

SEATON PROPERTY OWNERS/ARCHITECTS

DESIGN PHILOSOPHY: SECURITY

Part 2 of 3

1. **INTRODUCTION**

The plan for the Seaton Precinct is that it will be an open development (with some gated residential units) which will provide a secure environment.

The basis of the security plan lies in good Urban and Architectural Design using principles which create a space which is crime unfriendly and electronic surveillance to add a further layer of pro-active security.

The method proposed is to use the well documented approach, referred to as Crime Prevention through Environmental Design (CPTED). This will be supplemented in conjunction with the more traditional security services.

2. **DESIGN PRINCIPLES**

Designing out crime rests on achieving the key principles of:

- a. Defensible Space – which distinguishes between public areas, semi-private areas and public zones characterised respectively by increasing levels of access control and restriction to specific individuals or groups. Physical and/or symbolic barriers define zones, emphasise transition between zones and discourage unwanted access.
- b. Territoriality – which identifies certain areas, defined through uniqueness of design or location of community facilities, as the exclusive domain of a particular group. Regular use of such areas fosters a sense of pride and ownership, mutual protection and belonging which discourages unwanted intrusion.
- c. Surveillance – which, resulting from a combination of design and local social activity, makes potential offenders noticeable and identifiable. Surveillance can be enhanced naturally by minimising visual obstacles and places of concealment or formally through CCTV or security patrols where natural surveillance measures alone cannot adequately protect an area.
- d. Building Security Standards - which, through the installation of security hardware and stronger materials, to approved standards, discourages intruder entry.

While all principles apply, the Building Security Standards and the dwellings' relationship with the surrounding space is key to success.

3. **CONSIDERATIONS**

The first consideration is to identify the risk level of the particular property in relation to the general area, surrounding buildings and the development planned for this property.

Thereafter the appropriate measures, as detailed below, should be taken into account.

a. **Siting, Layout and Movement**

- Site buildings to allow unobstructed views of neighbouring properties and roads while maintaining adequate privacy. Buildings should provide direct views over public areas.
- Limit the number of units served by one entrance.
- Private rear areas of adjacent properties should interlock to restrict unwanted access from a public area.
- Avoid layouts where buildings back onto public open space or footpaths.
- Entrances, stores, drying areas, as well as other service areas of properties, should be open, light and without dark, concealed areas where people could hide.
- Car parking and garages, especially in dwellings, should ideally be overlooked by habitable rooms.
- Footpaths should be clear, well lit, direct and overlooked by adjacent buildings without dark corners or blind bends where people could hide.

b. **Buildings and Boundaries : Single Residential**

This section relates particularly to residential properties, in particular, single dwelling properties.

- Single storey structures such as porches, extensions and garages should have pitched roofs to prevent their being used to gain access to first floor windows or other openings.

- Rear pedestrian access to housing (or any property) can be restricted by the use of lockable rear gates. A height of approximately 2.4m and without supports or bars that can be used as a foot/hand hold makes it very difficult for any intruder to gain access by climbing over the gates.
- Provide an entry intercom system with electric lock/ release operator.
- Install good quality doors preferably with laminated glass, mortice locks, spy holes and security chains.
- Install good quality window units with window locks if possible.
- Movement sensitive security lighting at the front and rear of dwellings, but which avoids causing nuisance to neighbours, can improve security and surveillance to buildings, their users, and passers-by.
- Fences or walls should be used to define private areas to make potential criminals feel vulnerable.
- Install prickly shrubs and low fencing to discourage intruders in low risk situations.
- Boundaries between public areas and private rear/side gardens in high risk situations should be at least 2.4metres in height and of robust structure which cannot be kicked or pushed down.
- Appropriate planting must be selected to ensure good surveillance.
- Front boundaries should be defined with fencing at least 2m in height and provide good visibility from the road.
- Brick piers should have sloping or pointed copings to eliminate potential climb over points.

c. **Buildings and Boundaries: Multiple Single Residential Buildings.**

This section relates particularly to developments consisting of multiple single residential dwellings.

- The Design principles for individual properties as listed above should be considered, with the added protection of an overall boundary, with access control.
- The access point(s) should obey the CPTED principles, particularly natural surveillance and openness. In addition, there will be an

electronic access control system in place with the possibility of electronic surveillance.

- The layout of the access facilities is extremely important. This includes the positioning of readers, booms etc as well as correct lane width provision and the positioning of gates.

There must be an adequate number of lanes provided with enough stacking distance for vehicles as well as facilities for parking and sufficient turning space outside the gate for vehicles who are turned away to leave without interfering with vehicles waiting to enter.

Co-operation with the electronic security solution designer is valuable at this stage.

- The service areas such as landscaping storage and ablution facilities, bin areas, electrical metering areas, post collection areas should have adequate lighting, natural and/or electronic surveillance and openness of design.

d. **Buildings and Boundaries : Multi Storey Residential and Commercial Buildings**

This section relates particularly to developments consisting of single and multiple multi-storey buildings for residential/commercial use.

- The Design principles for individual properties as listed above should be considered, with the added protection of an entrance facility with access control into each individual building.
- The access area should especially provide good natural surveillance as well as barriers to easy access and lack of dark corners and hiding places.
- Provision should be made for an electronic access control system with electronic surveillance in place.
- The provision of a room within the building to house the required electronic equipment is necessary. The size of the room can be determined by cooperation with the electronic security system designer.
- Individual units within the building should employ doors and locking mechanisms as listed above. Any windows opening on to public passageways and other areas should be adequately protected.

- The CPTED principles relating to parking areas and service areas should be noted. Electronic surveillance may be used in these areas.
- Multiple buildings within a single development will have the added protection of an overall boundary. The particular issues concerning access control facilities for the entrances to the development will be the same as for multiple single dwelling developments. Access points for tenants/owners, service providers, visitors and deliveries, may be separated.

e. **Buildings and Boundaries : Single Retail Facilities**

This section relates particularly to developments consisting of single retail facilities with access from the street.

- The design of the general area using CPTED principles should provide protection for single retail premises opening on to the street.

Developers of such buildings should be aware of natural surveillance principles and the security of occupants and customers, when doing the design.

- The use of CCTV and visible security, is important.

f. **Buildings and Boundaries : Multi Use Retail Facilities**

This section relates particularly to developments consisting of multi-use retail facilities.

- Multi-use retail properties should be further protected by a restriction of access such as controlled booms and pay-on-foot parking systems.
- Particular attention should be paid to the design of high risk areas of these developments including cash collection areas, banking and ATM areas and the associated cash transfer operations which will take place. This should be done to minimise the risk to the general public.
- Other high risk operations are facilities involving electronic goods and jewellery.
- The use of CCTV and visible security is important.

g. **Open Space and Landscaping**

- Avoid providing small pockets of open space that are difficult to maintain.

- Don't plan trees too close to buildings where they may be used for climbing and gaining access to upper storeys.
- Don't plant trees or shrubs where they will obscure lighting or access routes.
- Planting schemes should not provide an opportunity for people to be able to hide.
- Planting should create a visible zone between 800mm and 1800mm to provide good visibility.
- Avoid planting landscaping that will grow over 1 metre in height immediately adjacent to public space.

It is expected that the Architectural response to these requirements and the supporting theories will result in some innovative solutions. As a guide to evaluating the progress towards achieving the goals, a check list is provided for review purposes.

4. **UNDERSTANDING THE CONCEPTS**

This document provides guidance in the concept of Designing out Crime. It is advisable to undertake additional reading and research on the subject so that the principles can be applied by skilled designers.

The following list provides further reading and many more opportunities are available on the internet.

A check list is provided at the end of this document, as an evaluation tool.

For all concerned, this is just the beginning of a journey. The real benefit and enjoyment of being part of the solution starts when the owner moves into the completed building.

Everyone then becomes part of the solution.

5. **REFERENCES**

1. Designing Safer Spaces – CSIR
2. Crime Prevention Through Environmental Design – Timothy Crow
3. Design Out Crime – Ian Colquhoun

CHECK LIST

		YES	NO
EXTERIOR			
1.	Are your property numbers easily visible from the street, both in day and night?	<input type="checkbox"/>	<input type="checkbox"/>
2.	Are all trees selected to have at least 1.8m of open space beneath them?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Are all shrubs selected to be less than 800mm high?	<input type="checkbox"/>	<input type="checkbox"/>
4.	Is the entrance door visible from the road and well-lit at night.	<input type="checkbox"/>	<input type="checkbox"/>
5.	Are all other entrance doors to the buildings well-lit and visible from at least 5m when approaching?	<input type="checkbox"/>	<input type="checkbox"/>
6.	Are all other entrance doors well lit?	<input type="checkbox"/>	<input type="checkbox"/>
7.	Is the building clearly visible from the road and neighbours' properties?	<input type="checkbox"/>	<input type="checkbox"/>
8.	Is external lighting well placed to provide light for good visibility after hours and controlled by motion sensors where necessary?	<input type="checkbox"/>	<input type="checkbox"/>
9.	Do the windows in the building allow for full visibility of the property?	<input type="checkbox"/>	<input type="checkbox"/>
10.	Is the natural access into the property and to the front entrance illuminated and light and visible from the house?	<input type="checkbox"/>	<input type="checkbox"/>
11.	Is the area allocated to park cars and any other valuable assets visible from the building?	<input type="checkbox"/>	<input type="checkbox"/>
12.	Does the building design ensure that there is no natural step-on points to assist with access to the building (eg. flat roof over porch to gain access to second floor)?	<input type="checkbox"/>	<input type="checkbox"/>
13.	Is the boundary between private property and public space clearly demarcated?	<input type="checkbox"/>	<input type="checkbox"/>

		YES	NO
14.	Does all boundary fencing provide high visibility from both sides?	<input type="checkbox"/>	<input type="checkbox"/>
15.	Does the boundary fence design reduce the possibility of using it as a "ladder" or support to gain access?	<input type="checkbox"/>	<input type="checkbox"/>
16.	Does the entrance gate design have details to prevent lifting of the gates and/or theft of the motor?	<input type="checkbox"/>	<input type="checkbox"/>

BUILDING DETAILS

1.	Are all outside doors solid core if made from wood or robust if an alternative material has been used?	<input type="checkbox"/>	<input type="checkbox"/>
2.	Are all outside doors fitted with hinges that are fully recessed and cannot be dismantled from outside?	<input type="checkbox"/>	<input type="checkbox"/>
3.	Do all external doors have locks that are designed to reduce the opportunity of being forced open?	<input type="checkbox"/>	<input type="checkbox"/>
4.	Do all external doors have dead locks?	<input type="checkbox"/>	<input type="checkbox"/>
5.	Do all external doors have a peep hole to allow a 180° vision?	<input type="checkbox"/>	<input type="checkbox"/>
6.	Are all external door locks at least 1100mm from a window?	<input type="checkbox"/>	<input type="checkbox"/>
7.	Are all sliding doors specifically detailed to ensure they cannot be removed when locked?	<input type="checkbox"/>	<input type="checkbox"/>
8.	Has provision been made for installing a safe for storage of valuables.	<input type="checkbox"/>	<input type="checkbox"/>
9.	Have opening windows been provided with burglar guards?	<input type="checkbox"/>	<input type="checkbox"/>
10.	Do external doors have security gates for use when the door is left open?	<input type="checkbox"/>	<input type="checkbox"/>

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| 11. | Has the dwelling been fitted with a burglar alarm? | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. | Has external lighting on the dwelling being carefully designed to improve after dark visibility? | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. | Has a room in the property been selected as a "safe room" for protection if under duress? | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. | Have the materials of the dwelling been selected to reduce maintenance? | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. | If air conditioning units are installed, is the hole through the external wall protected against entry when the unit is removed? | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. | Has the management of cash and valuables been designed as a secure solution? | <input type="checkbox"/> | <input type="checkbox"/> |
| 17. | Has adequate provision been made for both Manpower and Electronic Security solutions? | <input type="checkbox"/> | <input type="checkbox"/> |
| 18. | Has the development design provided for a "lock down" if there is a security threat? | <input type="checkbox"/> | <input type="checkbox"/> |