITES TO BE OPERATED BY LIGHT SWITCH AND HAVE A OVERRUN TIME OF NOT LESS THAN 15 MINS.

ALL EN-SUITE APPLIANCES TO BE FITTED WITH RODDABLE WASTES

DOUBLE TRUSS EACH SIDE OF TRAP DOOR

TRAP DOOR

ENTRANCE

PROVIDE 225x100x450g PADSTONES UNDER STEEL BEAM

THRESHOLD TO ALL DOORS MAX 15mm

CLEAR LEAF OPENING OF DOOR MIN 775mm

203 LC 46 TO SUPPORT TRUSS ROOF

LEVEL PLATFORM

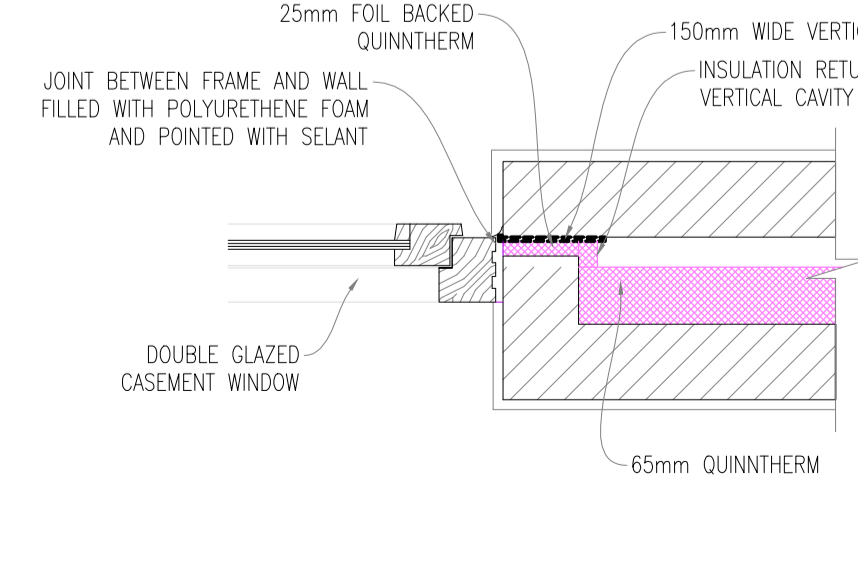
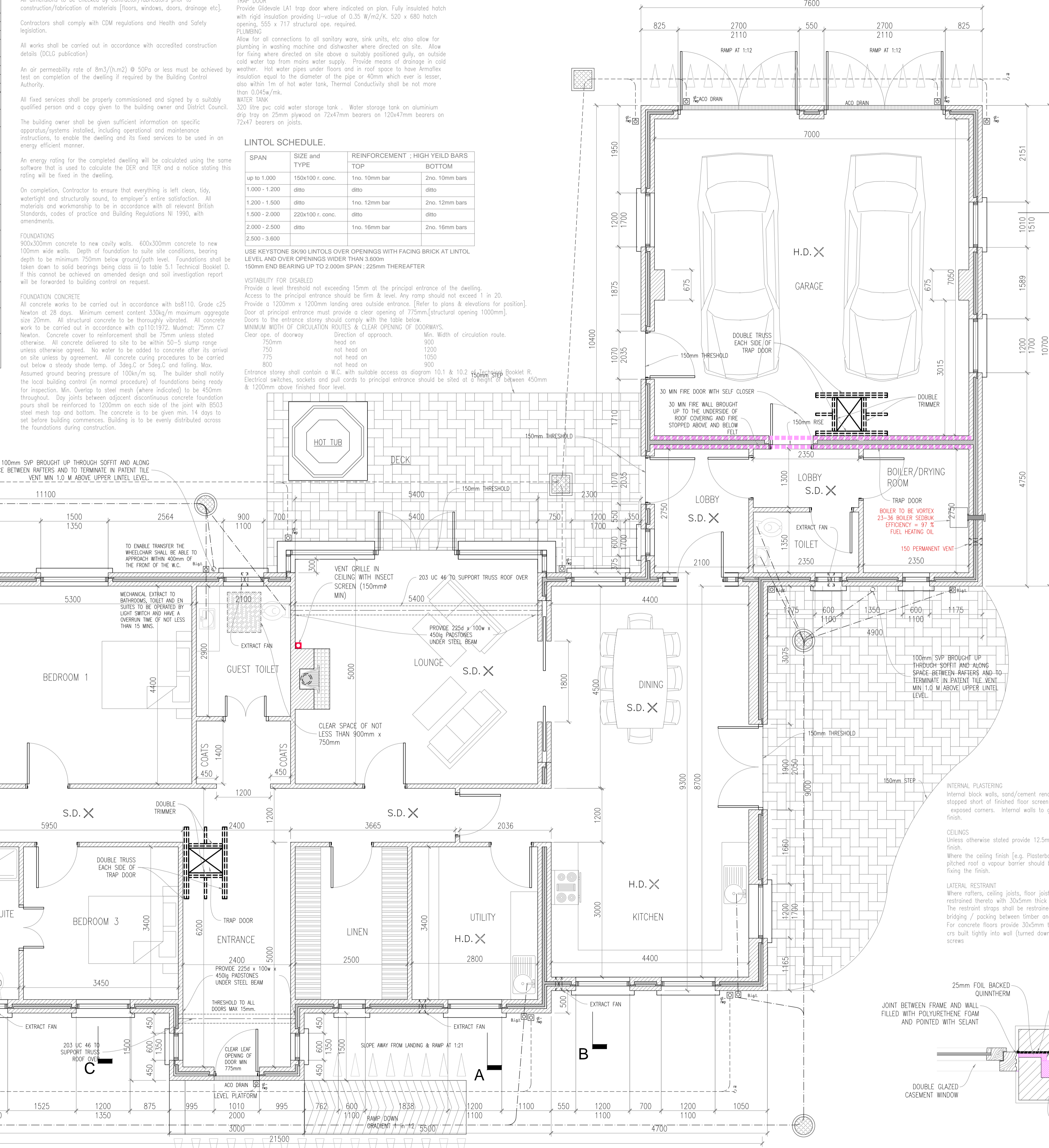
ACID DRAIN

RAMP DOWN GRADIENT 1 IN 12

SOPE AWAY FROM LANDING & RAMP AT 1:21

SOPE AWAY FROM LANDING & RAMP AT 1:21

GROUND FLOOR PLAN SCALE 1:50



DOUBLE GLAZED CASEMENT WINDOW