

proposed front elevation - House Type A 1:50



proposed front elevation - House Type B 1:50

PV Solar Panels

Client to provide confirmation of export connection being installed with the required at completion stage Commissioning certificate for PV solar Panels will be submitted at completion stage

Provide confirmation of structural design regarding wind uplift of Solar Panels

Consideration of high-efficiency alternative systems

Where a building is to be erected, the person carrying out the work shall, before construction begins,

undertake an analysis of and giveconsideration to the use of available high-efficiency alternative systems

in the work. Such systems include—

(a) decentralised energy supply systems based on energy from renewable sources; (b) cogeneration;

(c)district or block heating or cooling, particularly where it is based entirely or partially on energy from renewable sources; and

(d) heat pumps.

(2) The analysis referred to in paragraph (1)—

(a) shall be documented and take into account the technical, environmental and economicfeasibilityofusing high-efficiency

alternative systems;

(b) may be carried out for individual buildings or for groups of similar buildings or for common typologies of buildings in the same area; and in so far as it relates to collective heating and cooling systems, may be carried out for all buildings connected to the system in the same area.

Nearly zero-energy requirements for new buildings Where a building is erected, it must be a nearly zero-ene

In-building physical infrastructure

Suitable physical infrastructure should be provided to connect each network termination point to the appropriate access point. The type, size and routing of ducting or cable tray should be designed to suit the technology that is ormay be expected to be available to the building. Manufacturers' specifications should also be referred to.

stairs, ramps & guarding

total rise = to be checked on site 15 risers (to be confirmed by contractor on-site prior to construction) goings @ 230mm (to be confirmed by contractor on-site prior to construction) stair to have 900mm high handrail and minimum 2m clear headroom over full length and width. handrail and headroom to be measured vertically above stair pitch line. all dimensions to be confirmed by contractor on-site prior to manufacturing of stair, open riser threads shall overlap at least 16mm. minimum width of flight 800mm measured between handrailsan unobstructed landing of width/going equal to stair width to be provided at top/bottom of flight. steps

with tapered threads - goings to be measured in the middle of flight. the narrow ends of consecutive threads shall be on the

same sides and have a going of not less than 50mm where only one handrail is required on a flight with tapered threads it shall be located on the outer side of the flight External steps - Max rise : 220mm - Max going : 259mm. geometry of external steps 2 x rise + going = 550 - 700mm

Maximum opening in balustrade to be 99mm.

guarding to be designed to minimise the risk of people falling and of rolling, sliding or slipping through the gaps in a barrier. guarding height to be measured vertically from the level of a floor or landing, ramp surface or pitchline of a flight. 900mm guarding to a flight, ramp, landing, floor to resist 0.36kN/m horizontal force 900mm guarding to an external flight or ramp to resist 0.74kN/m horizontal force 1100mm guarding to other areas not described to resist 0.74kN/m horizontal force where a building or part of the building is likely to be used by children under 5 years of age the guarding shall be constructed so that a 100mm diameter sphere cannot pass through any opening. Balustrade shall also be constructed so that a child cannot readily climb up it.



proposed rear elevation - House Type A 1:100



proposed rear elevation - House Type B 1:100

services electrical installation

750

sg

.600

Install, test and commission the electrical work in accordance with the IEE Regulations BS 7671 ensuring compliance with design and performance to provide a safe, well insulated, earth protected system capable of supplying the anticipated maximum demand. Installation work to be carried out by qualified electricians fully conversant with IEE Regulations 16th edition BS 7671

Contractor to provide test and completion certificates. Contractor to provide lighting as specified by client

plumbing and heating installation heat producing appliances

space heating system shall be oil fired central heating be controlled by room thermostats, thermostatic radiator valves or an equivalent form of emperature sensing device. heating system shall be seperately zoned for main living area and sleeping area

A hot water storage (HWS) tank shall be fitted with a thermostat to limit the maximum temperature of stored hot water. Thermostat shall be linked with the space heating controls to switch of boiler

Heating, hot water pipes and warm air ducts shall be thermally insulated to meet Technical Booklet F (Building Regulations) of not more than 0.045 w/mk and a thickness of not less than 40mm. A HWS tank shall be factory insulated (minimium thickness 100mm) to BS 5616:1985 with all segiments taped. Time clock to be fitted to heating system. Hot water cylinder to be controlled by time clock. The hot water pipes connected to the (HWS) vessel, including the vent pipe and the primary flow and return to the heat exchanger, where fitted, shall be thermally insulated for at least 1 metre from their point of connection to the vessel, or to the point where they become concealed, with material which has a thermal conductivity of not more than 0.045 W/mK and a thickness of not less than 15 mm

provide in-line hot water tempering valve to ensure temperature of supplied domestic hot water does not exceed 60 degrees and provide in-line hot water blending valve to ensure temperature of supplied domestic hot water does not exceed 48 degrees 30 minute fire resistant meter board / box

provide 30 minute fire resistant enclosure to incoming electric mains to meter board / box. provide locks and sign stating that "Doors should be kept locked".

Air Testing

The design air permeability rate to be achived or bettered by air test on completion. If the dwelling fails to achieve its air permeability. Remeadial measures shall be carried out such as that to retest that the design air permeability is achieved. Fixed Building Services

All fixed building services shall be commissioned in accordance with the procedure given in the DCLG publication 'Domestic Building Services Compliance Guide' for the relevant fuel type(s) and in accordance with the manufacturer's commissioning procedures. A notice confirming that all fixed building services have been properly commissioned shall be provided and a copy shall be given

to the distict council and the building owner. The notice shall be signed by a suitably qualified person.

Building owner to be given sufficient information of specific apparatus/systems installed including operational and maintenance instructions to enable the dwelling and its fixed services to be used in an efficient manner

central heating and hot water systems to be commisioned in accordance with the procedure given in th DCLG publication "Domestic Building Services Compliance Guide."

drainage

all domestic drainage to public sewers

drainage to be carried out in accordance with BS CP 301, 302 Pt 1:1973, 2005 and BS 5955 Pt 6:1980 and carried out to the satisfaction of Building Control

Trenches to be excavated in straight lines and to even gradients not less than 1:40

All pipes to be uPVC to BS 4660 incorporating push fit elastomeric seal joints. Pipes to be fully bedded on 150mm pea gravel laid true to line and falls. Upon completion trenches to be side and back filled with selected fill and well consolidated

Any sewers within 1000mm of building and at a lower level than the founds to have trench filled with weak mix concrete up to top level of foundation Manhole to be constructed of 215mm Class 'B' engineering brick walls on 100mm in situ concrete slab 1:3:6 mix. All benching to be smooth finished and taken up 150mm above main channel invert. Cover to be galvanized MS of a weight to suit location. (manhole covers to be A15 pedestrain, B125 vehicular

All pipes passing under floor to be encased in 15MN/sq m and wrapped in HG polythene to allow for thermal movement. Where pipes pass through walls provide reinforced concrete lintols over with 50mm clearance around pipes. Aperture to be neatly covered using 9mm masterboard cover secured in position

All sanitary fittings to discharge into 75mm deep seal anti-syphonic traps

first floor drainage to be 1:40

'Domestic Building Services Compliance Guide'

A notice confirming that all fixed services have been properly commissioned shall be provided by a suitably qualified person and a copy given to the building owner and the district council Insulation of pipework / storage vessels / ductwork & flue to be checked at completion to ensure that it is free from obstructions satisfactory gas tight

and constructed with materials and components of sizes that suit the intended applications Fitted appliances shall have a spillage test carried out under fire -

A durable notice shall be fixed at an appropriate location in the dwelling for each hearth, fireplace and flue statiny 1. location 2. type of appliance that can be accomodated 3. type, size and manufacturer of flue or liner 4. installers name and date of installation

A flue shall provide satisfactory control of water condensation 'a flue for a non condensing combustion appliance shall be insulated so that flue gas does not condense during normal operation or the flue for a condensing combustion appliance shall be lined with components that are impervious to condensation and resistant to corrosion and a suitable drain shall be fitted to the combustion appliance for the disposal of condensation Flue liners to comply with BS EN 1443 Clay flue liners with rebates or sockets for jointing meeting the requirements described in BS EN 1457. Concrete flue liners independently certified as meeting the requirements for classification as described in BS EN 1857. Imperforate clay pipes with jointing sockets as described in BS EN 1457 : 1999

Where practicable the flue shall be straight and vertical except for the connection to a combustion appliance with a rear outlet. The connecting horizontal section shall not be greater than 150mm in length and where bends are essential, they shall be angled at not more than 45 degrees to vertical

Flue to be cleaned, visually inspected and altered as necessary before use Combustible materials / chimneys

Where the thickness of solid noncombustible material surrounding a flue in a brick or blockwork chimney is less than 200mm, no combustible

material, other than a floor board, skirting board, dado rail, picture rail, mantleshelf or architrave shall be so placed as to be nearer than 40 mm to the outer surface of the chimney. Metal fixings

in contact with combustible materials shall be at least 50 mm from a flue.

proposed side elevation 1:100

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"sg" on elevations indicates Class A safety glazing

safety glazing to BS is to be provided in the following critical locations as indicated in Technical Booklet V of Building Regulations between finished floor level and 800mm in walls and partitions

between finished floor level and 1500mm above that level in a door or in a side panel within 300mm of either edge of a door

glazing suitable for installation in a critical location shall satisfy the test requirements of Class C of BS 6206. where it is installed in a door or a door side panel and has a pane width of more than 900mm, it shall satisfy the test requirements of Class B of BS 6206

when glazing forms part of guarding required by part h the requirements of this part must be provided by the glazing unless the is seperate guarding is provided. "Ig" on elevations indicates laminated glazing acting as guarding

glazing - location of control

glazing

A control for a window, skylight or ventilator shall be within safe reach of a person standing on a floor (or other permanent stable surface). Where reach is unobstructed the control shall be not more than 1.9 m above floor level Where reach would be obstructed the control shall be lower, for example, if the obstruction is a kitchen unit 900 mm high and 600 mm deep, the control shall be not more than 1.7 m above floor level

means of cleaning glazing Vhere the external face of glazing is designed to be cleaned from the outside of a building, the glazing shall be

(a) accessed from a safe place having a firm level surface; and

(b) reached from an area adequate in size for the method of cleaning.

Where the height to the window sill is more than 6.0 m and not more than 9.0 m, suitable tying or fixing points for the access equipment shall be provided on the building. The standing surface shall be a path or similar hard surface Where the height to the window sill is less than 6.0 m and access is by a ladder, the standing surface may be normal soil.

fire safety

as follows

heat detector

every habitable room on an upper storey not more than 4.5m above ground level that does not have alternative escape routes, shall have an emergency egress window

emergency egress windows

every storey (including a basement storey) in a dwelling house which does not have alternative escape routes leading to their own exits shall have an emergency egress window for escape or rescue purposes.

every habitable room on an upper storey not more than 4.5m above ground level that does not have alternative escape routes shall have an emergency egress window. emergency egress windows to be incorporated in inner rooms, emergency egress windows shall have a clear opening that is not less than 0.33m.sq. and have a clear opening that is at least 450mm high and at least 450mm wide.

the lower edge of the window shall be not less than 800mm and not more than 1100mm above the floor level except in the case of a roof window where the lower edge may not be less than 600mm above the floor. smoke detector

smoke alarms to bs 5446-1:2000

smoke alarm to be permanently wired to either a seperately fused circuit provided for this purpose alone; or a regularly used lighting circuit and incorporate a backup power source to each unit.

smoke detector to be fitted in circulation routes of each flat / dwelling as indicated on floor plan not more than 3m from every bedroom door and not more than 7m from every door to a living room or kitchen. ceiling mounted smoke detectors to be located not less than 300mm from a wall or light fitting. wall mounted smoke detector to be located not less than 150mm or not more than 300mm from ceiling.

heat detectors to bs 5446-2:2003

heat detector to be located as indicated on plan. smoke & heat detectors to be interlinked.

carbon monoxide carbon monoxide alarm should comply with BS EN50291:2001 and be powered by a battery designed to operate for the working life of the alarm. the alarm should incorporate a warning device to alert users when the life of the battery is to end.

mains powered BS EN50291 Type A carbon monoxide alarms with fixed wiring may be used as alternative applications provided they are fitted with a sensor failure warning device. Alarm should be located on the ceiling at least 300mm from any wall, or if located on a wall, as

high up as possible (above any windows or doors) but not within 150mm of the ceiling and between 1000mm & 3000mm horizontally from the appliance. Further guidance is available in BS EN 50292:2002 and from manufacturers instructions

sockets & switches

Wall mounted socket outlets and switches (other than isolators) in the entrance storey, and where appropriate the principal storey, should be located not more than 1200 mm or not less than 450 mm above the floor level. The cord of a pull cord switch should terminate not more than 1200 mm above the floor level.

