Additional Guidance

Agreed Between

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In respect of

A Guide to Fire Safety Standards for Residential Properties in Bedfordshire

(Based on LACORS National Standards for HMOs and CLG Fire Safety Risk Assessment Guide – Sleeping Accommodation)

Authors

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Date December 2010

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INTRODUCTION AND LEGISLATIVE BACKGROUND

The Housing Act 2004 places new duties and responsibilities on Local Housing Authorities to risk assess and bring about improvements in the housing stock through the HHSRS (Housing Health and Safety Rating System). HHSRS is a risk assessment system and requires 29 categories of 'hazard' to be considered when deciding whether any residential property is suitable for occupation – by virtue of being free from hazards that could harm the health of the occupiers. Hazards are divided into bands according to the seriousness of the risk to health. The highest risk hazards are called category 1 hazards (bands A – C), category 2 hazards then range from Band D down to the lowest banding where there is little or no risk and action to remedy the problem is not warranted. **'Fire'** is, for the first time, included as a general hazard that affects all occupiers of residential property. The vulnerable group – the people most likely to be seriously affected – are the over 60's. Therefore, fire risks must be assessed in all housing types and tenures, but with a focus on the types of housing with the highest likely risks – HMOs, blocks of flats, hostels, housing for vulnerable groups etc.

'If a local housing authority consider that a category 1 hazard exists on any residential premise then they must take the appropriate enforcement action in relation to the hazard.' – Section 5, Housing Act 2004

For modern post 1991 housing, the Building Regulations include appropriate fire safety measures including mains operated smoke detection to protect occupiers. The Housing Acts give Local Housing Authorities powers and duties to address the faults or defects (including fire safety defects) in relation to **existing housing** to minimise harm to occupiers.

The Regulatory Reform (Fire Safety) Order 2005 is the main legislation enforced by Fire and Rescue Authorities. There are areas of overlapping duties in relation to the Housing Act 2004 provisions. The Fire Safety Order 2005 concentrates on the **communal areas** of higher risk residential properties such as houses in bedsits (HMOs), high rise flats and buildings with vulnerable occupiers. The legislation also applies to workplaces, hotels, factories and the majority of occupied premises other than domestic premises occupied as a single dwelling. The central feature of the Order is that fire safety responsibility is now the duty of the owners and occupiers of buildings so there is a similarity with health and safety legislation. The Order identifies the **responsible person** as the individual who must take responsibility for fire safety – this could be the owner, agent or manager depending on who has the powers/duties and the finance to manage fire safety within the building. The responsible person must undertake a **fire risk assessment** of the building and then act upon it.

Fire risk assessment (FRA) means that each building which is subject to the Fire Safety Order is individually assessed in detail and all necessary works are identified and prioritised. FRA also takes into account of any vulnerable groups – those with impaired mobility or psychological issues which could affect behaviour in the event of a fire.

The greatest risks for occupiers of residential properties are to be found in multi-occupied properties where there are 3 or more storeys. This may include houses that are converted into flats, hostels, managed or sheltered accommodation, purpose built multi-storey buildings and flats above shops. The risk rises with increased occupancy, multiple ignition sources (cookers, heaters, fires, smoking), vulnerable occupants, poor construction and lack of fire prevention measures. Analyisis of national fire statistics have concluded that you are six times more likely to die in a fire if you live in any house in multiple occupation (HMO), compared with a single family house.

These standards aim to recommend fire safety solutions that are effective, practicable and appropriate for the existing local stock and the likely occupants. These standards are primarily based on national guidance (LACORS guidance) to all Local Housing Authorities on the fire safety options that are **appropriate and proportionate** to the fire risks for various standard property types. Additionally the government guidance to Fire Authorities – 'Fire Risk Assessment – Sleeping Accommodation' is incorporated into this document. Bedfordshire and Luton Fire and Rescue Service will apply the combined guidance which is clearly set out in this document. If it is considered **necessary or appropriate**, alternative engineered solutions will be suggested that are fully compatible with the guidance to achieve the aims of all the affected parties involved (Local Housing Authorities, landlords, occupiers, housing professionals etc). Alternative solutions will be made available only through the consultation process with Local Housing Authorities and not directly to landlords. These standards, therefore, provide the framework for the appropriate fire safety solutions to remediate the hazard of fire within residential property.

LACORS guidance does not apply to all the housing types found in Bedfordshire. Where the guidance does apply, the details are given in **blue** with alternatives set out for consideration. The HM government – Fire Risk Assessment Sleeping Accommodation Guide - applies to all housing types and gives additional information on compliance with the Regulatory Reform (Fire Safety) Order 2005.

General limitations

While the standards in this document represent the level of fire safety within different categories of residential property there will be instances where premises require a higher level of fire safety because of vulnerable occupants or unusual and higher risk internal layouts or increased combustion risks. In such cases, an individual risk assessment will be made to determine the works that are required to improve fire safety measures to an acceptable standard.

While every attempt has been made to categorize the typical types of residential accommodation found in the local area, there exists the possibility that houses may not fit neatly into one group. In such cases the house in question will be assessed individually and appropriate recommendations made for improvement.

Section 1 - General Fire Resistance Standards

Definitions and Specifications:

1.1 Definition of minimum standard **Protected staircase**	This standard in **section 1** sets out the minimum level of protection throughout the building, (buildings are grouped together according to construction and risk) and focuses on entering an internal 'protected staircase' down which occupants would exit the premises in the event of fire. The minimum standard would be required for all premises. The 'protected staircase' replaces the requirement for an alternative or secondary escape route.

1.2	**FIRE RESISTING ELEMENTS**
Fire resisting Elements	The term 'fire resisting' means walls, screens, partitions, doors, glazing and any other construction which, when tested in accordance with relevant British Standard or equivalent European Standard, achieves a minimum half hour (30 minutes) standard of fire resistance.
Doors	All such fire resisting doors to be constructed to comply with and conform to BS 476. Unless specified, all doors referred to are 30 minutes fire resisting doors and includes its frame and door furniture. 30 minute fire doors are usually bought either as a blank or a specific size or can be custom made for difficult sized openings. Door frames must also be considered. Door sets (doors, glazing and frames) guarantee 30 minutes fire resistance and can be proven. Fire doors and frames are constructed in accordance with BS 8214 and conform to BS 476. Fire doors include 1.5 pairs of fire resisting hinges, suitable locking devices such as mortice escape locks, intumescent strips and cool smoke seals fitted in appropriate locations to either the door or frame. Doors must fit without sticking or having gaps greater than 3mm. All fire doors referred to in this document must be self closing.
Cupboards	Any cupboard doors, such as those to service cupboards or store rooms which are required to be fire resisting, need not be self closing provided that they are kept locked shut at all times and a suitable KEEP LOCKED SHUT notice is affixed to the door.
Walls	The minimum standard of fire separation is 30 minutes, in the case of stud walls this could consist of 72 x 37mm softwood timber studs at 600mm centres and faced with 12.5 mm of plasterboard with joints taped and filled.

Floors	A fire resisting floor will depend upon floor construction and ceiling finish, however 30 minutes protection can be achieved by using tongue and groove softwood of not less than 15mm thickness on 37mm timber joists, with a ceiling below of one layer of plasterboard to a thickness of 12.5mm with joints taped and filled and backed by supporting timber.

1.3	**EXTERNAL FIRE ESCAPES AND BREAKTHROUGHS**
Existing escape doors and staircases	Where acceptable secondary escape staircases exist, each will be assessed on its merits, but generally, removal will not be required unless there is a safety deficiency which puts occupiers at risk. When in good condition, these staircases provide a valuable second exit and entry for fire fighters. Suitable signage must be provided. Exit locks which also protect the security of residents from intruders are also required.
Windows by escape staircases	Where external escape staircases pass by openable windows and doors, such windows and doors would have to be fire resisting and locked shut or provided with limited top hung ventilation to within 1.8 m of the staircase concerned. This cannot be achieved for habitable rooms due to the higher requirements for ventilation. In all cases for external staircases there will need to be an individual risk assessment and decisions made on the most appropriate way to maximise fire safety while minimising the negative affects on occupiers of affected rooms.
Break through panels	Communicating fire doors between properties or 'break-through panels' are no longer considered to be appropriate as escape routes due to the challenges of securing escape via a building over which the affected persons have no control. Break through panels should be improved to one hour's fire resistance with the co-operation of the adjacent property and the measures in the applicable section of this document put into place.
Communicating doors	Communicating fire doors which have been installed in accordance with Building Regulations and still conform to one hour's fire resistance and are fitted with appropriate emergency escape locks are still useful and acceptable but do not affect the requirement for a protected staircase within the property. A legally binding covenant should be already written into the property deeds and should place duties on each owner to maintain the communicating fire escape door.

1.4 Fire resisting	Where glazing is required in a fire resisting structure, it must afford the same level of resistance. The most common type of glazing is 6mm Georgian wired glazing; alternatively clear

glazing	glazing (pyroglazing) can be used and must be etched with the approved mark to confirm its fire resistance. If no marking is provided then some other form of confirmation will be required. Installation of the glazing is critical as it should be fitted in a proven intumescent glazing system incorporating glued and screwed hardwood beading.

1.5 Service ducts and pipes etc	Care must be taken to ensure all openings in fire resisting construction are stopped with appropriate fire resisting materials such as intumescent filler or mastic which conforms to BS 476 when tested. Where there are holes for cables, pipe work and services or where there is damage to fire resisting elements of the structure – these all require careful repair to protect the fire resistance of the element. Specific challenges relating to protection of the fire resistance of an element are detailed within the guidance for affected property types.

1.6 One hour fire protect-ion	This is generally referred to as lobby or double door protection, and can be achieved by the provision of a 30 min fire door on the stairs which leads into a lobby or corridor with 30 min fire rated doors on the individual units of accommodation or risk rooms within a flat. The 2 doors and 2 sets of studwork give an effective one hour protection from each risk room to the staircase. Ceilings should also provide one hour protection. This level of separation may also be prescribed for basement ceilings and between shops/offices and residential accommodation.

1.7 **Sprinkler systems**	**SPRINKLERS** The publication of the British Standard (BS 9251:2005) has seen the introduction of residential sprinkler systems to the UK. These systems are designed to mitigate and protect occupants and buildings against the effects of fire. A sprinkler system will detect a fire, give appropriate warning, control it, contain it or even extinguish a fire. The provision of a sprinkler system can mitigate the need for certain fire safety measures, examples include: • Reduced fire resistance of doors; • Increase in travel distance by 25%; • Reduced coverage and standard for Automatic Fire Detection; • Eliminate the need for intumescent strips. All proposed installations of residential sprinkler systems must be made subject to the approved procedure by the enforcing authority and fire authority. This will determine the appropriate standards to satisfy the fire safety measures applicable for the

	specific premises or building, taking into account the following: • The layout of the premises or building; • The number & nature of occupants; • The condition of the premises or building; • The standard of management or landlord control of the premises or building. Consideration should also be given to the Approved Document issued to support the Building Regulations and any other relevant standards.

1.8 **Timber framed new buildings**	**TIMBER FRAMED BUILDINGS – BLOCKS OF FLATS** This category of residential building – often blocks of flats with perhaps 4 or 5 storeys - has been shown to have potential weaknesses in construction that make further detailed consideration necessary when deciding on whether existing fire safety measures are satisfactory. Care must be taken to ensure the structure is fully fire safe and compliant. This can be verified through the Building Control department of the Council. For current builds the fire protection can be generally relied on, but for older builds there must be careful checks on structural fire separation and any weaknesses identified and rectified before deciding on the appropriateness of a fire alarm system. As these buildings age there is a further danger than internal alterations by occupiers, owners and builders will compromise the original fire protection. For this reason all timber framed buildings must be **risk assessed individually** and appropriate fire safety solutions agreed on to ensure any structural weaknesses are effectively addressed in the long term.

1.9 **Arson**	**ARSON PREVENTION MEASURES** Bedfordshire and Luton Fire and Rescue Service have specific arson reduction advice which can prove very useful to all landlords' and property managers, not just for the internal areas of their property but the external too. You are advised to seek advice if in any doubt about how to minimise arson risks. The following occupiers may increase the risk of arson within multi occupied property: • Vulnerable occupiers; • Occupiers who may be at risk from others; • Those escaping domestic violence; • Those subject to racial or other abuse; • Ex offenders; • Individuals on remand or out on licence; • Individuals with previous history of sex offending;

	• Those with substance abuse or drug dealing problems; • Alcohol problems or chaotic behaviours; • Ex rough sleepers; • Young vulnerable individuals – from care or institutions; • Those with a history of arson offending. In addition, any property in an area with higher than average incidence of arson or general crime may need to get specialist advice. **Options:** Preventing unauthorised front access – installing heavy duty doors with self closing devices, entry systems, disabling trade buttons or making them coded and secure. Making rear or side access difficult using secure gates and door blanks which have no external locks and handles but are positively self closing. Blocking up post boxes in front doors and providing other secure post arrangements such as individually lockable metal boxes in the porch. For higher risk locations or where space permits an inner lobby can be formed which has a secure door to the hallway area. The postman can enter the lobby but not the house and this will allow post to be delivered to internal boxes but keep out any person or arson risk from the main hallway or common areas. Within converted self contained flats or multi storey buildings there should be no letterboxes within fire doors. Not only is this an arson invitation but it breaches the fire resistance of the door element. Fire resisting letterboxes can be sourced as well as arson proof letterboxes. The best solution is not to have them at all and have centralised post collection. As items of value are now rarely sent through the main postal service (passports come by courier, valuables come via special delivery to be signed for) it is unusual for boxes to be broken into to steal the contents. Fire Notices/instructions which are fixed to the back of the main exit door (either the flat door to the hall or landing or the bedsit door) should have specific advice about what to do in the event that the staircase is blocked by smoke and fire. As this is the last useful piece of advice for the escaping occupier it should be clear what action needs to be taken in this eventuality. Bins are a focus for arson – usually just generally malicious rather then targeted attacks. The fire loading for 3 bins is similar to a small car with petrol in it. Therefore, if bins are

	stored up against a wall under windows or close to an exit door they may be a serious cause of fire and resultant harm. In 2008 a child died in a single family house as a result of an external bin fire when the bin was pushed against the house door. Site bin stores away from the main house, preferably secured in enclosures or part enclosures where they can be chained up if necessary. At the very least bins should be stored at least 3 - 6m away from the building. Keep common areas sterile. If there are no combustibles then any fire from arson may be small and burn itself out, depending on whether petrol or similar accelerants are used.

1.10	**MANAGEMENT RESPONSIBILITIES FOR FIRE SAFETY - ALL BUILDINGS REQUIRING A FIRE RISK ASSESSMENT***
Managing fire safety	**The manager is responsible** for ensuring fire safety is managed in accordance with the **fire risk assessment** and the specific duties set out within this guidance. The manager could be a management company or the owner of the whole building or a company or person who has been employed or nominated with duties in relation to the premises.
Duties	Note: Under the Regulatory Reform (Fire Safety) Order 2005 there are specific duties placed on the **'responsible person'**. This is the person or company who receives the rent and has the authority to spend it on the property. It could also be a letting agent or relative of the owner – you should satisfy yourself as to who the responsible person is as recent cases have found such persons liable for offences in relation to breaches of the Order.
No items to be stored in the common parts	Every tenant must be informed about the action to be taken in the event of fire. This information should include explanation of the working of the fire detection system and the need for good housekeeping, such as keeping escape routes clear of combustible materials. The landlord must apply and enforce a policy which allows the effective management of the common areas to ensure fire safety is maintained. In particular, the common areas must not be used for either storage of combustible materials or any obstructions that can impede evacuation. Examples are: • Bikes and buggies that may cause an obstruction; • Rubbish or furniture that is unwanted by the tenant or awaiting removal;

Tenancy contracts to include fire safety	• Ignition sources or volatiles such as petrol lawnmowers or barbeque lighter fluids, old paint or volatile cleaning fluids etc. • Tables, chairs or sideboards that can add to the fire load; • Build up of newspapers; • Washing on a drying rack; • Shoes or clothing that cannot fit inside a particular room or flat and the tenant commandeers the lobby space to store these items.
Routine Checks	The common areas are designed to be sterile and the fire safety measures detailed in this standard are based on the assumption that this will be the case. Routine checks should form part of the day to day management of the building.
Tenancy contracts	Instructions concerning fire and the maintenance of all fire safety measures should form part of a tenancy agreement. A copy of the Fire Escape Procedure which is relevant to the individual block should be prominently displayed on the back of the door to each flat. Tenants with language or learning difficulties should receive appropriate assistance to understand their particular fire safety instructions. Where tenants require specialist equipment to respond to the fire alarms within their flats then this should be flagged up by managers for action at the commencement of a tenancy or on receipt of information. While it is not possible to keep track of all individuals who may need assistance in this type of accommodation it should be routine to include information about specialist alarms or adaptations on notice boards or the information pack to tenants. Routine checks of fire safety standards in the common areas should be established (in addition to those relating to the Fire Alarm System). Employees responsible for undertaking the checks (this might be caretaking staff or cleaners or handymen working for the landlord) should be trained so that they can identify problems and should provided with a clear and effective mechanism that allows rectification of the problems quickly. E.g. breaches of fire resistance, combustibles in staircase enclosures, vandalism or damage to the structure, failures of the fire alarm system, Fire Service access and operation of dry risers. *** This excludes** only family houses and also houses let on a single contract to sharers who may be students or professionals. No fire risk assessment is required for these housing/occupation types.

Section 2 – Purpose built blocks of flats - general needs, no vulnerable or frail occupiers. 6 storeys or higher – high rise; 4 – 6 storeys – medium rise.

This section details the specific fire protection works that are considered appropriate for the majority of accommodation in this category. The fire safety solutions are appropriate for buildings which have been constructed for the purpose, not converted from another use. In such cases of converted buildings there will be an individual assessment.

Typical examples are:

- General needs accommodation, no special needs or vulnerable groups;
- Purpose built, designed to be non-combustible construction;
- High rise (6+ storeys) blocks with one or more stairways and lifts;
- Medium rise (4+ storeys) blocks with one or more stairways and lifts;
- Excludes timber framed buildings – see Section 1.8.

This category deals only with fully self contained units which could be studio flats or larger flats with several bedrooms.

Note: LACORS National guidance does not cover this type of property.

2.1	**STRUCTURAL FIRE PROTECTION**
Fire resistance standards for all elements of the structure	**All dedicated escape routes** will consist of a protected route providing a minimum of 60 minutes fire resistance; this comprises the flat entrance door (30 minutes) and the separating screen and door (30 minutes) which separates the landings from the stairs or staircase(s). Therefore, the staircase(s) will be protected on all landing levels by fire resisting flat entrance doors which separate the staircase(s) from the individual flats and by fire doors and partitions between the landings themselves and the staircase(s). Service ducts, cupboards in the stairway and pipe work must maintain the same level of fire separation.
Flat entrance doors	**Flat entrance doors** and frames within high or medium rise blocks of flats must be maintained as 30 minutes fire resistance and all leaseholders, tenants and occupiers must be made aware that no change of door is permitted without prior approval of the management company who must enforce this rule. • Letter boxes must be fire resisting and arson proof – proprietary solutions are available; • Self closing devices are required for flat entrance doors; • Locks should be either mortice escape locks or night latches which can be opened from the inside without using a key; • Chubb type security locks which require a key to open

	from the inside are not recommended; • 25mm door stops can be effective smoke and fire stops and therefore should be retained. Any holes, gaps or damage to fire doors must be effectively repaired. **Flat entrance doors** may be altered when flats are sold but as high and medium rise blocks of flats should be carefully managed it is unlikely that this change will go unnoticed. It is important that new owners understand that the doors must maintain the specified level of fire resistance and that any alterations made to the doors must not materially affect this level of resistance. This includes a ban on: • Non fire resisting letterboxes; • Cat flaps; • Non fire resisting glazing panels; • Replacement with non-fire resisting doors. **Self closing devices** are required for flat entrance doors. Fire door restraining devices are not applicable to this location. As self closing devices are required for flat entrance doors, locks should be mortice escape locks which cannot lock the occupier out of the flat by the action of the self closing device. All locks must be capable of being opened from the inside without the use of a key and with a thumb turn on the inside. **Any layout** which compromises the safe exit of occupiers (such as having to pass through a risk room to escape) must be made safe by using smoke detection appropriate to the location and use. Any planned improvements should also aim to minimise layouts that are unsatisfactory. **All glazing** that forms part of the escape route should be 30 minutes fire resisting. **Cupboards in the escape route** should be emptied and kept locked shut or protected by 30 minutes fire resistance and kept locked. **Electric meters** in the escape route should be enclosed in a 30 minutes fire resisting cupboard. **No storage** of any kind should be permitted in the escape route. **All final exit doors** (i.e. front doors and back doors) should be fitted with mortice escape locks which allow the door to be opened from the inside without the use of a key. **Where a flat** has the provision of a balcony escape onto the main exit stairs as an alternative to getting out through the flat, the access door should be fitted with a mortice escape lock

	with a thumb turn on the inside. Doors that are not in practical locations should be assessed on an individual basis with consideration being given to security. Balconies should be managed to minimise the build up of materials that significantly increase the fire load and can provide a bridge for fire to move between floors.

2.2	**FIRE ALARMS AND SMOKE DETECTION SYSTEMS**
Staircases, corridors and circulation areas	**In order for a stay put or managed evacuation** policy to be effective the smoke detection systems in the common parts of the block should not trigger a panic or unplanned evacuation if the alarm is activated. **There is merit** in providing a smoke detection system in accordance with British Standard 5839 Part 6 to be of Grade A and coverage LD3 which would cover all the escape routes. The system should include (but not be limited to) bin stores, general storage rooms, common rooms on the ground floor such as lounges or offices, lift gear rooms and electrical cupboards which are high risk. **The system** should be connected to an Alarm Receiving Centre to alert the fire service and activate all emergency procedures which have been written into the evacuation policy.
Sounders	**No sounders** should be provided as part of the system which might alert occupiers to the alarm activation. Where there is a documented need for sounders due to a specific need within the block it may be appropriate to have one or some sounders activated or hushed. **Existing systems** should be checked and amended/changed to ensure this standard is achieved.
Within flats	**Separate stand alone smoke detection** which is appropriate to a separate occupancy is to be provided. In cases where the layout is poor and occupiers have to pass through higher risk areas in order to get out of their flats, there will need to be more then one smoke and/or heat detector interlinked with each other to provide a satisfactory system. The standard for this type of block is for a stand alone mains operated smoke alarm to British Standard 5839 Part 6 to be of Grade D (mains operated with a rechargeable battery backup) to be fitted in the circulation space in the most suitable position. It is recommended that the sound level at the bedhead is 75dBA. All new detectors that are installed should be fitted with a remote hush and test switch as part of the system to avoid occupiers having to stand on chairs or steps in order to silence false alarms.

Types of smoke detector	Optical smoke detectors are suitable for detecting cool smouldering fires and ionisation detectors are better suited for fast flaming fires. Ionisation alarms not to be sited in locations where they may be set off falsely by cooking. Where more then one detector is installed to overcome poor layout, detectors to be interlinked to form a small system.
Fire alarm tests	**Testing regimes** to be established that comply with BS 5839 Part 1. A schedule for the weekly test and the 6 monthly test and the documenting of the results to be established.

2.3	**EVACUATION PROCEDURES** **In the event of a fire** in any high rise or medium rise block of flats, the risks are increased by blocked staircases therefore the staircases are to remain under the control of the attending fire crew for fire fighting purposes. **Each case has to be risk assessed** on its merits with due attention to the layout, occupiers, and the individual circumstances. The fire risk assessment under the Fire Safety Order to address this issue carefully and all decisions about evacuation and fire alarms will be documented in the risk assessment. **A stay put or managed evacuation** policy to be implemented which is reinforced throughout all the management arrangements and maintenance of the block including the tenancy agreements and training for all staff. **Once the evacuation policy** has been decided in conjunction with Bedfordshire and Luton Fire and Rescue Service then the fire risk assessment and all the procedures to be benchmarked against the policy to maintain consistency, clarity of information and co-operation between the management and Bedfordshire and Luton Fire and Rescue Service.
2.4	**MANAGEMENT RESPONSIBILITIES** See Managing responsibilities for fire safety in section 1.10 on page 12.

2.5 **Fire risk assess-ment**	**FIRE RISK ASSESSMENT** **High and medium rise premises** will require a fire risk assessment to be carried out in accordance with the Regulatory Reform (Fire Safety) Order 2005.

2.6 **Fire fighting equipment**	**FIRE FIGHTING EQUIPMENT** **Considering the design** of the buildings (sterile staircases, no usable 'common areas' off the staircases, no carpets or any fire loading) and the limited interaction between residents, then the provision of fire fighting equipment in the common areas (halls, stairs and landings, lounges, storage areas etc) is not considered necessary. Note that any specific workplaces, e.g. offices will require fire fighting equipment under current fire safety legislation. **Fire fighting equipment in 3.6** which details levels of provision to be achieved in workplaces should be applied. Fire fighting equipment for individual flats is recommended - fire blankets in kitchens help with small kitchen fires.

2.7 **Emergency lighting**	**EMERGENCY LIGHTING** **Emergency Lighting to BS 5266 Pt 1** will be required in circulation areas if the amount of borrowed light provided by street lighting is insufficient. It is recommended that the Emergency Lighting system is tested on a monthly basis with a record of the test maintained.

2.8 **Refuse chutes and bin stores**	**REFUSE CHUTES AND BIN STORES** **Bin chutes**, bin stores and ducts must be properly separated by fire resisting construction as per the main standard. Bin stores are a focus for arson. Bin chutes within buildings can also be misused if there is a problem with internal security. Bin stores must be secure from the outside area – to minimise arson. Bin stores and general storage areas should be separated from the main exit route by at least 30 minutes fire resistance. Bin chutes can be located within a small separate room within the staircases – with 30 minutes fire resistance in place - or adequately fire stopped including seals to prevent smoke and flames from entering the staircase itself. Bin chutes can be prone to vandalism and well as wear and tear of the seals on the chute hatches. An inspection and maintenance program should be put in place to identify and rectify and problems. Smoke detection systems will be required – see 2.2

Hidden ducting	**Hidden ducting** (extractor fan ducting from bathrooms or service ducting in communal areas) should be identified and checked to ensure the correct standard of fire resistance is maintained for the location. It is also essential that there is appropriate fire stopping should ducting pass through compartment floors and walls.
Meter and service cupboards	**Cupboards** in the common areas which house electric intakes and meters, electrical switchgear or services or any source of ignition and combustion must maintain the correct level of fire resistance for the location. Cupboards should be locked and not open for any unauthorised persons to gain access.
Storage cupboards	**Areas such as storage cupboards** under stairs must be kept empty and locked shut.

2.9	**DRY RISING MAINS**
Dry rising mains	**A maintenance programme** should be put in place for all dry risers in high rise flats. British Standard 5306: Part 0 covers the servicing and maintenance of dry risers and recommends that any dry rising mains are checked every 6 months to ensure the valves are fully serviceable. A wet pressure test should be undertaken annually to ensure there is no leakage. Under Article 38, this is a requirement within the Regulatory Reform (Fire Safety) Order 2005.

2.10	**SPRINKLERS**
Sprinklers	**Consideration should be given** to the provision of a specific sprinkler system for any bin room that is prone to regular arson attacks which subsequently causes smoke logging of the circulation areas for the flats.

Section 3 - Purpose Built sheltered or 'extra care' accommodation, purpose built hostels

All buildings to be purpose built – excluding timber framed buildings.

There is a wide variety of accommodation in this category but it is characterised by the provision of care by the manager or owner. It is also characterised by common areas where some services are provided. It is recognised that the delivery of individual care can change rapidly depending on legislation, guidance, finance and contracts with statutory bodies therefore, this section is intended to be sufficiently flexible to be applied to a variety of property types in this category. Examples are:

- Blocks of self contained flats or studio flats with resident or non resident warden(s) working a fixed number of hours per week and with individual flats linked to a call out service;
- Sheltered accommodation where there are communal areas for use by residents and staff and wardens/staff who deliver services for the occupiers, such as lunches, entertainment etc. Care plans will be in place. Individual care delivered by care givers rather than the staff, staff may be full time or part time, no 24 hour cover;
- Supported housing where independent residents receive some care as part of their occupation;
- Very sheltered accommodation with frail residents and resident staff, 24 hour cover by staff and a high level of service provided to residents;
- Hostels for individuals with special needs such as mental health problems or learning disabilities, substance abuse issues or vulnerable homeless people. Staff cover may be fulltime, part time or 24 hours depending on the needs of the individuals. High level of services delivered for residents;
- Mother and baby hostels, hostels for individuals escaping domestic violence. Staff cover may be fulltime or part time but unlikely to be 24 hour cover.

In this section the buildings are to be purpose-built of non combustible materials (such as concrete and steel blocks of flats) or constructed to modern post 1991 Building Regulations Standards.

Note: LACORS National guidance does not cover this type of property

3.1 **Fire resistance**	**STRUCTURAL FIRE PROTECTION** **All dedicated escape routes** will consist of a protected route providing a minimum of 60 minutes fire resistance; this comprises the flat entrance door (30 minutes) and the separating screen and door (30 minutes) which separates the landings from the stairs or staircases. Therefore, the staircase(s) will be protected on all landing levels by fire resisting flat entrance doors which separate the staircase(s) from the individual flats and by fire doors and partitions between the landings themselves and the staircase(s). Service ducts, cupboards in the stairway and pipework must maintain the same level of fire separation. **Flat entrance doors** and frames within this category of accommodation must be maintained as 30 minutes fire resistance and all leaseholders and occupiers must be made aware that no change of door is permitted without prior approval of the management company who must enforce this rule. However as a feature of this facility is the level of care and management it is considered unlikely that this will be an issue. • Letter boxes must be fire resisting and arson proof – various solutions are available; • Self closing devices are required for flat entrance doors and any devices which hold the door – fire door restraining devices – must be connected to the fire alarm for deactivation in an emergency situation; • Locks should be either mortice escape locks or night latches which can be opened from the inside without using a key; • Chubb type security locks which require a key to open from the inside are not recommended; • 25mm door stops can be effective smoke and fire stops and therefore should be retained. Any holes, gaps or damage to fire doors must be effectively repaired. **Any layout which compromises the safe exit of occupiers** such as passing through a risk room to escape - the risks must be minimised using smoke detection appropriate to the location and use. Any planned improvements should also aim to minimise layouts that are unsatisfactory. **Door handles** and door locking devices must permit occupiers to get the door open easily if there is a fire in their own flat or

	room, so aids and adaptations for assisting with exiting the flat need to be addressed as part of any individual care plan. **Fire doors** other than entrances to the individual flats should be clearly marked "Fire Door Keep Shut". Those that are required to be locked should be clearly marked "Fire Door Keep Locked". **Clearly visible** EXIT signs should be provided to indicate escape routes from the building. All signs should conform to BS 5499 Pt1 or equivalent European Standard. **All glazing** that forms part of the escape route should be 30 minutes fire resisting. **Cupboards in the escape route** should be emptied and kept locked shut or protected by 30 minutes fire resistance and kept locked. **Electric meters** in the escape route should be enclosed in a fire resisting cupboard. **No storage** of any kind should be permitted in the escape route. **Mobility scooters** should generally not be stored in escape routes but where this cannot be avoided they should not impede the escape routes. Charging of batteries should only be permitted during the day and the electrical supply fitted with an RCD. Due to the differing layouts of each affected building every case will need to be assessed individually. **All final exit doors** (i.e. front doors and back doors) should be fitted with mortice escape locks which allow the door to be opened from the inside without the use of a key. **Where a flat** has the provision of a balcony escape onto the main exit stairs as an alternative to getting out through the flat, the access door should be fitted with a mortice escape lock with a thumb turn on the inside. Doors that are not in practical locations should be assessed on an individual basis with consideration being given to security. Balconies should be managed to minimise the build up of materials that significantly increase the fire load and can provide a bridge for fire to move between floors.

3.2	**FIRE ALARMS AND SMOKE DETECTION**
Fire alarm standards	**Automatic fire and smoke detection** which is designed and installed in accordance with to BS 5839 Pt 1, Category M/L4 should be provided. This incorporates manual call points and fire detection in the circulation spaces e.g. corridors and staircases as well as any communal rooms that lead directly off a corridor. Rooms that are likely to produce false alarms should be fitted with heat detection e.g. communal kitchens, laundry rooms. The alarm should be connected to an Alarm Receiving Centre (ARC).
Communal areas	**In order for a stay put or managed evacuation** policy to be effective the smoke detection systems in the common parts of the block should not trigger a panic or unplanned evacuation if the alarm is activated. Therefore the activation of the alarm system should not necessarily activate the sounders as well.
Sounders	**Each case has to be judges on its merits** and each case will be individual. The matters which determine the working of the sounders will be: • The health, mobility and vulnerability of the occupying residents; • The level of staff cover during a 24 hour period; • The ability of staff to take action in an emergency; • The layout of the building and the likely consequences of sounding an alarm. **These factors must be included** in the fire risk assessment which will chart the balancing of risk and probabilities and result in the most suitable fire alarm and detection system backed up by staffing and management of the building. **All fire safety measures** and the fire risk assessments from which the measures have evolved are to be submitted to Bedfordshire and Luton Fire and Rescue Service prior to undertaking any changes or improvements. It should also be noted that any changes to the staffing or the care within the building will result in the fire risk assessment having to be amended and this may result in additional levels of fire protection being required. **The system** should be connected to an Alarm Receiving Centre and /or a local control centre for alerting staff. Whoever receives the call should activate the appropriate procedures that in turn supports either a **stay put policy or managed evacuation policy.** **Existing systems** should be checked and amended/changed to ensure this standard is achieved.

Within individual flats or rooms	**Separate stand alone smoke detection** which is appropriate to a separate occupancy is to be provided to allow for occupiers have the chance to escape a fire within their own flat. This smoke detection should ideally be connected to the 24 hour emergency control centre for mobile staff to be dispatched and/or staff within the building to be called to the site of the fire.
Internal layout	**In cases where the layout is poor** and occupiers have to pass through higher risk areas in order to get out of their flats, there will need to be more then one smoke and/or heat detector interlinked with each other to provide a satisfactory system.
Mains operated detection	**The standard for individual flats/rooms** is for mains operated smoke and heat alarms to British Standard 5839 Part 6 to be of Grade D (mains operated with a rechargeable battery backup). The sound level at the bedhead to be 75dBA. All new detectors that are installed should be fitted with a remote hush and test switch as part of the system to avoid occupiers having to stand on chairs or steps in order to silence false alarms. Optical smoke detectors are suitable for detecting cool smouldering fires and ionisation detectors are better suited for fast flaming fires. Avoid ionisation alarms in locations where they may cause false alarms (kitchens etc).
Fire alarm tests	**Testing regimes** to be established that comply with BS 5839 Part 1. A schedule for the weekly test and the 6 monthly test and the documenting of the results to be established. Fire Alarm systems in common areas that conform to BS 5839 Pt 1 and incorporate break glass call points and /or automatic doors closers should be checked on a weekly basis. A different call point can be used for each successive test. The duration of a test need only be sufficient to check that the system operators satisfactory. Any defects must receive immediate attention and a record of the tests maintained.
Individual alarms in flats – alarms for the hearing impaired	**An assessment of the occupancy** should be undertaken on an individual basis to ensure the standards detailed in the British Standard can be met for example, sound levels of 75 db at the bed head (with doors shut) should be achieved. Additional measures to compensate for particular disabilities should also be considered such as vibrating cushions, strobes as well as any specific need that warrants connection of the alarm to a care call system should the occupier have difficulties in responding to the local alarm.

	A maintenance programme incorporating an annual test should be initiated with records kept that are available for inspection. In consultation with the Alarm Engineer a 10 year rolling replacement programme is also required in accordance with the British Standard. It is also recommended that the detectors are either checked or preferably replaced on change of tenure.

3.3 **Evacuation Procedure**	**EVACUATION PROCEDURE** The ideal solution for this type of accommodation as detailed so far is to plan for a **stay put or managed evacuation** policy which is reinforced throughout all the management arrangements and maintenance of the block including the tenancy agreements and training for all staff. **Once the evacuation policy** has been decided in conjunction with Bedfordshire and Luton Fire and Rescue Service the fire risk assessment and all the procedures to be benchmarked against the policy to maintain consistency, clarity of information and co-operation between the management of the block and the Bedfordshire and Luton Fire and Rescue Service. **See Managing responsibilities for fire safety in section 1.10 on page 12.**

3.4 **Managing fire safety**	**SPECIFIC MANAGEMENT RESPONSIBILITIES** **To be read in conjunction with section 1.10 on page 12.** **Every tenant must be informed** about the action to be taken in the event of fire. This information should include explanation of the working of the fire detection system and the need for good housekeeping, such as keeping escape routes clear of combustible materials. For this type of property the challenges may be mobility equipment and chargers for example or lifting equipment. There may be some flexibility within the layout for areas which have seating or tea making but this has to be managed and identified as in keeping with the overall fire protection measures (30 minutes fire resistance x 2). The landlord must apply and enforce a policy which allows the effective management of the common areas to ensure fire safety is maintained. In particular, the common areas must not be used for either storage of combustible materials or any obstructions that could impede evacuation.

	Examples are: • Mobility equipment; • Chargers; • Lifts and hoists; • Rubbish or furniture that is unwanted by the tenant or awaiting removal; • Build up of newspapers. **The common areas** are designed to be sterile and the fire safety measures detailed in this standard are based on the assumption that this will be the case. Routine checks should form part of the day to day management of the building. **Instructions concerning fire** and the maintenance of all fire safety measures should form part of a tenancy agreement. A copy of the Fire Escape Procedure which is relevant to the individual building should be prominently displayed on the back of the door to each flat. **Where tenants require specialist** equipment to respond to the fire alarms within their flats then this should be flagged up by managers for action at the commencement of a tenancy or on receipt of information. Individual care plans should identify the additional measures required. **Routine checks of fire safety** standards in the common areas should be established (in addition to those relating to the Fire Alarm System). Employees responsible for undertaking the checks (this might be caretaking staff) should be trained so that they can identify problems and are provided with a clear and effective mechanism that allows rectification of the problems quickly. E.g. breaches of fire resistance, combustibles in staircase enclosures, damage to the structure, failures of the fire alarm system, Fire Service access and operation of dry risers.

3.5 **Fire risk assess-ment**	**FIRE RISK ASSESSMENT** **Sheltered accommodation and hostels** will require a fire risk assessment to be carried out in accordance with The Regulatory Reform (Fire Safety) Order.

3.6 **Fire fighting equipment**	**FIRE FIGHTING EQUIPMENT** **The nature of the premises** is such that they can be classified as a place of work with or without a 24 hr warden (especially under the Regulatory Reform (Fire Safety) Order which became law in the Autumn of 2006) therefore the provision of fire fighting equipment is required.

	Bedfordshire and Luton Fire and Rescue Service recognise the potential problems with hose reels, (e.g. mode of operation, obstruction of fire doors etc) as such it is acceptable to replace hose reels with a suitable and sufficient number of portable fire extinguishers. The following guidance should be used to determine minimum levels required.

Water extinguish-ers (13A rating)	**Minimum two per floor** based around one for every 200 square metres and no more than 30 metres apart. Additional extinguishers may be required in specific risk areas e.g. offices although careful consideration of the general location can help reduce the number required.

Carbon Dioxide extinguish-ers (21B Rating)	**CO2 extinguishers** located where there is a specific electrical risk e.g. laundry room, kitchen. Note that one carbon dioxide extinguisher can cover more than one room if located appropriately.

Fire blanket (min size 1 sqm)	**The provision of a Fire Blanket** conforming to BS 6575 (or equivalent) should be provided in each kitchen mounted on a wall 1.5m high adjacent to an exit door away from the cooking facility.

Mainten-ance of fire fighting equipment	**All fire fighting equipment** should conform to BS EN 3 and BS 7863. Arrangements should be made for the extinguishers to be inspected once a year in accordance with the current BS 5306 Pt 3 or European Standard by a competent person qualified under British Approvals For Fire Equipment (BAFE) – National Approvals Scheme for the servicing of Fire Equipment, or an equivalent accredited third party conformance standards. Records of tests should be maintained for future inspection.

3.7 **Emergency lighting**	**EMERGENCY LIGHTING** **An Emergency Lighting system** conforming to BS 5266 Pt 1 should be provided illuminating stairways, corridors, and other exit routes to allow persons to make their way out of the premises safely. The system should be independent from the main supply. The system should be non maintained with a duration period of 2 hours (standard NM/2). It is recommended that the Emergency Lighting system is tested on a monthly basis with a record of the test maintained.

3.8	**REFUSE CHUTES AND BIN STORES**
Refuse chutes and bin stores	**Bin chutes**, bin stores and ducts must be properly separated by fire resisting construction as per the main standard. Bin stores are a focus for arson. Bin chutes within buildings can also be misused if there is a problem with internal security. Bin stores must be secure from the outside – to minimise arson. Bin stores and general storage areas should be separated from the main exit route by at least 30 minutes fire resistance. Bin chutes can be located within a small separate room within the staircases – with 30 minutes fire resistance in place - or adequately fire stopped including seals to prevent smoke and flames from entering the staircase itself. Bin chutes can be prone to vandalism and well as wear and tear of the seals on the chute hatches. An inspection and maintenance program should be put in place to identify and rectify and problems. Smoke detection systems will be required – see 2.2
Hidden ducting	**Hidden ducting** (extractor fan ducting from bathrooms or service ducting in communal areas) should be identified and checked to ensure the correct standard of fire resistance is maintained for the location. It is also essential that there is appropriate fire stopping should ducting travel through compartment floors and walls.
Meter and service cupboards	**Cupboards** in the common areas which house electric intakes and meters, electrical switchgear or services or any source of ignition and combustion must maintain the correct level of fire resistance for the location. Cupboards should be locked and not open for any unauthorised persons to gain access.
Storage cupboards	**Areas such as storage cupboards** under stairs must be kept empty and locked shut.

3.9	**DRY RISING MAINS**
Dry risers	**A maintenance programme** should be put in place for all dry risers in high/medium rise buildings. British Standard 5306: Part 0 covers the servicing and maintenance of dry risers and recommends that any dry rising mains are checked every 6 months to ensure the valves are fully serviceable. A wet pressure test should be undertaken annually to ensure there is no leakage.

	Under Article 38 this is a requirement within the Regulatory Reform (Fire Safety) Order 2005.

3.10 **Sprinklers**	**SPRINKLERS** Consideration should be given to the provision of a specific sprinkler system for any bin room that is prone to regular arson attacks which subsequently causes smoke logging of the circulation areas for the flats.

Section 4 - Houses Converted into Self Contained Flats

This section details the specific fire protection works that are considered appropriate for the majority of accommodation in this category. This category of property is very important in that it has not been subject to Housing Act regulation or Fire Authority regulation in the past. New legislation specifically identifies this type of property ('Section 257 house in multiple occupation' – as long as at least 1/3rd of flats are let on shorthold tenancies) and makes the distinction between houses converted before 1991 or converted without Building Regulations and those converted after 1991. Post 1991 conversions will have additional fire safety measures installed such as mains wired or panel controlled smoke detection systems in the common areas. Typical examples are:

- Large 3+ storey properties converted into self contained flats;
- Large 2 storey properties converted into self contained flats;
- Mixtures of flats/maisonettes;
- Flats converted 'over the shop';
- Some properties will have new build extensions/additions;
- Mixture of tenures, long leases and owner occupied, leased and sublet on short tenancies, registered social landlord stock;
- Mixture of fire separation standards depending on the age of conversion.

This is a high risk category because buildings **converted** into self contained flats from traditional construction (brick walls but with timber floors, staircases, internal partitions etc) are more combustible than buildings which are designed to be fire resisting and built from non combustible materials. Where there are mixtures of tenures, including vulnerable individuals, the risks increase due to this type of occupancy and associated lifestyle issues.

This standard is aimed at fitting fire safety protection and detection into buildings which do not meet modern post 1991 Building Regulation standards. When a converted building is inspected there needs to be awareness of the possibility that the structural fire protection may have been altered or repaired ineffectively, or internal layouts may have been changed and fire doors removed. This will nullify or reduce the level of the fire protection measures originally provided in the conversion. The **ideal** is for 60 minutes fire protection between each risk room within the occupancy and the staircase (which is the escape route). This is usually achieved by providing a 30 minute fire resisting flat door which provides protection between the hallway/staircase and a further 30 minute fire door on each internal door to a risk room. This gives the required 60 minute protection between the risk and the escape route which is the internal staircase. There may be external secondary escape stairs which serve the top floor and/or the first floor. These may be useful and worthy of retention. However, if it is in a poor structural state of repair, removal may be the most costs effective option. Within each flat it is not possible to ensure each internal fire door is maintained in a closed position – it is more usual for such doors to be propped open or removed.

Therefore this standard assumes only that the structural fire resistance between occupancies and the escape staircase is 30 minutes.

Note: LACORS National guidance does apply to this category of property.

4.1 **Fire Resist-ance Standards**	**STRUCTURAL FIRE PROTECTION** **All dedicated escape routes** will consist of a protected route providing a minimum of 30 minutes fire resistance; this includes any screens and or doors forming the staircase enclosure. Therefore, the staircase will be protected on all landing levels by fire resisting doors which separate the staircase(s) from the individual flats. Entrance doors to the flats within the corridors on each level will, therefore be 30 minutes fire resisting. This package provides a minimum of 30 minutes between the flats and the staircase but may be as high as one hour's fire resistance between risk rooms (such as a kitchen or lounge in each flat) and the escape staircase. Service ducts, cupboards in the stairway and pipework must maintain the same level of fire separation.
Fire doors	**Flat entrance doors** and frames within converted houses must be maintained as 30 minutes fire resistance and all leaseholders, tenants and occupiers must be made aware that no change of door is permitted without prior approval of the management company who must enforce this rule. • Letter boxes must be fire resisting and arson proof – proprietary solutions are available; • Self closing devices are required for flat entrance doors; • Locks should be either mortice escape locks or night latches which can be opened from the inside without using a key; • Chubb type security locks which require a key to open from the inside are not recommended; • 25mm door stops can be effective smoke and fire stops and therefore should be retained. Any holes, gaps or damage to fire doors must be effectively repaired. **Flat entrance doors** may be changed when flats are sold. As such it is important that the doors maintain the specified level of fire resistance and that any alterations made to the doors must not materially affect this level of resistance. This includes a ban on: • Non fire resisting letterboxes; • Cat flaps; • Non fire resisting glazing panels; • Replacement with non-fire resisting doors.

Self closing devices	**Self closing devices** are required for flat entrance doors. Fire door restraining devices are not applicable to this location. As self closing devices are required for flat entrance doors, locks should be mortice escape locks which cannot lock the occupier out of the flat by the action of the self closing device. All locks must be capable of being opened from the inside without the use of a key and with a thumb turn on the inside.
Internal layouts	**Any layout** which compromises the safe exit of occupiers (such as having to pass through a risk room to escape) must be made safe by using smoke detection appropriate to the location and use. Any planned improvements should also aim to minimise layouts that are unsatisfactory.
Secondary escapes	**Where a flat** has the provision of a secondary escape to a place of safety, the access door should be fitted with a mortice escape lock with a thumb turn on the inside. Doors that are not in practical locations should be assessed on an individual basis with consideration being given to security. Where properties have external escape stairs, they should have suitable weather protection and be properly maintained with at least an annual check programmed to ensure they remain in good condition.
Glazing	**All glazing** that forms part of the escape route should be 30 minutes fire resisting.
Cellars	**Cellars/basements** should be separated by 30 minutes fire resistance plus smoke detection. The access door should be either self closing or kept locked shut. The staircase should be underdrawn to afford the same level of resistance. If access to the basement is required on a regular basis (e.g. electric pay meter in basement) then the fire resisting door must be self closing.
Cupboards	**Cupboards in the escape route** should be emptied and kept locked shut or protected by 30 minutes fire resistance and kept locked.
Electric meters	**Electric meters** in the escape route should be enclosed in a fire resisting cupboard, preferably top hung, so as to be self closing. **No storage** of any kind should be permitted in the escape route.
Exit doors	**All final exit doors** (i.e. front doors and back doors) should be fitted with mortice escape locks which allow the door to be opened from the inside without the use of a key.

4.2 **Fire Alarm Standards** **LACORS guidance**	**FIRE ALARM STANDARDS** **----------** **LACORS NATIONAL GUIDANCE – MIXED SYSTEM** A fire alarm system conforming to BS 5839 Part 6, **Grade A** (panel controlled automatic fire alarm system), category LD2, comprising optical smoke detectors on each landing level of the staircase, plus a single point heat detector in the circulation space of each flat, should be provided. Within each flat there must be a stand alone mains operated smoke detector sited in a suitable position, usually the circulation space/lobby. ----------
Grade D mixed system	**ALTERNATIVE SOLUTIONS** **MAINS OPERATED MIXED SYSTEM** **A fire alarm system** conforming to BS 5839 Part 6, **Grade D**, category LD 2, comprising optical smoke detectors on each landing level of the staircase, plus a single point heat detector in the circulation space inside each flat (optimum location is on the ceiling, 300mm away from the main flat entrance door), should be provided. All detectors to be interlinked to form one system. This is a mixed system which gives staged evacuation – exactly as in the LACORS standard but with Grade D standard for the alarm system rather than Grade A. Many properties are suited to Grade D protection as long as there are not more than 14* detectors wired together in the main system. **Each detector head** is a stand alone smoke detector so even in the event that some detectors are not functioning the main system will still operate. This type of system requires less checking and is less costly so is ideal where there are financial constraints. The recommended detector type is one with mains power but also a **rechargeable battery backup** which is on constant trickle charge from the mains supply. **Within each flat** **A stand alone optical smoke detector** conforming to BS 5839 Part 6, Grade D, category LD3, should be provided in the circulation space (or suitable living area) of each flat. This will allow for occupants to silence false alarms without disturbing other residents, but in the event of a more serious fire or if the flat is empty at the time, the heat detector will activate and sound throughout the building for an evacuation to take place. Optical smoke detectors are most suited to this location. Where more then one detector is installed to overcome poor layout, detectors to be interlinked to form a mini system.

	A remote hush/test and locate switch is highly recommended for this detector to prevent occupiers having to use ladders or chairs to hush false alarms.
No more than 14 detectors	***Limitations** – limitations apply where the size of the building and the number of flats exceeds the total recommended number of detectors which can be interlinked in this way. Consult the manufacturer for advice. The accepted maximum is 14 detectors. However, additional modifications or radiolinking may allow for more detectors to be used in the main system. For very large buildings, therefore, a panel controlled Grade A system should be used. **Poor layout within the flat** where an occupant has to pass through a risk room to exit to safety should be resolved using appropriate additional detection in the flat, interlinked with the proposed detector(s) in the flat itself. The resulting system should remain separate from the main alarm system in the communal areas.
Disabled occupiers	**Occupants with disabilities** should be provided with appropriate specialist features such as vibrating pillows or strobe lights etc.
Radiolink	The method of interlinking using 'Radio link' may be considered where interlinking is required to existing systems but the additional wiring is not installed. Note however that the battery life of a Radio Link unit is 5 years so a replacement program must be put in place to ensure the system continues to operation satisfactorily.
10 year re-placement	**A maintenance programme** incorporating an annual test should be initiated with records kept that are available for inspection. In consultation with a specialist alarm engineer a 10 year rolling replacement programme is also required in accordance with the British Standard. It is also recommended that the detectors are either checked or replaced on change of tenure.
Existing Automatic Fire Detection Systems.	Existing panel controlled Automatic Fire Detection systems conforming to BS 5389 Pt 1 in premises where a BS 5839 Pt 6 system is recommended and which remain operable need not be replaced, however if there are problems with vandalism and false alarms then replacement should be considered.

4.3 **Evacuation Procedure**	**EVACUATION PROCEDURE** **Full evacuation** of the premises should be undertaken upon activation of the main fire alarm system. Every tenant must be informed about the action to be taken in the event of fire and designate responsibility for calling the Fire Service. Information should include explanation of the working of the fire detection system and the need for good housekeeping, such as keeping escape routes clear of combustible materials. Instructions should form part of a tenancy agreement. A copy of the Fire Escape Procedure should be prominently displayed on the back of the door to each flat. Tenants with language or learning difficulties should receive appropriate assistance to understand their particular fire safety instructions.

4.4	**MANAGEMENT RESPONSIBILITIES** **See section 1.10 on page 12 for general fire safety management standards**

4.5 **Fire risk assess-ment**	**FIRE RISK ASSESSMENT** **Buildings and houses converted into self contained flats** will require a fire risk assessment to be carried out in accordance with The Regulatory Reform (Fire Safety) Order.

4.6 **Fire Fighting equipment**	**FIRE FIGHTING EQUIPMENT** **The provision of a Fire Blanket** conforming to BS 6575 (or equivalent) should be provided in each kitchen mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility. **LACORS** recommends portable fire fighting equipment for converted flats and HMOs. See section 3.6 on page 24 for the options on portable fire extinguishers. Fire fighting equipment is not recommended in these standards if vandalism is a concern or if there are doubts about the ability of occupiers to respond sensibly to a fire using the equipment. Where there are wardens or caretakers the property will require FFE under the Fire Safety Order. See section 3.6.

4.7 **Emergency Lighting**	**EMERGENCY LIGHTING** **A converted house** may need emergency lighting to be provided in the escape staircase. This will depend upon the amount of borrowed light from outside, the proximity of streetlights and the staircase layout. However the likelihood is that the original conversion into flats has impeded natural or street light getting into the staircase, so this must be considered. **Where emergency lighting** is required it should conform to BS 5266 Pt 1 and illuminate stairways, corridors, and other exit routes to allow persons to make their way out of the premises safely. The system should be independent from the main supply. The system should be non maintained with a duration period of 2 hours (standard NM/2).
4.8 **Refuse bins**	**REFUSE BINS AND STORES** **Bulk bins may sometimes be provided** but, in general, wheelie type bins are provided. They yield a significant fire loading and should, therefore, be sited in a suitable location, preferably fixed in position within some sort of part enclosure, away from the house and in particular, windows and doors. If not in a dedicated fire resisting enclosure they should be located at least 8m away from the building.

Section 5 - Purpose built blocks of 2 & 3 storeys (low rise)

Blocks of flats of this kind are often found in the private, social and local authority stock, many were built in the 1970's and 1980's. Private blocks also flourished during the housing boom of the 1980's. The distinguishing factor for these buildings is the structural fire resistance which has been the basis of the design. Older style buildings tend to be of a similar construction to high and medium rise blocks – non combustible concrete and steel. However, inspecting officers should take note that timber framed modern blocks which were constructed in the 1990's may not have adequate fire stopping. See section on timber frames buildings – **Section 1.8 on page 10**.

Where the construction can be relied upon to be non combustible then the fire protection measures can be limited to smoke detection within individual flats – but certain provisos apply.

5.1	**STRUCTURAL FIRE PROTECTION**
Fire resistance standards	**All dedicated escape routes** will consist of a protected route providing a minimum of 30 minutes fire resistance; this comprises the flat entrance door (30 minutes) which separates the landings from the stairs or staircases. Internally each flat may have fire doors to risk rooms thus affording 60 minutes fire resistance between each risk room and the stairway escape route. However internal fire doors cannot be verified as being kept closed so the minimum standard is for 30 minutes fire resistance which is the flat entrance door. Service ducts, cupboards in the stairway and pipework must maintain the same level of fire separation.
Flat entrance doors	**Flat entrance doors** and frames within blocks of flats must be maintained as 30 minutes fire resistance and all leaseholders, tenants and occupiers must be made aware that no change of door is permitted without prior approval of the management company who must enforce this rule. • Letter boxes must be fire resisting and arson proof – proprietary solutions are available; • Self closing devices are required for flat entrance doors; • Locks should be either mortice escape locks or night latches which can be opened from the inside without using a key; • Chubb type security locks which require a key to open from the inside are not recommended; • 25mm door stops can be effective smoke and fire stops and therefore should be retained. Any holes, gaps or damage to fire doors must be effectively repaired. **Flat entrance doors** may be changed when flats are sold. As such it is important that the doors maintain the specified level of fire resistance and that any alterations made to the doors must not materially affect this level of resistance. This includes

	a ban on: • Non fire resisting letterboxes; • Cat flaps; • Non fire resisting glazing panels; • Replacement with non-fire resisting doors. **Self closing devices** are required for flat entrance doors. Fire door restraining devices are not applicable to this location. As self closing devices are required for flat entrance doors, locks should be mortice escape locks which cannot lock the occupier out of the flat by the action of the self closing device. All locks must be capable of being opened from the inside without the use of a key and with a thumb turn on the inside. **Any layout** which compromises the safe exit of occupiers (such as having to pass through a risk room to escape) must be made safe by using smoke detection appropriate to the location and use. Any planned improvements should also aim to minimise layouts that are unsatisfactory. **All glazing** that forms part of the escape route should be 30 minutes fire resisting. **Cupboards in the escape route** should be emptied and kept locked shut or protected by 30 minutes fire resistance and kept locked. **Electric meters** in the escape route should be enclosed in a fire resisting cupboard, preferably top hung, so as to be self closing. **No storage** of any kind should be permitted in the escape route. **Where flats have a balcony** the combustibles on the balcony should be kept to a minimum. **All final exit doors** (i.e. front doors and back doors) should be fitted with mortice escape locks which allow the door to be opened from the inside without the use of a key.

5.1 cont.	**BIN STORES**
Bin stores	**Communal bin stores** and individual storage cupboards are usually located on the ground floor. The bin and storage area must be separated from the main staircase by fire resisting construction. **Bin stores** – particularly where there is access from the outside for collection can be prone to vandalism and arson. Communal bin stores should be identified and risk assessed to see if is appropriate to install simple smoke detection to alert occupiers to arson and bin fires.

5.2	**FIRE ALARM STANDARDS**
Fire alarm standards **Circulation areas**	**In the event of a fire** in a flat, the staircases are unlikely to be involved unless the flat entrance door is not up to the required standard. With the standards of fire resistance detailed above, a **stay put or phased evacuation policy** for the occupiers not in the affected flat should be adopted. Therefore, in order for this to work, there is little benefit in providing Automatic Fire Detection with sounders in the common areas.
Communal bin stores	**Bin stores and general storage** areas are an exception to this rule which should be actively risk assessed for smoke detection systems. If provided, the system should be mains operated smoke alarms, to BS 5839 Part 6, Grade D, to be fitted within appropriate areas – corridors to stores and bin storage rooms – and then linked to one or more sounders within the communal areas where there is the greatest chance of the alarm being heard by occupiers. Alternatively the alarm could be linked to an Alarm Receiving Centre or a local control centre.
Individual Flats	**Separate stand alone smoke detection** which is appropriate to a separate occupancy is to be provided. In cases where the layout is poor and occupiers have to pass through higher risk areas in order to get out of their flats, there will need to be more then one smoke and/or heat detector interlinked with each other to provide a satisfactory system. The standard for this type of block is for a stand alone mains operated smoke alarm to British Standard 5839 Part 6 to be of Grade D (mains operated with a rechargeable battery backup) to be fitted in the circulation space in the most suitable position. It is recommended that the sound level at the bedhead is 75dBA. All new detectors that are installed should be fitted with a remote hush and test switch as part of the system to avoid occupiers having to stand on chairs or steps in order

	to silence false alarms. Optical smoke detectors are suitable for detecting cool smouldering fires and ionisation detectors are better suited for fast flaming fires. Ionisation alarms not to be sited in locations where they may be set off falsely by cooking. Where more then one detector is installed to overcome poor layout, detectors to be interlinked to for a small system.
Testing and maintenance	**A maintenance programme** incorporating an annual test should be initiated with records kept that are available for inspection. In consultation with the Alarm Engineer a 10 year rolling replacement programme is also required in accordance with the British Standard. It is also recommended that the detectors are either checked or preferably replaced on change of tenure.

5.3 **Evacuation Policy**	**EVACUATION POLICY** **The ideal solution** for this type of accommodation as detailed so far is to plan for a **stay put or phased evacuation** policy which is reinforced throughout all the management arrangements and maintenance of the block including the tenancy agreements and training for all staff. **Once the evacuation policy** has been decided in conjunction with the Fire and Rescue Authority then the fire risk assessment and all the procedures must be benchmarked against the policy to maintain consistency, clarity of information and co-operation between the management of the block and the Fire and Rescue Authority. See further information below under **managing fire safety**

5.4 Managing fire safety	**MANAGEMENT RESPONSIBILITIES** **See section 1.10 on page 12 for general fire safety management standards**

5.5 Fire risk assessment	**Low rise blocks of flats** will require a fire risk assessment to be carried out in accordance with The Regulatory Reform (Fire Safety) Order.

5.6 **Fire fighting equipment**	**FIRE FIGHTING EQUIPMENT** **Considering the design** of the buildings (sterile staircases, no usable 'common areas' off the staircases, no carpets or any fire loading) and the limited interaction between residents, then the provision of fire fighting equipment in the common areas (halls, stairs and landings, lounges, storage areas etc) is not considered appropriate. Note that any specific workplaces, e.g. offices will require fire fighting equipment under current fire safety legislation. **Fire fighting equipment in 3.6** which details levels of provision to be achieved in workplaces should be applied. Fire fighting equipment for individual flats is recommended - fire blankets in kitchens help with small kitchen fires.

5.7 **Emergency lighting**	**EMERGENCY LIGHTING** **Emergency Lighting** to BS 5266 Pt 1 may be required in circulation areas if the amount of borrowed light provided by street lighting is insufficient. It is recommended that the Emergency Lighting system is tested on a monthly basis with a record of the test maintained.

5.8 **Bins**	**BINS STORES** **Structural fire protection** and smoke detection is dealt with under 5.1 and 5.2.

Section 6 - Single Dwellings

Additional structural fire resistance to form a protected escape route is not generally required in dwellings of single occupancy. However escape routes should be of sound conventional construction and in good condition.

Examples of poor layout – occupiers having to go through risk rooms - should be overcome using additional smoke detection. Examples of this for a single family house may be an open-plan living room with no ground floor corridor to front door. Also kitchen doors may have been removed thus making the escape route continuous with the kitchen. Each case has to be judged on its merits, taking account of occupancy, travel distance and closeness of risks.

Properties of 3 storeys or more which have been constructed post 1991 will already have appropriate fire resisting structural elements and mains operated interlinked smoke detection systems.

Pre 1991 3 storey buildings, particularly older Victorian houses which may have 6 or 7 bedrooms, long travel distances to a safe exit and be of a combustible nature should be considered for additional interlinked detection, depending on individual circumstances.

6.1 **Fire Alarm Systems**	**FIRE ALARM SYSTEMS** **The ideal - BS 5839 Part 6, Grade D category LD3** mains operated detector/sounder, either optical smoke or ionisation, dependant on siting the detector away from kitchens/cooking equipment, to be installed on the ground floor level and first floor level of the staircase as a minimum requirement. Additional detection would be required within the circulation spaces on each floor should the premises consist of 3 or more floors. **Acceptable** – working battery operated smoke detectors **BS 5839 Part 6, Grade F category LD3** on each landing level of the staircase for 2 storey properties. **Poor layouts** involving fire exit through risk rooms should be improved using additional detection or in the case of open plan ground floors the detection should be sited in the most suitable position to protect the sleeping occupiers if there is a fire at night. **LACORS recommends** the use of escape windows but this should not be considered mandatory in existing buildings where there is no overall control of internal conditions because of the nature of the occupancy – therefore sensitively sited detection will give sufficient early warning to ensure safe evacuation of all occupiers.

	A maintenance programme incorporating an annual test should be initiated with records kept that are available for inspection. In consultation with the Alarm Engineer a 10 year rolling replacement programme is also required in accordance with the British Standard. It is also recommended that the detectors are either checked or preferably replaced on change of tenure.

6.2	**EVACUATION POLICY** **Full evacuation** on the sounding of the alarm system.

Section 7

Houses in Multiple Occupation (HMOs) 3 or 4 storeys including basement/cellar (or complex 2 storey*)

Introduction

HMO accommodation provides housing for a variety of occupiers but tends to be accommodation for individuals on benefits or of limited means. Examples are:

- Traditional bedsits with shared facilities;
- Hostels, with or without full time supervision;
- Bed and breakfast establishments for residents who have no other home;
- Houses where there is no sharing of facilities, but lettings are not self contained;
- Students sharing, but, living as a group;
- Professional sharers who live as a group;
- Rooms let out with a residential landlord.

*Large, complex 2 storey HMOs with long travel distances from any bedroom to the final exit, unusual or complex layouts may fall into this category for the purposes of deciding the level of fire precautions to be required.

LACORS divides traditional HMOs into 'shared houses' and 'bedsit' type houses with different standards for each type. For the purposes of these standards there is no distinction between these uses so both types are included in this section.

HMOs of 3 storeys and above with 5 or more residents require a licence to operate. Fire safety is separate from HMO licensing and will be dealt with using the Housing Health and Safety Rating System (HHSRS) as detailed earlier in this guide. HHSRS will apply regardless of HMO licensing or number of storeys or lettings.

LACORS national guidance applies

7.1 Standards of fire resistance	**STRUCTURAL FIRE PROTECTION** **----------** **LACORS NATIONAL GUIDANCE is for 30 minutes protected route.** **----------** **All dedicated escape routes** will consist of a protected staircase providing a minimum of 30 minutes fire resistance - this will be the door to the accommodation which will be a 30 minute fire resisting door.

	Walls and floors to be of sound traditional construction in good condition. Any weaknesses in wall or ceiling construction to be addressed and improved to 30 minutes fire resisting.
Glazing	**All glazing** that forms part of the escape route should be 30 minutes fire resisting.
Cellars	**Cellars/basements** should be separated by 30 minutes fire resistance plus smoke detection. The access door should be either self closing or kept locked shut. The staircase should be underdrawn to afford the same level of resistance. If access to the basement is required on a regular basis (e.g. electric pay meter in basement) then the fire resisting door must be self closing.
Cupboards	**Cupboards in the escape route** should be emptied and kept locked shut or protected by 30 minutes fire resistance and kept locked.
Electric meters	**Electric intake** and meters in the escape route should be enclosed in a fire resisting cupboard, preferably top hung, so as to be self closing. **No storage** of any kind should be permitted in the escape route.
Door locks	**All final exit doors** (i.e. front doors and back doors) should be fitted with mortice escape locks which allow the door to be opened from the inside without the use of a key.
	TIMBER FRAMED NEW BUILDS
Timber framed buildings	**Care must be taken to ensure** the structure is fully fire safe and compliant. This can be verified through the Building Control department of the Council. For current builds – fire stopping can be generally relied on but for older builds there must be careful checks on structural fire separation and any weaknesses identified and rectified before deciding on the appropriateness of any fire alarm system. **See section1.8**

7.2 **Fire Alarm Standards**	**FIRE ALARM STANDARDS** ---------- **LACORS NATIONAL GUIDANCE** **Where cooking facilities are located in bedsits –** An automatic fire alarm and detection system fitted in accordance with BS 5839 Part 6, and conforming to Grade A, LD2. **This is a mixed system**. Smoke detectors in the hallways and heat detectors in bedsits, all interlinked together. Additional stand alone Grade D mains operated smoke detector in the room itself. Phased evacuation. **Where cooking facilities are in a shared kitchen** - An automatic fire alarm and detection system fitted in accordance with BS 5839 Part 6, and conforming to Grade A, LD2. Smoke detectors in the hallways and in the rooms all interlinked together with heat detectors in the kitchen(s). **This is a single system.** Full evacuation. ---------- **ALTERNATIVE SOLUTIONS:**
Background	**The majority of HMOs** in Bedfordshire are single room bedsits with either integral cooking facilities or a shared kitchen. It is usual to have shared bathroom/WC facilities. There will be only one 30 minute fire door between the fire risk and the escape staircase. It is possible, using newer and more flexible detector technology, to provide life protection for both the occupier in the room and the rest of the occupiers. This is an improvement on LACORS standards. **Mains operated multi sensor detector** units give intelligent sensing in rooms with cooking equipment and minimise false alarms thus allowing one system to be installed. This gives finely tuned activation and sufficient early warning in the event of fire to provide life protection to occupiers while maintaining relative freedom from false alarms. Such a system increases the occupier safety. **BS 5839 Part 6 Grade A** multisensor systems are also available with a panel control but they are expensive to provide and have to be installed as a complete system due to the higher level of technology and control in the panel. **Where cooking facilities are located in bedsits.** **OPTION 1**
Grade A single system	**An automatic fire alarm** and detection system fitted in accordance with BS 5839 Part 6, and conforming to Grade A, LD2. Optical smoke detectors in the hallways/landings, shared lounges and any cellars or basements and

	multisensors in every bedsit, all interlinked together to form one system. No additional stand alone detectors in the rooms. Silencing and testing via the panel. Full evacuation.
Grade D system	**OPTION 2** **A mains operated fire alarm** and detection system fitted in accordance with BS 5839 Part 6, and conforming to Grade D, LD2. Optical smoke detectors in the hallways/landings, shared lounges and any cellars or basements and multisensors in every bedsit, all interlinked together to form one system. No additional stand alone detectors in the rooms. Hush/test/locate switch to be located in a suitable position – to avoid false hushing. Full evacuation. **Limitation –** Maximum number of detectors is 14 – check manufacturers recommendations. **Where there are shared kitchens**
Grade A system	**OPTION 3** **An automatic fire alarm** and detection system fitted in accordance with BS 5839 Part 6, and conforming to Grade A, LD2. Optical smoke detectors in the hallways/landings and in each bedsit. A heat detector sited in each shared kitchen. All detectors linked together to form one system. Full evacuation.
Grade D system	**OPTION 4** **A mains operated fire alarm** and detection system fitted in accordance with BS 5839 Part 6, and conforming to Grade D, LD2. Smoke detectors in the hallways and bedsits – optical smoke type. Heat detectors in each shared kitchen - all interlinked together to form one system. Full evacuation.
Grade D system with multi sensors	**OPTION 5** **A mains operated fire alarm** and detection system fitted in accordance with BS 5839 Part 6, and conforming to Grade D, LD2. Optical smoke detectors in the hallways/landings, shared lounges and any cellars or basements and every bedsit. A multisensor in each shared kitchen - all interlinked together to form one system. Full evacuation.
Note about evacuation plans	**NOTE:** Full evacuation is generally recommended for HMOs

	due to the higher level of fire loading, the potentially vulnerable nature of the occupiers and the single fire door between any fire and the escape route. Phased evacuation with a mixed fire alarm system may result in delays in evacuation when there is a genuine fire emergency. **OPTIONS FOR PURPOSE BUILT HMOS OF 3+ STOREYS**
New build 3 storey HMOs	**Where new build houses which are compliant** with current Building Regulations have been converted to HMOs – there can be a high degree of confidence that the structure is fully 30 minutes or more fire resistant and all fire stopping has been properly carried out and checked. As part of the construction there will be a BS 5839 Part 6 mains operated Grade D system installed in the halls, stairs and landings. HHSRS risk assessment for 'Fire' would not yield a sufficiently high hazard band to warrant stripping out this system and putting in a new one. Therefore, extending the existing system should be the first choice option. This can easily be done with conventional mains wired detectors, all interlinked together in accordance with one of the options above, or using radiolinking and replacing one of the hallway detectors with radiolink head and using this as a base to link other radio detectors in each room and a heat/multisensor in the kitchen or kitchens.
Extras	**FIRE ALARM EXTRAS** **Modifications and additions** may be considered appropriate. These could include repeater panels, anti vandal devices, use of radio interlinking - as permitted by the British Standard - but this will depend upon occupancy type and assessed fire risk. Where there is a mixture of residential and commercial then modifications to the system may include mixing Part 1 and Part 6 systems. **Remote hush/locator/test switches** on Grade D whole house systems should be installed either in secure places where false hushing will not cause problems or with a degree of caution. **Magnetic fire door release mechanisms** are very useful for doors to shared kitchens and through lounges/dining rooms. The advice should be to manually release them at night but there will be automatically release on activation of the alarm. These devices can be interlinked with both Grade A and D systems. The self closing device to be checked as fully operational.

	CHOOSING OPTIONS **Grade A systems** will work best in higher risk HMOs but only those which benefit from a high degree of day to day management to avoid any tampering or vandalism which may render the alarm inactive. Well managed high risk HMOs such as voluntary or social sector hostels or independent living houses with high level of supervision are in this category. Poor management or lack of regular visits by manager should flag up that weekly tests – vital to ensure the functioning of the Grade A system – are not being carried out. Poor management should feed into the risk assessment and the appropriateness of fire safety options. **Grade D systems do fail to safety** even if one or more of the detectors has been removed or broken. Thus the system will still protect occupiers as long as sufficient detectors are in place to sound the alarm. **Grade D systems** can also be provided with increased functionality (with a mini panel control) that may be a mid point between the coverage of a Grade A system and the flexibility and lower cost of a Grade D system.

7.3 **Evacuation Procedure**	**EVACUATION PROCEDURE** **Full evacuation** of the premises should be undertaken upon actuation of the principle fire alarm system. **Mixed systems will necessarily** give phased evacuation but escape via the fire door may trigger the smoke alarm in the common areas before the heat detector in the room is activated and sounds the whole system for evacuation. **Every tenant must be informed** about the action to be taken in the event of fire and designate responsibility for calling the Fire Service. **Information should include** explanation of the working of the fire detection system and the need for good housekeeping, such as keeping escape routes clear of combustible materials. Instructions should form part of a tenancy agreement. A copy of the Fire Escape Procedure which is relevant to the HMO itself should be prominently displayed on the back of the door to each flat as well as on the notice board in the hallway. Tenants with language or learning difficulties should receive appropriate assistance to understand their particular fire safety instructions. **Further general information** is given in the section on

	managing fire safety in Section 1.10 on page 12. Specific guidance is given below in 7.4

7.4 **Managing fire safety**	**MANAGEMENT AND MAINTENANCE** **Additional considerations for higher risk HMOS (see 1.10 on p12 for general management**) **For this type of property** the challenges may be the capabilities of the individual occupiers and the motivation that they may or may not have to comply with the landlords instructions. Signage next to the call points (if applicable) of the fire alarm system or on the notice board should reinforce the fire safety procedures. **Alcohol, substance abuse**, vulnerability or incapacity may be issues that the landlord has to work around. Many very vulnerable individuals are occupiers of HMOs and do not have any support or care within the existing NHS or social services framework delivered by the various responsible agencies – they slip through the net. **The landlord must apply** and enforce a policy which allows the effective management of the common areas to ensure fire safety is maintained. In particular, the common areas must not be used for either storage of combustible materials nor any obstructions that may impede evacuation. Examples are: • Rubbish or furniture that is unwanted by the tenant or awaiting removal; • Build up of newspapers; • Bicycles; • Scooters or motorbikes.
Sterile common areas	**The common areas** are designed to be sterile and the fire safety measures detailed in this standard are based on the assumption that this will be the case. Routine checks should form part of the routine management of the building. **Instructions concerning fire** and the maintenance of all fire safety measures should form part of a tenancy agreement. A copy of the Fire Escape Procedure (the Fire Notice) which is relevant to the individual building should be prominently displayed on the back of the bedsit door and in the communal areas. **All fire detection and emergency lighting systems** require maintenance and testing. Results of the tests should be recorded and made available for any inspecting officer of

Entry and security	the Council or the Fire Authority. It is not sufficient to expect occupiers to carry out weekly tests of fire alarm systems. The manager must take responsibility for this task. Maintenance and tests should be in accordance with the current British Standard. **Given the nature of HMO living** it will not be possible to exclude visitors or even non authorised persons from the building. The front door should be self closing and occupiers informed not to keep it propped open and to report unauthorised access to their landlord or manager. In practice, this may be difficult to enforce. Fire safety systems, therefore, must take account of possible arson attacks and the action that may need to be taken. **Fire doors which do not lock** the person out of their room by the action of the self closing device are vital in an arson attack which is likely to be within the staircase area or common parts. These locks are mortice escape locks which must be locked from the outside using a key. It is therefore not possible to be locked out of the bedsit. Occupiers can retreat into their rooms and await rescue. The Fire Notice on the back of the bedsit door should reinforce this advice.

7.5 **Fire risk assess-ment**	**FIRE RISK ASSESSMENT** **Buildings and houses converted into HMOs** will require a fire risk assessment to be carried out in accordance with The Regulatory Reform (Fire Safety) Order. Letting agents or landlords should have a risk assessment of the HMO on file.

7.6 **Fire Fighting equipment**	**FIRE FIGHTING EQUIPMENT** **The provision of a Fire Blanket** conforming to BS 6575 (or equivalent) should be provided in each kitchen and mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.

7.7 **Emergency lighting**	**EMERGENCY LIGHTING** **An HMO in this category may need** emergency lighting in the escape staircase. This will depend upon the amount of borrowed light from outside, the proximity of streetlights and the staircase layout. Where emergency lighting is required it should conform to BS

	5266 Pt 1 and illuminate stairways, corridors, and other exit routes to allow persons to make their way out of the premises safely. The system should be independent from the main supply. The system should be non-maintained with a duration period of 2 hours (standard NM/2).

7.8 **Refuse bins**	**REFUSE BINS AND STORES** **Bulk bins may sometimes be provided** but in general wheelie type bins are provided. They yield a significant fire loading and should, therefore, be sited in a suitable location, preferably within some sort of part enclosure which may be lockable, away from the house and in particular, windows and doors. . If not in a dedicated fire resisting enclosure they should be located at least 8m away from the building.

Section 8 - 2 storey Houses in Multiple Occupation and shared houses

While 2 storey HMOs are not 'licensable' under the Housing Act 2004, regard should be given to factors such as overall size and number of lettings, unusual layouts, long corridors, travel distances to final exit and high risk uses when making decision about the most appropriate fire prevention measures for each property.

LACORS divides traditional HMOs into 'shared houses' and 'bedsit' type houses with different standards for each type. When HHSRS risk assessment is applied to 2 storey HMOs the risks for shared houses are significantly lower then for bedsit type houses. This is not necessarily the case for 3+ storey shared houses. Therefore, some relaxation on fire safety is permitted but there are conditions – see individual sections.

2 STOREY BEDSIT TYPE HMOS

8.1 **2 storey bedsit type HMOS** **Standards of fire resistance**	**2 STOREY BEDSIT TYPE HMOS** **STRUCTURAL FIRE PROTECTION** **The landlord is in full control** of the house including the common parts. The landlord is responsible for letting each room and filling any vacancies. The common areas are maintained and kept clean by the landlord. Each tenant has a separate tenancy agreement. There may be shared lounges and dining rooms, as well as kitchens and bathrooms but there is no assumption of exclusive use of these. Such houses may have occupiers who are very vulnerable and present a higher than average risk of fire. **All dedicated escape routes** will consist of a protected staircase providing a minimum of 30 minutes fire resistance, this will provide all occupants easy access to a place of safety. **Walls and floors to be of sound** traditional construction. **No additional upgrading** between occupancies or levels is required as long as the structure is sound, traditional and not subject to damage or poor repairs in the past. **All glazing** that forms part of the escape route should be 30 minutes fire resisting.

	Cellars/basements should be separated by 30 minutes fire resistance plus smoke detection. The access door should be either self closing or kept locked shut. The staircase should be under drawn to afford the same level of resistance. If access to the basement is required on a regular basis (e.g. electric pay meter in basement) then the fire resisting door must be self closing. **Cupboards in the escape route** should be emptied and kept locked shut or protected by 30 minutes fire resistance and kept locked. **Electric intake and meters** in the escape route should be enclosed in a fire resisting cupboard, preferably top hung, so as to be self closing. **No storage** of any kind should be permitted in the escape route. **All final exit doors** (i.e. front doors and back doors) should be fitted with mortice escape locks which allow the door to be opened from the inside without the use of a key.

8.2 **Fire Alarm Standards**	**FIRE ALARM STANDARDS – 2 STOREY BEDSIT HMOS** **----------** **LACORS NATIONAL GUIDANCE** **Where cooking facilities are located in bedsits –** An automatic fire alarm and detection system fitted in accordance with BS 5839 Part 6, and conforming to Grade D, LD2. Smoke detectors in the hallways and heat detectors in bedsits, all interlinked together. Additional stand alone Grade D mains operated smoke detector in the room itself. **Mixed system.** Phased evacuation. **Where cooking facilities are in a shared kitchen** - An automatic fire alarm and detection system fitted in accordance with BS 5839 Part 6, and conforming to Grade A, LD2. Smoke detectors in the hallways and in the rooms all interlinked together with heat detectors in the kitchen(s). **Single system only**. Full evacuation. ----------

Grade D system	**ALTERNATIVE SOLUTIONS** **Where cooking facilities are located in bedsits** **OPTION 1** An automatic fire alarm and detection system fitted in accordance with BS 5839 Part 6, and conforming to Grade D, LD2. Smoke detectors in the hallways/landings, shared lounges and any cellar or basement and heat detectors in every bedsit, all interlinked together to form one system. Additional stand alone multisensor in the room with remote hush and test switch in the bedsit (this reduces likelihood of nuisance alarms and the resultant deactivation of the alarm itself). Managed evacuation. **OPTION 2** An automatic fire alarm and detection system fitted in accordance with BS 5839 Part 6, and conforming to Grade D, LD2. Optical smoke detectors in the hallways/landings, shared lounges and any cellars or basements and multisensors in every bedsit, all interlinked together to form one system. No additional stand alone detectors in the rooms. Remote hush/test/locate switch installed in suitable position in the common area – usually within the meter cupboard or similar location. Full evacuation. **Where there are shared kitchens** **OPTION 1** A mains operated fire alarm and detection system fitted in accordance with BS 5839 Part 6, and conforming to Grade D, LD2. Optical smoke detectors in the hallways/landings, shared lounges and cellars or basements and in every bedsit. A heat detector sited in each shared kitchen. All detectors linked together to form one system. Remote hush/test/locate switch installed in suitable position. Full evacuation. **OPTION 2** A mains operated fire alarm and detection system fitted in accordance with BS 5839 Part 6, and conforming to Grade D, LD2. Optical smoke detectors in the hallways/landings, shared lounges and any cellars or basements and every bedsit. A multisensor in each shared kitchen - all interlinked together to form one system. Remote hush/test/locate switch installed in suitable position. Full evacuation.

Note about evacuation plans	**NOTE:** Full evacuation is generally recommended for HMOs due to the higher level of fire loading, the potentially vulnerable nature of the occupiers and the single fire door between any fire and the escape route. Managed evacuation with a mixed fire alarm system may result in delays in evacuation when there is a genuine fire emergency. **FIRE ALARM EXTRAS** Modifications and additions may be considered appropriate. These could include repeater panels, anti vandal devices, use of radio interlinking - as permitted by the British Standard - but this will depend upon occupancy type and assessed fire risk. Where there is a mixture of residential and commercial then modifications to the system may include mixing Part 1 and Part 6 systems. Remote hush/locator/test switches on Grade D whole house systems should be installed either in secure places where false hushing will not cause problems or with a degree of caution. Magnetic fire door release mechanisms are very useful for doors to shared kitchens and through lounges/dining rooms. The advice should be to manually release them at night but there will be automatically release on activation of the alarm. These devices can be interlinked with both Grade A and D systems. The self closing device to be checked as fully operational.
Extras	**CHOOSING OPTIONS** The likely smaller size of this type of HMO will ensure that the alarm, when sounded, will easily be heard throughout the house. There may be challenged with layout where alterations have resulted in poor or non standard layouts and long corridors at first floor level. Small narrow hallways and steep staircases are features of this type of house. For modern 2 storey HMOs there may be open plan lounges and lack of separation between the lounge/kitchen and the staircase. Grade D systems are generally acceptable to users when remote hush switches are easily accessible. In these smaller houses the siting of the detectors may need to be more carefully planned to avoid problems with false alarms.

8.3 **Evacuation**	**EVACUATION PROCEDURE** **Full evacuation** of the premises should be undertaken upon

Procedure	actuation of the principle fire alarm system. Mixed systems will necessarily give phased evacuation but escape via the fire door may trigger the smoke alarm in the common areas before the heat detector in the room is activated and sounds the whole system for evacuation. Every tenant must be informed about the action to be taken in the event of fire and designate responsibility for calling the Fire Service. Information should include explanation of the working of the fire detection system and the need for good housekeeping, such as keeping escape routes clear of combustible materials. Instructions should form part of the tenancy agreement. A copy of the Fire Escape Procedure which is relevant to the HMO itself should be prominently displayed on the back of the door to each flat as well as on the notice board in the hallway. Tenants with language or learning difficulties should receive appropriate assistance to understand their particular fire safety instructions. Further general information is given in the section on managing fire safety in Section 1.10 on page 12 .

8.4 **Fire risk assess-ment**	**FIRE RISK ASSESSMENT** Buildings and houses converted into HMOs will require a fire risk assessment to be carried out in accordance with The Regulatory Reform (Fire Safety) Order. Letting agents or landlords should have the risk assessment of the HMO on file.

8.5 **Fire Fighting equipment**	**FIRE FIGHTING EQUIPMENT** The provision of a Fire Blanket conforming to BS 6575 (or equivalent) should be provided in each kitchen and mounted on the wall 1.5m high adjacent to an exit door away from the cooking facility.

8.6 **Emergency lighting**	**EMERGENCY LIGHTING** An HMO in this category may need emergency lighting in the escape staircase. This will depend upon the amount of borrowed light from outside, the proximity of streetlights and the staircase layout. Where emergency lighting is required it should conform to BS 5266 Pt 1 and illuminate stairways, corridors, and other exit

	routes to allow persons to make their way out of the premises safely. The system should be independent from the main supply. The system should be non-maintained with a duration period of 2 hours (standard NM/2).

8.7 **Refuse bins**	**REFUSE BINS AND STORES** Bulk bins may sometimes be provided but in general wheelie type bins are provided. They yield a significant fire loading and should, therefore, be sited in a suitable location, preferably within some sort of part enclosure which may be lockable, away from the house and in particular, windows and doors.

2 STOREY SHARED HOUSES – PROFESSIONALS, STUDENTS ETC.

General statement of limitations

The landlord lets the whole house including the common parts. The landlord is responsible for letting out the house in good condition and will receive the house back at the end of the contract – periodic inspections would normally be carried out. The common areas are maintained and kept clean by the occupiers, excluding repairs and physical maintenance. Each tenant signs the joint tenancy agreement and the group are responsible for filling any vacancies. The tenancy agreement should make specific reference to the routine testing and operation of the fire safety measures

Not all shared 2 storey HMOs which have a single contract will be suitable for this reduced standard of fire safety.

It is possible that smaller houses are occupied by various higher risk groups, including those with learning disabilities, mental health problems or rough sleepers, for example. Social housing providers may use single contracts as part of a wider policy of reintegrating such individuals into the community. It should, therefore, never be assumed that 2 storey shared properties do not have vulnerable higher risk occupiers living in them.

This relaxation applies only to premises which have a travel distance from the farthest bedroom in the house to the final exit is 18 metres or less, have a standard layout and no special risks. In general, this standard will only apply if 6 individuals or less occupy a house. Groups of people such as students who occupy under one contract or professional sharers that are deemed to be 'living as a family' may fulfil this criteria. Higher levels of occupancy may not be considered for this relaxation and may be assessed to require a higher level of fire protection.

Summary of limitations

- Single contract;
- No more then 6 sharing;
- Professional or student type sharers;
- House to be traditional – no alterations or cooking in rooms;
- No vulnerable of higher risk occupiers;
- No cellars or basements;
- Travel distance not more then 18 m from farthest point to final exit;
- No cellar or basement – it will be 3 storey if this is the case.

8.8	**2 STOREY SHARED HOUSES** **STRUCTURAL FIRE PROTECTION**
Standards of fire resistance	Well fitting internal flush or panel doors that close and latch properly – no smoke seals. 60 mins between shops/other uses and HMO. Doors to letting rooms and final exit doors must be openable without the use of a key (recommended mortice escape locks). Electric meters within the staircase to be enclosed in a fire resisting cupboard/housing. Escape route to be kept free from combustible materials and obstructions.

8.9	**FIRE ALARM STANDARDS**
Fire alarm system	Mains operated fire alarm and detection system designed and installed to British Standard 5839 Part 6, Grade D and category LD3 (optical smoke detectors in escape routes, any shared lounges or dining rooms, and a heat detector or multisensor in the shared kitchen), detectors to be interlinked together to form one system. Remote hush/test/locate switch to be sited in a suitable position. Full evacuation.
Emergency lighting	Not normally required, unless there is significant lack of borrowed lighting within staircase enclosure and layout/changes of level present exit difficulties in the event of a fire.
Fire blanket	Minimum fire blanket in every kitchen.
Mainten-ance and testing:	Fire alarm should be tested weekly by landlord or tenant. Remote test switch allows for easy testing. An annual check by a competent person to comply with BS5839 Part 6 should include cleaning in accordance with manufacturers

	recommendations. Each detector head should be replaced every 10 years (guaranteed life of the standby battery). If the building has been unoccupied or the mains power has been disconnected, the system should be tested to ensure the operation of the power supply and standby supply.

8.10 Fire risk assessment	None required
Remaining matters	Refuse bins, emergency lighting, fire fighting equipment and management all as before.

Section 9 – Over the shop

Flats over shops have been identified as higher risk type of accommodation due to the use of the premises underneath, the lack of control over the risks below and potential obstructions to access routes where businesses have use of ground floor external areas. Accumulated combustibles or obstructions and locked exit routes can provide additional risk factors.

There are many different types of over the shop flats which require different solutions. Two storeys or three or more storeys.
Single flat above shop – separate entrance, no shared stairways.
Two or more flats sharing a common staircase with shared entrance/exit doors.
Bedsits or rooms over the shop with full HMO status.
Mixture of flats and bedsits.
Single family occupied 'house' over the shop with its own staircase.
The building may be converted or purpose built.
These variations must be taken into consideration when deciding on the appropriate level of fire protection.

9.1	**STRUCTURAL FIRE PROTECTION** **There should be 60** minutes fire protection between the business use below and the residential accommodation above. In cases where the ceiling of the business has been underdrawn it may not be possible to determine fire resistance without proper examination of the ceiling underneath. **All dedicated escape routes** will consist of a protected route providing a minimum of 30 minutes fire resistance; this comprises the flat entrance door (30 minutes) and may also include other fire resisting partitions and doors within the staircase. Service ducts, cupboards in the stairway and pipework must maintain the same level of fire separation. **Flat entrance doors** and frames within over the shop blocks of flats must be maintained as 30 minutes fire resistance and all leaseholders, tenants and occupiers must be made aware that no change of door is permitted without prior approval of the management company who must enforce this rule. • Letter boxes must be fire resisting and arson proof – proprietary solutions are available; • Self closing devices are required for flat entrance doors; • Locks should be either mortice escape locks or night latches which can be opened from the inside without using a key; • Chubb type security locks which require a key to open from the inside are not recommended; • 25mm door stops can be effective smoke and fire stops and therefore should be retained. Any holes, gaps or damage to fire doors must be effectively repaired. **Self closing devices** are required for flat entrance doors. As self closing devices are required for flat entrance doors, locks should be mortice escape locks which cannot lock the occupier out of the flat by the action of the self closing device. All locks must be capable of being opened from the inside without the use of a key and with a thumb turn on the inside. **Any layout** which compromises the safe exit of occupiers (such as having to pass through a risk room to escape) must be made safe by using smoke detection appropriate to the location and use. Any planned improvements should also aim to minimise layouts that are unsatisfactory.

	All glazing that forms part of the escape route should be 30 minutes fire resisting. **Cupboards in the escape route** should be emptied and kept locked shut or protected by 30 minutes fire resistance and kept locked. **Electric meters** in the escape route should be enclosed in a 30 minutes fire resisting cupboard. **No storage** of any kind should be permitted in the escape route. **All final exit doors** (i.e. front doors and back doors) should be fitted with mortice escape locks which allow the door to be opened from the inside without the use of a key. There are specific considerations for the different types of over the shop flats. **Single flat over a shop** (2 storeys max) with clear exit route to outside – no internal fire doors but flat door should be 30 minutes fire resisting if it is inside a staircase enclosure. 60 minutes between shop and flat floors. **Several flats over a shop/s** (2 storeys max) – 30 minute fire doors to each flat entrance door. Clear exit route out to a place of safety. 60 minutes between shop and flat floors. **Several flats over a shop** (3+ storeys) - 30 minute fire doors to each flat door. 60 minutes between floors. Internal doors should also be fire resisting thus giving a 60 minute fire resistance between the flats and the staircase. Clear exit route out to a place of safety. **HMO over the shop** – 2 or 3+ storeys – 30 minutes fire resistance between rooms and the staircase. **Shared flat over shop** – 2 storeys only – no fire doors inside flat but flat door must be 30 minutes fire resisting. **Shared flat/maisonette** over the shop 3+ storeys (any layout) 30 minutes fire resistance as per HMO standard. The fire resistance standard is for both purpose built and converted flats over shops. No occupiers should have to pass through a potentially obstructed area (Shop yard or alley or staircase) to get out to a place of safety. Any locks on gates to be fire escape locks easily openable from the inside without using a key. Poor layouts involving fire exit through risk rooms should be improved using additional detection. Flats over shops often have the kitchen at the rear which gives out onto the exit staircase. Each case must be checked by the Fire Prevention

	Officer before recommending extra detection.

9.2	**FIRE ALARMS AND SMOKE DETECTION SYSTEMS** **Single flat over a shop –** working smoke detector/s which may be battery but mains operated detection is preferable. Interlinking with shop downstairs if considered necessary due to the risk from the business or uncertainty about the structural fire protection of the ceiling. **Flats over shops** which are **converted buildings** - Design and install a mixed system which comprises: (1) a mains operated fire alarm and detection system designed and installed to British Standard 5839 Part 6 2004 Grade D and category LD2 (detectors in escape routes and heat detector, 600mm from main entrance fire door within each flat), detectors to be interlinked together to form one system. (2) Inside each flat, in circulation space, single point optical smoke detector with remote hush/test switch to be fitted, not linked, but under control of occupant. System defaults to evacuate mode if a flat is on fire and heat detector activates prior to fire door being under threat from blaze. Minimises false alarms. No remote hush to be fitted to main system (1) The Fire Prevention Officer may recommend interlinked detection between the shop and the flats above – an inspection will be required to determine this. **Note:** Where such systems comprise more than 12 detectors in total, an automatic panel controlled fire alarm must be considered – refer to the Fire prevention Officer. **Flats over shops** which are **purpose built buildings** – no smoke detection system is required under this standard for purpose built blocks with sterile stairs/landings/escape routes. Inside each flat, in circulation space, single point optical smoke detector with remote hush/test switch to be fitted, not linked, but under control of occupant. (Grade D and LD3) Existing buildings which have been recently converted may already have smoke detection systems within communal stairways. **HMOs over shops** require the same level of fire detection as for the HMO standard. (Grade D or A and LD2). **A shared flat of 2 storeys** only over the shop occupied by

	sharers on one contract should have the same standard of detection (Grade D and LD3) as the shared house standard for HMOs. **A shared flat of 3+ storeys** will require a full smoke detection system (Grade D or Grade A and LD2) as it cannot be considered for the reduced shared house standard.

9.3 **Evacuation procedures**	**EVACUATION PROCEDURES** **In the event of a fire** in any over the shop premises full evacuation should be undertaken. **See Managing responsibilities for fire safety in section 1.10 on page 13.**

9.4	**MANAGEMENT AND MAINTENANCE** **See Managing responsibilities for fire safety in section 1.10 on page 13.**

9.5 **Fire risk assess-ment**	**FIRE RISK ASSESSMENT** **For any over the shop premises** where there is a common staircase and shared areas a fire risk assessment to be carried out in accordance with the Regulatory Reform (Fire Safety) Order 2005.

9.6 **Fire fighting equipment**	**FIRE FIGHTING EQUIPMENT** **To be fitted in accordance with the individual type of accommodation.** Fire fighting equipment for individual flats is recommended - fire blankets in kitchens help with small kitchen fires.

9.7 **Emergency lighting**	**EMERGENCY LIGHTING** **Emergency Lighting to BS 5266 Pt 1** will be required in circulation areas if the amount of borrowed light provided by street lighting is insufficient. It is recommended that the Emergency Lighting system is tested on a monthly basis with a record of the test maintained.

APPENDIX 1 – EXPLANATION OF TERMS USED IN THIS DOCUMENT

BS 5839 Pt 1: Fire Detection and Fire Alarm Systems for Buildings: Code of Practice for system design, installation, commissioning and maintenance.

Category M: Manual break glass call points

Category L: Automatic fire detection systems intended for life safety.

Category L4: System providing Automatic Fire Detection within those parts of an escape route comprising circulation areas and circulation spaces such as corridors and stairways. Additional detection can be provided in specific areas e.g. communal rest rooms.

Category L5: System providing Automatic Fire Detection to satisfy a specific fire safety objective. E.g. Bin rooms

BS 5839 Pt 6: Fire Detection and Fire Alarm Systems for buildings: Code of Practice for the design and installation of fire detection and alarm systems in dwellings.

Grade D: A system of one or more mains powered smoke alarms each with an integral standby supply.

Category LD: Automatic Fire Detection and alarm system intended for the protection of life in dwellings.

Category LD2: A system incorporating detectors in all circulation spaces that form part of the escape routes from the dwelling, and in all rooms or areas that present a high fire risk to occupants.

Category LD3: A system incorporating detectors in all circulation spaces that form part of the escape routes from the dwelling e.g. the individual flats.

BS 5266 Pt 1: Code of practice for the emergency lighting of premises other than cinemas and certain other specified premises used for entertainment.

Maintained lighting (M): Emergency lighting system is energised continuously using normal supply source with a battery backup supply on interruption of the main supply.

Non maintained Lighting (NM): Emergency lighting systems are not normally energised. An automatic monitoring and switching system is provided to switch on the lighting if the normal supply is interrupted.

Duration: An emergency lighting system is designed to supply the required load for a desired period of time, is usually between 1-3 hours.

Hence, a system conforming to NM/2 is a Non Maintained system of 2 hour duration.