

NOTE:

- This scheme is subject to Planning Approval, Building Regulations and all other necessary consents.
- Dimension areas and levels where given are subject to a full site survey and should be checked prior to manufacture / construction
- This drawing should be read in conjunction with drawings 001, 002, 010, 011, 012, 013, 014 and Structural Engineers Calculations and details.
- All external materials to be approved by local Planning Authority.
- Any substitution of materials / products noted within specification below to be with materials / products of an equal or better performance. All details of substitutions to be submitted to Local Authority Building Control for approval prior to installation.
- DO NOT SCALE.
- All materials and workmanship to conform to relevant British Standards and codes of practice any relevant agreement certificate.
- All externally exposed timber and timber embedded within structure to be pre treated against fungal attack in accordance with BRE Technical notice 24, 1972
- All existing services (internal & external) to be located prior to commencement of the works & protected / encased if in the vicinity of the works.

GROUND FLOOR:

Beam and block floor built to form min 250mm ventilated void below floor; 1200 gauge polythene DPM dressed up perimeter walls to lap with horizontal DPC, DPM to be bonded to vertical faces with RIW 'Sheetseal', all joints in DPM to be taped and sealed with min 300mm laps; 75mm Kingspan Thermalfloor Insulation with 20mm vertical insulation to perimeter walls up to FFL; 500 gauge polythene separation layer; 75mm sand cement screed in accordance with BS 8204 pt1 with A98 reinforcement at mid point, ensuring min cover of 25mm. Floor to be laid with tolerance of +/- 3mm per 3m, FFL to match existing. Overall floor construction to provide a min U Value of 0.22W/m2K.

Provide ventilation to floor void with Rytons or similar air bricks with periscope vents at 1500mm centres to all cavity walls. Ventilation to be maintained to existing floor voids, retain / adapt existing air bricks to suit.

FOUNDATIONS:

All foundations to be in accordance with Structural Engineer's drawings & specifications. Where Foundations are deeper than 1.5m 50mm Claymaster board is to be installed to the inside face of the foundation from 500mm above the bottom of the foundation.

UPPER FLOORS:

22mm T & G Chipboard screwed to timber floor joists as specified by Structural Engineer with suitable strutting at mid points of span from 2.5m to 4.5m and two rows spaced equally to spans over 4.5m. Joists to be supported on galvanised joist hangers built into load bearing blockwork walls. Joists under parallel partitions & trimming openings to be doubled up and bolted together at 600mm centres. Provide 30x5mm galvanised steel straps at 1500mm centres screwed to a min of 3 courses of blockwork in two places per course to all sides of floor or as specified by the Structural Engineer. All edges of floor to be adequately supported on noggins. Should the need occur for notching of joists or drilling holes in them for the passage of services then it is to be carried out in accordance with NHBC recommendations. Joists to be underlined with 1 layer of 12.5mm plasterboard (moisture resistant boards to be used in all 'wet areas') tightly butt jointed together with staggered joints to receive skim finish. Ceilings to be fully sealed with perimeter walls to maintain airtight envelope. Ceiling to provide minimum mass of 10kg/m2. 100mm thick mineral wool quilt to be laid between all new joists.

PITCHED ROOF CONSTRUCTION :

New roof (pitch as existing) to comprise of Marley Acme single camber plain tile in colour to match existing; 50x25mm treated softwood battens on a layer of breathable sarking felt - Kingspan Nilvent or similar, all laps to felt to be min of 150mm or as recommended by manufacturer; on cut timber roof framing to structural engineers design & details. 65x100mm treated SW wall plate bedded in 1 in 4 cement / sand mortar strapped down to external cavity walls with 30x5mm galvanized steel straps at 1500mm centers and screwed to a min of 3 courses of block with 2No fixings per course. All timbers to be treated at source with preservatives, tannalised, vac-vac or similar approved, cut ends to be treated with preservatives on site.

The roof is to be ventilated via proprietary eaves ventilators to provide equivalent of continuous 25mm ventilation gap. Roof to be ventilated at ridges, hips and abutments with proprietary ventilators providing equivalent ventilation of continuous 10mm gap. All proprietary ventilators to incorporate insect screening.

Roofs to be insulated within flat ceiling area with 1 layers of 150mm mineral wool quilt layed between ceiling joists & 1 layer of 100mm mineral wool quilt over ceiling joists, the second layer to be laid perpendicular to and across the ceiling joists to provide a min U Value of 0.14W/m2K. Ensure min 50mm ventilation gap is maintained at perimeters with proprietary ventilation tray.

Roofs to be insulated to pitched ceiling areas with 100mm Kingspan K7 board fixed between rafters allowing a minimum 50mm clear ventilation void with 42.5mm Kingspan K118 insulated plasterboard internally below rafters to provide a min U Value of 0.18W/m2K. 100mm K7 board to be held in place with 50mm timber batten providing continuous 50mm ventilation path between insulation and sarking membrane.

New UPVC Fascia and soffit boards fixed to rafter feet, size, level and profile to match existing. Ceilings to be fully sealed with perimeter walls to maintain airtight envelope.

LIMITING AIR LEAKAGE:

In accordance with DTLR 'Robust Construction Details in Dwellings & Similar Buildings' a mastic seal should be provided around all external joinery, both internally and externally, and to the underside of window boards at junction with plasterboard / plaster finish. Any service pipe passing through external envelope must be sealed with an approved mastic gap filler. Ceilings are to be fully sealed at junction with enclosing walls. In addition a ribbon of plaster shall be provided to the 4 sides of any opening within the external wall.

EXTERNAL CAVITY WALLS:

All masonry to be constructed in accordance with BS 5628 pt 3. Roughcast render finish above DPC to match existing; 100mm Celcon standard blockwork external leaf with properly pointed courses and perpends laid in gauged mortar mix to block manufacturers recommendation (painted F2 quality facing bricks below DPC); 100mm cavity formed using stainless steel wall ties by Ancon Clark ref ST1, 225 long staggered at 750mm horizontal and 450mm vertical centres, reducing to 225mm centres at all corners and reveals. All wall ties to slope towards external leaf & commence 1 course above DPC (subject to joint locations). Cavity to be closed at all jams and cills with proprietary insulated DPC cavity closers, 'Thermabate' or similar. The cavity insulation is to be full fill 100mm Knauf Dritherm Ultimate 32 cavity wall batts. Overall wall construction to provide a min U Value of 0.24W/m2K. The insulation is to be installed in accordance with manufacturers guidelines. The inner leaf is to be 100mm Celcon 'Standard' aircrete blocks (600kg/m3) laid in gauged mortar mix to block manufacturers guidelines & compatible with mortar to external leaf. Walls to be finished internally with 13mm 2 coat plaster. Lintels to openings within cavity walls to be IG type L1/S 100 or similar, cavity section to be insulated with no continuous bottom plate, minimum end bearing to be 150mm, to be installed in accordance with manufacturers guidelines. Cavity trays to be provided above all opening and abutments, to extend a min of 150mm beyond each side & turn up at stop ends. Cavity weep holes to be provided over lintels & cavity trays at min 450mm centres, min 2 No per opening. Movement joints to be installed within blockwork walls where indicated on plans, maximum spacing of movement joints to be 6m, Installation and spacing of movement joints to be in strict accordance with NHBC guidance. Cavity to be filled at low level to 225mm below DPC with lean mix concrete. All brickwork below DPC to be constructed from F2 quality bricks. Where new walls abut existing walls perpendicular, Ancon Clark or similar wall starters are to be used.

NEW & EXISTING PARTY WALL:

New party wall to consist of 100mm thick dense concrete blockwork (minimum density of 1840kg/m3) laid flat to provide 215mm thick wall in class (iii) mortar. Wall to be lined both sides with 15mm Soundbloc plasterboard on adhesive dabs with skim finish.

Roughcast render to be removed from existing external wall encased by new construction; wall to be repointed as required to receive 15mm Soundbloc plasterboard on adhesive dabs with skim finish. Wall to be built up in new roof void to underside of roof finish and fire stopped with Rockwool linear firestop or similar.

All existing openings to side elevation to be infilled with 215mm brickwork toothed into existing walls.

INTERNAL BLOCKWORK WALLS:

Internal blockwork walls to be built from minimum 3.6kN blocks in class(iii) mortar. Walls to received 2 coat lightweight plaster finish to both sides.

INTERNAL STUD WALLS:

Internal stud walls to be 75mm timber studs at min 600mm centres (unless noted by engineer) clad either side with 12.5mm (15mm to WC walls) plasterboard (moisture resistant boards to be used in all wet room locations) to receive skim coat finish. Voids to be insulated with 50mm Isowool 1200 insulation. Partitions to be installed in accordance with British Gypsum standard details. Knauf Aquapanel or similar board to be utilised in shower areas.

DPC's:

Pitched polymer or polyethylene 2000 gauge ribbed / gridded black polythene laid in continuous strips, to full width of masonry. All DPC's to be lapped and bonded at junctions, corners and angles in accordance with manufacturers recommendations. Cavity wall to have pitch polymer DPC minimum 150mm above adjacent external ground level, stepped as necessary. 150mm min laps to all joints and to project 2mm from outer brick face. At external doors fit additional layer of DPC tray 150mm above common level to extend 1m either side of jambs.

STAIRCASE:

New painted SW winder stair consisting of 13no equal risers at 204mm (overall rise 2650mm) & goings of 227mm providing a maximum pitch of 42 degrees. Wall mounted handrail set 900mm above pitch line. Minimum headroom at centre line of stair 2.0m.

WINDOWS & DOORS:

All windows and doors to be glazed with sealed double glazed units with Low-E glass. In compliance with the Building Regulations glazing in 'critical locations' i.e. between FFL and 1.5m above to doors, side lights & patio doors and between FFL and 800mm above to windows, the glass shall be laminated or toughened in accordance with BS 6206 1981.

Windows to all habitable rooms to provide rapid ventilation of min 1/20th of the rooms floor area via opening lights, with part of the opening 1750mm from FFL. All new windows to be provided with trickle vents providing 8000mm2 free air background ventilation to habitable rooms and 4000mm2 to non-habitable rooms.

Bedroom windows to allow emergency egress - min unobstructed area of 0.33m2 and be at least 450mm in all directions, with bottom of opening area set a maximum 1100mm above FFL.

All new windows and doors to be fully draught stripped to limit the infiltration of cold air and maintain airtight envelope. New UPVC windows to provide a min area weighted U Value of 1.4W/m2K with a minimum G value of 0.63 (BFRC or Fensa certificates are to be provided to building control).

New powdercoated aluminium bifold door by origin or similar approved to provide a min area weighted U Value of 1.4W/m2K. Window / doors frames to clpak DPC cavity closers by min 30mm.

All new windows & doors to be PAS24: 2012 certified. Certificates to be provided to building control prior to completion.

STEELWORK:

Steel in accordance with structural engineers details. All steel to bear onto pad stones to Structural Engineers details. Steels supporting 1st floor construction to be fire protected to ensure 30 minutes integrity. Where possible steels to be fully encased with 12.5mm fireline plasterboard and intumescently sealed. Where encasement is not practical steel is to receive intumescent paint finish to provide a minimum of 30 mins fire protection.

MECHANICAL VENTILATION:

Mechanical extract to Kitchen & Utility Rooms to achieve extract rate of 60 litres / second where located away from oven / hob and 30 litres / second where located over. Mechanical extract to Bath & Shower Rooms to achieve extract rate of 20litres / second with 15mm overrun of fan, control to be connected to light switch. Mechanical extract to WC to achieve extract rate of 6 litres / second with 15mm overrun of fan, control to be connected to light switch. Locations noted on general arrangement plans.

BELOW GROUND DRAINAGE:

Excavations from drain trenches to be not less than the external pipe diameter plus 300mm, and to the true line and gradient. Trench sides to be vertical to at least 300mm above crown of pipe. Ensure the trench bottom is free of hard and soft spots and trim by hand to 50mm below required level by hand. Lay pipe in trench to correct line and level on 50mm class F granular material. After testing drain runs, surround with selected as dug material free from vegetable matter, rubbish, stones etc compacted by hand to a level not less than 150mm above crown of pipe. Trench backfilled with material excavated from trench and well compacted in layers of no more than 300mm (so as not to use heavy compaction machinery until a min cover of 600mm has been achieved) Soil and vent pipes and stub stacks discharging to 100mm uPVC pipe work to BS4514 surrounded in pea shingle, falling at true and regular gradients to new inspection chamber cut into existing drain run. Pipe work generally to be 150mm diameter Hepworth 'supersleeve' clay pipe drainage system with flexible joints to BS 65. Inspection chamber in proprietary plastic construction, 450mm diameter bedded on 100mm granular fill and backfilled with 150mm of same material.All drainage work in accordance with BS8301 and manufacturers recommendations. All drainage works and testing to comply with the requirements of Local Authority Building Control.

WASTE PLUMBING:

All waste plumbing to be in accordance with BS EN 12056-2. Provide 75mm antisiphon traps to all sanitary appliances, and 40mm diameter uPVC waste pipes throughout except where pipes become common, increase to 50mm diameter. All to discharge to soil pipes in separate sealed connections. Ensure all pipe work has rodding access points at any change in direction with corresponding access panels within boxing. All wastes to connect into existing or new SVP's as indicated on drawings. New SVP's to be UPVC to BS EN 1329 and should finish a min of 900mm above any opening windows within 3,m with a perforated cover over which does not restrict air flow and access point for rodding at base. In any event the minimum waste sizes for the following fittings should be used; Kitchen Sink 40mm dia; Washing Machine 40mm dia; Wash Hand Basin 40mm; Dishwasher 40mm dia; Shower 40mm dia; Bath 40mm dia; WC Pan 100mm dia. Overflow pipes to WC cistern should be unobstructed & located so that water is thrown clear of the building; care should be taken so that water is not discharged over balanced gas flues, windows or doors.

Kitchen and utility room waste locations to be coordinated with kitchen supplier / installer.

RAINWATER GOODS / DRAINAGE:

UPVC gutters and downpipes - profile to match existing. Rainwater from new downpipes to discharge into new soakaways located a minimum of 5m from building. Soakaways to be sized in accordance with BRE digest 365 following an on site percolation test; invert of pipes to be a minimum of 600mm below base of soakaway; to be lined with geotextile sheet & filled with suitable rubble / granular material; access chambers to be provided within soakaway with 225mm perforated pipe provided to base of soakaway; soakaway to be backfilled with minimum 600mm topsoil.

HEATING AND HOT WATER SYSTEM:

Central Heating and hot water system to comply with Approved Document L. To be designed by specialist sub contractor in accordance with Domestic Building Services Compliance Guide & submitted for Local Authority Building Control Approval prior to installation. Installation to incorporate thermostatic valves to all radiators.

New boiler to be Ideal Logic Code Combi ESP 1 26 as specified within SAP Calculations.

Commissioning certificates to be provided to building control prior to project completion.

ELECTRICAL INSTALLATION

All electrical work to comply with Approved Document P (Electrical Safety), must be designed installed, inspected and tested by a person competent to do so. Prior to completion the council must be satisfied that an appropriate electrical installation certificate has been issue for the work, and it has been signed by a person competent to do so. The Local Authority will need to inspect the installation at first fix stage, and will require the installation to be tested on completion by others, and evidence of a test certificate provided before a Building Regulation Completion Certificate can be issued. All socket, switch & light fittings to be located to clients requirements and in accordance with Approved Documents P & M. All switches, sockets and controls throughout the dwelling to be installed with their centre line between 450 & 1200mm above floor level. Consumer unit to be mounted so that swithces are 1350 - 1450 above floor level.

Mains operated interlinked heat and smoke alarms to be provided where noted on plans.

Light fittings that will only fit lamps with a lumious efficacy greater than 45 lumens per circuit-Watts are to be installed, location to be agreed with client.

HIGH SPEED ELECTRONIC COMMUNICATION

Install duct through external wall within living room for installation of high speed electronic communication network with network termination point living area. Location and external ductwork to be agreed with service provider.

NEW ELECTRICAL FITTINGS & ACCESSORIES

Lighting type and switching arrangements to be agreed with client. Install fire rated insulation guards where recessed lighting is installed within insulation. Locations to be agreed with client. Sockets & Switches - MK white plastic fittings.

WATER SUPPLY

- Cold water supply - New incoming supply & meter location to be agreed with Anglian Water.
- Potable water supply to be provided to Kitchen sink location.
- Maximum hot water temperature to baths to be restricted to 48 degrees.

NEW SANITARY FITTINGS & BRASSWARE

To be Supplied by client for contractor fitting unless noted otherwise. Contractor to allow for all sundry items to complete installation.

Water consumption of Sanitary Fittings & White Goods to be in accordance with Approved Document G. Maximum fittings consumption as noted below:

- WC 6/4 litres dual flush
- Shower 10 l/min
- Bath 185 litres
- Basin taps 6 l/min
- Sink taps 8 l/min
- Dishwasher 1.25 l/place setting
- Washing machine 8.17 l/kilogram

Proof of consumption to be provided to building control prior to completion.

TILING:

Type and locations to be agreed with client. Floor tiles to be laid on Ditra Matting or similar de-bonding matt forming waterproof membrane.

FLOOR FINISHES

TBC by client

NEW INTERNAL JOINERY

Skirtings and architraves to be painted SW. Profile to clients requirements. New doors and ironmongery to client requirements - clear openings to ground floor doors as noted on floor plans.

PRE COMPLETION SOUND TESTING

Pre completion sound testing to be carried out by suitably qualified Acoustician as required by Approved Document E. Party wall between units to be tested to achieve minimum 43dB airborne sound insulation (D/nT,w + C/tr) in accordance with Table 0.1a in Part E of the Building Regulations. New internal walls to be tested to achieve a minimum 40dB airborne sound insulation (D/nT,w + C/tr) in accordance with Table 0.2 in Part E of the Building Regulations.

PRE COMPLETION AIR PRESSURE TESTING

Pre completion air pressure testing to be carried out within new dwelling by a person or company registered with the Independent Air Tightness Testing Scheme Ltd or the Air Tightness & Testing & Measuring Association.

Pressue test to achieve 5m3 / (h-m2) at 50 Pa as noted within SAP Calculations.

Certificate to be provided to building control on completion.

COMMISSIONING / PRECOMPLETION AIR FLOW TESTING OF VENTILATION SYSTEM:

Commisioning and testing of mechanical and natural ventilation systems to be carried out in accordance with 'The 'Domestic Ventilation Compliance Guide 2010'. Test results and commissioning certcates to be provided to Building Control prior to project completion.

EPC & TARGET CO2 EMMISION RATES:

'As Built' EPC and SAP calculations to be provided to building control prior to completion of project.

0		1 to 50		5m	
BUILDING REGULATIONS					
Project/Client:			Project No:		
27 Bedford Road			Project Number		
			Dwg No:		
			A116		
			Rev:		
			2		
Drawing:			Scale:		
			@A1		
Specification			Drawn By: Date:		
			Author		
			Checked By: Date:		
			Checker		



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