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TECHNICAL INFORMATION

PROPOSED EXTENSION

AT

87 CRADGE BANK

SPALDING

FOR

MR P HOEY

DOCUMENT REF: SD22-021/TI

Remove existing dining room and flat roof over utility area.

Build on new extension in the manner shown.

External materials facing bricks and roof tiles to match existing.

Roof pitch, roof overhand. Ground and first floor levels to match existing.

Form opening in existing external wall were shown to create bedroom 1. Support over with IG heavy duty lintel L6/75 or similar approved.

First floor joists to be 150x50 SC3 grade at 400 centers.

Connect foul drains to existing foul drainage system.

Make good to all disturbed and affected areas.

Roof/Wall Abutments
Provide Code 4 lead flashings and lap over roof covering. Dress up wall a minimum of 150mm (stepped on pitched abutments) and provide d.p.c. cavity tray to make completely watertight.

New/Old Walling
Where new walling meets old provide proprietary flexible wall starters.

Roof Ventilation
At eaves provide proprietary ventilation equivalent to a 10mm continuous gap along eaves.

Valleys
Use proprietary fibreglass valleys or provide Code 4 lead to valleys to make completely watertight.

Bathroom/En-Suite Ventilation
Provide proprietary mechanical extract ventilation unit capable of extracting 15lt/sec. System to offer intermittent operation.

Heating System
Provide room thermostat or thermostatic radiator valves or similar approved to control the output from the heating system.

Insulated Pipes and Ducts
All pipes, which do not contribute to the heating of the building, will be insulated to BS5422 1977.

Safety Glazing
Provide safety glass to BS6206 to all windows to a minimum height of 800mm above floor level plus doors to a minimum height of 1500mm above floor level. Side screens to be same as doors if within 300mm of doors.

Smoke Detection
Provide mains operated self-contained smoke alarms to BS5839 Part 6, 2006 in accordance with Approved Document B1.

Rainwater Goods

PVC rainwater goods 110mm half-round gutters and 68mm diameter downpipes.

Habitable Room Trickle Ventilation
Provide proprietary trickle ventilators to head of windows giving a total opening area of not less than 8000mm^2

Kitchen/Utility/Bathroom/WC Trickle Ventilation
Provide proprietary trickle ventilators to head of window giving a total opening area of not less than 4000mm^2

Roof Insulation
To roof spaces provide proprietary 300mm thick fibreglass insulation laid as 100mm between joists and 200mm across joists or equivalent to achieve a u-value of 0.11W/m^{2}K. Ensure a gap of 50mm between roof underfelt and quilt at all times..

Roof Insulation to Sloping Ceiling
To ceiling slope provide 90mm Celotex GA4000 between rafters and 60mm Celotex GA4000 below rafters. Ensure a gap of 50mm between roof underfelt and insulation at all times.

Foul Water Drainage
Underground drainage to be proprietary 110mm diameter p.v.c. pipes flexible jointed to fall 1:70 bedded in 100mm pea gravel. Under building drains to be encased in 150mm pea gravel with lintel over pipes at wall abutments. Where drain passes through wall, provide suitable protection to prevent gas ingress to building. 110mm diameter soil and vent pipe to extend 900mm above window head and to terminate in balloon finial. Soil and vent pipe to be fitted with access plate at base. Provide suitably sized wastes from all appliances (in accordance with Approved Document H) complete with minimum 75mm deep sealed traps and rodding eye access points at every direction change. All above ground drainage to BS5582 and all underground drainage to BS8301. Provide seal plates both sides of pipe entry to avoid vermin entry.

Surface Water Drainage
To be proprietary 110mm diameter p.v.c. pipes flexible joined to fall 1:70 bedded in 100mm pea gravel. Pipes to discharge into 1200mm diameter soakaways sited 5000mm away from buildings.

Inspection Chamber Construction
Proprietary polypropylene inspection chambers bedded on 150mm concrete. Form protective 255mm thick concrete collar around head of inspection chamber with 300mm projection from cover. Covers to be Grade C light duty unless inspection chambers are in driveways where Grade B medium duty covers are to be used.

First Floor Walling
Provide 50 x 75mm timber vertical studs at 400mm c/c to be constructed of 50 x 75mm timber head and sole plates. Provide 12.5mm Gyproc plasterboard of 10kg/m^3 density and skim finish to both sides. Provide to airspace proprietary acoustic insulation. Timber stud partitions running parallel to joist direction to be built off 2 no. floor joists fixed together. Provide 1 no. joist either end of stud partition joist beam to fix flooring.

First Floor Construction
19mm flooring grade moisture resistant decking on timber joists as stated on plan. To external walls joists to be supported on joist hangers (not built into wall). Provide 30mm x 5mm mild steel restraint straps to joists running parallel with wall securely fixed to walls and to span minimum 3 no. joists at maximum 1200mm c/c. At strap

positions provide pack and noggin to joists. Solid strutting to be installed mid-span where span of joists between 2.5m and 4.5m. For spans in excess of 4.5m position of struts at 1/3 rd span. Double up floor joists locally under bath feet and hot water cylinder where applicable. All doubled up joists to be bolted together at 600mm centres.

Roof Intersections

If compound truss used; where main trusses fix to compound truss provide proprietary truss connectors. Provide 32 x 175mm valley lay boards and fix reducing trusses over to complete roof intersection. Fix in accordance with roof truss manufacturers instructions.

Roof Construction

Roof tiles (see site plan for details) on 38 x 25mm softwood treated timber battens on underfelt to BS747 (Type 1F) lapped 150mm horizontally and 100mm vertically. Prefabricated roof trusses at 600mm c/c and pitch as stated in accordance with BS5268, 1985. Provide 25 x 100mm timber bracing and fix in accordance with truss manufacturers instructions. All trusses and gable ladders (if any) to be strapped to 50 x 100mm timber wallplate, the gable wall at verges and ceiling level with 30 x 5mm mild steel anchor and lateral restraint straps to span minimum 3 no. trusses at a maximum of 1200mm c/c. At strap positions provide pack and noggins to trusses. Main contractor to supply local authority building control with roof truss calculations 28 days prior to erection on site. Provide concrete padstones at compound truss supports where required by roof design. Water storage tanks to be installed in accordance with Technical Bulletin No. 4I.T.P.A. with timber support members to span 4 no. trusses.

Fascia and Bargeboards

To be 25 x 75mm PSE with 6 mm groove to accept 6mm thick exterior grade plywood soffit.

Ceilings

To all insulated roof ceilings provide 12.5mm Gyproc Duplex plasterboard of 10kg/m^3 or similar and either 5mm skim or Artex finish. To remaining ceilings provide 12.5mm Gyproc plasterboard or similar with finishes as above.

Ground Floor Construction

65mm sand/cement screed on 100mm Celotex insulation with perimeter insulation to screed on 1200 gauge polythene d.p.m. on 100mm concrete oversite on minimum 150mm, maximum 600mm well blinded and compacted hardcore. Wall d.p.c. to lap floor d.p.m. by a minimum of 50mm.

Lintels

All coded lintels as stated in Schedule or marked on plan to be by 1.G. To be installed in strict accordance with manufacturers instructions. Form d.p.c. cavity tray above all lintels. To all exposed lintels i.e. not sheltered from overhanging eaves, etc. to have proprietary weepholes to joints of brickwork at approximately 450mm c/c. To be confirmed on site with Building Control Surveyor

Opening at eaves level to be L1/E lintels by I.G. or similar approved.

Sub-structure Walling

100 mm Class A dense concrete blocks. Bitumen felt d.p.c. to external walls 150mm above ground level. Weak mix infill to base of cavities to terminate 225mm below lowest d.p.c. level.

Foundations
As indicated on plan provide concrete strip foundations. To cavity walls provide 700mm wide x 225mm thick and to 100mm walls provide 450mm wide x 225mm thick, unless noted otherwise. To non-load bearing internal walls thicken out ground floor oversite concrete to 450mm wide x 200mm thick. Widen foundations at chimney breast accordingly and make 300mm thick. Foundations to be taken down to an approved firm base, subject to local authority specifications. Concrete to be ST3 grade unless noted otherwise. Proximity of existing and proposed trees are to be taken into account in accordance with N.H.B.C. chapter 4 when determining foundation depth.

All windows to give minimum 1/20th of floor area as ventilation and to be double-glazed.

Glazing
All windows and doors to be double-glazed with Pilkington 'K' glass or similar approved, to achieve either WER Band C or a 'U' value of 1.6W/m^{2}K.

Electrical Work
All electrical work required to meet the requirements of Part P (electrical safety) must be designed, installed, inspected and tested by a person competent to do so. Prior to completion of the works the council must be satisfied that either:-

a) an electrical installation certificate issued under a competent person's scheme has been issued

or

b) an appropriate electrical installation certificate has been issued for the work, and that it has been signed by a person competent to do so.

External Cavity Wall Lintels for 300mm Cavity Walls
IG type L1/S100 unless stated otherwise. To be confirmed on site with Building Control Surveyor.

Purge ventilation to windows
For a hinged or pivot window that opens 30° or more the height and width should be at least 1/20th of the floor area of the room.
For a hinged or pivot window that opens less than 30° the height and width should be at least 1/10th of the floor area.

Background Ventilation
Background ventilation is to be provided by trickle ventilators to the tops of windows. Use trickle vents offering 8000mm^2 per window head. Ventilation for whole extension to be 60,000mm^2

External Wall Construction (300mm cavity)
100mm facing brickwork (see site plan for details)
100mm cavity with a 90mm (min) kingspan kooltherm k106 cavity board insulation or similar approved to achieve a u-value of 0.18W/m^{2}K
100mm inner skin of tarmac Hemalite blocks.
Cavity wall ties to be stainless steel type spaced 900mm horizontally and 450mm vertically to BS1243;1978.
Internal block walls to receive 10mm sand/cement render and skim. Robust details in accordance is T50,2001

Mechanical Ventilation
Mechanical ventilation systems are to be commissioned in accordance with Regulation 44 (where they can be tested and adjusted to provide adequate

ventilation) and a copy of the commissioning notice is to be given to the local authority not more than 30 days after completion of the works.

Windows & Doors should either be WER band B or better or have a 'U' value of 1.4 W/M2K

A means of escape window shall be fitted to the dining room with an area of 0.33m2 and minimum dimensions of 450mm with the base of the opening with 1100mm of floor level.

Internal floors to have resistance to sound in accordance with requirement E2 of the building regulations 2010.

Brickwork below d.p.c. to be F.L. quality

All soakaways to be minimum 1m deep.

All external lintels to be insulated type.

All external joinery to be fully draught proofed.

Loft hatch to be draught sealed and latched shut.

Insulation in roof space to meet with insulation in external cavity walls to prevent cold bridging.

To all domestic floors to external perimeter walls provide 25mm thick insulation dressed up walls to prevent cold bridging.

Seal all openings and joints to perimeter walls.

All doors, windows and any loft hatches to be effectively sealed and draught proofed.

First floor habitable rooms shall have means of escape windows with openings of at least 450mm wide x 450mm high and a minimum area of 0.33m^2. Escape windows to be within 1.1m of floor.

Smoke detectors to be to BS5839/6:2004, Grade D, Category LD3.