



Development Control Plan No. 29

Crime Prevention Through Environmental Design

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PART A: INTRODUCTION	3
1. What is Crime Prevention through Environmental Design (CPTED)?	3
2. What are the principles of CPTED?	3
3. Why has this plan been prepared?	4
4. Where does this plan apply?	4
5. How do we use this plan?	4
6. Can a performance criterion be met in other ways?	4
7. What if my proposal does not meet all the criteria?	5
8. What do some of the terms used in this plan mean?	5
PART B - PERFORMANCE CRITERIA, DESIGN REQUIREMENTS/SUGGESTIONS AND PURPOSE/EXPLANATION	6
1. All Development Types	6
(1.1) Natural Surveillance	6
(1.2) Access Control	9
(1.3) Ownership	11
2. Residential Development	13
(2.1) Natural Surveillance	13
(2.2) Access Control	14
(2.3) Ownership	14
3. Commercial / Retail / Industrial Developments and Community Facilities	15
(3.1) Natural Surveillance	15
(3.2) Access Control	17
(3.3) Ownership	17
4. Car Parks	18
(4.1) Natural Surveillance	18
(4.2) Access Control	19
(4.3) Ownership	20
5. Open Spaces	21
(5.1) Natural Surveillance	21
(5.2) Access Control	23
(5.3) Ownership	23



PART A: INTRODUCTION

1. What is Crime Prevention through Environmental Design (CPTED)?

CPTED is a practical crime prevention technique based on the proven theory that the way we design our environment (ie. Residences, Commercial Areas, Car Parks and Open Spaces) can have an impact on crime.

CPTED argues that criminals make rational choices about their targets and generally:

- the greater the risk of being seen, challenged or caught, the less likely they are to commit a crime,
- the greater the effort required, the less likely they are to commit a crime, and
- the lesser the actual or perceived reward, the less likely they are to commit a crime.

CPTED presents a range of strategies to allow us all to play active and essential roles in local crime prevention. We can design and manage the environment to ensure:

- there is more chance of being seen, challenged or caught,
- greater effort is required,
- the actual or perceived rewards are less, and
- opportunities for criminal activity are minimised.

CPTED however is not just about crime prevention. It is about the design of spaces that make people feel safe, for example areas without blind corners for potential intruders or aggressors to hide. CPTED does not only impact on crime - it impacts on the way we feel, for example it can:

- Make the car park of the business more appealing to customers and therefore increase after hours patronage.
- Make a previously unused bicycle path 'feel better and safer' and therefore increase community use.

2. What are the principles of CPTED?

The three principles central to Crime Prevention through Environmental Design are as follows:

(1) Natural Surveillance

Criminals usually do not want to be seen. Placing physical features, activities and people in ways that maximise the ability to see what is happening discourages crime. For example, placing cafes and kiosks in parks increases natural surveillance by park users, while placing clotheslines near play equipment in a multiple unit development increases natural surveillance of the play area. Barriers, such as bushes or sheds, can make it difficult to observe activity.

(2) Access Control

Access can be restricted by physical barriers such as bollards, fences, doorways and landscaping or by security hardware such as locks, chains and alarms. Human measures can also be used, such as security guards. All these methods aim to direct and/or restrict access into an area and therefore increase the effort required to commit a crime.

(3) Ownership

People usually protect territory that they feel is their own and have a certain respect for the territory of others. Fences, paving, art, signs, good maintenance and landscaping are some physical ways to express ownership. Identifying intruders is much easier in a well-defined space. An area that looks protected gives the impression that greater effort is required to commit a crime. A cared for environment can also reduce fear of crime.



3. Why has this plan been prepared?

Crime is a major social problem in our society. Planners, developers, architects, designers and the community in general can play a positive role in helping reduce the potential for crime through creating safer urban environments.

This plan aims to raise community awareness and promote design as a genuine crime prevention strategy. It aims to help the general community identify their role in the crime prevention process. The plan sets up performance criteria and design requirements/ suggestions that help to reduce the potential for crime and create safer environments.

4. Where does this plan apply?

This plan applies to all land in the City of Canterbury. Applicants are advised to contact our Development Assessment staff to clarify whether this plan will apply in their specific situation. If it does, the Statement of Environmental Effects and site analysis that accompany the development application should address this plan. We may require a security management plan to be submitted with the development application. The security management plan should set out all relevant methods to be used to prevent crime and improve safety of the development.

The following types of development proposals may be referred to a Community Safety subcommittee (of which Council, NSW Police and NSW Fire Brigade are members) for comment:

- Multiple units, townhouse/villa developments (20 or more dwellings)
- Mixed use developments (with 20 or more dwellings)
- New or upgraded commercial/retail developments (major work)
- New industrial complex (ie multiple industrial units)
- New or upgraded schools, child care centres and hospitals (major work)
- Railway stations
- Large sports/community facilities
- Clubs/hotels, (ie extended hours, gaming rooms)
- Service stations/convenience stores
- Unusual developments (ie arcades, brothels, amusement centres, upgrade of Department of Housing properties/estates).

The subcommittee will respond within 14 days and their comments will be taken into account when determining the application.

5. How do we use this plan?

The main part of this document (Part B) contains performance criteria, design requirements/suggestions and explanations of the purpose for each of the performance criteria outlined. The performance criteria are what we seek to achieve. The design requirements or suggestions provide means of meeting the performance criteria. Applicants should refer to Section 1 (All Development Types) of Part B for general guidance and then refer to the other sections (eg Residential Development) for requirements specific to their development proposal.

6. Can a performance criterion be met in other ways?

Yes. There could be other ways of achieving a performance criterion, or there could be circumstances where it is not relevant to comply with a particular requirement. If so, your Statement of Environmental Effects must set out how the particular performance criterion is met by the proposal or why it is not relevant.



7. What if my proposal does not meet all the criteria?

We will assess each application on its merits having regard to this and other policies which also apply to your development proposal. CPTED is one of many design objectives that planners and designers must consider. If in doubt, talk to our Development Assessment staff.

8. What do some of the terms used in this plan mean?

The definitions of key terms used in this plan are listed below:

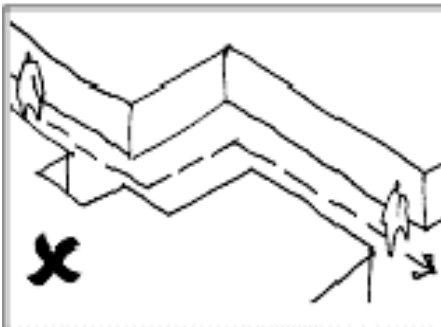
Active Use(s):	Uses which by their nature generate activity and thus opportunities for natural surveillance.
Communal Space/ Area:	Land within a development that is used primarily by the occupants of that development.
Development:	Includes the use of land, the subdivision of land, the erection of a building, the carrying out of a work, and the demolition of a building or work etc.
Dwelling:	A room or suite of rooms used as a separate residence.
Habitable room:	A room in a residence that is not a bathroom, toilet, store room, or garage etc.
Natural Surveillance:	Easy observation of buildings, spaces and activities by people passing or living / working / recreating nearby.
Private Space/ Area:	Areas accessible only to residents or authorised persons (eg inside of house).
Public Space/ Area:	Areas open to the public (eg roads).
Sight Line:	The line of vision from a person to a place or building.

PART B - PERFORMANCE CRITERIA, DESIGN REQUIREMENTS/SUGGESTIONS AND PURPOSE/EXPLANATION

1. All Development Types

(1.1) Natural Surveillance

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
A. Avoid Blind Corners		
Avoid blind corners in pathways, stairwells, hallways and car parks.	<ul style="list-style-type: none"> • Pathways should be direct. All barriers along pathways should be permeable (see through) including landscaping, fencing etc. • Consider the installation of mirrors to allow users to see ahead of them and around corners. • Install glass panels in stairwells where appropriate. 	'Blind corners' or concealed areas make people feel uneasy and unsafe. Not knowing 'what is around the next corner' can discourage genuine users of a space to use and maximise it.



Blind Corners Example: Poor consideration of 'blind corners' in design creates concealed areas from view of approaching passers.

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
B. Communal/Public Areas		
Provide natural surveillance for communal and public areas	<ul style="list-style-type: none"> • Position active uses or habitable rooms with windows adjacent to main communal/ public areas (eg playgrounds, swimming pools, gardens, car parks). • Communal areas and utilities (eg laundries and garbage bays) should be easily seen. • Where elevators or stairwells are provided, open style or transparent materials are encouraged on doors and/or walls of elevators/ stairwells. • Waiting areas and entries to elevators / stairwells should be close to areas of active uses, and should be visible from the building entry. • Seating should be located in areas of active uses. 	<p>In this instance, natural surveillance serves two main purposes:</p> <ul style="list-style-type: none"> • Makes legitimate users of a space feel safe as they 'are not alone' in a secluded area. There is always the potential for someone to 'help' if there are any problems. • Deters illegitimate users as their presence in and misuse of the space will be rapidly noticed.

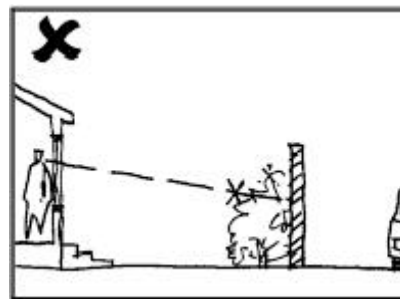


(1.1) Natural Surveillance (Continued)

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
C. Entry Points		
Provide entries which are clearly visible	<ul style="list-style-type: none"> Entrances should be at prominent positions. Design entrances to allow users to see in before entering. 	Prominent entrances allow: <ul style="list-style-type: none"> Natural surveillance from street Users to feel safe and to easily access the area Emergency services to access the property rapidly
D. Fencing		
Fence design should maximise natural Surveillance from the street to the building and from the building to the street, and minimise opportunities for intruders to hide	<ul style="list-style-type: none"> Front fences should be predominantly open in design (eg pickets and wrought iron) or low in height. A sense of privacy can be increased by light coloured fencing. High solid front fences should have open elements above 1m. 	Although high fences may provide privacy, they restrict natural street surveillance from potential intruders. Fencing below one meter, or open design fencing allows for adequate privacy and adequate levels of natural surveillance.
E. Landscaping		
Avoid landscaping which obstructs natural surveillance	<ul style="list-style-type: none"> Avoid medium height vegetation with concentrated top to bottom foliage. Plants such as low hedges and shrubs (1 - 1.2m high), creepers, ground covers or high canopied vegetation are good for natural surveillance. Trees with dense low growth foliage should be spaced or have the crown raised to avoid a continuous barrier. Use low ground cover or high canopied trees, clean trunked to a height of 2m around children's play areas, car parks and along pedestrian pathways. Avoid vegetation that conceals the building entrance from the street. 	As with 'blind corners' or general concealed areas, the large size of certain vegetation obstructs visibility and makes people feel uneasy and unsafe. Perceiving that something may be 'behind those bushes' can discourage genuine use of a space.



Landscaping Example: Good line of sight from property to street.



Landscaping Example: Obstructed line of sight from property to street making it difficult to identify any problems.



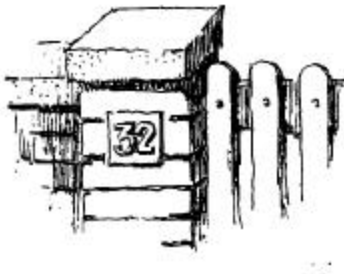
(1.1) Natural Surveillance (Continued)

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
F. Lighting		
<p>Ensure lighting does not produce glare or dark shadows</p> <p>Entrances, exits, service areas, pathways, car parks etc. should be well lit after dark when they are likely to be used</p>	<ul style="list-style-type: none"> • Use diffused flood lights and/or movement sensitive lights. • Direct these lights towards access / egress routes to illuminate potential offenders, rather than towards buildings or resident observation points. • Lighting should have a wide beam of illumination, which reaches to the beam of the next light, or the perimeter of the site or area being traversed. • Avoid lighting spillage onto neighbouring properties as this can cause nuisance and reduce opportunities for natural surveillance. • As a guide, the areas should be lit to enable users to identify a face 15m away. • Use energy efficient lamps /fittings /switches to save energy. 	<p>Adequate lighting is essential in making people feel safe and in deterring illegitimate users.</p> <ul style="list-style-type: none"> • Allows people to see what is ahead • Encourages legitimate users to use a facility after daylight hours; their presence will deter potential illegitimate users • Allows natural surveillance after daylight hours • Facilitates formal surveillance (by Police or security patrols).
G. Mixed Land Uses		
<p>Where permitted, provide appropriate mixed uses within buildings to increase opportunities for natural surveillance.</p>	<ul style="list-style-type: none"> • Locate shops and businesses on lower floors and residences on upper floors. In this way, residents can observe the businesses after hours while the residences can be observed by the businesses during business hours. • Incorporate car wash services, taxi ranks and shop kiosks etc within car parks. • Include shop kiosks and restaurants etc within parks. • Refer to the relevant planning instrument for permissible uses in the zone of the property. Some uses may require rezoning. 	<p>Mixed land uses allow for natural surveillance of areas across a range of various days/hours (ie weekday or weekend, AM or PM).</p>
H. Security		
<p>Security grilles, shutters and doors should allow natural observation of the street and be sympathetic to the architectural style of the building</p>	<ul style="list-style-type: none"> • Security grilles and security doors should be permeable (see through). • Avoid solid shutters on front windows and doors. 	<p>Traditional security related equipment will help make a space more difficult for intruders to break into, however its overuse may impinge on adequate levels of natural surveillance.</p>



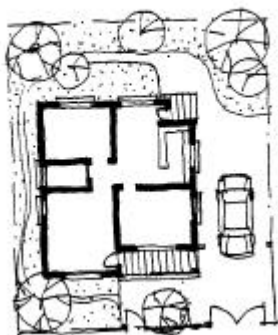
(1.2) Access Control

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
A. Building Identification		
Ensure buildings are clearly identified by street number.	<ul style="list-style-type: none"> • Street numbers should be at least 7cm high, and positioned between 0.6m and 1.5m above ground level on the street frontage. • Street numbers should be made of durable materials, preferably reflective or luminous, and unobstructed (eg by foliage). • Location maps and directional signage should be provided for larger development. 	Clear building identification prevents unintended access and assists persons trying to find the building - particularly emergency vehicles in an urgent situation.



Clearly identify your street number

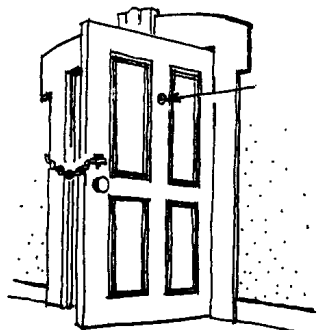
Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
B. Entry Points		
Clear entry points	<ul style="list-style-type: none"> • Entrances should be easily recognisable through design features and directional signage. • Minimise the number of entry points. 	Clear entries: <ul style="list-style-type: none"> • Avoid confusion • Assist emergency personnel • Allow for easy monitoring of people entering/exiting the premises.



**Minimise the number of entry points.
Ideally there would be a maximum of two entry points to a dwelling.**



Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
C. Landscaping		
<p>Use vegetation as barriers to deter unauthorised access</p> <p>Avoid large trees/shrubs and buildings works that could enable an intruder to gain access to the dwelling or to neighbouring dwellings</p>	<ul style="list-style-type: none"> • Prickly plants can be used as effective barriers. Species include bougainvilleas, roses, succulents, and berberis species. • Avoid large trees, carports, skillion extensions, fences, and downpipes in situations that could provide a means of access to second storey windows or balconies. 	<p>Landscaping can be an effective way of controlling/directing movement in an area. Depending on the intention, it can either restrict or encourage people to access a particular area.</p>
D. Security		
<p>Use security hardware and/or human measures ONLY where required to reduce opportunities for unauthorised access</p>	<ul style="list-style-type: none"> • Install quality locks on external windows and doors. • Install viewers on entry doors. • If security grilles are used on windows they should be openable from inside in case of emergencies. • Ensure skylights and/or roof tiles cannot be readily removed or opened from outside. • Consider monitored alarm systems. • Provide lockable gates on side and rear access ways. • Consider building supervisors or security guards. 	<p>Traditional security systems can be very effective in reducing illegitimate access. It is important however to be reasonable and not over secure a location as this may make genuine users feel unsafe and even restrict legitimate access.</p>

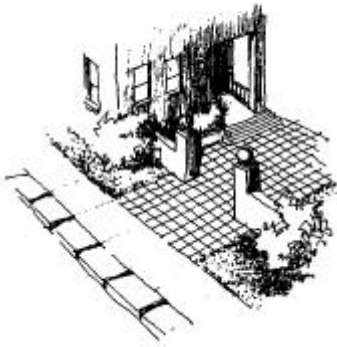


Main entry doors should be fitted with a door viewer and door chain.



(1.3) Ownership

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
A. Maintenance		
Create a 'cared for' image	<ul style="list-style-type: none"> • Ensure the speedy repair or cleaning of damaged or vandalised property. • Provide for the swift removal of graffiti. • Provide information advising where to go for help and how to report maintenance or vandalism problems. 	Research indicates that well maintained and 'cared for' properties are less likely to experience crime.
B. Materials		
Use materials which reduce the opportunity for vandalism	<ul style="list-style-type: none"> • Strong, wear resistant laminate, impervious glazed ceramics, treated masonry products, stainless steel materials, anti-graffiti paints and clear over sprays will reduce the opportunity for vandalism. Flat or porous finishes should be avoided in areas where graffiti is likely to be a problem. • Where large walls are unavoidable, consider the use of vegetation or anti-graffiti paint. Alternatively, modulate the wall, or use dark colours to discourage graffiti on vulnerable walls. • External lighting should be vandal resistant. High mounted and/or protected lights are less susceptible to vandalism. • Communal/ street furniture should be made of hard-wearing vandal resistant materials and secured by sturdy anchor points or removed after hours. 	A reduction in vandalism through careful selection of materials will contribute to beautifying and maintaining an area. This will reduce expenditure on unscheduled maintenance.
C. Spaces		
Spaces should be clearly defined to express a sense of ownership and reduce illegitimate use/entry.	<ul style="list-style-type: none"> • Physical and/or psychological barriers (eg fences, gardens, lawn strips, varying textured surfaces) can be used to define different spaces. 	<p>The definition of clear boundaries allows:</p> <ul style="list-style-type: none"> • People to know when they are trespassing on private property. • Passers-by to clearly identify when someone is trespassing and illegally using the premises.



Create boundaries between private space and public space.

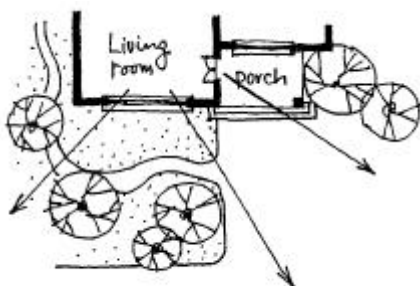
Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
<p>D. Pride & Involvement Encourage design that promotes pride and a sense of place for community</p>	<ul style="list-style-type: none"> • Encourage community involvement in design. • Encourage volunteer management and maintenance of areas. • Encourage wide community use of areas. 	<p>A sense of community pride in a particular area will help:</p> <ul style="list-style-type: none"> • Maintain an area • Identify and report any problems • Identify illegitimate behaviour.



2. Residential Development

(2.1) Natural Surveillance

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
A. Fencing		
Fence design should maximise natural surveillance from the street to the building and from the building to the street, and minimise opportunities for intruders to hide	<ul style="list-style-type: none"> • Front fences should be predominantly open in design, eg pickets and wrought iron, or low in height. A sense of privacy can be increased by light coloured fencing. • High solid front fences should have open elements above 1m. • If noise insulation is required, install double glazing at the front of the building rather than solid fences higher than 1m. 	Although high fences may provide privacy, they restrict natural street surveillance from potential intruders. Fencing below one meter, or open design fencing allows for adequate privacy alongside some natural surveillance.
B. Site and Building Layout		
Allow natural observation from the street to the dwelling, from the dwelling to the street, and between dwellings	<ul style="list-style-type: none"> • For single dwellings and dual occupancies, orientate the main entrance towards the street or both streets and corners. • Granny flats should be orientated towards the main dwelling so that visibility is maintained between both dwellings. • For townhouses/villas/multiple units, part of the buildings should address the street or both streets and corners. • Position habitable rooms with windows at the front of the dwelling. • Garages and/or carports should not dominate the front facade of the building. • Access to dwellings or other uses above commercial/ retail development should not be from rear lane. • Offset windows, doorways and balconies to allow for natural observation while protecting privacy. 	<p>As discussed in the previous section of this document, the location of entry points, balconies and windows is critical for successful natural surveillance.</p> <p>In these instances, the site and building layout encourages natural surveillance of all possible entry points; both intended (doors) and unintended (windows and balconies) from:</p> <ul style="list-style-type: none"> • Passers-by (whilst still providing sufficient privacy). • Neighbouring properties (from sides and rear). • Within the property - from the inside out.



Position habitable rooms with high use and windows at the front of the dwelling to maximise surveillance.



(2.2) Access Control

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
A. Property Identification		
Ensure dwellings are clearly identified by street number.	<ul style="list-style-type: none"> Each individual dwelling should be clearly numbered. Unit numbers should be clearly provided on each level. Each building entry should clearly state the unit numbers accessed from that entry. 	Clear entries: <ul style="list-style-type: none"> Avoid confusion Assist emergency personnel Allow for easy monitoring of people entering/exiting the premises.
B. Security		
Provide appropriate level of security for individual dwellings and communal areas.	<ul style="list-style-type: none"> Install intercom, code or card locks or similar for main entries to buildings including car parks. Main entry doors for buildings should be self-closing and signs should be displayed requesting residents not to leave doors wedged open. Consider installing user/sensor electronic security gates at car park entrances, garbage areas and laundry areas etc, or alternative access controls should be provided. 	It is important to reduce opportunity for unauthorised access without affecting legitimate users. It is particularly important for locations with high density multiple dwellings (such as large buildings). Due to the amount of people residing in this location it is very difficult to identify legitimate users from trespassers.

(2.3) Ownership

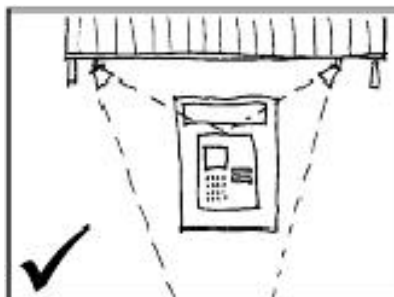
Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
A. Design		
Design dwellings and communal areas to provide a sense of ownership.	To distinguish dwellings or groups of dwellings use design features (eg colouring, vegetation, paving, artworks, fencing or furniture). No more than 6 to 8 dwellings should share a common building entry.	Maintenance and a sense of ownership is essential for successful crime prevention. The sharing of too many entrances allows for a 'transfer of responsibility', developing attitudes based on the assumption that 'some one else will fix it or look after it'. Research indicates that well maintained and cared for properties are less likely to experience crime.



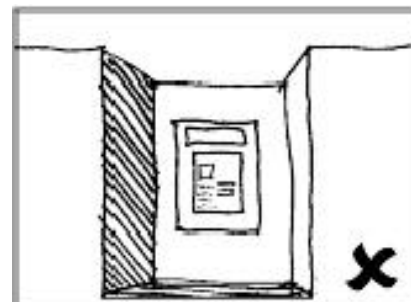
3. Commercial / Retail / Industrial Developments and Community Facilities

(3.1) Natural Surveillance

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
A. Lighting		
Provide lighting to enable natural surveillance Refer to Section 1.1 for other relevant criteria and design requirements	<ul style="list-style-type: none"> • Leave some lights on at night or use sensor lights. 	<p>Lighting is an essential tool in surveillance and deterring illegitimate users.</p> <ul style="list-style-type: none"> • Allows people to see what is ahead • Allows natural surveillance after daylight hours • Facilitates formal surveillance (Police or private security company).
B. Public Services (ATM, help points, bicycle storage, public phones)		
Locate public services in areas of high activity. Refer to Sections 1.1 and 1.3 for other relevant criteria and design requirements	<ul style="list-style-type: none"> • Locate public services in highly visible locations that are well lit. • Locate public services away from possible places to hide, eg fire exits. • Avoid locating public services in recesses. • Design ATM's to incorporate mirrors or reflective materials so that users can observe people behind. • Consider conflicting uses when designing public space (e.g. do not put a public phone or seat near an ATM as this provides a potential thief with an opportunity to loiter). 	<p>The design of public areas will determine:</p> <ul style="list-style-type: none"> • How people will use it and their perceived levels of comfort • The levels of illegitimate activity in this area <p>Providing public services in and around businesses will have a positive impact on the area, however their long term success will be dependent on essential design considerations.</p>



**ATM
Example:
Good
Lighting**



**ATM
Example:
Recessed
and secluded
from natural
surveillance**



(3.2) Access Control

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
A. Building Materials		
Use building materials that reduce the opportunity for intruder access. Refer to Sections 1.1 and 1.3 for other relevant criteria and design requirements	Use toughened or laminated glass at ground floor.	Due to their operating hours and layout, commercial outlets are often crime targets. For example, a clothing outlet with standard operating hours with large display front windows may be targeted after hours. It is essential to not only secure intended access points (ie. doors) but to also consider illegitimate access points (eg. display windows).
B. Hours of Operation		
Consider security issues in buildings operating with extended hours (such as office building, pubs and restaurants).	<ul style="list-style-type: none"> • Adequate lighting in areas surrounding entry/exit points. • Adequate lighting surrounding all amenities (eg. car park area and toilets). • Where necessary, allocate security guards to patrol the surrounding areas of the building. • Consider design issues outlined in Section 1.1 such as blind corners and landscaping. 	The provision of safe areas for both customers and staff will benefit any business. It is important to acknowledge that whilst an area may be 'safe', it may not 'feel safe' - The consideration of after hours access in the design of entry/exit points will impact positively on staff and customer safety perceptions.

(3.3) Ownership

Issues related to ownership such as maintenance, materials and boundaries are critical for successful 'Crime Prevention Through Environmental Design'. Please refer to Section 1.3 of this document for further information.



4. Car Parks

(4.1) Natural Surveillance

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
A. Lighting		
Provide adequate lighting. Please refer to Section 1.1 of this document for further information.	<ul style="list-style-type: none"> • Illuminate all external edges and access points to car parks during opening hours of the car park. • To allow for the adjustment of driver and pedestrian vision, lighting intensity to covered or underground car parks should be graded. Brighter light should be used at entrance and pedestrian access ways and dimmer light should be used elsewhere. • Lighting should be sufficiently bright to enable a car park user to see into the rear seat of a parked car before they enter the car. 	<p>Appropriate lighting is essential in making people feel safe and in deterring illegitimate users.</p> <ul style="list-style-type: none"> • Allows people to see what is ahead • Encourages legitimate users to use a facility after daylight hours; their presence will deter potential illegitimate users • Allows natural surveillance after daylight hours • Facilitates formal surveillance by security patrols
B. Materials		
Use materials that enhance natural surveillance within the car park	<ul style="list-style-type: none"> • Encourage the use of transparent materials for walls and doors. • Paint the ceilings and walls of the car park in light colours to enhance brightness. • Reflective film can be used on windows overlooking car parks. Potential intruders will not know if they are being observed during daylight hours. 	Please refer to Sections 1.1 and 1.3 for relevant explanations
C. Security Grilles		
Allow natural observation	<ul style="list-style-type: none"> • Consider the installation of open style security grilles to individual parking spaces. 	This allows passers-by, whether pedestrian or otherwise to see into an undercover parking area. This will deter potential offenders as they will be easily noticed.
D. Site & Building Layout		
Ensure clear sight lines throughout the parking area	<ul style="list-style-type: none"> • Avoid large expanses of car parks. • Where large expanses of car parks are proposed, provide surveillance such as security cameras. • Access to lifts, stairwells and pedestrian pathways should be clearly visible. • Avoid hidden recesses. • Locate disabled parking spaces in highly visible and convenient areas. 	Whilst car parks can be areas with large flows of traffic, there is rarely people sitting in their cars with the opportunity to observe any suspicious behaviour (unlike in an office or commercial environment). In order to facilitate natural surveillance, it is important to ensure that clear sight lines (ie. not blocked by blind corners, buildings or landscape) are incorporated to its design.
Design car parks to allow for natural surveillance	<ul style="list-style-type: none"> • Locate car parks in areas that can be observed by adjoining uses. 	



(4.2) Access Control

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
A. Lighting		
Provide adequate lighting to encourage use and access to the facility.	Illuminate all external edges and access points to car parks during opening hours of the car park.	Lighting is an essential tool in making people feel safe and in deterring illegitimate users. A well lit car park will encourage night time use of this facility.
B. Security		
Provide security to monitor access to area.	<ul style="list-style-type: none"> • Use security devices (eg intercom or remote lock facility) where appropriate. • For large developments, locate a help point on each parking level and/or allocate security staff. • For a multi level car park, use only a limited area of the car park outside peak hours. • Consider the installation of boom gates or similar devices at entrances and exists of the car park. 	It is important to reduce opportunity for unauthorised access without affecting legitimate users. Due to the ongoing flow of people/traffic through car parks it is very difficult to identify legitimate users from trespassers.
C. Site and Building Layout		
Ensure ease of access and safety within the car park	<ul style="list-style-type: none"> • Minimise the number of entry and exit points. • Pedestrian corridors should be created for large developments. • Where possible, locate entry/exit points in close proximity and close to the car park operator or shops, cafes etc. 	At the best of times, car parks are places where people can feel unsafe. The site and building layout should be aware of this fact and ensure that all entry/exit points are easily accessible, well signed, lit and designed in line with strategies outlined within Sections 1.1, 1.2 and 1.3 of the document. This is particularly relevant for staff car parks, which are often used outside of regular business hours.
Clearly distinguish between private and public space	<ul style="list-style-type: none"> • Staff car park should be separated and secured. 	



(4.2) Access Control (Continued)

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
D. Signage		
<p>Ensure that parking areas are clearly identified by signage to prevent unintended access and to assist persons trying to find their car.</p>	<ul style="list-style-type: none"> • Provide signage that is clearly visible, easy to read and simple to understand • Use strong colours, standard symbols and simple graphics for signs. • Upon entering the car park provide both pedestrians and drivers with a clear understanding of direction to stairs, lifts and exits. • Use creative signage to distinguish between floors to enable users to easily locate their cars. • Advise users of security measures that are in place and where to find them eg intercom system. • Provide signs at the car park advising users to lock their cars. • Where exits are closed after hours, ensure this information is indicated at the car park entrance. 	<p>Whilst car parks can be areas with large flows of traffic, there are rarely people sitting in their cars with the opportunity to observe any suspicious behaviour (unlike in an office or commercial environment). For this reason, car park areas can be perceived as very empty and even dangerous environments.</p> <p>The provision of information is very important for people to 'feel safe' in a particular car park area. Signage regarding level and location within the car park, access points, security devices and operating hours impacts on car park users in four ways:</p> <ul style="list-style-type: none"> • Helps users feel safe through the provision of information; as they know where they are, where to go and what to do in an emergency situation. • Helps users avoid uncomfortable situations such as arriving at the car park after it has closed for the day. • Gives users practical information regarding their role in protecting their car (eg. lock it or lose it). • Helps people feel more comfortable about leaving their vehicle in the car park as it is 'under surveillance' and 'being looked after'.

(4.3) Ownership

Issues related to ownership such as maintenance, materials and boundaries are critical for successful 'Crime Prevention Through Environmental Design'. Car parks that are not able to be locked at night (such as open area car parks) particularly, are prone to illegitimate behaviour after hours. Regular maintenance of these is essential both to reduce the likelihood of further crime and to increase legitimate use during operating hours. Please refer to Section 1.3 of this document for further information.



5. Open Spaces

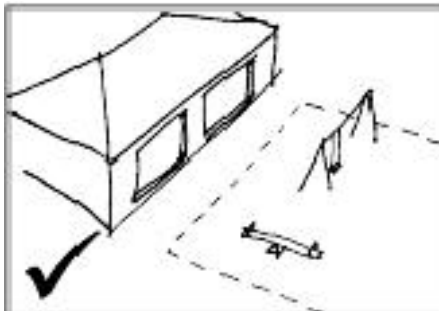
(5.1) Natural Surveillance

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
A. Landscaping		
<p>Avoid landscaping which obstructs natural surveillance</p> <p>Please refer to Section 1.1 of this document for further information.</p>	<ul style="list-style-type: none"> Select planting species having regard to their type and location to minimise possible places for intruders to hide. When planting is provided within 5m of a pedestrian pathway, it should be lower than 1m or thin trunked with high canopy. 	<p>The size of certain types of vegetation can obstruct visibility and make people feel uneasy and unsafe. Perceiving that something may be 'behind those bushes' can discourage genuine users of a space.</p>
B. Lighting		
<p>Allow adequate brightness. Ensure lighting does not produce glare or dark shadows.</p> <p>Please refer to Section 1.1 of this document for further information.</p>	<ul style="list-style-type: none"> Illuminate access points to open spaces and pathways. Locate brighter lights in highly used areas. 	<p>At night open spaces can be very intimidating as it is very difficult to monitor movement around you. Lighting is an essential tool in making people feel safe and in deterring illegitimate users.</p> <ul style="list-style-type: none"> Allows people to see what is ahead Encourages legitimate users to use a facility after daylight hours; their presence will deter potential illegitimate users Allows natural surveillance after daylight hours Facilitates formal surveillance after hours (Police and/or security company).

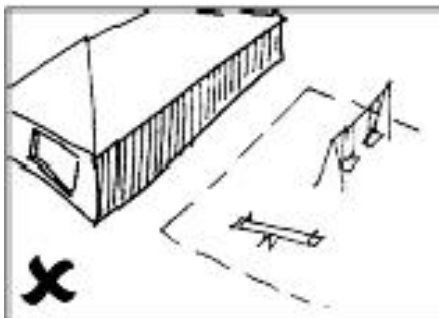


(5.1) Natural Surveillance (Continued)

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
C. Site & Building Layout		
Encourage activity and allow natural surveillance	<ul style="list-style-type: none"> • Open spaces should be clearly designated and situated at locations easily observed by people. Parks and playgrounds should be placed in front of buildings and should face streets rather than back lanes. • To encourage use, seating, play equipment and BBQ areas should be provided. • Seating should be conveniently located and easily seen. • Facilities (eg toilets and telephones) should be located close to areas of active uses. • Access to facilities should be direct and free of obstruction. 	To ensure people are able to maximise and legitimately use facilities in open spaces (such as seating, tables, BBQ and toilets), the location of these must be in accordance with the natural surveillance, access and ownership requirements outlined in Section 1 of this document. The unintended location of facilities in secluded areas will result in these locations being misused.



Open Space Example: Good natural surveillance of play ground from property windows.



Open Space Example: No natural surveillance of play ground from property.



(5.2) Access Control

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
A. Signage		
Ensure that signage is clearly visible, easy to read and simple to understand	<ul style="list-style-type: none"> Both directional and behavioural signage should be provided at entrances to parks. 	Signage allows users to: <ul style="list-style-type: none"> Feel safe through the provision of information; as they know where they are, where to go and what to do in an emergency situation. Avoid uncomfortable situations such as getting lost (particularly after hours). Identify exit points in an emergency. Avoid unintentionally trespassing.
B. Site & Building Layout		
Offer a choice of clearly defined pathways	<ul style="list-style-type: none"> Pathways should be direct and follow pedestrian desire lines. 	In order to facilitate natural surveillance, it is important to ensure that clear sight lines (ie. not blocked by blind corners, buildings or landscape) are paramount to the design. Please refer to Section 1.1 of this document, particularly: <ul style="list-style-type: none"> Blind Corners Landscaping Fencing

(5.3) Ownership

Performance Criteria	Design Requirements/ Suggestions	Purpose/Explanation
A. Pride and Involvement		
Encourage design that promotes pride and a sense of place for community	<ul style="list-style-type: none"> Provide features that reflect the community's needs (eg play equipment, open areas etc). Consider using cultural themes applicable to the area. Encourage community involvement in design. Encourage volunteer management and maintenance of public areas. 	Please refer to Section 1.3 of this document for further information.