A Guide to Fire Protection in Multi-Occupied Residential Properties

Advice for Property Owners, Managers and Contractors

Foreword

HOMESTAMP is a partnership consortium with an interest in private sector housing comprising of Local Authorities, the Private Rented Sector, West Midlands Police and West Midlands Fire Service.

Our aim is to:

- Encourage the supply of good quality private rented homes
- To provide and facilitate information and training for landlords
- To consider and respond to regional and national issues affecting the private rented sector
- To encourage joint working between all interested parties

The objective of this document is to provide owners, managers, letting agents and contractors with the necessary information which will help them provide their tenants with safe and high quality accommodation, and reduce the need for intervention from local authorities.

We would like to thank the large and diverse number of partners and colleagues for their commitment in reviewing this document. Acknowledgement of the use of the Birmingham City Council Guide and the Coventry City Council Guide "Standards for Houses in Multi-Occupation" which are considered models of good practice.

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Introduction

Houses in Multiple Occupation (HMO)

Definition of HMO:

"House in Multiple Occupation" means a building, or part of a building (e.g. a flat):

- which is occupied by more than one household and in which more than one household shares an amenity (or the building lacks an amenity) such as a bathroom, toilet or cooking facilities; or,
- which is occupied by more than one household and which is a converted building which does not entirely comprise of self contained flats (whether or not there is also a sharing or lack of amenities); or,
- which comprises entirely of converted self contained flats and the standard of conversion does not meet, at a minimum, that required by the 1991 Building Regulation and at least one third of the flats are occupied under short tenancies

And is "occupied" by more than one household:

- as their only or main residence, or,
- as a refuge by persons escaping domestic violence, or,
- during term time by students, or,
- for some other purpose that is prescribed in regulations

And the households comprise:

- families (including single persons and co-habiting couples (whether or not of the opposite sex), or,
- any other relationship that may be prescribed by regulations, such as domestic staff or fostering or carer arrangements

The Government believes that safe and properly managed HMOs fulfill an important function in the private rented housing market. Many people need access to cheap flexible accommodation and in most areas HMOs meet this need. HMOs also have a particular role in providing affordable accommodation in areas of high housing demand where rents are high.

HMO accommodation has often been created by sub division of larger properties into smaller units and may pose fire risks to occupants as traditional means of escape may have been compromised in the process of redevelopment.

HMOs can also be home to vulnerable tenants and a higher standard of safety is required in order to ensure the safety of those tenants and their neighbours.

Therefore this document has been developed to provide guidance to owners, managers, letting agents and contractors on best practice in meeting fire safety standards in HMOs.

Chapter 1: Fire Precautions

The fire precautions that the Local Authority insist upon are mostly about things that can happen outside the residents' control. The law takes the view that someone with overall control of the house, (i.e. the owner, landlord or manager) must take steps to protect everyone living in it. **The main reasons for insisting on fire precautions in Houses in Multiple Occupation (HMOs) is to provide early warning and stop the smoke and fire spreading to other parts of the house before other residents have the chance to escape.**

The guidance given in this section is designed for HMOs as they are commonly encountered in most areas: that is to say HMOs of two or three storeys (not including hostels) housing up to approximately twelve people. For houses larger than this or where the layout is unusual or combined with commercial premises the person with overall control should contact the Local Authority for advice as a higher standard of fire protection may be required.

These standards should be followed, however, alternatives will be considered. If a landlord comes up with proposals which afford at least as good a level of protection as the Local Authority's standards, the case will need to be proven.

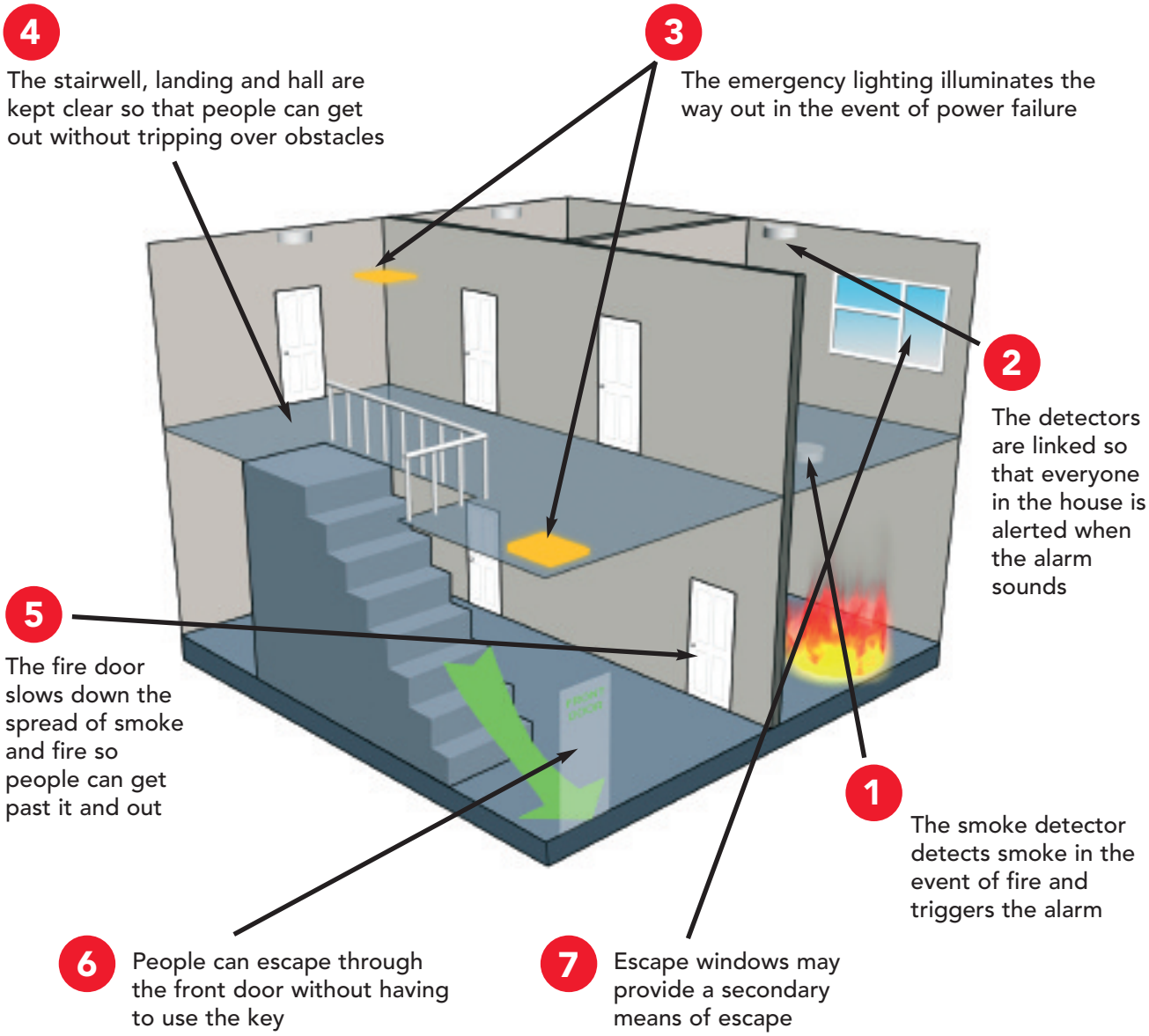
One example of this would be the installation of a sprinkler system – see appendix (8). It is possible that a designed commissioned sprinkler system could take the place of some of the fire precautions listed in this booklet.
It would, however, be up to the landlord to investigate the practicalities and economics of such schemes and present a convincing case. However, where the property is unusual in design or is used to house vulnerable groups of people (for example infirm or drug dependant people) the Local Authority may well insist on higher standards.

If you are proposing to convert or alter a property, it is important to remember that you may require Planning Permission and/or Building Regulation Approval first. Additionally, regard should also be had to the fact that there are further requirements under Housing Act legislation, for example, space and amenity standards which also need to be met.

The next section sets out the general principles for the fire precaution standards and is followed by the exact requirements the Local Authority has adopted.
The following few pages illustrate some typical schemes for houses commonly used for multiple occupancy in most areas.

General Principles

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



Notes:

1) There is a mains operated detector/ alarm in each and every risk room. This ensures that fires are detected at the earliest opportunity and that a warning is sounded in each and every room.

2) Whilst the fire precautions should help **everyone** escape from the house, the main objective of the scheme is to alert people in other rooms that there is a fire, as well as the occupier of the room where the fire starts.

3) If the electricity supply is interrupted the emergency lighting illuminates the escape route to show people the way out.

4) There is a clear way out through a route free of fire risks and obstructions. No one has to pass through a room of significantly higher fire risk in order to escape.

5) All rooms which pose a significant risk of fire have 30 minute fire resisting doors with smoke seals and self-closing devices. Fire doors are provided to protect the means of escape and should **never** be wedged open.

6) Escape routes must have doors that cannot be locked or fastened in such a way that prevents them from being easily and immediately opened, in the event of a emergency by persons on their way out, without the use of a key.

7) Escape windows can be used as a secondary means of escape in two storey properties only where the ground below is flat and free from hazards (low walls, railings etc).

Firefighting Equipment

The provision of fire blankets and extinguishers can be useful if all residents are **properly** instructed on how to use them. They must know how to hold and use a fire blanket and be instructed in how to discharge any fire extinguisher provided, what type of fires it is safe to be used on, how to tackle a fire safely with an extinguisher and when to give up and get out. **Local Authority standards will only expect a fire blanket to be provided.**

However, landlords should consider the following points in deciding whether extinguishers are to be provided:

- The extinguishers must comply with BS 5423 (or equivalent), which includes the specification for portable extinguishers
- Where extinguishers are provided they should be mounted on brackets fixed to the wall with the carrying handle no more than 1 metre high in the escape route at each floor level
- All extinguishers should be maintained in accordance with BS 5306 (or equivalent)
- The installation of extinguishers can lead to ongoing management problems where equipment is discharged through malice or horseplay
- In the event of a fire, residents should be under the instruction to evacuate the building. However, extinguishers may provide a means of tackling small fires if it is considered safe to do so

Certainly fire blankets and extinguishers can be helpful in tackling small fires and stopping them from becoming out of control. However, there are a number of injuries every year because people do not know how to use fire extinguishers and blankets properly, or do not appreciate the limitations of these devices. Unless a fire is very small, it is best on balance to encourage people simply to get out of the building quickly.

Detailed Fire Precautions Required

The following pages include some typical examples of house layouts and the work needed to make them comply with the Local Authority's standards.

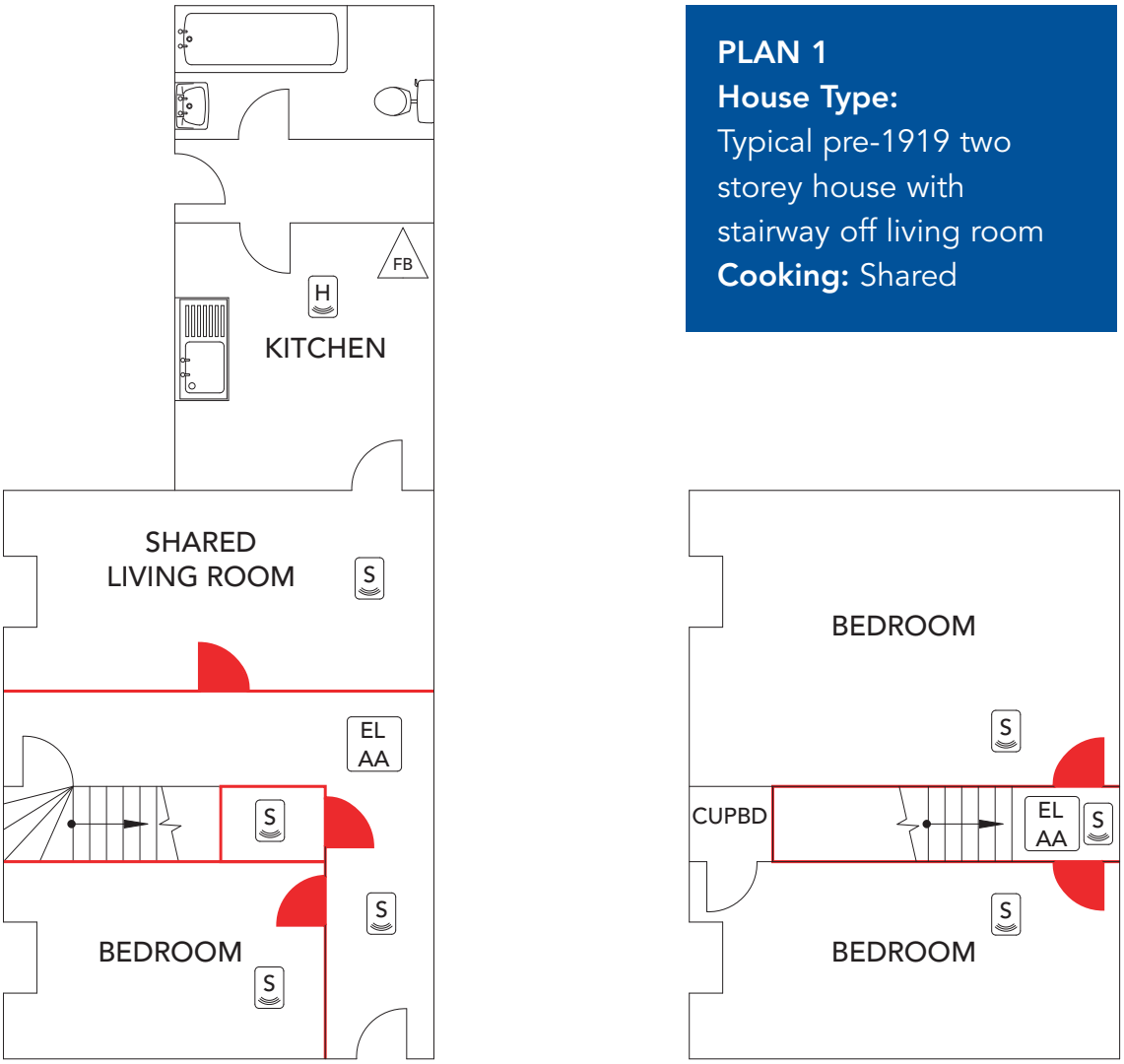
Remember that these are **suggested** ways of complying with the basic principles. There may be other options and the Local Authority is always open to discussion.

Key Symbols used in the following Layout Plans

S	Mains powered with battery back up, interlinked, combined smoke detector and sounder
H	Mains powered with battery back up, interlinked, combined heat detector and sounder
S	Smoke detector linked to control panel
H	Heat detector linked to control panel
S	Mains powered single point smoke detector and sounder with battery back up
	Manual call point (Break Glass)
C P	Control panel
EL AA	Area to be covered by emergency lighting
	30 minute fire resisting door
	30 minute fire resisting door incorporating intumescent and cold smoke seals
	30 minute fire resisting wall/partition
	Escape window
FB	Fire Blanket

You should note that where you see symbols on a plan it doesn't mean that it has to be positioned at exactly that point in the actual room. You should refer to the manufacturer's directions and British Standards guidance.

Chapter 2: Typical Shared Houses and Bedsit Accommodation Layouts



PLAN 1
House Type:
Typical pre-1919 two storey house with stairway off living room
Cooking: Shared

GROUND FLOOR

FIRST FLOOR

PLAN 1

The most likely room in the house for a fire to occur is the kitchen. A fire in the kitchen means smoke could quickly spread to the living room.

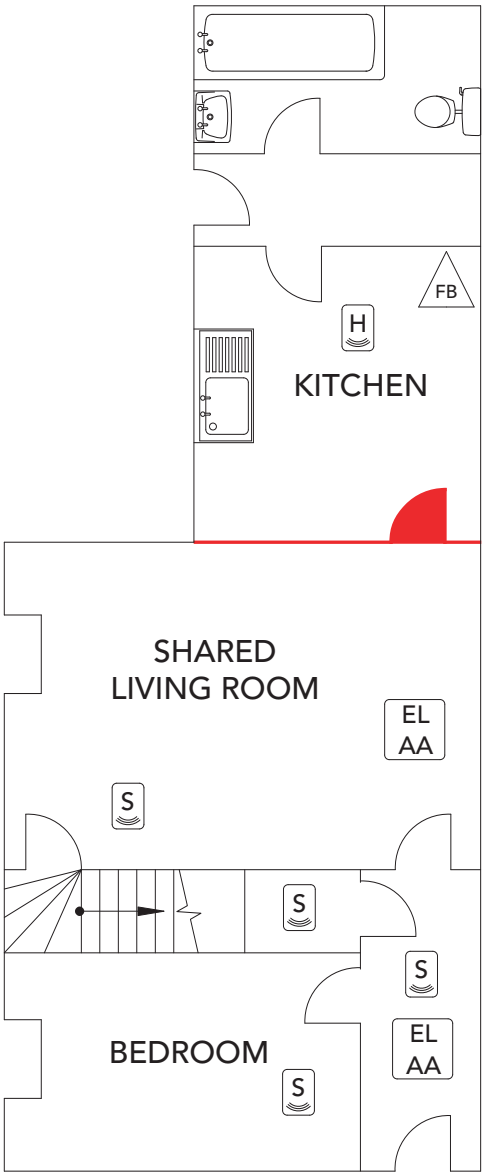
By providing a protected escape route from all habitable rooms and putting a detector/sounder in every room, anyone upstairs or indeed anywhere in the house will quickly be alerted if there is a fire and should be able to get down the stairs quickly to safety through the front door.

The escape route needs to be protected by half hour fire resisting partitions and fire doors.

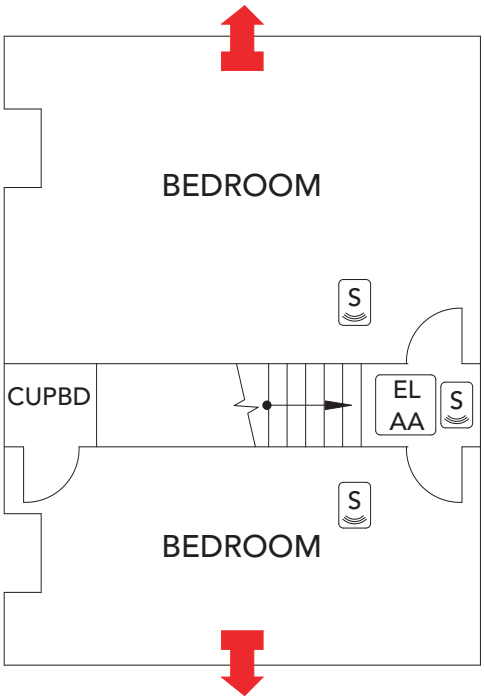
SCHEDULE TO PLAN No. 1: Typical pre-1919 two storey house with stairway off living room and shared cooking facilities	
Detection/ Warning	A system of mains powered automatic smoke detectors with battery back up to achieve a Grade D system in accordance with the current BS 5839 Part 6 (or equivalent) must be installed. Detectors must be sited in all areas containing a fire risk. 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 each and every alarm location. There are two types of smoke detector, 'ionisation' and 'optical'. Optical detectors are better in most situations, as they are less likely to give false alarms. See Appendix (1) for further details.
Control Panel	Not required.
Emergency Lighting	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. See Appendix (2) for further information.
Protected Route	The protected escape route is designed to allow for residents from all parts of the building to reach the outside without passing through a higher fire risk area. The protected route MUST be kept clear of obstructions and combustible materials. The walls and ceilings to all parts of the protected route MUST be free of highly flammable materials i.e. polystyrene tiles or heavy flock wallpaper. Electric meters within the protected route must be housed within a fire-resisting cupboard. Where gas meters are contained within the protected route see Appendix (7). See Appendix (3) for further information regarding fire resisting construction of walls/partitions. *Continued overleaf*

SCHEDULE TO PLAN No. 1: Typical pre-1919 two storey house with stairway off living room and shared cooking facilities	
Fire Doors	A fire door must be installed in each doorway leading onto the protected escape route except bathrooms/wc containing no fire risk. See Appendix (5) on fire doors.
Security of Doors	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.
Fire Separation	Floor/Ceiling construction including the under-stairs store and cellars must achieve a nominal 30 minute fire resistance. See Appendix (6) on how to achieve this.
Fire Blankets	A fire blanket to BS 6575 (or equivalent) is to be provided in the kitchen. The blanket must be mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.
Extinguishers	For further guidance see previous notes.
Other Recommendations	Polystyrene ceiling tiles **should not** be used within the premises. Heaters – portable heaters using gas cylinders or flammable liquids **should not** be used or stored in the premises.

PLAN 2
House Type:
Typical pre-1919 two storey house with stairway off living room
Cooking: Shared
(Alternative scheme to Plan 1)



GROUND FLOOR



FIRST FLOOR

PLAN 2

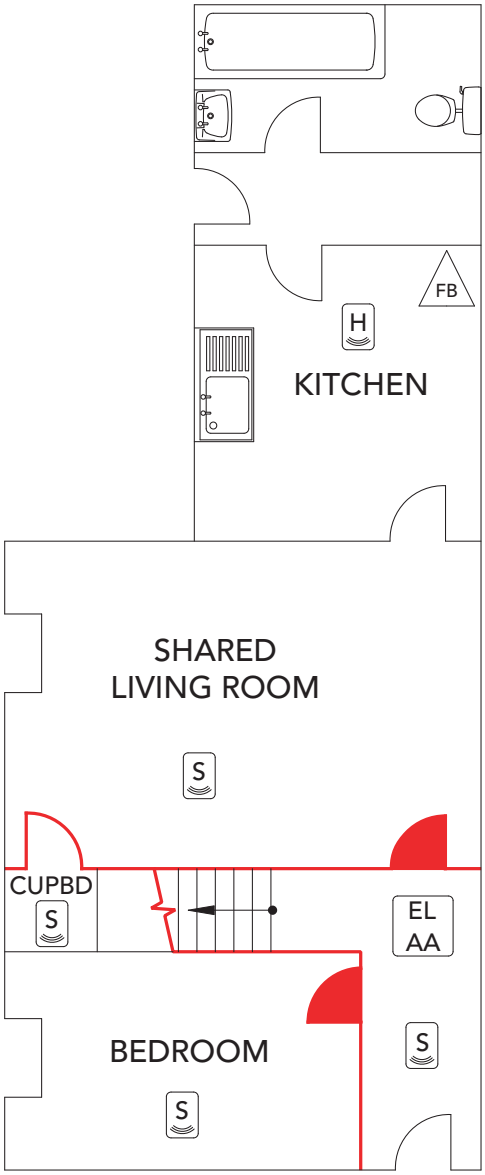
Alternatively, to the preferred option of Plan 1, means of escape can be achieved by separating the kitchen with a self-closing fire door and putting a detector/sounder in every room.

In this scheme escape window openings must be provided from the first floor habitable rooms to provide a secondary means of escape in the event that the primary escape route is compromised.

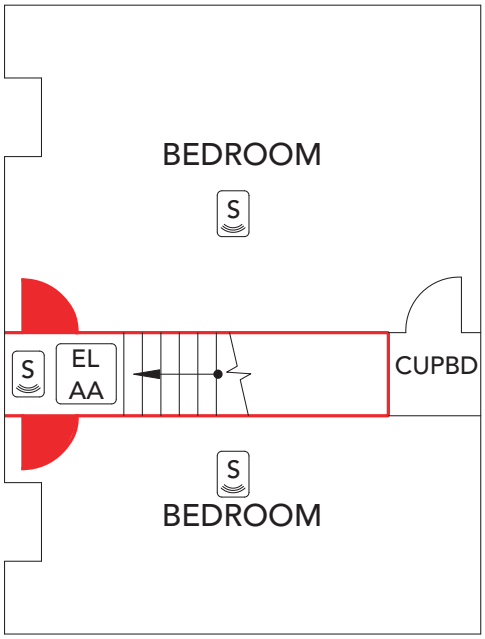
SCHEDULE TO PLAN No. 2: Typical pre-1919 two storey house with stairway off the living room and shared cooking facilities (Alternative scheme to Plan 1)	
Detection/ Warning	A system of mains powered automatic smoke detectors with battery back up to achieve a Grade D system in accordance with the current BS 5839 Part 6 (or equivalent) must be installed. Detectors must be sited in all areas containing a fire risk. 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 each and every alarm location. There are two types of smoke detector, 'ionisation' and 'optical'. Optical detectors are better in most situations, as they are less likely to give false alarms. See Appendix (1) for further details.
Control Panel	Not required.
Emergency Lighting	To be provided in accordance with the current BS 5266 Part 1 (or equivalent) to cover the escape route. Location of light fittings to be determined by the design /installing engineer. See Appendix (2) for further information.
Protected Route	Not applicable due to means of escape arrangements via suitable escape window openings. See Appendix (4) referring to escape windows.
Fire Doors	A fire door must be installed to the doorway between the shared living room and kitchen. See Appendix (5) relating to fire doors.
Security of doors	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. *Continued overleaf*

SCHEDULE TO PLAN No. 2: Typical pre-1919 two storey house with stairway off the living room and shared cooking facilities (Alternative scheme to Plan 1)	
Fire Separation	The wall between the kitchen and shared living room must provide 30 minutes fire resistance. See Appendix (3) regarding fire resisting walls and partitions. Floor/Ceiling construction including the under-stairs store and cellars must achieve a nominal 30 minute fire resistance. See Appendix (6) on how to achieve this.
Fire Blankets	A fire blanket to BS 6575 (or equivalent) is to be provided in the kitchen. The blanket must be mounted on the wall 1.5m high adjacent to the exit door away from the cooking facility.
Extinguishers	For further guidance see previous notes.
Other Recommendations	Polystyrene ceiling tiles **should not** be used within the premises. Heaters – portable heaters using gas cylinders or flammable liquids **should** not be used or stored in the premises.

PLAN 3
House Type:
Typical pre-1919 two storey house with stairway off hall
Cooking: Shared



GROUND FLOOR



FIRST FLOOR

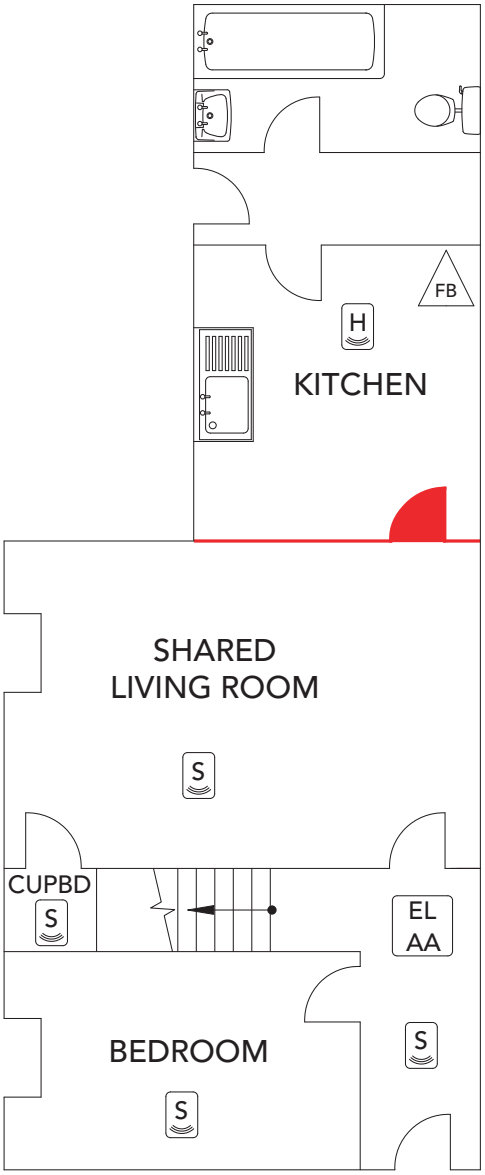
PLAN 3

The layout of this type of house can be safer than the one where the exit route is through the living room.

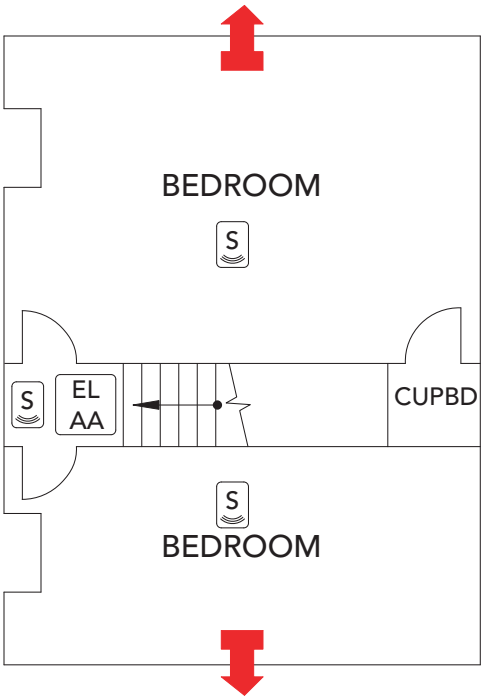
SCHEDULE TO PLAN No. 3: Typical pre-1919 two storey house with stairway off hall and shared cooking facilities	
Detection/ Warning	A system of mains powered automatic smoke detectors with battery back up to achieve a Grade D system in accordance with the current BS 5839 Part 6 (or equivalent) must be installed. Detectors must be sited in all areas containing a fire risk. 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 each and every alarm location. There are two types of smoke detector, 'ionisation' and 'optical'. Optical detectors are better in most situations, as they are less likely to give false alarms. See Appendix (1) for further details.
Control Panel	Not required.
Emergency Lighting	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. See Appendix (2) for further information.
Protected Route	The protected escape route is designed to allow for residents from all parts of the building to reach the outside without passing through a higher fire risk area. The protected route MUST be kept clear of obstructions and combustible materials. The walls and ceilings to all parts of the protected route MUST be free of highly flammable materials i.e. polystyrene tiles or heavy flock wallpaper. Electric meters within the protected route must be housed within a fire-resisting cupboard. Where gas meters are contained within the protected route see Appendix (7). See Appendix (3) for further information regarding fire resisting construction of walls/partitions. *Continued overleaf*

SCHEDULE TO PLAN No. 3: Typical pre-1919 two storey house with stairway off hall and shared cooking facilities	
Fire Doors	A fire door must be installed in each doorway leading onto the protected escape route except bathrooms/wc containing no fire risk. See Appendix (5) on fire doors.
Security of doors	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.
Fire Separation	Floor/Ceiling construction including the under-stairs store and cellars must achieve a nominal 30 minute fire resistance. See Appendix (6) on how to achieve this.
Fire Blankets	A fire blanket to BS 6575 (or equivalent) is to be provided in the kitchen. The blanket must be mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.
Extinguishers	For further guidance see previous notes.
Other Recommendations	Polystyrene ceiling tiles **should not** be used within the premises. Heaters – portable heaters using gas cylinders or flammable liquids **should not** be used or stored in the premises.

PLAN 4
House Type:
Typical pre-1919 two storey house with stairway off hall
Cooking: Shared
(Alternative scheme to Plan 3)



GROUND FLOOR



FIRST FLOOR

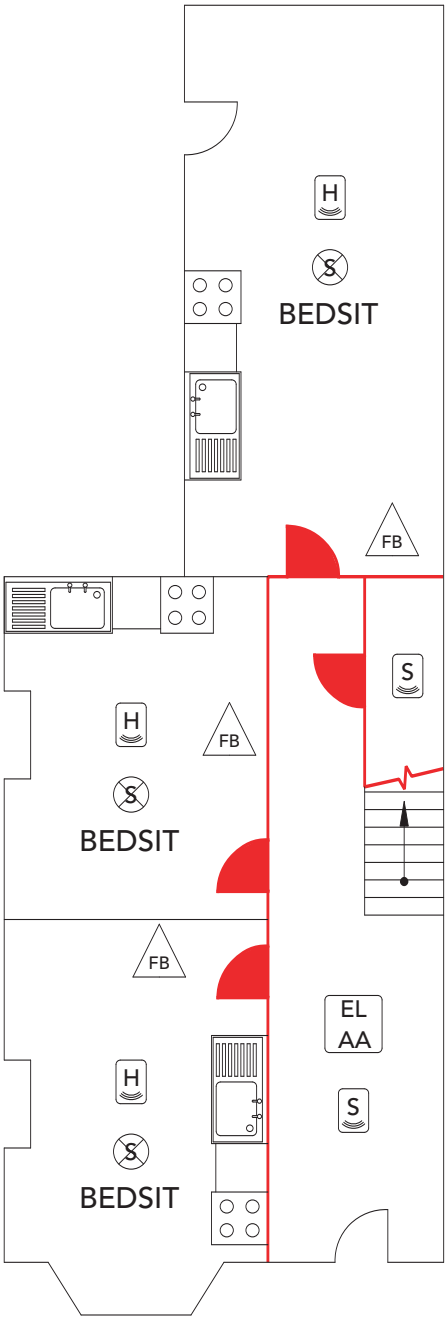
PLAN 4

Again, alternatively to the preferred option of Plan 3, means of escape can be achieved by separating the kitchen and installing escape windows to the first floor to provide a secondary means of escape.

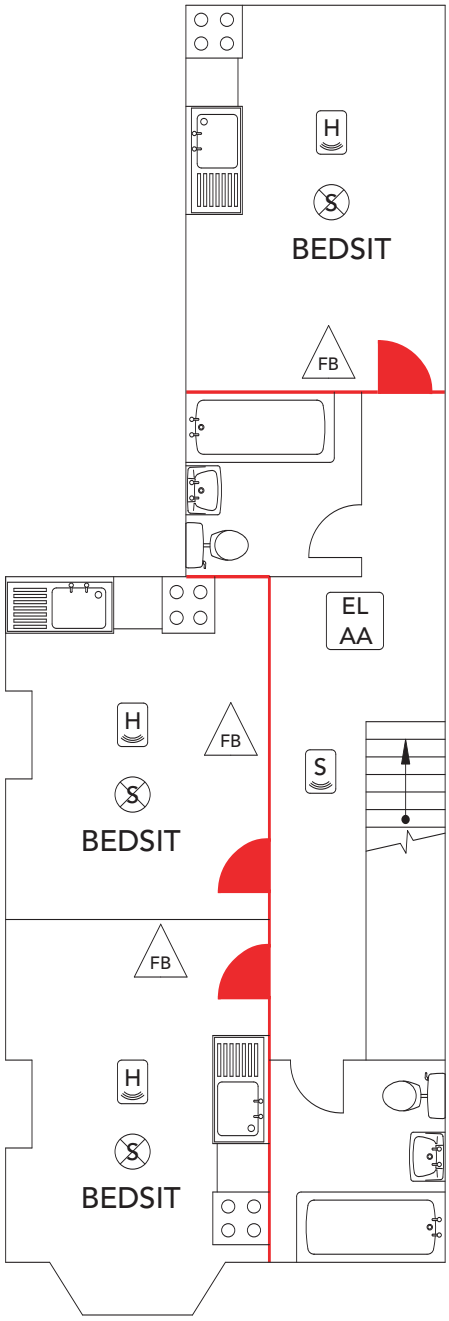
SCHEDULE TO PLAN No. 4: Typical pre-1919 two storey house with stairway off hall and shared cooking facilities (Alternative scheme to Plan 3)	
Detection/ Warning	A system of mains powered automatic smoke detectors with battery back up to achieve a Grade D system in accordance with the current BS 5839 Part 6 (or equivalent) must be installed. Detectors must be sited in all areas containing a fire risk. 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 each and every alarm location. There are two types of smoke detector, 'ionisation' and 'optical'. Optical detectors are better in most situations, as they are less likely to give false alarms. See Appendix (1) for further details.
Control Panel	Not required.
Emergency Lighting	To be provided in accordance with the current BS 5266 Part 1 (or equivalent) to cover the escape route. Location of light fittings to be determined by the design/installing engineer. See Appendix (2) for further information.
Protected Route	Not applicable due to means of escape arrangements via suitable escape window openings. See Appendix (7) referring to escape windows.
Fire Doors	A fire door must be installed to the doorway between the shared living room and kitchen. See Appendix (5) relating to fire doors.
Security of doors	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. *Continued overleaf*

SCHEDULE TO PLAN No. 4: Typical pre-1919 two storey house with stairway off hall and shared cooking facilities (Alternative scheme to Plan 3)	
Fire Separation	The wall between the kitchen and shared living room must provide 30 minutes fire resistance. See Appendix (3) regarding fire resisting walls and partitions. Floor/Ceiling construction including the under-stairs store and cellars must achieve a nominal 30 minute fire resistance. See Appendix (6) on how to achieve this.
Fire Blankets	A fire blanket to BS 6575 (or equivalent) is to be provided in the kitchen. The blanket must be mounted on the wall 1.5m high adjacent to the exit door away from the cooking facility.
Extinguishers	For further guidance see previous notes.
Other Recommendations	Polystyrene ceiling tiles **should not** be used within the premises. Heaters – portable heaters using gas cylinders or flammable liquids **should not** be used or stored in the premises.

PLAN 5
House Type: Typical two storey larger Victorian house
Cooking: In Lets



GROUND FLOOR



FIRST FLOOR

PLAN 5

As soon as cooking in individual lets is introduced the fire precautions involved become greater. The escape route needs to be protected by half-hour fire resisting partitions and fire doors together with a mixed fire detection and warning system.

SCHEDULE TO PLAN No. 5: Typical two storey larger Victorian house with cooking facilities in lets	
Detection/ Warning	A mixed fire detection and warning system must be provided. The main system to provide heat detectors in individual lets and smoke detectors in common areas and any storerooms/cellars. (Interlinked system). To provide an early warning to occupiers of a fire occurring within their room, a single point smoke alarm is required. These detectors are not interlinked between rooms. Both systems to conform to the current Grade D of BS 5839 Part 6 (or equivalent). There are two types of smoke detector, 'ionisation' and 'optical'. Optical detectors are better in most situations, as they are less likely to give false alarms. See Appendix (1) for further details.
Control Panel	Not required.
Emergency Lighting	To be provided in accordance with the current BS 5266 Part 1 (or equivalent) to cover the escape route. Location of light fittings to be determined by the design/installing engineer. See Appendix (2) for further information.
Protected Route	The protected escape route is designed to allow for tenants from all parts of the building to reach the outside without passing through a higher fire risk area. The protected route MUST be kept clear of obstructions and combustible materials. The walls and ceilings to all parts of the protected route MUST be free of highly flammable materials i.e. polystyrene tiles or heavy flock wallpaper. Electric meters within the protected route must be housed within a fire-resisting cupboard. Where gas meters are contained within the protected route see Appendix (7). See Appendix (3) for further information regarding fire resisting construction of walls/partitions. *Continued overleaf*

SCHEDULE TO PLAN No. 5: Typical two storey larger Victorian house with cooking facilities in lets	
Fire Doors	A fire door must be installed in each doorway leading onto the protected escape route except bathrooms/wc containing no fire risk. See Appendix (5) on fire doors.
Security of doors	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.
Fire Separation	Floor/Ceiling construction including the under-stairs store and cellars must achieve a nominal 30 minute fire resistance. See Appendix (6) on how to achieve this.
Fire Blankets	A fire blanket to BS 6575 (or equivalent) is to be provided in each let. The blanket must be mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.
Extinguishers	For further guidance see previous notes.
Other Recommendations	Polystyrene ceiling tiles **should not** be used within the premises. Heaters – portable heaters using gas cylinders or flammable liquids **should not** be used or stored in the premises.

PLAN 6
House Type: Typical three storey larger Victorian house
Cooking: Shared

GROUND FLOOR FIRST FLOOR SECOND FLOOR

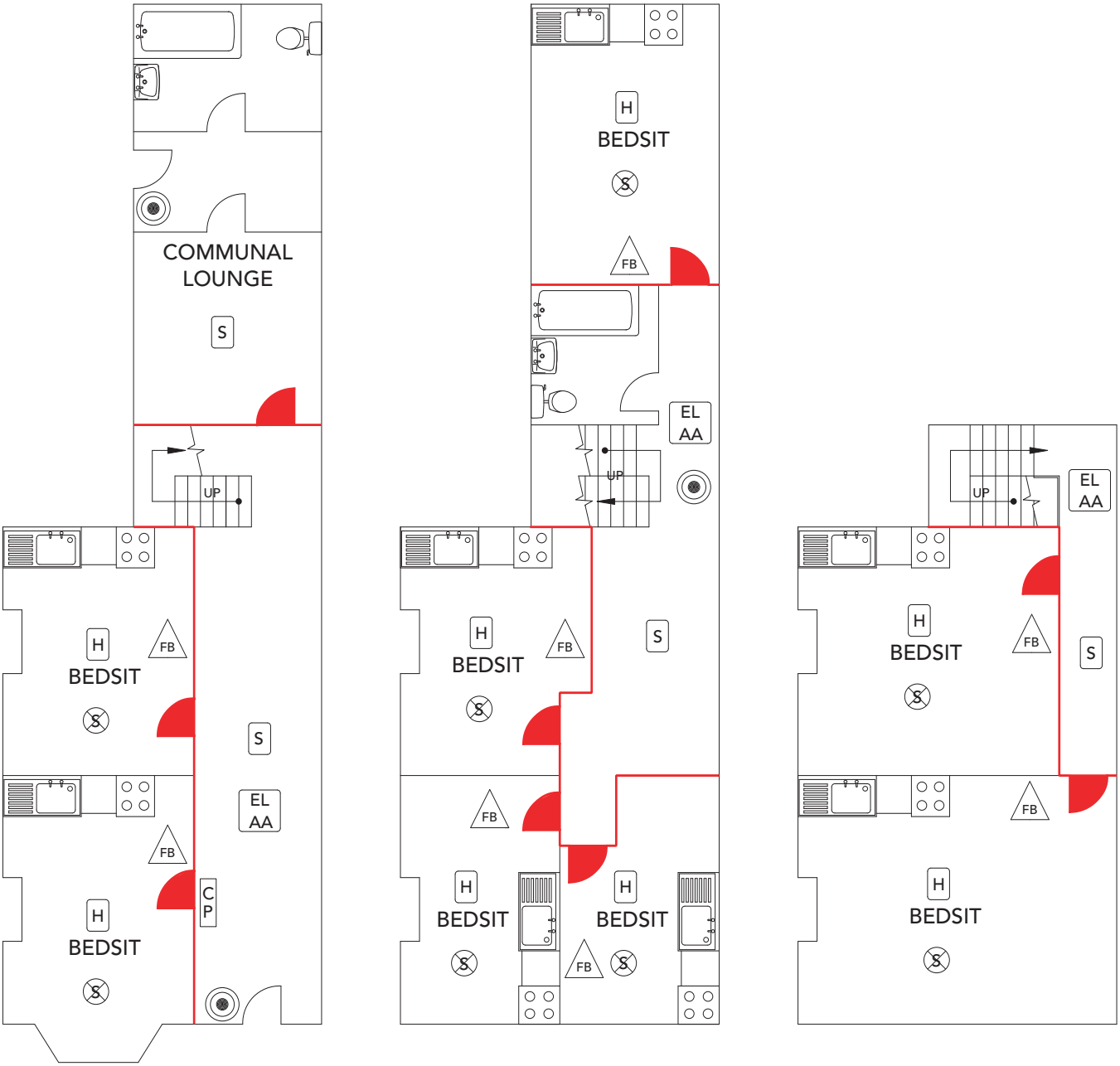
PLAN 6

In three storey properties, a fire control panel is required as part of the fire detection/ warning system.

SCHEDULE TO PLAN No. 6: Typical three storey larger Victorian house with shared cooking facilities	
Detection/ Warning	Fire warning and detection system to be provided conforming to GRADE 'A' of the current BS 5839 Part 6 (or equivalent). Automatic fire detection must provide LD2 coverage. In kitchens a heat detector rather than a smoke detector must be installed. There are two types of smoke detector, 'ionisation' and 'optical'. Optical detectors are better in most situations, as they are less likely to give false alarms. See Appendix (1) for further details.
Control Panel	To be sited close to the normal entrance to the dwelling.
Emergency Lighting	To be provided in accordance with the current BS 5266 Part 1 (or equivalent) to cover the escape route. Location of light fittings to be determined by the design/installing engineer. See Appendix (2) for further information.
Protected Route	The protected escape route is designed to allow for tenants from all parts of the building to reach the outside without passing through a higher fire risk area. The protected route MUST be kept clear of obstructions and combustible materials. The walls and ceilings to all parts of the protected route MUST be free of highly flammable materials i.e. polystyrene tiles or heavy flock wallpaper. Electric meters within the protected route must be housed within a fire-resisting cupboard. Where gas meters are contained within the protected route see Appendix (7). See Appendix (3) for further information regarding fire resisting construction of walls/partitions.
Fire Doors	A fire door must be installed in each doorway leading onto the protected escape route except bathrooms/wc containing no fire risk. See Appendix (5) on fire doors. *Continued overleaf*

SCHEDULE TO PLAN No. 6: Typical three storey larger Victorian house with shared cooking facilities	
Security of doors	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.
Fire Separation	Floor/Ceiling construction including the under-stairs store and cellars must achieve 30 minutes fire resistance. See Appendix (6) on how to achieve this.
Fire Blankets	A fire blanket to BS 6575 (or equivalent) is to be provided in each kitchen. The blanket must be mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.
Extinguishers	For further guidance see previous notes.
Other Recommendations	Polystyrene ceiling tiles **should not** be used within the premises. Heaters – portable heaters using gas cylinders or flammable liquids **should not** be used or stored in the premises.

PLAN 7
House Type: Typical three storey larger Victorian house
Cooking: In Lets



GROUND FLOOR

FIRST FLOOR

SECOND FLOOR

PLAN 7

In three storey properties, a fire control panel is required as part of the fire detection/ warning system.

SCHEDULE TO PLAN No. 7: Typical three storey larger Victorian house with cooking facilities in lets	
Detection/ Warning	A mixed fire detection and warning system conforming to the current BS 5839 Part 6 (or equivalent) must be provided comprising of GRADE A (main system) and GRADE D (Single point smoke alarms). The main system must provide LD2 coverage. The single point smoke alarms are to be sited in each let. These detectors are not interlinked between rooms. There are two types of smoke detector, 'ionisation' and 'optical'. Optical detectors are better in most situations, as they are less likely to give false alarms. See Appendix (1) for further details.
Control Panel	To be sited close to the normal entrance to the dwelling.
Emergency Lighting	To be provided in accordance with the current BS 5266 Part 1 (or equivalent) to cover the escape route. Location of light fittings to be determined by the design/ installing engineer. See Appendix (2) for further information.
Protected Route	The protected escape route is designed to allow for tenants from all parts of the building to reach the outside without passing through a higher fire risk area. The protected route MUST be kept clear of obstructions and combustible materials. The walls and ceilings to all parts of the protected route MUST be free of highly flammable materials i.e. polystyrene tiles or heavy flock wallpaper. Electric meters within the protected route must be housed within a fire-resisting cupboard. Where gas meters are contained within the protected route see Appendix (7). See Appendix (3) for further information regarding fire resisting construction of walls/partitions.
Fire Doors	A fire door must be installed in each doorway leading onto the protected escape route except bathrooms/wc containing no fire risk. See Appendix (5) on fire doors. *Continued overleaf*

SCHEDULE TO PLAN No. 7: Typical three storey larger Victorian house with cooking facilities in lets	
Security of doors	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.
Fire Separation	Floor/Ceiling construction including the under-stairs store and cellars must achieve 30 minutes fire resistance. See Appendix (6) on how to achieve this.
Fire Blankets	A fire blanket to BS 6575 (or equivalent) is to be provided in each let. The blanket must be mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.
Extinguishers	For further guidance see previous notes.
Other Recommendations	Polystyrene ceiling tiles **should not** be used within the premises. Heaters – portable heaters using gas cylinders or flammable liquids **should not** be used or stored in the premises.

Chapter 3: Typical Layouts of Buildings Converted into Flats

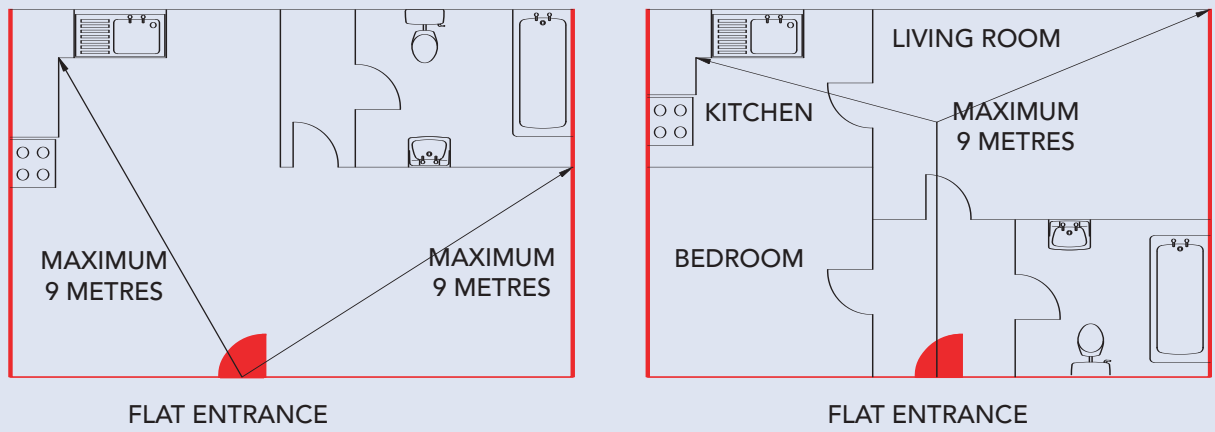
The following plans only relate to properties converted prior to 1991. All flats converted after this date should already conform to the relevant Building Regulations (or equivalent). Clarification may be required and it is recommended that you contact your Local Authority for information.

Travel distances are an important part of fire safety in all buildings, they are particularly important in flat design.

Travel distance is the distance a person has to travel from the furthest point within any habitable room (excluding bathroom and WC) to the nearest place of relative safety (protected stairway or final exit). In the case of premises comprising of flats, 9 metres is an important travel distance. Where travel distance in a flat is within 9 metres (see diagrams A & B) the fire precaution arrangements differ considerably to a flat where the travel distance exceeds 9 metres (see diagram C).

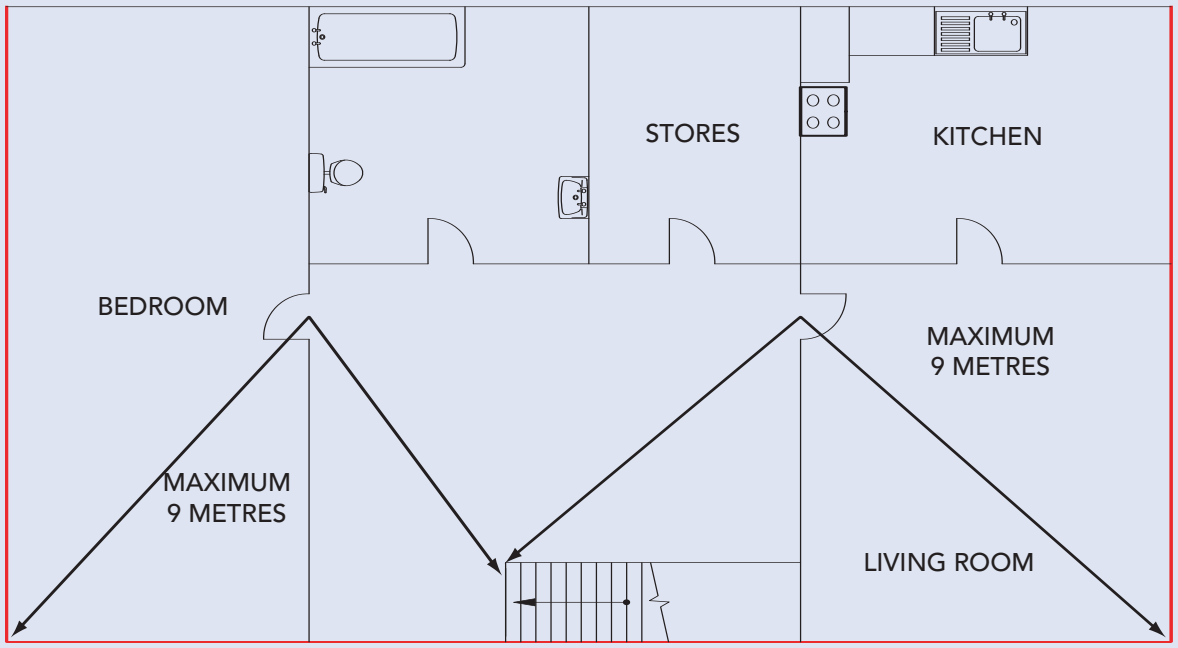
These diagrams indicate structural fire protection measures only. Please refer to the following plans 8 – 13 for full fire protection requirements.

Diagram A: Flats where travel distances are within 9 metres



Note:
Ideally cooking facilities/kitchens are required to be remote from the entrance door. Bedrooms/sleeping areas should be nearest the entrance door. Where the layout does not conform to the above, contact the Local Authority for advice.

Diagram B: Flats where travel distances are within 9 metres



Where the flat entrance is on the floor below the accommodation the travel distance will be measured to the head of the staircase.

Note:
Where premises have accommodation on two levels above the ground floor (i.e. a maisonette) further means of escape arrangements are necessary.

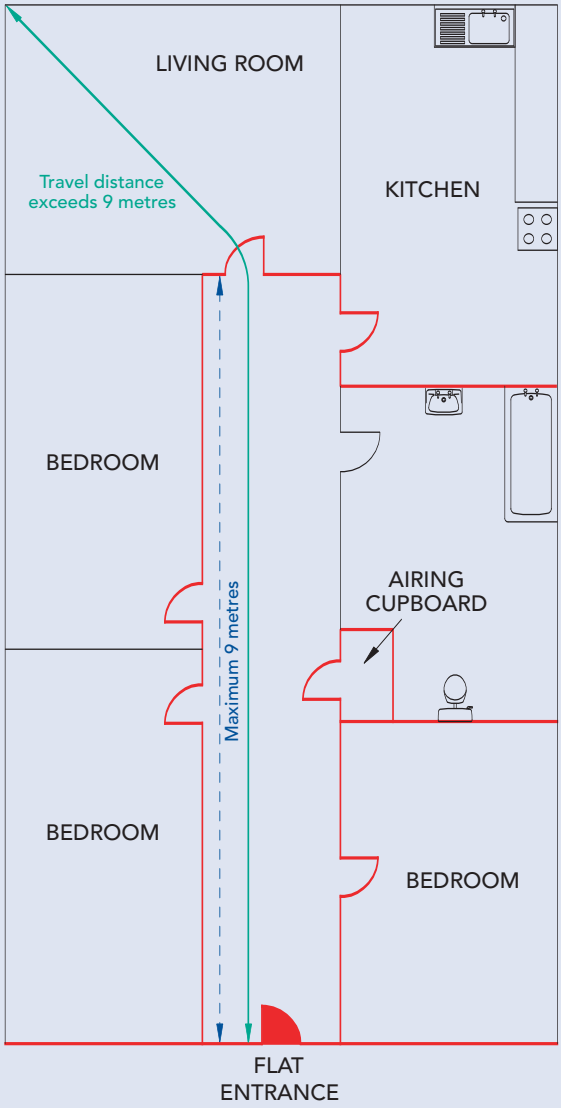
Where this arrangement exists you should contact the Local Authority for further guidance.

Diagram C: Flats where travel distances exceed 9 metres

Where the travel distances within the flat exceed 9 metres, a protected corridor must be provided.

There is a restriction of 9 metres maximum on the length of a protected corridor.

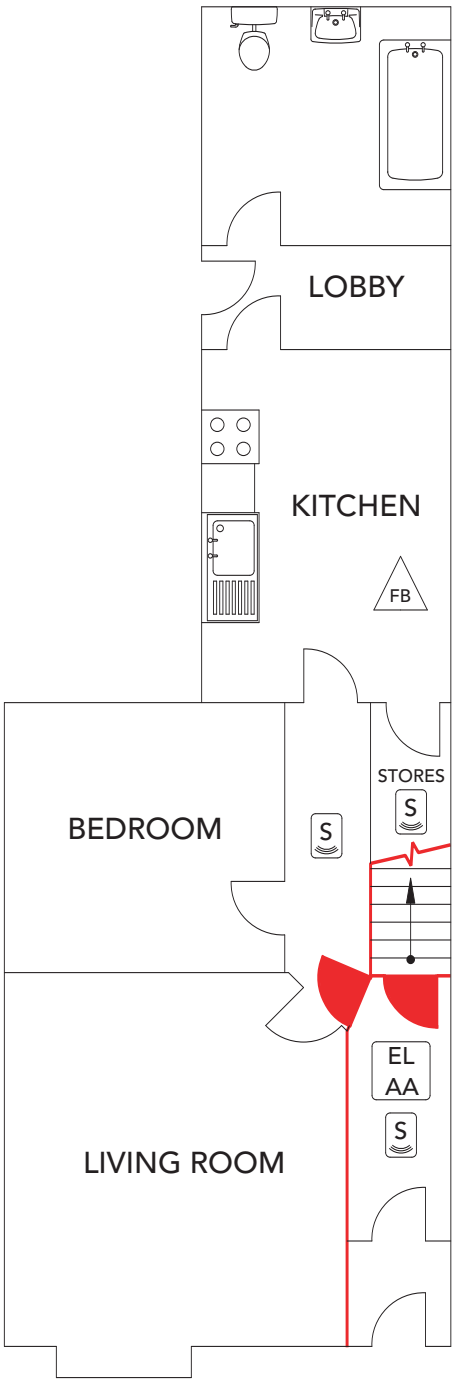
On the ground and first floors, escape windows may be considered as an alternative.



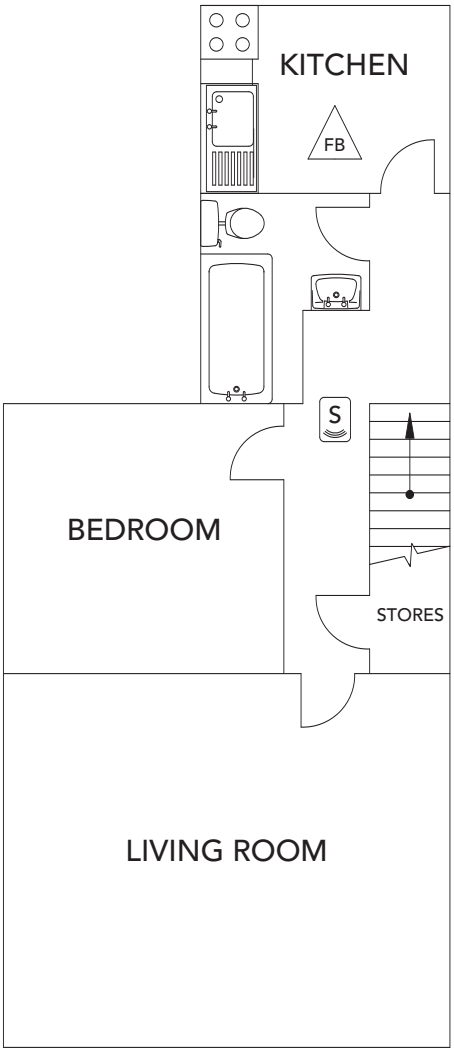
Note:
Bathrooms/WCs need not have fire doors providing the bathroom is separated by fire resisting construction from adjacent rooms and there is no fire risk (i.e. airing cupboards) sited within the bathroom.

Ideally bedrooms are located nearer the flat entrance door than higher fire risk rooms (i.e. kitchens, living rooms).

PLAN 8
House Type: Typical two storey Victorian house divided into two self-contained flats
Travel Distance: Less than 9 metres



GROUND FLOOR



FIRST FLOOR

PLAN 8

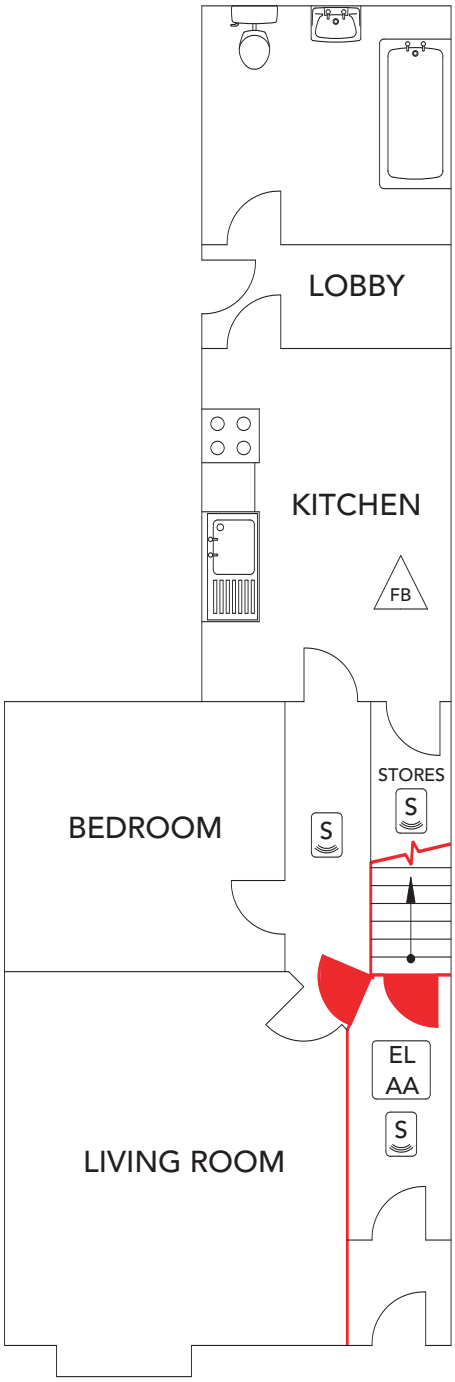
This scheme is designed in particular to ensure that persons living in the first floor flat are given early warning of any fire on the ground floor.

The communal entrance hall must be made a protected route and the underside of the stairs must have 30 minutes fire protection.

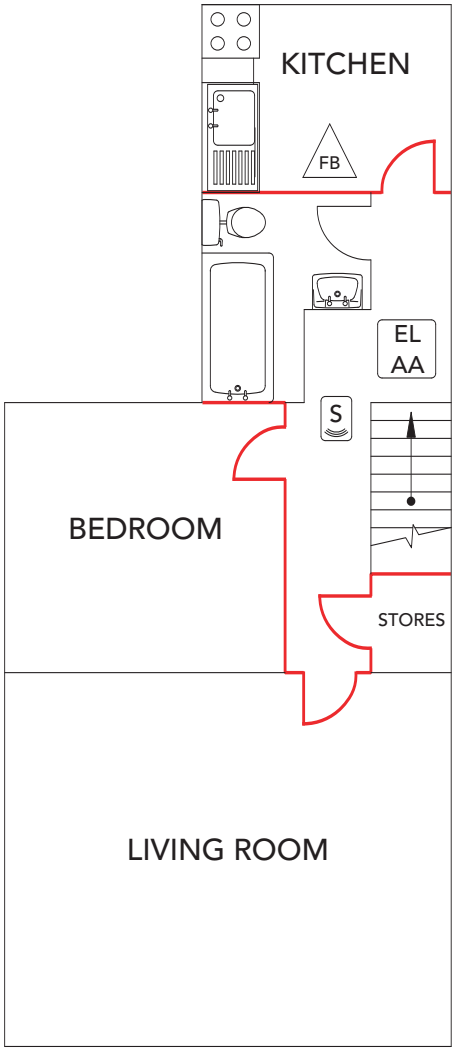
SCHEDULE TO PLAN No. 8: Typical two storey Victorian house divided into two self-contained flats (Travel distance less than 9 metres)	
Detection/ Warning	A system of mains powered automatic smoke detectors with battery back up to achieve a Grade D system in accordance with current BS 5839 Part 6, (or equivalent) must be installed. Detectors must be sited in the store, common entrance hall and adjoining inner hall/lobby or room to the ground floor flat and on the landing to the first floor. All detectors must be interlinked so that if one detector is triggered, the alarm sounds throughout the building. There are two types of smoke detector, 'ionisation' and 'optical'. Optical detectors are better in most situations, as they are less likely to give false alarms. See Appendix (1) for further details.
Control Panel	Not required.
Emergency Lighting	To be provided in accordance with 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. See Appendix (2) for further information.
Protected Route	The protected escape route consists of the ground floor communal entrance hall only. This allows residents from all parts of the building to reach the outside without passing through a higher fire risk area. The protected route must be kept clear of obstructions and combustible materials. The walls and ceilings to all parts of the protected route MUST be free of highly flammable materials i.e. polystyrene tiles or heavy flock wallpaper. Electric meters within the protected route must be housed within a fire-resisting cupboard. Where gas meters are contained within the protected route see Appendix (7). See Appendix (3) for further information regarding fire resisting construction of walls/partitions. *Continued overleaf*

SCHEDULE TO PLAN No. 8: Typical two storey Victorian house divided into two self-contained flats (Travel distance less than 9 metres)	
Fire Doors	A fire door must be installed in each doorway leading onto the protected escape route. See Appendix (5) on fire doors.
Security of doors	Security devices on the entrance doors to each flat 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.
Fire Separation	Floor/ceiling construction including the under-stairs store and cellars (if any) must achieve a nominal 30 minute fire resistance. See Appendix (6) on how to achieve this.
Fire Blankets	A fire blanket to BS 6575 (or equivalent) is to be provided in each kitchen. The blanket must be mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.
Extinguishers	For further guidance see previous notes.
Other Recommendations	Polystyrene ceiling tiles **should not** be used within the premises. Heaters – portable heaters using gas cylinders or flammable liquids **should not** be used or stored in the premises.

PLAN 9
House Type: Typical two storey Victorian house divided into two self-contained flats
Travel Distance: Exceeds 9 metres



GROUND FLOOR



FIRST FLOOR

PLAN 9

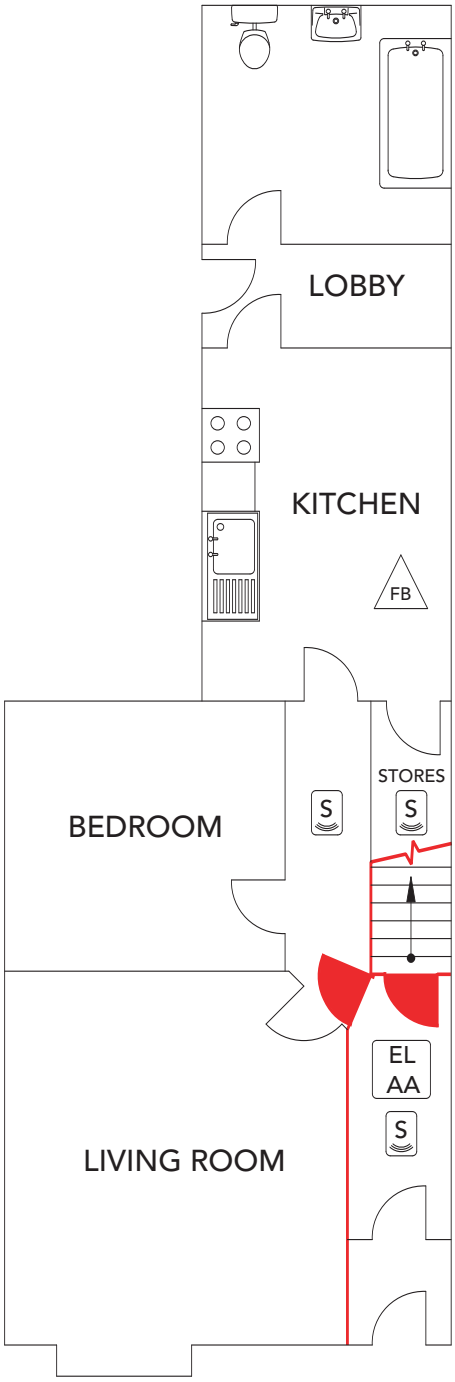
If the house is exceptionally large, the distance a person has to travel from the furthest point of any habitable room at first floor level to a point of relative safety (i.e. the head of the staircase) might exceed 9 metres.

If this is the case then the first floor landing must be made into a protected route by fitting fire doors to all rooms leading on to the landing (excluding bathrooms and WCs containing no fire risk). These fire doors must be self closing but need not have cold smoke or intumescent seals fitted. The protected route itself must not be more than 9 metres in length.

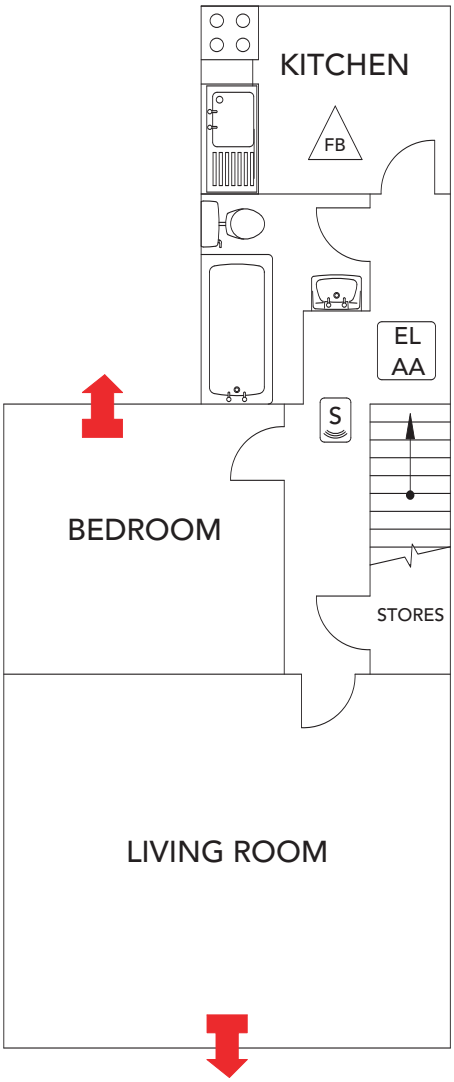
SCHEDULE TO PLAN No. 9: Typical two storey Victorian house divided into two self-contained flats (Travel distance exceeds 9 metres)	
Detection/ Warning	A system of mains powered automatic smoke detectors with battery back up to achieve a Grade D system in accordance with current BS 5839 Part 6, (or equivalent) must be installed. Detectors must be sited in the store, common entrance hall and adjoining inner hall/lobby or room to the ground floor flat and on the landing to the first floor. All detectors must be interlinked so that if one detector is triggered, the alarm sounds throughout the building. There are two types of smoke detector, 'ionisation' and 'optical'. Optical detectors are better in most situations, as they are less likely to give false alarms. See Appendix (1) for further details.
Control Panel	Not required.
Emergency Lighting	To be provided in accordance with 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. See Appendix (2) for further information.
Protected Route	The protected escape route consists of the first floor landing, the staircase and the ground floor communal entrance hall. This allows residents from all parts of the building to reach the outside without passing through a higher fire risk area. The protected route must be kept clear of obstructions and combustible materials. The walls and ceilings to all parts of the protected route MUST be free of highly flammable materials i.e. polystyrene tiles or heavy flock wallpaper. Electric meters within the protected route must be housed within a fire-resisting cupboard. Where gas meters are contained within the protected route see Appendix (7). See Appendix (3) for further information regarding fire resisting construction of walls/partitions. *Continued overleaf*

SCHEDULE TO PLAN No. 9: Typical two storey Victorian house divided into two self-contained flats (Travel distance exceeds 9 metres)	
Fire Doors	A fire door must be installed in each doorway leading onto the protected escape route. See Appendix (5) on fire doors.
Security of doors	Security devices on the entrance doors to each flat 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.
Fire Separation	Floor/ceiling construction including the under-stairs store and cellars (if any) must achieve a nominal 30 minute fire resistance. See Appendix (6) on how to achieve this.
Fire Blankets	A fire blanket to BS 6575 (or equivalent) is to be provided in each kitchen. The blanket must be mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.
Extinguishers	For further guidance see previous notes.
Other Recommendations	Polystyrene ceiling tiles **should not** be used within the premises. Heaters – portable heaters using gas cylinders or flammable liquids **should not** be used or stored in the premises.

PLAN 10
House Type: Typical two storey Victorian house divided into two self-contained flats
Travel Distance: Exceeds 9 metres (Alternative scheme to plan 9)



GROUND FLOOR



FIRST FLOOR

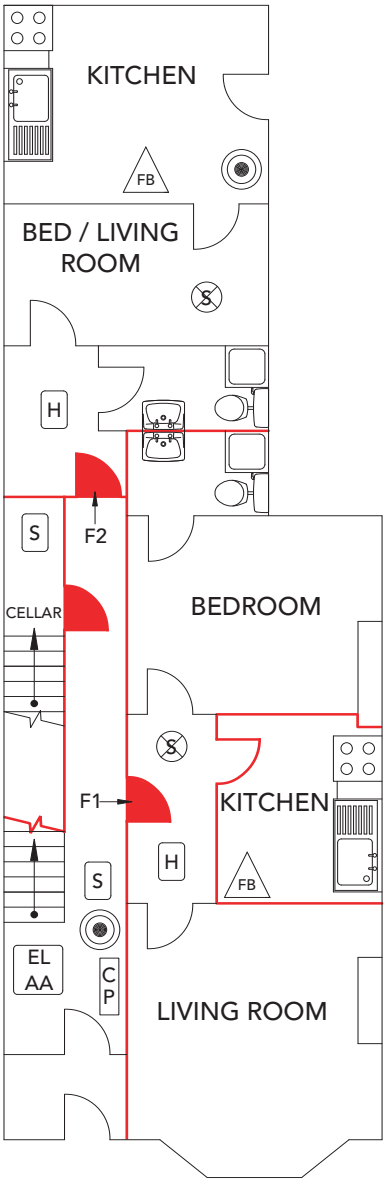
PLAN 10

The layout here is similar to the preferred means of escape option described for Plan 9. It is, however, an alternative to provide emergency escape windows from the habitable rooms at first floor level rather than making the landing a protected route by the fitting of fire doors.

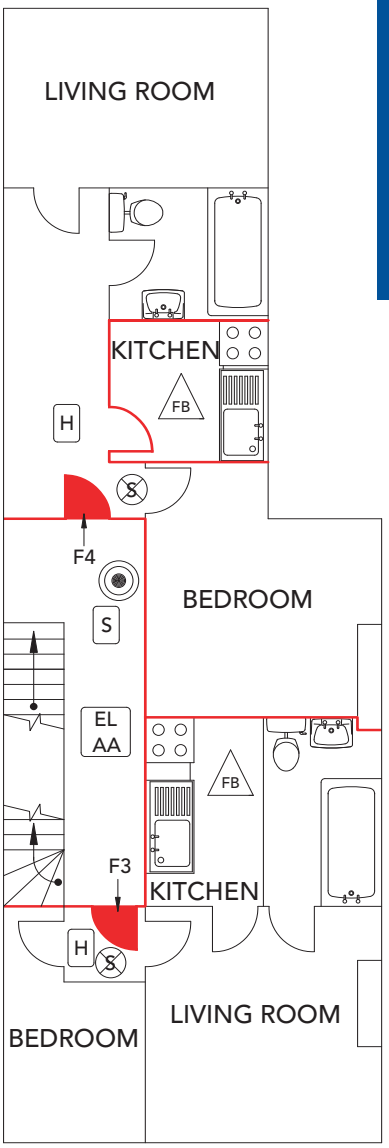
SCHEDULE TO PLAN No. 10: Typical two storey Victorian house divided into two self-contained flats (Travel distance exceeds 9 metres) (Alternative scheme to plan 9)	
Detection/ Warning	A system of mains powered automatic smoke detectors with battery back up to achieve a Grade D system in accordance with current BS 5839 Part 6, (or equivalent) must be installed. Detectors must be sited in the store, common entrance hall and adjoining inner hall/lobby or room to the ground floor flat and on the landing to the first floor. All detectors must be interlinked so that if one detector is triggered, the alarm sounds throughout the building. There are two types of smoke detector, 'ionisation' and 'optical'. Optical detectors are better in most situations, as they are less likely to give false alarms. See Appendix (1) for further details.
Control Panel	Not required.
Emergency Lighting	To be provided in accordance with 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. See Appendix (2) for further information.
Protected Route	The protected escape route consists of the ground floor communal entrance hall only. This allows residents from all parts of the building to reach the outside without passing through a higher fire risk area. The protected route must be kept clear of obstructions and combustible materials. The walls and ceilings to all parts of the protected route MUST be free of highly flammable materials i.e. polystyrene tiles or heavy flock wallpaper. In addition to the protected route, secondary means of escape arrangements should be made from the first floor via suitable escape window openings. See Appendix (4) referring to escape windows. *Continued overleaf*

SCHEDULE TO PLAN No. 10: Typical two storey Victorian house divided into two self-contained flats (Travel distance exceeds 9 metres) (Alternative scheme to plan 9)	
Protected Route ...continued	Electric meters within the protected route must be housed within a fire-resisting cupboard. Where gas meters are contained within the protected route see Appendix (7). See Appendix (3) for further information regarding fire resisting construction of walls/partitions.
Fire Doors	A fire door must be installed in each doorway leading onto the protected escape route. See Appendix (5) on fire doors.
Security of doors	Security devices on the entrance doors to each flat 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.
Fire Separation	Floor/ceiling construction including the under-stairs store and cellars (if any) must achieve a nominal 30 minute fire resistance. See Appendix (6) on how to achieve this.
Fire Blankets	A fire blanket to BS 6575 (or equivalent) is to be provided in each kitchen. The blanket must be mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.
Extinguishers	For further guidance see previous notes.
Other Recommendations	Polystyrene ceiling tiles **should not** be used within the premises. Heaters – portable heaters using gas cylinders or flammable liquids **should not** be used or stored in the premises.

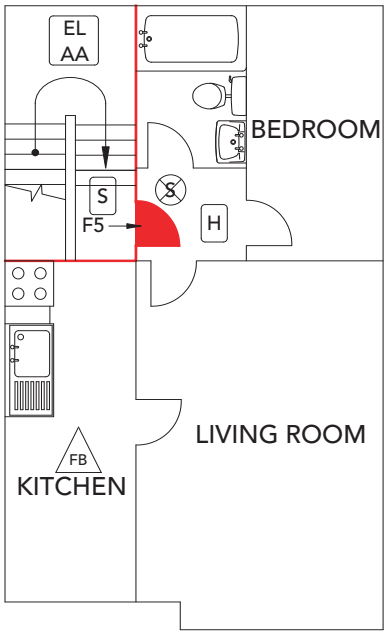
PLAN 11
House Type: Typical three storey Victorian house divided into self-contained flats
Travel Distance:
Less than 9 metres



GROUND FLOOR



FIRST FLOOR



SECOND FLOOR

PLAN 11

The communal escape route is given 30 minutes fire protection by fitting fire doors to the entrance of each flat (and to the cellar or any other identified fire risk rooms).

Within any flat, a fire door may also need to be fitted to the kitchen if it is necessary to go directly past the kitchen to get out into the protected communal escape route.

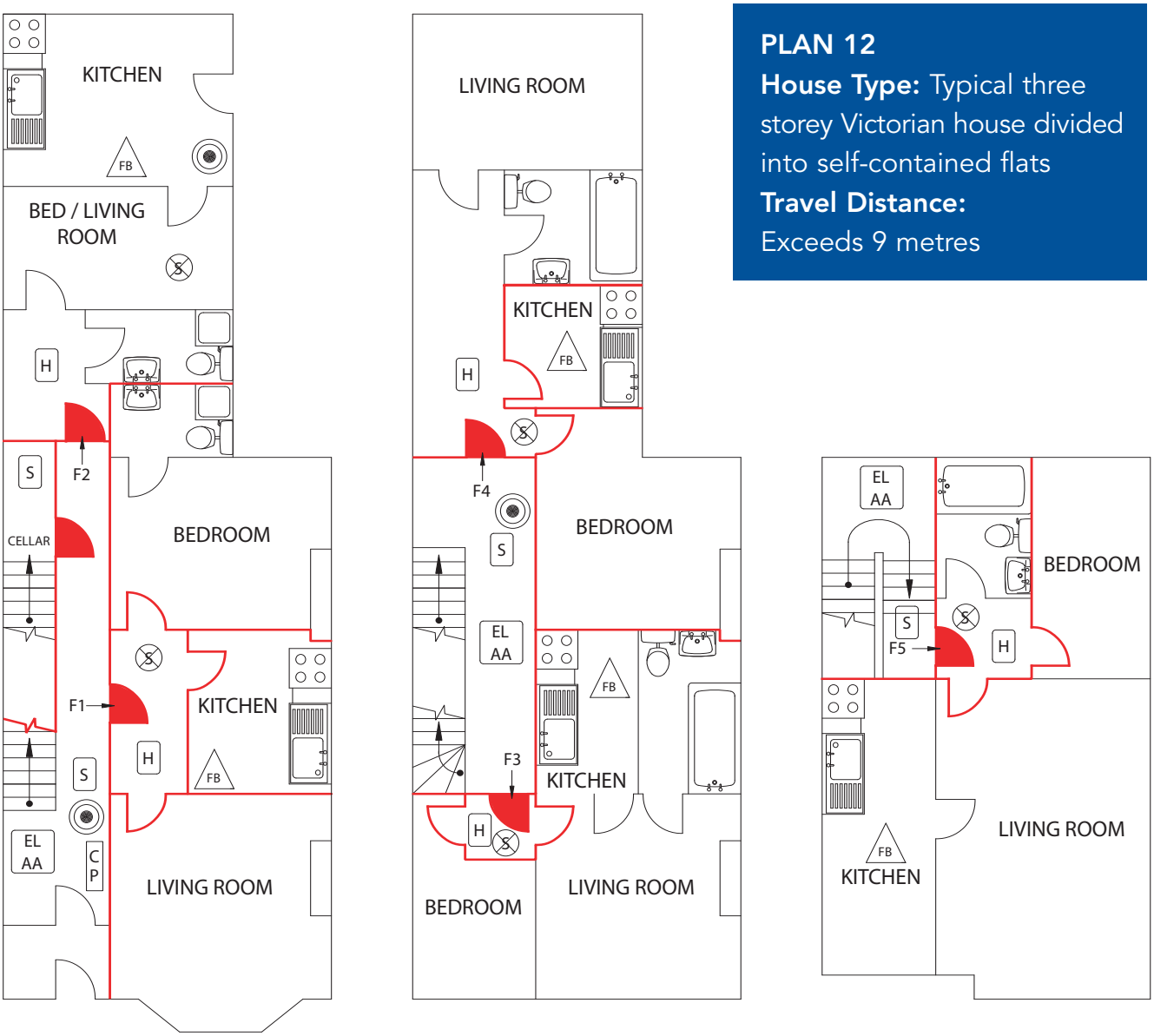
All occupiers are given early warning of a fire in any particular flat before it becomes serious enough to break out into the communal escape route.

The occupier(s) of any individual flat is given additional early warning of a fire in that flat by having a mains powered single point smoke alarm fitted which is not connected to the other flats in the house.

SCHEDULE TO PLAN No. 11: Typical three storey Victorian house divided into self-contained flats (Travel distance less than 9 metres)	
Detection/ Warning	A mixed fire detection and warning system conforming to current BS 5839, part 6, (or equivalent) must be provided. This consists of a Grade A main system giving an LD2 level of coverage, which includes smoke detectors at each floor level in the communal areas and cellar head, and heat detectors in the adjoining lobby/hall or room to each flat. The main system is supplemented by one or more single point Grade D smoke alarms also in lobby/hall or room to each flat, but these are not interlinked between each unit of accommodation. There are two types of smoke detector, 'ionisation' and 'optical'. Optical detectors are better in most situations, as they are less likely to give false alarms. See Appendix (1) for further details.
Control Panel	To be sited close to the normal main entrance to the dwelling.
Emergency Lighting	To be provided in accordance with 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. See Appendix (2) for further information.
Protected Route	The protected escape route comprises the communal entrance hall, stairs and landings, and is designed to allow for residents from all parts of the building to reach the outside without passing through a higher fire risk area. Within each flat the residents must be able to reach the entrance door to the flat from the bedrooms without passing through another risk room. The protected route must be kept clear of obstruction and combustible materials. The walls and ceilings to all parts of the protected route MUST be free of highly flammable materials i.e. polystyrene tiles or heavy flock wallpaper. *Continued overleaf*

SCHEDULE TO PLAN No. 11: Typical three storey Victorian house divided into self-contained flats (Travel distance less than 9 metres)	
Protected Route ...continued	Electric meters within the protected route must be housed within a fire-resisting cupboard. Where gas meters are contained within the protected route see Appendix (7). See Appendix (3) for further information regarding fire resisting construction of walls/partitions.
Fire Doors	A fire door must be installed in each doorway leading onto the protected escape route and where the means of escape within a flat is compromised by having to pass a fire risk room. See Appendix (5) on fire doors.
Security of doors	Security devices on the entrance doors to each flat 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.
Fire Separation	Floor/ceiling construction including the under-stairs store and cellars (if any) must achieve 30 minutes fire resistance. See Appendix (6) on how to achieve this.
Fire Blankets	A fire blanket to BS 6575 (or equivalent) is to be provided in each kitchen. The blanket must be mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.
Extinguishers	For further guidance see previous notes.
Other Recommendations	Polystyrene ceiling tiles **should not** be used within the premises. Heaters – portable heaters using gas cylinders or flammable liquids **should not** be used or stored in the premises

PLAN 12
House Type: Typical three storey Victorian house divided into self-contained flats
Travel Distance: Exceeds 9 metres



PLAN 12

In larger houses, the travel distance from the furthest point of any habitable room within any particular flat to the entrance door of that flat may be more than 9 metres.

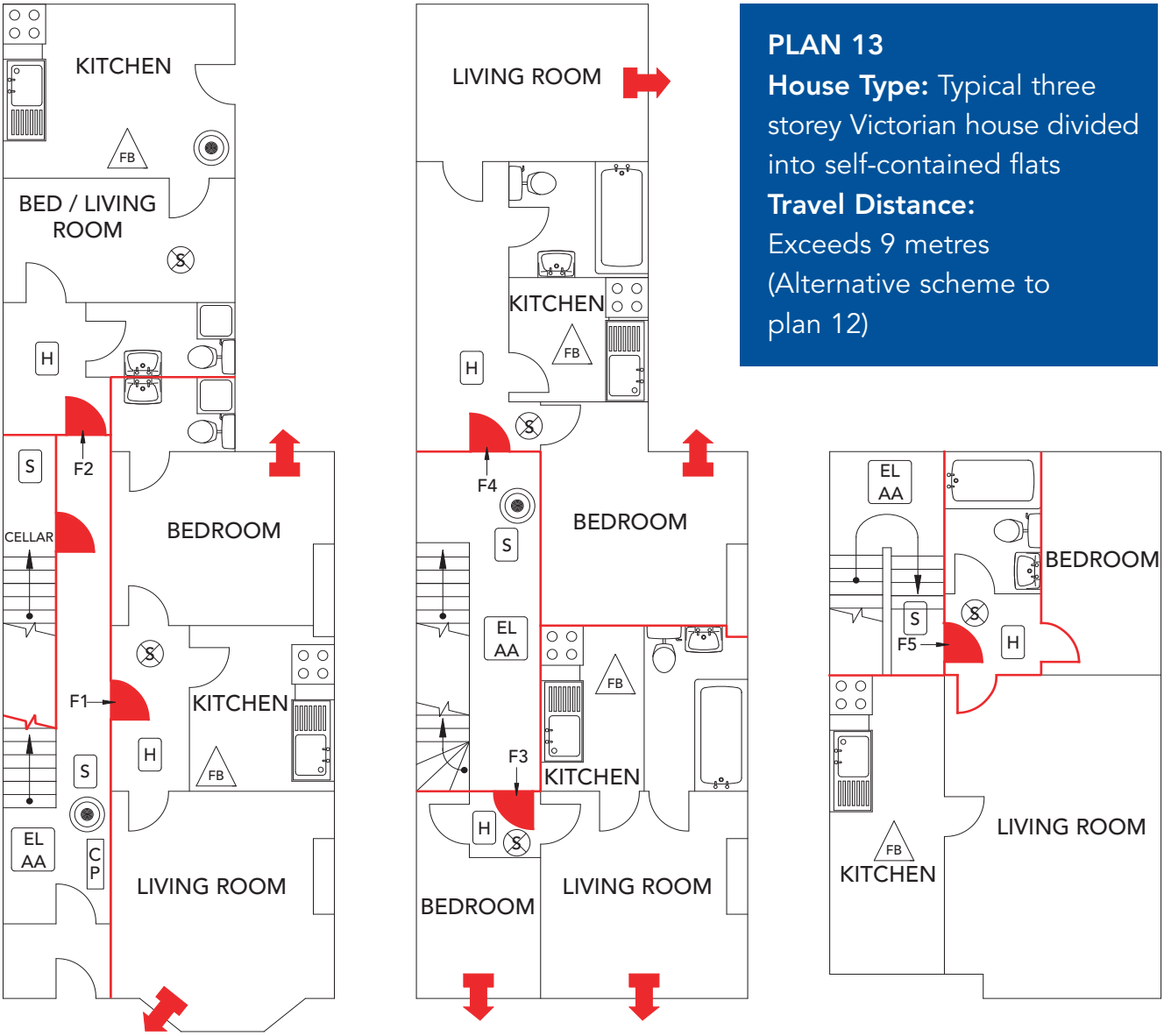
In such cases it is necessary, therefore, to give the occupier(s) of that flat additional time to get out before a fire occurs within the flat blocking their escape route.

This is achieved by creating a protected lobby or corridor (not to exceed 9 metres in length) within the flat by fitting fire doors to all doorways (excluding bathrooms and WCs containing no fire risk) leading onto the lobby or corridor. The fire doors within the flat need not be fitted with cold smoke or intumescent seals. The fire alarm system would be unchanged from that shown for Plan 11.

SCHEDULE TO PLAN No. 12: Typical three storey Victorian house divided into self-contained flats (Travel distance exceeds 9 metres)	
Detection/ Warning	A mixed fire detection and warning system conforming to current BS 5839, part 6; (or equivalent) must be provided. This consists of a Grade A main system giving an LD2 level of coverage, which includes smoke detectors at each floor level in the communal areas and cellar head, and heat detectors in the adjoining lobby/hall or room to each flat. The main system is supplemented by one or more single point Grade D smoke alarms also in lobby/hall or room to each flat, but these are not interlinked between each unit of accommodation. There are two types of smoke detector, 'ionisation' and 'optical'. Optical detectors are better in most situations, as they are less likely to give false alarms. See Appendix (1) for further details.
Control Panel	To be sited close to the normal main entrance to the dwelling.
Emergency Lighting	To be provided in accordance with 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. See Appendix (2) for further information.
Protected Route	The protected escape route comprises the communal entrance hall, stairs, landings and also a protected lobby/ corridor within the flats. It is designed to allow residents from all parts of the building to reach the outside without passing through a higher fire risk area. Within each flat the residents must be able to reach the entrance door to the flat from the bedrooms without passing through another risk room. The protected route must be kept clear of obstruction and combustible materials. The walls and ceilings to all parts of the protected route MUST be free of highly flammable materials i.e. polystyrene tiles or heavy flock wallpaper. *Continued overleaf*

SCHEDULE TO PLAN No. 12: Typical three storey Victorian house divided into self-contained flats (Travel distance exceeds 9 metres)	
Protected Route ...continued	Electric meters within the protected route must be housed within a fire-resisting cupboard. Where gas meters are contained within the protected route see Appendix (7). See Appendix (3) for further information regarding fire resisting construction of walls/partitions.
Fire Doors	A fire door must be installed in each doorway leading onto the protected escape route. See Appendix (5) on fire doors.
Security of doors	Security devices on the entrance doors to each flat 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.
Fire Separation	Floor/ceiling construction including the under-stairs store and cellars (if any) must achieve 30 minutes fire resistance. See Appendix (6) on how to achieve this.
Fire Blankets	A fire blanket to BS 6575 (or equivalent) is to be provided in each kitchen. The blanket must be mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.
Extinguishers	For further guidance see previous notes.
Other Recommendations	Polystyrene ceiling tiles **should not** be used within the premises. Heaters – portable heaters using gas cylinders or flammable liquids **should not** be used or stored in the premises.

PLAN 13
House Type: Typical three storey Victorian house divided into self-contained flats
Travel Distance: Exceeds 9 metres (Alternative scheme to plan 12)



PLAN 13

Where travel distances are more than 9 metres within the flat as described in relation to the preferred means of escape option shown in Plan 12, it is an alternative to provide emergency escape windows from habitable rooms at ground and first floor levels only, rather than fitting fire doors to create protected lobbies or corridors.

A protected lobby would still, however, need to be provided to the second floor flat if travel distances within that flat were more than 9 metres. The fire alarm system would again be unchanged from that shown for Plan 11.

SCHEDULE TO PLAN No. 13: Typical three storey Victorian house divided into self-contained flats (Travel distance exceeds 9 metres) (Alternative scheme to plan 12)	
Detection/ Warning	A mixed fire detection and warning system conforming to current BS 5839, part 6; (or equivalent) must be provided. This consists of a Grade A main system giving an LD2 level of coverage, which includes smoke detectors at each floor level in the communal areas and cellar head, and heat detectors in the adjoining lobby/hall or room to each flat. The main system is supplemented by one or more single point Grade D smoke alarms also in lobby or hall to each flat, but these are not interlinked between each unit of accommodation. There are two types of smoke detector, 'ionisation' and 'optical'. Optical detectors are better in most situations, as they are less likely to give false alarms. See Appendix (1) for further details.
Control Panel	To be sited close to the normal main entrance to the dwelling.
Emergency Lighting	To be provided in accordance with 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. See Appendix (2) for further information.
Protected Route	The protected escape route comprises the communal entrance hall, stairs and landings, and is designed to allow for residents from all parts of the building to reach the outside without passing through a higher fire risk area. Within each flat the residents must be able to reach the entrance door to the flat from the bedrooms without passing through another risk room. The protected route must be kept clear of obstruction and combustible materials. The walls and ceilings to all parts of the protected route MUST be free of highly flammable materials i.e. polystyrene tiles or heavy flock wallpaper. *Continued overleaf*

SCHEDULE TO PLAN No. 13: Typical three storey Victorian house divided into self-contained flats (Travel distance exceeds 9 metres) (Alternative scheme to plan 12)	
Protected Route ...continued	In addition to the protected route, secondary means of escape arrangements should be made from the ground and first floor via suitable escape window openings. See Appendix (4) referring to escape windows. Electric meters within the protected route must be housed within a fire-resisting cupboard. See Appendix (3) for further information regarding fire resisting construction of walls/partitions.
Fire Doors	Fire doors must be installed in each doorway leading onto the protected escape route and all risk area rooms to the second floor. See Appendix (5) on fire doors.
Security of doors	Security devices on the entrance doors to each flat 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.
Fire Separation	Floor/ceiling construction including the under-stairs store and cellars (if any) must achieve 30 minutes fire resistance. See Appendix (6) on how to achieve this.
Fire Blankets	A fire blanket to BS 6575 (or equivalent) is to be provided in each kitchen. The blanket must be mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.
Extinguishers	For further guidance see previous notes.
Other Recommendations	Polystyrene ceiling tiles **should not** be used within the premises. Heaters – portable heaters using gas cylinders or flammable liquids **should not** be used or stored in the premises.

Chapter 4: Maintenance of Fire Protection

Once the fire precautions have been installed, the owner and the residents both have responsibility for their maintenance.

Owner's Responsibility

The owner must make sure the structural fire precautions, the fire alarm system and other equipment are maintained in good condition and proper working order.

The Fire Alarm System

As an owner or manager you must be familiar with how the fire alarm system operates and know how to recognise faults and get them put right. Your alarm installer will have left you with an operator's manual and a contact telephone number. It is very important to report faults as soon as you are aware of them.

A BS 5839 Part 6 Grade A (or equivalent) system with a control panel must be checked and serviced regularly by a qualified electrician or alarm engineer. This British Standard also calls for weekly and quarterly tests of different call points. Keep a record of the checks carried out for future reference, in the book provided by the installer.

As the owner or manager, you can check a BS 5839 Part 6 Grade D (or equivalent) system without a control panel by carrying out the following actions:-

- The alarm system should be tested, by checking that all alarms activate simultaneously and air intake grills should be cleared of dust, insects and cobwebs
- Back-up batteries should be replaced when necessary, in line with the manufacturer's recommendations

Do this monthly and keep a written record. The detector should be replaced after ten years.

Emergency Lighting

You should test this monthly and keep records of the checks. Some systems need the electrical supply to be switched off for three hours, so that the internal batteries can be completely discharged (this helps to prolong the life of the batteries).

Fire Doors

These should be checked regularly to ensure that the doors and frames are undamaged and that self-closing devices work properly. The smoke seals to the doors must be undamaged and form a good seal between the door and frame.

Fire Blankets and Extinguishers

If provided, these should be checked to make sure they are in place and available for use. Extinguishers must be tested on an annual basis, and in accordance with the manufacturer's instructions.

Escape Routes

Check routes regularly to make sure they are clear from obstruction and free from combustible materials.

Informing Residents about Fire Protection

You should tell existing residents about the fire protection system as soon as it is installed, and remember to tell new residents as soon as they move in.

You should make sure that all residents know:

- what the fire alarm is for and how to recognise the sound
- what the escape route is (a practice fire drill is a good idea for all new residents)
- the importance of not propping open fire doors or interfering with the alarm system

Residents' Responsibility

Residents must allow the owner reasonable access to the accommodation to carry out checks on fire precautions. Residents must not interfere with the fire protection system and equipment, for example, by:

- removing safety equipment
- propping fire doors open
- covering or removing smoke detectors
- blocking escape routes with furniture, bicycles or rubbish etc

Chapter 5: Fire Prevention

The advice given in this booklet has mainly been concerned with methods of giving residents enough warning once a fire has started, and with precautions to control the spread of fire and smoke.

However, even the most thorough fire protection measures can never guarantee absolute safety for residents, or prevent extensive property damage. It is more important to look at ways of preventing a fire from starting.

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

1. Make sure that the electrical circuits, fittings and equipment throughout the house are in good condition. Have the electrical installation checked regularly by a competent electrician (NICEIC or ECA approved) and act quickly on any recommendations that are made.

The electrician's report will tell you the date on which the installation should be checked again.

Modern electrical wiring has circuit breakers rather than rewireable fuses.

These respond much more quickly to a short circuit or overload and will shut off the electricity supply before a fire has a chance to develop.

Ensure that there are enough electrical sockets for the appliances your residents are likely to use.

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.

2. Have the gas installation (i.e. the gas pipework, meters, gas fires, cookers, boilers, water heaters and flues) checked and serviced at least once a year by a CORGI registered gas fitter. This is a legal requirement under the Gas Safety (Installation and Use) Regulations.

   You must give a copy of the safety certificate to each resident within 28 days, and give a copy to new residents before they move in.

3. Make sure that heaters are fixed in a position where they will not set fire to curtains, bedding or furnishings.

4. Make sure that all upholstered furniture that you, as the landlord, provide (such as settees, armchairs, bed bases and mattresses) has sewn-in labels showing that it has fire-resistant filling and covers.

   This is a legal requirement under the Furniture and Furnishings (Fire) (Safety) Regulations 1988 and the Furniture and Furnishings (Fire) (Safety) (Amendment) Regulations 1993.

5. Discourage the use of portable gas or paraffin heaters in the house.

6. Do not store highly flammable materials in the house (such as paint, thinners, LPG cylinders, paraffin or petrol).

7. Do not store large quantities of combustible materials such as cardboard boxes or newspapers, in understairs cupboards, cellars, or in the loft.

8. Make sure that your residents understand 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

and the importance of a bedtime fire safety routine:

- turning off the cooker
- unplugging electrical appliances (except those designed to stay on all the time)
- 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 and your family 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 your family are too precious to risk.

- Telephone the Fire Brigade 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.

IF IN DOUBT GET OUT!!

Appendix 1

Automatic Fire Detection and Alarm Systems

1. Fire Alarm System to Comply with Current British Standard 5839 Part 6: Grade A (or equivalent)

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.

The control panel must conform to current British Standard 5839 Part 4 (or equivalent).

In general the system must incorporate manual call points, which should be located on each floor level and at final points of exit.

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

2. Fire Alarm System to Comply with Current British Standard 5839 Part 6: Grade D (or equivalent)

This 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.

A control panel is not required with this system, nor is the provision of manual call points.

General Requirements Common to Both Systems

(i) **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.

(ii) **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.

(iii) **Power Supply**

The power supply to the fire detection system must be taken from the landlord's supply.

(iv) **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 the Local Authority for further advice in these circumstances.

(v) **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 Appendix 1A).

Appendix 1A

Model Installation, Commissioning and Test Certificate

Certificate of installation and commissioning of the fire detection and alarm system at:

Address _____

_____

Post Code _____

It is certified that the fire detection and alarm system at the above address conforms to the recommendations of BS 5839: Part 6 for a type _____ grade _____ system, other than in respect of the following deviations.

The entire system has been tested for satisfactory operation.

Instructions in accordance with the recommendations of clause 22 of BS 5839: Part 6 have been supplied to:

_____

Signed _____ Dated _____

For and on behalf of _____

Appendix 2
Emergency Lighting

Provision of an Emergency Lighting System to Comply with 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.

The installation must be carried out by a qualified electrical contractor.

Upon completion, the contractor must provide an appropriate certificate (see model certificate Appendix 2A).

Appendix 2A
Model Completion Certificate

Emergency Lighting – Completion Certificate for New Installation or Alterations

Occupier/Owner _____

Address of premises _____

_____

Post Code _____ Telephone No _____

I/We hereby certify that the emergency lighting, or part thereof, at the above premises has been installed and designed by me/us, and to the best of my/our knowledge and belief, the system complies with the appropriate recommendations given in BS EN 1838 and BS 5266 'Emergency Lighting' Part 1: 1999.
Code of Practice for the emergency lighting of premises other than cinemas and certain other specified premises used for entertainment published by BSI for a category NM/1 minimum installation, except as stated below.

_____

_____

_____

Installers Name _____

Installers Address _____

Post Code _____ Telephone No: _____

Signature of person responsible for design and installation of the system

_____ Date _____

Appendix 3

Fire Resistance Of Walls And Partitions

A. New Walls And Partitions

Half hour fire resistance can be achieved by any of the following methods of construction:

Solid walls

(i.) Masonry blockwork/brickwork 100mm thick (load bearing)

(ii.) Masonry blockwork/brickwork 75mm thick (non-load bearing)

Stud Partitions

The constructions 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:-

(i.) 12.5mm plasterboard finished with plaster skim

(ii.) 12.5mm fire rated plasterboard, unplastered

(iii.) 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 unplastered, the joints must be taped and filled using joint compound as recommended by the board manufacturer.

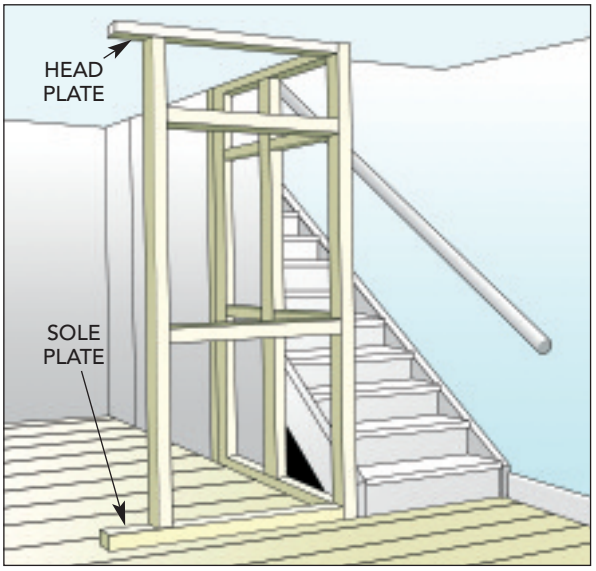
Any gaps between the wall and surrounding structure should be filled flush using suitable fire resisting jointing compound.

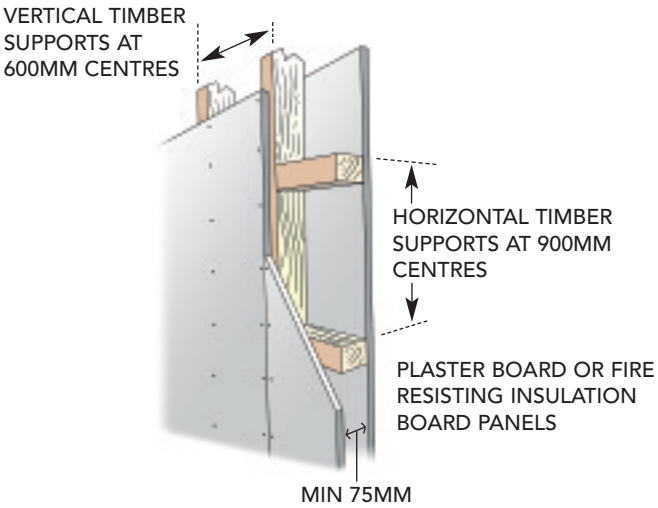
Diagram 1

Example of fire resisting partitions

(half hour fire resistance)

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





B. Upgrading Existing Lath and Plaster Partitions to Achieve Half Hour Fire Resistance

The condition of the lath and plaster 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.

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 by overboarding it 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 and provide a firm fixing in the timber framework. The partition should be finished by scrimming and skimming with plaster.

C. Fire Resisting Glazing in Walls and Partitions

For the purpose of this document 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 Regulation 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 1.2msq 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.

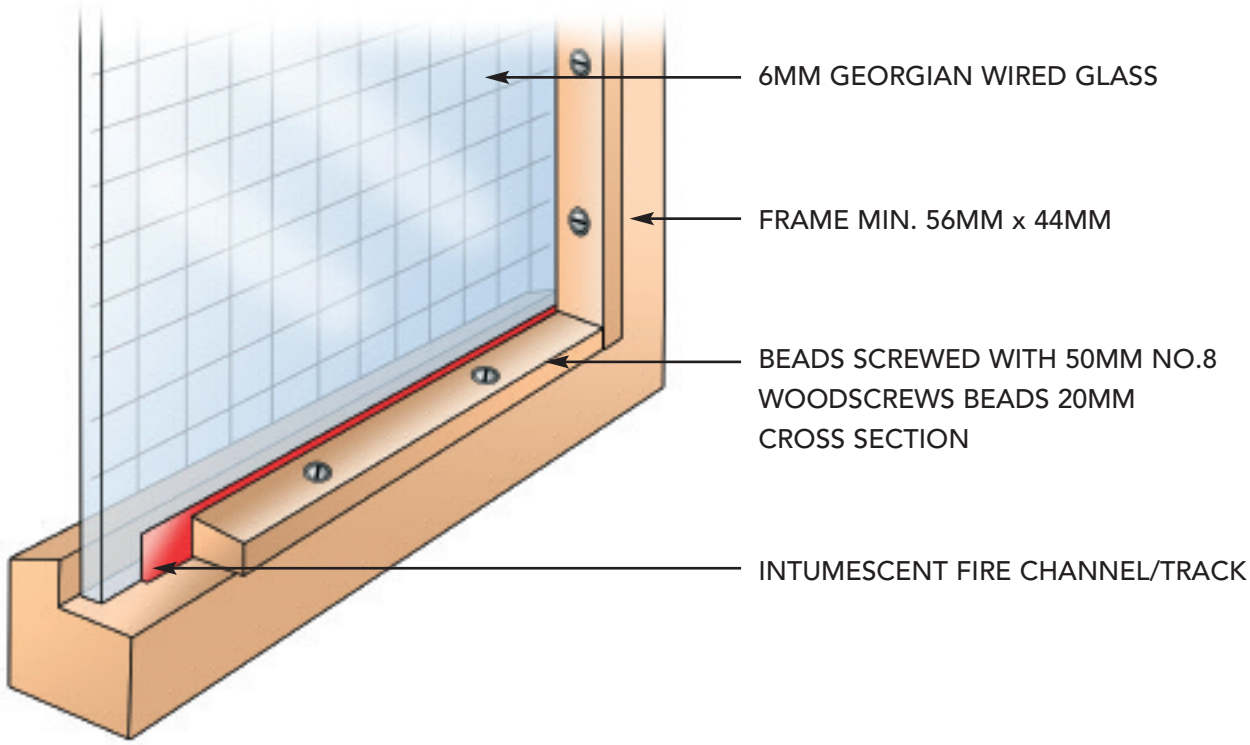
The timber frame members and dividing bars should not be less than 56 mm deep and 44 mm wide with the rebate worked from the solid material. For the protection of timber beading intumescent paints have proved satisfactory.

See diagram 2 for methods of fixing.

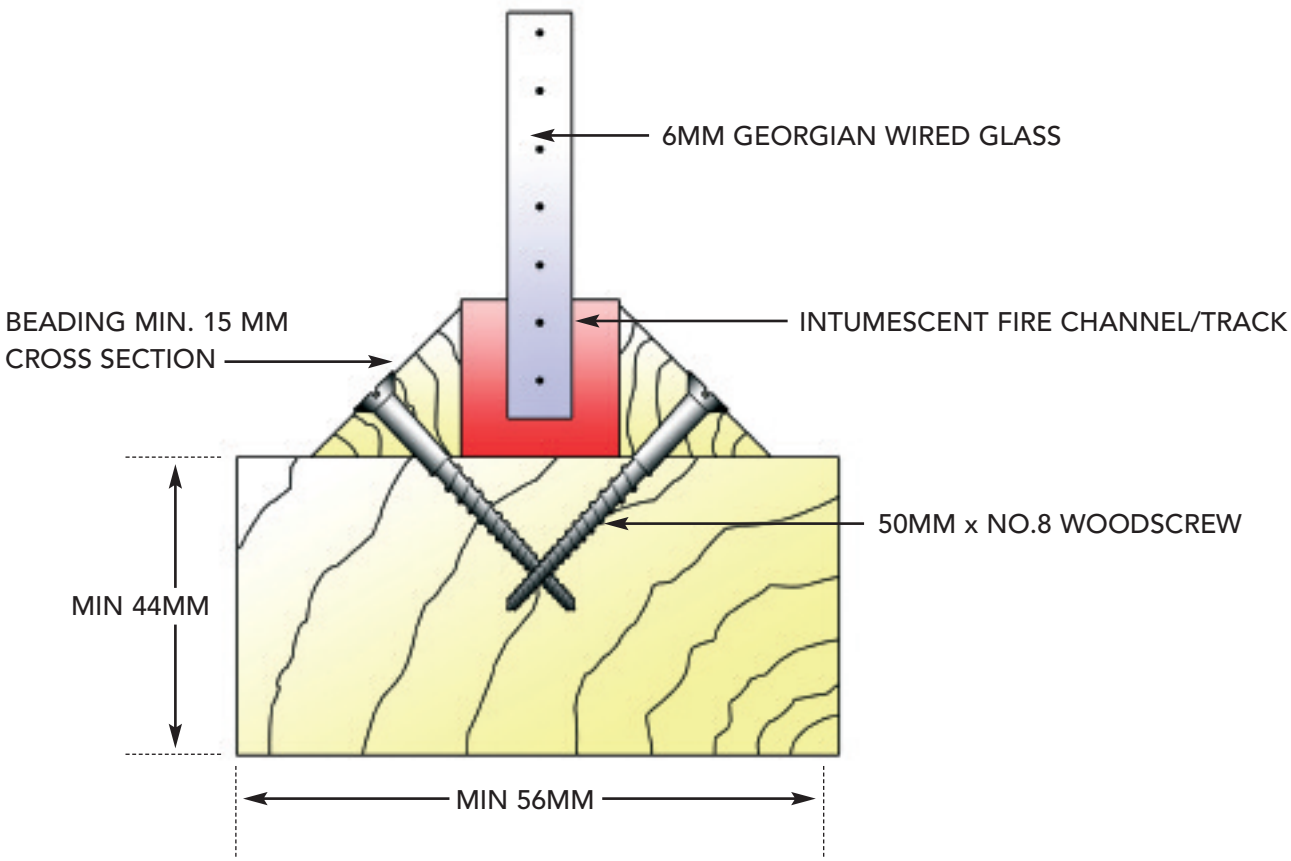
Diagram 2

Method of fixing for Glazing in Walls and Partitions

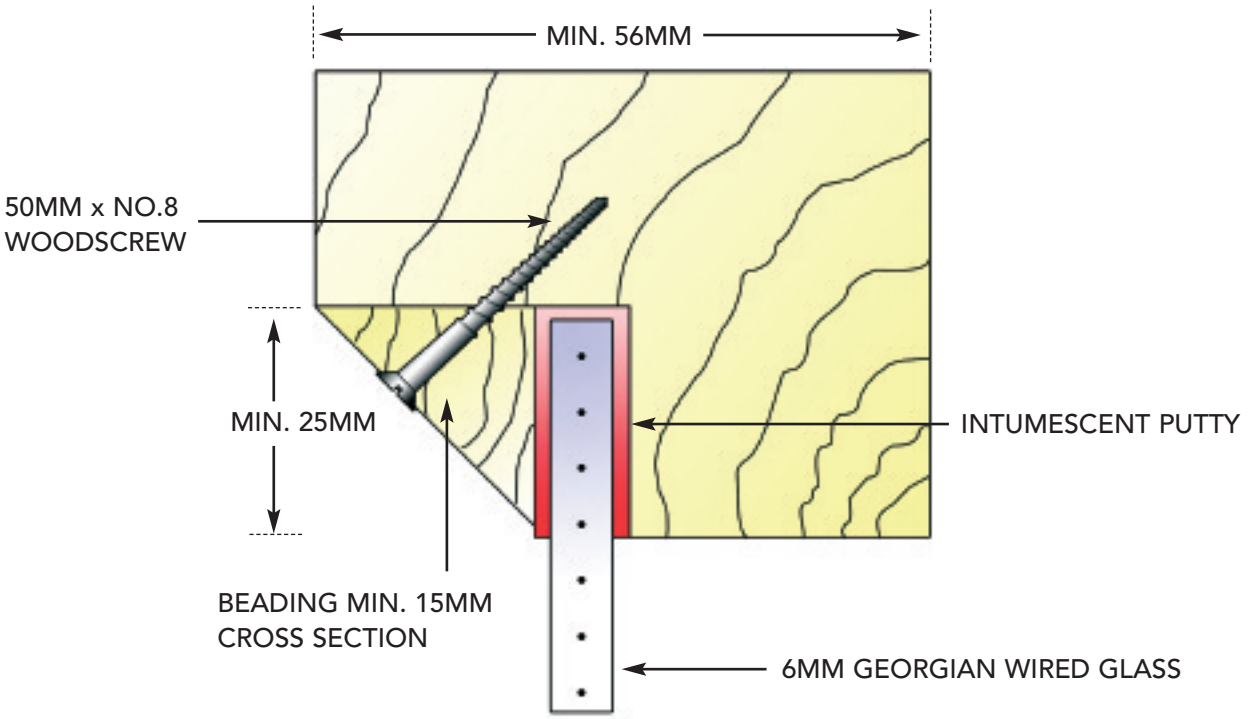
(i) Three dimensional view of glazed panel/window



(ii) Cross section of glazed panel with glazing positioned centrally



(iii) Cross section of glazed panel/window with glazing off-set to one side.



Note

This guidance is for providing fire resisting glazing in partitions only. It does not relate to glazing in fire doors. A fire door has to be designed specifically to accommodate glazing.

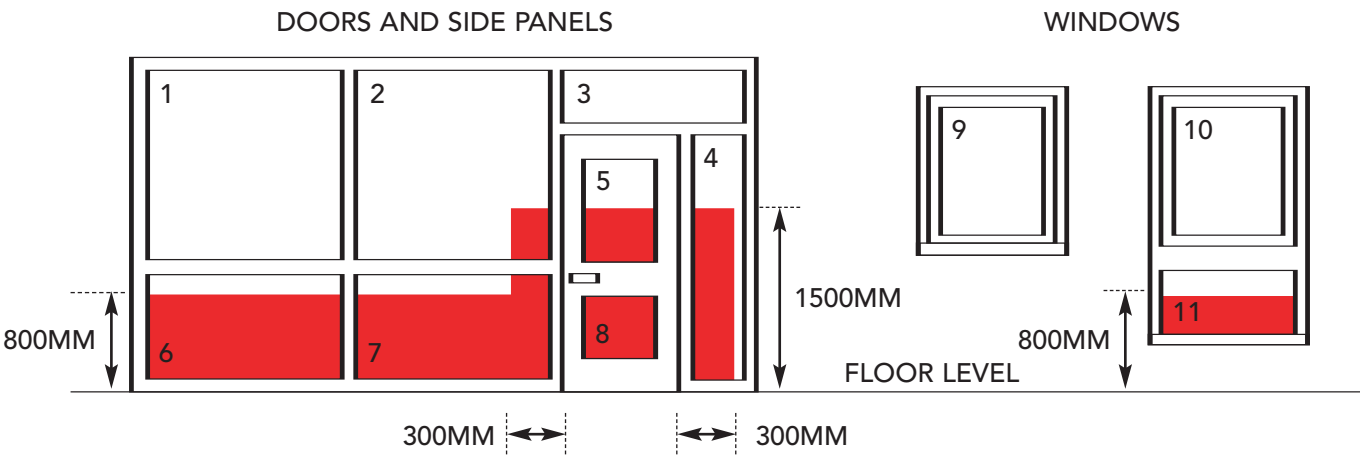
If glazing is required in a fire door then purpose made doors should be obtained.

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 standards i.e the use of fire resisting safety glazing complying with current British Standard 6206: 1981 (or equivalent).

Diagram 3

Critical locations of glazing in internal and external walls.



Appendix 4

The Design of Escape Windows

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

The window must have an unobstructed openable window area that is at least 0.33msq with at least the width or 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 bottom of the openable area (window cill 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).

Note: The ground below the windows 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.

Appendix 5

Guidance on the Fitting of Fire Doors and Frames

Frames

(i.) 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

(i.) 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 FD 30 doors the gap should be 1 to 2mm. Where smoke seals are requested to be fitted (FD 30S doors) the gap should not exceed that stated by the seal manufacturer usually 3 to 4 mm maximum.

(ii.) Doors should be hung on 1½ pairs (3 no) of 100mm steel butt hinges.

(iii.) Doors referred to as FD 30S are fire doors required to be fitted with both intumescent fire and flexible edge cold smoke seals along both vertical and top edges of the door.

The positions for fitting seals in door leafs 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.

(iv.) Smoke seals MUST NOT be painted over as this reduces their flexibility and effectiveness.

(v.) Seals are not required to be fitted across the bottom of doors, but the threshold gap should not exceed 8mm.

Ironmongery

(i.) Voids around the locking mechanism must be kept to a minimum and filled with intumescent paste or be encapsulated with a proprietary intumescent product.

(ii.) 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).

(iii.) The door stop of the frame should not be cut away to facilitate any lock or latch.

(iv.) The door must be fitted with a self-closing device capable of closing the door into the frame from any angle. Hydraulic over head 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.

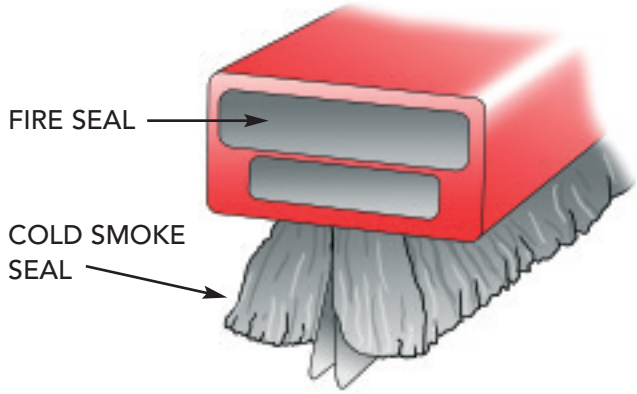
Note: Some overhead closers are not suitable for use on fire doors so it is always best to check with the supplier or manufacturer before purchasing.

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

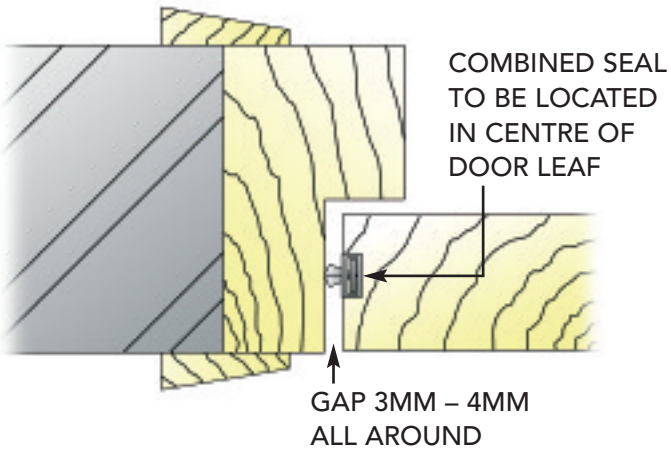
Diagram 1

Guidance on the fitting of combined fire and smoke seals.

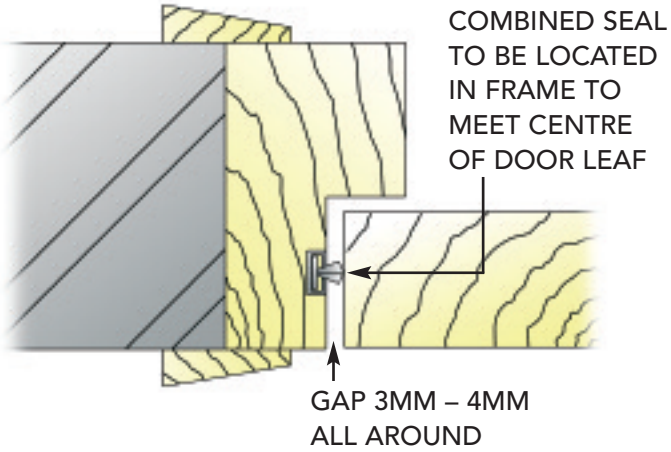
(i) Cross section of combined fire and smoke seal



(ii) Position of seals fitted in door leaf (in both vertical edges and top edge of the door).



(iii) Position of seals fitted in frame (in both vertical edges and top edges of the frame).



Appendix 6
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.

For most two storey houses it will be sufficient to achieve a nominal thirty minutes fire resistance whereas three or more storey properties will need to achieve a full thirty minutes fire resistance.

1. To achieve a Nominal thirty minutes Fire Resistance

The condition of any lath and plaster ceiling should be examined in detail.

If there is any doubt regarding the condition of the lath and plaster then this should be replaced or underdrawn with 12.5mm plasterboard or fireline board.

Where the existing ceiling is in an acceptable condition, the floor above can be overboarded to achieve a nominal thirty minutes fire resistance, as follows:-

(i.) If the timber floorboards are square edged or poorly fitted tongue and groove boards, then the floor should be overlaid with 3.2mm oil tempered hardboard or 4mm plywood.

(ii.) Hardboard sheets should be conditioned before laying to prevent warping. The rough side (mesh side) should be sprayed or brushed with water and the wetted boards stacked rough side to rough side and left in the room where they are to be fixed, for a period of 48 hours before final fixing.

(iii.) Dependant upon the type of floor covering to be provided and the manufacturers' instructions, the board may be laid rough or smooth side up.

(iv.) The boards should be fixed in place using 19mm hardboard nails or staples at 150mm centres around the perimeter of the boards and across the surface. Boards should be fixed in a staggered fashion as in brick bonding. Joints should coincide with joist positions.

2. Method of under-drawing a lath and plaster ceiling to achieve a full thirty minutes fire resistance

(i.) A layer of chicken wire should be first nailed below the existing ceiling directly into the floor joists or alternatively timber batterns should be fixed beneath the ceiling at right angles to the joists (counter battens) by means of screw fixings through the existing ceiling directly into the floor joists.

(ii.) When new plasterboard ceiling is to be fixed, allowance in the nail length should be made for penetrating the existing ceiling and chicken wire. Galvanised clout/plasterboard nails should be used and fixed at 150mm centres.

(iii.) Joints in the plasterboard should be scrimmed and skimmed.

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.

Appendix 7

Gas Meters Within a Protected Escape Route

Where gas meters are situated within the enclosure of a single protected escape route (staircase/entrance hall) the following conditions should be met.

1. Lead pipes are unsatisfactory and the gas supply pipes should be of high melting point metal.

   The meters should be checked by a competent person to ensure that the installation complies with the current Gas Safety (Installations and Use) Regulations.

2. Where security of gas meters is an issue then, to prevent unauthorised interference, the meters should be housed in a secure cupboard. The cupboard enclosure is not required to be a fire resisting cupboard.

   The cupboard should be provided with ventilation grills at high and low levels.

   All residents should be issued with a key to give access to meters 24 hours a day. The gas provider should be consulted to ensure they are satisfied with the arrangements as they will require access to read meters.

Appendix 8

Automatic Fire Suppression Systems

Since the late 1980s, there has been a growing acknowledgement that fire sprinklers, once found only in industrial and commercial premises, can significantly improve fire safety in residential type properties.

Statistics show that, where fitted, residential fire suppression systems not only increase life safety but also dramatically cut the financial cost when a fire occurs. Additionally, certain 'design freedoms' may be allowed if sprinklers are fitted.

At present there is no legislative requirement to fit suppression systems in domestic or residential properties in the UK.

Should you require any further information, consult with your Fire Service, Local Authority, or look to one of the following associations:

Fire Sprinkler Association (FSA)
British Automatic Sprinkler Association (BASA)
National Fire Sprinkler Network (NFSN)

Appendix 9
Sample Forms

PROPERTY DETAILS

Address _____

_____

_____

Telephone _____

The Owner/Manager Name _____

Address _____

_____

_____

Telephone _____

Useful Names and Addresses

Name and Address	Telephone Number	Email Address

FIRE ALARM SYSTEM

Record of False Alarms

ALL cases of false alarms occurring to the fire alarm system must be recorded below

Date	Call Point/Detector Location or Number	Satisfactory Yes/No	Remedial Action Taken Yes/No	Signature/Name of Company

FIRE DOORS AND STRUCTURAL MEANS OF ESCAPE

Record of Test

Date	Item Checked	Obstruction/ Defect etc	Action Taken	Signature

EMERGENCY LIGHTING SYSTEM

Record of Test

Date	Duration and type of test	Satisfactory Yes/No	Remedial Action Taken	Signature/Name of Company

FIREFIGHTING EQUIPMENT

Record of Test

Date of Servicing	Position and Type of Equipment	Result Pass/Fail	Defect/Action Taken	Signature/Name of Company

GAS INSTALLATION AND APPLIANCES

Record of Test

Date of Safety Check	Company Name and CORGI Reg. Number	Works required	Date Carried Out	Signature

ELECTRICAL APPLIANCES

Record of Inspection

Date	Flat/Room	Appliance	Satisfactory Yes/No	Works required/ carried out	Person carrying out work

ELECTRICAL INSTALLATION

Record of Examination, Alteration etc

Date	Flat/Room	Satisfactory Yes/No	Work carried out	Company/Person carrying out work

Notes

Notes

www.homestamp.com