

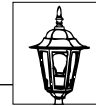


SAFETY AND SECURITY

June 1997

PLANNING, TRANSPORT & DEVELOPMENT SERVICES

BRISTOL LOCAL PLAN
POLICY ADVICE NOTE 14



CONTENTS	page
Introduction	2
Layout	4
Housing	5
Footpaths	8
Landscaping and Planting	10
Lighting	12
Parking Areas	13
Commercial and Public Buildings	15
Public Transport Facilities	16
Play Areas and Miscellaneous	18



SAFETY AND SECURITY ADVICE NOTE

INTRODUCTION

The aim of this Advice Note is to produce a list of criteria which should be applied to the design of new developments in order to increase personal safety. This can be a material consideration in determining a planning application - see Circular 5/94. Layout is the most crucial aspect (including the relationship between public and private space) so this should be given primary consideration (see page 4). However many other factors need to be considered such as lighting, landscaping, parking and the advantages of mixed use. Policy B4 of the Bristol Local Plan is concerned with safety and security and pages 17-18 of the Residential Guidelines (PAN 1).

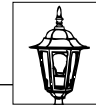
Physical space can have only a minor effect on human behaviour but badly designed space can increase the opportunity for crime and increase the fear of crime. This, in particular, is a major restriction on freedom of movement which leads to public places being less well used, creating a vicious circle. Surveys have repeatedly shown that many people, particularly women, fear crime to such an extent that they feel unable to go out, particularly at night. For example in January 1989 World in Action reported that 70% of women avoid going out after dark. Women are particularly vulnerable to fear of crime and to crime itself but other groups are also liable to be attacked or harassed and so share the same fears.

Elderly and disabled people are amongst these groups and, besides safety, accessibility is also of great importance to them. This Advice Note does not cover accessibility though it is emphasised that all new development should be accessible. Guidance on this can be found in PAN 11 "Creating an Accessible Environment". A further relevant document is "Pedestrian Policy for the Avon Area" produced by the Pedestrian, Cycling and Road Safety Team. Information on public rights of way can be obtained from this team. (Telephone 0117 987 4634)

To achieve a safe and secure environment the following principles should be promoted through the planning process:

- 1) a reduction in the opportunity for crime
- 2) natural surveillance
- 3) mixed use
- 4) ownership and a sense of community

Fears concerning the safety of property has lead to an increase in protection measures for potential criminal targets leading to the creation of a fortress environment. These take the form of heavy solid shutters, high walls or fences and CCTV surveillance. Closure of pedestrian and cycle routes can also result. These reinforcements may provide security for the building but they increase the risk for people: for example a wall may safeguard a building but may also hide an attacker. This fortress approach also has an adverse effect on the fear of crime. Protection measures such as these can lead people to assume they are in a high crime area and that their personal safety is at risk. They will alter their behaviour accordingly, eg. by staying at home or avoiding particular areas. Avoidance behaviour does not help the achievement of busy, well-used public places and can thus lead to a reduction in the possibility of intervention, witnesses and onlookers.



Mixed uses in an area (eg. restaurants, offices, shops, schools and houses) promotes activities around the clock so that the number of 'dead' times or 'dead' frontages are reduced. The more people there are around, the safer it feels and this encourages yet more people, creating the opposite of a vicious circle.

An urban environment that incorporates natural surveillance, mixed use, clear boundaries and appropriate landscaping can reduce the fear of crime and increase the possibility of self-policing. Equally there will be a decrease in opportunities for crime to occur.

The Design Process

Safety and security should be considered from the beginning of the design process and not as an afterthought.

The Directorate of Planning's Development Control staff should be consulted early on.

Similarly it is helpful to consult the Police's Architectural Liaison Officer at the beginning of the process.

In estate refurbishment schemes or other schemes where there are identified users it is important to consult residents, particularly in high-crime areas.

ADVICE AND FURTHER INFORMATION

If you would like further advice, please contact Planning, Transport and Development Services, preferably by writing or telephoning to make an appointment with a planning officer. An appointment will ensure that planning officers can make time to see you and maximises the benefit of your visit.

The address is ;

**Planning Reception,
Planning, Transport and Development Services,
Brunel House,
St Georges Road,
Bristol. BS1 SUY
Telephone: (0117) 922 3097**

For further information please contact:

**Police Architectural Liaison Officer
Avon & Somerset Constabulary,
Valley Road,
POBox 37,
Portishead. BS20 8QJ
Telephone: (01275) 816 948**



LAYOUT

Layout - Cul de sacs

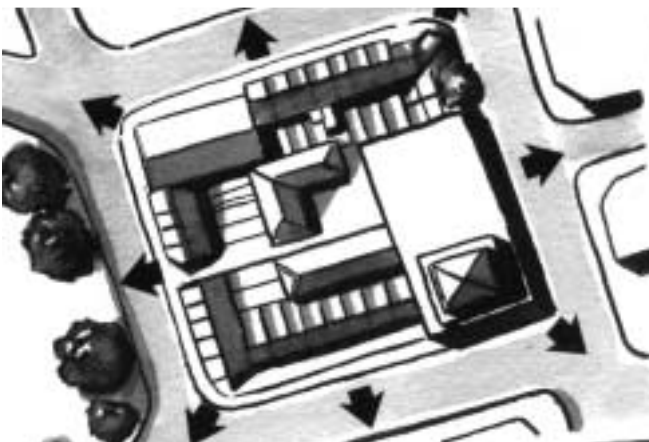
The popularity of the cul-de-sac as a means of improving residential security arises from the idea of “defensible space”. This is intended to help bring an environment under the control of its residents. Layouts are designed which establish well-defined and enclosed territories with limited access points. Semi-private courts and cul-de-sacs are examples of these. Through traffic is therefore restricted, fostering a sense of ownership and enabling residents to notice intruders or strangers.



However the security of the resident is achieved by the exclusion of the stranger. This has serious implications for the safety of people with no criminal intentions who are simply walking through the area. **Non-resident pedestrians have to walk round these areas instead of by a more direct route, and are often faced with blank perimeter walls or fences with few windows overlooking the area.** This means that pedestrians are given no sense of security and are more likely to travel by car if possible.

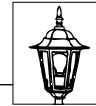
Layout - Integrated

This form of layout ensures that new developments have through roads integrated with the existing road pattern with traffic calming measures to reduce vehicle speed and volume. The result is open and permeable with development facing onto public streets. Here the idea is that strangers police space and residents police strangers. Feeling



safe in a city depends largely on areas being in continuous occupation and use so that the pedestrian never feels she is walking around alone. If the layout of an area is easily understood it is more likely to be fully used.

Whatever the layout it is important that the areas of public and private space are clearly defined. **Where houses face onto roads territoriality and natural surveillance enhance the safety and security of both residents and pedestrians.**



HOUSING

The following criteria apply specifically to the design of public and private space in an integrated housing layout; (see previous page).

- * A continuous building line with frequent entrances and windows provide the best opportunity for surveillance and for regular activity.
- * The front rooms of a building should allow good surveillance of the street while maintaining privacy. For example level changes can be used where front rooms are several feet above street level, although account must be taken in these cases of access for elderly and disabled people.
- * There should be a semi-private space between building and street but not so deep as to affect surveillance.
- * Bay windows provide better observation of the street than flush windows.
- * Private space at the rear should be entirely enclosed and inaccessible from the street with the exception of fire escape routes.

The following criteria apply to cul-de-sac developments which should only be used in particular conditions - small infill sites for example.

- * Avoid areas of uncertain ownership by clear separation of public and private space.
- * Rear gardens should interlock with no rear lanes. Access should be through house or bolted side gate at front building line.
- * **The street should be overlooked by habitable rooms with a buffer zone between paths and ground floor windows.**



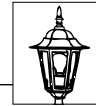


More about Housing

- * Mixed housing types can result in occupants varied in age, stage in life-cycle and family size enabling continuous natural surveillance throughout the day.



- * Logically and visibly numbered houses help strangers find their destination quickly.
- * Rear garden fences should be about 1.8m high but front garden fences or hedges should be lower to allow surveillance of street.
- * Front door, porches and garages should not obscure line of sight from windows.
- * Corner houses are preferable to end houses with windowless side walls. In corner houses the garden faces both streets.
- * Burglary is made easier by poor lighting, unmaintained landscaping and poor natural surveillance.
- * Flat roofed extensions should be avoided to prevent access to first floor and neighbouring property. Other unintended climbing aids such as trellis should be avoided close to buildings.



Improving Safety on Estates

Many large council estates have been subject to improvements with a view to reducing crime. In such cases a wide range of measures have been used and it has been found that a multi-level approach is more likely to be successful. For example, where high-rise developments are included, the safety of lifts for users needs particular consideration. Many schemes have attempted to develop defensible space on estates by such measures as the provision of front and rear gardens and reducing entry and escape points for criminals. The following are some examples:

- Phone entry systems
- Concierge systems
- Closed circuit television
- Police patrols/Community policing
- Improved lighting
- Alarms
- Vandal-proof glazing
- Anti-graffiti coating or community art such as murals
- Improvements to individual flats such as reinforced door frames and spy holes
- Zone-locking systems (restriction of access between interconnected blocks)
- including demolition of overhead walkways.

Further information:

[Safe Neighbourhoods Unit (SNU), 1st Floor, 16 Winchester Walk, London SE1 9AG - (0171) 403 6050
- have produced a range of publications on the above].



FOOTPATHS

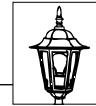
Avoid segregation of pedestrians and vehicles as far as possible. If speeds are kept low it can generate a sense of activity and vitality while allowing surveillance from the vehicle. In an integrated or permeable layout all public spaces are easily accessible by the pedestrian. A cul-de-sac type development often results in footpaths segregated from the road layout to prevent the pedestrian from having to take a long and circuitous route. This will not be under surveillance from motorists and may not be overlooked by houses either.

- * **Footpaths should follow existing desire lines. Blocking existing paths is inconvenient and dangerous if no alternative route exists.** Safety should also be considered when improving public rights of way.



If a separate footpath is unavoidable

- * Encourage use of the path by good signposting, landscaping and lighting.
- * Limit footpaths in number aiming solely to link the development with essential services thereby increasing activity on any particular footpath.
- * Where possible paths should be overlooked by occupied property. Open fencing or railings should separate the path from buildings so as not to obscure the view of the path.
- * Integrating cycleways with footpaths will increase use and therefore safety.



More about Footpaths

- * If the path is near trees or shrubs it should have a 2-3m strip of grass or low planting on either side to avoid proximity to potential hiding places.



- * Paths should have escape routes and not be hemmed in by walls, fences or bushes. Entries to them should be given space and prominence.
- * A path should not have “blind” corners or obstructed views. Boundary fencing and shrubs must be placed carefully to avoid this.
- * Subways should be avoided as they are too dangerous. Bridges should avoid a tunnel like appearance and there should be long views beyond the edge of the bridge or tunnel. Escape routes should be provided on either side of the bridge to enable confrontation to be avoided. Ideally pedestrian crossings at surface level are safest and should be pursued.
- * If it is essential to use the path at night, lighting should extend beyond its edges. If night time use is not essential then consider closing it. Avoid creating a false sense of security at night by lighting dangerous areas. Ensure alternative safe routes are available.
- * Ensure there is a visible alternative route back to a built area and design planted areas to avoid creating a barrier round the path.

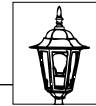


LANDSCAPING AND PLANTING

- * The safety of the pedestrian must always be a prime consideration in the design of landscape areas.
- * **Landscaping should avoid providing cover for potential attackers and obstructing the pedestrian's view.** This may require grading of plant height and density, and use of standard and larger standard trees.



- * Consideration should be given to the siting, care and type of plant as this will help ensure its survival, preventing the hostile environment created by vandalised or dying trees and shrubs.
- * Hard landscaping should be functional and vandal resistant as well as attractive.
- * Large raised planters are not advisable as the subsequent height of plants then restricts views.
- * The protection of landscape features depends on pedestrian desire lines being correctly identified before planting takes place. (See illustration page 9).

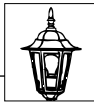


- * Communal landscaped areas often become “confused” space (See page 5) with uncertainty over responsibility for maintenance. Landscaped areas should have a defined use eg. park, play area, shelter belt and should be overlooked.

Planted areas should be well maintained, removing growth of overshadowing planting and preventing obstruction of pedestrian routes. Access to planted areas for litter removal should be considered from the beginning.



- * Ensure communal open spaces are overlooked by habitable rooms. Landscaping can create privacy of ground floor rooms while enabling surveillance from first floor.
- * Consider closure of isolated open areas at night (excluding public rights of way) if a better used alternative route exists. For this reason fencing and gating is beneficial.
- * The above points on landscaping and planting and also those on footpaths should all be considered in the design of public and private open space.

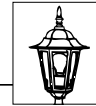


LIGHTING

- * Lighting priorities should be balanced so as to provide security for pedestrians as well as motorists.



- * All lighting installations should comply with British Standard 5489 (1992).
- * Path lighting should illuminate at face level so as to make identification easier at a distance.
- * High pressure sodium lighting should provide good light and colour rendition with an even distribution but correct spacing is also crucial.
- * Path lighting should avoid creating areas of shadow cast by trees and bushes so careful placing is necessary. Maintenance of planting is important too.
- * All lights should be controlled by individual electronic photoelectric cells (so that lights come on automatically when it gets dark).
- * High density floodlights should be avoided so that the pedestrian is not dazzled and areas of deep shadow are not created. They can also be regarded as a challenge by vandals.
- * All lighting equipment should be designed to be vandal-resistant.
- * Lighting bollards should not be the sole form of lighting as they are easily covered up.



PARKING AREAS

The design of parking areas need to reflect the type of vehicle catered for, ranging from bicycles through to heavy goods vehicles and coaches (not only cars) and should present a safe and welcoming environment to the user. Specific attention should be given to:

- * Avoid hiding parking facilities for aesthetic reasons which reduce visibility in the area. Landscaping, fencing etc should be positioned to avoid creating shadows and avoid hiding places for anti-social behaviour. Users can be helped by provision of clearly defined pedestrian routes within parking areas (using colour, texture etc) leading to safe routes to and from the entrance.
- * Multi-storey car parks are not ideal but the introduction of closed circuit television has improved them. Nevertheless they can provide hiding places for potential attackers. When multi-storey car parks are necessary high safety standards will be required. The national police initiative "Secured Car Parks" promoted by the Automobile Association is administered by the Architectural Liaison Officer (see page 3). This award raises the standard of safety within car parks and is worth considering during new build or refurbishment

Parking should be within the curtilage of a dwelling with parking space allocated to specific properties.

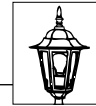


- * Where there is no alternative to the provision of communal off-street parking areas these should be in a small, overlooked, well lit groups not more than 40 metres from the relevant dwellings.



SAFETY AND SECURITY

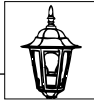
- * Lorry and coach parking areas should be encouraged to include safe facilities for passengers and drivers to obtain refreshments, freshen up and use telephones.
- * Bicycle and motor cycle parking should be signed, visible locations, not hidden away, with provision of strongly anchored stands/fixing points to which the vehicles can be secured.
- * CCTV and/or security patrols will be encouraged if the area cannot be secured from intruders and good visibility into parking areas should always be maintained.



COMMERCIAL AND PUBLIC BUILDINGS

- * Pedestrian access should be direct from the road to the front of the building. Staff should not be required to use a rear access.
- * Some parking should be close to and directly accessible from the main front entrance for cleaners or those working late. Parking for disabled people and cyclists should also be close by.
- * Public buildings, including schools, should be located close to public transport facilities.
- * Buildings should be orientated to allow views into the site. This makes those unoccupied at night visible to passers-by.
- * Achieve shop front security without blocking views into shops. This enables light to spill out and intruders to be observed. The same principle also applies to offices.
- * **Flats above shops increase security for the shop and help make town centres more used at night.**





PUBLIC TRANSPORT FACILITIES

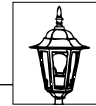
- * Access roads and all parts of a station should be well lit, including car parks, platforms, bridges and subways.



Bus and train stations

The following points apply to both:

- * Access roads, parking areas, bridges, subways and concourses should be well lit. Where possible bridges (preferably with see-through protective fencing) should be provided instead of subways.
- * CCTV cameras should be provided at every station to cover all areas.
- * Telephones should be available both inside booking office areas and immediately outside the station and on isolated platforms or concourses. Taxi telephone numbers should be clearly visible. Local information including maps, bus times and directions should be clearly displayed inside and outside the station.
- * Landscaping on embankments that comes down to platform edges, parking areas or access roads should be regularly trimmed.
- * Taxi ranks or mini-cab offices and shops located right next to the station are to be encouraged. Taxis should be well signposted.
- * Parking should not be remote as it will encourage crime and will not be used to its full potential. Secure parking for cycles and motorcycles should be provided.

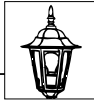


Train stations should also:

- * Display local bus enquiry telephone numbers and have bus stops located close by.
- * Provide facilities on each platform for direct contact with railway staff and/or British Transport Police in case of emergency.
- * Light and clearly signposted separate entrances for night-time use. They should not be accessed by a side alley or round the back of houses.
- * Bus stops

Bus-stops should be clearly lit and not positioned near overgrowing trees/shrubs or gaps in buildings. Time tables should be provided at every stop together with bus enquiry telephone numbers and office opening times. Where possible bus stops should be located in busy places.

- * Where a shelter is provided it should incorporate lighting, both to enhance security and to allow the timetable to be read.
- * Bus stops and shelters should be located so that security of neighbouring properties is not jeopardised.
- * Where possible "Real-Time" information should be provided which can advise of the late arrival or non-operation of buses so that vulnerable passengers can make alternative arrangements.



PLAY AREAS AND MISCELLANEOUS

- * Play areas for young children should be visible and accessible from nearby housing - for example, in a central area behind flats.
- * They should be designed for easy maintenance to avoid dangers of broken glass etc.
- * Play areas should be clearly signposted. They should also have obvious boundaries to make unwanted adults/strangers uncomfortable.
- * For older children landforms can be used to avoid nuisance and increase surveillance. **A play area (adventure playground for example) lower than nearby houses allows parents good surveillance but the houses still retain their privacy and security.**



- * Closed circuit television used in areas of potential danger (in town centres for example) increases feelings of safety leading to greater use of the area.
- * An increase in the number of pedestrians, cyclists or public transport users also increases feelings of safety so measures to reduce car-use are beneficial. Examples are safe routes to school and good traffic management scheme.
- * The greater the mix of uses in an area, the greater the number and range of activities contributing to continuous occupation and use and increased feelings of safety.
- * Telephone kiosks should be overlooked and well lit and sited in places that are not too noisy. They should be clearly sign-posted from pedestrian areas.
- * Graffiti and litter give the impression of an uncared for and hostile environment. Railings set on low walls reduce chance of litter blowing into landscaping and getting trapped. Plenty of litter bins that are emptied frequently help to improve the image of an area.