references for all building types referred to.

G1: Cold Water Supply

Requirement G1.

There must be suitable installation for the provision of wholesome water to any place where drinknig water is used, sanitary conveniences (bath, shower, wash hand basin, sink, bidet or areas where food is prepared.

There must be suitable installation for the provision of water of suitable quality to any sanitary convenience fitted with a flushing device.

Wholesome water is to be provided which has sufficient pressure for operation, reliable and without waste, misuse, undue consumption or contamination. It must be provided by a licensed water supplier and comply with the Private Water Supplies Regulations 2009 (SI2009 / 3101).

Requirement G2:

Reasonable provision must be made by the installation of fittings and fixed appliances that use water efficiency for the prevention of undue consumption of water.

Part G2 will be satisfied if it can be demonstrated that the estimated consumption of wholesome water (Potable water as described under Water Supply (Water Quality) Regulations 2000 (SI 2000/3184) or Private Water Supplies Regulation 2009 (SI 2009/3101) in both hot and cold water applications does not exceed **125 litres per person per day**. A water efficiency calculation is to be submitted to Building Control by the contractor

The new sanitary fixtures and fittings to achieve the maximum consumption values set out in ADG Table 2.1

Water Fitting Maximum Consumption 6/4l dual flush or 4.5l single flush 10 l/min 1851 Basin taps 6 l/min Sink taps 8 I/min

1.25 l/place setting

8.17 l/kilogram

G3: Hot Water Supply and Systems

Requirement G3:

Dishwasher

Washing machine

There must be suitable installation for the provision of heated wholesome water or heated softened wholesome water to any wash hand basin, bath, bidet, shower and any sink provided Any system should be designed, constructed and installed to resist the effects of temperature

and pressure that may occur Any hot water storage vessel shoul incorporate precautions that limit the temperature to 100°c and ensure that any discharge from safety devices is safely conveyed to where it is visible but will

not cause a danger to persons in or about the building. The water temperature delivered to a bath must not exceed 48°c.

Heating and hot water systems to be fully detailed and designed by M & E consultant / contractor in accordance with approved document G and association British Standard documentation and other associated legislation.

Electrical installations should be in accordance with approved document P and BS7671:2008. Any gas installation should be undertaken by a Registered Gas Safe Engineer.

The hot water temperature for baths, to be limited to 48 degrees by use of an in-line blending

valve or similar, with a maximum temperature stop and a suitable arrangement of pipework. Hot

water taps to be located on the left hand side Commissioning of fixed building services must be undertaken by the person who installed the

system. Notice of completion of commissioning must be served to the local authority / approved inspector before Part G is approved and a final certificate is issued.

G4: Sanitary Conveniences & Washing Facilities

Requirement G4.

Addequate and suitable sanitary conveniences must be provided in rooms to accommodate them

All foul drainage to have minimum falls of 1:40 or in bathrooms. Adequate hand was must be separated from any room used to prepare food.

Please refer to HSSP Architects drawings for quantity and location of sanitary facilities.

Sanitaryware and appliances are to discharge to an adequate system of drainage in accordance

with approved document G.

G5: Bathrooms

A bathroom must be provided containig a wash basin and either a fixed bath or shower.

Please refer to HSSP Architects drawings for the layout of bathroom facilities.

Sanitaryware and appliances are to discharge to an adequate system of drainage in accordance with approved document G.

G6: Food Preparation Areas

Requirement G6:

A suitable sink must be provided in any wet area where food is prepared.

Any sink should discharge through a grating, trap and branch discharge pipe to an adequate system of drainage.

Please refer to HSSP Architects drawings for the layout and location of food preparation areas.

Approved Document H - Drainage:

Please refer to the approved documents for definitions and a full list of codes, standards and references for all building types referred to.

The existing storm and foul drainage system is to be investigated and its location confirmed by the contractor on site before works commence. Any new storm and foul provision is to be connected into the existing. Drainage invert levels are to be checked on site.

Workmanship to be accordance with BS 8000 pt 13: Code of practice for above ground

Any repair, alteration, sealing, removal and reconstruction of existing drains and sewers to be carried out in accordance with ADH Appendix H1-B.

H1: Foul Water Drainage:

Requirement H1: An adequate system of drainage shall be provided to carry foul water from appliances within the building to a public sewer, or private sewer, or septic tank, or cesspool (in order of

The foul water drainage system shoul be designed to minimise the risk of blockage or leakage, prevent foul air from entering the building, be ventilated, accessible for clearing plockages and does not increase the vulnerability of the building to flooding.

Section 1: Sanitary Pipework

Guidance for the design of sanitary pipework can be found in BS EN 12056. All points of discharge into the system should be fitted with a trap to prevent foul air from entering the building, with a minimum seal of 25mm of water or equivalent. Minimum trap sizes are below (see Table 1):

Appliance	Diameter of Trap	Depth of Seal
Washbasin	32mm	75mm
Bath/Shower	40mm	50mm
Sink/Washing Machine/	40mm	75mm
Dishwasher		
WC Pan	75mm	50mm

All pipework should discharge into a stub stack or discharge stack with care taken to prevent cross flow into any other branch pipe. In accordance with ADH Diagram 2.

Waste pipe diameters wash hand basin and bidet 50mm minimum,

sink, bath and shower 40mm minimum, WC 100mm minimum. All sanitary fittings to have 75mm minimum deep seal traps.

Condensate pipe from the boiler can connect into sanitary pipework if necessary, with a minimum diameter of 25mm with a 75mm condensate trap. Installation should be in accordance with BS6798. Bends in branch pipes should be avoided. Branch pipe layout and connections to be in accordance with ADH Table 2, Diagram 3 and

Diagram 4 Rodding points should be provided for any out of reach pipes and all discharge stacks.

Discharge stacks should have the minimum diameter shown in approved document H. Table 3 and should discharge to a drain. The internal diameter of the stack should not be less than that of the largest trap. Discharge stacks must be ventilated. Any stub stacks shown can only be used if ventilated. Contractor to confirm

Ventilated discharge stacks should be in accordance with BS EN 12380:2002. Discharge Stacks connected to drains liable to surcharge require a 50mm ventilation pipe above the likely level of flood. Discharge bend must be of minimum radius 200mm at centerline of stack. All stacks are to have a diameter of 100mm. Rodding points should be provided above the spillover level of appliances. The pipes, fittings and joints should be capable of withstanding an air test of positive pressure of at least 38mm water gauge for at least three minutes.

Pipes may be rigid (eg. vitrified clay to BS 65, BS EN 295, concrete to BS 5911) or flexible (eg. PVCu to BS EN 1401*, SWP to BS 13479) Rigid pipes to bed onto 100mm of Granular material conforming to BS EN 1610, with

Flexible pipes to bed onto 100mm granular material and surrounded, with 100mm of granular fill free from stones larger than 40mm, with 200mm selected fill over top. Where pipes are laid at shallow depths, encase in granular surround with compressible material overtop and reinforced concrete slab (300mm bearing on ground each side) over

Section 2: Foul Drainage

minimum 150mm selected fill over top

The foul drainage is to connect to the existing public foul or combined sewer. This is to be fully detailed and confirmed by the contractor/structural engineer/drainage designer. Should a gravity system not be feasible, suitable a pumping installation should be provided. The sewerage undertaker should be notified at least three weeks before it is intended to connect to the public sewer. Should this not be possible please discuss alternative options with the building control body before works commence. The likelihood of surcharging should be discussed with the sewerage undertaker and the relevant action taken if necessary. Where the risk is considered low, building protection may be acceptable in the form of gullevs.

Changes in direction and gradient should be minimsed and access points provided where required. Connections should be made in the direction of flow and using prefabricated When connecting to existing, repair couplings should be used to ensure a watertight joint

and the junction packed to avoid differential settlement with adjacent pipes.

The system should be ventilated, pipes laid to even gradients and straight lines. Slight curves are acceptable subject to any blockages being accessible Where pipes are laid within 1m of the building, backfill with concrete to a level below the

lowest of the building, equal to the distance from the building less 150mm. Concrete encasements to have expansion joints at 9m maximum intervals Where pipes pass through walls or substructure, provide bridge movement joints and structural lintels. Openings to be masked with suitable rodent barrier to prevent entry of vermin or fill material. All in accordance with ADH1, Section 2, Diagrams 7 and 8.Pipe gradients and sizes should be in accordance with ADH1, Section 2, Diagram 9.

The sewer should have a minimum diameter of 100mm with a minimum flow rate of 3.5 l/s. The drain carrying foul water should have a minimum internal diameter of 75mm. Drain gradients should be laid in accordance with ADH1, Section 2, Table 6.

Manholes and inspection chambers are to be constructed using precast sections fixed in accordance with manufacturers instructions. Access fittings shall be not less than 225 diameter. where depth is less than 600mm, inspection chambers to be not less than 450 diameter. where not greater than 1200 deep, and manholes 1000 diameter. where depth is not more than 1500mm. Covers are to be appropriate duty, and must be screw fixed.

All surface water to have minimum falls of 1:80

Suitable materials for sanitary pipework include: Copper (to BS 416 & BS EN 877) PVCu (to BS EN 1329), ABS (to BS EN 1455), Galvanised

Materials for pipes and jointing to be in accordance with ADH1, Section 2, Table 7, as specified by specialist. Joints should be appropriate to the material of the pipes. Joints

Steel (to BS 3868), others may be appropriate for use, note that not all are appropriate for

Bedding and backfilling to be fully detailed and designed by specialist in accordance with ADH1, Section, Diagram 10, 11, 12, Tables 8, 9, 10 and text 2.14 - 2.45

Sufficient and suitable access points should be provided in accordance with Table 11,12, 13,

14 and text 2.46 - 2.54. These are to be confirmed by specialist Workmanship to be in accordance with BS8000, care taken to prevent entry by rats and

An air or water test should be undertaken as described in BS8000

Section H3: Rainwater Drainage

Requirement H3:

Adequate provision shall be made for rainwater to be carried from the roof of the building. Paved areas around the building shall be so constructed as to be adequately drained.

The existing storm drainage system is to be investigated and its location confirmed by the contractor on site before works commence. A new soakaway is to be provided as indicated on the drawings. To be fully detailed and designed in accordance with ADH, BS EN 752-4 and BRE Digest 365. All new storm water to connect to new soakaway.

Gutter and downpipe sizing is shown on HSSP Architects Roof Plan and fully in accordance with ADH3, Section 1, Table 1 and 2. Gutters to be laid with the falls towards the nearest outlet. Any excess overflow should be discharge clear of the building. Surface water drainage discharge capacities to be assumed using ADH Section 3, Diagram 3.

All rainwater pipes to discharge into a drain or gulley. with barriers where it is necessary to protect people in or about the building from falling. Gutters to have a minimum diameter of 125mm. Downpipes to have a minimum diameter of

Drainage to paved areas should divert rainwater away from the building with a gradient of at

Design rainfall intensity of 0.014 l/s/m² has been assumed.

Pervious paying should be used for the driveways and free-drained if possible. Should this

not be possible, gulley's and drainage channels should be used. To be in accordance with BS EN 752-4:1998.

Section H4: Building Over Sewers

Contractor / engineer to determine the location of the existing sewers. Should a build-over agreement be required, this should be submitted by the contractor / engineer and be fully in accordance with ADH, Section 4,

Approved Document J - Combustion Appliances

Please refer to the approved documents for definitions and a full list of codes, standards and references for all building types referred to.

Requirement J1:

combustion to the outside air.

Combustion appliances shall be so installed that there is an adequate supply of air to them for combustion to prevent overheating and for the efficient working of any flue. Combustion appliances shall have adequate provision for the discharge of products of

Requirement J3

be so constructed and installed, as to reduce to a reasonable level the risk of people

Where a hearth, fireplace, flue or chimney is provided or extended, a durable notice

containing information on the performance capabilities of the hearth, fireplace, flue or

chimney shall be affixed in a suitable place in the building for the purpose of enabling

New gas central heating system with radiators and mains gas condensing boiler, min

by 7 day setting programmer (compliant with Part L1 - 2006 edition). To be installed by a

positions to be confirmed by the boiler manufacturer in accordance with ADJ Section 2,

New underfloor heating system and controls throughout, to be heated via the combination

boiler. Programmable thermostat control to each room. To be detailed and designed by

Electric towel radiators are to be provided in all bathrooms, ensuites and WC's and are to be

fully specified and detailed by the client and contractor. Number and sizing to be confirmed

Proposed HETAS approved new wood burning stove to be located within the lounge. To be

The location of the vents are shown on the floor plan, in accordance with ADJ Section 1,

They should remain open at all times, Further guidance can be found in BS EN

The new masonry chimney should be constructed with flue liners installed to the

Clay to BS EN 1457:2009, Class A1, N2 or Class A1 N1

Concrete to BS EN 1857:2003, Type A1, A2, B1, B2.

to be positioned in line with ADJ Diagram 17 and 18.

300 x 300mm, in accordance with ADJ Diagram 14.

13141-1:2004. To avoid draughts the vents have been located close to the appliance.

Diagram 8. The free area of the vents can be calculated using ADJ Section 1, Diagram 9.

Wall thicknesses for the masonry chimney are as per those in ADJ Section 2, Diagram 20.

Combustible material around fluepipes should be limited to that shown on ADJ Section 2

Flue pipes to be specified by specialist in accordance with ADJ Section 1 and the relevant

stainless steel flue pipe through roof and fixed in accordance with manufacturers

Ventilation to be in accordance with Manufacturers recommendations.

instructions. Maintain a minimum 50mmm clearance with combustible materials, and fit

proprietary firestop joist shield where passing through floor or ceiling. Flue pipe system to

Access to the flue for maintenance must be provided and the hatches should be a minimum

The person undertaking the works is fully responsible for compliance with the Building

Regulations and other associated legislation. Flues for both the stove and boiler are to be

necessary it will be non-combustible 125mm minimum thickness, projecting min 500mm in

front of appliance face and 150mm either side, with manufacturers clearances to non

combustible surround. In accordance with ADJ Section 2 Diagram 24, 25, 26 and 27.

2 Diagrams 29 and 30 or to BS EN 15287-1:2008, BS 8303:1994.

Approved Document K - Proptection from falling, collision and impact:

people moving between different levels in or about the building.

references for all building types referred to.

flight and are kept clear of obstructions.

of stairs to be confirmed

Requirement K2:

BS6180 for additional guidance

object and prevent children from climbing.

250mm and be no less than 6mm.

open windows, skylights or ventilators.

A notice plate is to be provided for the flue and hearth. An example can be seen in ADJ

The alarm should be positioned between 1-3m from the appliance within the same room.

Stairs, ladders and ramps shall be so designed, constructed and installed as to be safe for

1.1. The rise and going is consistent throughout with all treads level and the risers open.

Handrails are to be provided on one side, remain continuous and be positioned between

900-1000mm from the pitch line or the floor. Handrail profiles to be in accordance with ADK

Any stairs, ramps, floors and balconies and any roof to which people have access and any

light well, basement area or similar sunken area connected to a building, shall be provided

Guarding to the landings and internal first floor to be 900mm high and balconies to be

1100mm, in accordance with ADK2 Diagram 3.1. Guarding should be designed to resist the

Horizontal rails will not be used and guarding must not allow the passing of 100mm spherical

loads given in BS EN 1991-1-1 with its UK National Annex and PD 6688-1-1. Also refer to

Any glazing located below 800mm should be guarded in accordance with ADK2 Diagram

Glazing, with thich people are likely to come into contact whilst moving in or about the

Glazing in critical locations to be in accordance with Diagram 5.1, 800mm from FFL to

Class B of BS 6206 if in doors. Glazing must break safely as defined in BS EN 126000

section 4 and BS 6206 clause 5.3 Small panes of glazing within the doors to not exceed

up to 1500mm. Glazing specified for critical locations should satisfy Class C of BS 6206 or

Windows restrictors are to be fitted to ALL windows. Ground floor windows to be restricted to

100mm outward opening therefore negating the need for providing barriers. In the event of a

fire, the restrictors can by opened fully to provide a secondary means of escape.

impact without breaking. Of be shielded or protected from impact.

building shall if broken on impact, break in a way which is unlikely to cause injury. Or resist

The stair width between wall strings is 900mm with 800mm between handrails.

Diagram 1.13. Guarding to the landing at first floor to be min. 900mm high.

300m from any adjacent wall. Alarm to be installed in accordance with BS EN 50292:2002.

Diagram 19, 21 and the minimum performance standards achieved as stated in ADJ Section

SEDBUK 90%, with time and temp zone controls, delayed start, enhanced load

suffering burns or the building catching fire in consequence of their use.

to the Local Authority a minimum of 5 days prior to completion.

ventilation. Flue sizes and positions are to be confirmed.

combustion appliances to be safely installed.

Table 1 & 2 , Diagram 17 & 18.

by the contractor.

manufacturers information:

ADF Diagram 13.

Requirement J5

Where a fixed combustion appliance is provided, appropriate provision shall be made to detect and give warning of the release of carbon monoxide.

Transparent glazing, with which people are likely to come into contact while moving in or

about the building, shall incorporate features which make it apparent.

Combustion appliances and fluepipes shall be so installed and fireplaces and chimneys shall

There will be substantial frames to the glazed screens and windows therefore manifestation is not required

> Requirement K5.3: Windows, skylights and ventilators which can be opened by people in or about the building shall be so constructed or equipped that they may be opened, closed or adjusted safely.

Controls for opening the windows and doors are to be in accordance with ADK5.3 Diagram Details of the heating system to be confirmed and submitted by the contractor prior to issue 8.1. Where this cannot be achieved they will be electrically operated. of the 'as built' SAP and EPC. Details of the heating system to be confirmed and submitted Suitable guarding and window restrictors will prevent fallling from first floor openings.

Provision shall be made for any windows, skylights or any transparent or translucent walls, ceilings or roofs to be safely accessible for cleaning. compensator, and modulating boiler controls. New gas fired central heating system operated

detailed, specified and designed by specialist. Ventilation requirements, flue sizes and outlet Diagram 9.2. A suitable stable hard surface will be provided to the perimeter.

Approved Document L2B: Conservation of Fuel and Power in existing buildings other than

Please refer to the approved documents for definitions and a full list of codes, standards and references for all building types referred to. open flued appliance, 4.9kW. Stove specification and detailed design to be confirmed by the Under Regulation 7A of the Energy Performance of Buildings Regulations 2012, a Energy

Section 2

Where the renovation of an individual thermal element amounts to more than 50% of the

elements surface area, the renovation must be carried out to ensure that the whole element

complies with paragraph L2(a) of schedule 1

the registered certificate.

Gas Safe engineer. Boiler to be located within the utility as indicated on the plans. To be fully Perimeter access to the building will be provided for ladder access as shown in ADK5.4

client, contractor and suitable specialist manufacturer. Stove will require permanently open Performance Certificate (EPC) must be given the the building owner and a notice to the

vents as detailed by manufacture and in accordance with ADF, achieving 550mm² per kW of building control body that a certificate has been given. This includes the reference number of

Schedule 1 Reasonable provision shall be made for the conservation of fuel and power in buildings by miting heat gains and loses through thermal elements and other parts of the building fabric

Also through pipes, ducts and vessels used for space heating, space cooling and hot water

Reasonable provision also by providing fixed building services which are energy efficient, British Standards dependant upon the specified material. It is assumed that a metal flue pipe have effective controls and are commissioned by testing and adjusting necessary to ensure will be specified. The flue pipe from appliance should connect with proprietary twin insulated they use no more fuel and power than is reasonable in the circumstances.

Compliance can be demonstrated by meeting the five separate criteria set-out in approved document L2B. Please refer to Section 7. ADJ, BS EN 1856-1:2003 and installed in accordance with BS EN 15287-1:2007. Flue outlet

Section 5:

New thermal elements must comply with paragraph L2(a) of Schedule 1 to the Building Thermal expansion sleeves are to be provided to the flue where it passes through the Regulations. Work on existing thermal elements must comply with regulation 23 of the Building Regulations. building fabric and suitably fire stopped to achieve 60mins at first floor level. The flue must be positioned away from combustible materials in accordance with BS EN 1856-1:2003 and

Design standards to be in accordance with Regulation, 23, 25a, 25b, 26, 26a, 28 and 40 as

Limiting Fabric Standards:

Regulations and other associated legislation. Flues for both the stove and boiler are to be	Using L2B Table 4 the minimum required U'Values for new thermal elements are as follows:		
checked at completion and tested where necessary. Copies of documentation of compliance, ie. HETAS certificate to be supplied to Building Control on completion and HETAS notice	Wall	0.28 W/m²K	
e. HETAS certificate to be supplied to Building Control on Completion and HETAS hotice	Floors	0.22 W/m²K	
earth may need to be provided dependant upon the selected stove. Should a hearth be	Roof	0.16 W/m²K	
	Windows, doors, roofli	ights 2.00 W/m²K	

On completion of the work, in accordance with Regulation 40, the owner of the building should be provided with sufficient information about the building, the fixed building services There should be permanent means of safe access for maintenance to the stove, boiler and and their operating and maintenance requirements so that the building can be operated in such a manner as to use no more fuel and nower than is reasonable in the circumstances. This requirement applies only to the work that has actually been carried out - e.g. if the work involves replacing windows, there is no obligation on the contractor to The fireplace lining and adjacent walls should be non combustible as shown in ADJ Section provide details on the operation of the heating system.

Carbon monoxide alarms must be provided and comply with BS EN 50291:2001, be battery Note: operated for the life of the alarm and have a suitable audible warning alarm for occupants.

An operating and maintenance manual in the form of a Building Log Book or similar, must be completed by the contractor and passed onto the building owner. This should include the EPC's and include all relevant maintenance and operation instructions for the fixed building services and future ways to improve the building efficiency.

Please refer to the approved documents for definitions and a full list of codes, standards and Low energy lighting fittings to be used throughout. Low energy lighting must have a lumens efficiency equal to or greater than 45 lumens per circuit-watts and a total output greater than 400 lamp lumens. eg. fluorescent lamps and LED lamps (tungsten spot lights and halogen lamps are not low energy). Light fittings whose supplied power is less than 5 circuit-watts are excluded from the overall count of the total number of light fittings. Fittings are to be agreed

Tread and nosing profiles to be in accordance with ADK Diagram 1.1 Dwellings. Construction

Approved Document M: Volume 2 Buildings other than Dwellings: Access to and Use of

The rise of the dwelling stair is 207.7mm and the going is 220mm in accordance with Table Please refer to the approved documents for definitions and a full list of codes, standards and references for all building types referred to. The headroom exceeds 2m for the length of the stair in accordance with ADK1 Diagram 1.3.

Requirement M1/ M2: Reasonable provision should be made for people to gain access to and use the dwelling and its There is a clear landing at the top and bottom of the stairs which are at least the width of the

To be fully in accordance with approved document M, BS8300 and The Equality Act 2010.

The approach to the building is level to the front entrance. The access will be well lit and the surface firm, durable and slip resistant. The access width will allow a minimum 900mm with a 1 in 40 cross fall for pedestrians / wheelchair users

The entrance door has a minimum width of 775mm (ADM 2, Table 2) and the threshold is to be contraction joints in all masonry walls to be as manufacturer's recommendations.

All unobstructed corridor widths of a minimum 1200mm clear, in accordance with ADM 3 paragraph 3.14B

A compliant WC has been provided at ground floor level in accordance with ADM4(1) Diagrams

All switches, sockets and controls are to be positioned and specified in accordance with ADM4(1) Diagram 1.5.

Approved Document P - Electrical Safety:

Please refer to the approved documents for definitions and a full list of codes, standards and references for all building types referred to. windows and screens, 1500mm from FFL in glazed doors with 300mm either side of the door

Reasonable provision shall be made in the design and installation of electrical installations in

order to protect persons operating, maintaining or altering the installations from fire or injury.

Section 1: Design & Installation:

Requirement P1: Design & Installation

Electrical installations will be designed and installed in accordance with BS7671:2008 Provision shall be made to prevent people moving in or about the building from colliding with incorporating amendment number 1:2011. Sufficient information should be provided to ensure that people can operate, maintain or alter

the items listed in BS7671 and the other other information as listed in ADP 1.2.

All electrical work required to meet the requirements of Part P (Electrical Safety) must be designed, installed, inspected and tested by a person qualified to do so, and an appropriate BS7671 electrical installation certificate issued on completion. All new works must be to BS

and electrical installation with reasonable safety. The information supplied should comprise of

All new sockets should be in accordance with ADM.

For new dwellings formed by material change of use, the upgrade of existing electrical nstallations must meet the current standards. For the addition or alteration to existing electrical installations, only the new works must meet current standards unless the existing cannot be operated safely. New work should be carried out in accordance with BS7671 and the existing electrical installation checked to ensure the system is adequate to carry the additional loads suitable protective measures are used and the earthing and bonding arrangements are

Section 2: Application of Part P

The scope of ADP can be identified from ADP Section 2: Diagram 1.

The contractor must notify the relevant building control body by means of a building notice or

Section 3: Certification, Inspection & Testing

Self certification should be undertaken by a registered competent person and be inspected and to the person instructing the works. A copy should also be sent onto the relevant building control (inc. finishes) to be 90 kg/m2. body. This must be done within 30days of the works being completed.

Approved Document R - Physical Infrastructure for High Speed Electronic Communications

Please refer to the approved documents for definitions and a full list of codes, standards and references for all building types.

R1 Requirements.

Building work must be carried out so as to ensure that the building is equipped with high-speed-ready in-building physical infrastructure, up to a termination point for high-speed electronic communications networks.

service providers can connect from the access point to the network termination point from multiple locations if required. Please refer to ADR Diagram 1 and 2. The design of the in-building physical infrastructure will take into account satellite and wireless

A common access point will be provided with vertical and horizontal service routes so that

technologies where required network speeds can be met.

dimensions, bending radii etc. required to allow copper and fibre optic cables to be installed.

Please refer to PAS 2016 and manufacturers specifications for guidance on the duct

GENERAL NOTES - Work to Existing Buildings

insect attack, and inform client of any additional work required

Contractor must carryout his statutory requirements under the Construction (Design and Management) Regulations All work shall comply with the relevant Building Regulations, and the contractor shall provide the risks, section 2.3

necessary notice to the Building Inspector for inspection at the required stages. All dimensions are to be checked by the contractor on site before work commences Turf and other vegetable matter to be removed from the ground to be covered by building to a

Contractor shall incorporate Accredited Construction Details (where applicable) as

sufficient depth (150mm min.) to prevent growth later. All building work is to be carried out with proper materials appropriate for the circumstances in a

specified in SAP Build Standards. A signed copy of each ACD will be required upon issuing the final certificates. Failure to work to ACD's and other specified details will risk the project not complying with Part L, and so incur further costs. Contractor to expose/check existing foundations where necessary to determine their suitability

to carry any extra load, and to agree any additional work required with the Building Inspector.

Contractor to check existing walls and verify whether they are load-bearing before removing/altering, and taking appropriate precautions. Contractor to check existing structure where opened for any evidence of decay from fungal and where the window forms an escape route from a first floor bedroom. In this case the outer pane

DEMOLITION

All demolition must be carried out in accordance with the Construction Design and Management Regulations. Any work involving the disturbance and/or removal of any Asbestos material must be notified and strictly carried out in accordance with HSE procedures and Codes of Practice.

Any additional rebuilding which may be considered necessary but is not indicated on the drawings or specifications, please consult the Local Authority before carrying out the work. Weathered brickwork/stone to be replaced and weathered joints raked out and repointed with a suitable mortar

All existing timbers to be inspected for woodworm and rot and replaced or treated by approved specialist. All existing external and internal ground floor walls to have a silicone injected damp proof course by approved

600mm wide trench fill foundation as indicated under all load bearing walls excavated to a checked on site and increased as necessary to suite local ground conditions to the approval of the Building Inspector, and filled with designated mix GEN3 (Strength Class C20). Note, if footing depth below ground level exceeds 1500mm heave protection will be required (refer to NHBC Standards)

FOUNDATIONS - Underpinning

FOUNDATION - Trench Fill

or equal approved

Underpining to Engineers details where footings do not extend to suitable depth to avoid

EXTERNAL WALL - Brick Faced - 125mm Cavity/125mm Insulation Below ground, use minimum 215mm depth aircrete foundation blockwork (Thermalite

Trenchblock or Celcon Standard foundation block) Wall insulation to be continued at least 215mm min. below the DPC and underside of slab/screed (or 215mm min. below top of beam if suspended beam and block floor) and

supported on row of ties if needed. Insulation to extend to the top of the external wall including the gable end. - 102.5mm Approved facing brickwork outer skin, 100mm cavity, filled with 100mm Knauf Earthwool DriTherm 32.

to achieve U-Value of 0. 27 W/m²K Mortar mix above and below DPC to be 1:3 (cement:sand). Where lime or plasticisers are

required refer to manufacturers recommendations. Brickwork expansion and blockwork

- 12.5mm British Gypsum Wallboard TEN fixed to manufacturers details with 3mm skim,

Ancon Staifix RT2 250mm general purpose wall ties are to be fitted at 750 centres horizontally and 450 centres vertically, centres to reduce to 300 vertically within 225 from all openings with Fire Extinguishers to be supplied to meet the requirements laid out in BS EN3 and BS 7863 unbonded jambs.

- 100mm 3.6N block with 0.15 W/mK thermal conductivity, Thermalite Shield, Celcon Standard

GARAGE FLOOR - Ground Bearing Floor 150mm minimum powerfloated C30 concrete slab with A393 reinforcing mesh positioned centrally, laid to fall on and surface sealed with clear dustproofer, over

- Visqueen Gas (radon) Barrier (for radon protection situations), over - 50mm sand blinding, ove - 150mm minimum well compacted stone

- 1200 Gauge Polythene DPM (for normal situations)

trades to reduce risk of condensation occurring.

- Roof slate/tiles as per planning approval, over - Graded roofing battens, over - Breather membrane, laid with nominal drape and laps sealed

All installed to manufacturers instructions and to BS5534:2014 (+A1:2015)

PITCHED ROOF - Trussed Roof - 400mm Insulation at ceiling

- Trussed rafters designed by specialist supplier to be fixed at 600mm centres. Supplier to ensure design fully complies with British Standard 5268:part 3 and in addition provides requirements for the stability of the roof including longitudinal and diagonal gable bracing. Supplier shall provide details and layout of the roof together with calculations which are to be

Note: Contractor shall ensure roof access trap is closed at all times whilst carrying out wet

submitted to the Local Authority for approval 28 days prior to commencement on site.

- 400mm Knauf Earthroll Loft Roll 40 insulation, installed to manufacturers instructions - 1000 gauge taped polythene vapour barrier to underside of truss. - 12.5mm British Gypsum Wallboard TEN fixed to manufacturers details with 3mm skim to achieve U-value 0.11W/m²K

Galvanised steel straps at 2m maximum centres across 2no trusses where parallel to the external walls with solid timber packing between trusses at strap positions.

Fit cavity tray to external walls at all abutments with code 4 lead flashing dressed onto roof and

Lead valleys are to constructed with code 5 lead (in lengths not exceeding 1.5m with min 150 laps), finished with patination oil and laid over plywood layboards

Note: Electrical cables give off heat when in use and special precautions may be required when they are covered by thermally insulating materials. See BRE BR 262, Thermal Insulation:

INTERNAL WALL - TYPE C, Blockwork

12.5 British Gypsum TEN and skim or equal approved (mass 10kg/m²), Concrete blocks of minimum density 120 kg/m² (excluding finishes), 12.5 British Gypsum TEN and skim or equal approved (mass 10kg/m²) All joints to be well sealed.

INTERNAL WALL - TYPE D, 'Aircrete' Blockwork

'Aircrete' style aerated concrete block wall, dry lined or wet plastered on both sides. If dry lined, tested in accordance with BS7671. The certificate should be completed to BS7671 and handed minimum mass of wall (inc. finishes) to be 75 kg/m2; If wet plastered, minimum mass of wall

All joints to be well sealed. NOTE: Type D walls cannot be used as load bearing structures or be rigidly connected to any

PART M - ACCESS TO AND USE OF BUILDINGS

Provide disabled threshold and level access to front door from parking area, gradient not to

Main entrance door must provide min clear opening width of 800mm between face of open door and face of stop. Depending on type of door to be fitted, contractor must check overall opening dimension required to achieve this. NOTE: timber mobility frames usually require a 932mm overall opening, and PVCu 1023mm. Rear door to be 910mm overall opening, unless used as

Surface to be firm and even and any path to be not less than 900mm wide. Ground floor internal doors are to be 838mm wide, and first floor doors may be 762mm wide.

exceed not to exceed 1:20. Paths to be not less than 900mm wide.

front of the WC pan, with an outward opening door. Electrical sockets/switches and consumer units to be positioned between 450 and 1200mm from the finished floor

Ground floor WC must have an unobstructed clearance of 1000mm wide and 750mm deep in

Electrical cables give off heat when in use and special precautions may be required when they are covered by thermally insulating materials. See BRE BR 262, Thermal Insulation: avoiding

All electrical work in notifiable areas to carried out by a competent person registered with a Part

P (P1) compliant scheme. Electrical certificate to be submitted to building control on completion

ELECTRICAL WORK

All windows and doors to be PVCu/timber and double glazed with sealed units having a minimum 20mm argon filled air gap and soft coat Low E glass. All frames are to be sealed around the perimeter both internally and externally.

Nindows to achieve U-value 1.6W/m²K Doors to achieve U-value 1.6W/m²K

SECURITY & SAFETY Ground floor, basement and other easily accessible windows or rooflights should be secure windows in accordance with PAS24:2012 (alternative similar or better standards outlined in Part Q1 of UK Building Regs). The same windows should also have key-operated locking, except

All glazed doors, side panels and windows in critical locations as defined under the Building

regulations, to have laminated safety glass to BS 6262:part 4 2005 and to BS 6206/ BS EN

First floor windows to bedrooms should have an opening casement fitted with egress hinges giving at least 0.33m2 (450x750mm) clear escape route. The bottom of the opening being no higher than 1100 mm from the finished floor level.

should be 6.4mm laminated glass and no locking handle fitted.

Where opening lights open over pathways, restrictors are to be fitted.

bedroom and 60000mm2 for 4 bedroom. Air transfer between rooms to be provided by undercutting doors by 10mm clear of floor finish.

sizes and should allow approx 10mm tolerance to structural opening. Main entrance door to provide way of seeing callers by either a door viewer or an area of clear

STRUCTURAL STEELWORK Fabrication of steelwork to be in accordance with BS 5950:Part 2. All steelwork to be to engineers specifications and of grade 43. Steelwork to be shot blasted and treated with suitable

FIRE STRATEGY FOR COMMERCIAL PREMISES Fire Detection and Alarm systems to be designed & installed to meet criteria laid out in BS 5839

All Emergency Escape signage to be designed by specialists and fitted in order to satisfy the criteria laid out in BS 5499 Pt4:2013

Emergency Lighting to be supplied and fitted in accordance with requirements laid out in BS 5266 Pt1:2011 and included to all open plan areas over 60m2, all windowless area and to toilet accomodation if greater than 8m2. In addition, the escape route should be illuminated to facilitate safe egress.

Fire Fighting Equipment

circuit-watts and a total output greater than 400 lamp lumens. eg. fluorescent lamps and LED lamps (tungsten spot lights and halogen lamps are not low energy).

Fittings are to be agreed with Building Inspector.

- Where listed or planning status preclude

INTERNAL LIGHTING - 100% Fixed Fittings Energy Saving

EXTERNAL LIGHTING

Where fixed external lighting is installed, all lamps to be compact fluorescent and automatically controlled so as to switch off when daylight is sufficient and to have the following characteristics

- lamp efficacy greater than 45 lumens per circuit-watt and light fittings controllable manually by

PART R - HIGH SPEED COMMUNICATIONS INFRASTRUCTURE

Provide infrastructure to allow for future connection to High Speed Electronic Communications At least one network termination point should be identified within each dwelling or building unit. Suitable ducting should be provided to connect all such network termination points to an appropriate access point most likely on external wall.

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Pera Innovation Park, Nottingham Road

elephone: 01664 563 288 Fax: 01664 503 360 E-Mail Info@hssparchitects.co.uk Web www.hssparchitects.co.uk

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Reconfiguration nd Refurbishement

All upper floor windows should be fitted with child-proof restrictor hinges allowing the window to open no more than 100mm. The restrictor should be over-ridable to allow for safe cleaning of the entire outside face of the window from inside (PART N) and escape where required (PART

Trickle vents are to be fitted to all windows: 2500mm2 free area to wet rooms and 5000mm2 to habitable rooms. Total area should be 40.000mm2 for 2 bedroom property, 50000mm2 for 3

Window manufacturer to assess handing and note the sizes given are actual brickwork opening minimum depth of 1m below finished ground level (Minimum requirement of Part A). Depth to be glazing within the door or adjacent to the doorset. Doorset to provide door chain or door limiter.

standards outlined in Part Q1 of UK Building Regs).

All steelwork to be to engineers specifications Contractor responsible for the erection of steelwork to ensure the stability of the structure at all times during erection, and for any temporary bracing and struts required. Appropriate blue brick padstones are to be provided with a minimum beam bearing of 100mm.

In areas affected by building work, 100% of light fittings to be low energy. Low energy lighting must have a lumens efficiency equal to or greater than 45 lumens per

- lamp capacity not greater than 100 lamp-watts per light fitting and all lamps automatically controlled so as to switch off after the area lit by the fitting becomes unoccupied.

- Isolated buildings where it is unlikely that physical connection to networks can be made

All easily accessible doorsets that provide access into a dwelling or a building containing a dwelling should be secure doorsets in accordance with PAS24:2012 (alternative similar or better

Melton Mowbray, LE13 0PB

The Pavilion

March '20

BUILDING REGULATIONS ISSUE