## **FLUES & FIREPLACES**

NOTICE PLATES FOR HEARTHS AND FLUES: TO SATISFY THE REQUIREMENTS OF REGULATION L5 A DURABLE NOTICE SHALL BE PROVIDED

I. THE LOCATION OF THE HEARTH, FIREPLACE (OR FLUE BOX) OR THE LOCATION OF THE BEGINNING OF II. THE GENERIC TYPE(S) OF COMBUSTION APPLIANCES THAT CAN BE SAFELY ACCOMMODATED;

III. THE TYPE AND SIZE OF THE FLUE (OR ITS LINER IF IT HAS BEEN RELINED) AND THE MANUFACTURER'S NAME; AND IV. WHO INSTALLED THE HEARTH, FIREPLACE, FLUE OR CHIMNEY AND THE DATE OF INSTALLATION.

V. FORMAT OF NOTICE PLATE SHALL BE SIMILAR TO THAT SHOWN IN TECHNICAL BOOKLET L NOTICE PLATES SHALL BE ROBUST, INDELIBLY MARKED AND SECURELY FIXED IN AN UNOBTRUSIVE BUT OBVIOUS POSITION WITHIN THE BUILDING SUCH AS: -

I. NEXT TO THE ELECTRICITY CONSUMER UNIT; OR

II. NEXT TO THE CHIMNEY OR HEARTH DESCRIBED. FOR FLUE PRODUCTS WHOSE PERFORMANCE CHARACTERISTICS HAVE BEEN ASSESSED IN ACCORDANCE WITH A EUROPEAN STANDARD (EN) AND WHICH ARE SUPPLIED OR MARKED WITH A DESIGNATION, THE INSTALLER SHALL INCLUDE THIS DESIGNATION, UNDER ADDITIONAL INFORMATION, ON THE NOTICE PLATE.

THE FLUE FOR A NON-CONDENSING COMBUSTING APPLIANCE SHALL BE INSULATED SO THAT FLUE GAS DOES NOT CONDENSE DURING NORMAL OPERATION: OR II. THE FLUE FOR A CONDENSING COMBUSTION APPLIANCE SHALL -

A. BE LINED WITH COMPONENTS THAT ARE IMPERVIOUS TO CONDENSATES AND RESISTANT TO CORROSION (BS EN 1443 W DESIGNATION) AVOIDING LEDGES, CREVICES ETC; AND B. A SUITABLE DRAIN SHALL BE FITTED TO THE COMBUSTION APPLIANCE FOR THE DISPOSAL OF CONDENSATE.

THE FLUE TYPE FOR OIL FIRED APPLIANCES: INFORMATION WILL BE PROVIDED FROM THE APPLIANCE MANUFACTURER TO CONFIRM THAT THE OIL FIRED APPLIANCE FLUE TEMPERATURE WILL NOT EXCEED 2500C, AND

THE FLUE SHALL BE BUILT USING FACTORY-MADE COMPONENTS THAT HAVE BEEN INDEPENDENTLY CERTIFIED AS ACHIEVING A PERFORMANCE AT LEAST EQUAL TO THAT CORRESPONDING TO THE DESIGNATION GIVEN IN THE FOLLOWING TABLE FOR THE INTENDED APPLIANCE TYPE, WHEN TESTED TO AN APPROPRIATE EUROPEAN CHIMNEY STANDARD; AND

RE TASTALLED IN ACCORDANCE THE PROVISIONS OF TECHNICAL BOOKLET L AND IN ACCORDANCE WITH THE APPLIANCE MANUFACTURER'S AND COMPONENT MANUFACTURER'S INSTALLATION INSTRUCTIONS.

FLUE PIPE SPECIFICATIONS TO COMPLY WITH TECHNICAL BOOKLET L 2012

A NEW CHIMNEY SHALL BE CONSTRUCTED WITH A FLUE LINER AND MASONRY SUITABLE FOR THE INTEND APPLICATION. THE FOLLOWING LINERS ARE SUITABLE FOR A SOLID FUEL APPLIANCE AS WELL AS BEING GENERALLY SUITABLE FOR OTHER FUELS -

I, A LINER WITH A PERFORMANCE THAT IS EQUAL TO THAT CORRESPONDING TO THE DESIGNATION T400 N2 D 3 G, AS DESCRIBED IN BS EN 1443: ; AND

II. IMPERFORATE CLAY PIPES WITH JOINTING SOCKETS AS DESCRIBED IN BS EN 1457:

FLUEPIPES SHALL BE CONSTRUCTED FROM: -

(A) CAST IRON COMPLYING WITH BS 41

(B) METAL FLUE PIPE APPROPRIATELY DESIGNATED IN ACCORDANCE WITH BSEN 1856: 2 TO SUIT THE APPLIANCE AND TYPES OF FUELS TO BE BURNT

VITREOUS ENAMELLED STEEL PIPE COMPLYING WITH BS 6999: OTHER FLUE PIPES HAVING THE NECESSARY PERFORMANCE DESIGNATION

FOR USE WITH THE INTENDED APPLIANCE.

A FLUE PIPE WITH SPIGOT AND SOCKET JOINTS SHOULD BE FITTED WITH THE SOCKET FACING UPWARDS TO CONTAIN MOISTURE AND OTHER CONDENSATES IN THE FLUE, JOINTS SHOULD BE MADE GAS-TIGHT BY THE USE OF PROPRIETARY JOINTING ACCESSORIES OR, WHERE

APPROPRIATE, BY PACKING JOINTS WITH NON-COMBUSTIBLE ROPE OR FIRE CEMENT. A PLASTIC FLUE PIPE SHOULD BE APPROPRIATELY DESIGNATED IN ACCORDANCE WITH BS EN 14471

TO SUIT THE APPLIANCE, FUEL AND FLUE CHARACTERISTICS. THE USE OF AN OVERSTZED FLUE CAN BE UNSAFE SO A FLUE SHALL BE LINED TO BEDLICE THE FLUE AREA TO SUIT THE INTENDED COMBUSTION APPLIANCE, IF A CHIMNEY HAS BEEN RELINED IN THE PAST USING A METAL LINING SYSTEM AND THE APPLIANCE IS BEING REPLACED, THE METAL LINER SHALL ALSO BE REPLACED, UNLESS IT CAN BE PROVEN THAT IT WAS RECENTLY INSTALLED AND IT CAN BE SEEN TO BE IN GOOD CONDITION.

USE OF FLEXIBLE METAL FLUE LINERS FOR THE RELINING OF CHIMNEYS:

A CHIMNEY MAY BE RELINED USING A FLEXIBLE METAL FLUE LINER, APPROPRIATELY DESIGNATED IN ACCORDANCE WITH BS EN 1856 : 2 TO SUIT THE APPLIANCE, FUEL AND FLUE GAS CHARACTERISTICS. FLEXIBLE FLUE LINERS SHOULD ONLY BE USED TO RELINE A CHIMNEY AND SHOULD NOT BE USED AS THE PRIMARY LINER OF A NEW CHIMNEY. THEY CANNOT BE USED TO CONNECT GAS BOILERS TO CHIMNEYS WHERE THE APPLIANCE IS LOCATED IN A FIREPLACE RECESS

FLEXIBLE FLUE LINERS SHALL ONLY BE USED TO RELINE A CHIMNEY AND SHALL NOT BE USED AS THE PRIMARY LINER OF A CHIMNEY.

FACTORY-MADE METAL CHIMNEYS: A FACTORY-MADE METAL CHIMNEY SHALL BE:-

I. A COMPONENT SYSTEM INDEPENDENTLY CERTIFIED AS COMPLYING WITH THE RELEVANT SECTIONS OF BS EN 1856 - 1: OR BS EN 1859: INSTALLED IN ACCORDANCE WITH THE RELEVANT RECOMMENDATION IN BS 7566 PART 1: BS 7566 PART 2: BS 7566 PART 3: AND BS 7566 PART 4: OR

II. A TWIN WALL COMPONENT SYSTEM FOR AN OIL FIRED APPLIANCE AND A SINGLE WALL COMPONENT FOR GAS COMPLYING WITH THE RECOMMENDATIONS OF RS EN 1856 - 1: AND BS EN 1856 - 2: AND INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF BS 5440 - 1: WHERE THE FLUE TEMPERATURES WILL NOT NORMALLY EXCEED 2500C.

WHERE A FACTORY-MADE CHIMNEY PASSES THROUGH A WALL, SLEEVES SHALL BE PROVIDED TO PREVENT DAMAGE TO THE FLUE OR BUILDING THROUGH THERMAL EXPANSION. TO FACILITATE THE CHECKING OF GAS-TIGHTNESS, JOINTS BETWEEN CHIMNEY SECTIONS SHALL NOT BE CONCEALED WITHIN CEILING JOIST SPACES OR WITHIN THE

A FACTORY-MADE CHIMNEY SHALL BE KEPT A SAFE DISTANCE AWAY FROM ANY COMBUSTIBLE MATERIAL. IN NO CIRCUMSTANCES SHALL THE SEPARATION DISTANCE BETWEEN THE CHIMNEY

AND THE COMBUSTIBLE MATERIAL, OR SUITABLE GUARD BE LESS THAN 25MM.

CONFIGURATION OF NATURAL DRAUGHT FLUES SERVING OPEN-FLUED APPLIANCES: THE FLUE SYSTEM SHALL OFFER LEAST RESISTANCE TO THE PASSAGE OF THE FLUE GAS BY MINIMISING CHANGES IN DIRECTION OR HORIZONTAL LENGTH. 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. WHERE BENDS ARE ESSENTIAL. THEY SHALL BE ANGLED AT NOT MORE THE 450 TO THE VERTICAL AND LIMITED TO NO MORE THAN FOUR 450 BENDS WITH NOT MORE THAN TWO OF THESE BEING BETWEEN AN INTENDED POINT OF ACCESS FOR SWEEPING AND EITHER ANDTHER POINT OF ACCESS OF SWEEPINGS

DRY LINING AROUND FIREPLACE OPENINGS: WHERE A DECORATIVE TREATMENT, SUCH AS A FIREPLACE SURROUND, MASONRY CLADDING OR DRY LINING IS PROVIDED AROUND A FIREPLACE OPENING ANY GAPS THAT COULD ALLOW FLUE GAS TO ESCAPE FROM THE FIREPLACE OPENING INTO THE VOID BEHIND THE DECORATIVE TREATMENT SHALL BE SEALED TO PREVENT SUCH LEAKAGE. THE SEALING MATERIAL SHALL BE CAPABLE OF REMAINING IN PLACE DESPITE ANY RELATIVE MOVEMENT BETWEEN THE DECORATIVE TREATMENT AND THE FIREPLACE RECESS.

CONDITION OF COMBUSTION INSTALLATION AT COMPLETION THE FLUE SHALL BE CHECKED AT COMPLETION STAGE TO ENSURE THAT IT IS FREE FROM OBSTRUCTIONS, SATISFACTORILY GAS-TIGHT AND CONSTRUCTED WITH MATERIALS AND COMPONENTS OF SIZES THAT SUIT THE INTENDED APPLICATION.WHERE THE BUILDING WORK INCLUDES THE INSTALLATION OF A COMBUSTION APPLIANCE, ALL THE TESTS SHALL INCLUDE THE FLUEPIPE AND THE GAS-TIGHTNESS OF THE JOINT BETWEEN THE FLUEPIPE AND THE COMBUSTION APPLIANCE DUTLET. A SPILLAGE TEST SHALL BE CARRIED OUT WITH THE APPLIANCE UNDER FIRE. EVIDENCE OF FLUE TEST AND SPILLAGE TEST SHALL BE GIVEN TO DISTRICT BUILDING CONTROL OFFICE.

## **SPACE HEATING**

TABLE F - CRITICAL SPECIFICATION TO ACHIEVE A DESIGN DER LOWER THAN THE NOTIONAL TER DWELLING CONSTRUCTED TO DCLG PUBLISHED "ACCREDITED CONSTRUCTION DETAILS FOR PART F PROVIDE ALL INTERNAL ENERGY EFFICIENT FIXED LIGHTING THROUGHOUT DWELLING

HWC CAPACITY 145 LITRES

HWC FACTORY INSULATED JACKET 50MM THICK

OIL FIRED BOILER TO HAVE SEDBUK EFFICIENCY RATING OF 97 %

FULL ZONE CONTROL TO SPACE HEATING AND HWC

FULL ZONE CONTROL HETAS APPROVED DUEL FUEL OPEN FIRE WITH EFFICIENCY RATING OF 37% ALL EXTERNAL GLAZING IS DOUBLE GLAZED WITH 16MM + AIR GAP SOFT COAT LOW E (EN= 0.05) DESIGN AIR PERMEABILITY TO BE NOT MORE THAN 8M3 /(H.M2) @ 50PA WIRE TYPE WALL TIES TO BE USED IN CAVITY WALL WIRE TYPE TNNER LEAF OF CAVITY WALL TO BE DENSE CONCRETE BLOCK WORK WITH A DENSITY OF 2000KG/M3 BLOCK CAVITY WALL INSULATION HAS THE THERMAL CONDUCTIVITY OF NOT GREATER THAN 0.023 W/M K (E.G. XTRATHERM XT/CW) 65MM THICK

VENTED COPPER HOT WATER STORAGE VESSELS WILL COMPLY WITH THE HEAT LOSS AND HEAT EXCHANGER REQUIREMENTS OF BS1566:

AN UNVENTED HOT WATER STORAGE SYSTEM SHOULD -

(A) COMPLY WITH BS 6700 + A1 OR BS EN 12897 (B) BE A UNIT OR PACKAGED SYSTEM WHICH HAS BEEN CERTIFIED (I) AS MEETING THE RELEVANT REQUIREMENTS OF REGULATION 88 BY A MEMBER BODY OF THE FUROPEAN ORGANISATION FOR TECHNICAL APPROVALS (FOTAL OPERATING A TECHNICAL APPROVALS SCHEME (EG THE BRITISH BDARD OF AGREMENT UNIT MOAT 38:1986 OR (II) BY A CERTIFICATION BODY HAVING NATIONAL ACCREDITATION AS COMPLYING WITH BS EN 12897 (C) HAVE CONTROLS OVER THE HEATING SOURCE OR SOURCES COMPLYING WITH PARAGRAPH 2.7 (D) HAVE A TUNDISH OR TUNDISHES COMPLYING WITH PARAGRAPH 2.13 AND

(E) HAVE A SUITABLE DISCHARGE PIPE OR PIPES COMPLYING WITH PARAGRAPH 2.14 TO 2.17

SAFETY DEVICES

Temperature AN UNVENTED HOT WATER STORAGE SYSTEM SHOULD HAVE THE FOLLOWING SAFETY DEVICES TO LIMIT THE TEMPERATURE OF STORED WATER -(A) A NON SELF-RESETTING THERMAL CUT-OUT ON EACH HEATING SOURCE, COMPLYING WITH EITHER-(I) BS EN 60335 -2-73 + A2 OR (II) BS EN 257, WHEN THE STORED WATER IS HEATED BY A GAS BURNING APPLIANCE AND

(B) ONE OR MORE TEMPERATURE RELIEF VALVES TO BS 6283 PART 2 OR BS EN 1490 WHICH HAVE A TOTAL DISCHARGE CAPACITY (MEASURED IN ACCORDANCE WITH APPENDIX F OF BS 6283 PART 2 OR BS EN 1490) AT LEAST EQUAL TO THE POWER INPUT TO THE WATER. THESE SAFETY DEVICES SHOULD BE FACTORY FITTED AND LOCATED DIRECTLY ON THE STORAGE VESSEL. OPERATE IN SEQUENCE AS THE TEMPERATURE RISES AND BE ADDITIONAL TO ANY THERMOSTATIC DEVICE FITTED TO CONTROL THEM TEMPERATURE OF THE STORED WATER.

AN UNVENTED HOT WATER STORAGE SYSTEM SHOULD HAVE THE FOLLOWING DEVICES TO CONTROL THE PRESSURE WITHIN THE SYSTEM

(A) A PRESSURE REDUCING VALVE COMPLYING WITH BS EN 1567 AND (B) AN EXPANSION VALVE COMPLYING WITH BS EN 1491.

OTHER DEVICES

AN UNVENTED HOT WATER STORAGE SYSTEM SHOULD ALSO HAVE (A) A CHECK VALVE COMPLYING WITH BS EN 13959 TO PREVENT THE EXPANSION OF WATER TO THE COLD (B) AN EXPANSION VESSEL COMPLYING WITH BS EN 6144 SIZED TO ACCOMMODATE ALL THE EXPANSION OF THE WATER ON HEATING.

EACH TEMPERATURE RELIEF VALVE AND EXPANSION VALVE SHOULD DISHCHARGE THROUGH A METAL PIPE EITHER INDIVIDUALLY OR VIA A MANIFOLD, TO A TUNDISH INCORPORATING AN AIR BREAK. WHERE THE DISCHARGE IS INDIVIDUAL, THE PIPE SIZE BETWEEN THE VALVE AND THE TUNDISH, SHOULD BE NOT LESS THAN THE NOMINAL OUTLET SIZE OF THE VALVE. WHERE A MANIFOLD IS USED IT SHOULD BE SO SIZED THAT IT CAN ACCEPT THE TOTAL DISCHARGES FROM WHERE DISCHARGES FROM SAFETY DEVICES MAY NOT BE APPARENT, CONSIDERATION SHOULD BE GIVEN TO THE INSTALLATION OF A SUITABLE DEVICE TO WARN WHEN DISCHARGE TAKES PLACE. THE TUNDISH SHOULD BE LOCATED

(A) VERTICALLY (B) NOT MORE THAN 500MM HORIZONTALLY FROM ANY VALVE DISCHARGING TO IT; (C) WHERE IT CAN BE READILY SEEN BUT NOT CREATE A HAZZARD; AND

(D) IN THE CASE OF A TEMPERATURE RELIEF VALVE - IN THE SAME SPACE AS THE STORAGE VESSEL. THE TUNDISH SHOULD BE CONNECTED TO A DISCHARGE PIPE COMPLYING WITH PARAGRAPH 2.14-2.17.

DISCHARGE PIPES FROM TUNDISHES A DISCHARGE PIPE FROM A TUNDISH SHOULD

(IT) OTHER MATERIAL THAT HAS BEEN DEMONSTRATED TO BE CAPARLE OF SAFETY WITHSTANDING THE TEMPERATURES OF THE WATER DISCHARGED AND IS CLEARLY AND PERMANENTLY MARKED TO IDENTIFY THE PRODUCT AND PERFORMANCE STANDARD (AS BS 7291 -1)

(B) BE AT LEAST ONE PIPE SIZE LARGER THAN THE OUTLET FROM THE SAFETY DEVICE OR MANIFOLD (C) BE NO LONGER THAN THE EQUIVALENT IN HYDRAULIC RESISTANCE OF A STRAIGHT 9M LENGTH OF PIPE UNLESS ITS SIZE IS INCREASED IN ACCORDANCE WITH PARAGRAPH 2.15; (D) HAVE A VERTICAL SECTION OF NOT LESS THAN 300MM LONG BELOW THE TUNDISH BEFORE ANY ELBOWS OR BENDS IN THE PIPEWORK: AND (E) HAVE A CONTINUOUS FALL.

THE DISCHARGE FROM A SAFETY DEVICE WHICH MAY CONSIST OF SCALDING WATER AND STEAM, SHOULD BE VISIBLE AT THE TUNDISH AND SHOULD ALSO BE VISIBLE AT THE FINAL POINT OF DISCHARGE. ACCEPTABLE DISCHARGE ARRANGEMENTS INCLUDE -(A) BELOW A FIXED LOUVRED GRATING AND ABOVE THE WATER SEAL IN A TRAPPED GULLEY; OR (B) DOWNWARD DISCHARGE AT LOW LEVEL BUT NO LESS THAN 100MM ABOVE EXTERNAL SURFACES AND HAVING A WIRE CAGE OR SUITABLE GUARD TO PREVENT CONTACT.

SYSTEM PREPARATION AND WATER TREATMENT:

CENTRAL HEATING SYSTEMS SHOULD BE THOROUGHLY CLEANED AND FLUSHED OUT BEFORE INSTALLING A NEW BOILER. DURING FINAL FILLING OF THE SYSTEM, A CHEMICAL WATER TREATMENT FORMULATION SHOULD BE ADDED TO THE PRIMARY CIRCUIT TO CONTROL CORROSION AND THE FORMATION OF SCALE AND SLUDGE. REASONABLE PROVISION WOULD BE TO FOLLOW THE GUIDANCE ON HOW TO PREPARE AND COMMISSION SYSTEMS GIVEN IN BS 7593: INSTALLERS SHOULD ALSO REFER TO THE BOILER MANUFACTURER'S TUSTALLATION TUSTRICTIONS FOR APPROPRIATE TREATMENT PRODUCTS AND SPECIAL REGUITEMENTS FOR INDIVIDUAL BOILER MODELS, WHERE THE MAINS WATER HARDNESS EXCEEDS 200 PARTS PER MILLION. PROVISIONS SHOULD BE MADE TO TREAT THE FEED WATER TO WATER HEATERS AND THE HOT WATER CIRCUIT OF COMBINATION BOILERS TO REDUCE THE RATE OF ACCUMULATION OF THE LIME SCALE.

COMMISSIONING BOILER AND HOT WATER STORAGE SYSTEM: ON COMPLETION OF THE INSTALLATION OF THE BOILER OR THE HOT WATER STORAGE SYSTEM, TOGETHER WITH ASSOCIATED EQUIPMENT SUCH AS PIPEWORK PUMPS AND CONTROLS. THE EQUIPMENT MUST BE COMMISSIONED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THESE INSTRUCTIONS MUST BE SPECIFIC TO THE PARTICULAR BOILER AND / OR HOT WATER STORAGE SYSTEM. THE INSTALLER MUST GIVE A FULL EXPLANATION OF THE SYSTEM AND ITS OPERATION TO THE USER, INCLUDING THE MANUFACTURER'S USER MANUAL AND OPERATIONAL AND MAINTENANCE INSTRUCTIONS, TO ENABLE THE DWELLING AND ITS FIXED BUILDING SERVICES TO BE OPERATED AND MAINTAINED IN AN ENERGY EFFICIENT MANNER. A NOTICE CONFIRMING THAT ALL FIXED BUILDING SERVICES HAVE BEEN PROPERLY COMMISSIONED SHALL BE PROVIDED AND A COPY SHALL BE GIVEN TO THE DISTRICT BUILDING CONTROL OFFICE. THE NOTICE SHALL BE SIGNED BY A SUITABLY QUALIFIED PERSON.

THE BOILER-BASED SYSTEM WILL HAVE A BOTHER CONTROL THEREFOR TO WHICH CONTROLS ARE WIRED SO THAT WHEN THERE IS NO DEMAND FOR EITHER SPACE HEATING OR HOT WATER, THE BOILER AND PUMP ARE SWITCHED OFF. THE USE OF THERMOSTATIC RADIATOR VALVES (TRV'S) ALONE DOES NOT PROVIDE INTERLOCK.

SPACE HEATING ZONES: DWELLING WITH A TOTAL USABLE FLOOR AREA UP TO 150M2 WILL BE DIVIDED INTO AT LEAST TWO SPACE HEATING ZONES WITH INDEPENDENT TEMPERATURE CONTROL. ONE OF WHICH IS ASSIGNED TO THE LIVING AREA. DWELLING WITH AT TOTAL USABLE FLOOR AREA GREATER THAN 150M2 WILL BE PROVIDED WITH AT LEAST TWO SPACE HEATING ZONES, EACH HAVING SEPARATE TIMING AND TEMPERATURE CONTROLS. SINGLE-STOREY OPEN-PLAN DWELLINGS IN WHICH THE LIVING AREA IS GREATER THAN 70% OF THE TOTAL FLOOR AREA - SUB-ZONING OF THE TEMPERATURE CONTROL IS NOT APPROPRIATE.

THE DWELLING WILL HAVE A SEPARATE HOT WATER ZONE IN ADDITION TO SPACE HEATING ZONES. SEE TABLE F.

TIME CONTROL OF SPACE AND WATER HEATING: TIME CONTROL OF SPACE HEATING AND WATER HEATING WILL BE PROVIDED BY: I. A FULL PROGRAMMER WITH SEPARATE TIMING TO EACH CIRCUIT; II. TWO OR MORE SEPARATE TIMERS PROVIDING TIMING CONTROL TO EACH CIRCUIT: OR

III. PROGRAMMABLE ROOM THERMOSTAT(S) TO THE HEATING CIRCUIT(S), WITH SEPARATE TIMING OF THE HOT

FOR DWELLINGS WITH A TOTAL USABLE FLOOR AREA GREATER THAN 150M2 TIMING OF THE SEPARATE SPACE HEATING ZONES CAN BE ACHIEVED BY: I. MULTIPLE HEATING ZONE PROGRAMMERS: OR II. A SINGLE MULTI-CHANNEL PROGRAMMER; OR III. PROGRAMMABLE ROOM THERMOSTATS; OR IV. SEPARATE TIMER TO EACH CIRCUITS; OR V. A COMBINATION OF (III) AND (V) ABOVE.

TEMPERATURE CONTROL OF SPACE HEATING: SEPARATE TEMPERATURE CONTROL OF ZONES WITHIN THE DWELLING, WILL BE PROVIDED, USING; I. ROOM THERMOSTATS OR PROGRAMMABLE ROOM THERMOSTATS IN ALL ZONES; OR II. A ROOM THERMOSTAT OR PROGRAMMABLE ROOM THERMOSTAT IN THE MAIN ZONE AND INDIVIDUAL RADIATOR CONTROLS SUCH AS THERMOSTATIC RADIATOR VALVES (TRVS) ON ALL RADIATORS IN THE OTHER ZONES: OR

REDUCING THE RISK OF SCALDING

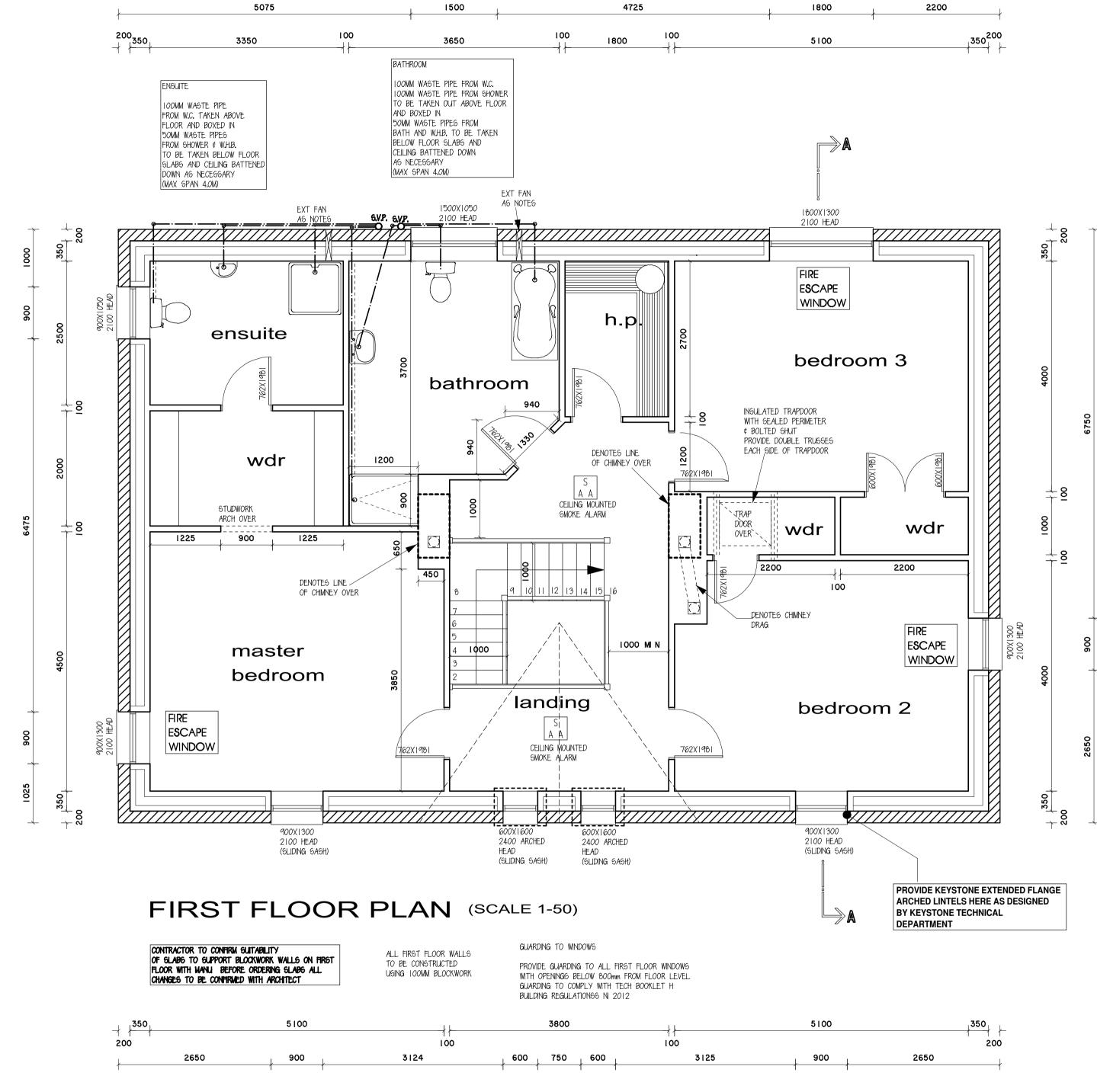
III. A COMBINATION OF (I) AND (II).

SEE TABLE F.

SEE TABLE F.

THE DOMESTIC HOT WATER DISTRIBUTION SYSTEM SHALL INCORPORATE AN IN-LINE TEMPERING VALVE TO ENSURE THAT THE TEMPERATURE OF WATER THAT CAN BE DELIVERED DOES NOT EXCEED 60 DEG C

THE HOT WATER SUPPLY TO ANY FIXED BATH SHALL BE LIMITED TO 48 DEG C BY THE USE OF AN IN-LINE BLENDING



## **CONSTRUCTION DETAILS**

OWELLING TO BE CONSTRUCTED TO DETAILS GIVEN IN THE DEPARTMENT FOR COMMUNITIES AND LOCAL GOVERNMENT (DCLG) PUBLICATION "ACCREDITED CONSTRUCTION DETAILS FOR

THE BUILDER SHALL DEMONSTRATE THAT AN APPROPRIATE SYSTEM OF SITE INSPECTION IS IN PLACE TO ENSURE THAT THE CONSTRUCTION STANDARDS ACHIEVE THE REQUIRED LEVEL OF CONSISTENCY, A REPORT SHALL BE PROVIDED SHOWING THAT THE CONSTRUCTION CHECKLIST GIVEN IN THE DCLG PUBLISHED 'ACCREDITED CONSTRUCTION DETAILS FOR PART F" HAVE BEEN COMPLETED AND SHOW SATISFACTORY RESULTS, A COPY OF THIS REPORT SHALL BE FORWARDED TO THE BUILDING CONTROL DEPARTMENT.

THE BUILDING DESIGN DWELLING CARBON DIOXIDE EMISSION RATE (DER) HAS BEEN DEVELOPED USING THE DESIGN AIR PERMEABILITY STATED IN TABLE F. THE BUILDER MUST ENSURE THAT THIS

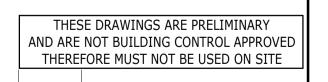
THE COMPLETED BUILDING SHALL BE AIR PRESSURE TESTED IN ACCORDANCE WITH THE AIR TIGHTNESS MEASUREMENT ASSOCIATION (ATTMA) PUBLICATION \*MEASURING AIR PERMEABILITY OF BUILDING ENVELOPES". THE TESTS SHALL BE CARRIED OUT BY A SUITABLY QUALIFIED PERSON SUCH AS A TESTER WHO IS REGISTERED WITH OR APPROVED BY THE BRITISH INSTITUTE OF NON-DESTRUCTIVE TESTING IN RESPECT OF PRESSURE TESTING FOR THE AIR TESTING OF BUILDINGS.

AT COMPLETION STAGE, AN 'AS RUIT I' DER CALCULATION WILL BE COMPLETED LISTIG THE SAME SOFTWARE THAT WAS USED FOR THE 'DESIGN' DER TO CONFIRM THAT THE 'AS BUILT' DER OF THE BUILDING IS EQUAL TO OR LESS THAN THE TARGET CARBON DIOXIDE EMISSION RATE (TER). A COPY OF THE 'AS BUILT' WILL BE SUBMITTED TO THE BUILDING CONTROL DEPARTMENT.

AT COMPLETION STAGE, A COPY OF THE SAP ENERGY RATING NOTICE WILL BE SUBMITTED TO DISTRICT BUILDING CONTROL OFFICE, A SAP RATING NOTICE OF THE BUILDING WILL BE PERMANENTLY ON DISPLAY IN THE BUILDING, E.G. ADJACENT OR WITHIN THE METER CUPBOARD. THE SAP RATING NOTICE WILL BE PRODUCED USING THE SAME SOFTWARE AS THE DER CALCULATION.

DIL BOILER INSTALLATIONS: THE BOILER EFFICIENCY WILL BE NOT LESS THAN THE EFFICIENCY QUOTED IN THE TABLE F SHOWN BELOW.

DIL FIRED SYSTEMS FOR SPACE HEATING AND DOMESTIC HOT WATER PRIMARY CIRCUITS SHOULD HAVE FULLY PUMPED CIRCULATION. IF THE BOILER MANUFACTURER'S INSTRUCTIONS ADVISE INSTALLATION OF A BYPASS, AN,AUTOMATIC BYPASS VALVE MUST BE PROVIDED IN CONJUNCTION WITH ANY REQUIREMENTS FOR A MINIMUM PIPE LENGTH SPECIFIED IN THE MANUFACTURER'S INSTRUCTIONS.



MR S HEANEY & MISS S MC CLOSKEY PROPOSED DWELLING & GARAGE LOCATION BANAGHER RD DUNGIVEN CTD MAY 13 1-50 DRWG TITLE

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