

# Fire Safety Guidance Note: Security Doors and Other Security Measures for Premises

## GN11

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## **Explanatory Note:**

The London Fire Commissioner (the Commissioner) is the fire and rescue authority for London. The Commissioner is responsible for enforcing the Regulatory Reform (Fire Safety) Order 2005 (as amended) in London.

This Guidance Note provides fire safety advice in respect of the Commissioner's preferred standards for security devices on windows and doors, for both commercial and residential properties.

This Note is one of a series produced by the Commissioner to provide advice on various aspects of fire safety. If you require any further guidance on the advice given or require advice on another topic please visit your local Fire Safety Office, telephone 020 8555 1200 and ask for the nearest Fire Safety Office, or visit our web site at <http://www.london-fire.gov.uk>.

## **1 Introduction**

- 1.1 This document has been prepared by the Fire Safety Regulation Department, London Fire Brigade (LFB).
- 1.2 The purpose of this Guidance Note is to provide information to Housing Providers, Managing Agents, Residents Groups, Individual Residents, on security measures in or on premises. This information should be used to inform and review fire risk assessments (FRAs) by stakeholders responsible for fire safety in premises including the Responsible Person (RP), premises management groups and residents.
- 1.3 There are occasions where added security is required to prevent unauthorised entry to premises and this is often achieved by the provision of high security doors. Whilst LFB is sympathetic towards individuals and companies wishing to improve security measures, the need to maintain means of escape in case of fire should not be overlooked. It is also sometimes necessary for firefighters to gain access into premises in an emergency and a security door or other security measures can add significantly to the time that this takes, resulting in unacceptable danger to both life and property.
- 1.4 The LFB has no statutory powers to enforce these preferred standards in domestic/residential premises, consequently only recommendations and not requirements can be made based on internally defined policy guidance. The final decision on the installation and type of doors, gates or grilles must, therefore, rest with the local authority, managing agent, private landlord or owner/occupier.
- 1.5 Standards are necessary so that the LFB will not be unreasonably hindered in its job of rescuing trapped occupants. Householders must be warned of the possible dangers of entrapment which extra security devices can create.
- 1.6 In these standards the terms "security doors" and "security gates" refer to purpose made products, sold and supplied as such, usually comprising an integral door and frame assembly, and not just uprated doors.
- 1.7 In providing the information below it should be noted that the LFB policy with regard to any products manufactured by commercial organisations does not extend to the issue of authorised approvals for such products. The LFB is not a testing authority and it is not for the LFB to endorse products or appear to be endorsing products. LFB is required by the Fire and Rescue Services Act 2004, to give advice when requested in relation to fire safety matters, any such advice is given on a goodwill basis to be of assistance to those who request it.

- 1.8 It should be noted that in the United Kingdom the Police Services lead on the "Secured by Design", <http://www.securedbydesign.com/> process to ensure that residential and domestic premises are safe by virtue of the design of the building or in some cases alterations to the building. This process is a "Functional Requirement" as part of the Building Regulations Approved Document guidance in Approved Document Q.

## 2 Authorities you may need to consult

- 2.1 Where security is the main concern the advice of the local crime prevention officer should be sought. The Architectural Liaison Officer (ALO) working for the City of London police service provides crime prevention design advice for City developments whilst the Metropolitan Police Crime Prevention Design Advisers provide advice for London boroughs. However, alterations to buildings may need approval from other authorities which may include :

- Building Control Officer (Local Authority)
- Environmental Health Officer (Local Authority)
- Petroleum Enforcement Authority (The London Fire Brigade)
- Entertainments Licensing Authority (Local Authority)
- Social Services (Local Authority)
- Fire and Rescue Authority (The London Fire Brigade)

## 3 Security doors /Gates

- 3.1 The door and frame assembly should conform with the fire resisting standards, where required, and open in the direction specified in any Code of Practice or Guide relevant to the premises.
- 3.2 Where doors form part of a means of escape route from more than one dwelling the complete fastening mechanism should comprise a single device operated manually from the premises side of the door by a control forming an integral part of the fastening mechanism. Where necessary the control shall take the form of a panic bar. The use of removable keys, electronic pass cards or digital key pads will not meet the requirements of this section.
- 3.3 No part of the fastening mechanism or operating control device which is permanently attached to the fastening mechanism should be constructed from plastic, wood or other materials which are combustible or have a melting point below 800°C.
- 3.4 When anybody is inside a premises our operational crews will need to breach the doors providing access using hand held equipment. The breaching of the door should be sufficient to allow the manipulation of any internal operating device of the fastening mechanism manually from a position on the outside or public side of the door. To this end, the structure should be free from reinforcement, bracing, locking bars or other construction which would impede the opening of the door at a point adjacent to the lock mechanism.
- 3.5 Where, in cavity doors, the space between two skins is filled with insulation material, the material should be of a type which will not present a hazard once exposed and which will not clog or impede the blade or tool of any device in use. Where it would be necessary to remove part of the insulation material to expose the inner skin of a cavity door, in order that the hole may be completed, the insulation material at the most likely point for the hole to be cut should be easily removable by hand.
- 3.6 Where security doors are installed within blocks of flats, across common corridors or access ways, the following criteria should be met :

- (a) Where flats were designed in accordance with British Standard Code of Practice CP3 Chapter IV: Part 1 1971, Precautions Against Fire in Flats and Maisonettes (in blocks over two storeys) they will be designed on the principle of smoke containment or smoke dispersal should a fire occur. Where security doors are to be installed in such premises they should, therefore, be positioned in replacement of existing fire resisting doors in order to maintain the smoke control provisions within the building.
- (b) Where flats have been designed to allow smoke to be dispersed from the building in the event of fire then at least 1.0m<sup>2</sup> area of ventilation should be allowed above the security door (and where possible to the sides of the door). Alternatively, consideration should be given to converting the flats to the smoke containment principle and the security doors fitted as specified in (a) above.
- (c) In flats that do not comply with categories (a) and (b) above, any security doors installed should not detrimentally affect existing means of escape and fire safety arrangements.

**NOTE:** In all cases where security doors are installed across corridors or access ways they should not be positioned or secured in such a way as to prevent access to an alternative escape route. Any alternative escape route provided within a building may be required for escape purposes should the primary route of escape become blocked by fire or smoke.

- (d) In those instances where members of the public wish to install a door(s) and there is any doubt as to which of the above categories is applicable to the premises concerned, the local authority building control office may be able to offer advice. Alternatively, the local fire and community safety centre may be able to provide assistance.
- 3.7 Security doors should not be fitted on pressurised stairways unless the degree of "leakage" around each door, necessary for the efficient operation of the pressurisation system, can be maintained.
- 3.8 The principles for security gate fitting should be similar to those used with security doors. Generally they should be easily opened from the inside without the need to search for a key.
- 3.9 Security doors and security gates should not be installed together at the same access point to the premises. Therefore, no more than one security door or gate should need to be breached to gain access to any dwelling.
- 3.10 In order to assist fire-fighters in the event of any emergency, details of premises where security doors/gates are fitted should be passed to LFB, after installation.

## **4 Window security grilles**

- 4.1 Non-openable external/internal grilles should not be fitted to the windows of premises that have secondary security gates to the main entrance door.
- 4.2 All window grilles should have openable areas of sufficient dimensions to facilitate escape for the occupiers in the event of any emergency.
- 4.3 All grilles should be easily openable from the inside without the need to search for a key.

## **5 Roller shutters / Secondary steel doors**

- 5.1 Roller shutters and secondary steel doors are not recommended as a means of security other than when premises are unoccupied. Where these have been installed on unoccupied dwellings they should be removed before any future occupancy is allowed.

- 5.2 If these items are installed on premises that are in use on a daily basis then they should not impinge on the means of escape and should be maintained in an open position whilst the premises are occupied.

## 6 Windows (fixed or secondary glazing)

- 6.1 In each occupied room, where windows are fitted, at least one window should be openable to allow for means of escape where required by the occupants in the event of an emergency. The window(s) concerned should be openable from the inside without the need to search for a key. Where child locks are fitted, these should be able to be opened quickly and easily.

## 7 Fire detection and warning systems

- 7.1 In all instances where any of the above security measures are taken it is most strongly recommended that smoke alarms be fitted within the premises.
- 7.2 The smoke alarms should be so arranged as to be audible in all rooms of the dwelling and of sufficient audibility to raise occupants from their sleep.
- 7.3 Smoke alarms will give early warning of fire and should enable occupiers to leave the premises by their own unaided efforts.
- 7.4 Smoke alarms for individual dwellings should comply with BS 5446-1: Fire detection and fire alarm devices for dwellings. Specification for smoke alarms. Smoke alarms or other detection devices for larger premises should be installed as part of a fire detection and warning system complying with BS 5839-1: Fire detection and fire alarm systems for buildings. Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises **or** BS 5839-6: Fire detection and fire alarm systems for buildings. Code of practice for the design, installation, commissioning and maintenance of fire detection and fire alarm systems in domestic premises

## 8 Door security measures (all premises types)

- 8.1 Fire escape doors must be able to be opened from the inside without the use of a key; a key kept in a glass fronted box adjacent to the doors is not acceptable.
- 8.2 Locks and latches fitted to fire resisting doors must not contain low melting point materials such as aluminium or nylon.
- 8.3 Suitable security fittings for use of fire escape doors include the following;
- (a) escape mortise deadlocks - this type of mortise lock allows the door to be opened by turning a knob from within;
  - (b) mortise night latches - these are suitable only providing that they are not fitted with a deadlocking mechanism and thus cannot be disabled by the key from outside;
  - (c) break glass locks - these are available in several forms. They may consist of a glass bolt that must be broken to enable the door to be opened or a glass cover may be placed over a lever handle or both. Break glass locks, as well as giving easy access to a door locking mechanism, may be used as a security device; the broken glass indicating that the door may have been opened.

**NOTE:** Break glass locks should not be used on doors which are;

- likely to be used by the public; or
  - likely to be used by more than 10 (ten) employees; or
  - situated at the base of a stairway; or
  - on an escape route from a high risk area.
- (d) panic bolts - the most commonly encountered devices suitable for opening final exit doors are panic bolts and panic latches, which are the subject of BS EN 1125:Building hardware. Panic exit devices operated by a horizontal bar, for use on escape routes. Requirements and test methods.
- (e) bolts - these are known by various names i.e., barrel bolts, tower bolts, draw bolts, flush bolts etc.
- (f) magnetic or motor actuated locks controlled centrally - these are only suitable for fire exits if they fail safe (i.e., the door is unlocked) in the event that the power supply fails, unlock upon operation of the fire alarm and have a manually operated control switch nearby. These types of locks should comply with BS 7273- 4: Code of practice for the operation of fire protection measures. Actuation of release mechanisms for doors
- (g) a simple electric alarm or flimsy strap - these may be fitted to a door to give indication that the door has been opened.

## 9 Bibliography

9.1 Detailed guidance on the various standards referred to in this guidance note may be obtained from the following bibliography. You can also obtain fire safety advice on other subjects by visiting our website at [www.london-fire.gov.uk](http://www.london-fire.gov.uk).

The publications can be obtained from the following addresses:-

AVAILABLE FROM	TITLE
British Standards Institution (Sales) 389 Chiswick High Road London W4 4AL Telephone: 0345 386 9001 Fax: 020 8996 7001 E-mail: <a href="mailto:cservices@bsi-global.com">cservices@bsi-global.com</a> Web : <a href="http://www.bsigroup.com">www.bsigroup.com</a>	BS 3621: Lock assemblies operated by key from both the inside and outside of the door  BS EN 1125: Building hardware. Panic exit devices operated by a horizontal bar. Requirements and test methods  BS 5446-1: Fire detection and fire alarm devices for dwellings. Specification for smoke alarms  BS 5839-6: Fire detection and fire alarm systems for buildings. Code of practice for the design, installation, commissioning and maintenance of fire detection and fire alarm systems in domestic premises  BS 5839-1: Fire detection and fire alarm systems for buildings. Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises

	<p>BS EN 12209:Building hardware. Mechanically operated locks and locking plates. Requirements and test methods</p> <p>BS 8220-1:Guide for security of buildings against crime. Dwellings</p> <p>BS 7273- 4: Code of practice for the operation of fire protection measures. Actuation of release mechanisms for doors</p>
<p>TSO Customer Services PO Box 29 Norwich NR3 1GN</p> <p>Telephone: 0333 202 5070 mail: <a href="mailto:esupport@tso.co.uk">esupport@tso.co.uk</a> Web: <a href="http://www.tso.co.uk">www.tso.co.uk</a></p>	<p>Building Regulations Guidance Approved Documents B and Q</p>

The above publications are current at the time of preparation of this Guidance Note (see date in footer).

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