

# London Borough of Richmond upon Thames

## **SECURITY BY DESIGN**

### **Introduction**

This document is issued as Supplementary Planning Guidance to the statutory London Borough of Richmond upon Thames Unitary Development Plan. It sets out the requirements for design and layout to those proposing new development in the Borough and also contains advice of relevance to owners and occupiers of existing development seeking to introduce crime reduction measures.

This document is divided into four sections. Firstly there is an outline of the policy background, followed by a brief discussion of the environmental factors that can play a part in the level of anti-social behaviour and the fear of crime. The main sections that follow give detailed advice on the elements to be achieved in layout and design in order to maximise security.

### **Policy Background**

Local planning authorities are required to promote good design in new housing developments in order to create attractive, high quality environments in which people will choose to live. This document takes account of Government advice contained in Circular 5/94 "Planning out Crime" and in various Planning Policy Guidance Notes (PPGs). It also complements other Council initiatives as set out in the UDP, and the "Community Safety Strategy", as well as initial proposals for the Mayor of London's strategies and the Police "Secured by Design" principles.

"Used sensitively the planning system can be instrumental in producing attractive and well managed environments that can influence the level of criminal activity and anti-social behaviour."

#### **CRIME AND FEAR OF CRIME**

The 2001 British Crime Survey (BCS) estimates that 12.9 million crimes were committed in 2000. Although the percentage of the population who were victims of crime fell from 39% in 1995 to 27% in 2000, perceptions of risk are still high. Most crime is against property and committed by the "opportunist". That opportunity can be drastically reduced by good design, lighting and better security. Design factors alone do not cause crime, but a badly designed environment can certainly make crimes easier to commit.

Crime is made easy to commit and difficult to prevent due to anonymity, lack of surveillance, and the presence of alternative escape routes. Measures to create a safer environment need to tackle all of these factors.

### **DESIGN ELEMENTS**

The earlier crime prevention measures can be introduced into the design process, the better the end result is likely to be. Research suggests that the layout of housing estates, or other building complexes, can have a marked effect on the levels of crime. However, ensuring a safe environment does not have to mean creating one that is dull and monotonous. The London Borough of Richmond upon Thames Council (LBRuT) is trying to strike a balance so that the character of the Borough will be retained and enhanced, whilst at the same time making it a safer place to live and work. New development will be assessed against general principles for the creation of safe environments.

When considering development proposals the Council will seek measures that provide a high quality and safe environment. There are three important elements, which need to be achieved in layout and design to maximise security. These are: **defensible space**, **natural surveillance** and **secure buildings**. A successful design will combine all three elements to create safe buildings with enough mutual surveillance to provide significant social control. Both public and private areas should have clear boundaries or zones. This creates areas of **defensible space** in which crimes are more difficult to commit. Spaces should also be well defined as to their intended use. Small leftover spaces with no obvious use or boundaries and no surveillance from surrounding properties often attract anti-social behaviour and can increase the risk and incidence of criminal activity.

Good estate design encourages a feeling of territoriality amongst residents, by providing an environment where they feel that they have an influence on the area immediately adjoining their home. They know each other, respect each other's person and property, and exercise a measure of responsibility for their own and each other's children and property. Because they can readily identify those who belong to their community, they have little difficulty in recognising strangers. Collectively they are alert to the intrusion of criminal or anti-social behaviour, which they are ready to challenge, as members of a community.

Crimes are less likely to be committed against people and property when an area can be seen from the surrounding properties, or other natural vantage points. This creates **natural surveillance**. Alternatively, if a space has a large number of people either using or passing through it, then natural surveillance will be at a high level.

Careful housing and boundary design, creating **secure buildings** is also very important. While some housing

design features can increase the risk of burglary, thoughtful design can reduce opportunities for crime.

## **Defensible Space**

The way members of communities exercise control over their environment and interact with one another is related to defensible space and territoriality. Clearly defined boundaries around medium depth, front gardens (provided there is no cover such as mature foliage) are one example of defensible space. Symbolic barriers can help to achieve a feeling of territoriality, for example, a change of road surface, in either texture or colour. Devices such as brick piers and narrowed entrances can define areas in such a way as to give the impression that a particular area is private to a particular household or a small community. These visual impediments imply a boundary past which many intruders will be reluctant to step.

In public spaces, everyone has a right to be there, and wrongdoers become indistinguishable from legitimate users. In an area criss-crossed by alleyways, public footpaths and through roads used by non-residents, there will be an increased risk of crime. Strangers cannot be easily identified, and any would-be burglar would have a ready excuse of "passing through" if challenged by a householder. Reducing the number of people using each access point therefore reduces anonymity, increases territoriality, and thus makes space more defensible.

It is easier to ignore anti-social behaviour in public areas over which individuals have little control than in more private areas. Housing developments should include features, which infer and encourage ownership and control by the occupants. This does not however include high front walls and gated developments, which create inappropriately hostile, impermeable environments and obscure visibility. Such "gating" results in a loss of the presence of and mutual informal surveillance by neighbours and passers-by that controls potential anti-social behaviour.

Restricted entry into multiple occupancy buildings, such as blocks of flats, through an entry phone system also increases security. Multiple entrances, inter-accessible lifts and staircases offer alternative routes for a criminal to escape and should be kept to a minimum.

## **Natural Surveillance**

By utilising the natural observation of occupants, pedestrians, passing cyclists and motorists it is possible to create an environment in which a potential criminal would feel too exposed and uncomfortable. Such natural surveillance has a deterrent effect upon antisocial and criminal behaviour.

Householders feel safer and more in control of their territory if they command a clear view of its approaches. A variety of design solutions can be adopted to maximise natural surveillance whilst maintaining adequate privacy. These include the careful siting of dwellings, ensuring entrances to dwellings are visible from the street, providing unobstructed views of homes, footpaths, play areas, parking etc

Particular land uses may be more vulnerable to criminal activity than others. For example, large areas of intense office development create lifeless spaces in the evenings and at weekends, unless located amongst different types of use, such as cultural or entertainment uses. **Areas of mixed land use**, such as housing or shopping centres, are known to result in lower crime rates than areas where single uses predominate, because of natural surveillance and the regular circulation of people. Increasing the amount and times of occupation increases the potential for observation and will have mutual benefits in terms of safety and security for both residential and non-residential uses provided that the public and private areas are clearly defined. A variety of dwelling types and sizes, including those that are likely to be occupied during the working day, such as those suitable for young families or retired people, will ensure a mix of residents and increase the likelihood of natural surveillance throughout the day. The emphasis on mixed-use development should not however compromise the status of residential areas close to centres or result in the inappropriate loss of employment land.

### **LANDSCAPING**

Careful landscaping can also enhance natural surveillance. Trees and shrubbery are often an essential part of an attractive environment, but if too dense, or thoughtlessly laid out, they can provide potential hiding place for the thief or attacker. Thorny shrubs can act as a barrier to the casual trespasser. Screening of parking and bin areas is usually desirable in visual terms, but if these areas are completely concealed they can provide opportunities for the would-be vandal or thief. Where landscaping borders footways, maintenance needs to be regular and lighting should not be obscured. Similarly, fencing should not produce shadows or blind spots nor prevent natural surveillance.

### **LAYOUT**

Research has shown that the layout of housing estates, or other building complexes, has a marked effect on levels of crime. Good design can maximise surveillance from buildings through layout and position of windows. Many windows facing the street provide continual natural surveillance over the area. Unsecured rear gardens that back onto footpaths, common, or waste-land should be avoided. A dwelling layout and its boundaries should form a secure private area between the front building line and the rear and side boundaries, which it is difficult to penetrate unobserved. It would be desirable to close or gate existing rear alleys as these are a significant factor in

burglary and other related crimes. Road layouts and footpaths and cycle networks should encourage an appropriate level and flow of pedestrian traffic through a development while ensuring that traffic speeds are sufficiently low to encourage effective observation from passers-by.

Layout and design should also take into account adjoining sites and in particular ensure that the same principles to minimise opportunities for crime are applied.

### **CAR PARKING**

Residential car parking spaces should ideally be wholly visible and overlooked where possible. Car parking spaces inside the house plot are preferable to communal areas remote from it. In communal schemes it is often possible to design in security by arranging for parking areas to be overlooked by at least some living room windows, providing that this is not so close that it causes a nuisance through noise, or threatens privacy. Screening which is too dense and complete, can create problems of vehicle theft and vandalism, as well as threats to individual safety. Garage units should be located as close as possible to the residents they serve.

In underground and multi-story car parks, which are usually public, lighting, access and other security measures should be considered at design stage, since it is important to assist natural surveillance.

### **SAFE ROUTES**

The creation of underused and lonely movement routes should be avoided. Safe routes should be laid out between locally strategic points, for example between housing areas, communal open space, shops, parks and play areas, bus stops and railway stations. Clear and direct routes through an area for all forms of movement are desirable, but should not undermine the defensible space of the neighbourhood through which it passes. Routes should be overlooked, as should the areas themselves. Intensive landscaping of play areas should be avoided, enabling parents to supervise from a fair distance, especially from home. In shopping areas entrances should be well lit, avoiding the creation of shadows in doorways. Automatic cash dispenser machines should front onto a main route so that users are not isolated.

**Paths and cycle tracks** between high walls should be avoided. Paths should be straight, without recesses (which can form potential hiding places) and with visibility at both ends. Well designed lighting is very important, as extensive areas of shadow should be avoided. Rear access to housing via these types of alley can provide access and escape routes for burglars. It is important that larger paths and alleys should be clearly signposted to indicate where they lead to. Non-essential footpaths, which can provide unobserved access or escape routes, should be avoided.

## **SEGREGATION**

Pedestrian and vehicular segregation is often used as a solution to traffic conflicts. It should not be forgotten that the subways, footbridges and pedestrianised areas which resolve traffic conflicts, can sometimes create problems of their own for pedestrians, as they can bring about feelings of isolation and vulnerability. Such measures should only be implemented if carefully designed with security in mind.

## **LIGHTING**

All routes and public spaces, including car parks, bus stops, paths, subways, porches and entrances, signs, and expanses of landscaping or dense planting should also be well and evenly lit. The type of lighting, including brightness, position and height, should be carefully considered at an early stage of the design process. Planning Policy Guidance Note 15: Planning and the Historic Environment (PPG15) suggests that "high pressure sodium lamps (with well controlled light spillage) may be preferable in environmentally sensitive areas" including Conservation Areas (paragraph 5.17). In potential trouble spots a uniform amount of lighting is necessary, so that dark areas are not created between light sources. In the more public and lively places, spot lighting is acceptable, the appearance of which can improve the visual quality of the space, thus attracting more people to it, but care should still be taken to avoid dark areas. Lighting should not light roads alone, casting shadows onto footpaths, but need to be positioned so as to aid the pedestrian. Although it is important to avoid pools of darkness, care should be taken to ensure the impacts of light spillage or light pollution is kept to a minimum. In particular, it should not detract from the street scene, cause a problem for residents or have a harmful effect on the character of the Borough. All lighting should be well maintained and resistant to vandalism,

## **Secure Buildings**

Security measures should be an integral part of crime prevention though care needs to be taken not to create a hostile environment. Poor design of details and boundaries can increase the risk of burglary. Particular care should be taken in relation to the following:-

**Flat roofed porches and extensions** can provide platforms from which access can be gained to windows. Where they are necessary; care should be taken to ensure the security of adjacent access points to buildings.

**Poorly positioned ledges and downpipes** can serve as an easy access way into buildings and upper floor windows. Skylights are often removable, and should be avoided where they could provide access. Louvred windows, in particular, can pose a security risk.

**Blank walls** adjacent to public spaces and rights of way can create "dead zones" which facilitate anti social behaviour.

**Car parking and street furniture** too close to walls can also provide potential access to buildings.

**Corridors** right through the ground floor of a building should be avoided, as they encourage non-residents to walk through, and subsequently reduce defensible space. **Windows and doors** should be strong enough for their position and function, while retaining appropriate and attractive design elements.

**Ancillary features** such as bins, bunkers, boundary walls and balconies can provide possible access points above ground level. Care should be taken in their design and siting.

### **LISTED BUILDINGS**

The theft of architectural features from listed buildings often by specialist gangs, is usually though not exclusively, from vacant buildings. Owners of Listed Buildings can help by keeping a photographic record of all internal architectural features, for example, fireplaces, panelling, balustrading and stained glass, and external features, such as garden ornaments. Special precautions, possibly twenty four hour security, may be the only answer during the vulnerable period when a listed building, containing valuable features, is being altered or restored or is temporarily vacant for any reason.

Theft should be reported to the local Police Station.

### **OTHER MEASURES**

The use of other measures, not specifically design related, can be employed to complement safe design features. For example, in crime trouble spots where public surveillance is not possible or 24 hour surveillance is necessary, the use of Closed Circuit Television (CCTV) may be appropriate. However, it should be part of an integrated package of security measures and not **be** regarded as a universal solution to crime prevention.

### **ADVICE**

Advice on SECURITY BY DESIGN can be obtained from the Council's Environmental Protection Department, Development Control staff, during the process of negotiation, when planning permission is being sought.

For further advice on appropriate fittings and design considerations for personal safety and security, you are advised to contact the POLICE CRIME PREVENTION OFFICER/CRIME PREVENTION DESIGN ADVISER responsible for the London Borough of Richmond upon Thames, Tel. 020 8247 5872.

## **Summary Design Checklist**

- **Facing windows**/**Front windows** look out across communal areas including streets, children's play areas and open space to create a system of natural surveillance.

- **Car parking** is located within view of the buildings it serves.
- **Landscaping and vegetation**, porches, garages and walls to the front of buildings do not provide cover or obscure opportunities for observation.
- **Building entrances** face the street where surveillance from passing traffic is encouraged.
- **Footpaths** are well defined, broad with no opportunities for concealment and provide direct routes to encourage use and increase potential surveillance.
- **Unprotected and secluded** areas between and behind buildings are avoided.
- **High fences** at the side and rear boundaries of individual house and building plots are provided with full-height fencing or walls.
- **Back alleyways and gates** are avoided. Side-by-side and back-to-back gardens are the most satisfactory arrangement.
- **Front gardens** **have** a front buffer zone with a gate between the front of the building or house and public access areas.
- **The number of road and pedestrian routes is limited.** It is an advantage to reduce the amount of road and pedestrian access points to an area to avoid the creation of lonely movement routes, avoid increasing the opportunity for anonymity and creating a series of alternative escape routes for wrongdoers.
- **Layouts avoid the use of culs-de-sac**, which limit the generation of sufficient **passing traffic** to facilitate effective surveillance.
- **Building design features** (windows, doors, porches, etc) deter criminal activity.