



Crime Prevention Through Environmental Design

Client: Macquarie Health Corporation

Project: Enhanced Rehabilitation to
President Private Hospital

(Ref. No. SSD 10320)

369-381 President Ave
61-65 Hotham Rd,
2-4 Bidurgal Avenue
Kirrawee NSW 2232

Project No: MACHEALTH-06

June 2020

Contact:

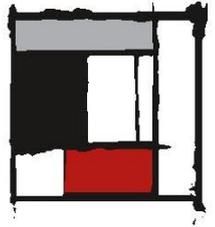
Christine Kelly

Urban and Regional Planner

P 02 9518 8800

M 0414 746 699

E chris@imagescape.com.au



Crime Prevention Through Environmental Design (CPTED) Report

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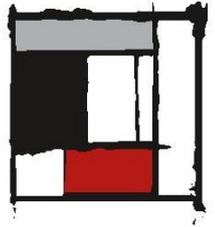
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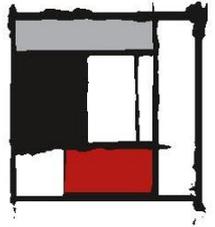
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Crime Prevention Through Environmental Design (CPTED) Report

Table of Contents

1.0	Introduction	4
1.1	Purpose	4
1.2	In summary	4
1.3	Site Description	5
1.4	Proposal Description	5
2.0	Crime Opportunity	6
2.1	Is the proposed development susceptible to certain crimes?	7
2.2	Is there existing evidence of crimes or anti-social behaviour?	7
3.0	Crime Prevention Through Environmental Design (CPTED)	7
3.1	Lighting	7
3.2	Natural Surveillance and sightlines	7
3.3	Signage	8
3.4	Building Design	8
3.5	Landscaping	8
3.6	Public Open Spaces and Parks	9
3.7	Community Facilities and Public Amenities	10
4.0	Site Management	10
4.1	What management practices will be put into place to ensure that the site is maintained?	10
4.2	How will vandalism and graffiti be addressed?	10
4.3	Is there any organised surveillance planned?	11
5.0	Areas delivering additional consideration	11
5.1	Are there any areas that will require special consideration (e.g. entry areas, car parks)?	11
5.2	What design elements or management practices are to be employed to address crime concerns in these areas?	12
6.0	Conclusion	13
6.1	Brief outline as to whether the proposed development will have an impact on crime (negative or positive) and reasons as to why	13



Crime Prevention Through Environmental Design (CPTED) Report

1.0 Introduction

1.1 Purpose

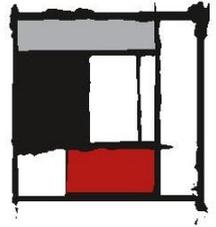
This report has been prepared by Imagescape Design Studios to be read in conjunction with the Environmental Impact Statement (EIS) for the Alterations and Additions to President Private Hospital.

A request for the Secretary's Environmental Assessment Requirements (SEARs) for the site was lodged with the Department of Planning and the SEARs requirement was issued May 28th 2019 (Ref: SSD 10320). The SEARs requirements specifically asks for reference to be made to the decisions made in relation to Crime Prevention Through Environmental Design (CPTED). The SEARs also asks for an explanation of how these decisions support the strategic planning objectives and goals for the State Government as well as Local Government. This is the purpose of this report.

1.2 In summary

'Crime prevention Through Environmental design' principles seek to promote the creation of safer place through environmental design in the planning, design and management of development. The safety and security of staff, visitors and patients to the site has been integrated into the planning and design of the proposed building works. The design responds to crime reduction and prevention through the use of the four principles for CPTED which include surveillance, access control, territorial reinforcement and space management. These principles are addressed as follows:

- **Surveillance** – The site neighbours on to a number of existing residential premises, which will provide for passive surveillance of main access points. Security outside of working hours will provide continued surveillance of the site. The 24 hour operations of the hospital will provide for ongoing passive surveillance. Effective use of lighting will also be incorporated within the design of the site. Car parking areas will be well lit at night and are located in close proximity to entry and exit points providing convenient access and natural surveillance.
- **Access control** – All visitors to the site will be required to report to administration / reception on arrival. Security lighting will be provided in key locations and will be sufficient for good visibility at night.
- **Territorial reinforcement** – The site will include pedestrian and bicycle pathways accessing the site from surrounding areas. This network of access prevents the site being fenced off – and will place more emphasis on CCTV surveillance. Areas with poor visibility will be fenced off to reduce areas of concealment.



Crime Prevention Through Environmental Design (CPTED) Report

- **Space management** – The development's design and internal layout have considered potential safety problems such as locations of entrapment. Landscaped areas will be designed to ensure that vegetation will not obstruct lines of sight and will be maintained to a good standard.

1.3 Site Description

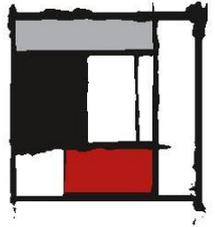


The subject site is located in Kirrawee which is 25 kilometres south of the Sydney central business district. Kirrawee lies between Sutherland, to the west, and Gymea and Grays Point, to the east. Kirrawee's southern border is formed by The Royal National Park, while Kareela and Jannali for the northern border.

Property:	Plan 006A	Plan 006A	Plan 006A	Plan 006A	Plan 006A
Street Address:	369-381 President Ave, Kirrawee NSW 2232	63-65 Hotham Road, Gymea NSW 2227	61 Hotham Road, Gymea NSW 2227	2 Bidurgal Ave, Kirrawee NSW 2232	4 Bidurgal Ave, Kirrawee NSW 2232
Lot No.:	1	24A	23	53	54
DP No.:	841502	26995	26995	29493	29493
Zoning:	SP1 Special Activities (Health Services Facility)	SP1 Special Activities (Health Services Facility)	R2 Low Density Residential	R2 Low Density Residential	R2 Low Density Residential
Existing Use:	Hospital	Single dwelling used for Inpatient Rehabilitation	Single dwelling used for hospital administration	Single dwelling	Single dwelling
Proposed use	Hospital	Demolished. Used for car park	Single dwelling used for hospital administration	Single dwelling	Single dwelling

1.4 Proposal Description

The proposed development comprises the removal of the existing cottage and portable building structure located on the south west corner of the site, as well as the demolition of the existing cottages on 63-65 Hotham road, 61 Hotham Road and 4 Bidurgal Street. Under the guidance of an arborist a number of trees are



Crime Prevention Through Environmental Design (CPTED) Report

also proposed for removal. The construction works will comprise alterations to the existing facility as well as extensions containing the following:

- 182 in patient accommodation suites
- 72 mental health patient suites
- Out-patients clinic. Including X-ray
- Ancillary main entry/front of house support facilities including reception area, kitchen and loading dock
- 161 car-parking spaces
- An ambulance bay
- Clinical and non-clinical support services
- Outpatients and allied health services

2.0 Crime Opportunity

The Sutherland Shire Crime Prevention Plan 2018 – 2021 has two focus categories:

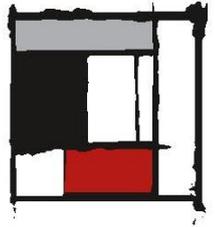
Malicious Damage of Property – Graffiti
Assault – Domestic Violence Related.

The proposed design will address the minimisation of malicious damage to property as a focus to the design and construction. The physical safety and security of staff, patients, visitors and community will also be another focus to the proposed works.

The location of the new building works are located behind the existing building and so will not attract attention via the President Avenue streetscape.

It is also worthy to confirm that the type of patients using the facility will not cause a major concern. Patients at the facility are either day patients, overnight patients or patients with limited mobility. Patients in a high need for emergency or those suffering from mental health issues will not be utilising the services at this hospital.

The site has been a hospital for many years and whilst it has had its fair share of graffiti and antisocial behaviour in the past it has remained fairly devoid of constant attack. This is partially due to the vigilance of neighbours and a thorough maintenance and security regime held by hospital management. Given the proposal to increase the density on the site as well as inviting the public to integrate into its public spaces, management do not want to be complacent in regards to Crime prevention and so the decisions outlined in this report have been formulated with the assistance of management and staff of President Private Hospital.



Crime Prevention Through Environmental Design (CPTED) Report

2.1 Is the proposed development susceptible to certain crimes?

The proposed area in which the site is located is susceptible to petty crimes such as vandalism, graffiti and vagrancy. The proposed development will endeavor to increase the natural surveillance of the area therefore ensure that anti-social behavioral will not be encouraged.

2.2 Is there existing evidence of crimes or anti-social behaviour?

Evidence of crime and antisocial behaviour is intermittent at present and is not high enough to attract the need for long term measures to be put in place. Hospital staff and management are mindful that the increase in usage of the site and of the services it offers may see in increase and frequency or anti-social behaviour.

3.0 Crime Prevention Through Environmental Design (CPTED)

3.1 Lighting

Lighting will be kept consistent to reduce the contrast between the shadows and the illuminated areas. It will be part of the site maintenance procedure to be vigilant over the maintenance over external lighting.

The selection of external light fittings will be vandal resistant and high mounted where possible to reduce the risk of vandalism. External lighting will also be on motion sensors.

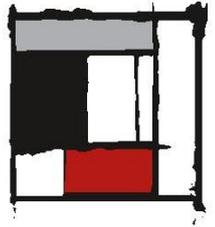
Internal lighting will be on timers and motion sensors. This allows motion to be detected when the building is not in use.

Externally, the building and the carpark will be better lit to encourage natural surveillance to all areas. The selection of light fittings will support the streetscape to ensure that the President Avenue streetscape delivers a positive aesthetic to the community. All external lighting will be consistent with AS4282 (1997) the control of the Obtrusive Effect of Outdoor Lighting.

3.2 Natural Surveillance and sightlines

The following strategies will be employed to aid surveillance:

- 1) Swift Graffiti removal
- 2) Vigilant Site maintenance
- 3) Covert surveillance from neighbouring residents



Crime Prevention Through Environmental Design (CPTED) Report

The main pedestrian paths have also been identified as targets for natural surveillance. It is for this reason that windows have been placed to allow a look out on to pedestrian and public pathways to further encourage the natural surveillance method.

Consideration will be given to employ a contracted security patrol for the site if the measures put into place do not prove to be successful in deterring vandals and vagrants. Special consideration will be given to the use of security patrols once construction on the remaining buildings on the site begin.

Internal lighting to the buildings and car park will be on timers and motion sensors as will the external lighting. This allows motion to be detected when the buildings are not in use.

3.3 Signage

The application of signage to the pathways and roads will deliver a further definition of public and private areas. A series of designs will be used for the signs so that even the signs will be identifiable as public and private signage.

3.4 Building Design

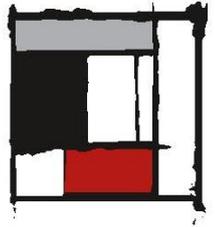
The location of the building is not visible nor is accessible from President Avenue. Access to the new areas will only be allowed via the main entry of the hospital. Visitors therefore will have minimum opportunity to meander through the site.

The main pedestrian paths have also been identified as targets for natural surveillance. It is for this reason that windows have been placed to allow a look out on to pedestrian and public pathways to further encourage the natural surveillance method.

3.5 Landscaping

The landscaping does provide a slight relief between the main road and the building façade. The entries are delineated by the simple landscaping beds. The use of large deciduous trees will be used throughout the proposed site. The tree selection will include open foliage to allow visibility through the trees to enable visual recognition for the resident.

The selection of plants proposed are fairly low in height to allow passers-by to maintain visual contact with the main entries and pathways to the buildings. Plant selection will be made on the basis that small alcoves and potential hiding spots outside the general line of sight will be planted out with plant species, which deter potential intruders to stop and linger. There are no planter boxes placed against solid tall elements to deter intruders to lie in wait.



Crime Prevention Through Environmental Design (CPTED) Report

For these aims to be met, a number of design decisions have been made, these are:

- A) Plant selection at entries will include open foliage to allow visibility through the trees to enable visual recognition by staff and visitors
- B) Placement of landscaping will not encourage hiding cavities for intruders to lay in wait.
- C) Landscape elements will not be placed against solid tall elements to deter potential intruders to lie in wait.
- D) There will be no landscape elements providing footholds or hiding ledges to assist potential intruders to climb to areas out of sight and lie in wait.
- E) Plant selections will be made to discourage potential intruders to stop and linger.

The use of screen will be balanced between the need for individual privacy as well as deterrents to 'unknowns'. Screens and fences in the form of timber and powder coat rail fences will be used to define the heavy landscape areas. They will be designed as a definitive element providing access for maintenance rather than a solid element providing footholds or hiding ledges for potential intruders.

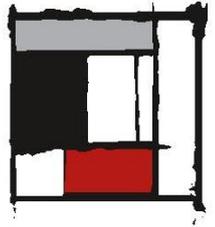
Whilst every effort will be made to retain as many existing trees as possible it will also be necessary to remove some trees to improve visibility for surveillance.

3.6 Public Open Spaces and Parks

Designed closely with the landscaping, the pathways provide direction to entryways and meeting spaces. Materials and design of the pathways will delineate whether a pathway is for private or public use.

The main strategy employed to aid natural surveillance is twofold:

- a) To encourage users to take ownership of their surroundings by designing spaces and activities that they can become involved with. By allowing users to feel safe in these surroundings they then will take ownership of these spaces.
- b) To encourage users and community to become involved in these spaces and activities on offer. In-house activities such as vegetable gardens, composting, activity walks and the like will encourage patients to become involved into the surrounding spaces. Memembers of the community will be welcomes into Hotham Park. Integration and connection between the two communities will lead to safer and more secure surrounds.



Crime Prevention Through Environmental Design (CPTED) Report

3.7 Community Facilities and Public Amenities

The main community facility and public amenity will be Hotham Park. It will form the entry precinct for the hospital. The park will be linked to the proposed site with accessible pathways all at appropriate gradient and well-lit at night.

4.0 Site Management

4.1 What management practices will be put into place to ensure that the site is maintained?

Ongoing management of the site will allow the aims set in this statement to be fulfilled. The existing site has in place a site management team. This team is responsible for records, procedures and the physical maintenance of the site.

Light fixtures will be maintained in a clean condition and promptly replaced if required. Provide signage advising who to contact to report faulty lighting. Light fittings will be selected for ease of replacement /maintenance.

A comprehensive crime reporting system, encouraging reporting of all crimes will be developed.

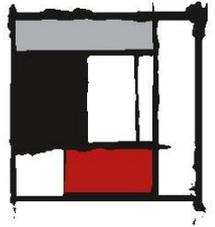
4.2 How will vandalism and graffiti be addressed?

Aside from the safety and security of patients, visitors and staff, the safety and security of the buildings and grounds also needs consideration. Vandalism and graffiti are a major cause of distaste amongst patients and community members. It is for this reason that building materials will be selected to minimise the temptation to graffiti artists. Graffiti cleaning policies will also be implemented to all building maintenance programmes.

Materials lighter in colour and closer to ground line will be selected for their vandal resistant qualities. Where necessary, vandal resistant or anti-graffiti paint will be applied to deter graffiti artist.

It is also decided that long solid surfaces (such as solid fences) should be kept to a minimum or broken up in surface by planting elements to deter graffiti artists from thinking that they have been provided a large blank canvas to graffiti over.

It is also proposed that buildings will be used at a variety of times and on different days of the week. Vandalism to buildings usually is carried out while buildings are not in use or have a very low occupancy rate. By encouraging the buildings on the site to be used at a variety of times and days, vandalism will be kept to a minimum.



Crime Prevention Through Environmental Design (CPTED) Report

The most effective stand against graffiti and vandalism is community ownership. Through the many community activities and opportunities on offer within the precinct site, it is hoped that this aim can be achieved.

4.3 Is there any organised surveillance planned?

A contracted security patrol will be put in place. This patrol provides for 4 random patrols of the hospital site. The security service is available to respond to security incidents outside these regular patrols.

All patients have access to the 'Nurse Call' service from their rooms. This service is commonly used by the patient to alert nursing staff if they have individual needs, however, they can also be used if the patient feels compromised or has witnessed an unlawful act. If used by a patient, it is answered by a registered nurse in charge located at the nurses' desk. All nurses' and reception will be fitted with panic buttons which alerts local police if the individual feels that they have been put in a compromised position.

5.0 Areas delivering additional consideration

5.1 Are there any areas that will require special consideration (e.g. entry areas, car parks)?

The areas requiring special attention are as follows:

Area 1: North Western boundary

This area of landscaping does not have a large amount of patient rooms overlooking it and so does not have the natural surveillance as some of the other landscape areas. Vandals and vagrants may be encouraged to linger as they may feel that the area is not monitored in anyway.

Area 2: The main entry to the hospital

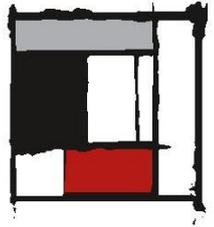
A high level of vandalism is not expected in this immediate area however, given that the area is open to the public it will be an area exhibiting a variety of behaviours.

Area 3: Basement access to the Hospital entry

Basement areas are noted for attracting individuals exhibiting antisocial behavior. As there is minimum natural surveillance in this area it may encourage individuals to linger.

Area 4: Entry to the day clinic

This area is located at a higher level than the public pedestrian footpath, therefore, allowing good sightlines from the southern boundary. However, the



Crime Prevention Through Environmental Design (CPTED) Report

entry is located a fair distance away from the boundary therefore, reducing the cognition of what the passerby may see.

Area 5: The northern western boundary landscaped area immediately behind the hydrotherapy pool and outpatient area

Similar to Area 1, this area does not have any patient rooms or office areas looking into it. Whilst the area may be seen from neighbouring properties the lack of windows from the hospital space may encourage individuals to feel that they can linger in this area without being detected.

Area 6: The Loading Dock area

Loading dock areas are areas which seem to attract vandalism and graffiti. Individuals may feel that the area has no supervision, it may not be kept tidy further encouraging individuals to litter, vandalise and or behave inappropriately.

5.2 What design elements or management practices are to be employed to address crime concerns in these areas?

Most commonly used for all the above areas will be the use of lighting. Not only to provide appropriate levels at nighttime but also to provide confidence by users during the day. This confidence will assist in improving site lines as well as overall visual recognition.

Pathways have been designed to follow a shallow gradient to encourage residents and visitors to use the paths provided. All paths are wide enough for 2 people to pass freely. This will overcome the feeling of being trapped and therefore lead to more confidence and trust by others.

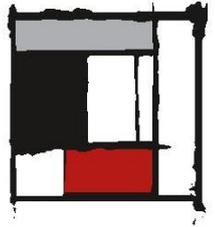
In addressing the areas nominated in item 5.1, the following will be implemented:
Areas 1 & 5:

These areas will be heavily landscaped with plant species designed to hinder nonessential access. Locked gates will also be located to provide key access only. These areas will have security cameras, therefore, overt security will be utilised for these areas.

Areas 2, 3 & 4:

Addressing the violence and antisocial behavior toward staff, patients and visitors to the hospital will be paramount in this proposal. Areas 2 & 3 define the main entry and exit points to and from the hospital. Long waiting times, confusing signage and broken technology all contribute to frustration and aggression.

Pedestrian pathways are designed to meet in and around this area adding to the volume of activity surrounding this area. The continuity of movement will in itself provide surveillance to the area.



Crime Prevention Through Environmental Design (CPTED) Report

Clear and positive communication between healthcare worker, patients and visitors is vital to reducing frustration and decreasing incidents of violence and aggression. The following initiatives will be utilised to improve the security and safety of healthcare staff, patients and visitors:

- An upgraded security system, including installation of effective duress alarms and CCTV throughout the ICU and ED departments.
- Improved communications with patients and visitors to relay possible wait times and expected standards of behavior
- Standardization of violence and aggression training for hospital clinical and security staff
- Information to patients and visitors on the standard of behavior expected of them within the hospital
- Duress alarms for at-risk staff working in EDs and mental health areas
- Improved police and ambulance liaison with health services.

Area 6:

This area will be heavily monitored with CCTV. In addition to the covert security measures, it will be part of the maintenance strategy and procedures to ensure that the loading dock area is kept tidy or rubbish, bins are emptied regularly and are kept clean.

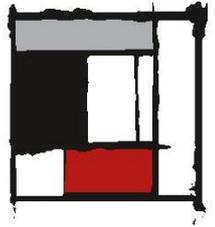
6.0 Conclusion

6.1 Brief outline as to whether the proposed development will have an impact on crime (negative or positive) and reasons as to why

The current site has been used for a number of years therefore, the site and its existing buildings are not in disrepair. Various strategies for swift cleaning of graffiti and site maintenance have been put in place by the existing owner. These strategies have ensured that the site has been well looked after and has not been targeted by vandals and vagrants. These strategies have also ensured that neighbouring residents and business owners have successfully provided the necessary surveillance lending itself to territorial reinforcement of this site.

The proposed development will have a positive impact on crime for the following reasons.

- 1) Patients and surrounding residents will be encouraged to take ownership of their environment and therefore become proactive in managing any risks
- 2) Exterior lighting will be improved to the public as well as private access pathways to improve sight lines and recognition.



Crime Prevention Through Environmental Design (CPTED) Report

- 3) Landscaping will be improved to encourage definition between public and private realms.
- 4) Paths and access will be improved and better defined to minimize confusion and mischief by outsiders.
- 5) Information to patients and visitors on the standard behavior expected of them within the hospital will be located throughout the public spaces
- 6) Signage will be simplified to minimize confusion and frustration

Imagescape Design Studios

Christine Kelly
Urban and Regional Planner
02 9518 8800
chris@imagescape.cpm.au