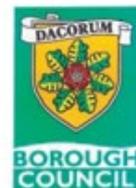


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# Guide to fire safety in houses in multiple occupation

Guide for owners, agents and managers of HMOs

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This guide outlines the fire safety provisions recommended for HMOs in Hertfordshire and Luton. It draws on the national guidance, originally produced by LACoRS in 2008 and has been updated to take account of more recent guidance and good practice, new legislation and technological developments, as well as revisions to British Standards.

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# Revisions to Guide

## 2015 Revision

- All website links to LACoRs removed (due to website no longer being available)
- Terminology updated
- Guide has been split into two sections. Technical information is now in appendices
- Further information added in relation to warm air heating systems and water suppression systems
- Blank risk assessment and maintenance log are now in appendices
- The inner room situation has been removed from Plan 6
- Further information on general fire alarm systems grade A and grade D
- Changes to the compensatory features for extended travel distances
- New additions for carbon monoxide detectors in accordance with The Smoke and Carbon Monoxide Alarm (England) Regulations 2015
- Further information on inner rooms and escape windows
- Definition for a room of higher fire risk now includes shared lounges.
- Completed example of fire risk assessment moved into the appendices
- Residential Property Tribunal replaced with reference to First Tier Tribunal with website address
- Reference to “shared houses” moved to glossary
- Web references updated
- Clarified section on detectors in storage cupboards
- Reference to “hush” and “test” switch box added to glossary

## 2018 Revision

- Fire blanket updated to BS-EN 1869:1997
- Updated index

## 2019 Revision

- Created table of contents
- Updated to include revised BS5839:2019
- Re-indexed

## 2025 Revision

- Reformatted to aid accessibility and re-indexed
- Updated to include 2020 Electrical Safety regulations
- Updated to include changes to fire risk assessment requirements due to the Fire Safety Act 2021
- Updated to include requirements of Fire Safety (England) Regulations 2022
- Updated to include revision to Smoke and CO Regulations 2022
- **Note:** other recent changes such as the 2025 edition of BS5839: Part 1 and BS 9792:2025 on fire risk assessments have not been included in this revision.

# Foreword

The local authorities of Hertfordshire in partnership with Hertfordshire Fire and Rescue Service have produced this document to provide owners, managers, letting agents, and contractors with user friendly, accessible information. This is to help ensure tenants are housed in safe, high-quality accommodation and to provide a consistent approach to fire safety enforcement within houses of multiple occupation.

The information contained in this guide is based on the document “Housing – Fire safety guidance on fire safety provisions for certain types of existing housing” produced by LACoRs and published in August 2008. This guidance has not been significantly reviewed since its publication; and the information no longer reflects current technological developments or legislative changes. Although the information contained within this guidance document was correct at the time of publication, legislation does change over time and guidance is subject to revision. This guidance has been produced collaboratively by Hertfordshire local authorities and Hertfordshire Fire & Rescue Authority and is intended to illustrate good practice. It is not to be seen as a definitive interpretation of statutory legislation, which can only be done by the courts or tribunals.

This document contains general advice and example floor plans for different circumstances and whilst the advice given is based on the national fire safety guidance produced by LACoRs, both documents are only guidance. The requirements in individual properties may vary dependent on the risks presented.

If you have any questions or believe your property does not fit comfortably within one of the examples given in this document, you should contact your local authority for further advice. It will be necessary to carry out a risk assessment to determine what fire precautions are required and additional advice on how to do this is provided in Part 1 on page 7.

The Government believes that safe and properly managed houses in multiple occupation (HMOs) fulfil an important function in the private rented housing market. HMOs have a particular role in providing affordable accommodation in areas of high housing demand where other rents may be high.

We aim to encourage the supply of good quality private rented homes and provide and facilitate information and training for landlords.

As of **December 2025**, Luton Council has also adopted this guidance with the agreement of the Hertfordshire authorities and Hertfordshire Fire and Rescue Service.

**For further information or assistance on HMOs please contact the department within your local authority responsible for private sector housing.**

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## Purpose of this Guide

This document does not set prescriptive or new standards; it gives recommendations and guidance for use when a landlord or enforcing authority are assessing and determining the adequacy of fire precautions within a House in Multiple Occupation (an HMO). This guide is intended to aid owners, landlords or managers seek compliance with regulations. It is also intended to provide a consistent approach for enforcing authorities when assessing the fire precautions within an HMO ensuring compliance with the Regulators Code.

**The Housing Act 2004 takes the view that someone with overall control of the house, (for example the owner, landlord or manager) must take steps to protect everyone living in it.** In standard layout and use properties it is likely that completion of the works suggested in this document will suffice. However, it may be necessary for additional or different works to be undertaken in certain circumstances. If you have any questions, and particularly if the layout of your property is not shown in this document or the use is different to that explained, you should contact the department within the local authority responsible for private sector housing for advice prior to undertaking any works.

Alternatives to these suggested specifications will be considered by the appropriate regulatory authority to determine if they provide a sufficient level of protection to residents. A fire risk assessment will need to be completed to demonstrate this. The council and the fire service must agree to any alternative solutions and failure to do so could result in enforcement action being taken against you by the appropriate regulatory authority. An example of alternative fire safety precautions is the installation of a sprinkler system – an example specification of this is included in the appendices.

There are additional requirements under housing legislation, for example, HMOs with five or more residents always need to be licensed by your local authority. Each local authority will have their own space and amenity standards which need to be met and there are national standards which apply to all areas.

For certain conversion, alteration or improvement works you may require planning permission or approval from building control; you should always seek advice from the council before starting any work on converting or renovating a property. A written fire safety risk assessment is now required for all HMOs. Further guidance and examples can be sought from your local authority or Fire and Rescue Service.

This guidance document is constructed of two parts plus appendices.

**Part One** details the requirements to carry out a fire risk assessment and the management procedures to be followed. This part is to aid you in completing the fire risk assessment for your HMO. It outlines the basic requirements of a fire risk assessment and is intended to aid landlords identify the risks within their HMO.

**Part Two** details the minimum requirements for means of escape and means of giving early warning required within your HMO. and aims to ensure suitable control measures are put in place to address all risks.

**The appendices** provide further technical guidance and information on how to achieve the minimum requirements to ensure compliance.

# Part One – Fire risk assessment

## What is an HMO and why is fire safety important?

### Definition of houses in multiple occupation (HMOs)

The legal definition of a house in multiple occupation is given in sections 254 to 260 of Housing Act 2004 but in simple terms

A house in multiple occupation is a building or part of a building (e.g. a flat) that meets one of the following definitions

- a) It is occupied by more than one household who share an amenity such as a bathroom, toilet or cooking facilities where at least one person pays rent
- b) It is a converted self-contained flat that does not meet standards in the 1991 Building Regulations, in a building where at least one third of the flats are occupied under short tenancies.

The term **occupied** means that it is the occupants' only or main residence. It includes properties where students live during term time, but which are not purpose-built halls of residence. People are classed as separate households if they are not family members or co-habiting couples. There are exemptions to these rules, and further information can be obtained from the department in your local authority responsible for private sector housing.

This document does not specifically detail fire precaution recommendations for self-contained flats that are HMOs. Shared houses are referred to in the LACoRs fire guide but have different fire safety requirements to that of a bed-sit type HMO and are not discussed in this guide (for the definition of a shared house, please see the glossary).

### Why is fire safety important?

HMO accommodation has often been created by sub-division of larger properties into smaller units, and this can increase the risks that a fire will occur. The means of escape may have been compromised in the process of redevelopment making it less likely that occupants will get out of the building safely should a fire occur. Tenants living in an HMO do not live as a family and often cook separately and do not know who is in the house at any one time. Deaths and injuries from fires in HMOs are proportionately higher than in single family homes.

The main reasons for insisting on fire precautions in houses in multiple occupation (HMOs) are to provide early warning and to stop the smoke and fire spreading to parts of the property before other residents have the chance to escape.

The following pages are to provide landlords with examples of the level and type of fire safety provisions required in typical licensable and non-licensable premises. The tables do not contain all the fire safety measures that may be needed for every premises and further information regarding additional requirements can be found in part 2 of the guide.

Type of Premises	Definition and Example	Legislation	Fire Safety Requirements
<p>3 Storey HMOs - ground, first and second with 5 or more people.</p> <p><b>Plan 3 and 4 (Appendix 1)</b></p>	<p>A premises that is rented by 5 or more people who are from more than 1 household that also share a common facility such as a toilet, bathroom or kitchen. There is living accommodation on all floors.</p>	<p>Housing Act 2004 (for whole premises). The Regulatory Reform (Fire Safety) Order 2005 (for common areas).</p>	<p>A protected means of escape from each bedroom door to a place of ultimate safety (final exit door). This protected route must afford a minimum of 30 minutes fire resistance all walls and doors opening onto it must be constructed of 30 minutes fire resisting materials. A fire alarm system complying with British Standard 5839 part 6 to Grade A LD1 coverage.</p> <p>(further information in section 3.1 below).</p>
<p>3 Storey HMOs - ground, first and second with 5 or more people (garage on ground floor or separate unit).</p> <p><b>Plan 6 (Appendix 1)</b></p>	<p>A premises that is rented by 5 or more people who are from more than 1 household that also share a common facility such as a toilet, bathroom or kitchen. There is a garage on the ground floor. The staircase may be external to the premises from first to ground floor. (No access to areas of a separate use).</p>	<p>Housing Act 2004 (for whole premises). The Regulatory Reform (Fire Safety) Order 2005 (for common areas).</p>	<p>A protected means of escape from each bedroom door to a place of ultimate safety (final exit door). This protected route must afford a minimum of 30 minutes fire resistance all walls and doors opening onto it must be constructed of 30 minutes fire resisting materials. A fire alarm system complying with British Standard 5839 part 6 to Grade A LD1 coverage. This level of detection is required due to the top storey being above 4.5m, escape windows cannot be utilised, and the only means of escape is the protected route. (further information in section 3.1 below).</p>

Please note that under the Housing Act 2004 additional licensing requirements may be set by the local authority, therefore it is advised that all landlords discuss their case with the department in their local authority that is responsible for private sector housing.

Type of Premises	Definition and Example	Legislation	Fire Safety Requirements
<p>3 Storey HMOs - ground, first and second less than 5 people</p> <p><b>Plan 4 (Appendix 1)</b></p>	<p>A premises that is rented by 3 or more people who are from more than 1 household that also share a common facility such as a toilet, bathroom or kitchen. There is living accommodation on all floors.</p>	<p>Housing Act 2004 (for whole premises). The Regulatory Reform (Fire Safety) Order 2005 (for common areas).</p>	<p>A protected means of escape from each bedroom door to a place of ultimate safety (final exit door). This protected route must afford a minimum of 30 minutes fire resistance, all walls and doors opening onto it must be constructed of 30 minutes fire resisting materials. A fire alarm system complying with British Standard 5839 part 6 to Grade A LD1 coverage. (further information in section 3.1 below).</p>
<p>3 Storey HMOs - Ground, First and Second with less than 5 people (Garage or commercial premises on Ground Floor)</p> <p><b>Plan 6 (Appendix 1)</b></p>	<p>A premises that is rented by 3 or more people who are from more than 1 household that also share a common facility such as a toilet, bathroom or kitchen. There is a Garage on the Ground Floor. The staircase may be external to the premises from First to Ground Floor.</p>	<p>Housing Act 2004 (for whole premises). The Regulatory Reform (Fire Safety) Order 2005 (for common areas).</p>	<p>A protected means of escape from the bedroom door to a place of ultimate safety (final exit door). This protected route must afford a minimum of 30 minutes fire resistance all walls and doors opening onto it must be constructed of 30 minutes fire resisting materials. A fire alarm system complying with British Standard 5839 part 6 to Grade A LD1 coverage. This level of detection is required due to the top storey being above 4.5m, escape windows cannot be utilised, and the only means of escape is the protected route. (further information in section 3.1 below).</p>

Type of Premises	Definition and Example	Legislation	Fire Safety Requirements
<p>2 Storey HMO - Ground and First</p> <p>Plan 1 (Appendix 1)</p>	<p>A premises that is rented by 3 or more people who are from more than 1 household (e.g. a family), that also share a common facility such as a toilet, bathroom or kitchen. The living accommodation for the HMO will be on the Ground and First floors.</p>	<p>Housing Act 2004 (for whole premises). The Regulatory Reform (Fire Safety) Order 2005 (for common areas)</p>	<p>A protected means of escape from the bedroom door to a place of ultimate safety (final exit door). This protected route must afford a minimum of 30 minutes fire resistance all walls and doors opening onto it must be constructed of 30 minutes fire resisting materials. However, if this cannot be achieved the provision of an alternative means of escape, use of escape windows, may be considered. A fire alarm system complying with British Standard 5839 part 6 to Grade D LD1 coverage. (further information in section 3.1 below).</p>
<p>2 Storey HMO - Ground floor separate use to first floor HMO</p> <p>No Plan</p>	<p>A premises that is rented by 3 or more people who are from more than 1 household (e.g. a family), that also share a common facility such as a toilet, bathroom or kitchen. The living accommodation for the HMO will be on the First floor with a staircase leading down to the Ground floor final exit door. (No access to areas for a separate use)</p>	<p>Housing Act 2004 (for whole premises). The Regulatory Reform (Fire Safety) Order 2005 (for common areas)</p>	<p>A protected means of escape from the bedroom door to a place of ultimate safety (final exit door). This protected route must afford a minimum of 30 minutes fire resistance all walls and doors opening onto it must be constructed of 30 minutes fire resisting materials. However, if this cannot be achieved the provision of an alternative means of escape, by use of escape windows, may be considered. A fire alarm system complying with British Standard 5839 part 6 to Grade D LD1 coverage. (further information in section 3.1 below).</p>

Type of Premises	Definition and Example	Legislation	Fire Safety Requirements
<p>3 Storey Bedsit HMO - Ground, First and Second</p> <p>Plan 3 (Appendix 1)</p>	<p>A building which is divided into individual non-self-contained lettings, let to unconnected individuals. Each letting will usually contain one room which contains cooking / food preparation facilities, washing facilities and sleeping / living space. There is a usually a shared facility which is normally a bathroom, shared lounge or kitchen.</p>	<p>Housing Act 2004 (for whole premises). The Regulatory Reform (Fire Safety) Order 2005 (for common areas).</p>	<p>A protected means of escape from the bedroom door to a place of ultimate safety (final exit door). This protected route must afford a minimum of 30 minutes fire resistance, all walls and doors opening onto it must be constructed of 30 minutes fire resisting materials. A fire alarm system complying with British Standard 5839 part 6 to Grade A LD1 coverage. With heat detection adjacent to any cooking facilities which are interlinked to the smoke detection in the common areas. Non- interlinked smoke detection should also be sited adjacent to the sleeping / living area within each bedsit. (further information in section 3.1 below).</p>
<p>2 Storey Bedsit HMO - Ground and First</p> <p>Plan 2 (Appendix 1)</p>	<p>A building which is divided into individual non-self-contained lettings, let to unconnected individuals. Each letting will usually contain one room which contains cooking / food preparation facilities, washing facilities and sleeping / living space. There is a usually a shared facility which is normally a bathroom, shared lounge or kitchen.</p>	<p>Housing Act 2004 (for whole premises). The Regulatory Reform (Fire Safety) Order 2005 (for common areas)</p>	<p>A protected means of escape from the bedroom door to a place of ultimate safety (final exit door). This protected route must afford a minimum of 30 minutes fire resistance, all walls and doors opening onto it must be constructed of 30 minutes fire resisting materials. A fire alarm system complying with British Standard 5839 part 6 to Grade D LD1 coverage. With heat detection adjacent to any cooking facilities which are interlinked to the smoke detection in the common areas. Non-interlinked smoke detection should also be sited adjacent to the sleeping / living area within each bedsit. (further information in section 3.1 below).</p>

Type of Premises	Definition and Example	Legislation	Fire Safety Requirements
<p>Flat in Multiple Occupation (FMO)</p> <p>No Plan</p>	<p>A self-contained flat occupied by 3 or more people who are from more than 1 household that also share a common facility such as a toilet, bathroom or kitchen. The self-contained flat may form part of a purpose-built block of flats.</p>	<p>Housing Act 2004 (for whole premises). The Regulatory Reform (Fire Safety) Order 2005 (for common areas of FMO and block of flats).</p>	<p>A protected means of escape from the bedroom door to a place of ultimate safety (final exit door). This protected route must afford a minimum of 30 minutes fire resistance, all walls and doors opening onto it must be constructed of 30 minutes fire resisting materials. The front door to the self-contained flat must also be a minimum of a FD30s door (a 30 minute fire resisting door with self-closing mechanism, intumescent strips and cold smoke seals). A fire alarm system complying with British Standard 5839 part 6 to Grade D LD1 coverage. (further information in section 3.1 below).</p>
<p>HMOs with a Basement Storey</p> <p>Plan 5 (Appendix 1)</p>	<p>A premises that is rented by 3 or more people who are from more than 1 household (e.g. a family), that also share a common facility such as a toilet, bathroom or kitchen. That comprises of a Basement, Ground and any number of storeys above Ground.</p>	<p>Housing Act 2004 (for whole premises). The Regulatory Reform (Fire Safety) Order 2005 (for common areas)</p>	<p>The ceiling between the basement and the Ground floor must be constructed of a minimum of 30 minutes fire resisting materials. A fire alarm system complying with British Standard 5839 part 6, the level of coverage would be dependent on the number of storeys above ground floor. If the HMO is simply Basement and Ground a system to Grade D LD1 coverage would be required. Interlinked smoke detection must be installed in the basement. (further information in section 3.1 below).</p>

# Fire risk assessment and management

HMOs fall under the provisions of the Regulatory Reform (Fire Safety) Order 2005 (FSO) and the 'responsible person' for the HMO is required to carry out a fire safety assessment. The responsible person may be the landlord or managing agent. It is a requirement for fire risk assessments to be written and recorded in full and readily available at the premises.

A Fire risk assessment is a tool that those responsible for HMOs can use to identify potential fire hazards and enables them to take action to remove or reduce these hazards to as low a level as practically possible and then decide what physical fire precautions and management arrangements are necessary to ensure people's safety.

## The Fire Safety Act 2021

The Fire Safety Act 2021 amended the Regulatory Reform (Fire Safety) Order 2005 to clarify the scope of the Order in relation to multi-occupied residential buildings.

The Act makes clear that where the FSO applies, it also applies to:

- the **structure and external walls** of the building, including windows, cladding, balconies and insulation
- **all doors between domestic premises and common parts**, including flat entrance doors.

This clarification applies to any building containing **two or more sets of domestic premises** and common parts, including houses in multiple occupation (HMOs) and buildings containing self-contained flats.

As a result, the Responsible Person (as defined by the Fire Safety Order) must ensure that fire risk assessments for relevant premises **explicitly consider** the risks arising from:

- the external wall construction and materials
- flat entrance doors and any doors opening onto common escape routes
- the interaction between individual units of accommodation and shared escape routes.

Where deficiencies are identified, suitable and sufficient measures must be implemented to reduce risk so far as is reasonably practicable.

Guidance on fire risk assessments follows in this section. More detailed guidance can be found in HM Government Fire Safety Risk Assessment Sleeping Accommodation Guide, which is available on the Gov.uk website at the link:

<https://www.gov.uk/government/publications/fire-safety-risk-assessment-sleeping-accommodation>

## Fire Safety (England) Regulations 2022

The Fire Safety (England) Regulations 2022 introduce additional duties for Responsible Persons under the FSO in buildings containing two or more domestic premises.

Where these regulations apply, the responsible person must comply with the following requirements.

### Fire Door Checks

- **fire doors in common parts** must be checked at **regular intervals**, and at least **every three months**, to ensure they are in efficient working order and in good repair where the property has 3 or more floors

- **all flat entrance doors** or doors to individual units of accommodation opening onto common parts are checked at least **every 12 months**.

Checks should include, as a minimum:

- the condition of the door leaf and frame;
- the presence and condition of intumescent strips and cold smoke seals
- correct operation of self-closing devices
- effective closing and **latching**

Any defects identified must be remedied within a reasonable time.

### Provision of Fire Safety Information to Residents

The Responsible Person must provide residents with **clear and relevant fire safety information**, including:

- instructions on the action residents should take in the event of a fire;
- information on the building's evacuation strategy (for example, stay put or simultaneous evacuation, where applicable); and
- the importance of fire doors being kept closed and not tampered with.

This information should be provided in a format that residents can reasonably be expected to understand and should be updated where circumstances change. Further advice in the type of information that should be provided can be found on page 20 under the heading "Information and Training".

### Information Sharing

Where more than one Responsible Person has duties in relation to the same building, they must take **reasonable steps to share relevant fire safety information** with each other to ensure that fire risks are properly identified and managed.

## What is a fire risk assessment?

A fire risk assessment is an organized and methodical look at the premises, the activities carried on there and the likelihood that a fire could start and cause harm to those in and around the premises. In most properties it will be straightforward to carry out a fire risk assessment, but in large or mixed-use properties specialist advice may be required.

The aims of the fire risk assessment are:

- to identify the fire hazards
- to reduce the risk to as low as reasonably practicable; and
- to decide what physical fire precautions and management arrangements are necessary to ensure the safety of people in the premises if a fire does start.

hazard" is anything that has the potential to cause harm and "risk" is the chance of that harm occurring

Fire risk assessments for HMOs and other relevant premises must take account of the clarified scope of the Fire Safety Order following the Fire Safety Act 2021 and the additional duties introduced by the Fire Safety (England) Regulations 2022.

In particular, risk assessments should consider:

- fire spread via external walls or attached features
- the condition and performance of flat entrance doors and doors opening onto escape routes
- management arrangements for inspection, testing and maintenance of fire safety measures
- the provision of information and instructions to residents

Fire risk assessments should be reviewed where there is reason to believe they are no longer valid, or where significant changes to the premises, occupancy, or relevant legislation occur.

Where necessary, landlords, managers and Responsible Persons should seek competent professional advice or consult with their local authority or fire and rescue service.

## Suggested method for carrying out a risk assessment

The fire risk assessment should be carried out in a practical and systematic way. This is an important document, and time spent carrying out this exercise in a diligent manner will ensure that all risks are highlighted and that a suitable and sufficient risk assessment is produced. It may be useful to subdivide larger or mixed-use premises into rooms or a series of assessment areas using natural boundaries (for example kitchens, offices and stores; and corridors, stairways and external routes).

The process can be broken down into five steps:

1. identify fire hazards
2. identify people at risk
3. evaluate, remove or reduce risk and protect against remaining risk
4. record, plan and inform or train
5. review

These are explained in detail below.

# Step 1: Identify the hazards within the premises

For a fire to start, three things are needed:

- a source of ignition
- fuel and
- oxygen

If any one of these is absent, a fire cannot start. Taking measures to avoid the three coming together will therefore reduce the chances of a fire occurring.

## Sources of ignition may include:

- smokers' materials such as cigarettes, matches and lighters
- naked flames, for example candles and night lights
- electric, gas or oil-fired heaters (fixed or portable)
- boilers
- cookers, toasters and other kitchen equipment (especially when shared)
- faulty or misused electrical equipment
- electric blankets, computers, TVs, washing machines and dryers
- lighting equipment (fixed and movable), for example halogen lamps and table lamps
- the electrical installation itself - such as old and outdated wiring and fuse boxes and the overloading of electrical sockets
- the gas installation
- an arson attack

## Sources of fuel may include:

- furniture, furnishings, textiles, bedding, clothing, curtains & laundry
- accumulations of unwanted mail, waste paper, cardboard, newspapers and magazines (including that awaiting recycling collection)
- waste storage and refuse containers
- flammable liquid-based products such as paint, varnish, thinners, adhesives, white spirit, methylated spirit and cooking oils
- liquefied gas (LPG), paraffin, heating oils and petrol
- decorations for seasonal and religious occasions
- plastics and rubber such as videotapes, polyurethane foam-filled furniture and polystyrene-based display materials
- wall, floor and ceiling coverings and surface finishes (for example polystyrene ceiling tiles)

Compliance with the regulations concerning gas, electrical and furniture safety will reduce the risk presented by some of the items listed above.

The risk of fire is increased when premises are undergoing alteration, repair or redecoration. At such times flammable materials may be stored in the premises, possibly in escape routes or in rooms which are otherwise unused. Care should be taken as to where and how these products are stored. Premises which normally have good fire precautions and present a low fire risk may have their fire safety compromised by temporary careless storage of these products or by the disabling of fire precautions during the period of the works.

## Sources of oxygen:

- in premises covered by this guide the oxygen source will be the air in the building.
- where only normal natural domestic ventilation is provided the risk will generally be normal.

## Step 2: Identify people at risk

Generally, this will be residents and their visitors and anybody working in the premises such as a caretaker or cleaner and any visiting contractors. Only in buildings with mixed residential and commercial use are there likely to be other people to consider.

The risk assessment should consider people at risk, who may include:

- people asleep (who will be disorientated and slow to respond)
- people who are unfamiliar with the premises (guests and visitors)
- people with disabilities (including mobility impairment and hearing or vision impairment)
- people who may have some other reason for not being able to leave the premises quickly (such as parents with young children)
- people who have impaired senses due to alcohol, drugs or medication
- unaccompanied children and young people
- anyone working in enclosed, isolated parts of the building
- anyone who has difficulty understanding English

In evaluating the risk to people with disabilities it may be necessary to discuss their individual needs with them or seek professional advice.

## Step 3: Evaluate, remove or reduce risk and protect against remaining risk

Hazards should be removed where it is practicable to do so, and where they cannot be removed, they should be reduced as far as possible. What is considered reasonable in a particular case will depend on an evaluation of the potential to cause harm and the chance of that harm occurring. Some simple examples are given below:

- replace portable heating appliances with fixed convector heaters or a central heating system
- ensure electrical sockets are adequate in number and sited appropriately to avoid overloading and trailing leads
- ensure electrical, mechanical and gas equipment is installed, used, maintained and protected in accordance with the manufacturer's instructions
- ensure all furniture complies with the Furniture and Furnishings (Fire)(Safety) Regulations 1988
- ensure combustible items such as furniture, laundry and decorations are stored properly and are kept away from potential ignition sources such as cookers, heaters and boilers
- ensure refuse is properly stored and disposed of
- in crowded accommodation, provide adequate shelving and cupboard space so that everyday items are not in proximity to cookers or heat sources

Having taken measures to remove or reduce fire hazards as far as is practicable, adequate fire precautions should be in place to warn people in the event of a fire and to allow them to escape to a place of safety. The general principles of fire risk reduction are outlined in the rest of this guide, where guidance is also given on what measures should be implemented and to what standards, based on overall fire risk assessment.

## Step 4: record, plan, inform, instruct and train

It is a good idea for everyone to keep a written record of their fire safety risk assessment. For licensed HMOs the law says you must make a written record of your risk assessment. In these cases, it is the “significant findings” of the risk assessment that must be recorded. Significant findings are the actions

to be taken as a result of the assessment, and details of anyone at particular risk. Significant findings should include details of:

- the fire hazards that have been identified (but ignore trivial things such as a tube of solvent-based glue)
- the actions taken, or which will be taken, to remove or reduce the chance of a fire occurring (preventive measures)
- persons who may be at risk, particularly those especially at risk
- the actions taken, or which will be taken, to reduce the risk to people from the spread of fire and smoke (protective measures)
- the actions people need to take if a fire occurs - for most HMOs this will simply be to evacuate the property in the case of a fire and to summon the fire & rescue service
- any information, instruction and training identified as being needed, and how it will be given
- any discussions that have taken place with residents (or, if appropriate, with staff)

It is recommended that a record of the significant findings of the fire risk assessment is kept in all cases, even where it is not a requirement to do so. An example template is shown below, and a blank template for you to use can be found at the end of this document, however, any alternative format will be acceptable provided it contains the information above.

An appropriate emergency plan should be put in place. In most residential accommodation this is unlikely to extend beyond advising residents what to do in the event of a fire or fire alarm and how to contact the fire and rescue service. In large or mixed use premises a more sophisticated plan may be necessary.

There is no requirement under the Fire Safety Order to provide training to residents but providing them with basic information on fire precautions is a simple and effective way of reducing fire risk in the premises.

## Step 5: review

The risk assessment and the general fire precautions in the premises should be reviewed regularly. There is no specific timescale for this other than where there is a reason to suspect that it is no longer valid or where there has been a significant change in the premises.

In practice the fire precautions should be kept under constant review. Where problems are identified they should be dealt with as soon as possible.

## Example Risk Assessment

An example of a completed risk assessment for an HMO that would be subject to mandatory licensing is included in Appendix 5. The example is not exhaustive and is intended to give the responsible person an idea of what a fire risk assessment could look like.

A blank fire risk assessment is reproduced in Appendix 4 that you may like to use.

# Management and Maintenance of Fire Safety

Whatever physical fire safety measures are provided in residential accommodation, their effectiveness will only be as good as their management and maintenance.

While single household dwellings will generally be self-managing, HMO accommodation will require ongoing attention to ensure fire safety measures remain effective. This section outlines management and maintenance measures applicable to HMOs. The responsible person (the licensee, landlord or managing agent) has a duty to ensure that the day-to-day management of fire safety in the premises is properly undertaken and that essential routine maintenance and emergency repairs are properly carried out. This is not only common sense and good practice, but also an obligation in law for those premises to which The Management of Houses in Multiple Occupation Regulations 2006 and The Regulatory Reform (Fire Safety) Order 2005 apply.

The level of management attention required will be determined as part of the fire risk assessment. Detailed recommendations are to be found in the HM Government Fire Safety Risk Assessment Sleeping Accommodation Guide. These recommendations may be appropriate in very large and complex buildings, but not all will apply fully for the average residential accommodation of normal risk covered by this guide.

Guidance on best practice in fire safety management can be found in BS 9999:2017 Code of Practice for Fire Safety in the Design, Management and Use of Buildings, but the points outlined below should be expected in any acceptable fire risk assessment as a minimum.

## Escape routes:

- must always be free from obstruction, and regular checks should be made to guarantee this
- there should be no free storage on the escape routes
- there should be no trip hazards such as trailing electrical leads or worn carpets
- in most cases fire-resisting doors should be effectively self-closing and engage their latches with no obstructions or hindrances such as catching carpets - this will always be the case in bedsit HMOs.
- all doors should be close fitting as designed
- fire doors should never be propped or wedged open
- any damage to fire doors should be noted and repaired
- any damaged or missing smoke seals must be replaced like-for-like
- care should be taken not to paint over smoke seals when redecorating the property

## Automatic fire detection (AFD) and warning systems:

BS 5839: part 6 contains recommendations for regular, routine testing of AFD systems as follows:

### Grade A systems

- routine testing – at least one detector or call point in each zone should be tested weekly to ensure correct operation of the system. Any defect should be recorded in the logbook and action taken to correct it
- routine maintenance – a six-monthly service should be carried out by a competent person, usually a specialist alarm engineer, under a maintenance contract - it entails a full test to ensure compliance, as specified in BS 5839: part 6
- testing should be recorded in the logbook and a periodic inspection and test certificate issued.

## Grade D systems

- routine testing – these systems should be tested every month by use of the test button on the smoke alarm.
- routine maintenance – all alarms should be cleaned periodically in accordance with the manufacturer's recommendations.

## All systems

- it is recommended that all detectors should be tested at least once a year to ensure that they respond to smoke
- tests should not involve the use of open flame or any form of smoke or non-specific aerosol that could contaminate the detection chamber or the electronics of the detector - suitable specific test aerosols are available
- the test is usually carried out by a specialist alarm engineer under a maintenance contract and should be recorded in the logbook, with a periodic inspection and test certificate issued

It is recognised that the above arrangements represent the ideal. While they may be possible in buildings with a resident landlord or a dedicated caretaker or housekeeper, in some situations for premises covered by this guide such arrangements may be impracticable. Where this proves to be the case tenants should be given clear instructions on how to test grade D alarms within their dwelling using the test button, along with clear recording and reporting instructions for any faults or false alarms on the system. Grade A systems are more specialist, and resident testing will be inappropriate unless there is a trained individual in the property. Clear fault and false alarm reporting arrangements should be put in place, and the responsible person or his/her agent should respond to reports at the earliest opportunity.

## Fire blankets and extinguishers:

- where provided, these should be checked periodically to make sure they are in place and available for use
- extinguishers must be tested and maintained on an annual basis in accordance with BS 5306-3 and with the manufacturer's instructions and records of this kept

## Artificial lighting:

- conventional staircase lighting must always work properly. Any blown bulbs should be replaced promptly, and all switches should be working.
- if timer switches are fitted, then the duration should be checked and adjusted if necessary to ensure there is light for the full time it takes to use the stairs

## Emergency lighting

Any emergency escape lighting should be serviced and maintained in accordance with BS 5266-8: 2004 (BS EN 50172: 2004) Emergency escape lighting systems. This contains detailed recommendations which include inspections and tests to be carried out, down to a daily basis. For large, complex HMOs (such as those with five or six storeys) or premises with a specific high-risk factors (persistent vandalism problems, for example, or complex escape routes and no effective borrowed light), the full recommendations may be appropriate. However, in most average sized premises with normal risk, the following regime with a procedure for responding to reports of defects should be adequate:

- a simple test once a month flicking the emergency lights on to check bulbs are working
- an annual discharge test in accordance with the requirements of BS 5266: part 8

- discharge testing must be carried out by a competent person, usually a lighting engineer under a maintenance contract - it entails a full test to ensure compliance with the standard and should be recorded in the logbook, with a periodic inspection and test certificate issued

## Water suppression systems:

- where provided, the responsible person must ensure that any water suppression system is always fully maintained and ready for use
- the landlord should enter into a maintenance contract with a competent person or company to maintain the system in accordance with clause 7 (maintenance) of BS 9251
- the responsible person must ensure that the system is always fully functional and that any defects are rectified as soon as possible
- the responsible person should check the pressure gauge readings monthly and record these readings in the systems log book - any significant fluctuations or pressure readings below the agreed system design must be rectified immediately
- the system logbook must be used to record all actuations, testing, maintenance, system faults and any remedial action

## Information and training:

- each occupier should be given specific advice on fire prevention and fire safety in the home - this advice should be provided at the start of each new tenancy and reviewed periodically
- suitable advice can be found in BS 9999: Section 9 and annexes Q & R Advice to occupiers of domestic residential buildings. Advice is also available from local fire and rescue authorities.

### Information should include:

- an explanation of the escape routes, particularly where secondary means of escape is provided
- how the fire detection and alarm system operates and what to do if it activates
- how and when to re-set the fire alarm system
- if extinguishers or fire blankets are provided, training in their application and safe use
- avoidance of false alarms
- how and when to call the fire brigade – particularly important for non-UK nationals
- how to report defects
- the importance of maintaining clear escape routes free of storage
- the importance of keeping fire doors closed, not propped or wedged open
- smoking and cooking safety
- gas safety advice
- safe storage and disposal of refuse
- the safe use of escape windows where appropriate

## Record keeping:

It is recommended that a property logbook is kept and all routine maintenance and servicing activity (as recommended in this guide) is recorded in it, along with all reported defects and remedial action taken, including false alarms. Model logbooks may be available from landlords' associations or through landlord accreditation schemes.

# Fire Risk Reduction

## General Principles

The most important action you can take as a property manager is to try and prevent fires. Whilst the advice given in this booklet has mainly been concerned with methods of warning residents of a fire and preventing the spread of the fire to enable them to escape; fire precaution measures can never guarantee absolute safety for residents or prevent extensive property damage.

The most important steps that you, as an owner or manager can take to minimise the risk of a fire are:

## Electrical installations

- the electrical installation should be installed by a certified competent electrician
- make sure that the electrical circuits, fittings and equipment throughout the house are maintained in good condition
- it is a legal requirement to have the electrical installation inspected at least every five years by a suitably qualified electrician and to act quickly on any recommendations that are made - the electrician's report will tell you the date when the installation should be checked again
- electricians belonging to a registered competent person scheme for electrical testing (for example NICEIC or Elecsa) will be suitably qualified
- if an electrical safety report does not show the installation to be satisfactory, steps must be taken in accordance with The Electrical Safety Standards in the Private Rented Sector and Social Rented Sector (England) Regulations 2020
- install circuit breakers and prevent overloading of sockets by ensuring that there are sufficient wall sockets and adaptors are not needed

## Electrical appliances:

- letting agents and landlords should check all electrical appliances they provide at the start of each new tenancy for defects (for example frayed wiring or badly fitted plugs) and remove any unsafe items
- it is good practice to have the equipment checked at regular intervals thereafter, but there is no legal requirement to do so unless appliances are used by employees
- records should be kept of portable appliance testing carried out – portable refers to any electrical goods with a plug
- instruction booklets should be available at the property for all appliances and any necessary safety warnings should be given to tenants
- if you buy new electrical equipment, make sure that it bears the CE mark, either on the equipment itself, or on the box, to show that it complies with legal standards
- the purchase of second-hand electrical goods is not recommended

## Furniture and furnishings regulations

- landlords and managing agents must ensure that the furniture supplied meets the fire resistance requirements, and the only practical way of doing so is to ensure that the furniture is labelled by the manufacturer as being fire resistant - if this cannot be ascertained, then the furniture should be replaced

- fire-resistant filling and covers are a legal requirement under the Furniture and Furnishings (Fire) (Safety) Regulations 1988 and the Furniture and Furnishings (Fire) (Safety) (Amendment) Regulations 1993
- the furniture and furnishing regulations are enforced by Trading Standards

## Gas installations

- the Gas Safety (Installation and use) Regulations 1998 require that gas installations and appliances are maintained in safe condition and good working order and receive a gas safety check annually.
- The regulations apply to gas pipework, meters, gas fires, cookers, boilers, water heaters and flues
- the gas safety check and any other work to the installation may only be carried out by a competent and registered Gas Safe engineer.
- the findings must be recorded on a Gas Safe certificate, and the records kept for at least two years.
- you must give a copy of the new gas safety certificate to each resident within 28 days, and give a copy to new residents before they move in.

## Carbon Monoxide Alarms

The Smoke and Carbon Monoxide Alarm (Amendment) Regulations 2022 require that a carbon monoxide alarm is installed in any room used as living accommodation which contains a fixed combustion appliance. This includes gas boilers but excludes gas cookers. The regulations require that carbon monoxide alarms are repaired or replaced once the landlord is informed they are faulty.

## Cookers and heaters

Make sure that heaters and cookers are fixed in a position where they will not set fire to curtains, bedding or furnishings. If tenants wish to have their own portable heaters, these should be oil filled radiators as fan heaters and halogen heaters create an increased risk of a fire starting.

## Flammable materials

Prohibit the use of portable gas or paraffin heaters in the house. Do not store highly flammable materials in the house (such as paint, thinners, LPG cylinders, paraffin or petrol).

## Combustible items

Do not store (or allow tenants to store) large quantities of combustible materials such as cardboard boxes or newspapers, in under-stairs cupboards, cellars, or in the loft.

## Advice to residents

Inform your residents of the following information and make sure they understand the importance of the following matters.

The dangers of:

- smoking in bed or when drowsy
- careless use of candles or joss sticks
- overloading electrical sockets

- having trailing cables
- leaving a chip pan or frying pan unattended, or over-full of oil or fat
- placing clothes to dry over or near heaters

The importance of a bedtime fire safety routine:

- turning off the cooker
- unplugging electrical appliances (except those designed to remain on)
- making sure that no cigarettes or candles are left burning
- closing all doors

You should advise residents that in the event of a fire:

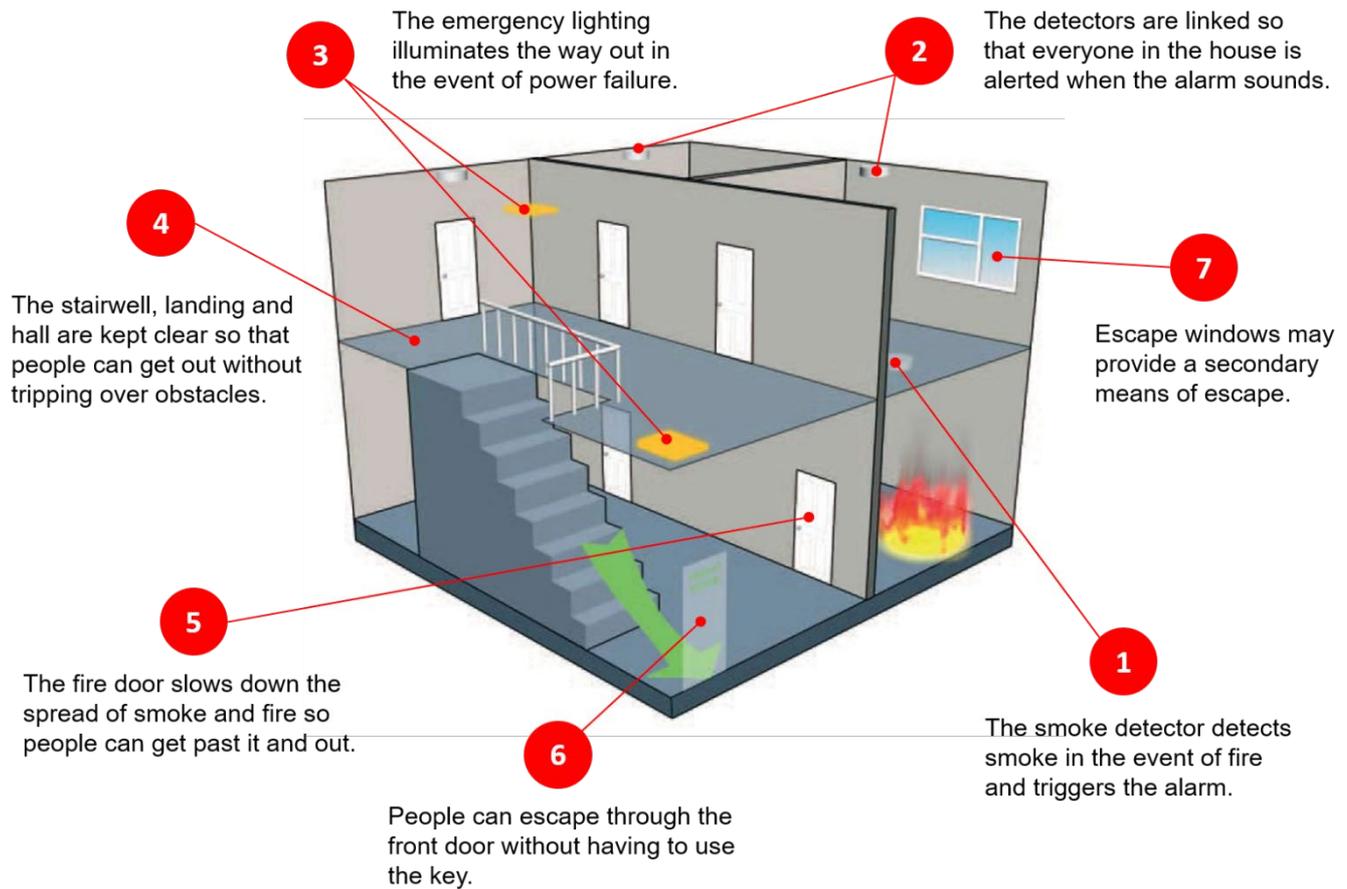
- do not attempt to fight fires that have already taken hold – evacuate yourself from the house
- if you share the house with other people sound the alarm as you make your escape
- do not try to rescue belongings or pets - your life and the lives of other residents are too precious to risk
- telephone the Fire Service on 999 immediately from a place of safety
- speak slowly and try to be calm answering the questions you are asked. If you think there may be someone left in the building inform the 999 operator.

**A template leaflet/poster may be available from your local authority.**

## Part Two –means of escape and fire alarm systems.

### General Principles for Fire Precaution Standards

The following diagram illustrates the general principles of fire precautions in a representative house:



The HMO's design, construction and condition must limit the spread of fire and smoke and provide a safe and ready means of escape. There must be adequate fire protection to the means of escape and between each unit of accommodation, with appropriate detection and alarm systems provided. Emergency lighting and fire blankets shall be provided where necessary.

1. Every risk room (bedroom, living room, kitchen) needs a mains-wired detector/alarm. These will detect fires at the earliest opportunity and ensure that warning is sounded. The detectors need to be linked so that everyone in the house is alerted when the alarm sounds
2. Where there are cooking facilities in bedsits these rooms should have a linked heat detector and a standalone mains-operated smoke detector.
3. Emergency lighting illuminates the escape route to show persons the way out if the electricity supply is interrupted.
4. The stairwell, landing, and hall are kept clear of obstruction so that people can get out without tripping.
5. The escape route shall be protected to ensure people can exit the property safely. Generally, this will mean the partitions from risk rooms to the escape route giving 30 minutes fire resistance. Between rooms, or in certain low risk premises partitions may be acceptable if they are sound traditional construction. See the appendices below for plans.
6. All risk rooms (bedroom, living room, kitchen) need 30-minute fire resisting doors with cold smoke seals and intumescent strips (these are explained in the glossary) and self-closing devices. The fire door slows down the spread of smoke and fire so people can move past it to exit the house. Fire doors are provided to protect the route of escape and should never be wedged open.
7. The methods of locking or fastening risk room and escape room doors should not prevent them from being opened from the inside without the use of a key.
8. Fire blankets and fire extinguishers can be useful in tackling small fires, and preventing their uncontrolled spread, but the fire service recommends it is best to encourage people to get out of the house quickly and call 999. There are injuries every year because of ineffective or inappropriate use of equipment. Where equipment is provided, all residents must receive proper instruction in the use of it. Therefore, whilst fire blankets should be provided to all cooking facilities there will be no requirement for fire extinguishers.
9. Where a basement or commercial premises are present, these shall be separated from the residential area by structure including doors providing 60-minutes fire protection. See plan 5 and 6 of Part 3. Where an automatic fire detection system includes the basement area the level of separation between the basement and the rest of the house need only be 30 minutes.

# Means of escape

The guidance contained in this section is intended to aid the evaluation of the adequacy of the means of escape from the premises.

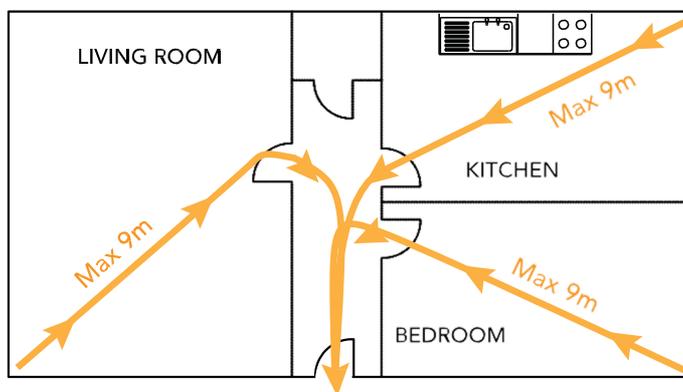
## Travel distances

Travel distances within HMOs are an important matter. In the event of fire, occupiers need to be reasonably sure that they can reach a place of safety within reasonable time. The layout of the premises needs to be such that occupiers can quickly find their way across the room they are in and then through any protected route to the final exit. This must be achieved despite possible heat, flames and most importantly smoke. Smoke is often toxic but can also reduce visibility both by fogging and by causing irritation to the eyes. Occupiers need to be able to get through the escape route with a minimum of exposure to these hazards particularly by inhalation.

Like most elements of fire safety, judging the adequacy of travel distances is a matter of risk assessment and needs to be considered along with all other risks.

As a guideline however:

- the distance between any point on the premises and a place of safety should ideally be a maximum of nine metres - a place of relative safety would, for example, be a protected route within the building
- In HMOs without a protected route (for example in smaller two storey shared houses) the travel distance will generally need to be calculated from the furthest corner of the most distant bedroom to the front door - the distance will often exceed nine metres



**Place of relative safety or protected route**

*Where nine metres travel distance is exceeded, landlords should consider this as an item of additional risk. Some examples of the ways that excessive travel distances can be offset are:*

- alternative escape measures (for example an escape window) or routes
- a higher standard of smoke detection or coverage
- water suppression system

Premises converted after 1991 with full Building Regulation Approval should already comply with travel distance requirements.

## Inner Rooms

A room from which the only escape is through another room is called an inner room. It is a risk if a fire starts in the outer room also known as the access room. Inner rooms may arise due to open planning of the premises. This situation is acceptable when the inner room is:

- a kitchen
- a laundry or utility room
- a dressing room
- a bathroom, WC or shower room

Any other room type would only be acceptable as an inner room if it is:

- on ground level where the inner room has an alternative means of escape
- there is a 30-minute fire door between the inner and access room

For all inner rooms

- both rooms must be in control of the same person
- the access room should ideally not be a higher fire risk to that of the inner room
- no person should have to pass through more than one inner room

Inner rooms must have one of the following three things

- detection in the outer room
- a vision panel on the door to the inner room
- a 500mm gap dividing the wall and the ceiling so that smoke will be seen

## Protected Routes and Stairs

Protected routes should be designed so they remain free of the products of combustion, smoke and flame for a sufficient time to allow all occupants of the premises to evacuate along it to a place of ultimate safety.

To achieve this there should be a level of fire separation between the risk rooms and the protected route and stairs; this can be achieved with 30-minute fire resisting construction.

Subject to a risk assessment it may be satisfactory to accept sound conventional construction throughout the route.

All protected routes should be maintained free of any obstructions and/or fire risks. Protected staircases should not include:

- any portable electric, gas or oil heaters
- any fixed heaters using a portable heating source such as liquefied gas
- any cooking facilities
- any furniture or storage

Storage cupboards should not be in protected routes unless they are fire resisting and kept locked shut and smoke alarms / detectors are fitted within them. Note: Cupboards less than one square metre need not have detection.

## Escape Windows

Where window openings are likely to be used for means of escape purposes the following guidance must be referred to:

- the window must have an unobstructed open-able window area that is at least 0.33m<sup>2</sup> with at least the width and height dimension being a minimum of 450mm. Side hung opening lights are

recommended

- care must be taken when considering the design (particularly with uPVC windows and their various hinge designs) to ensure the necessary openable area required is provided
- the window sill level must be not more than 1100mm, and not less than 800mm above floor level
- windows are suitable for means of escape where the drop from the window to ground level is one storey only (not exceeding 4.5m from first floor level to outside ground level)
- where a fire can affect both the primary and alternative means of escape, any opening within 1.8m either side of the escape window and 4.5m below must be constructed of fire resisting materials

Where the escape window cannot meet the above guidance and where a non-fire resisting window or other opening, located immediately (1.8m rule) below the window escape, and that opening cannot be protected by 30/60 minutes (dependant on requirement) fire resistance, then a window escape is not suitable.

The ground below an escape window must be flat and free from hazards (low walls, railings etc). Where security is provided on windows, means of opening must be readily available within the room. Where primary access to a sleeping room is through a high-risk room (i.e. communal, kitchen or living room) an alternative suitable means of escape **must** be provided via a door or escape window directly to the outside.

**Persons using a window as a means of escape must be able bodied and capable of escaping, unaided, through the window in the case of emergency. This should be confirmed as part of the fire risk assessment.**

## Electricity or Gas meter on escape route

Any electric and gas meter must be surrounded by a 30-minute fire resisting enclosure. The enclosure is to consist of 100mm x 50mm softwood framing faced with 12.5mm plasterboard both sides or alternatively 6mm fire protective board (for example Supalux) to the inner side of the framework. Scrim joints and apply minimum 3mm plaster skim to outer surface. Provide 30 minutes fire resisting door. Where a fire door is to be cut down to fit a smaller door opening, then solid core 30-minute fire resistant door blanks only are to be used. Hardwood lippings are to be glued and screwed to leaf edges once the door blank has been cut down to the required size. Ensure points where pipes or cables penetrate the cupboard are tightly sealed with a non-combustible compound capable of maintaining the 30 minutes fire resistant integrity of the cupboard structure (for example intumescent foam or paste).

Lead pipes are unsatisfactory, and the gas supply pipes should be of high melting point metal. The cupboard to the gas meter should be provided with ventilation grills at high and low levels, these must provide 30 minutes fire protection. The gas provider should be consulted to ensure they are satisfied with the arrangements, as they will require access to read meters.

## Under stairs cupboard

The soffit and spandrel partition to the staircase is to be made 30-minutes fire resisting construction. Apply to the existing soffit and spandrel 12.5mm plasterboard with 3mm skim coat, or 6mm minimum fire protective board (for example Supalux) with all joints filled with fire resisting compound. The cupboard below the stairs at ground floor level, in addition to the above, is to have all combustible materials removed. Fit new 30 minutes fire resisting door and frame. The door is to be kept locked shut. Apply notice to door reading "TO BE KEPT LOCKED SHUT", to comply with The Health and Safety (Safety Signs and Symbols) Regulations 1996.

## Loft Hatches

Loft hatches must provide 30 minutes fire resistance to the ceiling structure along the means of escape

for the property.

Remove the existing loft hatch. Provide and fix suitable lining complete with minimum 25mm deep stops, both to be glued and screwed to loft hatch frame. Provide and fit 30 minutes fire resistant loft hatch door to comprise solid core 30 minutes fire door blank, cut down to appropriate size, with hardwood lippings glued and screwed to each leaf edge. Provide and fit 10mm intumescent and smoke seals to be pinned into rebates on each leaf edge of the loft hatch door or alternatively into the loft hatch frame. The whole door to fit into the existing frame with no more than a 4mm gap at any point between the hatch door and the frame. 2-barrel bolts are to be provided and fitted on opposite sides of the exposed face to keep the hatch in a closed position under pressure when not in use.

## Emergency Lighting

Provision of an Emergency Lighting System to comply with parts of Current British Standard 5266 Part 1 (or equivalent).

This is a system of battery-powered lights, where the battery is continuously trickle charged from the mains supply. The lights are to be located on the fire escape route and are designed to operate if the local primary lighting sub-circuit fails, via a relay switch. The wiring should be carried out in twin and earth cable, and power must be taken directly from the landlord's supply. A qualified electrical contractor must carry out the installation. Upon completion, the contractor must provide an appropriate certificate. The system must have a suitable means for simulating failure of the normal supply so that you can test the system. It will not normally be necessary to install emergency lighting in all the locations required by the BS 5266, but the lighting should cover changes in direction and level along the escape route.

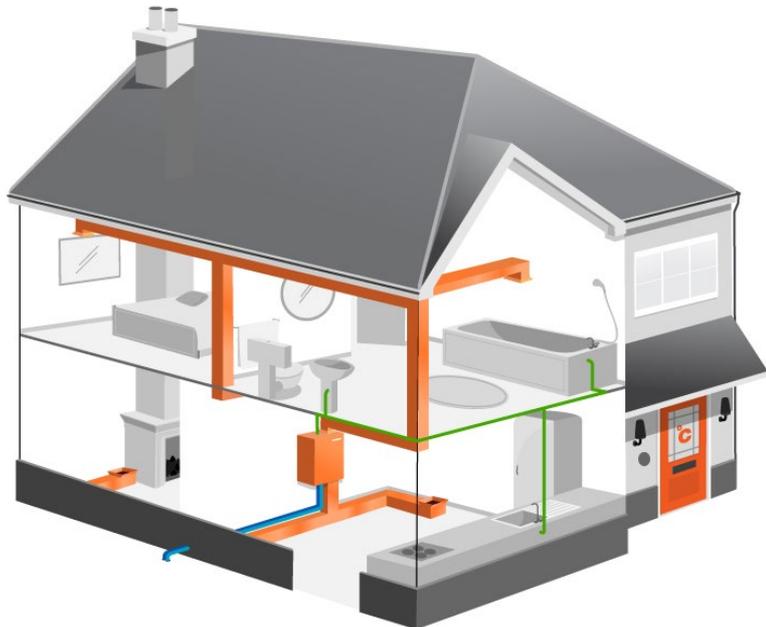
## Signs and Notices

Where the property is a licensed HMO, you are required to display fire exit signs. These should meet the following specification:

Clearly visible 'EXIT' signs comprising white figures on a green background should be provided within the stairwell at each landing level to clearly indicate the escape route from the building. Size 100mm x 500mm to comply with The Health and Safety (Safety Signs and Symbols) Regulations 1996. Exit signs above final exit doors shall be provided above alternative exit doors, for example above the rear door from the kitchen.

## Warm Air Heating Systems

Warm air heating systems have been in premises since approximately the 1970s. Even though they are an uncommon form of central heating today they are still used in some premises. Modern systems are currently being designed and installed but the same principles as the traditional systems apply.



A warm air heating system uses air as its heat transfer medium. This system relies on ducting and vents to distribute air around the premises. There is an air handler which filters and heats the air prior to circulation.

Traditional warm air heating systems do not have dampers in the duct work, unlike modern systems. Therefore, in the event of a fire the products of combustion, smoke and flame, can enter the ducting and spread round the premises.

For this reason, the following measures should be put in place:

**For Redundant systems** - if the warm air heating system is no longer used and is

redundant then it is recommended that each vent is infilled to give 30 minutes fire separation between rooms. The warm air heater should also be enclosed in 30 minutes fire resisting materials.

**For Active systems** - for a warm air heating system that is still in use then one of the following measures should be carried out. Dampers linked to the fire alarm system should be installed at each juncture where the system goes through a wall or floor. The dampers should be linked to the automatic fire detection system. The air handler would also need to shut down upon the activation of the fire alarm, to prevent damage to the vents due to pressurisation of the system.

# Means of giving early warning

## General Principles

The primary purpose of an automatic detection and warning system is to alert occupants to enable them to move away from a fire to a place of total safety while the escape routes are still clear of smoke. Within houses in multiple occupation as occupants may not be alert and awake the earliest means of giving warning is required.

**Please note: BS5839-6 (2019) has changed the requirements for HMO premises of one or two stories (below 200m<sup>2</sup>) for new or materially altered premises, which will now require a grade D category LD1 rather than LD2. Refer to Table 1(cont.) below.**

Table 1 (continued)

Class of premises	Minimum grade and category of system for installation in:			
	New or materially altered premises		Existing premises	
	Grade	Category	Grade	Category
<b>Houses in multiple occupation<sup>a)</sup> (HMOs)</b>				
HMOs of one or two storeys with no floor greater than 200 m <sup>2</sup> in area	D1	LD1 <sup>b)</sup>	D1	LD2 <sup>b)</sup>
Other HMOs:				
Individual dwelling units, within the HMO, comprising a single room, which include cooking facilities (bedsits)	D1 <sup>c)</sup>	LD1 <sup>d)</sup>	D1 <sup>c)</sup>	LD1 <sup>d)</sup>
Individual dwelling units, within the HMO, comprising a single room, which do not include cooking facilities (bedsits)	D1 <sup>c)</sup>	LD1 <sup>b)</sup>	D1 <sup>c)</sup>	LD1 <sup>b)</sup>
Individual dwelling units, within the HMO, comprising two or more rooms	D1 <sup>c)</sup>	LD2 <sup>b)</sup>	D1 <sup>c)</sup>	LD2 <sup>b)</sup>
Communal areas of the HMO	Grade A, Category LD2, with detectors sited in accordance with the recommendations of BS 5839-1:2017 for a Category L2 system <sup>e)</sup>			
<b>Sheltered housing<sup>f)</sup></b>				
Individual dwelling units	D2	LD1 <sup>b)</sup>	D2	LD2 <sup>b)</sup>
Communal areas	Grade A in accordance with the recommendations of BS 5839-1:2017 for a Category L4 or L5 system <sup>g)</sup>			
<b>Self-catering premises or premises with short-term paying guests</b>	D1	LD1 <sup>b)</sup>	D1	LD1 <sup>b)</sup>
<b>Supported housing</b>				
Single-storey	D1	LD1 <sup>b)</sup>	D1	LD1 <sup>b)</sup>
Two or more storeys and not more than four bedrooms	D1	LD1 <sup>b)</sup>	D1	LD1 <sup>b)</sup>
Two or more storeys and more than four bedrooms	A	LD1 <sup>b)</sup>	A	LD1 <sup>b)</sup>

<sup>a)</sup> Including premises with long-term lodgers, but not boarding houses, the latter of which are outside the scope of this part of BS 5839.

<sup>b)</sup> Houses shared by no more than six persons, generally living in a similar manner to a single family (e.g. houses rented by a number of students).

<sup>c)</sup> Including premises in which lodgers live as their principal home.

<sup>d)</sup> Heat detectors should be installed in every kitchen. A smoke detector should be installed in the principal habitable room (see 3.4.7). Where more than one room might be used as the principal habitable room, a smoke detector should be installed in each of these rooms. The detector in the principal habitable room (but not the kitchen) may alternatively be a carbon monoxide fire detector. However, consideration needs to be given to the potential for false alarms from a smoke detector in the lounge if a kitchen opens directly into, or is combined with, the lounge.

<sup>e)</sup> A Grade F1 system should be installed if there is any doubt regarding the long-term suitability or reliability of a battery-powered system, i.e. the ability to replace batteries.

<sup>f)</sup> Where electrical work such as a rewire is undertaken, a Grade D (D1 or D2), Category LD2 system should be installed.

## Grade A fire alarm systems

A Grade A fire alarm should be installed in any HMO that has a floor level above 4.5m. This is because any floor above 4.5m cannot have an alternative escape via escape windows. Therefore, the protected staircase is vital, and a higher standard of fire alarm is required. Any HMO with a floor level above 4.5m (i.e. Second Floor) regardless of the use of the ground floor should have a Grade A fire alarm system.

This comprises a system of electrically operated smoke and/or heat detectors, which are linked to a control panel to give information on the location of the fire or any fault, which may develop.

### Control panel

The control panel must conform to current BS EN 54: Part 2.

## Call points

These systems will normally incorporate manual break glass call points, located on each floor and at the final exit. The provision of break glass call points and their suitability should be assessed as part of the premises risk assessment. Your local Authority may not require the installation of call points on every level. If they are not on every level the alarm system will not comply fully with the British Standard.

## Audibility

The alarm signal must achieve sound levels of: -

- not less than 65dB (A) in all accessible parts of the building
- not less than 75dB (A) at all bed heads, to arouse sleeping persons when all doors are shut

It is the responsibility of the installation contractor to specify the appropriate number and location of alarm sounders to achieve these sound levels.

## Power supplies

The power supply for a Grade A system should be a dedicated circuit, segregated from other electric circuits by distance, conduit, trunking or cable type. The system must have a 72-hour battery backup.

The circuit should have its own switch/fuse close to the origin of the supply, which must be labelled with its function. The power supply for the alarm system must be in control of the landlord and must not be via a pre-pay meter.

## Wiring

The wiring should be of fire resisting cable or protected from fire by 30-minute construction and should be monitored to give warning at the control panel in the event of open or short circuit.

## Radio-linked system

Radio-linked systems (also called wireless systems) are considered in both BS 5839 part 1: 2013 and BS 5839 part 6: 2013. A specialist fire alarm contractor will need to be consulted to confirm that they can provide a system that meets the British Standards above.

# Grade D fire alarm systems

This category of fire alarm should be installed in premises that do not have a floor level above 4.5m. This is because any floor level below 4.5m can have an alternative escape via escape windows.

A grade D fire alarm comprises a system of one or more interlinked mains powered smoke and/or heat detectors each with an integral stand by battery and built in alarm.

## Control panel

A control panel is not required with this system.

## Call points

Call points are not required on a Grade D system.

## Audibility

The alarm signal must achieve sound levels of: -

- not less than 65dB (A) in all accessible parts of the building

- not less than 75dB (A) at all bed heads, to arouse sleeping persons when all doors are shut

It is the responsibility of the installation contractor to specify the appropriate number and location of alarm sounders to achieve these sound levels

### Power supplies

The power supply for a Grade D system should be a dedicated circuit or be connected to a regularly used, electrically protected, local lighting circuit. All smoke alarms and heat detectors should be connected to the same final circuit. The system must have a 72-hour battery back-up.

### Wiring

Wiring should comply with IEE Regulations (BS 7671)

### Radio-linked system

Radio-linked systems (also called wireless systems) are considered in both BS 5839 part 1 2013 and BS 5839 part 6 2013. A specialist fire alarm contractor will need to be consulted to confirm whether or not they can provide a system that meets the British Standards above.

## General requirements common to both systems

### What type of smoke detector?

There are three types of smoke detector currently on the market – ionisation, optical and combined. Optical detectors are generally more sensitive than ionisation for slow burning, smouldering fires that would be typical from foam filled upholstery. You should therefore opt to install optical or combined (detect smouldering and flaming fires) smoke detectors unless for instance a shower is present in the room. Further guidance can be sought from your installer and your local authority.

### Mounting position

Smoke/heat detectors should preferably be mounted on ceilings and should be located at least 300mm horizontally from any wall/beam or light fitting.

### Obstructions

If the passage of smoke or hot gases to a detector is likely to be disturbed by a ceiling obstruction (such as a beam) having a depth greater than 150mm, then detectors should be provided on each side of the obstruction.

### Power supply

It is not acceptable to provide power to the fire precautions via pre-payment or coin operated electric meters. All control panels, consumer units and electric meters must be in easily accessible locations within common areas of the dwelling i.e. not within bedrooms.

The manager is required to maintain the electric supply to the fire precaution system. This should be achieved by a dedicated electric circuit that is under the control of the manager.

### Mixed use buildings

Where there is a mixture of residential and commercial use within the same building, the fire alarm system may be required to be installed in accordance with the current British Standard 5839 Part 1 (or equivalent). **Contact your local authority for further advice in these circumstances.**

## Certification

Fire alarm systems must be installed by a suitably qualified electrical contractor. Upon completion, the contractor must provide an installation, commissioning and test certificate (see model certificate on next page).

## Remote control switch

Where a non-interlinked smoke detector is installed in a room containing cooking facilities, an alarm control switch linked to the detector should be fitted. The switch should be wall-mounted adjacent to the exit door. This switch will allow the tenant to test the alarm or, by pressing the “hush” switch, will allow the silencing of false alarms. See Glossary for further details.

# Model Installation, Commissioning and Test Certificate

Model certificate for Grades B, C, D, E and F systems



This certificate is not valid if the serial number has been defaced or altered

**FHN2 (B-F)/**

**TRACEABLE SERIAL NUMBER**

## CERTIFICATE OF DESIGN, INSTALLATION AND COMMISSIONING OF A FIRE DETECTION AND ALARM SYSTEM OF GRADE B, C, D, E OR F IN A DWELLING

Original (to the person ordering the work)

DETAILS OF THE CLIENT		Issued in accordance with BS 5839-6 : 2004.
Client:		
Address:		

DETAILS OF THE FIRE DETECTION AND ALARM SYSTEM		The system is
Address:		
Extent of the fire detection and alarm system covered by this certificate	<input type="checkbox"/> New <input type="checkbox"/> An addition <input type="checkbox"/> An alteration	

DESCRIPTION OF SYSTEM GRADE AND SYSTEM CATEGORY		Tick boxes as appropriate
System grade	<input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/> F	System category: <input type="checkbox"/> LD1 <input type="checkbox"/> LD2 <input type="checkbox"/> LD3 <input type="checkbox"/> PD1 <input type="checkbox"/> PD2

COMMISSIONING		See Note 1	A tick in the box indicates the inspection or test has been performed and the results are satisfactory. N/A indicates an inspection or test is Not Appropriate	See Note 2
Test buttons checked	<input type="checkbox"/>	Simulated smoke or aerosol test	<input type="checkbox"/>	Sound level test instrument used
All alarm warning devices operate	<input type="checkbox"/>	Heat test	<input type="checkbox"/>	Model and serial No.
Silencing system checked	<input type="checkbox"/>	Bedroom sound level (Clause 13.2)	<input type="checkbox"/>	Serial No. of associated Electrical Installation Certificate or Minor Electrical Installation Works Certificate (See Note 1)
		Dedicated circuit(s) provided	<input type="checkbox"/>	
		Protective device labelled	<input type="checkbox"/>	
		Audible and visual indication of mains failure	<input type="checkbox"/>	

USER INSTRUCTIONS		Tick boxes to indicate that the written information has been issued to the user
I/We the undersigned declare that the occupier* of the dwelling (or owner in the case of a house in multiple occupancy) has been provided with written information about essential aspects of the operation and maintenance of the system, as follows:		
Operation of the system	<input type="checkbox"/>	Routine testing of the system
Action to be taken in the event of a fire alarm signal	<input type="checkbox"/>	Servicing and maintenance of the system (including intervals at which any batteries should be replaced)
Avoidance of false alarms and action in the event of a false alarm	<input type="checkbox"/>	The need to keep clear space around all detectors and manual call points
Warning that apparent false alarm from carbon monoxide detector may not be false alarm	<input type="checkbox"/>	Special precautions relevant to any lithium batteries used in the system
		Checking the system on reoccupation of the dwelling after a vacation etc.
		The need to avoid contamination of detectors by paint
		As-fitted drawing

\* In the case of a newly-built property and where the future occupier is unknown, the User Instructions should be issued to the builder for onward transmission to the purchaser together with the related electrical safety certificate.

CERTIFICATION OF DESIGN, INSTALLATION AND COMMISSIONING	
I/We, being the person(s) responsible (as indicated by my/our signature(s) below), for the design, installation, and commissioning of the fire alarm system, particulars of which are set out above, CERTIFY that the said work for which I/we have been responsible complies to the best of my/our knowledge and belief with the recommendations of BS 5839: Part 6 for the system described above, except for the variations, if any, stated below:	
Variations (if any):	
The extent of liability of the signatory is limited to the work described above as the subject of this certificate.	
For the DESIGN, INSTALLATION AND COMMISSIONING of the system:	This certificate has been reviewed by the Qualified Supervisor:
Signature _____ Date _____	Signature _____ Date _____
Name (CAPITALS) _____	Name (CAPITALS) _____

DETAILS OF THE APPROVED CONTRACTOR	
Trading Title	
Address	
Postcode	
	NICEIC Enrolment No (Essential information)
	Branch number (if applicable)

**Note 1.** The electrical safety aspects of the fire detection and alarm system must also be certified in accordance with BS 7671: 'Requirements for Electrical Installations' by issuing an electrical safety certificate of a form which meets the requirements of BS 7671, such as a 'Domestic Electrical Installation Certificate' or, where appropriate, a 'Minor Electrical Installation Works Certificate'.

**Note 2.** An instrument complying with BS EN 61672: Class 2, with slow response and A weighting (see Clause 13.2), is suitable for measuring the sound level.

**Note 3.** This certificate may be required by an authority responsible for enforcement of the safety legislation, such as the building control authority or housing authority. The recipient of this certificate might rely on the certificate as evidence of compliance with legislation. Liability could arise on the part of any organization or person that issues a certificate without due care in ensuring its validity.

Please see the 'Notes for Recipient' on the reverse of this page.

This form is based on the model in Annex F of BS 5839: Part 6: 2004  
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# Water suppression systems

## General principles

Although fire sprinklers were invented in the UK in 1864 it was not until 1973 that their use for life safety was seriously investigated. Even since then the UK has not been proactive in extending and developing their use in residential premises despite many other countries passing local laws relating to them. Scottsdale in Arizona introduced a requirement for sprinklers to be fitted to all new premises in 1985. The impact of this requirement was investigated after ten years and found that in properties with sprinklers there had been:

- No fire deaths
- 80% reduction in fire injuries
- 80% reduction in property damage
- 95% reduction for water usage for fire control

There is an extremely low risk of a false alarm with sprinklers and when one sprinkler is triggered it does not trigger any of the others. An auto dialler can be fitted to the system so that in the case of a sprinkler operating, the call is transmitted to the fire brigade and the owner/manager automatically.

In short, should a fire occur, the sprinkler or water mist system:

- cools the room to prevent flashover
- limits the size of the fire, often extinguishing it
- prevents structural fire damage
- reduces the toxic smoke emissions

The damage that is caused by the water from the sprinkler is generally much less than the damage that would be caused by the fire, smoke, and the water from the fire brigade extinguishing a fire in a property with traditional fire precautions. Sprinklers and associated pipe work can be fitted in the ceiling void and all that is visible is a small disc on the room ceiling.

*One of the main advantages to the landlord is design freedoms. These may include relaxation of the requirement for fire doors allowing properties to maintain traditional features, increased travel distances and a reduction in structural fire protection. A risk-based assessment will be made as to the individual requirements for each property and detailed below is an example specification.*

## Sprinkler and water mist specification

A residential sprinkler system designed, installed and maintained in accordance with BS 9251 2005 should be provided throughout the premises; alternatively, a water mist system can be installed in accordance with BS 8458. The system is to be installed by a contractor approved by The Fire Sprinkler Association – a list of approved contractors is available from them on request. Alternative qualifications may be acceptable; you should contact your local authority for approval of your contractor.

The water suppression system is to be linked to an automatic fire detection system and where a head is activated the fire alarm system shall also be activated. The type of fire detection system required will depend on the type and layout of the building. Again, guidance should be sought from your local authority. Generally, the requirements will match those required in the examples given in this document, with the exception that heat detectors are not required.

When the sprinkler system is activated audibility levels of 75db(A) are to be achieved at the bedhead in each room (with the bedroom doors closed). As a guide only - sounders positioned in the common areas producing approximately 100db(A) should be capable of producing this sound level at the bedhead. Where the water suppression system is linked to the fire alarm system 'common' sounders for the 2 systems can be used, although the water suppression system must still have its own external visual and audio alarm and a single internal audio alarm.

A monitored link/auto dialler shall be installed so that when a head is activated the fire service or the landlord/responsible person for the property is contacted. The link is only to be activated when the water suppression system is activated **not** when the fire alarm system is activated.

When installation is completed, the approved contractor is to provide the documentation detailed in section 6.3.2 of BS 9251. A copy of this is to be provided for the local authority.

The landlord or responsible person must have a maintenance contract with a competent person or company to maintain the system in accordance with section 7 of BS 9251. Details of maintenance are to be available at reasonable request.

A system logbook to record every event involving the system is to be kept accessible and maintained.

### Design freedoms

A water suppression system is not a fire safety solution on its own. In isolation they cannot provide an acceptable level of fire safety in residential accommodation to meet the requirements of current legislation. However along with an appropriate automatic fire detection and alarm system there are certain design freedoms that the installation of a water suppression system will allow. Prior to the commissioning of the system any design freedoms must be agreed through consultation with the fire authority and local authority.

The installation of a water suppression system will allow

- where the suppression system is installed throughout the HMO in conjunction with a fire resisting partition and fire resisting door separating the ground and first floor this will enable occupants on upper floors to access an escape window at first floor level, and the internal layout of the ground floor may be open plan
- relaxations on inner room situations
- reduction of fire separation/compartimentation
- extended travel distances within the HMO
- relaxation of heat detection, would not require heat detection in kitchens

## Appendix 1 – example floor plans

The following pages include some typical examples of house layouts and recommended works. Remember that these are suggested ways of complying with the basic principles. There may be other options, and you should discuss these with your local authority.

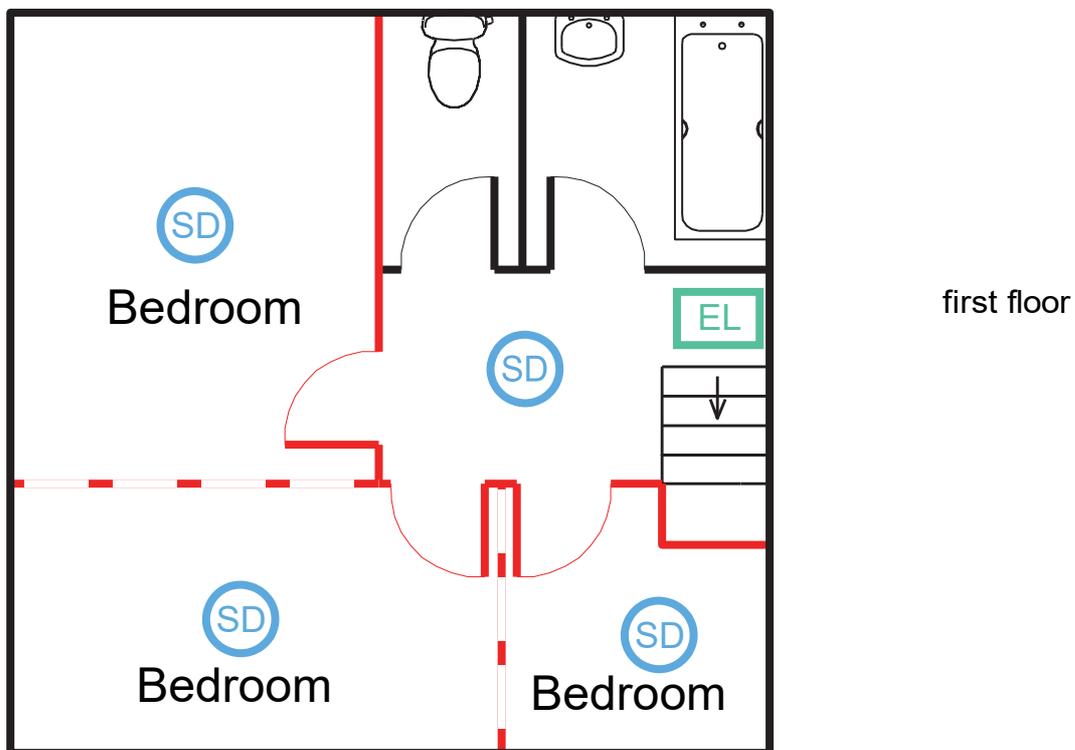
### Key to plans

	30 minute fire resistance (wall/door/ partition etc.)
	Sound traditional construction
	1 hour fire resistance (wall/door/ partition etc.)
	Smoke detector - interlinked, mains wired with battery back up
	Heat detector - interlinked mains wired with battery back up
	Smoke detector - independent mains wired. (recommended hush facility.)
	Fire blanket
	Emergency light
	Control panel - for fire detection system
	Break glass point
	Emergency escape window
	Loft hatch – 30-minute fire resistance
	Electric meter to be boxed in to 30-minute fire resistance
	Gas meter to be boxed in to 30-minute fire resistance

## Outline requirements for example property. Plan 1

<b>Detection/ Warning</b>	A system of mains powered interlinked automatic smoke and heat detectors to form a grade D LD2 system in accordance with BS 5839 part 6 (or equivalent). System to incorporate interlinked smoke alarms with integral battery back-up throughout the escape route. Interlinked smoke alarms with integral battery back-up in each bedroom, communal living room, and cellar. Interlinked heat alarms with integral battery back-up in communal kitchens.
<b>Call Points</b>	Not required.
<b>Control Panel</b>	Not required.
<b>Emergency Lighting</b>	Conventional lighting is required throughout the escape route. Emergency lighting maybe appropriate if the route is complex or there is no effective borrowed light. The requirement for, and the degree of emergency lighting will depend on the design of the property and the location of the escape route and form part of the overall fire risk assessment. Where considered necessary it must be designed and installed in accordance with BS 5266 part 1 (or equivalent).” Further advice on emergency lighting can be found on page 17.
<b>Escape Route</b>	The escape route should allow occupants from all parts of the building to reach a place of safety outside without passing through a higher fire risk area. The route should be always kept free of obstructions and combustible materials, and the walls and ceilings should be free of flammable materials such as polystyrene ceiling tiles and heavy flock wallpaper. At least 30-minute fire resistance should be provided to the route as indicated by red on the accompanying plan. There is no requirement for additional fire separation between rooms, but the walls and floors should be of sound traditional construction. Electric and Gas meters located in the escape route should either be re-located or contained within fire resisting construction to provide at least 30-minute fire resistance. Pages 49 to 54 show specifications relating to fire resisting construction.
<b>Fire Doors</b>	A fire door of at least 30-minute fire resistance must be installed in each doorway leading onto the escape route, except bathrooms and WCs (unless they contain a fire risk such as a boiler). Refer to pages 56 and 57 for specification of fire doors.
<b>Security of Doors</b>	Security devices on bedrooms and final exit doors must be capable of being opened from the inside without the use of keys, i.e. Yale type or thumb turn locks.
<b>Fire Blankets</b>	A fire blanket should be provided in each area where there are cooking facilities, and be wall mounted 1.5m high adjacent to an exit door and away from the cooking appliance. These must comply with BS-EN 1869:1997 (or equivalent).
<b>Fire Extinguishers</b>	Where the risk assessment indicates that fire extinguishers are required, they shall be multipurpose extinguishers and shall be located as requested by the risk assessment. If provided they shall be maintained in working order and residents instructed in their use.
<b>Other Recommendations</b>	Polystyrene ceiling tiles should not be used within the premises. Portable heaters using gas cylinders or flammable liquids should not be used or stored in the premises. Fire doors across escape routes, communal kitchens, and boiler rooms should be marked ‘Fire door keep shut’ Reference should be made to ‘The Management of Houses in Multiple Occupation (England) Regulations 2006’. Regulation 4 relates to signs on fire escape routes, the maintenance of firefighting equipment and alarms.

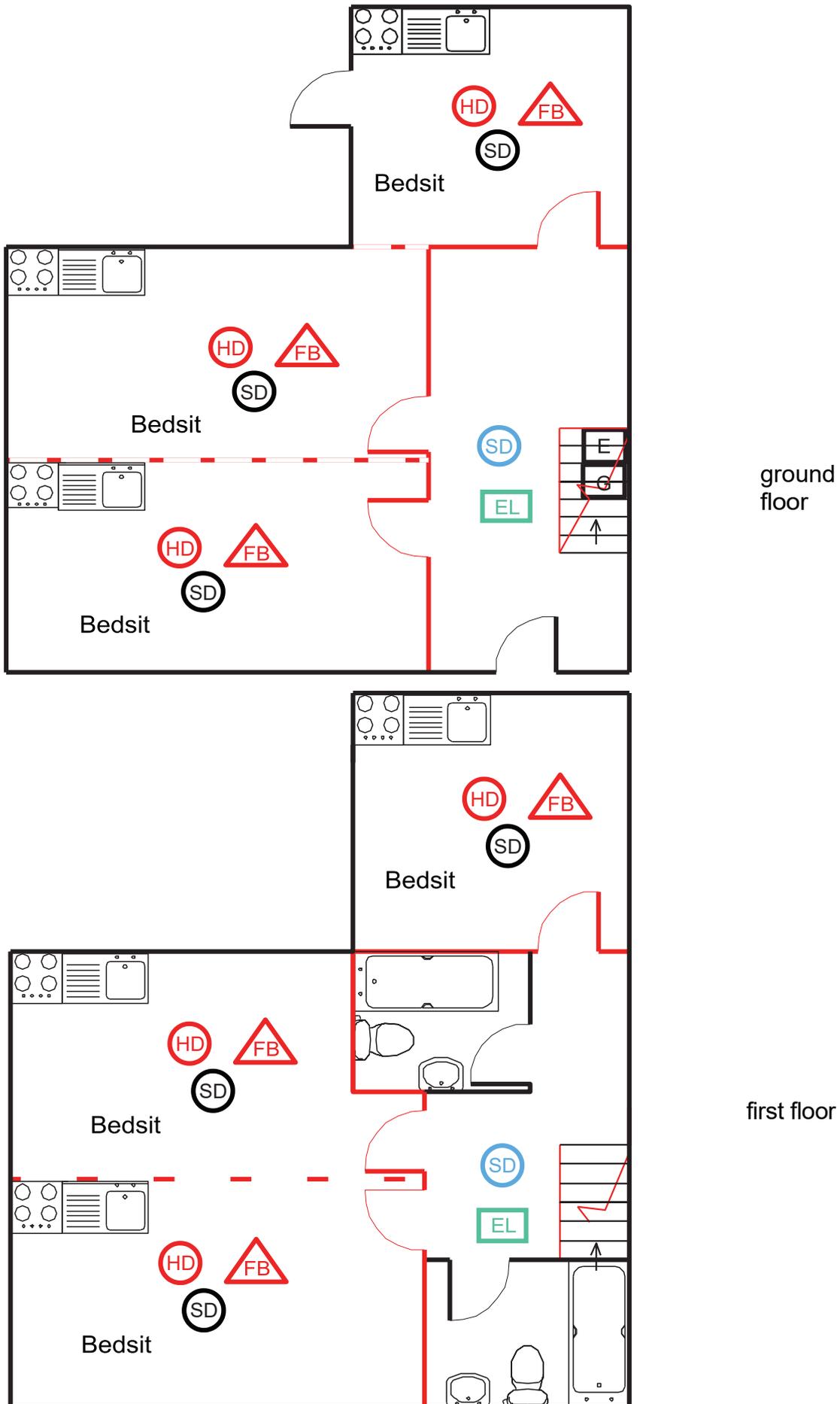
Plan 1. Typical two storey HMO with shared cooking facilities.



## Outline requirements for example property. Plan 2

<b>Detection/ Warning</b>	A system of mains powered interlinked automatic smoke and heat detectors to form a Grade D LD2 system in accordance with BS 5839 Part 6 (or equivalent). System to incorporate interlinked smoke alarms with integral battery back-up throughout the escape route, any communal living room and cellar. Interlinked heat alarms with integral battery back-up in each bedroom containing cooking facilities. Additional non-interlinked smoke alarms with integral battery back-up in each bedroom. It is recommended that these have a hush facility.
<b>Call Points</b>	Not required.
<b>Control Panel</b>	Not required.
<b>Emergency Lighting</b>	Conventional lighting is required throughout the escape route. Emergency lighting maybe appropriate if the route is complex or there is no effective borrowed light. The requirement for, and the degree of emergency lighting will depend on the design of the property and the location of the escape route and form part of the overall fire risk assessment. Where considered necessary it must be designed and installed in accordance with BS 5266 part 1 (or equivalent). Further advice on emergency lighting can be found on page 17.
<b>Escape Route</b>	Escape routes should allow occupants from all parts of the building to reach a place of safety outside without passing through a higher fire risk area. The route should always be kept free of obstructions and combustible materials, and the walls/ceilings should be free of flammable materials such as polystyrene ceiling tiles or heavy flock wallpaper. At least 30-minute fire resistance should be provided to the route as indicated by red on the accompanying plan. There is no requirement for additional fire separation between rooms, but the walls/floors should be of sound traditional construction. Electric/Gas meters located in the escape route should either be re-located or contained within fire resisting construction to provide at least 30-minute fire resistance. Pages 49 to 54 show specifications relating to fire resisting construction.
<b>Fire Doors</b>	A fire door of at least 30-minute fire resistance must be installed in each doorway leading onto the escape route, except bathrooms and WC's (unless they contain a fire risk such as a boiler). Refer to pages 56 and 57 for specification of fire doors.
<b>Security of Doors</b>	Security devices on bedrooms and final exit doors must be capable of being opened from the inside without the use of keys, i.e. Yale type or thumb turn locks.
<b>Fire Blankets</b>	A fire blanket should be provided in each area where there are cooking facilities, and be wall mounted 1.5m high adjacent to an exit door and away from the cooking appliance. These must comply with BS-EN 1869:1997 (or equivalent).
<b>Fire Extinguishers</b>	Where the risk assessment indicates that fire extinguishers are required, they shall be multipurpose extinguishers and shall be located as requested by the risk assessment. If provided they shall be maintained in working order and residents instructed in their use.
<b>Other Recommendations</b>	Polystyrene ceiling tiles should not be used within the premises. Portable heaters using gas cylinders or flammable liquids should not be used or stored in the premises. Fire doors across escape routes, communal kitchens, and boiler rooms should be marked 'Fire door keep shut' Reference should be made to 'The Management of Houses in Multiple Occupation (England) Regulations 2006'. Regulation 4 relates to signs on fire escape routes, the maintenance of firefighting equipment and alarms.

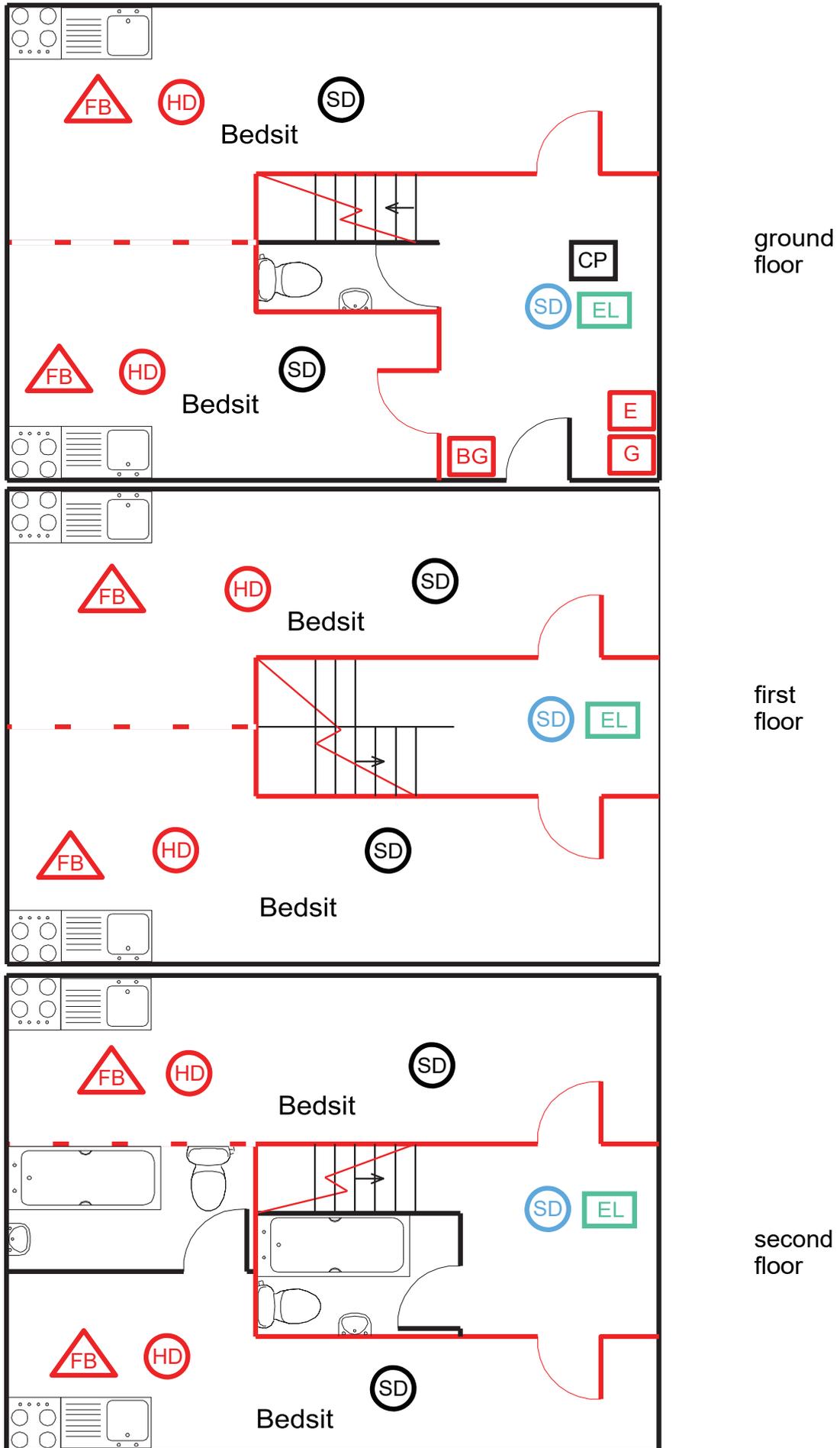
Plan 2. Typical two storey HMO with cooking facilities in each let.



## Outline requirements for example property. Plan 3

<b>Detection/ Warning</b>	A system of mains powered interlinked automatic smoke and heat detectors to form a grade A LD2 system in accordance with BS 5839 part 6 (or equivalent). System to incorporate interlinked smoke alarms with integral battery back-up throughout the escape route, any communal living room, and cellar. Interlinked heat alarms with integral battery back-up in each bedroom containing cooking facilities. Additional non-interlinked smoke alarms with integral battery back up in each bedroom. It is recommended that these have a hush facility.
<b>Control Panel</b>	Must conform to BS EN 54: Part 2. Must locate in an easily accessible position within the escape route.
<b>Call Points</b>	Manual break glass points should be installed in numbers and positions determined by fire risk assessment. At least one should be installed close to the final exit of the of the escape route.
<b>Emergency Lighting</b>	To be provided in accordance with the current BS 5266 Part 1 (or equivalent) to cover the protected escape route. Location of light fittings to be determined by the design/installing engineer. Further advice on emergency lighting can be found on page 17.
<b>Escape Route</b>	The escape route should allow occupants from all parts of the building to reach a place of safety outside without passing through a higher fire risk area. The route must always be free of obstructions and combustible materials, and the walls and ceilings should be free of flammable materials such as polystyrene ceiling tiles and heavy flock wallpaper. At least 30-minute fire resistance should be provided to the route as indicated by red on the accompanying plan. There is no requirement for additional fire separation between rooms, but the walls and floors should be of sound traditional construction. Electric and Gas meters located in the escape route should either be re-located or contained within fire resisting construction to provide at least 30-minute fire resistance. Pages 49 to 54 show specifications relating to fire resisting construction.
<b>Fire Doors</b>	A fire door of at least 30-minute fire resistance must be installed in each doorway leading onto the escape route, except bathrooms and WCs (unless they contain a fire risk such as a boiler). Refer to pages 56 and 57 for specification of fire doors.
<b>Security of Doors</b>	Security devices on bedrooms and final exit doors must be capable of being opened from the inside without the use of keys, i.e. Yale type or thumb turn locks.
<b>Fire Blankets</b>	A fire blanket should be provided in each area where there are cooking facilities, and be wall mounted 1.5m high adjacent to an exit door and away from the cooking appliance. These must comply with BS-EN 1869:1997 (or equivalent).
<b>Fire Extinguishers</b>	Where the risk assessment indicates that fire extinguishers are required, they shall be multipurpose extinguishers and shall be located as requested by the risk assessment. If provided they shall be maintained in working order and residents instructed in their use.
<b>Other Recommendations</b>	Polystyrene ceiling tiles should not be used within the premises. Portable heaters using gas cylinders or flammable liquids should not be used or stored in the premises. Fire doors across escape routes, communal kitchens, and boiler rooms should be marked 'Fire door keep shut' Reference should be made to 'The Management of Houses in Multiple Occupation (England) Regulations 2006'. Regulation 4 relates to signs on fire escape routes, the maintenance of firefighting equipment and alarms.

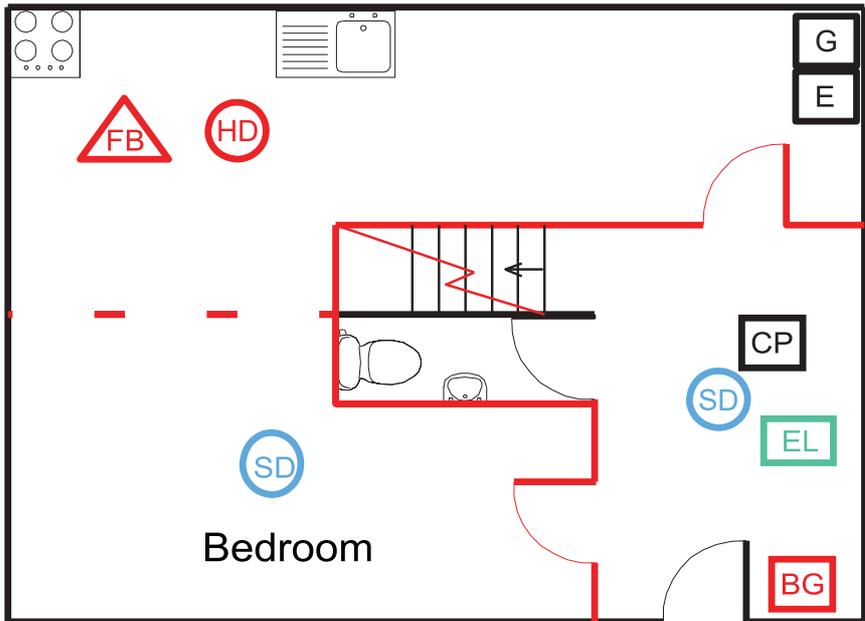
Plan 3. Typical three storey HMO with cooking in each of the lets.



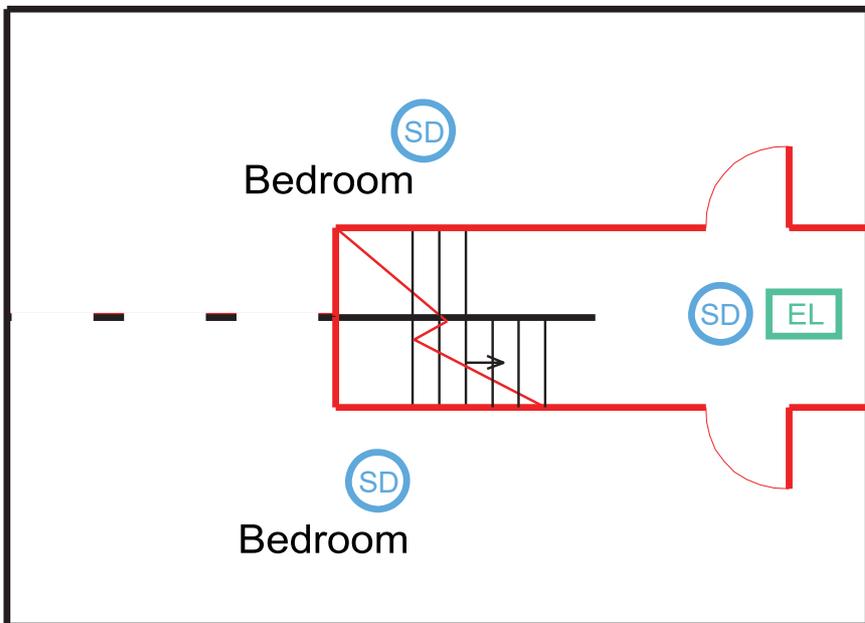
## Outline requirements for example property. Plan 4

<b>Detection/ Warning</b>	A system of mains powered interlinked automatic smoke and heat detectors to form a Grade A LD2 system in accordance with BS 5839 Part 6 (or equivalent). System to incorporate interlinked smoke alarms with integral battery back-up throughout the escape route, in each bedroom, communal living room and cellar. Interlinked heat alarms with integral battery back-up in communal kitchens.
<b>Call Points</b>	Manual break glass points should be installed in numbers and positions determined by fire risk assessment. At least one should be installed close to the final exit of the of the escape route.
<b>Control Panel</b>	Must confirm to BS EN 54: Part 2 and be in an easily accessible position within the escape route.
<b>Emergency Lighting</b>	Conventional lighting is required throughout the escape route. Emergency lighting maybe appropriate if the route is complex or there is no effective borrowed light. The requirement for, and the degree of emergency lighting will depend on the design of the property and the location of the escape route and form part of the overall Fire risk assessment. Where considered necessary it must be designed and installed in accordance with BS 5266 part 1 (or equivalent). Further advice on emergency lighting can be found on page 17.
<b>Escape Route</b>	The escape route should allow occupants from all parts of the building to reach a place of safety outside without passing through a higher fire risk area. The route must always be free of obstructions and combustible materials, and the walls and ceilings should be free of flammable materials such as polystyrene ceiling tiles and heavy flock wallpaper. At least 30-minute fire resistance should be provided to the route as indicated by red on the accompanying plan. There is no requirement for additional fire separation between rooms, but the walls and floors must be of sound traditional construction. Electric and gas meters located in the escape route should either be re-located or contained within fire resisting construction to provide at least 30-minute fire resistance. Pages 49 to 54 show specifications relating to fire resisting construction.
<b>Fire Doors</b>	A fire door of at least 30-minute fire resistance must be installed in each doorway leading onto the escape route, except bathrooms and WC's (unless they contain a fire risk such as a boiler). Refer to pages 56 and 57 for specification of fire doors.
<b>Security of Doors</b>	Security devices on bedrooms and final exit doors must be capable of being opened from the inside without the use of keys, i.e. Yale type or thumb turn locks.
<b>Fire Blankets</b>	A fire blanket should be provided in each area where there are cooking facilities, and be wall mounted 1.5m high adjacent to an exit door and away from the cooking appliance. These must comply with BS-EN 1869:1997 (or equivalent).
<b>Fire Extinguishers</b>	Where the risk assessment indicates that fire extinguishers are required, they shall be multipurpose extinguishers and shall be located as requested by the risk assessment. If provided they shall be maintained in working order and residents instructed in their use.
<b>Other Recommendations</b>	Polystyrene ceiling tiles should not be used within the premises. Portable heaters using gas cylinders or flammable liquids should not be used or stored in the premises. Fire doors across escape routes, communal kitchens, and boiler rooms should be marked 'Fire door keep shut' Reference should be made to 'The Management of Houses in Multiple Occupation (England) Regulations 2006'. Regulation 4 relates to signs on fire escape routes, the maintenance of firefighting equipment and alarms.

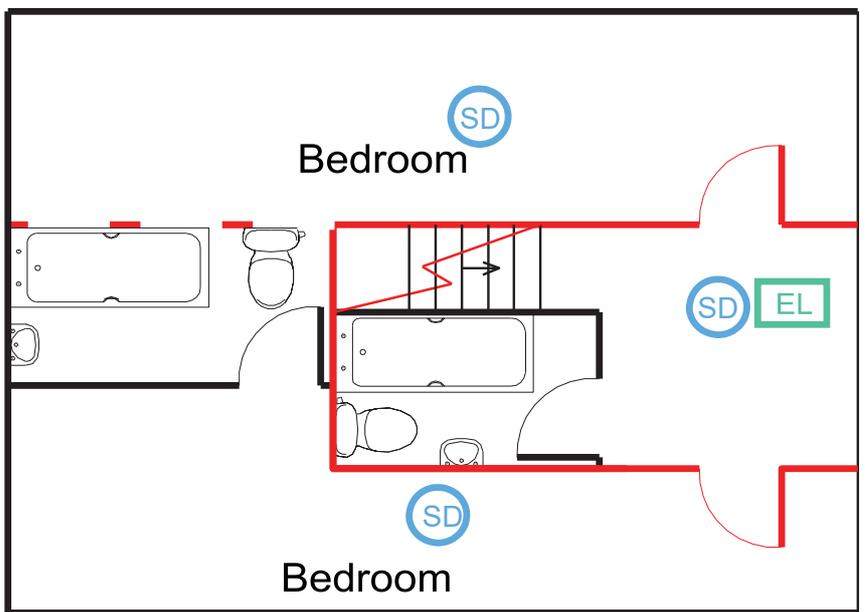
Plan 4. Typical three storey HMO with shared cooking facilities



ground floor



first floor

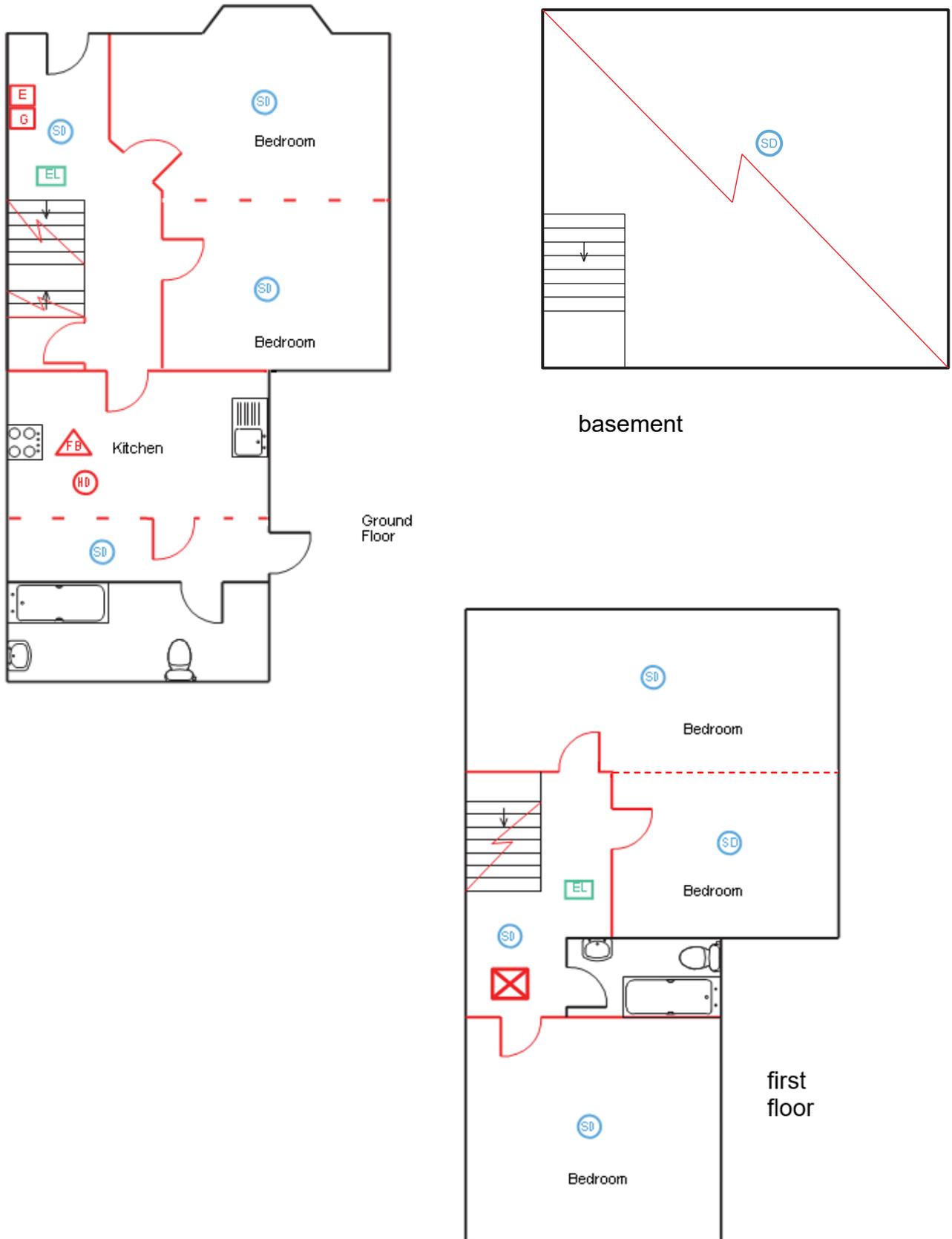


second floor

## Outline requirements for example property. Plan 5

<b>Detection/ Warning</b>	A system of mains powered smoke detectors and heat detectors with battery back-up and built in alarm to achieve BS 5839 Part 6: Grade D (or equivalent). Detectors must be sited in all areas containing a fire risk including the basement. In kitchens a heat detector rather than a smoke detector must be installed. All detectors must be interlinked so that if one detector is triggered, the alarm sounds in every alarm location.
<b>Call Points</b>	Not required.
<b>Control Panel</b>	Not required.
<b>Emergency Lighting</b>	Conventional lighting is required throughout the escape route. Emergency lighting maybe appropriate if the route is complex or there is no effective borrowed light. The requirement for, and the degree of emergency lighting will depend on the design of the property and the location of the escape route and form part of the overall Fire risk assessment. Where considered necessary it must be designed and installed in accordance with BS 5266 part 1 (or equivalent). Further advice on emergency lighting can be found on page 17.
<b>Escape Route</b>	The escape route should allow occupants from all parts of the building to reach a place of safety outside without passing through a higher fire risk area. The route must always be free of obstructions and combustible materials, and the walls and ceilings should be free of flammable materials such as polystyrene ceiling tiles and heavy flock wallpaper. At least 30-minute fire resistance should be provided to the route as indicated by red on the accompanying plan. There is no requirement for additional fire separation between rooms, but the walls and floors must be of sound traditional construction. Ceilings between basement and ground floor escape route should be constructed to provide 30-minute fire resistance as indicated in blue on the accompanying plan. Electric and Gas meters located in the escape route should either be re-located or contained within fire resisting construction to provide at least 30-minute fire resistance. Pages 49 to 54 show specifications relating to fire resisting construction.
<b>Fire Doors</b>	A fire door of at least 30-minute fire resistance must be installed in each doorway leading onto the escape route, except bathrooms and WCs (unless they contain a fire risk such as a boiler). Refer to pages 56 and 57 for specification of fire doors.
<b>Security of Doors</b>	Security devices on bedrooms and final exit doors must be capable of being opened from the inside without the use of keys, i.e. Yale type or thumb turn locks.
<b>Fire Blankets</b>	A fire blanket should be provided in each area where there are cooking facilities, and be wall mounted 1.5m high adjacent to an exit door and away from the cooking appliance. These must comply with BS-EN 1869:1997 (or equivalent).
<b>Fire Extinguishers</b>	Where the risk assessment indicates that fire extinguishers are required, they shall be multipurpose extinguishers and shall be located as requested by the risk assessment. If provided they shall be maintained in working order and residents instructed in their use.
<b>Other Recommendations</b>	Polystyrene ceiling tiles should not be used within the premises. Portable heaters using gas cylinders or flammable liquids must not be used or stored in the premises. Fire doors across escape routes, communal kitchens, and boiler rooms should be marked 'Fire door keep shut'. Reference should be made to 'The Management of Houses in Multiple Occupation (England) Regulations 2006' Regulation 4 relates to signs on fire escape routes, the maintenance of firefighting equipment and alarms.

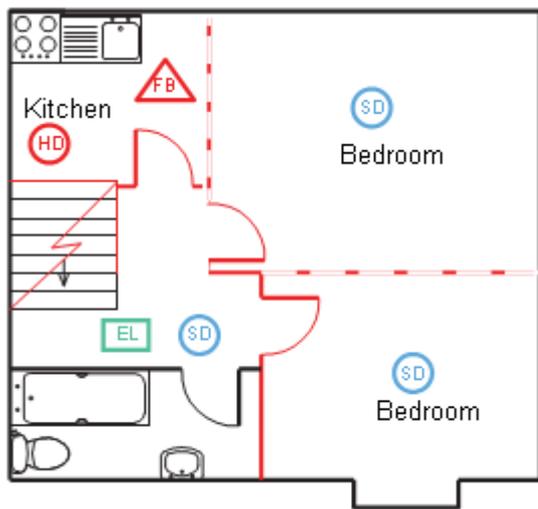
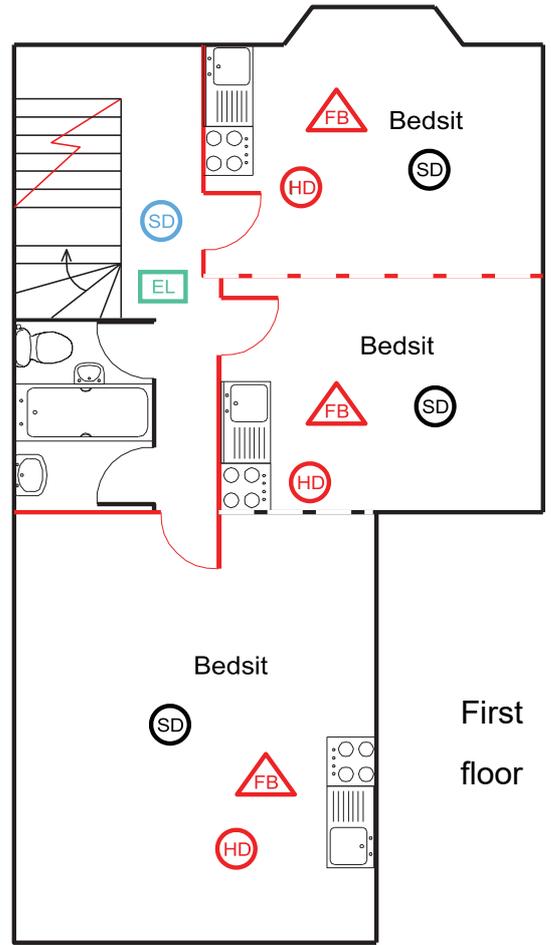
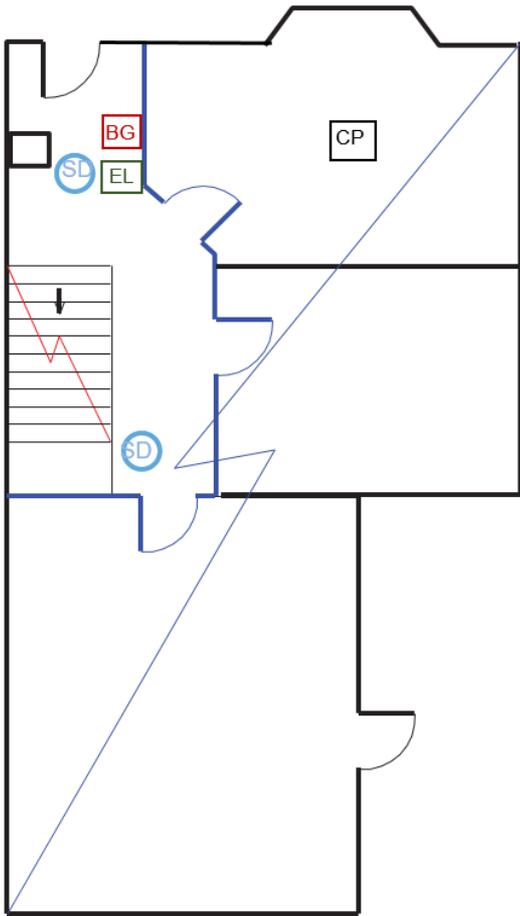
Plan 5. Typical two storey HMO with basement.



## Outline requirements for example property. Plan 6

<b>Detection/ Warning</b>	A system of mains powered interlinked automatic smoke and heat detectors linked to a control panel with a built-in alarm to achieve BS 5839 Grade A (or equivalent). The main system to provide heat detectors in individual lets and smoke detectors in common areas and any storerooms/cellars. All detectors must be interlinked so that if one detector is triggered, the alarm sounds in every alarm location. In addition, to provide an early warning to occupiers of a fire occurring within their room, a point-source mains-wired smoke alarm is required, it is recommended that <del>these have a hush facility. These detectors are not interlinked between rooms.</del>
<b>Call Points</b>	Manual break glass points should be installed in numbers and positions determined by fire risk assessment. At least one should be installed close to the final exit of the of the escape route.
<b>Control Panel</b>	Must confirm to BS EN 54: Part 2. Must be in an easily accessible position within the escape route.
<b>Emergency Lighting</b>	Conventional lighting is required throughout the escape route. Emergency lighting maybe appropriate if the route is complex or there is no effective borrowed light. The requirement for, and the degree of emergency lighting will depend on the design of the property and the location of the escape route and form part of the overall fire risk assessment. Where considered necessary it must be designed and installed in accordance with BS 5266 part 1 (or equivalent). Further advice on emergency lighting can be found on page 17.
<b>Escape Route</b>	The escape route should allow occupants from all parts of the building to reach a place of safety outside without passing through a higher fire risk area. The route must always be free of obstructions and combustible materials, and the walls and ceilings should be free of flammable materials such as polystyrene ceiling tiles and heavy flock wallpaper. At least 30-minute fire resistance should be provided to the route as indicated by red on the accompanying plan. There is no requirement for additional fire separation between rooms, but the walls and floors must be of sound traditional construction. Ceilings and walls between commercial and residential areas should be constructed to provide 1 hour fire resistance as indicated in blue on the accompanying plan. Electric and gas meters located in the escape route should either be re-located or contained within fire resisting construction to provide at least 30-minute fire resistance. Pages 49 to 54 show specifications relating to fire resisting construction.
<b>Fire Doors</b>	A fire door of at least 30-minute fire resistance must be installed in each doorway leading onto the escape route, except bathrooms and WCs (unless they contain a fire risk such as a boiler). Refer to pages 56 and 57 for specification of fire doors.
<b>Security of Doors</b>	Security devices on bedrooms and final exit doors must be capable of being opened from the inside without the use of keys, i.e. Yale type or thumb turn locks.
<b>Fire Blankets</b>	A fire blanket should be provided in each area where there are cooking facilities, and be wall mounted 1.5m high adjacent to an exit door and away from the cooking appliance. These must comply with BS-EN 1869:1997 (or equivalent).
<b>Fire Extinguishers</b>	Where the risk assessment indicates that fire extinguishers are required, they shall be multipurpose extinguishers and shall be located as requested by the risk assessment. If provided they shall be maintained in working order and residents instructed in their use
<b>Other Recommendations</b>	Polystyrene ceiling tiles should not be used within the premises. Portable heaters using gas cylinders or flammable liquids must not be used or stored in the premises. Fire doors across escape routes, communal kitchens, and boiler rooms should be marked 'Fire door keep shut' Reference should be made to 'The Management of Houses in Multiple Occupation (England) Regulations 2006'. Regulation 4 relates to signs on fire escape routes, the maintenance of firefighting equipment and alarms.

Plan 6. Typical three storey HMO above commercial premises with cooking facilities in each let



## Appendix 2 – Technical Specifications

### Fire resistance of walls and partitions (30 minutes fire resistance)

#### New Walls and Partitions

30 minutes fire resistance can be achieved by any of the following methods of construction:

##### Solid walls

- masonry blockwork/brickwork 100mm thick (load bearing)
- masonry blockwork/brickwork 75mm thick (non-load bearing)

##### Stud Partitions

The instructions given below apply to both faces of the wall or partitioning.

They are also suitable for infilling spandrels to staircases providing adequate studding has been incorporated into the wall: -

Partition walls to consist of a timber frame 75mm x 50mm minimum (non-loading bearing) with head and sole plates, studs at 600mm centres and facing each side of: -

- 12.5mm plasterboard finished with plaster skim
- 12.5mm fire rated plasterboard, un-plastered
- proprietary fire resisting insulation board installed in accordance with manufacturers specifications. (See Diagram 1)

##### Manufactured Partitions

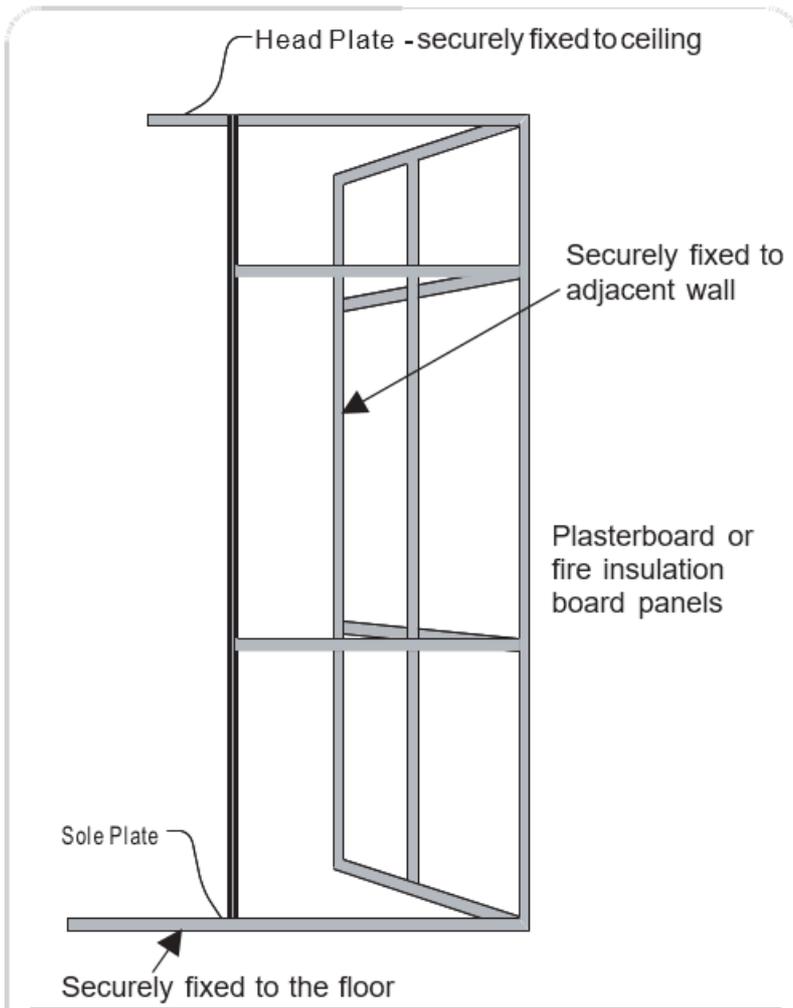
*Proprietary cellular core partition e.g. Paramount board or equivalent installed in accordance with manufacturers specifications.*

##### Note:

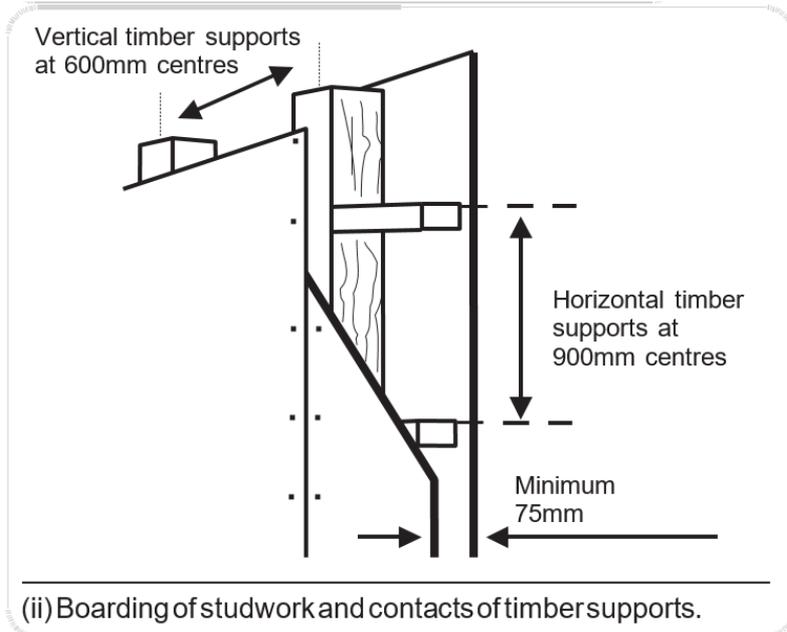
In all cases, where partition walls are to be left un-plastered, the joints must be taped and filled using joint compound as recommended by the board manufacturer. Any gaps between the wall and surrounding structure should be filled flush using suitable fire resisting jointing compound

**Diagram 1: Example of fire resisting partitions (30 minutes fire resistance)**

The studding framework should be 75mm x 50mm and should be securely fixed where it joins floor, adjacent walls and true ceilings.



(i) Studding framework indicating fixing.



(ii) Boarding of studwork and contacts of timber supports.

## Upgrading existing partitions to achieve 30-minute fire resistance

The condition of the partition must be examined in detail. Retention of the partition surfaces must only be considered if in good condition and there is no loose or failing plaster or plasterboard.

In the event of minor damage or inconclusive investigation of the partition construction, the partition must be upgraded on the risk side (room side) by replacing the lath and plaster or unsound plasterboard, or by over-boarding with 12.5mm gypsum wallboard or Fireline board fixed with galvanised clout/plasterboard nails. These should have sufficient length to penetrate the lath and plaster or plasterboard and provide a firm fixing in the timber framework. The partition should be finished by scrimming and skimming with plaster.

It is important to ensure holes around pipework or ducts that pass through fire resisting partitions are fire stopped with materials that meet half an hour fire resistance. There are many proprietary fire stopping products available, but you must ensure that they have been tested and meet the appropriate part of BS 476 or BSEN 13501.

## Fire Resistance of Walls and Partitions (60 minutes fire Resistance)

The following forms of construction will provide 60 minutes fire resistance to walls and partitions:

### New walls and partitions solid masonry wall

- masonry blockwork/brickwork 100mm thick (load bearing)
- masonry blockwork/brickwork 75mm thick (non-load bearing)

### Stud partitions

75 x 50mm timber load-bearing or non-load-bearing stud partition. Studs at 600mm centres and no infill with the following facings on **both sides**.

- 2 x 12.5mm **gypsum wallboard** fixed with 40mm (1st layer) and 50mm (2nd layer) galvanised nails to every timber support at 150mm centres - the joints to be staggered then taped and filled or surface scrimmed and skimmed
- 15mm **fire resistant gypsum wallboard** (provided studs are 100mm x 50mm) fixed with 50mm galvanised nails to every timber support at 150mm centres - the joints to be taped and filled or surface scrimmed and skimmed
- 9mm **Supalux** fillets, 75mm wide fixed to face of studs, 2 layers of 9mm Supalux, joints staggered with 50mm nails at 300mm centres - fillets not required if partition is non-load-bearing)
- expanded metal lathing to BS 1369: Part 1: 1987 securely fixed to the timber studs
- plaster with 13mm lightweight gypsum metal lathing type

Where it is not possible to fix a facing on **both sides** of the partition, then **specifications 1 or 2**

below can be used.

The specifications concern a non-load-bearing solid construction, which will provide a fire resistance of 60 minutes. They should only be used in constructions of up to 3 metres in height.

### Specification 1

- the partition consists of one layer of 20mm Supalux and one layer of 15mm Supalux

- vertical board joints are staggered nominally half the board width (i.e. typically 610mm) between the layers and the horizontal joints staggered by at least 300mm between layers
- 32mm x 32mm x 20-gauge continuous mild steel angles are to be fixed with 32mm No 8 screws at 300mm centres into non-combustible plugs
- fix 20mm Supalux to the angles with 32mm No 8 self-tapping screws at 300mm centres
- fix the two layers together with 32mm No 8 self-tapping screws at 300mm centres on both sides of the horizontal and vertical joints

## Specification 2

- fix 25mm x 50mm x 0.8mm galvanised steel perimeter angle secured to the perimeter using steel screws or bolts and plugs at 500mm centres
- fix 30mm self-drilling/tapping screws at 200mm centres - secure 20mm layer of New Tacfire to perimeter angle
- fix 35mm self-drilling/tapping screws at 300mm centres - secure 15mm layer of New Tacfire to the first layer, around the perimeter and down the centre of each board
- any joints in New Tacfire boards must be staggered by at least 350mm

## Upgrading existing partitions to achieve 60-minute fire resistance

The following methods can be used to upgrade an existing (lath and plaster) partition made up of 75mm x 50mm timber studs which is either load-bearing or non-load-bearing. The studs at maximum 600mm centres with no infill to provide a partition with 60-minute fire resistance.

Partitions can be upgraded in one of two ways:

### By the provision of an additional board to the existing facing on both sides:

- 9mm Supalux fixed, on each side of the partition, using 63mm nails or screws at 300mm centres
- 12mm New Tacfire fixed, on each side of the partition, using screws at 300mm centres. The length of the screws should be such that they penetrate 38mm into the stud

### By the provision of a cavity infill:

- in this case it must be a non-load-bearing stud partition made up of minimum 89mm x 38mm studs at 600mm centres with no infill and covered with 12.5mm plasterboard
- take off one face of the existing partition
- fill the cavity between the studs with 90mm rockwool timber batts of density 23Kg/m<sup>3</sup>
- provide 12.5mm gypsum wallboard fixed at 150mm centres with 38mm galvanised nails. Joints must be taped and filled or surface scrimmed and skimmed.

Alternatively, if the timber studs are minimum of 100mm x 38mm at 600mm centres and covered with 12.5mm plasterboard the cavity between the studs can be filled with 100mm Rockwool RW2 slabs.

***Any variations or alternatives to the above specifications must be agreed with your local authority prior to the works being carried out.***

# The upgrading of floors and ceilings

The floor and ceiling construction between floor levels in any house in multiple occupation must be able to resist the spread of smoke and flame from any fire.

## 30 Minutes fire resistance

Confirm construction to be a minimum of 25mm square edge softwood boarding on 75mm x 50mm (7" x 2") softwood joists under drawn with 16mm (3/8") lath and plaster in sound condition. Over lay all floorboards above ground floor with minimum 4mm dense hardboard to total floor area. Further information is available in Building Research Establishment Digest 208, "Increasing the fire resistance of existing timber floors." Other specifications are available, and reference can be made to manufacturers' detailed specifications if supported by detailed fire test documentation.

Ceilings which are not in sound condition, particularly lath and plaster type, should be replaced or upgraded to provide 30 minutes fire resistance.

This can be achieved by:

- removal and replacement of the existing ceiling with standard 12.5mm plasterboard & skim construction, or alternate product/construction providing 30 minutes fire resistance and subject to a satisfactory fire test report

## 60 minutes fire resistance

The following forms of construction will provide 60 minutes fire resistance to ceilings

### New ceiling

The following boards when fixed to timber joists of minimum size 150mm x 50mm at max. 600mm centres with no infill and plain edged floorboards will provide 60 minutes fire protection.

#### Gypsum wallboard

- 2 x 15mm (or 12.5mm + 19mm) **gypsum wallboard** fixed with 50mm (1st layer) and 65mm (2nd layer) galvanised nails to every timber support at 150mm centres
- timber support includes the joists and minimum 38mm x 38mm noggins to span between the joists to support the board edges
- the joints are to be staggered, then taped and filled or surface scrimmed and skimmed. The plain edge floorboards are to be overlaid with 3.2mm hardboard

#### Fire resistant gypsum wallboard

- 2 x 12.5 **fire resistant gypsum wallboard** fixed with 40mm (1st layer) and 50mm (2nd layer) galvanised nails to every timber support at 150mm centres
- timber support includes the joists and minimum 38mm x 38mm noggins to span between the joists to support the board edges
- the joints to be staggered, then taped and filled or surface scrimmed and skimmed

#### Supalux

- 2 x 12mm **Supalux**, joints staggered, fixed with 63mm x No 8 screws at 300mm centres - existing plain edge floorboard is to be overlaid with 4.8mm hardboard

### Existing ceilings

The following methods can be used to upgrade an existing (lath and plaster) ceiling made up of plain edge floorboards nailed to joists of minimum size of 150mm x 50mm at 600mm centres with no infill to provide a ceiling with 60 minutes fire resistance.

Ceilings can be upgraded in one of two ways: -

- by the provision of additional protection below the existing surface (i.e. room side)

- by the provision of additional protection above the existing ceiling i.e. within the floor space

It is essential to ensure that if the existing ceiling is to be retained and upgraded, particularly if additional protection is to be provided within the floor space, that any gaps in the structure are properly sealed.

### Protection below the existing ceiling

The plain edge boards are to be overlaid with 3.2mm hardboard. The existing ceiling is to be supported by chicken wire or expanded metal lathing of 25mm mesh, securely nailed to the joists. 38mm x 38mm noggins must also be fixed to span between the battens to support one of the following board edges - either:

- two layers of 12.5mm fire resistant gypsum wallboard joints staggered
- two layers of 10mm Glasroc multi-board with joints staggered

The plain edge floorboards are to be overlaid with 4.8mm hardboard. The existing ceiling is supported with chicken wire or expanded metal securely fixed to the joists. 12mm Supalux is fixed through the existing ceiling to the joists with 63mm x No 8 wood screws at 300mm centres.

The plain edge boards are to be overlaid with 3.2mm hardboard. The existing ceiling is to be under-drawn with expanded metal lathing to BS 1369: Part 1: 1987 securely nailed to the joists. Plaster with 13mm (from face to lath) lightweight gypsum metal lathing type.

### Protection above the existing ceiling

Take up, as necessary, the existing floorboards. Fix 100mm x 12.5mm thick strips of Glasroc multi-board to each side of the joists using 36mm Gyproc drywall screws at 300mm centres. Lay 12.5mm Glasroc multi-boards on top of the strips. Relay the floorboards. Overlay the floorboards with 3.0mm hardboard.

Take up, as necessary, the existing floorboards. Lay 19mm Gypsum metal lathing plaster trowelled between the joists in conjunction with expanded metal lathing or chicken wire at mid thickness of the plaster and well turned up and fixed to the joist sides or continuous over the joists. To prevent staining, polythene sheets should be laid on the back of the existing ceiling. Relay the floorboards. Overlay the floorboards with 3.2mm hardboard.

Take up, as necessary, the existing floorboards. Fix 2 x 75mm x 12mm Supalux strips to each side of the joists with 50mm x No 8 screws. Lay 12mm Supalux cut, to be a tight fit, between the joists on top of the strips. Superlux to be overlaid with 80mm x 20Kg/m<sup>3</sup> Rockwool roll batts. Relay the floorboards. Overlay the floorboards with 4.8mm hardboard.

Great care needs to be taken at the junctions between floors and walls, particularly where the floor construction is to be upgraded by providing additional protection within the floor space. The gap should be sealed between the adjacent joist and partition wall and the gap between the floorboards and skirting boards with intumescent paste.

For guidance on achieving 1-hour fire resistance to suspended ceilings, advice should be sought from your local fire and rescue service or an officer working in the local authority department that deals with private sector housing.

*Any variations or alternatives to the above specifications must be agreed with your local authority prior to the works being carried out.*

## Fire resisting glazing in walls and partitions

Fire resistant glazing can be used to give periods of fire resistance of up to one hour, the actual fire resistance is determined by the nature and dimensions of the glass, the type of frame and method of securing the glass.

The limitations on the use of uninsulated fire-resisting glazing for building regulations purposes are described below and it should be noted in this case that uninsulated fire-resisting glazing is not permitted between residential/sleeping accommodation and a protected corridor or lobby.

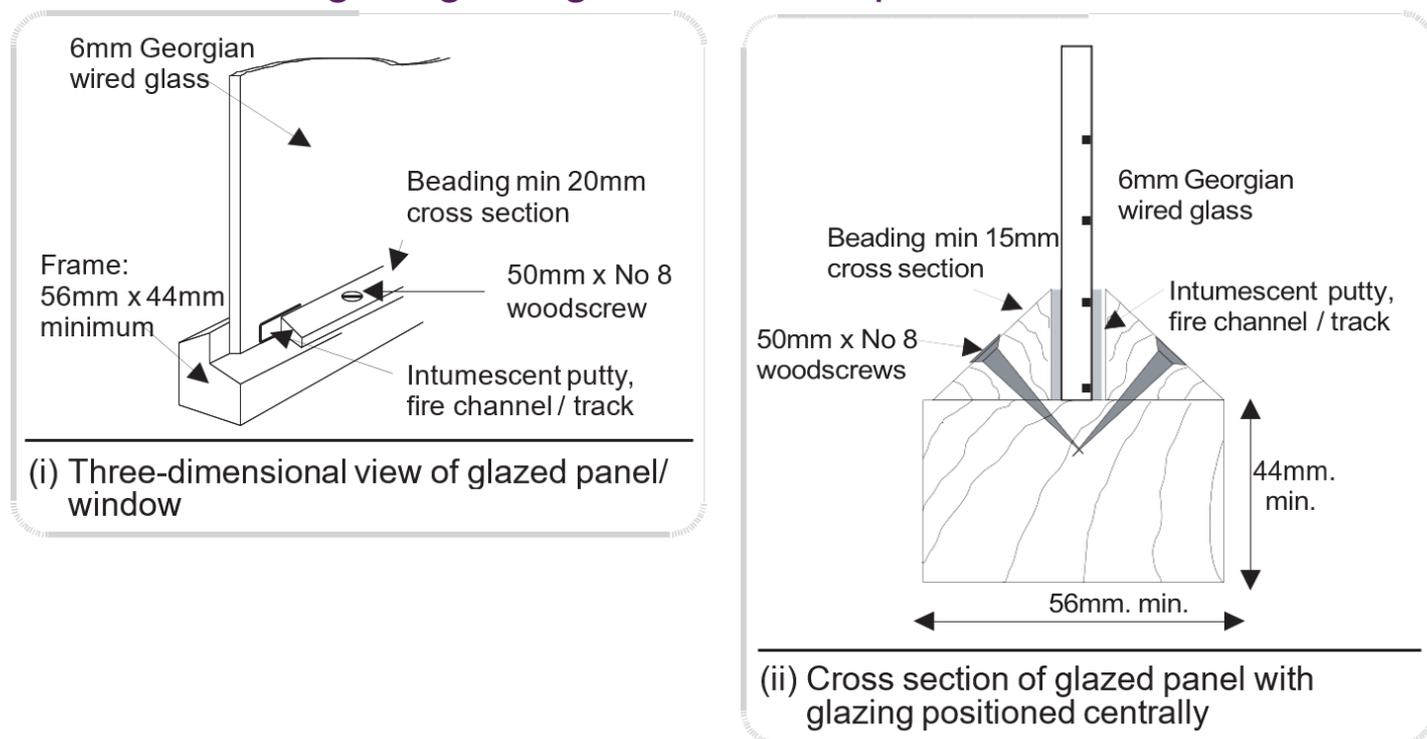
Wired glass should not be used in panes exceeding 1.2m<sup>2</sup> in area and should be 6mm thick for half hour fire resistance.

The design data for wired glazing in different frames is set out below and is applicable to glazed areas in walls and partitions.

The timber frame members and dividing bars should not be less than 56 mm deep and 44 mm wide with the rebate worked from the solid material. For the protection of timber beading intumescent paints have proved satisfactory.

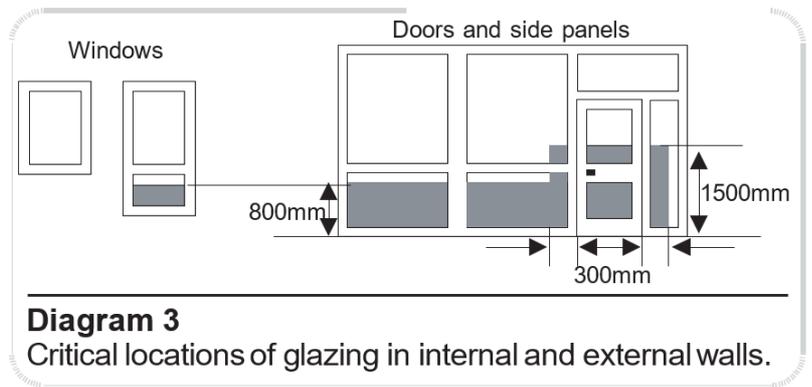
See *diagram 2 below for methods of fixing.*

### Method of fixing for glazing in walls and partitions



## Safety glazing

Glazing in critical locations (i.e. where there is a danger of falling through or of lacerations) may need to meet both fire resistance and safety standard; complying with current British Standard 6206: 1981 (or equivalent). See diagram 3 for critical locations of safety glazing.



## Guidance on the fitting of fire doors and frames (30 minutes fire resistance)

### Frames

Where new frames are provided the gap between the frame and wall should be infilled with suitable material to achieve 30-minutes fire resistance. The provision of architrave to cover gaps in this location **will not** provide the necessary fire resistance.

### Doors

Failure of fire resisting doors is very often due to burn through at the gap between door leaf and door frame. The fit of the door to frame is therefore extremely important and the gap should be as small as practical allowing the door to close freely. In the case of fire doors meeting the FD30S standard which are fitted with heat (intumescent) and cold smoke seals, the gap should not exceed that stated by the seal manufacturer - usually 3 to 4 mm maximum. Both seals shall be fitted along both vertical and top edges of the door. To achieve this standard:

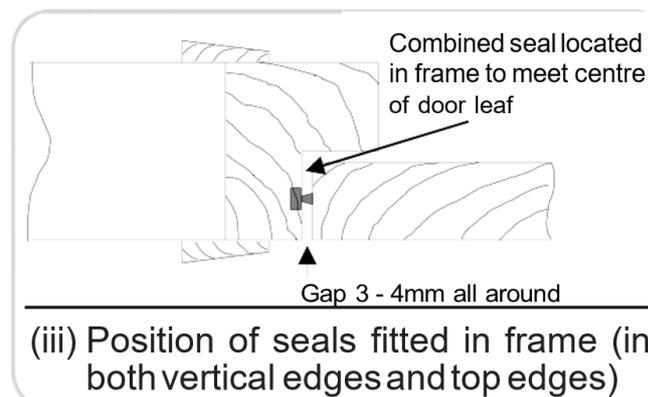
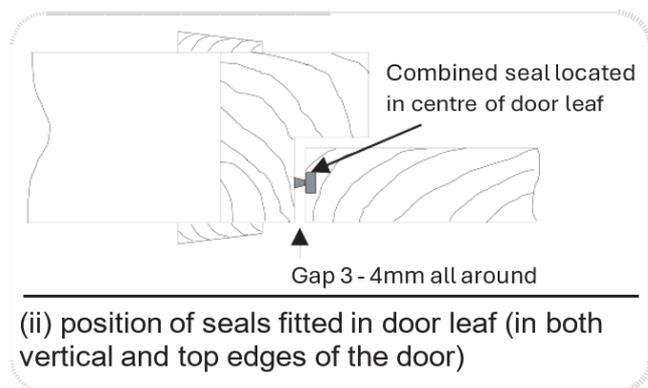
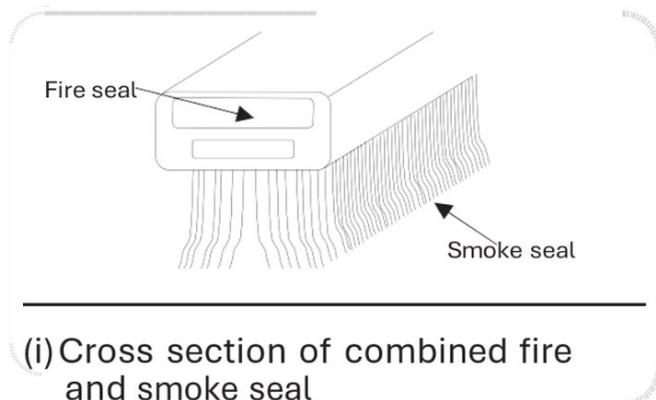
- doors should be hung on 1½ pairs (i.e. 3) x 100mm steel butt hinges
- the positions for fitting seals in door leaves are shown in the diagrams below
- seals can be fitted in the frame and if so, they should align with the centre of the door leaf
- manufacturers' instructions should be adhered to when fitting seals
- smoke seals **must not** be painted over as this reduces their flexibility and effectiveness
- seals are not required to be fitted across the bottom of doors, but the threshold gap should not exceed 8mm

## Ironmongery

- voids around the locking mechanism must be kept to a minimum and filled with intumescent paste or be encapsulated with a proprietary intumescent product
- all doors required for means of escape must be capable of being opened from the inside without the use of a key. (I.e. Yale type or thumb turn locks)
- the doorstop of the frame should not be cut away to facilitate any lock or latch
- the door must be fitted with a self-closing device capable of closing the door into the frame from any angle - hydraulic overhead closers conforming to current British Standard 476 Part 22 (or equivalent), current British Standard 6459 (or equivalent) and current British Standard 8214 (or equivalent) are preferable as they are more efficient and reliable

Note: Some overhead closers are not suitable for use on fire doors, so it is always best to check with the supplier or manufacturer before purchasing. Automatic closing devices and electromagnetic hold open devices will be considered as an alternative to the overhead or Perco type door closers where this is supported by a risk assessment.

Where concealed closers are allowed on fire doors it is recommended that these should be of the double chain hydraulically powered type.



**diagram 1** guidance on the fitting of combined fire and smoke seals.

## Appendix 3: Glossary

*Some useful fire safety terms*

### AFD

Automatic fire detection and warning system. A system of interlinked smoke and heat detectors with integral or linked alarm sounders. The AFD system is designed to provide a reliable and constant means of detecting smoke or fire at the earliest possible stage and to sound an audible warning to occupiers, enabling them to escape before the fire develops to a dangerous stage. The sophistication and coverage of the systems vary depending on risk. Design, installation and maintenance of AFD systems for premises covered in this guide are laid down in BS 5839: part 6.

### Area of high fire risk

Room or other area which, because of its function, use or contents, presents a greater risk of fire occurring and developing than a standard risk room or elsewhere – for example kitchens, boiler rooms and large storerooms.

### Back-up supply

See stand-by supply

### Bedsit HMO

A building which has been divided into individual non-self-contained lettings, let to unconnected individuals. Each bedsit letting will usually comprise only one room (sometimes more) which may contain cooking/food preparation facilities or washing facilities and living/sleeping space. The actual facilities contained within each bedsit letting will vary from property to property.

### Circulation spaces

Passages, corridors, landings, hallways, lobbies and stairways.

### Competent person

A person suitably trained and experienced to be able to properly examine, test and undertake any remedial action and to present the information in a report.

### Cold Smoke Seal

See smoke seal/strip.

### FD30 / FD30S

Purpose designed and built fire-resisting door assemblies with a minimum fire resistance of 30 minutes. The 30 figure indicates the door's performance time in minutes. A letter 'S' after the figure denotes a requirement for smoke seals to be fitted to restrict the passage of smoke, including cold smoke. Tested to either British or European standards.

### Fire risk assessment

An organised and methodical look at a premises, the activities carried on there and the likelihood that a fire could start and cause harm to those in and around the premises. A requirement in premises to which

the Regulatory Reform (Fire Safety) Order 2005 (FSO) applies – including licensed HMOs.

## FRA

Fire and Rescue Authority.

## FSO

The Regulatory Reform (Fire Safety) Order 2005.

## Final exit

The termination of an escape route from a building giving direct access to a place of safety such as a street, passageway, walkway or open space, and sited to ensure that persons can disperse safely from the vicinity of the effects of fire.

## Fire-resisting door / Fire door

Complete construction of door, frame, all door hardware and assemblies (intumescent products and smoke seals where appropriate) which has been tested to prove its fire resistance performance to a particular standard. See FD30 above.

## Fire test report

The documentation received from a testing house detailing a test carried out on a particular product or construction and the fire resistance performance achieved by the product/construction in that test.

## First Tier Tribunal (Property Chamber)

*The formal name given to a tribunal of two or three people set up by law under the provisions of the Rent Act 1977 and the Housing Act 2004. It is an independent decision-making body which is completely unconnected to the parties or any other public agency. The First Tier Tribunal (Property Chamber) is the tribunal which determines appeals against any enforcement actions taken under the Housing Act 2004.*

Web link: [First-tier Tribunal \(Property Chamber\) - GOV.UK](https://www.gov.uk/government/organisations/first-tier-tribunal)

## Flat in multiple occupation (FMO)

A self-contained flat occupied by persons who do not form a single household as defined in section 254(3) of the Housing Act 2004.

## Registered gas safe engineer

A person who is competent to inspect gas installations and provide gas appliance test certificates. Specifically, an engineer recognised by the Gas Safe Register as being competent to undertake such testing.

## HHSRS

Housing Health and Safety Rating System. A risk assessment method used for assessing common hazards in residential properties.

## High fire risk

See 'area of high fire risk' above.

## HMO

House in multiple occupation, as defined in section 254 of the Housing Act 2004.

## Intumescent strip

A strip of special material fitted around the edges of a fire door which swells to several times its original volume when subjected to heat. During a fire it will expand to fill the gap between the door and the frame providing a fire, heat and smoke resistant seal, thereby improving the door's fire resistance.

## LACoRs

Local Authorities Coordinators of Regulatory Services, a former central body in UK local government that provided guidance to local authorities including the LACoRs fire guide.

## LHA

Local housing authority.

## NICEIC

National Inspection Council for Electrical Installation Contracting. This is a trade organisation that is able to certify electricians as competent.

## Nuisance alarms

Alarms sounding in a system that are not caused by a genuine fire – may result from poor system design, occupier behaviour or a fault in the system.

## Person having control

The person who receives the rack rent of the premises (whether on his own account or as an agent or trustee of another person) or would so receive it if the premises were let at a rack rent (Housing Act 2004, section 263).

## Person managing

As defined in Section 253 of the Housing Act 2004:

The person who, being an owner or lessee of the premises:

- (a) receives (whether directly or through an agent or trustee) rents or other payments from—
  - (i) in the case of a house in multiple occupation, persons who are in occupation as tenants or licensees of parts of the premises; and
  - (ii) in the case of a house to which part 3 applies (see Housing Act 2004 section 79(2)), persons who are in occupation as tenants or licensees of parts of the premises, or of the whole of the premises; or
- (b) would so receive those rents or other payments but for having entered into an arrangement (whether

in pursuance of a court order or otherwise) with another person who is not an owner or lessee of the premises by virtue of which that other person receives the rents or other payments; and includes, where those rents or other payments are received through another person as agent or trustee, that other person.

## Pictogram

A diagram conveying a message without the use of words.

## Place of ultimate safety

A place outside of the building and away from it, where people will be safe and unaffected by the fire or its effects.

## Plasterboard

A board of gypsum plaster enclosed between and bonded to two paper sheets.

## Protected route

An escape route out of a building offering a degree of protection from fire and smoke emanating from rooms opening onto it. In premises covered by this guide it will typically be the usual staircase, landings and hallway of the house leading to a final exit. A protected route will provide varying degrees of protection from fire and smoke in accordance with risk (a 30-minute protected route, for example, will be enclosed with construction giving 30 minutes of fire resistance and containing 30-minute fire-resisting doors with smoke seals (FD30S)). Lower risk premises will have protected routes offering a lower standard.

## Relevant persons

For fire risk assessment purposes, relevant persons include anyone lawfully on the premises and those in the vicinity of the premises who would be affected by any fire at the premises.

## Remote control switch

*This is a remote box interlinked with a smoke or heat detector with “test” and hush” functions. The “test” function is to ensure the alarm is working. The “hush” function allows someone to silence a false alarm for a period of approximately ten minutes; if it is not a false alarm and products of combustion are detected, it will override the “hush” function. It can be wall-mounted in any convenient location. Installation must be in accordance with the manufacturer’s instructions.*

## Responsible person

The responsible person for the purposes of fire safety provision and maintenance at residential accommodation is the person having control, i.e. the landlord or person managing.

## Risk analysis

An exercise to determine the risk of suffering harm from an activity based upon a range of criteria.

## Risk room

A room with a function, use or contents presenting a risk of fire occurring and developing; typically, kitchens, shared living rooms or bedsit rooms. A risk assessment may include bedrooms in some cases. Excludes bathrooms and WCs containing no fire risk (for example a boiler). See also 'area of high fire risk'.

## Room sealed appliance

A gas appliance whose combustion system is sealed from the room in which the appliance is located, obtains combustion air from outside the premises, and vents the products of combustion to open air outside the premises. Most modern gas boilers are room sealed appliances.

## Self-contained flats

The meaning within this guide relates to conversion flats in single occupation with all amenities behind the front door.

## Shared house

A shared house is a premises that is occupied by a group of individuals who generally know each other, under a single tenancy where all occupants of the premises have full control over the premises therefore, they are not restricted in their movements. For example: a group of friends rent a premises as a house under one tenancy, there are no restrictions within the premises, so no locks on bedroom doors, the occupants of that premises can be akin to that of a single household.

## Significant findings

The actions to be taken following a fire risk assessment and details of anyone especially at risk. Must be recorded in some cases (see Fire Risk Assessment, pages 12 to 16).

## Smoke seal/strip

A rubber or synthetic fibre strip fitted around the edge of a fire door to restrict the passage of smoke between the door and the frame. Doors requiring a smoke seal have the letter 'S' after their performance time in minutes in their designation (for example FD30S). The smoke resistance of the door when fitted with the strip will have been tested to standards in BS476: part 31.1 1983.

## Soffit

Underside of staircase, balcony, architrave or arch.

## Sound traditional construction

The description of the construction of a typical UK house that is well cared for. In relation to partitions and ceilings an example of this would be 9mm plasterboard partitions or lath and plaster, where they are in good condition i.e. not cracked or blown.

## Spandrel

A vertical partition enclosing a staircase (usually found on the ground floor enclosing a staircase to the basement, or in the basement enclosing a staircase to the ground floor).

## Stand-by supply

Battery power to fire alarm or lighting systems which cuts in if mains power fails.

## Storey

In this guidance, for the purposes of fire safety, when counting the number of storeys, the reader should count all floors from the level of the final exit to the topmost floor (include mezzanines as storeys). Where the final exit is located on the ground floor (or raised ground floor) any lower ground floor/basement/cellar should not be counted. Therefore, a house with a basement, ground and two upper floors with its entrance/final exit at ground floor level should be counted as a three- storey house. Note: this is a different convention to that in the HMO licensing definition (which counts cellars/basements) as this guidance is considering the distance of travel to the final exit as a factor in determining fire risk.

## Suitably qualified person

See competent person.

## Test report

See fire test report.

## Voids

Unused empty spaces within a building or unused buildings.

## Vulnerable group

The HHSRS operating guidance defines a vulnerable group as “a range of people for whom the risk arising from a hazard is greater than for any other group in the population.” It is restricted to age groups; no other vulnerability is considered. The assessment of likelihood of an occurrence resulting in harm is assessed based on a person of this age group living in the property. For the hazard of fire, the vulnerable group is persons over the age of 60. The vulnerable group is only used to assess the hazard – when it comes to enforcement decisions then the actual person living there is considered.

## Where necessary

The Regulatory Reform (Fire Safety) Order 2005 requires that fire precautions should be provided (and maintained) “where necessary”. This means those which are needed to reasonably protect relevant persons from risks in case of fire. This will be determined by the findings of the risk assessment, including the preventative measures being taken. In practice, it is very unlikely that a properly conducted fire risk assessment, which considers all the matters relevant for the safety of persons in case of fire, will conclude that no fire precautions (including maintenance) are necessary.

## Appendix 4: Blank maintenance logs and fire risk assessment

**Landlord fire precaution records** - this will help to provide evidence of your management and ongoing maintenance of the property. It can be used in conjunction with your fire risk assessment and is a tool that will enable you to note and record changes in the property which may in turn affect the hazards and risks of fire in the property.

**Fire doors** - must close completely from a 45° angle when room windows closed, intumescent and smoke seals must be fitted correctly.

**Common parts** – must be kept clean, in good repair and free from obstructions. Any structural defects should also be noted and repaired – e.g. Hole in wall.

**Fire alarm** – routine testing of call points and detectors. An annual inspection by a competent electrician is required for BS 5839 Part 6 Grade A systems with a control panel. All false alarms shall also be recorded.

**Emergency lights** – a test key may be provided by the installer, alternatively you may turn the electricity off at the mains or the lighting circuit. Consult the system handbook.

**Fire risk assessment** – A blank template of a fire risk assessment that can be used to assess your premises can be found in this appendix, together with a completed example in appendix 5.

## Fire Precaution Records

<b>January</b>	Date Checked	Defects found	Actions Taken and date
Fire Doors			
Common Parts			
Fire Alarm week 1			
Fire Alarm week 2			
Fire Alarm week 3			
Fire Alarm week 4			
Fire Alarm week 5			
Emergency Lights			
Other			
Signature of manager			
<b>February</b>	Date Checked	Defects found	Actions Taken and date
Fire Doors			
Common Parts			
Fire Alarm week 1			
Fire Alarm week 2			
Fire Alarm week 3			
Fire Alarm week 4			
Emergency Lights			
Other			
Signature of manager			
<b>March</b>	Date Checked	Defects found	Actions Taken and date
Fire Doors			
Common Parts			
Fire Alarm week 1			
Fire Alarm week 2			
Fire Alarm week 3			
Fire Alarm week 4			
Fire Alarm week 5			
Emergency Lights			
Other			
Signature of manager			

<b>April</b>	Date Checked	Defects found	Actions Taken and date
Fire Doors			
Common Parts			
Fire Alarm week 1			
Fire Alarm week 2			
Fire Alarm week 3			
Fire Alarm week 4			
Fire Alarm week 5			
Emergency Lights			
Other			
Signature of manager			
<b>May</b>	Date Checked	Defects found	Actions Taken and date
Fire Doors			
Common Parts			
Fire Alarm week 1			
Fire Alarm week 2			
Fire Alarm week 3			
Fire Alarm week 4			
Fire Alarm week 5			
Emergency Lights			
Other			
Signature of manager			
<b>June</b>	Date Checked	Defects found	Actions Taken and date
Fire Doors			
Common Parts			
Fire Alarm week 1			
Fire Alarm week 2			
Fire Alarm week 3			
Fire Alarm week 4			
Fire Alarm week 5			
Emergency Lights			
Other			
Signature of manager			

<b>July</b>	Date Checked	Defects found	Actions Taken and date
Fire Doors			
Common Parts			
Fire Alarm week 1			
Fire Alarm week 2			
Fire Alarm week 3			
Fire Alarm week 4			
Fire Alarm week 5			
Emergency Lights			
Other			
Signature of manager			
<b>August</b>	Date Checked	Defects found	Actions Taken and date
Fire Doors			
Common Parts			
Fire Alarm week 1			
Fire Alarm week 2			
Fire Alarm week 3			
Fire Alarm week 4			
Fire Alarm week 5			
Emergency Lights			
Other			
Signature of manager			
<b>September</b>	Date Checked	Defects found	Actions Taken and date
Fire Doors			
Common Parts			
Fire Alarm week 1			
Fire Alarm week 2			
Fire Alarm week 3			
Fire Alarm week 4			
Fire Alarm week 5			
Emergency Lights			
Other			
Signature of manager			

<b>October</b>	Date Checked	Defects found	Actions Taken and date
Fire Doors			
Common Parts			
Fire Alarm week 1			
Fire Alarm week 2			
Fire Alarm week 3			
Fire Alarm week 4			
Fire Alarm week 5			
Emergency Lights			
Other			
Signature of manager			
<b>November</b>	Date Checked	Defects found	Actions Taken and date
Fire Doors			
Common Parts			
Fire Alarm week 1			
Fire Alarm week 2			
Fire Alarm week 3			
Fire Alarm week 4			
Fire Alarm week 5			
Emergency Lights			
Other			
Signature of manager			
<b>December</b>	Date Checked	Defects found	Actions Taken and date
Fire Doors			
Common Parts			
Fire Alarm week 1			
Fire Alarm week 2			
Fire Alarm week 3			
Fire Alarm week 4			
Fire Alarm week 5			
Emergency Lights			
Other			
Signature of manager			

## Annual Checks

Certificates must be kept detailing findings and contact details for the contractor

	Date Checked & Company/Contractor details	Defects found	Actions Taken and date
Gas Safety			
Fire Alarm 6-month check (Grade A system only)			
Fire Alarm Annual check			
Electrical appliances			
Sprinkler System			

## Fire risk assessment Regulatory Reform (Fire Safety) Order 2005

### Property and management details

Property type:	HMO / FMO		Assessor: (print)		Signature	
Address:			Responsible person:		Date:	
			Building size/ description: (floor area, number of exit routes staircases etc.)		Review date:	
What is the main method of fire detection:	People			Number of floors: (does this include basement or roof)		
	Smoke Alarms					
Automatic						
Occupation:	Number:	Shared facilities:	Number:	Has the premises been recently modified because of:		
The number of letting units:		Kitchen:		a) building control recommendations	yes	no n/a
The number of households:		Living/Dining:		b) a schedule issued by environmental health so that the premises is suitable as an HMO/FMO	yes	no n/a
The number of persons:		Plan attached:	yes / no			

### Identify fire hazards

Sources of ignition	Sources of fuel	Sources of oxygen

### People at risk

How many residents at the property?	How many visitors at the property?	How many contractors at the property?

### Known additional vulnerabilities to fire

Mobility issues	Visual impairment	Hearing impairment	Language Issues

## Means of escape and escape times

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Do escape routes lead in different directions to places of safety? (i.e. a place beyond the building in which a person is no longer in danger)	<ul style="list-style-type: none"> <li>if there is only one means of escape (e.g. one staircase) people should be able to reach a final exit door, protected staircase/refuge, or point with more than one route within one minute</li> </ul>			
When and how often are fire exit doors checked to ensure that they work properly and are free from obstruction?  Who is responsible for this?	<ul style="list-style-type: none"> <li>fire exits immediately openable without use of a key</li> <li>electronic locks release on alarm activation</li> </ul>			
What arrangements are made to ensure that fire doors close properly and have no damage?	<ul style="list-style-type: none"> <li>check weekly</li> <li>ensure all fire doors are identifiable with signage and have self-closure fixed and in working order.</li> <li>check automatic closing doors weekly and during alarm test</li> </ul>			

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Are all gangways and escape routes free from obstruction?	<ul style="list-style-type: none"> <li>• check regularly</li> </ul>			
Are the floor surfaces on escape routes free from tripping and slipping hazards?	<ul style="list-style-type: none"> <li>• check regularly</li> </ul>			

## Fire detection and warning (alerting building occupants)

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
<p>What method of detecting a fire is in place?</p> <p>Is there automatic fire detection/alarm?</p> <p>Is there battery-operated smoke detection?</p> <p>Other, please state.</p>				
<p>Is the automatic fire detection system in working order?</p> <p>Who is responsible for this?</p>				
<p>Do residents and visitors know what to do if a fire occurs or the alarm is raised?</p>	<ul style="list-style-type: none"> <li>• provide fire action plan notices and display them prominently</li> <li>• review procedures with new/all residents at regular intervals</li> </ul>			
<p>Do you ensure that the fire alarm is tested each week?</p> <p>Where is it recorded?</p> <p>Is each call point checked over time?</p>	<ul style="list-style-type: none"> <li>• weekly call point test cycle so each is tested over time.</li> </ul>			

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
<p>Are there arrangements for having heat and smoke detectors checked?</p> <p>Who is responsible for checking them and how often are they checked?</p>	<ul style="list-style-type: none"> <li>• maintain and service regularly.</li> <li>• ensure installed in 'high risk' areas and unoccupied areas e.g. basements etc.</li> </ul>			
<p>What arrangements are there for having the complete alarm system serviced by a competent contractor?</p> <p>Who is responsible for this?</p>				

## Sources of ignition (check, inspect and control)

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Do the premises have open fires?	<ul style="list-style-type: none"> <li>• where are they located?</li> <li>• how are they managed? What safety arrangements are there (e.g. guards)</li> </ul>			
Do the premises have <b>fixed</b> heaters and where are they? How are they managed and what safety arrangements are in place?	<ul style="list-style-type: none"> <li>• keep combustibles away from fixed heaters</li> <li>• do not leave on when area unoccupied</li> </ul>			
Do the premises have any <b>portable</b> heaters? Where are they used and how are they managed? What safety arrangements are in place?	<ul style="list-style-type: none"> <li>• turn off when not in use</li> <li>• ensure vents are clear</li> <li>• remove combustibles in area</li> <li>• portable appliance testing carried out annually</li> </ul>			
Smoking policy	<ul style="list-style-type: none"> <li>• smoking policy in force</li> <li>• specified area outside the building</li> </ul>			
Are there fire risks with cooking and kitchen use? How are these controlled?	<ul style="list-style-type: none"> <li>• gas and electrical equipment maintained</li> <li>• fire blankets provided</li> <li>• portable firefighting extinguishers only if risk assessment advises – these must be maintained</li> </ul>			

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
What fire risks are there with regards to boilers? How are they managed?	<ul style="list-style-type: none"> <li>• annual service</li> </ul>			
What fire risks are there with regards to the safe storage of cleaning materials? How are they managed?	<ul style="list-style-type: none"> <li>• keep hazardous chemicals to a minimum</li> <li>• all flammables stored in appropriate store</li> </ul>			
Where can a fire start without being noticed straight away?	<ul style="list-style-type: none"> <li>• are items of ignition stored in this area?</li> </ul>			

### Combustible materials (remove, reduce and control)

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Is waste storage, or other outside storage controlled for fire hazards?	<ul style="list-style-type: none"> <li>waste stored away from building in enclosed area and bins secured</li> </ul>			
Have flammable and combustible materials been identified and minimised where possible?	<ul style="list-style-type: none"> <li>vigilance during routine visits</li> </ul>			
Is the furniture upholstery made of fire-resistant material?	<ul style="list-style-type: none"> <li>check for fire safety labels on furniture</li> </ul>			
Are provisions made for ensuring the communal areas and escape corridors are always kept clear of combustible materials?	<ul style="list-style-type: none"> <li>vigilance during routine visits</li> </ul>			

### Structural features (Control fire spread)

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Is the property of sound construction, with suitable fire resistance to the hall and landings?				
Are all doors used for means of escape purposes available for use and can doors be easily and immediately opened with a single form of fastening?				
Are there holes in the ceiling anywhere on the premises? In partition walls around pipe work and cables? These must be filled to help prevent the spread of fire.	<ul style="list-style-type: none"> <li>has work taken place which may have made holes in walls or damaged any fire-resistant wall/ceiling linings - e.g. new doors, glazed screens</li> </ul>			

## Electrical (maintenance)

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Are there arrangements for the regular testing of portable electrical equipment (i.e. equipment with plugs)	<ul style="list-style-type: none"> <li>annual portable appliance testing by competent person</li> </ul>			
Are there arrangements for fixed wire testing? (At least every 5 years)	<ul style="list-style-type: none"> <li>rolling programme of works</li> <li>records</li> </ul>			

## Signage / lighting

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Is there adequate signage in place?	<ul style="list-style-type: none"> <li>are all fire signs conspicuous (not covered or painted over etc.)</li> </ul>			
Are there arrangements for checking the emergency lighting? (if provided)	<ul style="list-style-type: none"> <li>check operation of emergency lighting units at least monthly - ensure record of check made in fire logbook</li> <li>a competent engineer should test emergency lighting system once a year - ensure record of test made in fire logbook</li> </ul>			
Are all fire escape routes adequately lit?	<ul style="list-style-type: none"> <li>all escape routes should be sufficiently lit for people to see their way-out safety - emergency escape lights may be needed if areas are without natural daylight or are used at night</li> <li>check the relevant areas at night with the lights off to see if there is sufficient light from other sources (e.g. streetlights or unaffected lighting circuits)</li> <li>if lighting is insufficient emergency lighting should be provided</li> </ul>			

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
	<ul style="list-style-type: none"> <li>• emergency lighting should function not only in a complete failure of normal lighting, but also on a localised failure that would present a hazard</li> <li>• emergency lighting should cover escape routes and be sited to cover specific areas:               <ul style="list-style-type: none"> <li>○ intersections of corridors</li> <li>○ each exit door</li> <li>○ flights of stairs</li> <li>○ near fire alarm call points</li> <li>○ fire exit signs</li> <li>○ changes in floor level</li> <li>○ near firefighting equipment</li> <li>○ outside each final exit</li> <li>○ lift cars</li> </ul> </li> </ul>			

## Firefighting equipment (sufficient & appropriate, check and inspect)

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
<p>Is there sufficient firefighting equipment of the correct type where required by fire risk assessment?</p> <p>Is there at least one extinguisher placed for each 200 metres of floor space?</p> <p>(Minimum of 2 per floor unless it is an upper floor less than 100m<sup>2</sup>)</p>	<ul style="list-style-type: none"> <li>ensure extinguishers are appropriate at local risk</li> <li>where provided ensure extinguishers are fixed near exit doors and at appropriate heights - handle of large extinguisher – approx. 1 metre from floor. handle of small handheld extinguisher – approx. 1.5 metres from floor</li> <li>ensure that fire extinguishers are conspicuous, not blocked or obscured - directional arrows and firefighting equipment signs must be displayed where equipment is hidden from direct view e.g. hose reel in cupboard, extinguisher in an alcove</li> <li>ensure there are notices and/or instructions indicating the correct use of extinguishers</li> </ul>			
<p>How often and by whom is the fire equipment checked?</p>	<ul style="list-style-type: none"> <li>are weekly inspections of extinguishers carried out - record inspections (safety clip, indication of use of devices, external corrosion and dents.</li> <li>check extinguishers are inspected annually by a competent engineer. check for record in fire logbook</li> </ul>			
<p>Are there fire blankets provided in the kitchen(s)?</p>	<ul style="list-style-type: none"> <li>light duty blankets – small fires in containers for cooking oils or fats, and fires involving clothing</li> </ul>			

### Planning for an emergency (coordinating evacuation)

Fire Safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Is there an emergency plan in place?	<ul style="list-style-type: none"> <li>• ensure there is a plan for raising the alarm, calling the fire and rescue service and assembly point locations</li> <li>• ensure fire action notices are in place and up to date - in general fire action notices should be posted next to all fire alarm call points</li> <li>• is the plan understood by residents whose first language is not English</li> </ul>			
Are all your residents reasonably mobile?	<ul style="list-style-type: none"> <li>• are there suitable procedures in place for the evacuation of disabled persons?</li> </ul>			
<p><b>Additional comments &amp; observations:</b> (include any additional issues identified and actions that require implementation)</p>          				
<p><b>Signature:</b></p> <p><b>(Print)</b> _____</p>			<p><b>Date:</b></p> <p><b>Next Review Date:</b></p>	

## Floor plan



Action plan following review

Date:

Reviewed by:

New hazards and/or risks identified	Recommended control measures	Date	Action and by whom	Date completed & signature

## Appendix 5: Example completed fire risk assessment

### Fire risk assessment Regulatory Reform (Fire Safety) Order 2005

#### Property and management details

Property type:	HMO / <del>FMO</del>		Assessor: (print)	S Jones		Signature	S Jones	
Address:	19 Ash Tree Lane Anytown Hertfordshire		Responsible person:	John Smith		Date:	10 <sup>th</sup> January 15	
			Building size/ description: (floor area, number of exit routes staircases etc.)	2 storey building with converted rooms to allow separate accommodation		Review date:	January 2016	
What is the main method of fire detection:	People							2
	Smoke Alarms	✓						
	Automatic							
Occupation:	Number:	Shared facilities:	Number:	Has the premises been recently modified because of:				
The number of letting units:	3	Kitchen:	1	a) building control recommendations	yes <input type="radio"/> no <input checked="" type="radio"/> n/a			
The number of households:	1	Living/Dining:	1	b) a schedule issued by environmental health so that the premises is suitable as an HMO/FMO	yes <input type="radio"/> no <input checked="" type="radio"/> n/a			
The number of persons:	Max 6.	Plan attached:	<del>yes</del> /no					

## Identify fire hazards

Sources of ignition	Sources of fuel	Sources of oxygen
Gas cooker and gas appliances Electrical appliances throughout building Smoking materials	Furnishing materials and personal belongings Cleaning products	Normal environmental conditions

## People at risk

How many residents at the property?	How many visitors at the property?	How many contractors at the property?
6	Any	Any

## Known additional vulnerabilities to fire

Mobility issues	Visual impairment	Hearing impairment	Language Issues
0	1	1	0

## Means of escape and escape times

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Do escape routes lead in different directions to places of safety? (i.e. a place beyond the building in which a person is no longer in danger)	<ul style="list-style-type: none"> <li>if there is only one means of escape (e.g. one staircase) people should be able to reach a final exit door, protected staircase/refuge, or point with more than one route within one minute</li> </ul>	Yes	Ensure staircase/exits are kept free from any obstructions. No storage anywhere within defined exit routes	Ongoing
When and how often are fire exit doors checked to ensure that they work properly and are free from obstruction?  Who is responsible for this?	<ul style="list-style-type: none"> <li>fire exits immediately openable without use of a key</li> <li>electronic locks release on alarm activation</li> </ul>	Yes	As above All persons are responsible to ensure correct operation of means of escape. Notification to landlord of any deficiencies	Ongoing
What arrangements are made to ensure that fire doors close properly and have no damage?	<ul style="list-style-type: none"> <li>check weekly</li> <li>ensure all fire doors are identifiable with signage and have self-closure fixed and in working order.</li> <li>check automatic closing doors weekly and during alarm test</li> </ul>	Yes	Notification to landlord of any deficiencies	Weekly

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Are all gangways and escape routes free from obstruction?	<ul style="list-style-type: none"> <li>check regularly</li> </ul>	Yes	Ensure staircase/exits are kept free from any obstructions. No storage anywhere within defined exit routes	Ongoing
Are the floor surfaces on escape routes free from tripping and slipping hazards?	<ul style="list-style-type: none"> <li>check regularly</li> </ul>	No	Repair to flooring on first floor	Contractor due before 20 <sup>th</sup> August 2015

## Fire detection and warning (alerting building occupants)

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
<p>What method of detecting a fire is in place?</p> <p>Is there automatic fire detection/alarm?</p> <p>Is there battery-operated smoke detection?</p> <p>Other, please state.</p>		Yes	System to be maintained at regular intervals. All activations to be noted in Log book	System test annually by competent persons
<p>Is the automatic fire detection system in working order?</p> <p>Who is responsible for this?</p>		Yes	Test system at different points throughout the building	Alarm tested weekly with results of test recorded in log book.  Designated occupant
<p>Do residents and visitors know what to do if a fire occurs or the alarm is raised?</p>	<ul style="list-style-type: none"> <li>provide fire action plan notices and display them prominently</li> <li>review procedures with new/all residents at regular intervals</li> </ul>	No	Obtain notices and display correctly Inform residents	As soon as practicable  6 monthly review of procedures
<p>Do you ensure that the fire alarm is tested each week?</p> <p>Where is it recorded?</p> <p>Is each call point checked over time?</p>	<ul style="list-style-type: none"> <li>weekly call point test cycle so each is tested over time.</li> </ul>	Yes	Designated occupant	6 monthly

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
<p>Are there arrangements for having heat and smoke detectors checked? Who is responsible for checking them and how often are they checked?</p>	<ul style="list-style-type: none"> <li>maintain and service regularly.</li> <li>ensure installed in 'high risk' areas and unoccupied areas e.g. basements etc.</li> </ul>	Yes	Competent persons	<p>System checked when annual service is carried out annually. Landlord to arrange</p>
<p>What arrangements are there for having the complete alarm system serviced by a competent contractor? Who is responsible for this?</p>		Yes	Competent persons	<p>System checked when annual service is carried out Landlord to arrange</p>

## Sources of ignition (check, inspect and control)

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Do the premises have open fires?	<ul style="list-style-type: none"> <li>• where are they located?</li> <li>• how are they managed? What safety arrangements are there (e.g. guards)</li> </ul>	No		N/A
Do the premises have <b>fixed</b> heaters and where are they? How are they managed and what safety arrangements are in place?	<ul style="list-style-type: none"> <li>• keep combustibles away from fixed heaters</li> <li>• do not leave on when area unoccupied</li> </ul>	No	Enclosed heating system maintained annually by competent person. Certificate of compliance issued and held in relevant documentation folder.	Annually
Do the premises have any <b>portable</b> heaters? Where are they used and how are they managed? What safety arrangements are in place?	<ul style="list-style-type: none"> <li>• turn off when not in use</li> <li>• ensure vents are clear</li> <li>• remove combustibles in area</li> <li>• portable appliance testing carried out annually</li> </ul>	Yes	Reduce operation of heaters. Educate occupants with regards to dangers PAT test	At 6 Monthly fire review educate about heater use
Smoking policy	<ul style="list-style-type: none"> <li>• smoking policy in force</li> <li>• specified area outside the building</li> </ul>	No	Instate smoking policy	As soon as practicable

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Are there fire risks with cooking and kitchen use? How are these controlled?	<ul style="list-style-type: none"> <li>gas and electrical equipment maintained</li> <li>fire blankets provided</li> <li>portable firefighting extinguishers only if risk assessment advises – these must be maintained</li> </ul>	Yes	Ensure that cooking is not left unattended	Ongoing
What fire risks are there with regards to boilers? How are they managed?	<ul style="list-style-type: none"> <li>annual service</li> </ul>	Yes		Annually
What fire risks are there with regards to the safe storage of cleaning materials? How are they managed?	<ul style="list-style-type: none"> <li>keep hazardous chemicals to a minimum</li> <li>all flammables stored in appropriate store</li> </ul>	Yes	Ensure quantity of materials is kept to a minimum and they are kept away from any potential ignition source	Ongoing
Where can a fire start without being noticed straight away?	<ul style="list-style-type: none"> <li>are items of ignition stored in this area?</li> </ul>	No		N/A

### Combustible materials (remove, reduce and control)

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Is waste storage, or other outside storage controlled for fire hazards?	<ul style="list-style-type: none"> <li>waste stored away from building in enclosed area and bins secured</li> </ul>	Yes	Designated refuse area away from main building. Area to be kept clear and free from rubbish	Ongoing
Have flammable and combustible materials been identified and minimised where possible?	<ul style="list-style-type: none"> <li>vigilance during routine visits</li> </ul>	Yes	Flammable materials to be kept away from areas of combustible materials	Ongoing
Is the furniture upholstery made of fire-resistant material?	<ul style="list-style-type: none"> <li>check for fire safety labels on furniture</li> </ul>	Yes	All furniture has the correct markings to ensure fire retardant capabilities	Annually or at time of purchase
Are provisions made for ensuring the communal areas and escape corridors are always kept clear of combustible materials?	<ul style="list-style-type: none"> <li>vigilance during routine visits</li> </ul>	Yes	No storage of any items or combustible materials within designated escape routes	Ongoing

## Structural features (Control fire spread)

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Is the property of sound construction, with suitable fire resistance to the hall and landings?		Yes	Regular maintenance of property to attend to defects Maintenance contract	When required
Are all doors used for means of escape purposes available for use and can doors be easily and immediately opened with a single form of fastening?		Yes	Any defects to be reported to the Landlord	When required
Are there holes in the ceiling anywhere on the premises? In partition walls around pipe work and cables? These must be filled to help prevent the spread of fire.	<ul style="list-style-type: none"> <li>has work taken place which may have made holes in walls or damaged any fire-resistant wall/ceiling linings - e.g. new doors, glazed screens</li> </ul>	Yes	Landlord to ensure that contractors 'make good' with suitable fire resisting materials around areas where services pass through fire protected areas	ASAP with existing holes Whenever

## Electrical (maintenance)

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Are there arrangements for the regular testing of portable electrical equipment (i.e. equipment with plugs)	<ul style="list-style-type: none"> <li>annual portable appliance testing by competent person</li> </ul>	Yes	All portable electrical appliances to comply with current electrical regulations.	2 years
Are there arrangements for fixed wire testing? (At least every 5 years)	<ul style="list-style-type: none"> <li>rolling programme of works</li> <li>records</li> </ul>	No	Competent electrician to carry out full installation test.	5 years

## Signage / lighting

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Is there adequate signage in place?	<ul style="list-style-type: none"> <li>are all fire signs conspicuous (not covered or painted over etc.)</li> </ul>	Yes		Annually
Are there arrangements for checking the emergency lighting? (if provided)	<ul style="list-style-type: none"> <li>check operation of emergency lighting units at least monthly - ensure record of check made in fire logbook</li> <li>a competent engineer should test emergency lighting system once a year - ensure record of test made in fire logbook</li> </ul>	Yes	<p>Weekly test of emergency lighting system with results recorded in log book</p> <p>Any defects to be directed to the Landlord for action</p>	<p>Weekly</p> <p>Annually</p>

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Are all fire escape routes adequately lit?	<ul style="list-style-type: none"> <li>• all escape routes should be sufficiently lit for people to see their way-out safety - emergency escape lights may be needed if areas are without natural daylight or are used at night</li> <li>• check the relevant areas at night with the lights off to see if there is sufficient light from other sources (e.g. streetlights or unaffected lighting circuits)</li> <li>• if lighting is insufficient emergency lighting should be provided</li> <li>• emergency lighting should function not only in a complete failure of normal lighting, but also on a localised failure that would present a hazard</li> <li>• emergency lighting should cover escape routes and be sited to cover specific areas: <ul style="list-style-type: none"> <li>○ intersections of corridors</li> <li>○ each exit door</li> <li>○ flights of stairs</li> <li>○ near fire alarm call points</li> <li>○ fire exit signs</li> <li>○ changes in floor level</li> <li>○ near firefighting equipment</li> <li>○ outside each final exit</li> <li>○ lift cars</li> </ul> </li> </ul>	Yes	<p>Ensure that at time of test the emergency lighting is adequate in and around the escape routes within the building.</p> <p>Tests to be carried out when emergency lighting would be most effective i.e. during periods of darkness</p>	Plan to be implemented

## Firefighting equipment (sufficient & appropriate, check and inspect)

Fire safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
<p>Is there sufficient firefighting equipment of the correct type where required by fire risk assessment?</p> <p>Is there at least one extinguisher placed for each 200 metres of floor space?</p> <p>(Minimum of 2 per floor unless it is an upper floor less than 100m<sup>2</sup>)</p>	<ul style="list-style-type: none"> <li>ensure extinguishers are appropriate at local risk</li> <li>where provided ensure extinguishers are fixed near exit doors and at appropriate heights - handle of large extinguisher – approx. 1 metre from floor. handle of small handheld extinguisher – approx. 1.5 metres from floor</li> <li>ensure that fire extinguishers are conspicuous, not blocked or obscured - directional arrows and firefighting equipment signs must be displayed where equipment is hidden from direct view e.g. hose reel in cupboard, extinguisher in an alcove</li> <li>ensure there are notices and/or instructions indicating the correct use of extinguishers</li> </ul>	Yes	Testing by competent persons	Annually
How often and by whom is the fire equipment checked?	<ul style="list-style-type: none"> <li>are weekly inspections of extinguishers carried out - record inspections (safety clip, indication of use of devices, external corrosion and dents.</li> <li>check extinguishers are inspected annually by a competent engineer. check for record in fire logbook</li> </ul>	Yes	Testing by competent persons	Annually
Are there fire blankets provided in the kitchen(s)?	<ul style="list-style-type: none"> <li>light duty blankets – small fires in containers for cooking oils or fats, and fires involving clothing</li> </ul>	Yes	Ensure blanket is available and is suitable for use	Annually

### Planning for an emergency (coordinating evacuation)

Fire Safety (the issues)	Recommended control measures	yes / no / n/a	Recommended action and comments (by whom)	When (include review date)
Is there an emergency plan in place?	<ul style="list-style-type: none"> <li>ensure there is a plan for raising the alarm, calling the fire and rescue service and assembly point locations</li> <li>ensure fire action notices are in place and up to date - in general fire action notices should be posted next to all fire alarm call points</li> <li>is the plan understood by residents whose first language is not English</li> </ul>	Yes	Regularly review the emergency plan and make note of any significant findings	Annually, or when significant changes require a review of procedures
Are all your residents reasonably mobile?	<ul style="list-style-type: none"> <li>are there suitable procedures in place for the evacuation of disabled persons?</li> </ul>	yes	N/A	
Additional comments & observations: (include any additional issues identified and actions that require implementation)				
Signature <b>S Jones</b>		Date: 10 <sup>th</sup> January 2015		
(Print) <u>    S Jones    </u>		Next Review Date: January 2016		

Floor plan



Action plan following review

Date:

Reviewed by:

New hazards and/or risks identified	Recommended control measures	Date	Action and by whom	Date completed & signature

# Luton



Guide to fire safety in houses in multiple occupation

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