

GENERAL CONSTRUCTION NOTES

GENERAL

Any variation/discrepancy between the works and that shown on the drawing is to be verified with the Architect before proceeding. The Contractor is responsible for verifying the setting-out dimensions on site and confirming a drainage connection with adequate gradient is available prior to commencement. All work shall be carried out in a sound, neat, durable and workmanlike manner and to comply with the current editions of the Building Regulations, NHBC Technical Guide, British Standards, Codes of Practices and Agrément Certificates. Before handover Contractor to ensure that all work is complete; services have been tested; glass, sanitary ware, floors etc are clean and swept and all builders rubbish and debris are removed. All tools, hazardous materials, toxic substances or solvents must be used, transported, stored and disposed of in strict accordance with current COSHH Regulations. The Contractor should ensure that he has the current drawing on site for construction.

FOUNDATIONS / SUBSTRUCTURE

As the application site is within the area where coal mining activities may exist, consultation will be carried out with the COAL AUTHORITY at: MINING REPORTS OFFICE, 200 LICHFIELD LANE, BERRY HILL, MANSFIELD, NOTTINGHAMSHIRE, NG18 4RG. E-mail – Telephone helpline – 0845 7626848. Fax – 01623 427162.

Copy of report will be provided prior to commencement of work.

(A non-residential report type shall be specifically requested for the proposed development).

Consideration of Geological Assessment required in order to establish whether FULL or BASIC RADON PROTECTION measures are required to prevent the ingress of radon gas. The above information can be obtained from: CENTRAL ENQUIRY SERVICE, BRITISH GEOLOGICAL SURVEY, KEYWORTH, NOTTINGHAM, NG12 5GG. E-Mail – Telephone helpline – 0115 936 3143. Fax – 0115 936 3276.

Strip Foundations

Generally 600x225mm concrete strip foundation to all cavity walls except where noted otherwise, with 450x150mm to all internal block walls using grade GEN 3 concrete. Foundations set a minimum of 900mm below ground level unless directed otherwise by the Building Inspector. Foundations where stepped on elevation should overlap by twice the height of the step by the thickness of the foundation or 300mm whichever is the greater, foundations step should not be greater than the foundation thickness.

SUPERSTRUCTURE

Masonry Cavity Walls

All blockwork walls below DPC to be solid concrete blocks to 7.0N/mm². Cavity walls to be filled with lean mix concrete to 150mm below DPC level. Build up 325mm cavity wall with an outer leaf of 100mm 7.0N/mm² blockwork and an inner leaf of 100mm 7.0N/mm² blockwork with 75mm cavity insulation board secured using stainless steel cavity ties with plastic retainers fixed at 750mm horizontal and 450mm staggered vertical centres, ensure that at least 50mm is bedded in mortar, place wall ties within 300mm of door/window jambs and at 225mm vertical centres. Use insulated profiled galvanised steel lintels (e.g. Catnic/IG.) over all window and door openings with a minimum 150mm end bearing with open perpend at 900mm ctrs with stop ends to lintel. External blockwork walls finished with render to clients requirements. Use render stop over brickwork and all openings. Overall U–value of 0.23W/m²k.

Internal Block Partitions (ground floor)

100mm 7.0N/mm² blockwork unless noted otherwise. Use pre-cast concrete or profiled steel lintels over all internal door openings.

Internal Stud Partition

Stud partition using 63x38mm head/sole plate, noggins, cripple studs with studs at 600mm centres, position additional joist under partition as required, for partitions up to 1200mm length use solid blocking, secure partition to abutment with wall SW blocking may be used

Part L

As required by Regulation 17C and 20D provide calculations that demonstrate that the DER of the dwelling as–designed is not greater than the TER. This design based calculation shall be provided along with a list of specification used in the calculation.[AD L1A 2010 sec 4 :4.2 – 4.10]

Damp Proof Courses (DPC)

Pitch polymer DPC (eg. Hylood or similar) to be provided to inner and outer masonry/timberframe leafs with 150mm overlaps.

Roofs

Trussed Rafter Roof

Roof trusses to comply with BS 5268 part 3 1985 and TRADA quality assurance and stress grading. Provide as directed by truss designer 100x25mm SW bracing/binders twice nailed. All trusses to be set at 400mm centres and fixed with galvanised metal truss clips to 140x38mm SW wall plate. Roof truss calculations to be submitted to Building Control prior to ordering for approval. Tiling battens to be 25x38mm treated softwood, with TYVEK or similar breathable underlay to be fixed in accordance with the Manufacturers instructions. Store trusses so as to prevent undue sagging and whipping, erect trusses plumb with temporary bracing as required, do not use damaged trusses. Roof covering (slate/tile) to be fixed in accordance with the Manufacturers instructions.

Structural calculations for Roof trusses to be submitted to building control prior to erection on site.

Roof Ventilation

Provide eaves ventilation equal to 25mm continuous eaves gap using propriety fitting, with insulation stop board to eaves to maintain 50mm ventilation gap. Provide high level ventilation of 5mm continuous.

Roof Insulation Quilt

Lay 300mm thermal insulation quilt laid in 2 no. layers, laid between and across ceiling ties/joists to acheive a U–Value of 0.13W/m²k. Provide vapour control layer between insulation and plasterboard finish.

Joisted Upper Floor

22mm t&g type V313 (moisture resistant) at right angles to joists with noggins to unsupported edges, fixed using annular ring shank nails with metal web joists fixed in acordance with manufactuirers details.

OPENINGS etc

Cavity Closers

Fit to all external door/window jambs and cill openings 50 X 50mm treated timber batten with 500 micron polythene dpc dressed over. Internal door openings Internal structural door openings to be as noted on floor plan with lintel over to engineers specification, where possible provide 25mm SW lining packing to abutments to allow full width architrave. All ground floor doors to have 775mm clear opening.

Windows

Refer to separate schedule for window sizes and references. Windows to be provided with 'low–E' double glazed units to achieve an average U–value of 1.5 W/m²k. Provide safety glass to BS 6206:1981 to all areas lower than 800mm above FFL. Window openings lower than 1100mm to be fitted with horizontal safety rail or be fitted with a restrictor. External doors to have safety glass to all areas above 1500mm above FFL and to side areas within 300mm. Fensa certificate to be provided by registered window installer. refer to ventilation requirements above for the amount of trickle vents required.

Means of Escape

Except for kitchens, all habitable rooms in the upper storey(s) of a dwelling house served by only one stair will be provided with a window (or external door) which comply with the following conditions:

Any window provided for emergency egress purposes and any external door provided for escape should comply with the following conditions:

- a) The window should have an unobstructed openable area that is at least 0.33m2 and at least 450mm high and 450mm wide (the route through the window may be at an angle rather than straight through). The bottom of the openable area should be not more than 1100mm above the floor: and
- b) The window or door should enable the person escaping to reach a place free from danger from fire. This is a matter for judgement in each case, but, in general, a courtyard or back garden from which there is no exit other than through other buildings would have to be at least as deep as the dwelling house is high to be acceptable, see diagram 4. [Ref B1 2.8]

NOTE 1: 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 floor level.

NOTE 2: Locks (with or without removable keys) and stays may be fitted to egress windows, subject to the stay being fitted with a release catch, which may be child resistant.

NOTE 3: Windows should be designed such that they will remain in the open position without needing to be held by a person making their

FINISHES

Ceilings

12.5mm plasterboard with skim finish, with noggins to all joints and perimeter, use vapour check plasterboard to roof areas. Ground floor ceiling to be in accordance with Part E Resistance to the passage of sound.

Internal Stud Partition

Line using 15m plasterboard with skim finish.

Staircase

Fix standard closed tread staircase as shown on plan. Manufactured and supplied by Srasdin Joinery (or similar). 13 no equal risers overall rise to be confirmed on site, 32mm string, all treads in 25mm timber with 9mm plywood risers. Line underside of staircase with 12.5mm plasterboard and skim. Fix standard vertical balustrading with square newel posts and handrail fittings, with matching spindles set at 100mm pitch. Top of handrail set 900mm above the pitch line. Balustrading not to be painted. Ensure min 2m headroom.

VENTILATION REQUIREMENTS

Purge Ventilation – 1/10th floor area. Ventilation System of dwelling to be satisfied using System 1 Table B of New Approved Document F. Heated Floor area per unit=116m², Equivelent ventilator required 55000mm=55000mm/4000mm i.e standard trickle ventilator=14No. standard trickle ventilators required per unit.

PIPED and DUCTED SERVICES

All piped and duct services located in unheated areas to be insulated in accordance with BS 5422:2001, Methods for specifying thermal insulation materials on pipes, ductwork and equipment.

Gas Heating

Heating to be provided by wall mounted CONDENSING COMBINATION boiler with a balanced flue SEDBUK rating of 86%min, complete with programmer, room thermostat and TVR valves, boiler, radiators and heating pipes etc. Time and temperature zone controls & boiler interlock to be sized by Contractor to provide the following room temperatures with an outside temperature of –5°C Living/Dining Room/Study 21°C 1 –air changes per hour Kitchen 18°C 3 Bedroom 18°C 2 Bathroom 22°C 3 Hall/Landing 16°C 2 WC. 18°C 2 Commissioning certificate and copy of operating and maintenance instructions for heating and hot water systems to be provided to building control by the main contractor.

Drainage

Connection to public sewer to be granted and supervised by local water authority. Consultation with Welsh water required before commencement of work on site.

Below ground drainage

All foul and surface water drains to be 110mm dia. PVCu laid to fall 1:80 minimum gradient with 100mm deep granular bed and sides with 100mm backfill of selected material (no large stones), main backfill using excavated material compacted in 150mm layers. Where the cover of drains running beneath drives is less than 900mm pipes to be encased in 150mm thick 20N/mm² concrete with Flexcell expansion joints at 6metre ctrs.

Inspection Chambers/Gullies

Provide and fix proprietary PVCu Inspection Chambers 450mm dia. in locations indicated with metal covers and frames to BS 497 part 1 1976. with 750mm concrete collar to areas with car access. Provide PVCu trapped horizontal back inlet bottle gully with rodding access and grating.

Soil/Waste pipes

Above ground drainage:

Provide and fit PVCu soil and waste pipe and fittings, clipped and laid to fall with access for rodding to all lengths. with deep seal traps to sanitary appliances, waste pipe sizes as follows: Wash Hand Basins –32mm dia. Bath –40mm dia Sink –40mm dia. SVP/WC –110mm dia.

Part G

- 1. Confirm that water used by sanitary appliances and relevant white goods in the proposed new dwelling has been calculated using manufacturers' declared value for water consumption of each of those appliances and white goods. [Ref Para 2.1]
- 2. Confirm that the estimated consumption of wholesome water of the proposed dwelling does not exceed 125 litres/head/day (l/h/d), including a fixed factor of water for outdoor use of 5 l/h/d. The water consumption is calculated in accordance with the methodology set out in the "Water Efficiency Calculator for New Dwellings" and dwellings formed by a material change of use. Alternative sources of water should also be reflected in the estimate of water use. [Ref Para 2.2 – 2.3]
- 3. Notice to be deposited with Building Control no later than five days after the work has been completed specifying the potential consumption of wholesome water per person per day calculated in accordance with the "Water Efficiency Calculator for New Dwellings" and dwellings formed by a material change of use. [Ref Para 2.4] Please note that under regulation 20E the authority is unlikely to issue a completion certificate for the building until the aforementioned notice has been received.
- 4. Confirm the suitable installation for the provision of heated water or heated wholesome water or heated softened wholesome water to: (a) any washbasin or bidet provided in or adjacent to a room containing a sanitary convenience; (b) any washbasin, bidet, fixed bath and shower in a bathroom; and (c) any sink provided in any area where food is prepared. [Ref Para 3.1 – 3.9]
- 5. Confirm that the hot water system is deisgned, constructed and installed so as to resist the effects of temperature and pressure that may occur in normal use or in the event of such malfunctions as may reasonably be anticipated , and must be adequately supported. [Ref Para 3.10 – 3.33]
- 6. Confirm that where a hot water system has a hot water storage vessel precautions are incorporated to: (a) prevent the temperature of the water stored in the vessel at any time exceeding 100°C; and (b) ensure that any discharge form safety devices is safely conveyed to where it is visible but will not cause a danger to persons in or about the building. [Ref Para 3.34 – 3.64]
- 7. Confirm that the hot water supply to any fixed bath is so designed and installed as to incorporate measures to ensure that the temperature of the water that can be delivered to that bath does not exceed 48°C, this may be achieved by use of an in–line blending valve or other appropriate temperature control device with a maximum temperature stop and a suitable arrangement of pipework [Ref Para 3.65 – 3.68]
- 8. Notice of commissioning where applicable to be given to Building Control no later than 5 days after the completion of the commissioning work. In other cases , for example where work is carried out by a competent person registered by a competent person scheme , it must be given not more than 30 days after the completion of the work. [Ref Para 3.70 – 3.80] Please note that until Building Contol receives the notice of commissioning it is unlikely to be satisfied that Part G has been complied with and consequently is unlikely to be able to give a completion certificate. [Ref Para 3.80]

Rainwater goods

Provide 112mm deep flow gutters and 63mm downpipes colour: TO BE CONFIRMED, in locations indicated, securely clipped, to discharge into drain.

Mechanical Ventilation

Kitchen to be fitted with a mechanical extract cooker hood rated at 30 litres/second or room extract at 60 l/s. Bathroom fitted with a mechanical extract fan rated at 15 litres/second wired to light with 15 minute over–run. Utility Room fitted with a mechanical extract fan rated at 30 litres/second wired to light with 15 minute over–run. W.C fitted with a mechanical extract fan rated at 6 litres/second wired to light with 15 minute over–run.

ELECTRICAL SERVICES

Confirmation will be provided that all electrical work will satisfy the requirements of Part P (Electrical Safety) and Part M, and will be designed, installed, inspected and tested in accordance with BS 7671, either by a person:

- a) registered with a Part P Competent Person Self Certification Scheme – examples include BRE Certification Ltd, British Standards Institution, ELECSA Limited, NICEIC Certification Services Ltd and NAPIT Certification Ltd; OR
- a) where the installer is not registered with a Part P Competent Person Self Certification Scheme but is however qualified to complete BS 7671 installation certificates.

Contractor to be responsible for issuing an Installation/Commissioning certificate on completion.

Energy Efficient Lighting

Provide fixed lighting that only take lamps having a luminous efficacy greater than 40 lumens per circuit–watt, i.e. fluorescent tubes or compact fluorescent lamps. Number of lamps per dwelling to confirm with SAP calculations.

Fire Detector/Alarm

Provide mains operated Smoke Detector to Hall and Landing with Heat Detector to Kitchen (to conform to BS 5839–6:2004 to at least a Grade D Category LD3) ceiling mounted in a central position 300mm from wall and light fittings. Alarms to be wired to a separate fused circuit.

Smoke alarms should be positioned in the circulation spaces between sleeping spaces and places where fire are most likely to start (e.g. kitchens and living rooms) to pick up smoke in the early stages of a fire. [Ref Vol 1, B1 – 1.11]Where the kitchen area is not separated from the stairway or circulation space by a door, there will be a compatible interlinked heat detector or heat alarm in the kitchen, in addition to whatever smoke alarms are needed in the circulation space(s) [Ref Vol 1, B1 – 1.13]Where more than one alarm is installed they are to be linked so that the detection of smoke or heat by one unit operates the alarm signal in all of them. The manufactures instructions regarding the maximum number of units that can be linked should be observed. [Ref Vol 1, B1– 1.14]Smoke alarms to be sited in accordance with guidance set out under 1.15 – 1.18 [Ref Vol 1, B1 – 1.15 – 1.18]Smoke alarms should not be fixed next to or directly above heaters or air conditioning outlets.They should not be fixed in bathrooms, showers, cooking areas or garages, or any other place where steam, condensation or fumes could give false alarms. [Ref Vol 1, B1 – 1.17]

01	First Issue	Apr '20
REV	DESCRIPTION	DATE

Client	Mr A.Davies
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Title	Notes
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Scheme	Proposed two storey extension to the rear of No. 4 Tanydaren, Cilmaengwyn, Pontardawe, SA8 4QT
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Scale (A3)	Drawing No.	Issue
As shown	AA-007	01