



Photo: Jacksons Fencing

is to prevent a vehicle borne attack to penetrate a wall, door or window or to prevent parking of high sided vehicles close enough to the building to allow climbing to less secure windows or flat roofs.

- 14.2 In open planned developments a defensible area can be created between the unit and the public road through the introduction of visitor and staff car parking and measures such as high kerbs, dwarf walls and hard and soft landscaping. Access for pedestrians or vehicles along the side of a building must be controlled through the use of fencing and/or gates, thus allowing access for emergency vehicles and staff where appropriate and means of escape when required. Physical barriers, such as 'anti-ram' bollards, may also be required to protect vulnerable building elevations, doors, roller doors and shutters when the business is closed (see Section 2 paragraphs 45 for standards for bollards).

- 14.3 Soft landscaping to the front of commercial units is acceptable provided it is set back from paths and placed to avoid obstructing visibility of doors, windows or any other access points. Generous hard paving in front of the unit may reduce the likelihood of plants growing to excess and obscuring vulnerable areas.

- 14.4 Casual approaches to windows can be deterred through the creation of uneven hard surfaces such as cobbles or angled

brick sets set in concrete. Specifiers should take particular care when specifying the type of gravel or loose surface treatment in developments so as not to provide missiles which will create criminal damage opportunities.

## 15 Boundary types

- 15.1 Boundaries fall into three main categories:

- 15.2.1 Psychological: Those that are intended to psychologically define ownership of space and distinguish between private and public land using features such as rumble strips, change of road surface (by colour or texture), road markings, and landscaping

- 15.2.2 Controlled: Normally a low fence, wall, hedge or other boundary treatment intended to help staff manage a site by physically restricting casual intrusion onto the site and channelling visitors to a formal entrance point in the perimeter. These types of boundaries are generally not high enough or sufficiently resistant to intrusion to be classified as a secure boundary.

- 15.2.3 Secured: A fence, wall, hedge or other boundary treatment intended to physically prevent climbing and or penetration into restricted parts of the site. A secure boundary around the site, or in the case of open planned developments, to the rear and or side of a building will also frustrate the intruder intent on breaking into the building out of hours and or limit the quantity



Photo: Jacksons Fencing

or type of goods that can be stolen. Secure boundaries can also provide for the security of industrial plant and machinery during the working day and keep unauthorised persons off a potentially dangerous site (See Section 2, paragraphs 43 to 44 for standards and specifications).

## 16 Security fencing

16.1 Security fencing is effective at delaying or deterring intrusion because of the need to climb over or penetrate the fence. It is therefore important that there are no structures close to or over the fence that will aid climbing, e.g. trees, lamp columns or buildings.

16.2 Security fencing materials may include welded mesh and expanded metal available in numerous coloured coatings, which are sometimes used in conjunction with timber. Railings of various designs can be used to good effect and all fencing types can be fitted with toppings to deter climbing. Whilst SBD recommends that security fencing should be effective without creating a 'fortress' impression it is accepted that certain business locations or business operations may actively seek to promote the security of their premises and hence utilise fencing that creates a strong visual deterrent.

16.3 Surveillance of and over the site from any surrounding streets, footways

and occupied buildings can help to deter potential offenders who may fear that their presence on the site will be reported to the police. It is therefore recommended that, where appropriate, security fencing systems are transparent to facilitate observation from outside the site and efforts are made by the occupiers to develop good relationships with their neighbours. The use of dark coloured coatings on metal fencing systems reduces the reflection of light and makes it easier for passersby to observe activity through the fencing.

16.4 It is accepted that some security rated fencing systems can be both costly and unsightly. However, the type of fencing that is required in order to gain SBD recognition must ultimately be determined by local crime risks. For example, in an average crime risk location, where the perimeter of the site is very large, it may be more appropriate to use a fence type matching the specification found in Section 2 paragraph 43.4. Indeed, in some locations it may prove to be more effective to install an inner security fence and then reduce the specification for the outer site boundary fence. There are many options that can be considered and they must be agreed on a site by site basis with the CPDA (see also *paragraph 18.1*).

16.5 Public footpaths immediately outside the boundary fencing can affect security.



If the footpath already exists and cannot be re-routed, the use of defensive planting in addition to fencing should be considered. However, this should not block natural surveillance from the footpath.

- 16.6 A party or shared boundary should not compromise security and maintenance. It may be advisable to erect a separate security fence inside the party boundary, ensuring access for maintenance of both existing and new structures. It is important to take account of neighbours' amenity in the choice of structure, as they will be more likely to act as deterrents or witnesses in helping to maintain site security. This arrangement may create a new path around the boundary and measures may be required to obstruct this path at vulnerable points.

- 16.7 When the building is closed and unoccupied, it must be possible to lock all entrance gates onto the site. During partial occupation, whether by employee, cleaners or security staff perimeter gates should be operable by appropriate means of secure access control.

## 17 Gates

- 17.1 The design, height and construction of any gates within a perimeter fencing system should match that of the adjoining fence and not compromise the overall security of the boundary (See also Section 2, paragraphs 44).

## 18 Defensive hedging

- 18.1 In some locations it may be a planning requirement to use or retain a defensive hedge, such as hawthorn, as a means to protect a site perimeter or to further bolster the security of an existing or proposed fence. Obviously it can take several years for a new hedge to develop into an effective barrier and therefore a temporary fence will be required in the short to medium term. When the hedge has matured to provide an effective barrier the fence can either be left in place (lost) or removed. Species selection is important, as hedging will require periodic maintenance.

## 19 Signage and unit identification

- 19.1 The commercial building's reception entrance and car park should be clearly signposted from the entrances onto the site. People found wandering around the forecourts of industrial buildings will often use the excuse that they could not find their way to the reception and the presence of clear signs will go some way to dismiss this excuse and help security staff and the police establish the legitimacy of the claim. Likewise, signs that identify areas that are not open to public access can act as a reminder that unauthorised persons should be challenged.
- 19.2 Site maps for industrial estates, if required, that identify road names and unit numbers should be correctly

orientated for the visitor and be protected from graffiti using a replaceable or cleanable transparent cover if the risk is present. Alternatively they can be located at a height that reduces the risk of damage or treated with an anti-graffiti coating to allow easy removal. Such maps should be located adjacent to a lay-by to reduce the impact on industrial estate traffic.

- 19.3 Clear numbering of individual units, which can be seen from the estate roads (too often absent in existing industrial estates) is essential to assist users, customers, postal workers and the attendance of emergency services.

## 20 Vehicle Parking and Access

- 20.1 The routes from the site entrance to the reception and to the car parks and delivery points should be clearly defined and benefit from as much overlooking from the reception and other occupied offices as possible.

- 20.2 It is highly likely that a new industrial estate road system will be designed to allow the easy operation of emergency vehicles and may include turning points and or space between buildings for large vehicles to operate. These arrangements may need to be matched with security measures to alleviate crime opportunities and it is recommended that a dialogue takes place with the fire service at an early stage.

- 20.3 Identifiable parking for staff should be provided in view of occupied offices and, where possible, identified visitor parking should be similarly located. In areas of high crime or where there are special security considerations, it may be prudent to secure the parking facility with appropriate fencing and an automatic access-controlled gate.

- 20.4 It is recommended to provide a parking space for emergency vehicles, such as an ambulance, close to the entrance of the building.

- 20.5 It is good practice to ensure that commercial buildings are designed to

allow secure deliveries and collections of material and goods. This will dictate the height of the bay delivery floor and its overall dimensions/design. Depending on risk, monitoring by CCTV may be necessary together with other security measures such as the provision of a secure delivery compound. It is recommended that this matter is further discussed with the CPDA.

- 20.6 The design criteria for car parks should follow the principles laid down in the police owned 'ParkMark' initiative. Full registration to 'ParkMark' is not a requirement of this document. The CPDA will be able to offer additional advice. Further information can be found at [www.parkmark.co.uk](http://www.parkmark.co.uk)



- 20.7 The purpose of 'Parkmark' is to:
- Reduce crime and the fear of crime in parking facilities.
  - Provide guidance to owners/operators and developers of parking facilities, both new and existing, on how to establish and maintain a safe and secure environment through the introduction of proven management processes, physical measures and site security systems, having considered the crime risk in the immediate vicinity.
  - Raise awareness with staff and visitors when parking their car, bicycle, motorcycle, etc, that the owner/operator has considered, and where appropriate, has taken action to reduce crime and the fear of crime within the parking facility they have chosen to use.
  - Provide a design framework for architects and developers of new parking facilities.



Photo: Cyclepods

## Two-wheeled motor vehicle parking & bicycle parking

- 20.8 Secure motorcycle, moped and scooter parking should be made available for staff. Such parking provision should benefit from surveillance from an occupied industrial unit or warehouse, be provided with secure ground anchors and be lit after dark when in use (See also Section 2 paragraph 46 for security standards).
- 20.9 Secure bicycle parking should be provided in view of an occupied industrial unit or warehouse with stands to which the bicycles can be secured. In order to encourage cycling to work and therefore reduce car journeys, it is recommended that the cycle parking provision is contained within a securable, roofed building. The building should be lit and secured during operating hours.
- 20.10 Further information about the parking of both motorised vehicles and bicycles can be found in Section 2 paragraphs 46. For lighting of the same see Section 2 paragraphs 48.
- 20.11 Where terrorism measures are being considered there should be sufficient 'stand-off' provision from the perimeter of the building; for vehicles the recommended distance is a minimum of 30m.

## External security issues

### 21 Landscaping

- 21.1 The planting of trees and shrubs in new developments to create attractive commercial environments will be supported and is encouraged providing:
- The layout allows sufficient space to accommodate the planting.
  - Future maintenance requirements are adequately considered at the design stage and management programmes are put in place to ensure that the maintenance will be properly carried out.
  - The planting design takes full account of opportunities for crime
- 21.2 The selected use of plants such as spiny or thorny shrubs can help prevent graffiti, casual approaches to the external face of the building, loitering and create or enhance perimeter security. Defensive planting is not just about prickly shrubs. It is about selecting the right type of plant for the right aspect and environment. For example, open branched and columnar trees can be used in a landscape scheme where natural and formal surveillance is required. Climbing plants can be used to cover walls that may be used as canvases for graffiti and carefully selected trees and shrubs can be used to "green up" the most hostile of environments providing both



horizontal and vertical interest without adding to crime risks.

- 21.3 Planting should not impede the opportunity for natural surveillance and must avoid the creation of potential hiding places. Although plant growth above 1m and below 2m should be absent to provide a window of surveillance, this does not preclude the use of hedging plants and feature shrubs and trees, providing surveillance opportunity is maintained. Plant growth below 500mm will be required in respect to car parks to deter vehicle interference.
- 21.4 The planting of new trees should be considered in tandem with the installation and the operational requirement of any specified CCTV system. Likewise, locate new trees so that they do not reduce directed light from lamps or provide climbing aids over boundaries or onto buildings.
- 21.5 Species selection of trees and shrubs should take account of their future maintenance, as poor maintenance can impact on site security. Mature, slow growing plants, although often more expensive to purchase from the outset, are normally much less expensive to maintain in the long term. It is recommended that a landscape architect is consulted about these matters.

## 22 External furniture and litterbins

- 22.1 External furniture such as benches and

planters should be of robust vandal and graffiti resistant design. Furniture should be fixed into the ground in order to prevent its theft and reduce the possibility of it being used for climbing or as a tool to break through the shell of the building. External furniture should not be located at or close to a building line where it can be used to climb onto roofs and nor should it be located against boundary fences.

- 22.2 Litterbins can also be used to assist climbing and the contents used to start fires. It is preferable that the bins are of a type that can be locked onto a fixed base and that they are located away from the buildings. Under no circumstances must litterbins be wall mounted beneath windows or on walls covered in combustible material.
- 22.3 Building or commercial activities where terrorism is a threat, the use and positioning of litter bins should be carefully considered so as not to provide for the placement of an improvised explosive device which may compromise public safety or building security.

## 23 Natural surveillance and recessed doorways

- 23.1 For new buildings it is important to avoid the creation of areas and building features (such as recesses) that cannot be overlooked from another occupied building or room. Recessed doorways can obstruct surveillance and also



collect windblown litter that can be used to start fires. Designing in an unobservable recess and then providing CCTV surveillance of the recess is not a sustainable solution (See Section 2 paragraph 56.10 to 56.12).

- 23.2 Where a recessed doorway is unavoidable because of site constraints, e.g. where an emergency exit door opens onto an 'out-of-site' fire path and has to be recessed due to the safety of those using the path, it would be prudent in this specific scenario to use a secure doorset (refer to Section 2 para.56 for appropriate standard) with emergency exit hardware and in-built secure vision panel. The secure doorset would resist most forms of attack and the vision panel would allow the recess to be checked for obstructions before opening the door (See Section 2 paragraph 58.5).

## 24 Temporary buildings

- 24.1 Temporary buildings, such as portable buildings, are notoriously difficult to secure due to their construction and the fact that they are outside the secure envelope of the permanent building structures. The voids under many of these buildings must be secured to prevent litter collecting underneath, which may be used to start a fire.
- 24.2 Temporary buildings should not be used for the storage of high value equipment such as computers and cash unless the building is security rated (Note 24.2).

All such buildings should be included within the main building's intruder alarm system. If practical and possible, additional temporary buildings when required should be linked to each other to form one larger continuous building, thus avoiding the creation of blind spots in between the buildings. It is expected that the use of non security rated temporary buildings will be discontinued as soon as possible after the main building has been enlarged (or possibly rebuilt).

*Note 24.2: SBD is currently working with interested parties to develop temporary buildings certificated to the Loss Prevention Certification Board's standard LPS 1175 Security Rating 2. Once such buildings become available they will be referenced within this guide*

- 24.3 Portable buildings should be constructed of non-combustible materials.
- 24.4 The location of temporary buildings must be discussed with the local fire authority to ensure that the spread of fire to other buildings is minimised and that the fire service's access is not hampered.
- ## 25 Wind turbines and photovoltaic installations
- 25.1 Consideration must be given to protecting wind turbines, photovoltaic installations (PVs) and biomass boilers from vandalism through the use of

access control, appropriate fencing and the removal of any climbing facility that may aid access.

- 25.2 PV panels are susceptible to criminal damage from thrown missiles and are likely to be the subject of theft as their installation becomes more commonplace. Therefore PVs should be located on roofs that are difficult to access, other than by legitimate means, and should be secured onto the roof with theft resistant fastenings. Landscape design should never include the use of loose pebbles for obvious reasons.

## Storage Facilities

### 26 Equipment storage

- 26.1 Plant and material should be protected from theft and criminal damage and stored within the main building when possible, otherwise external storage in a secure, roofed compound will be required. CCTV coverage may also be required if the value/nature of the stored items suggests heightened crime risk.

### 27 External waste storage

- 27.1 Waste containers, particularly those with wheels, can be used for climbing and the contents used to start fires. Therefore, consideration should be given to using waste containers with lockable lids. Additionally they should be kept inside a secure, externally accessed store in the main building or in a secure, roofed compound located well away from the buildings. Advice in respect to safe stand off distances, fire and smoke detection devices and fire sprinkler systems should be sought from the appropriate fire authority. In general, combustible materials should not be stored within 10 metres of the outside of a building (*See Section 2 paragraph 70*).
- 27.2 Adequate secure provision (as above) for temporary storage of materials to be recycled should be included.

- 27.3 Bin stores for kitchen waste (very large business operations) should be located in a similar way to paragraph 27.1 above, although it is accepted that for convenience during business hours the bin(s) may be kept outside and close to the kitchen areas.

### 28 Fuel storage

- 28.1 Fuel, such as central heating oil and cans of fuel used for grounds maintenance and plant machinery should be stored in a secured building located well away from the main building. Where there is insufficient space and the fuel has to be stored inside the main building advice should be sought from the appropriate fire authority as in paragraph 27.1 above. It may also be desirable to store biomass fuel close to the boiler plant in which case the appropriate fire authority should be consulted.

### 29 Cleaning equipment storage

- 29.1 A secure store, or stores, inside the building must be provided for the safe storage of cleaning equipment and cleaning fluids, given that many of these will be flammable and possibly toxic. Advice should be sought from the appropriate fire authority as in paragraph 27.1 above.

## Utility services and mail delivery

### 30 Telecommunications access covers, ducting and utility meters

- 30.1 Utility access covers, protecting access to drains, sewers, telephone cables, electricity cables and other services, must be secured to prevent access and damage by unauthorised persons (*Section 2 paragraph 47 for recognised standards*).
- 30.2 The ultimate security of the development and business continuity may be reliant upon the intruder or fire alarm's ability



to signal to an alarm receiving centre via a secure telephone line. It is therefore highly important to provide sufficient secure ducting into the site with an appropriate number of secure access covers. It may also be necessary to provide enough additional capacity to cater for speculative developments.

- 30.3 Utility meters must be sited in a secure building, such as a plant room, and where possible should allow for meter reading without having to enter the main building. Alternatively, instructions should be given to utility providers to carry out their readings during hours of occupancy or by prior appointment, so that access can be arranged without unnecessary disruption or security risk. Smart meters that automatically send readings along a data line or can otherwise be read remotely are encouraged.



## 31 Mail delivery arrangements

- 31.1 For the majority of commercial buildings it is expected that mail delivery will take place during business hours and that the mail will be handed in at reception. For out of hours deliveries please refer to Section 2 paragraphs 63 for standards for various methods of mail delivery.

## Building Shell

## 32 Windowless building elevations

- 32.1 A common feature of many industrial units and warehouses are long runs of elevations that have no windows for potential observation over the site. This arrangement is commonly found along the side and rear elevations of a unit. These same elevations will usually have at least one, windowless emergency exit doorway (often recessed) which can present opportunities for crimes such as graffiti, burglary and arson and also inappropriate loitering (See Section 1 paragraphs 23.1 and 23.2).
- 32.2 It is clearly sensible to keep unauthorised persons away from such building elevations. The way this is achieved will be different from one site to another and will depend to a large extent on the number and size of individual units and their orientation to each other. Common problems and potential solutions are discussed below:
- 32.2.1 Where units are separated by pathways designed for emergency exit from the doorways on the side and rear elevations it is important to place gates at the entrances to these pathways level with the front building line. During times when the building is occupied it must be possible to exit through these gates without the use of a key (See Section 2 paragraphs 44.2 and 44.3 for standards).
- 32.2.2 Where a unit's blank building elevation is next to a footpath or road to which the public have access create a 1m or greater separation between the footpath/road and the building using a 1.8m fence. A welded mesh or



expanded metal fence would be useful in this setting to maintain surveillance over the wall from the footpath or road. It is possible to use a 'defensive' hedge, such as hawthorn instead although the new hedge will have to be supported by the aforementioned fence until maturity and periodically maintained to control its height and spread.

32.2.3 Where there is insufficient space for a buffer zone and there is public access to the elevation then the wall structure and the standard for the doorset together with the use of CCTV will have to be discussed and agreed with the CPDA.

32.2.4 The provision of windows above ground floor level can provide surveillance over publicly accessible areas, but it is recognised that this may be impractical. Likewise the absence of windows on the ground floor elevations may be a security advantage in some circumstances as these would otherwise have to be protected to prevent burglary.

### **33 Automatic opening window systems and vents**

33.1 Many sustainable industrial and warehouse buildings being proposed require an automatic building management control system in order to ventilate the building and regulate the temperature, including at night to pre-cool the building during hot weather. This can cause security problems and the following issues may need to be addressed:

33.1.1 Automatic opening window systems, vents and pressure relief panels that operate when the building is unoccupied should be designed in such a way that they do not pose a security risk.

33.1.2 Care should be taken to ensure that any bars or grilles that are used to secure a building aperture associated with one of the mechanisms in 33.1.1 do not interfere with their operation.

33.1.3 The fitting of grilles to protect the building apertures associated with one of the mechanisms in 33.1.1 may affect the airflow requirements and advice should be sought from the relevant experts.

33.1.4 It is recommended that an automatic opening window or vent system incorporates a fail safe mechanism to notify building management that a window or vent has failed to close.

### **34 Walls – facades, apertures and graffiti**

34.1 Facades of buildings should minimise the opportunity for hiding and climbing up to windows or onto roofs. An unobstructed building line should be used to provide enhanced protection to the perimeter space as accessible ledges, parapets, indentations and protrusions may provide means of assisting unlawful entry.

34.2 The potential for unauthorised entry by misuse of facilities for essential services i.e. goods lifts, fuel delivery points or

ventilation ducts should be considered. Where possible such services should be concealed and/or located in locked compartments. Grilles, air ventilation apertures and shutters should be fitted so that they cannot be removed to permit unauthorised access. Reinforced mounting and fixing points for internal and external grilles, shutters and shutter roller boxes may be necessary as part of the building structure.

- 34.3 As graffiti tends to attract further graffiti, police will always advise that it is removed as soon as possible. Designers should therefore consider wall finishes that make this task easier to perform, particularly when the risk of graffiti is high. Surfaces should be coated with either an anti-graffiti glaze or sacrificial coating, or alternatively be designed for ease of maintenance e.g. painted in the event of a graffiti attack. Alternative measures for reducing or eradicating graffiti may also be considered such as growing an appropriate non-invasive climbing plant up the wall.

## **35 Roof design and access and aids to climbing**

- 35.1 Preventing easy access to roofs should be considered at the design stage of the building. External rainwater pipes can be used for climbing and should be either square or rectangular in section, flush fitted against the wall or contained within a wall cavity or covered recess. Bends in pipes and horizontal runs should be minimized. They should be of fire resistant material. Physical barriers should be used to prevent access to an existing roof.
- 35.2 Flat roofs, particularly those at a low level, may be more easily accessed and depending on materials may be more vulnerable to intrusion either by cutting through the deck or forcing open roof lights and other openings (*See Section 2 paragraphs 54 for roof construction and paragraphs 55.1 to 55.3 for roof lights security standards*) (*Note 35.2*).

*Note 35.2: Attention is drawn to*

*relevant legislation (including the Occupier's Liability Act) concerning the responsibilities and liabilities of building owners / occupiers for the safe use of roof areas and relevant signage.*

- 35.3 Designers should take care not to inadvertently create climbing aids to upper windows and flat roofs via structures such as boundary walls, external buildings handrails and external staircases. It is hoped that external staircases for new industrial units and warehouses will be avoided.

## **Internal layout issues**

### **36 Entrances into the building**

#### **Main public/visitor entrance**

- 36.1 Unless a commercial development is specifically intended to allow large numbers of the public into the building/s, public access to commercial units should be restricted to one main public/visitor entrance into the building. For industrial and high risk premises, the entrance should be electronically access controlled from a reception desk or office. Audio and or visual link back to the reception will be determined by local crime risks.
- 36.2 The space on the outside and inside of the entrance doors should be well illuminated during dark hours.
- 36.3 Reception staff should have a clear view of the approaches to the entrance. If the lighting levels directly outside the building reception are too low after dark, a reflection of the reception area will be seen on the inside of the glazing, which will hamper the receptionist's ability to look outside the building. It is therefore important that levels of illumination both inside and outside of the reception area are well balanced to avoid this inconvenience.
- 36.4 Where a separate automatically opening door is deemed more desirable for disabled access, the door opening system should be operated utilising



suitably located vandal resistant proximity reader (See Section 2 paragraphs 61).

- 36.5 In some circumstances it may be appropriate to use an ‘airlock’ door system whereby two sets of automatic doors are used, the first opening upon the detection of a visitor and the second set, either opening upon closure of the first, or controlled from the reception desk. This can be combined with a draft lobby/unheated transition space for energy conservation.

### Staff or additional entrances

- 36.6 There may be instances, especially with multiple buildings, where further entrance doors will be required for the convenient movement of staff. The crime opportunity risks that this arrangement might create will be minimised if access onto the site beyond the entrance forecourt and car park is restricted.
- 36.7 Electric door lock solutions for these additional external doorsets are available, which can be operated in numerous ways. Such operations might include the use of card swipes and proximity read fobs. Such arrangements should not prevent people from exiting the buildings in the event of emergency (See Section 2 paragraphs 61).
- 36.8 Some businesses use ID cards that incorporate a metallic strip or chip that provides them with access through selected doors. An integrated access

control system installed throughout the building using vandal resistant proximity readers (the SBD preferred technology) can also help to maintain a record of attendance and where necessary can selectively bar access to certain areas of the building or bar ex staff members who have ceased to be employed by the company. Biometric access control and voice recognition systems are also now available, which can be used in conjunction with other forms of access control into sensitive areas of the building. It is recommended that these various forms of access control are not used in isolation and should be discussed with the CPDA at the earliest opportunity.

- 36.9 Doorsets that are fitted with electric locks or electric release staples must form part of the manufacturer’s certificated range of doorsets. (See Section 2 paragraphs 56 and 61.3 and 61.4)

### 37 Reception area and visitor control

- 37.1 For business operations expecting large numbers of visitors it is recommended that the reception is staffed or supervised at all times. Access beyond the reception area should be controlled using automatic locking doors or barriers controlled by the receptionist or by proximity reader technology with fobs/ID cards issued to staff. Such doors or barriers must allow emergency exit and be integrated into the fire/

smoke alarm system for automatic release in an emergency when the building is occupied, however when the building is unoccupied the doors or barriers should fail safe i.e. secure (the relevant fire authority should be consulted on this arrangement).

- 37.2 Reception desks should provide the receptionist with a clear view of the waiting area, the approach to the entrance door and have restricted access from the public side.
- 37.3 Reception desks should be high and deep enough to afford protection for the receptionist, but the design should consider the needs of a wheelchair user. The floor level behind the reception desk can be raised if deemed appropriate.
- 37.6 Where the nature of the business or local crime problems result in higher risks of assault to reception staff, an escape route to a place of safety, such as an office located behind the reception area, should be provided. A 'slam to lock' door between the reception desk and the place of safety should include a door viewer or secure vision panel to allow a view of the reception area from the place of safety. (See Section 2 paragraph 58.5 for secure vision panels)
- 37.7 Where the risks of assault are high an audible personal attack alarm should be located at the reception desk so that the receptionist can use it to summon assistance from trained staff if confronted by an aggressive visitor. Consideration should be given to an additional alarm sounder located in nearby offices where other members of staff can be alerted. In some areas, where this type of incident is not uncommon, automatic response to this type of alarm by the police or contracted security service may be necessary. Staff training in the use of this deliberately-operated device will be required. False activations may result in limited provision or complete withdrawal of police response. (See Section 2 paragraphs 64)



### 38 Internal doorsets

- 38.1 As a general rule all internal doorsets should be fitted with locking furniture so that they can be locked when the room is left unoccupied. Very large buildings may incorporate electronic access control systems to all or most of the internal doorsets.
- 38.2 Rooms storing high risk/value equipment, such as IT servers, and materials or security systems/utilities services will require more robust doorsets and locking systems. Early discussions with the occupier of the building may also indicate the level of access control required for each room and floor and possibly the lifts. (See also Section 2 Paragraph 66)



## Security lighting

### 39 External lighting

- 39.1 The need for lighting will be determined by local circumstances. For example, in an inner city environment the lighting of a footpath is generally only effective in reducing crime levels if it is matched with a high degree of natural surveillance from surrounding buildings, where reaction to an identified incident can be expected. The lighting of an underused footpath may give the user a false sense of security and should be avoided. If there is a history of crime along an existing footpath, or where the additional connectivity due to the development could attract criminal or anti-social behaviour, consideration should be given to closing the path at night rather than lighting it. It is accepted that this would only be an option in exceptional circumstances.
- 39.2 In terms of security, the objective of lighting commercial units after dark is to deter or detect an intruder (*See Section 2 paragraphs 48 for standards and values*).
- 39.3 Lighting design should be co-ordinated with a CCTV installation (when specified) and the landscape designed to avoid any conflicts and to ensure that the lighting is sufficient to support a CCTV system. Light fittings should be protected where vulnerable to vandalism.
- 39.4 A lighting scheme should provide uniformed lighting levels with good colour rendition and be sufficient to cater for lawful after dark activity around the industrial or warehouse unit and site. It should not cause glare or light pollution and should support both formal and informal surveillance of the site.
- 39.5 External illumination when the building is unoccupied is recommended for entrance gates and routes to the main entrance and doors, car parks (if occupied by vehicles) and observable building elevations.
- 39.6 In some circumstances, and especially where security guards are monitoring the building from outside, it may be useful to direct lighting at the building to aid intruder detection.
- 39.7 The use of bollard lights may be useful for way finding, however bollard lights fail to properly model the facial features of pedestrians and are vulnerable to vandalism and vehicle collision. Therefore, their use for security purposes is discouraged.

### 40 Internal lighting

- 40.1 It is recommended that most internal office lighting is operated by detection devices which will automatically switch lights on and off due to movement activity or the lack of it in each room. Apart from being a considerably more efficient method for reducing energy consumption (does not require a

deliberate and remembered action by the user) such a system will identify the presence and progress of intruders in the building when it is closed. It therefore follows that the controlling mechanisms for the system should be contained securely.

- 40.2 In critical movement areas, such as corridors and staircases, the use of two stage lighting (a constant low level lighting level supplemented by activity switched lighting mode) may be utilised. This provides both safety and security.



## **SECTION 2:** PHYSICAL SECURITY – SPECIFICATIONS