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1. Introduction

1.1 Purpose of this Guideline

The built environment has been found to have an important role in influencing people’s behaviour. Certain land uses and designs can promote social or anti-social behaviour and buildings and urban design can significantly lower the occurrence of crime and enhance the effectiveness of traditional policing methods.

The purpose of this guideline is to outline the principles for applying crime prevention through environmental design.

1.2 What is Safer By Design?

There are four principles:

1) Natural Surveillance
   Placing people, activities and physical features in ways that maximises the ability to see what is happening in an area discourages anti-social behaviour, as perpetrators do not want to be seen.

2) Access Control
   The use of fences, security devices and locks to restrict access, increases the effort required to commit an offence and therefore reduces the potential for it to happen.

3) Ownership
   Areas that are well protected and look as if they are owned and cared for, gives an impression that it is harder to conduct anti-social behaviour. Cared for areas also reduce the level of fear within the community.

4) Maintenance
   Spaces that are well maintained and where any evidence of anti-social behaviour is promptly removed reduces levels of satisfaction for those performing anti-social activities and reduces fear in the community.

1.3 Aims of this Guideline

The primary aims of this guideline are to:

- Enhance and improve community safety within Baulkham Hills Shire.
- Create an environment that discourages and prevents crime.
- Address community safety concerns.

1.4 Land to which this Guideline applies

This guideline applies to all developments within the Baulkham Hills Shire, particularly major developments and public space.

1.5 Consultation

Certain developments due to their size, function or location may be referred to NSW Police for comment. These types of developments include, but are not limited to:

- Transport facilities;
- Large apartment buildings, townhouses and villa developments (50 or more dwellings);
- Large mixed use developments (50 or more dwellings);
- Major shopping centre developments;
- New industrial complexes (multiple units/ major works);
- New schools and hospitals;
- Large sport facilities;
- Clubs and hotels;
- Service stations, convenience stores and other high risk businesses.

1.6 Relationship to other Plans

This guideline should be used to assess development applications as part of the Section 79C considerations under the Environmental Planning and Assessment Act 1979. It is to be used in conjunction with the Baulkham Hills Local Planning District Plan.
Environmental Plan 1991 (as amended) and all relevant development control plans.

1.7 How to use this Guideline

These guidelines present a number of crime prevention through urban design planning principles to be used during the design and assessment phases of a development project that will help reduce the occurrence of crime and increase the level of safety within the community.

Applicants should refer to Section 2 of this Guideline for general crime prevention considerations and then any relevant parts of Section 3 for more specific design considerations.

1.8 Meeting the Criteria

Not all of the following criteria may be met in every development. Crime prevention is just one of many design objectives that planners and applicants must consider. In this regard, Council will assess each application on its merits, in respect to this and other Council policies.

2. Design Issues

The following elements are general design objectives and considerations that apply to all residential and non-residential developments. Development applications should address all relevant categories.

2.1 Natural Surveillance

Objectives

- To encourage natural surveillance from and to surrounding land uses.
- To encourage natural surveillance by encouraging legitimate land use.
- To provide clear sightlines for pedestrian movement.

Natural surveillance has an important role in crime prevention, supplementing formal surveillance by security guards, cameras and police. Natural surveillance is providing human observation of public space. It can be assisted by providing unobstructed views, lighting high use areas and by using visibly permeable building materials. Natural surveillance does not have to compromise privacy.

Natural surveillance is an excellent crime deterrent as offenders are more likely to be seen and therefore less likely to actually commit an offence.

General

- Avoid incorporating blind corners and alcoves.
- Ensure there is suitable visibility to areas of high risk, especially around entrances, stairwells and toilet areas.
- Ensure that pedestrians can see what is in and what is at the end of underpasses, tunnels and corridors.
- Use visibly permeable security grills rather than solid shutters.

Sightlines

- Ensure that pedestrians can see through or past barriers.
- Where possible, paths should have curves rather than sharp turns or provide safety mirrors to help observe what is around the corner.
- Ensure that sightlines will not become blocked as landscaping matures, or by moveable objects, such as awnings.

Surveillance

- Ensure that windows (rather than blank walls) overlook pedestrian areas.
• Ensure that windows overlook pathways, entrances to buildings and car parks.
• Ensure that communal focal points, such as letter boxes in town house complexes are under natural surveillance.
• Locate pedestrian, cycle and vehicular roadways adjacent to each other to maximise surveillance.

![Dwellings with unobstructed sight lines overlooking open space.]

2.2 Lighting

Objectives
• To provide appropriate lighting for activities after dark.
• To encourage the use of appropriate light fixtures.
• To encourage the appropriate location of lighting.

Lighting plays an important role in crime prevention at night and in dark, isolated and underground areas. Poorly lit areas can contribute to anti-social activities.

General
• All lighting must be inline with the relevant Australian Standards, including AS 1158, AS1680 and AS 2890.
• Ensure that lighting is appropriate for the situation and intended use of open space.
• Ensure that lighting is appropriate for the local conditions.
• Ensure that high use areas are suitably lit and that the lighting allows good visibility.

• Ensure that all signage and alcove spaces are well lit.
• Use high mounted lighting rather than low mounted lighting to allow suitable visibility of approaching persons.
• Use multiple lights to ensure that lighting is consistent and that shadows are minimised.

Maintenance
• Where possible, use high mounted light fittings to increase lighting area and to decrease susceptibility to damage.
• Use wire glass fixtures to avoid breakage.
• If traditional lighting fixtures are to be used, consider vandal resistant glass, and increase the number of fixtures to provide a suitable level of lighting.
• Consider light pollution effects and the life and efficiency of light fittings.

Light Placement
• Ensure that lighting is provided along pedestrian routes.
• Ensure that lighting takes into account the mature size of growing vegetation and shadows cast be movable fixtures, such as awnings.
• Avoid lighting areas not intended to be used at night to deter people from using the space. If risk spots are usually vacant, it is better to stop people using them rather than provide lighting and creating an unnecessary risk.
• Ensure that bright lighting does not create a ‘wall of darkness’ outside the lit area by providing softer lighting further away.
• Place lighting near signs and location maps.
• Avoid placing lights between 1metre and 3 metres above ground level that cause glare at eye level.
• Avoid placing lighting columns near buildings if they could provide unauthorised access opportunities.
2.3 Signage

Objectives

- To provide clear and readily available signage.
- To provide signage in appropriate locations.

Signage plays an important role in identifying locations and restricting or permitting access. Clear and accessible signs help people identify and quickly find their destination without unnecessary delay or place themselves at risk.

General

- Signs should identify 'safe routes'.
- Signs should be legible, written in an appropriate font and size and with clear contrasting colours.
- Locate signs at entrances, exits and activity zones.
- Ensure that enough signage is provided to help people arrive at their destination.
- Ensure there are signs that identify amenities such as telephones, help points and to public facilities such as taxi ranks.
- Illuminate signs that are essential for night use.
- Ensure that growing vegetation and moveable objects will not hide signs.
- Incorporate braille signs at appropriate locations.
- Ensure that signs do not create hiding or risk spaces.
- Ensure that signs are facing the general flow of pedestrian traffic.
- Use internationally acceptable signage where possible.

Maintenance

- Ensure signs are not easily damaged and are out of reach of vandalism.
- Ensure that signs cannot be easily moved or removed.

2.4 Landscaping

Objectives

- Create aesthetically pleasing but safe environments.
- Create easy to maintain and vandal resistant areas.
- Reinforce natural surveillance and sightlines.

Landscaping plays an important role in making an area aesthetically pleasing, attracting activities, and in turn increasing natural surveillance and reducing anti-social behaviour.

General

- Ensure that paths are not located near dense shrubbery or concealment spaces.
- Minimise the use of loose materials for paths and landscaping as they can be used as missiles.
- Ensure that paths are suitable for people to move along quickly.
- Ensure that sightlines and natural surveillance are maintained.
- Ensure that adequate lighting and signage have been provided.
- Incorporate play equipment, barbecues, etc to encourage human activity.
- Ensure fences above 1 metre incorporate open elements to provide sightlines.

Vegetation

- Grade plantings so that taller vegetation is to the back of garden beds.
- Avoid placing medium and tall plantings near entrances and exits.
- Avoid creating screens that could prevent natural surveillance.
- Choose trees that do not have branches below 2 metres.
- Plant climbing plants along blank walls to avoid graffiti.
- Use prickly and sharp edged plantings to prevent short cuts through garden beds and access to restricted areas.
- Use sturdy and advanced plants to increase their chance of survival.
2.5 Land Use

Objectives

- To promote natural surveillance and minimize illegitimate activities.
- To create a mix of activities which will result in greater level of natural surveillance around the clock.

By encouraging mixed land uses, a greater level of natural surveillance can be created. Mixed land use comprising both residential and non-residential activities can increase the spread of business hours during which people activities can occur. Mixed uses have to be considered carefully to ensure that the mixes are compatible.

General

- Promote uses that support both day and night activities to encourage longer surveillance hours.
- Do not isolate certain land uses or facilities.
- Ensure the scale of development and the range of uses is appropriate for the neighbourhood.

2.6 Building Design

Objectives

- To integrate public buildings with public space.
- To use buildings to support natural surveillance.
- To reduce vandalism and graffiti.
- To reduce safety problems.

Safety issues need to be considered at the first stages of building concepts and design.

General

- Ensure that all entrances and exits are secure, well lit and clearly visible from the street.
- Ensure that entrances and exits do not promote loitering.
- Avoid designing features, such as fin walls that create entrapment spaces.
- Locate facilities such as toilets in appropriate locations and not in isolated areas.
- Avoid features that enable climbing.
- Avoid blank external walls.
- Ensure that lights minimise shadows.
- Ensure that landscaping is appropriate.
- Ensure that developments address all street frontages.
- Position habitable rooms to maximise natural surveillance.

Materials

- Avoid using solid shutters as security devices.
- Use strong clear materials on ground floors, in particular around entrances.

Natural Surveillance

- Ensure that there are clear sightlines from windows and doors.
- Use glass in lobbies so that people can see both in and out.
- Place windows to over look car parks and access ways.
2.7 Entrapment

**Objectives**
- To reduce the risk of attack by hidden persons.
- To eliminate the possibility of entrapment.
- To ensure the suitable location of facilities.

Entrapment spaces are small areas that are shielded from general view by some form of barrier. They can conceal anti-social activity and act as concealment spaces.

**Issues to consider**

**General**
- Avoid creating entrapment spaces along pedestrian routes.
- Use gates for any required spaces such as loading bays and private alleyways.
- Avoid tunnels and alleyways with obstructed sightlines.
- Keep vegetation well trimmed and maintained.

**Location**
- Place high risk facilities such as ATM's in secure well lit areas away from possible entrapment spots.
- Ensure that ATM's and public facilities such as telephones are within view of busy pedestrian areas.

- Ensure signs and vegetation do not cause entrapment spaces.
- If enclosed ensure that see through materials are used so that users can see both in and out.

ATM located appropriately near an activity zone.

2.8 Maintenance

**Objectives**
- To ensure regular maintenance and repairs are undertaken.
- To discourage graffiti and vandalism.
- To install features that are vandal resistant.

One of the main principles of Safer By Design is to keep spaces well maintained and to provide a “cared for” environment. Maintained spaces reduce fear in the community and reduces the level of satisfaction for those deliberately preforming anti-social activities.

**Issues to consider**

**General**
- Promptly repair damage.
- Use murals to discourage graffiti.
- Avoid long, blank walls that will be targeted by graffiti.
- Maintain a “cared for” environment.

**Materials**
- Use materials that are robust and are easy to replace.
- Use materials that have heavy coatings to withstand wear and tear.
- Use graffiti resistant paints and surfaces.
3. Specific Elements

The following elements of crime prevention relate to particular land uses in the Baulkham Hills Shire.

3.1 Public Open Space

Objectives
- To encourage legitimate use of open space.
- To ensure that open space does not create a safety risk.
- To ensure that landscaping is appropriate.

Safety in open space is directly linked to the design and the availability of natural surveillance. Poor designs include a predominance of blank walls, concealment spaces, poor use of vegetation and few sight lines. Open space needs to be inviting and interesting to attract legitimate uses and these spaces require a certain level of maintenance.

General
- Locate open space where it can be surrounded by a range of land uses that generate activity.
- Ensure that there is a good relationship between open space and its surrounding uses.
- Ensure that entrances, exits and amenities are easily identifiable.
- Avoid open space that is bordered by blank walls, rear of buildings and fencing that block views.
- Design easy to maintain spaces.
- Ensure that children’s play spaces are appropriately located.
- Ensure that vegetation and features do not create entrapment spots.

Sightlines
- Design paths with clear sightlines, especially along curves.
- Use street crossings rather than underpasses where appropriate.
- Ensure that amenities and play equipment are not blocked from view.

Lighting
- If open space is intended for night time use, ensure that ‘safe routes’ are appropriately lit.
- Locate trees and other vegetation to ensure that mature specimens will not block lighting.
- Do not light areas that are not intended for use at night.

Signage
- Ensure that signs are easily locatable and present clear information.
- Locate signs at entrances and strategic spots within the space.

3.2 Residential Development

Objectives
- To create safe communities.
- To encourage natural surveillance.
- To ensure that site and building layout are appropriate.

General
- Dwellings should be clearly numbered.
- Sole access should not be from alleyways or rear lanes.
- Consider the use of sensor lighting, security grills and other security features.
- Ensure that there is a distinction between private and public space.
- Doors and windows should be of a suitable design to resist break and enter attempts.

Surveillance
- Entrances should be clearly identifiable from the street.
- Developments should address all street frontages.
- Fences higher than 1m should be of an open design.
- Double glazing on front windows should be used for noise protection rather than fencing and vegetation.
- Habitable rooms should be at the front of the dwelling to maximise natural surveillance of the street.
- Balconies and windows should be positioned to allow observation of entrances.
Dwellings provide little natural surveillance, do not have clear entrances and blank garage walls dominate the streetscape.

### 3.3 Commercial Centres

**Objectives**
- To ensure that commercial centres are safe.
- To encourage increased use of shopping centers, particularly at night.
- To create a balance of uses that are safe and easily accessible.

Commercial centres generate activity in a particular area. It is therefore important that these areas are safe, attractive and minimise anti-social behaviour.

**General**
- Ensure that open space is at street level to maximise surveillance.
- Ensure that pedestrian ways, particularly those used at night are well lit and clearly defined.
- Encourage night time uses near car parking and public transport stops.
- Minimise the potential for setbacks to produce entrapment spots.
- Ensure there is adequate lighting and signage.
- If appropriate, consider the installation of a closed circuit television system.

**Facilities**
- Locate taxi ranks, public toilets, transport stops and public toilets in easy to find spots, with high levels of natural surveillance.
- Locate ATMs away from places such as bus stops that encourage loitering.
- Ensure that bins, light poles, and other street facilities do no create entrapment spots and do retain clear sight lines.

**Uses**
- Encourage uses that are open during the night to encourage longer periods of use.
- Ensure that night time uses are located on major streets and not alleys
- Encourage street level cafes or the use of open balconies, to allow better surveillance.

**Maintenance**
- Ensure that elements are vandal proof and are easy to maintain.
- Ensure that maintenance is quickly carried out to retain a ‘cared for’ environment.

### 3.4 Car Parks

**Objectives**
- To increase safety within car parks.
- To encourage natural surveillance.
- To provide safe access to and round car parks.

Car parks, especially at night can experience high levels of anti-social behaviour. Critical to the design is how pedestrians will use the car parking facilities when going to and from their vehicles.

**General**
- Minimise structures, landscaping and features that might block sight lines.
- Locate car parks within view of buildings or open space.
- If appropriate, consider the installation of a closed circuit television system.

**Pedestrians**
- Make clear pedestrian routes and entrances.
- Rather than having ‘fire escape’ style stairwells and enclosed lifts, use glass or wire caging to increase visibility.
- Use clear signage.
• Ensure that entrances and exits are integrated into the streetscape.

**Lighting**
• Ensure that adequate lighting has been provided, and that shadows and concealment spaces are minimised.
• Ensure that lighting is strong enough to illuminate the inside of a car.
• Ensure that lighting is vandal resistant.
• Use light coloured paint on both the walls and roof to maximise light distribution.

**Signage**
• Ensure that all entrances and exits are easily identifiable.
• Ensure that adequate signage has been provided to help users identify their car as quickly as possible.
• Provide signage that advises people to lock cars and hide valuables.

### 3.5 Transport

**Objectives**
- To encourage users to feel safe at bus, rail and taxi stops.
- To maximise public transport use.
- To promote natural surveillance.

Public transport is important for mobility of disadvantaged groups, children, the elderly and others who do not have access to a private vehicle. Public transport facilities need to be well lit and maintained, have adequate timetabling and transport information and be placed in locations with good natural surveillance from adjoining land uses. This includes proposed and existing bus stops, taxi ranks, train stations and transitway stops.

**General**
- Avoid placing stops near vacant land, car parks, entrapment spots, blank walls, buildings with large set backs and areas with no lighting.
- Avoid shelters that block sight lines and create entrapment spots.
- Ensure that shelters do not block pedestrian footpaths and their sightlines.

**Lighting**
- Ensure that landscaping and other structures do not block sightlines.
- Use vandal resistant materials.

**Signage**
- Ensure that adequate signage is provided to indicate stops.
- Ensure that up to date timetables are provided at stops.
3.6 Public Toilets and Public Facilities

**Objectives**

- To ensure the safety of those using public facilities.
- To locate facilities in appropriate locations that take advantage of natural surveillance.

The design and siting of public facilities has an important role in ensuring that public facilities are used for safe and legitimate uses.

**General**

- Locate toilets adjacent to high traffic areas rather than isolated areas.
- Ensure that all facilities are easily accessed by both able and disabled persons.
- Do not place telephones, bus stops and seats close to toilets as they may encourage loitering.
- Ensure that external doors can only be opened and closed by a legitimate key holder, and that internal doors can only be locked from inside the stall.
- Ensure that entrapment spots are eliminated.
- Install vandal proof mirrors on the walls.
- Install an appropriate receptacle for sharps in toilets and in commercial centres.
- If appropriate, consider the installation of a closed circuit television system.

**Visibility**

- Ensure that entrances are visible from the surrounding areas.
- Ensure that adequate lighting and appropriate landscaping has been provided to ensure that there is clear visibility.

**Maintenance**

- Ensure that vandal proof materials are used.
- Ensure that any damage is quickly repaired and graffiti is quickly removed.

- Ensure facilities are maintained in a clean and tidy condition.
4. Crime Prevention Checklist

This checklist has been provided to ensure that new developments incorporate crime prevention principles within the design.

**Building Design**

- Are the entries clearly identifiable?
- Is there appropriate signage?
- Have appropriate lighting and pathways been provided to entrances and car parking?
- Do the habitable rooms face public/communal space?
- Have windows been located to allow natural surveillance?
- If located on a corner, does the building design address both streets?
- Are building materials vandal resistant?
- Do architectural elements (such as down pipes) allow access to upper storeys?

**Landscaping**

- Does the landscaping comply with DCP No. 107 – Landscaping?
- Do plantings allow for natural surveillance?
- Are plant species appropriately advanced and vandal resistant?
- Does landscaping clearly define public and private space?
- Is the fence of an appropriate height and made of a visibly permeable material?
- If the site is located on a corner, is the fence appropriate to both streets?
- Has adequate lighting been installed?
- Are sight lines clear and have possible places of concealment been addressed?

**Facilities**

- Have the relevant service authorities been contacted and requirements obtained?
- Have public facilities been located in high activity areas with adequate lighting?
- Are facilities located in areas where concealment is not possible?

**Signage**

- Have entrances, car parking and other significant uses been identified with a suitable sign?
- Is street numbering and writing of an appropriate size and colour?

**Car Parking**

- Does the car park comply with DCP 102 – Car Parking?
- Are the entrances and exits satisfactorily integrated into the building and landscape design?
5. Consultation Process

Guideline for the Review of Development Applications referred to NSW Police

1. The purpose of the Guideline is to help incorporate Safer By Design principles into the development assessment process.

2. Development applications referred to NSW Police will depend on their size, nature and likely impact of each proposal.

3. The types of development to be considered for referral, include:
   • Transport facilities;
   • Large apartment buildings, townhouses and villa developments (50 or more dwellings);
   • Large mixed use developments (50 or more dwellings);
   • Major shopping centre developments;
   • New industrial complexes (multiple units/ major works);
   • New schools and hospitals;
   • Large sport facilities;
   • Clubs and hotels;
   • Service stations, convenience stores and other high risk businesses.

4. The Crime Prevention Officer’s from NSW Police will be notified of a relevant development application as part of the determination process.

5. Comments provided by NSW Police will be taken into account in determining a relevant development application.

Council’s Safer By Design Guidelines were adopted by Council on 11 June 2002.

7. References


Hawkesbury City Council (1997) Hawkesbury Crime Prevention Plan, Hawkesbury City Council, Windsor

Hornsby Shire Council (2001) Hornsby Town Centre DCP – Crime Prevention Element, Hornsby Shire Council, Hornsby

Hurstville City Council (2000) DCP No. 18 – Crime Prevention Through Environmental Design, Hurstville City Council, Hurstville


Shellharbour City Council (2000) Shellharbour City Crime Prevention Plan, Shellharbour City Council

South Sydney City Council (1997) The South Sydney Plan, South Sydney City Council, Strawberry Hill