
Construction Specification

Conversion of Public House
into four dwellings

Fiddlers Inn
Hemingfield
S73 0QD

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CDM Regulations

Contractor to comply fully with managing for Health and Safety: Construction (Design and Management Regulations 2007) whilst constructing dwelling for a private individual

1.0 External Works

1.1 Site Preparation

Ground for development shall be inspected and prepared to comply with Building Regulations C1/2/3 and to the satisfaction of the Building Inspector by the removal of deleterious matter.

1.2 Below Ground Drainage

The underground drainage design shall be carried out in strict accordance with engineers/agents separate details and specification and comply in full with Approved Document H of the current Building Regulations

1.3 Above Ground Drainage

All works to comply with Approved Document H and BS 5572:1994

Waste runs to new appliances as follows:

	min. dia (mm)	max. run (mm)
W.C.	100	No limit
Shower	40	3000
“	50	4000
Washbasin	32	1700
“	40	3000

Use 75mm deep seal traps or if max. run is exceeded use re-sealing trap.

Sanitary fittings at ground floor level may connect directly into the drainage systems providing that the invert from the floor to the drain is less than 1300mm. Branch discharge pipes to stacks to be at least 450mm above invert of tail of drain.

1.4 Soil & Vent Pipes

External soil and vent pipes to terminate with a proprietary mesh guard at least 900mm above any adjacent openings that are within 3.0m.

Internal SVP's to be connected to flexible pipework within roof space and ducted to an approved ridge or tile vent terminal in all cases. Termination point to be at least 900mm above any openings within 3.0m.

Alternatively the SVP's may terminate in a suitable Air Admittance Valve (AAV), complying with prEN 12380, (excluding the SVP at the head of the drainage run). The height of the valve must be above the level of the highest fitting connected to the stack.

Internal SVP pipes to be wrapped in 25mm insulation quilt and boxed in two layers 12.5mm plasterboard. Offsets within the wet portion of SVP's must be formed in accordance with BS 5572 and provided with suitable access for rodding.

2.0 Internal Work

2.1 Internal Partitions

Existing timber studs to be filled with mineral wool minimum density 10kg/m^3 . 12.5mm plasterboard either side with 3mm skim finish.

2.2 External Wall Linings (including unit separating walls)

Internal linings face of external walls to comprise 1 layer of 70mm thick Gyproc Thermaline Super wall liner supported on GypLyner System. Linings to window reveal to be 18mm Gyproc Thermaline Reveal fitted on dabs. To achieve min u-value $0.27\text{ W/m}^2\text{K}$.

2.3 Ground Floor Ceilings

2 Layers of 15mm Soundbloc, all joints staggered, fixed to MF connecting clips fixed to MF primary support hangers at 1200mm cts. MF ceiling system hung from existing floor joists with GAH2 acoustic hangers. All board gaps sealed with acoustic sealant.

2.4 Ground Floor

Existing floor joists to be insulated between from below with EITHER 150mm Rockwool Flexi or 70mm Kingspan TF70, to achieve minimum U-value of $0.22\text{ W/m}^2\text{K}$.

3.0 M & E

3.1 Ventilation

Bathrooms are to have a mechanical extractor fan capable of extracting at least 15 litres per second, ducted to external air, which can be operated intermittently, with an over-run of 15 minutes, in addition to window openings and trickle ventilators as described.

Kitchens are to have either a mechanical extractor fan capable of extracting 60 litres per second, or a cooker hood capable of extracting at least 30 litres per second, both ducted to external air, in addition to window/door openings and trickle ventilators as stated above.

3.2 Ventilation Generally

All habitable rooms are to have opening windows with a combined area of not less than one twentieth of the room floor area; part of the opening area is to be at least 1750mm above the room floor level.

At least one window/door opening in each room is to incorporate background ventilation by means of a trickle ventilator incorporated into the top of the frame capable of providing background ventilation equivalent to 5000mm² for habitable rooms, and 2500mm² for non-habitable rooms.

3.3 Electrical Installation

Electrical installations to be in accordance with I.E.E Regulations and the requirements of the supplying authority. All installation work to be carried out by qualified electricians fully conversant with BS 7671. All electrical work is to comply with the requirements of Part P (electrical safety) and must be designed, installed, inspected and tested by a person competent to do so, with an appropriate BS 7671 electrical installation certificate issued on completion.

Switches and sockets in habitable rooms to be fitted between 450mm and 1200mm above finished floor level to comply with Building Regulations – Part M.

Mains fed smoke detectors to be installed where indicated. All linked to sound together in the event of a fire.

Vertical electrical cable to be directly above or below outlet or switch. Horizontal electrical cables to be installed within 150mm of ceiling or within band 150mm and 300mm above floor level.

4.0 Fire Safety

4.1 Self-Contained smoke alarms:

To protect dwellings to be mains operated conforming to BS 5446: Part 1 being permanently wired to a separately fused circuit at the distribution board. Alarms to be positioned in circulation areas within 7.5m of a habitable room door. Alarms to be fixed min. 300mm away from any wall or light fitting and fitted in complete accordance with the manufacturer's instructions and also in a position to carry out routine maintenance. Prospective occupiers to be provided with the manufacturer's instructions concerning the operation and maintenance of the alarm system.

4.2 Existing Flats above

The proposed conversion work is not to affect or alter the means of escape from the units at first floor. The two units (2 & 3) are to have internal fire doors so as not to increase the fire risk to the protected route.

4.3 Internal Doors

Internal doors to all habitable rooms within the Units 2 & 3 are to be FD20's.

Internal doors to have minimum unobstructed opening of 750mm and have fire rating shown on key adjacent floor plans.

4.4 Protected Stairway

Minimum 30 minutes fire-resistant construction to the protected route. Self-closing FD30S Fire doors fitted with self-closing devices to be provided to all entrance doors opening onto protected lobby. FD20S fire doors to be provided to internal habitable rooms where travel distance from entrance door exceeds 9m.

4.5 Surface Linings

Surface linings of walls/ceilings to Class 1.

4.6 Windows

Windows to bedrooms in all units are to have compliant means of escape windows. Each bedroom shall have at least one window that is no more than 1100mm floor to cill and has a minimum openable area of 750mm x 450mm.

The window in Unit 3 living room may need to be fire resistant glazing due to first floor external stair passing by. Requirement to be confirmed on site by BCO.

4.7 Communal Areas

Ground floor communal area to have emergency lighting as indicated on the plan. Illuminated exit sign required above final exit. Doors into the flats and general store room to be Self-closing FD30S Fire doors fitted with self-closing devices.

4.8 Compartmentation

All SVP pipes passing through compartment floors and walls to be fitted with 1 hour fire resisting fire stop collars.

4.9 Basement Ceiling

Basement ceiling to receive two layers of 12.5mm fire line plasterboard with staggered joints and 3mm skim finish. To provide minimum 1 hours fire resistance.

5.0 Part L

5.1 Target CO₂ Emission Rate (TER)

Minimum energy performance requirement to be assessed using the 2009 edition of Governments Standard Assessment Procedure (SAP 2009).

5.2 Limiting U-Value Standards (W/m²K)

Element	Area Weighted Average U-Value	Limiting U-Value
Wall	0.28	0.70
Floor	0.22	0.70
Windows	1.8	3.3

5.3 Target CO₂ Emission Rate (DER)

To be no worse than the TER and calculated in the same method for the TER incorporating any performance specification changes.

DER to be calculated using a fixed assumption of 75% low energy lighting.

Provide internal energy efficient light fittings (lamps having an efficacy greater than 40 lumens per circuit-Watt) at a ratio on 3:4.

Provide external light fittings such that EITHER the lamp capacity does not exceed 150W per light fitting or the lighting automatically switches off:

- i. When there is enough daylight; and
- ii. When it is not required at night

5.4 Heating and Hot Water Systems

To have efficiency not less than that recommended for its type in the Domestic Heating Compliance Guide (DHCG) and the provision of controls that meet the minimum control requirements as given in the DHCG for the particular type of appliance and heat distribution system.

5.5 Gas Installations

Gas installations to be in accordance with the British Gas Corporations regulations and the requirements of the supply authority. All installation works to be carried out by a 'Gas Safe' registered fitter.

An information plate as required by regulation J4 of the Approved Documents should be provided adjacent the boiler positions.

Commissioning certificates for all appropriate appliances should be provided for approval.

5.6 Heating

Space heating to be provided within rooms by electric space panel heaters.

Hot water provided via pressured cylinder factory insulated with minimum 35mm PU foam having zero ozone depletion potential and minimum density of 30kg/m and fitted with thermostat. Cylinder to comply with BS 1566 Part 1 and all pipes within 1.0m of cylinder to be insulated with 25mm pre-formed pipe insulation, ditto to any unheated spaces such as floor voids and lofts. Central heating system to be fitted with electronic timer control to ensure boiler is switched off during periods when no heat is required.

5.7 Draught Sealing

All pipes entering boxing or passing into unheated spaces to be sealed against draughts. Large diameter pipes such as SVP's to be fitted through close fitting holes where passing through plasterboard ceilings, walls and boxing's etc.

5.8 Windows

Double glazed sealed units utilising Pilkington K glass to achieve a U-value of 1.8 W/m²K.

Glazing less than 800mm above floor level to be toughened safety glass to BS6206:1981 or be guarded to a height of 900mm above floor. All glazed panels in doors to be toughened glass to a height of minimum 1500mm, and a minimum of 300mm each side of the door. Panels of glass less than 0.5m² to doors may be in 6mm annealed glass in lieu of toughened safety glass.

All windows to bathrooms, WC's and en-suites to be obscured glazed to outer panes as standard.

5.9 EPC's

Energy Performance Certificates to be provided for each unit prior to completion.

6.0 General

All windows and doors to be set back 85mm from face of brickwork

.All structural timbers to be pre-treated with an organic solvent preservative treatment

.All corridors and landings to have a minimum clear finished width of 1000mm.

6.1 Sound Testing

The building will require sound testing to demonstrate compliance with requirement E1 of the Building Regulations as part of the construction process. Pre-completion testing may also be required at the request of Building Control. Please note: The first floor is comprised of four residential flats created in 1974.

6.2 Water Calculation

Each flat is to have a water consumption calculation carried out by competent person. Each unit is to not exceed the limit of 125 litres/per person/per day.