# FIRE PRECAUTIONS

# FOR HOUSES IN

# MULTIPLE OCCUPATION


**Torridge District Council**
**Housing Services**

# Renewals Team - 01237 428700

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## INTRODUCTION

This document is intended to be a general guide to explain and clarify the importance of fire precautions in Houses in Multiple Occupation [HMOs] and, in particular, the following:

- The definition of “House in Multiple Occupation”.
- Interim fire precautions required for an HMO licence
- The meanings of “Means of Escape from Fire” and “Other Fire Precautions”.
- The reasons why extra fire safety measures are needed in houses in multiple occupation.
- The statutory powers which the Council has to ensure that adequate fire precautions are provided in houses in multiple occupation.
- Guidance on the standard of work required and the necessary preliminary consents that may be needed.
- Detailed guidance on how to carry out the work that you have been asked to do in order that it meets the Council’s standards.
- The standards against which all HMOs will be judged in respect of inspection under the Housing Health and Safety Rating System (HHSRS).

The document and the standards described is based on the Council’s statutory powers contained in the Housing Act 2004, including the Housing Health and Safety Rating System, guidance issued by the Department of the Deputy Prime Minister and British Standard recommendations for automatic fire detection systems.

With the exception of the **interim fire precautions required for an HMO licence** it is **NOT** recommended that you undertake an upgrade of your property based only on the information in this document. Many factors affect the assessment of risk in a house and a standard document cannot allow for all the possible variations in layout, mode of occupation, standard of construction etc. and the precautions that may be considered necessary following an inspection by a member of the Private Sector Housing Team.

If you are being required to undertake work to your property following an inspection the schedule and drawing that you will be provided with following the inspection will specify the precise requirements but this guide should prove helpful to you and your contractor.

## SECTION ONE

### 1.0 What is a House in Multiple Occupation (HMO)?

An HMO is a building or part of a building (such as a flat) which is:

- occupied by 3 or more unrelated tenants who share facilities, such as the bathroom or kitchen, e.g. lodgers, house shares (including student houses) or houses arranged as bed-sits (also applies to mixed use with some self-contained flats)
- divided into self-contained flats, but does not meet as a minimum standard the requirements of the 1991 Building Regulations, and at least one third of flats are occupied under short tenancies.

For HMOs with **at least three storeys and five or more occupants** it is a legal requirement for owners to apply to the local council for a **licence**.

*For the full definition of HMO, exemptions and licensing see the "Landlord's Guide – Houses in multiple occupation".*

The full extent of the fire precautions required for both licensable and non-licensable HMOs will be assessed on an individual basis following an inspection using the Housing Health and Safety Rating System. The owner/manager will then be required to complete any further works deemed necessary by a specified date.

### 1.1 What fire precautions are required to get a HMO licence?

For a licensable HMO the following ***interim*** fire safety measure will need to be in place **as a condition of the licence**:

- smoke detectors in all communal areas, including landings, hallways and living rooms and
- heat detectors in kitchens
- detectors will ideally be mains powered and interlinked, but individual battery operated detectors will be accepted
- for mains powered detectors the electricity bill must be the responsibility of the owner/manager not the tenant(s)
- for battery detectors the checking and supply of batteries must be the responsibility of the owner/manager not the tenant(s)

## 1.2 Why do HMOs need Fire Precautions?

When a property is in multiple occupation, the risk of fire breaking out is greater than in an ordinary single family home.

Some of the reasons for this are:

- portable heating appliances may be used,
- there is often more than one kitchen present (a high risk area),
- electrical circuits can become overloaded,
- there are more people in the house who are living independently of, and having no control over, each other's behaviour.

If a fire should break out in a large HMO, escape can be difficult because of the distance of travel and height above ground level. The risk of serious injury or death can therefore be increased. In addition, if a fire breaks out, the person who discovers it may not know who else is in the house and is less likely to check all the rooms to make sure everyone has escaped.

Statistics* show that, occupiers of HMOs are exposed to an increased risk of death or injury compared with other residents.

(*Fire Risk in Houses in Multiple Occupation: Research report, DETR 1997)

## 1.3 What does the Law say?

Under the Housing Act 2004 the local authority has a duty to inspect certain HMOs in order to risk assess them under the HHSRS and to ensure that properties do not contain a "category 1" hazard, which can include lack of fire precautions. HMOs will be risk assessed and compared with the indicative standard. If it is considered that additional fire precautions are required to mitigate risk the council has the duty to require that fire precautions be installed.

## 1.4 What does provision of an "adequate means of escape from fire" mean?

This refers to provision of a **"protected route"** (sometimes called an escape route), adequate lighting to that route, and also to the provision of fire resisting construction horizontally and vertically between units of accommodation.

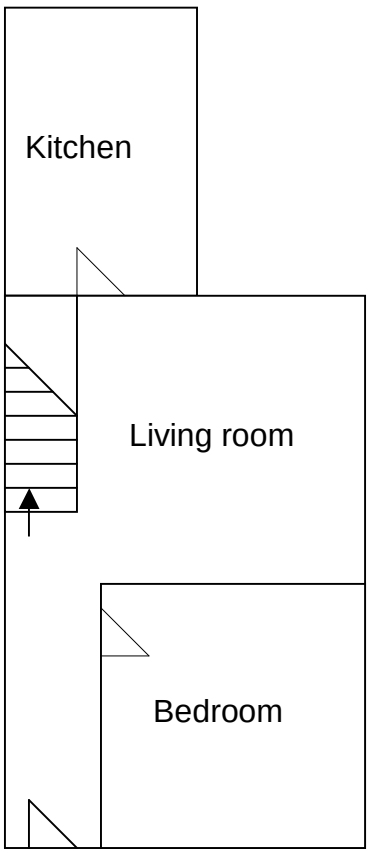
### 1.4.1 What is a "protected route"?

The protected route is the normal route the occupants take from their accommodation to the final exit, and which is upgraded to provide 30 minutes fire protection from the rooms leading off it. It usually consists of the stairs, landings and hallway, often referred to as **the staircase enclosure**. The protected route must not be "open plan" with any room.

# Example of ground floor of shared house

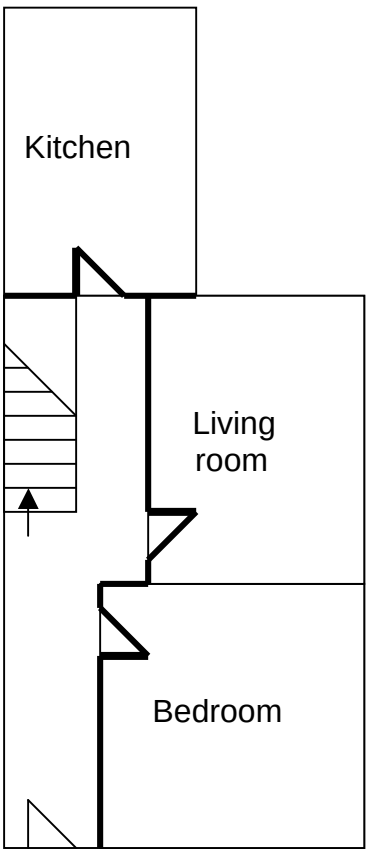
Where existing layout requires modification to provide protected route (example 1)

**Existing layout**




Unacceptable layout because room(s) open to stairs, hallway and the landings above.

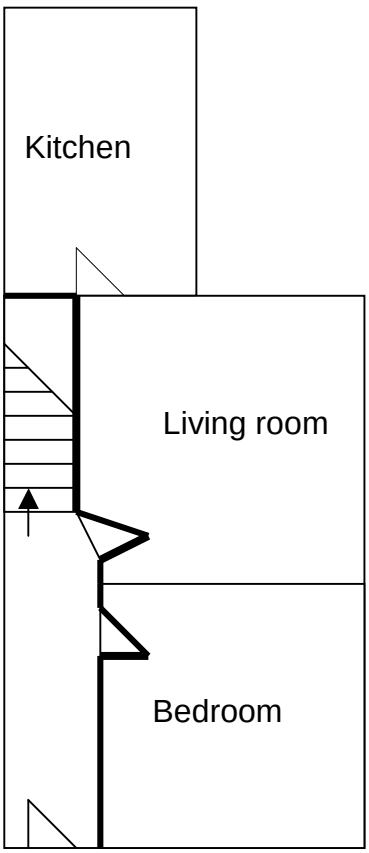
**Layout modified to provide protected route (option A)**




New partition built to separate living room from protected route.

Partitions and doors between the rooms and the stairs/ hallway/landing that provide at least 30 minutes fire resistance

**Layout modified to provide protected route (option B)**




New partition built against staircase to separate living room from protected route.

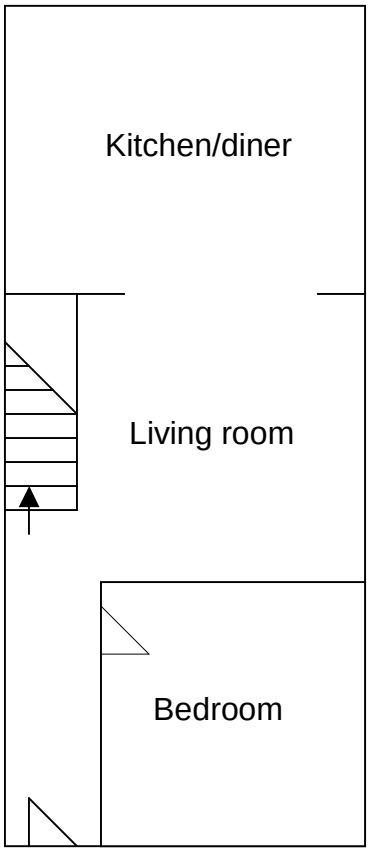
Partitions and doors between the rooms and the stairs/ hallway/landing that provide at least 30 minutes fire resistance.

See section 1.4. for further details of protected route

# Example of ground floor of shared house

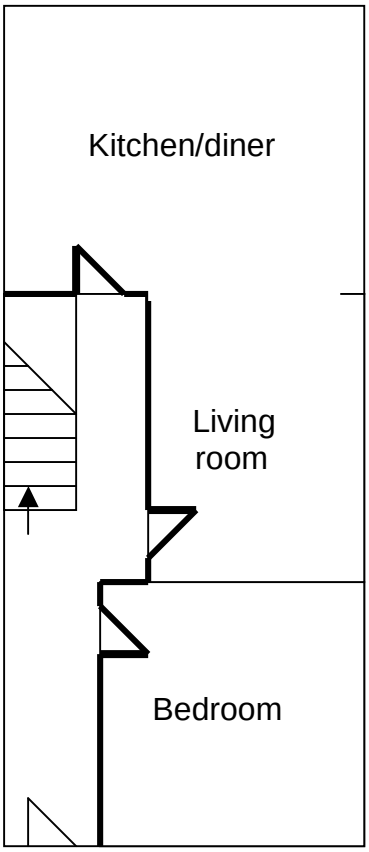
Where existing layout requires modification to provide protected route (example 2)

**Existing layout**




Unacceptable layout because room(s) open to stairs, hallway and the landings above.

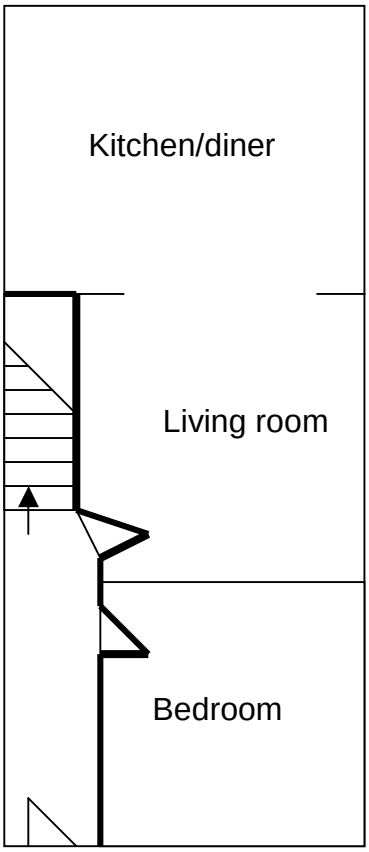
**Layout modified to provide protected route**




New partition built to separate living room from protected route.

Partitions and doors between the rooms and the stairs/ hallway/landing that provide at least 30 minutes fire resistance

**Layout modified to provide protected route**

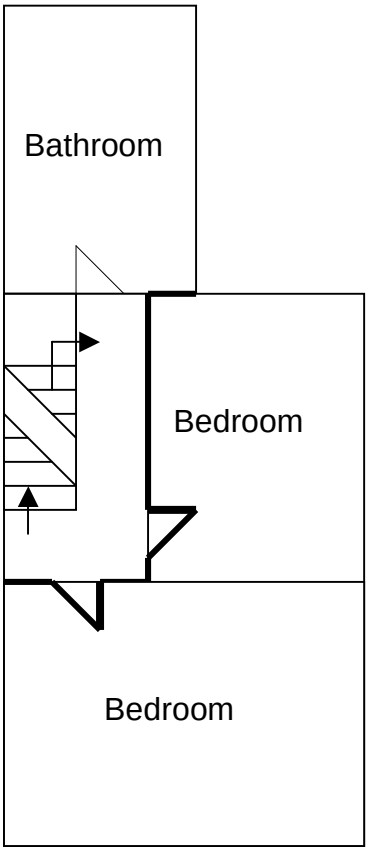



New partition built against staircase to separate living room from protected route.

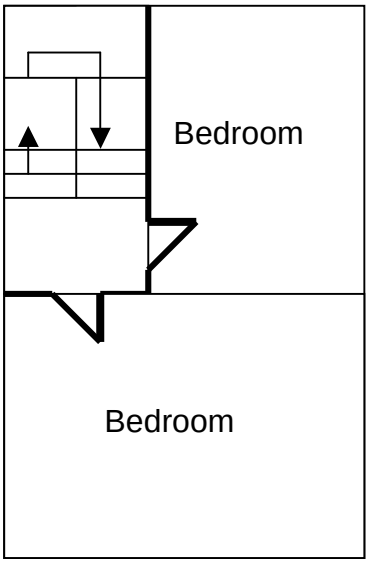
Partitions and doors between the rooms and the stairs/ hallway/landing that provide at least 30 minutes fire resistance.

See sections 1.4 for further details of protected route

**Example of first floor for shared houses (2 or 3 storey houses) showing protected route**
(also example of second floor for 3 storey houses)




First floor




Second floor

Partitions and doors between the rooms and the stairs/ hallway/landing must provide at least 30 minutes fire resistance.

Bathrooms/WCs/shower rooms do not need fire doors or partitions that provide 30 minutes fire resistance unless the room contains a fire risk

See sections 1.4 for further details of protected route

An unacceptable layout will need to modified by building a 30 minute partition and fire door. It is not normally necessary to provide a secondary staircase or external staircase unless the house has more than five floors.

**It is important to remember that in any fire, smoke is the biggest danger. It spreads very quickly, reduces visibility and impedes escape. Most deaths in house fires are caused by smoke inhalation. For this reason, providing an adequate means of escape from fire includes controlling the spread of smoke and in particular keeping smoke out of the protected route.**

### **1.**4.2 Components of the Protected Route

**Thirty minute fire resisting door frames and self-closing doors** (referred to as **FD30(S)** doors) need to be fitted to rooms leading off the protected route, with the exception of WCs and bathrooms where there is no source of ignition. (Where electric water heaters or gas boilers are provided a fire door may be required). In addition the **walls, partitions and ceilings may need to be upgraded** in order to ensure they will contain any fire and smoke within a room for 30 minutes. **Adequate lighting must be provided to the protected route.**

**Ceiling hatches** within rooms need to be upgraded to give 30 minutes fire resistance (including intumescent strip in the edges), those within the protected route will need to be locked or screwed shut. **Cupboards in the protected route** will either have to be removed, upgraded to 30 minutes fire resistance or screwed shut.

Stairs, handrails and floor coverings must be maintained in a good, serviceable and safe condition at all times.

**Free standing furniture** will need to be removed and **the protected route must be kept clear** of all items that are flammable or may cause an obstruction to people escaping in an emergency. Tenants must not be permitted to store items in the protected route.

### 1.4.3 Separation between Units of Accommodation and "Inner Rooms"

The Walls, partitions and **ceilings between units of accommodation, and separating higher risk rooms (such as kitchens)** from the rest of the accommodation also need to provide 30 minute fire resistance. In addition, the means of escape from fire within a flat will have to be considered. This is to ensure that all accommodation has a **safe internal layout**, i.e. there is an adequate means of escape in the event of fire from all the rooms in the unit, regardless of where a fire breaks out. This can be a problem where there are **inner rooms**, i.e. where the only exit from a room is through a room of higher risk (e.g. bedroom off a kitchen or living room).

There are some circumstances where an inner room will be considered to meet a minimal adequate standard of fire safety, although the Council will require the layout to be altered in most cases.

In considering whether an inner room layout is acceptable, the Council will take into account the:

- storey height of the accommodation,
- access to and from the property,
- standard of fire resistance throughout the property,
- extent of the alarm system,
- usage of the rooms,
- style of occupation,
- management of the property and
- works that can be carried out to minimise the risk associated with the room layout.

The case officer will advise you of the works that will be required to address the inner room situation(s).

### 1.4.4 Properties with mixed Commercial and Residential Use

Where a property has both commercial and residential occupation, for example, flats above a ground floor shop, a greater degree of separation is required between the two different parts of the building. **Sixty minutes of fire resistance** is usually required in this case and this will mean a higher specification for upgrading of ceilings and partitions. There will also need to be separate entrances for the commercial and residential parts of the building, access to the residential part will not be permitted through the commercial unit.

### 1.4.5 What are “adequate other fire precautions”?

This refers to provision of **automatic fire detection,** which will give an early warning of fire, and **escape lighting,** which is activated in the event of a power failure affecting the normal lighting circuit, allowing all the occupants to leave safely by means of the protected route. It also refers to the need to provide **fire-fighting equipment** such as fire blankets. Torridge District Council does not usually require the provision of fire extinguishers in HMOs.

## 1.5 Standard of Work

Works must be carried out to a good standard in accordance with approved building practice and all appropriate British Standards and Codes of Practice. **Please ensure that contractors have a copy of this document as well as the schedule of work and drawings to enable them to carry out the work correctly.**

## 1.6 Planning Permission and Building Regulation Approvals

If you decide to change the use or layout of the property you may need to obtain permission from Development Control/Building Control. If you do it is important to note that meeting the requirements of Building Regulations will not satisfy all of our requirements and you should still approach the Environment Team for advice.

## 1.7 Listed Building Consent

If your property is a listed building you will need to get the necessary consent prior to commencing works. Special consideration has to be given to preserving original features when properties are listed (see also paragraph 2.15)

## 1.8 Other Requirements for Houses in Multiple Occupation

Where properties are in multiple occupation there are also minimum standards for the level of provision of WCs, bathroom and kitchen facilities, and standard of repair. These requirements are not detailed in this document but the information is available from the Environment Team.

## 1.9 Management of Houses in Multiple Occupation

The Management of HMOs (England) Regulations 2006 places duties on the Manager or person having control of the house to maintain the property **including** those things provided to give an adequate means of escape from fire and adequate other fire precautions (safety measures).

This means that once the fire precautions have been installed you and/or your appointed manager will have an ongoing duty to see that:

- The fire alarm and escape lighting has appropriate maintenance checks and is always in working order.
- A log or record is kept of such checks and is available for inspection.
- The stairway lighting is in full working order at all times (including provision of working light bulbs).
- All fire doors/closers/smoke seals etc are in good condition and working order.
- The protected route is maintained in good order (including condition of the stairs, stair coverings etc) and kept clear of all obstructions and flammable items.

A detailed description of these duties and the other requirements of the regulations are not given here but is available from the Private Sector Housing Team or alternatively look for Statutory Instrument 2006 No.372 at www.opsi.gov.uk

**The above regulations come into force in July 2006 and replace the Housing (Management of Houses in Multiple Occupation) Regulations 1990.**

## SECTION TWO

## 2.0 ADEQUATE MEANS OF ESCAPE FROM FIRE

### 2.1 Fire Resisting Door and Frames

For a fire door to be effective it is essential that it is fitted in accordance with the Council's specification. Doors that do not fit properly, are damaged, have damaged or ill fitting linings or have the wrong fittings, will **not** meet the specification and will **not** be accepted.

The fire resistance of a standard manufactured fire door will have been tested in a complete door set. Ideally, a new fire door should be fitted with a new frame to ensure that a good fit is achieved. It may not always be necessary to fit a new frame especially if the existing frame is in good condition

### 2.1.1 Specification for Fitting New Doors to Achieve 30 Minutes Fire Resistance (FD30(s) standard)

A door fitted in accordance with the following specification will give 30 minutes fire resistance.

- **Doors must be hung on 1½ pairs (i.e. 3 hinges) of 100mm pressed steel butt hinges.** The central hinge should be approximately 50cm down from the top of the door, i.e. closer to the top hinge than the bottom hinge. Brass hinges cannot be used.

- **Doors must be self-closing.** Self-closing devices fitted to fire resisting doors must be positive in action and capable of closing and latching the door and holding it firmly against the rebates of the frame. Rising butt hinges and garden gate type coil springs do not meet the specification and are not acceptable. **Overhead hydraulic closers** are recommended as being the most effective and reliable type, allowing the door to close in a controlled manner. **Chain spring closers ['Perco']** can be used as an alternative, however the chain closer does not control the closing speed of the door. This means that the door will tend to slam behind people. It is recommended that you fit self-closing devices that are easily adjustable.

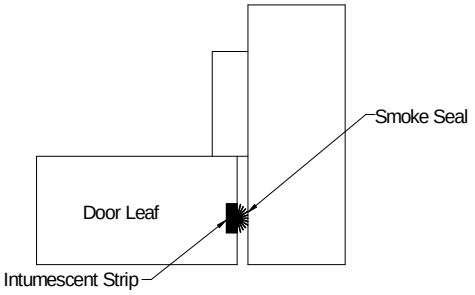
- **An intumescent strip and smoke seal must be fitted to the top and both sides of the door or corresponding sections of the doorframe (see sketches on page 12).**

The **smoke seal** (which consists of small brush hairs or flexible blades) acts initially to prevent smoke escaping through the closed door, and if the fire develops, the heat will cause the **intumescent strips to expand**

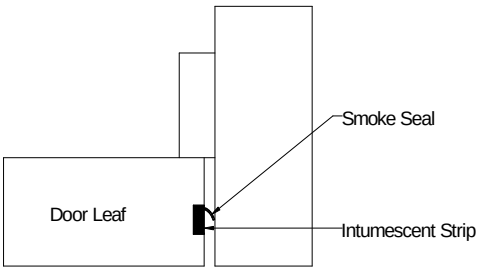
and hold the door in the frame to give 30 minutes fire resistance. The intumescent strip and smoke seal can be fitted as a COMBINED unit.

**Diagram Showing Details of Intumescent Strips and Smoke Seals**

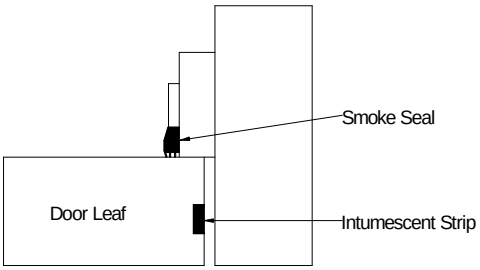
Combined intumescent strip and smoke seal (brush type) fitted in door leaf




Combined intumescent strip and smoke seal (flexible blade) fitted in door leaf




Perimeter smoke seal fitted to door stop and intumescent strip fitted in door leaf



**'Perimeter' smoke seals** that are fitted to the door stops so that the door closes against them are not usually accepted. Where appropriate they may be accepted when upgrading a door in a listed building, where it is often difficult to get a smoke seal on the edge of the door to form an adequate seal with the lining.

No intumescent material must be fitted to the front face of the door or to the door frame against the front face of the door. This is because in the event of a fire the intumescent material would expand and force the door open.

**The strips must be fitted in accordance with the manufacturer's instructions.**

**CLOSE ATTENTION MUST BE GIVEN TO THE GAP BETWEEN DOOR AND FRAME. As a guide it should not be more than 1 – 3 mm. A larger gap may render the intumescent strip ineffective in a fire. In addition you must ensure that if a door edge mounted smoke seal is being used it brushes right up against the door lining.**

**It is important that you do not paint or varnish over the smoke seal when decorating the door as this will render them ineffective.**

**Fire doors must not be cut down unless they are of solid construction.**

**Solid fire doors must only be cut down in accordance with the manufacturer's instructions and the hardwood lipping must always be replaced on all edges.**

- **The gap between the door and the finished threshold must be kept to a minimum, and must not exceed 10mm.** Where the gap exceeds 10mm or the floor is out of level, a hardwood threshold must be fitted.

- **Locking Arrangements** – Where a lock is to be fitted to the door it must be of a type that allows the door to be held shut but which does not lock unless a key is used on the outside, or a thumbturn used on the inside. The door, whether locked or not, must be openable from the room side without the use of a key.

  A cylinder rim dead lock with roller bolt is recommended e.g. Yale 81 or Union 1158 or the Euro Mortice Lock with thumb turn. Other locks may be acceptable, providing they meet with the same specification.

  Additional bolts, chains, etc must not be fitted by the landlord or tenant. If you or your tenants feel there is a need for greater security please discuss your concerns with this Department.

## SUITABLE LOCKING ARRANGEMENTS

**Yale 81 Rollerbolt**
Operation:
The roller catch operates on a push pull action, and becomes an extended throw deadbolt which can be locked or unlocked from either side. To throw the bolt either a clockwise turn of the handle inside, or an anti-clockwise turn of the key outside, is required.

| A | B | C | D | E |
|---|---|---|---|---|
| 92 | 60 | 70 | 27 | 14 |

**Union 1158 Rollerbolt Rim Lock**
Operation:
The roller catch operates on a push pull action, and becomes an extended throw deadbolt which can be locked or unlocked from either side. To throw the bolt either a clockwise turn of the handle inside, or an anti-clockwise turn of the key outside, is required.

| A | B | C | D | E |
|---|---|---|---|---|
| 92 | 60 | 74 | 26 | 20 |

**EURO MORTICE THUMBTURN**
Operation
Fitted to mortice handset locked from the inside by turning the thumbturn and by turning the key on the outside.

### 2.1.2 Door Frames

In all openings where a fire door is fitted, or is to be fitted, the existing linings and architraves must be thoroughly checked to determine whether or not they provide sufficient fire resistance. In particular, consider the following:

**If the existing frame is in poor condition or warped so that it will be difficult to achieve a proper, close fit and good smoke seal for the fire door, then a new fire resisting frame will be required.** In many cases this will be more cost/time effective than trying to patch up an old frame

**If the existing frame is to be retained it must be capable of supporting the additional weight of the new fire door and must be of sound, well jointed timber.**

- **If new timbers are to be added to the frame to improve the fit of the door, they must be glued and screwed to the existing linings.**

- **If the existing architraves do not provide an adequate seal with the wall they must be removed on the <u>risk</u> side (i.e. the room side) and all gaps between the door lining, wall/partitioning and non-risk side architrave must be filled and sealed with fire resisting materials e.g. 12.5mm plasterboard with skim finish. Suitable architraves must be refitted to the risk side.** The original architraves may be re-used if they are in sound condition. All new architraves must be a minimum of 15mm thick and 45mm wide.

### 2.1.3 Apertures in Fire Doors

Generally the fitting of standard letter boxes, door viewers, cat flaps etc will undermine the effectiveness of a fire door. It is possible to get products that will protect the integrity of the doors and which meet the relevant British Standards but the specification for installation must be closely followed.

### 2.1.4 Glazing in Fire Doors

Glazing can only be fitted to doors which are designed for the purpose and tested to the relevant BS. The doors are often sold without the glazing panel and glazing must be fitted in accordance with the manufacturer's instructions. If you install a door with glazing you will be required to demonstrate that it has been installed in accordance with the manufacturer's instructions.

### 2.1.5 Upgrading Existing Doors

In the past doors were routinely upgraded into fire doors, lining the door panels with fire resistant sheeting and fitting large door stops.

Previously upgraded doors are very unlikely to be accepted these days unless the paperwork is available to confirm the extent of works carried out and the degree of fire resistance achieved. Even if this is available it will still be necessary for intumescent strips and smoke seals to be fitted. Upgraded doors that are damaged or a poor fit to the frame will not be accepted under any circumstances.

In some circumstances, such as where a property is a listed building, the replacement of doors with fire doors may not be an option. In such circumstances the door must first be examined by a specialist contractor to assess its suitability. Some doors will be in too poor a condition, or not thick enough to make upgrade possible, in which case alternatives will have to be considered.

### 2.1.6 60 Minute Fire Resisting Doors and Frames

Where 60-minute fire doors are required the frame will **always** have to be replaced. The rating of the frame must equal that of the door and must be able to support the weight of the door. Therefore, a purpose manufactured 60-minute fire door and frame set must be installed.

## 2.2 Upgrading Ceilings and Partitions

In order to provide a protected route, the walls and ceiling within the staircase enclosure must be in sound condition to provide 30 minutes fire resistance. In addition the walls and ceilings between units of accommodation must also provide 30 minutes fire resistance.

The following section gives examples of methods and materials that can be used to upgrade ceilings and walls to the required level of fire resistance. Other materials and methods may be acceptable, providing they comply with the same specification.

**Upgrading must be carried out on the risk side, i.e. inside the room/compartment where the fire is to be contained.**

**Ceiling recessed lighting can only be fitted in association with a 30 minute fire resistant hood.**

### 2.2.1 Upgrading Ceilings/Partitions to 30 Minutes Fire Resistance

The following materials will provide 30 minutes of fire resistance.

**One layer 12.5mm fire resistant plasterboard securely fixed to joists/studs with joints sealed with intumescent mastic, or joints taped and finished with plaster skim.**

**or** **One layer 6mm rigid fire resisting board (e.g. Supalux or similar) securely fixed to joists/studs with joints sealed with intumescent mastic.**

If an existing ceiling/partition is constructed of lath and plaster and is in **good** condition throughout (i.e. no cracks or bulges and the plaster is still firmly keyed to the laths), this will be accepted as adequate.

Any polystyrene or other inflammable tiles or decorations **must** be removed.

### 2.2.2 Upgrading Ceiling/Partitions to 60 Minutes Fire Resistance

The following materials will provide 60 minutes of fire resistance.

**Two layers 12.5mm fire resistant plasterboard securely fixed to joists/studs with joints staggered. Joints to be sealed with intumescent mastic, or taped and finished with plaster skim.**

**or** **Two layers 6mm rigid fire resisting board (e.g. Supalux or similar) securely fixed to joists/studs with joints staggered. Joints to be sealed with intumescent mastic.**

### 2.2.3 Suspended Ceilings

New or existing suspended ceilings will only be accepted as providing 30 or 60 minutes fire resistance if the appropriate paperwork or certificates are available.

### 2.2.4 Constructing New Stud Partitions or Lobbies

**Studwork must be constructed in a minimum of 75mm by 25mm timber.**

**On the risk side, material should be fixed to the studwork to provide the appropriate degree of fire protection required (see sections 2.2.1 and 2.2.2 above).**

**On the non risk side, securely fix 12.5mm plasterboard with joints taped and finished in plaster skim.**

## 2.3 Miscellaneous Items

### 2.3.1 Upgrading Cupboards in the Protected Route (including understair cupboards)

This applies to built in cupboards only. Free standing cupboards are not permitted in the protected route.

**If the cupboard is to be retained, it must be lined internally including soffits and spandrel of understair cupboards, to protect the staircase, with materials which provide 30 minutes fire**

**resistance, e.g. 12.5mm fire resisting plasterboard, or 6mm Supalux or similar rigid fire resisting board, joints to be sealed with intumescent mastic. The access door must meet the FD30(s) standard, either effectively self-closing or lockable and clearly indicated "KEEP LOCKED SHUT". Smoke detection will also be required in the cupboard.**

Where there are adjoining cupboards under the stairs a single detector in the highest cupboard will be sufficient providing slots at least 300mm wide x 50mm high are provided high up in the dividing walls between the cupboards.

**If you do not wish to use the cupboard <u>and</u> there are no meters or consumer units within it, as an alternative to upgrading, the cupboard can be emptied and screwed shut to prevent use.**

No new cupboards are to be provided within the protected route.

Where cupboards are removed from the protected route all surrounding areas must be made good and upgraded to 30 minutes fire resistance where necessary.

### 2.3.2 Service Ducts, Concealed Spaces and Voids

It is necessary to prevent the spread of fire, smoke or hot gases through service ducts in the building structure. In particular there must not be any apertures that would allow smoke to travel from rooms to the protected route, or from one unit of accommodation to another.

Effective fire/smoke stops must be provided at the point where the building services such as water supply pipes, drainage, ventilation ducts etc, penetrate floors or walls either between the protected route and a risk room, or between units of accommodation, by fitting purpose made intumescent seals or filling gaps with fire resisting materials such as intumescent paste.

### 2.3.3 Ceiling Hatches and Roof Void Access Doors

Where a ceiling hatch or roof access door is present within a room its lower or room side face must be lined with material affording 30 minutes fire resistance, e.g. 6mm Supalux or similar rigid fire resisting board. Intumescent strips to be fitted to the edges.

### 2.3.4 Borrowed Lights [for example glazed windows above doors]

Fixed borrowed lights in the protected route or between a high risk room and another room must be fitted with glazing of fire resisting quality. Existing glazing not meeting the specification must be removed, and fire resisting glazing (i.e. tested to the relevant BS) fitted.

Great care should be exercised in the preparation of existing timber frames to achieve maximum fire resistance performance.

Correct installation of fire resistant glazing is a complicated and expensive operation. It must not be assumed that the use of specialist glass and glazing materials will compensate for an inadequate frame.

In view of this you may prefer to remove the existing glazing and construct a partition to provide 30 minutes fire resistance (see section 2.2.1).

### 2.3.5 Final Exit Door

This will include all doors that may be used to leave the building in an emergency.

The lock to the door should allow it to be opened from the inside without the use of a key. Any other ironmongery fitted to the door must also satisfy the same criteria. If your insurance company specifies a particular type of lock for security purposes this does not mean that you will not be able to satisfy this Department's requirements as locks are available which meet both sets of criteria.

### 2.3.6 Escape Windows

Windows will not normally be considered as providing a satisfactory means of escape from fire. However, in specific circumstances, the Council may accept an escape window as providing an adequate alternative means of escape. Where such a window is specified, it should comply with the following standard:

- The window should have an unobstructed openable area that is at least 0.33$m^2$, at least 450 mm high and 450 mm wide. (Please note that a window of the minimum height and width has an area of only 0.2$m^2$ and therefore one of the dimensions must be more than the minimum to provide the required openable area).
- The bottom of the openable area should be not more than 1100 mm above the floor. The window should not have a key operated locking system.
- Top hung windows will not usually be accepted
- The external area below the window should be reasonably level, clear of obstruction, and provide access to a place of safety outside the boundary of the property.
- Access to the window should be available to the emergency services.

### 2.3.7 Lighting to the Protected Route

It is important that if tenants have to leave the building in an emergency the lighting is sufficient to ensure their safe escape and can be operated throughout the protected route by the use of any one switch. Push button timers are acceptable providing that they are adjusted so that there is adequate time to travel to the furthest unit of accommodation. In addition, in properties of 3 storeys and above, or in any size property with a complicated or expansive layout, escape lighting will be required to illuminate the protected route in the event of a power failure of the

main lighting circuit. The section on “Adequate Other Fire Precautions” (section 2.4.2), gives more information on both types of lighting required in the protected route.

## 2.4 Adequate Other Fire Precautions

### 2.4.1 Automatic Fire Detection

The three types normally considered suitable for houses in multiple occupation are:-

**i)** **Part 1 system (category L2)** a grade A system
**ii)** **Part 6 system (category LD2)** a Grade D system
**iii)** **Radio-linked system**
**iv)** **Sprinkler system**

The type of automatic fire detection required will depend on the level of risk. This is affected by the number of floors, size and layout of the property, the number of occupants and the nature of the occupancy. Fire alarm systems need to be tailored to each individual property but an outline is given below. Please refer to your schedule of work/the information sheets in Section Three to see what is required/likely to be required in your property. Fire detection systems must always be installed and maintained by suitable qualified persons (see 2.4.3)

**Part 1 System (category L2)**

A fire detection and alarm system which incorporates control and indicating equipment. This is a sophisticated system and is the type normally required in properties of **3 storeys and above**:

- **A manually operated electrical fire warning system shall be provided.** The installation shall incorporate actuation points of the break glass type and automatic smoke and heat detectors. **The installation must conform to Category L2 of British Standard 5839: Part 1: 2002.**

- **Smoke detectors** must be provided within all rooms and all communal areas, including under stairs cupboards, except the kitchen, which must be provided with a **heat detector**, bathrooms and toilets containing no fire risk are not required to have detection.

- The person who designs the system **must forward a copy of the design together with the system specification to Environment Unit, Torridge District Council for examination prior to installation.** The designer must complete a design certificate and provide the Environment Team with a copy.

- **Smoke detectors** shall conform to BS EN 54-7 and operate on the optical or obscuration principle and <u>not</u> the ionisation principle.

- **Heat detectors** shall conform to BS EN 54-5 Heat sensitive detectors – Point detectors.

- **Sounders** must provide sound pressure levels of not less than 65dB(A), except in bedrooms where a level of 75dB(A) at the bed head must be achieved.

  Either bells or sounders may be used within a house, but mixed use is unacceptable.

- It must be ensured that **signed certificates** for the following are forwarded to the Environment Team:

  - Design
  - Installation
  - Commissioning

**Part 6 System (category LD2) Grade D**

A system of one or more mains powered interlinked smoke (and heat) alarms, each with an integral standby supply. This system is normally used in **two storey** HMOs. It is also possible to add in; hush, alarm indicator facilities and call points to this type of system.

- **An automatic fire/smoke detection system complying with British Standard 5839: Part 6: 2004** must be provided. The system must conform to a **category LD2 system**, which comprises of interlinked mains wired smoke and heat detectors with a standby electricity supply.

- **Smoke detectors** must be provided within all rooms and all communal areas including under stairs cupboards, except the kitchen, which must be provided with a **heat detector**, bathrooms and toilets containing no fire risk are not required to have detection.

- **Smoke detectors** shall conform to BS EN 54-7 and operate on the optical or obscuration principle and not the ionisation principle.

- **Heat detectors** shall conform to BS EN 54-5 Heat sensitive detectors – Point detectors.

- **Sounders** must provide sound pressure levels of not less than 65dB(A), except in bedrooms where a level of 75dB(A) at the bedhead must be achieved.

- The installer **must certify** that the installation conforms to the recommendations of BS 5839: Part 6: 2004. It must be ensured that the signed certificate is forwarded to the Environment Team.

**Part 1 and Part 6 Systems**

**Sounders or Bells –** These are placed throughout the house to achieve sound levels that ensure that everyone in the house can hear them above the level of background noise and, in the case of sleeping persons, loud enough to wake them.

Since fire doors limit the transfer of sound the siting of alarm sounders shall be determined by an audibility test carried out after the completion of structural works with all doors closed.

In the past it was common to have a very loud sounder in the hall and on the landings that would provide the required sound levels to the adjacent rooms. In recent years contractors have begun to put smaller sounders in each room, particularly the bedrooms, or use a detector unit that has a built in sounder to provide the required levels instead.

Either bells or sounders may be used with a house, but mixed use is unacceptable.

**Twin Wired Systems –** these systems combine the detector and sounder in one unit, cut down on the amount of wiring required, and are less visually obtrusive.

**RADIO-LINKED SYSTEM**

Radio-linked systems (also called wireless systems) are considered in both BS 5839 - part 1:2002 and BS 5839 - part 6:2004. A specialist fire alarm contractor will need to be consulted to confirm whether or not they can provide a system that meets the recommendations of the British Standards above.

**SPRINKLER SYSTEM**

**FOR 1, 2 AND 3 STOREY BUILDINGS**

See BS 9251: 2005 Sprinkler systems for residential & domestic occupancies code of Practice.

Residential sprinkler systems enhance the fire safety features of these types of premises. In the United States, where residential sprinklers are common place, no one has ever died as a result of fire in a building protected by a correctly maintained sprinkler system.

### 2.4.2 Stairway Lighting and Escape Lighting to the Stairway

The day-to-day lighting must be wired so that the whole of the staircase enclosure is illuminated by the operation of any one switch. Push button (timed) switches can be used but must be set to allow adequate time to reach the furthest unit of accommodation.

Escape lighting for use in an emergency is required in the stairways and passageways of houses in multiple occupation of three or more storeys, in addition to lighting for everyday use.

The escape lighting must come on in the event of a power failure of the normal lighting circuit and it must be capable of illuminating the escape route for a minimum of 3 hours. There are several ways this can be achieved: -

(A) Provision of standard stairway lighting (with appropriate switching) and provision of separate **non-maintained** escape lighting (i.e. the escape lighting only operates if the power fails).

(B) Provision of **maintained** escape lighting only (i.e. the escape lighting is on all the time with battery back-up for power failure).

(C) Provision of **switched maintained** escape lighting. The lighting is operable throughout the staircase from any one switch as standard lighting, **and** operates automatically in the event of a power failure.

The advantages of providing **maintained** or **switched maintained** escape lighting are: -

- The lighting units use fluorescent bulbs which are more reliable than standard bulbs.
- The lighting units are less likely to be interfered with by tenants as the bulbs will not fit standard light fittings in their rooms.

If you opt for standard lighting **and** non-maintained escape lighting, you should consider using screw fittings in the stairway so that the bulbs cannot be used in the units of accommodation. When considering how to provide the lighting for day-to-day use, you may also wish to consider using fluorescent lighting and/or permanent non-switched lighting or lighting operated from a light sensitive switch in order to reduce the cost of installation and maintenance. You should discuss with your contractor which is the best option for you in terms of cost and management. **Remember that you are responsible for ensuring that the stairway lighting is always fully operational, which includes the provision of working lightbulbs.**

The Council's requirement for provision of numbers and locations of lamps to provide escape lighting is not to the full British Standard BS 5266 as this is not considered necessary. However, the installation of the fittings required and the fittings themselves must comply with the relevant British Standards.

### 2.4.3 Additional requirements for all Automatic Fire Detection/Escape Lighting Systems

**Power Supply –** In an HMO there will usually be a landlord's supply for power and lighting in the common areas of the house with a separate quarterly meter. If not, such a meter will have to be provided. The supply to the alarm system, escape lighting and stairway lighting must be fed from the landlord's own meter and be independent of any other consumer unit supplying individual lettings. A coin, key or card meter is not acceptable.

The supply to the fire alarm must be labelled "FIRE ALARM DO NOT SWITCH OFF". The isolating protective device (landlord's consumer unit) must be secured from unauthorised access.

**Contractors –** The systems must be installed by a reputable fire alarm company or suitably qualified contractor (e.g. NICEIC registered electrician) who is experienced in this type of work. Please ensure that your contractor provides you with a commissioning certificate for the fire alarm and escape lighting systems. These will be checked by the Council on final inspection.

**Log Book –** The contractor should leave you with a log book for the alarm system so that you can record the daily, weekly and monthly checks that need to be carried out on the alarm and escape lighting system, and any false alarms, alternatively you can get one free of charge from the Environment Team. You must arrange for the contractor to carry out a maintenance check of the alarm and escape lighting system at least twice a year at six monthly intervals. He will look at the log book to see what problems have occurred. The Council will also require sight of the log book on subsequent management inspections.

### 2.4.4 Fire Fighting Equipment

**Fire blankets** complying with BS 6575: 1985 or BSEN 1869 are required in kitchens or rooms containing cooking appliances and must be mounted 1.5 metres above the floor, in a suitable location i.e. not directly above or behind a cooker.

**Fire extinguishers** are open to misuse by tenants and there is also a danger that if an inappropriate type of fire extinguisher is used on a fire, e.g. water extinguisher on an electrical fire, it could worsen the risk to which the tenants are exposed.

Should landlords choose to provide fire extinguishers it is essential that this decision be supported by a suitable risk assessment, the equipment is serviced as per manufacturers recommendations and that all tenants are given appropriate training in their use.

## SECTION THREE

## 4.0 SUMMARY OF FIRE SAFETY REQUIREMENTS

### e.g SHARED HOUSE HMOs

The following are summaries of the likely requirements for two storey and three storey HMOs where tenants share bathroom and/or kitchen facilities within a house, flat or maisonette.

They are provided as an **INDICATION** of the scope of work required. Many factors will affect the assessment of risk in a house and a standard document cannot allow for all the possible variations in layout, standards of management, mode of occupation etc and the level of fire precautions that may be considered necessary following inspection.

**There are various types of HMO and for this reason it is strongly recommended that you discuss your particular property's needs with the Inspecting Officer before proceeding with works to upgrade your property.**

**TWO STOREY PROPERTIES**

WHERE KITCHEN AND/OR BATHROOM FACILITIES ARE SHARED WITH OTHER TENANTS, e.g. STUDENT HOUSE or BEDSITS

**DO NOT USE THESE DETAILS AS A SPECIFICATION – IT IS ONLY A GUIDE TO WHAT IS LIKELY TO BE REQUIRED IN THIS TYPE OF PROPERTY.**

**Adequate means of escape from fire**

- protected route* with FD30(s) fire doors to be provided.
- internal doors within flats may also need to be FD30(s) fire doors
- 30 minutes fire separation between units of accommodation, i.e. walls and ceilings.
- safe layout of rooms.
- adequate lighting [not emergency lighting] to the protected route*.

**Adequate other fire precautions**

- A category LD2 fire alarm system which complies with BS 5839: Part 6 : 2004 is usually required, see section 2.4.1

- fire blanket to each kitchen.

* Protected route = usually stairs, landings and hallways, see section 1.4

**THREE/FOUR STOREY PROPERTIES**

WHERE KITCHEN AND/OR BATHROOM FACILITIES ARE SHARED WITH OTHER TENANTS e.g. STUDENT HOUSE or BEDSITS

**DO NOT USE THESE DETAILS AS A SPECIFICATION – IT IS ONLY A GUIDE TO WHAT IS LIKELY TO BE REQUIRED IN THIS TYPE OF PROPERTY.**

**Adequate means of escape from fire**

- protected route* with FD30(s) fire doors to be provided.
- internal doors within flats/maisonettes may also need to be FD30(s) fire doors
- 30 minutes fire separation between units of accommodation, i.e. walls and ceilings.
- safe layout of rooms.
- adequate lighting to the protected route*.
- Escape Lighting consisting of at least one luminaire on each landing and to the hallway.

**Adequate other fire precautions**

- A category L2 automatic fire detection system which complies with BS 5839: Part 1:2002 is usually required, see section 2.4.1

- fire blanket to each kitchen.

*Protected route = usually stairs, landings and hallways, see section 1.4

**NB. Owners/managers of HMOs with three or more storeys and five or more occupants must apply for a licence. See paragraph 1.1 for the interim fire precautions required for the licence.**