

Crime Prevention Through Environmental Design (CPTED) Report

Sydney Olympic Park new high school
(SSD 11802230)

Prepared on behalf of NSW Department of Education

September 2021



Project Director

Georgia Sedgmen



17 September 2021

Project Planners

Jordan Faeghi
Luke Zajac

*This document is for discussion purposes only unless signed and dated by project director.

Contact

Mecone
Level 2, 3 Horwood Place
Parramatta, New South Wales 2150
info@mecone.com.au
mecone.com.au

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1 Introduction

This Crime Prevention Through Environmental Design (CPTED) accompanies an Environmental Impact Statement (EIS) pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) in support of an application for a State Significant Development (SSD No 11802230).

The SSDA is for the construction of a school whereby the project is known as Sydney Olympic Park new high school. The school is to be developed in two stages. The SSD application will seek consent for both Stage One and Stage Two. While Stage Two is submitted as part of this proposal, construction is subject to approval of additional funding.

Stage One will provide for a Stream 5 high school, catering for up to 850 students. Stage Two will bring the school up to a stream 9 school capability catering up to 1,530 students.

This report addresses the Secretary's Environmental Assessment Requirements (SEARs), notably:

Table 1. SEARs CPTED Requirement	
SEAR heading	SEAR content
1. Statutory Context, Strategic Context and Policies	Address the relevant planning provisions, goals and strategic planning objectives in all relevant planning policies including but not limited to the following: [...] <ul style="list-style-type: none">• Crime Prevention Through Environmental Design Principles
2. Built Form and Urban Design	<ul style="list-style-type: none">• Address how CPTED Principles are to be integrated into development.

1.1 Report Purpose

The purpose of this report is to assess the proposal in terms of the key principles of CPTED and to provide recommendations that can be considered as part of detailed design for the site.

This report responds to the Secretary's Environmental Assessment Requirements (SEARs) for the project (described further below). It has been prepared with regard to the following documents:

- Crime prevention and the assessment of development applications – Guidelines under section 79C [now 4.15] of the Environmental Planning and Assessment Act 1979 (Department of Urban Affairs and Planning, 2001);
- "Safer by design – Crime Risk Assessment" (NSW Police Force, 2016); and
- Companion to Safer by Design Crime Risk Assessment (NSW Police Force).

The assessment undertaken in this report is based on drawings package issued by Woods Bagot on 15 September 2021.

1.2 Report Structure

The structure of this report is as follows:

- Chapter 1 introduces the report;
- Chapter 2 identifies the site and context;
- Chapter 3 provides an overview of the proposal;
- Chapter 4 provides an overview of crime in the area
- Chapter 5 provides a discussion of the development in the context of CPTED principles and provides recommendations for future implementation;
- Chapter 6 concludes the report.

Additionally, an assessment against the NSW Police Force CPTED Checklist is provided at **Appendix 1**.

1.3 About the Author

The author has completed the Safer by Design Course (Attendee ID: 51255068) by the NSW Police Force, which provides CPTED approved courses and qualifies the author to prepare this report.

2 Proposal

The proposed development is for the construction of a school whereby the project is known as Sydney Olympic Park new high school. The school is to be developed in two stages. The SSD application will seek consent for both Stage One and Stage Two. While Stage Two is submitted as part of this proposal, construction is subject to approval of additional funding.

Stage One will provide for a Stream 5 high school, catering for up to 850 students. Stage Two will bring the school up to a stream 9 school capability catering up to 1,530 students.

The design features a six storey building. To the north of the site, a hall building (for sports and performance) is proposed. Communal facilities including a hall, admin area, and library are located across the ground and first floors, with specialist areas and general learning spaces located in levels 2-6.

The play space required to meet the need of students for Stage One can be generally accommodated onsite, within the 9,511sqm available. In order for Stage Two to commence operation, additional play space is required to accommodate the increased student numbers anticipated. The proposed adjoining play space comprises an area of around 8,834sqm, will be subject to a Joint Use Arrangement and available for public use outside school hours. The future Wentworth Point Peninsula Park will result in an open space area of approximately 4.1ha and will address the requirement for additional play space.

The remainder of the peninsula (TfNSW land) is under review and will be subject to a separate approval process. Redevelopment of this land will include the new access road proposed off Burroway Road along the eastern boundary of the subject site and is proposed to include car parking, drop-off zones and delivery zones.

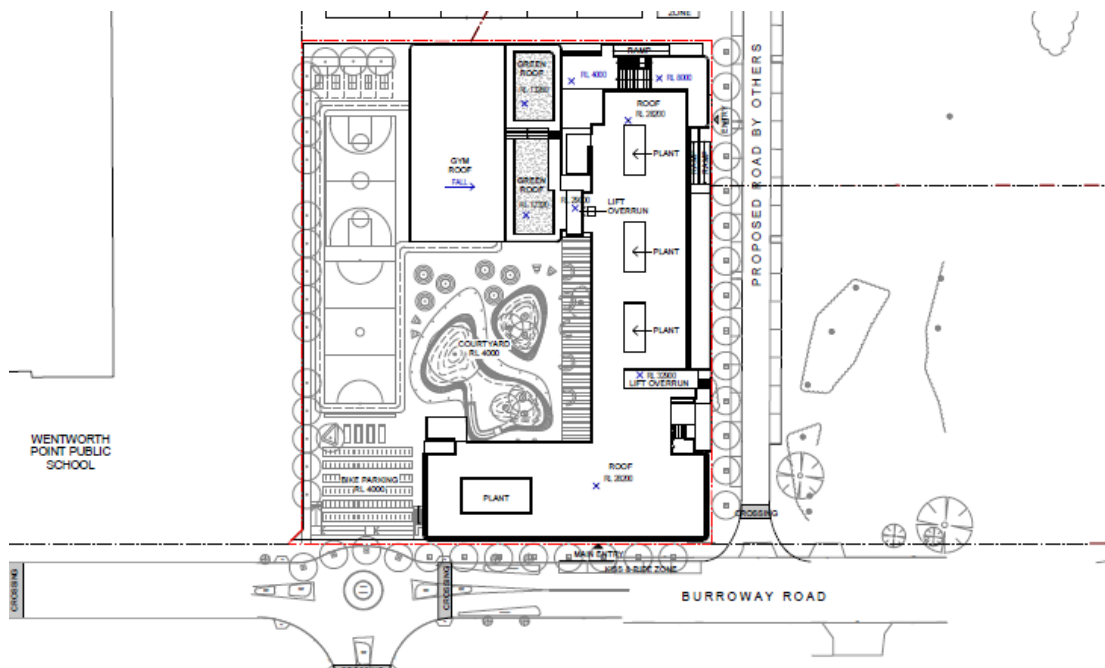


Figure 1: Proposed site plan

Source: Woods Bagot

3 Site Description

The proposed development is located within the peninsula of Wentworth Point at 7-11 Burroway Road, Wentworth Park across parts of three lots; Lot 202 DP1216628, Lot 203 DP1216628 and Lot 204 DP1216628. The site forms part of the Wentworth Point Planned Precinct, which was rezoned in 2014 for the purposes of high density residential, public recreation, school and business purposes.

The site is approximately 9,511sqm in area, with a frontage of approximately 91m to Burroway Road. It currently contains vacant land, which is cleared of all past development, and almost entirely cleared of native vegetation.

The surrounding area is generally characterised by high rise residential and mixed-use developments. The site is directly adjacent to the Wentworth Point Peninsula Park and immediately east of Wentworth Point Public School.



Figure 2: Site context map

Source: Mecone

4 Crime Profile

Table 2 below provides a breakdown of major crime rates in the City of Parramatta LGA based on data from the NSW Bureau of Crime and Statistics and Research (BOSCAR).

The table shows the incident rate ratio of Parramatta-to-NSW crime rates (with the NSW rate equivalent to 1) from the past year (March 2020 to March 2021).

The crime figures discussed in this section of the report are only those crimes that have been recorded by NSW Police and as such cannot be seen to represent all crimes committed in the area.

Also, levels of reported crime are sensitive to a range of factors, such as the willingness or ability of people to report a criminal activity and the levels and nature of police activity.

Table 2. Parramatta LGA Crime Overview – 2020 to 2021	
Offence Type	Parramatta-to-NSW incident rate ratio
Murder	2.3:1
Assault – domestic violence related	0.9:1
Assault – non-domestic violence	0.7:1
Sexual assault	0.6:1
Indecent assault, act of indecency and other sexual offences	0.6:1
Robbery without a weapon	1.5:1
Robbery with a firearm	1.0:1
Robbery with a weapon not a firearm	1.5:1
Break and enter dwelling	1.1:1
Break and enter non-dwelling	0.9:1
Motor vehicle theft	0.8:1
Steal from motor vehicle	1.0:1
Steal from retail store	1.1:1
Steal from dwelling	1.0:1
Steal from person	1.2:1

Table 2. Parramatta LGA Crime Overview – 2020 to 2021	
Fraud	1.3:1
Malicious damage to property	0.7:1

Compared to the rest of NSW, the City of Parramatta generally has **average crime rates**.

As shown in the images below, BOSCAR data for Wentworth Point indicates that the site is located adjacent to hotspots relating to the following crimes:

- Incidents of domestic assault;
- Incidents of theft (break and enter dwellings); and
- Incidents of theft (stealing from dwelling).

The incidents are focussed on the Wentworth Point town centre and are largely limited to residential land uses. These figures are not unexpected given the relative population density of Wentworth Point, which is far greater than the average density of NSW.

Hotspots indicate areas of high crime density (number of incidents per 50m x 50m) relative to crime concentrations across NSW.

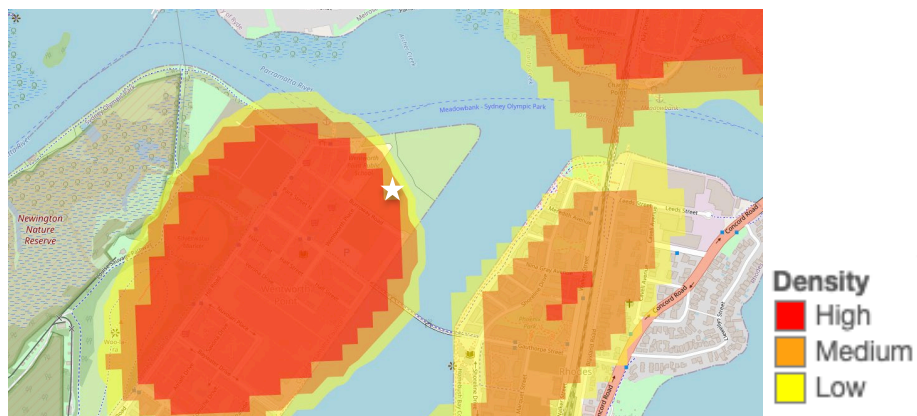


Figure 3: Incidents of domestic assault hot spot map
Source: BOSCAR NSW

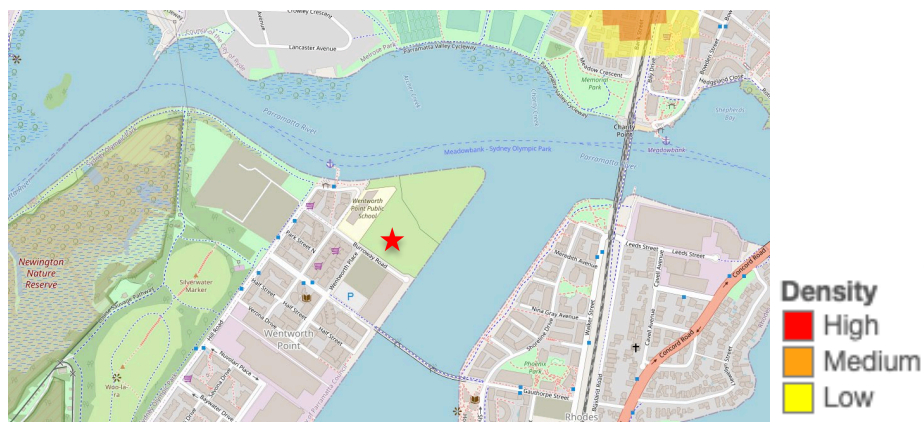


Figure 4: Incidents of non-domestic assault hot spot map
Source: BOSCAR NSW

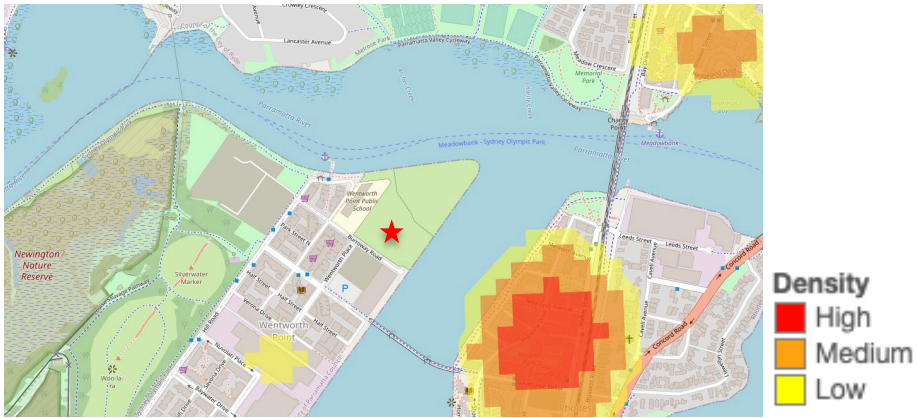


Figure 5: Incidents of robbery hot spot map

Source: BOSCAR NSW

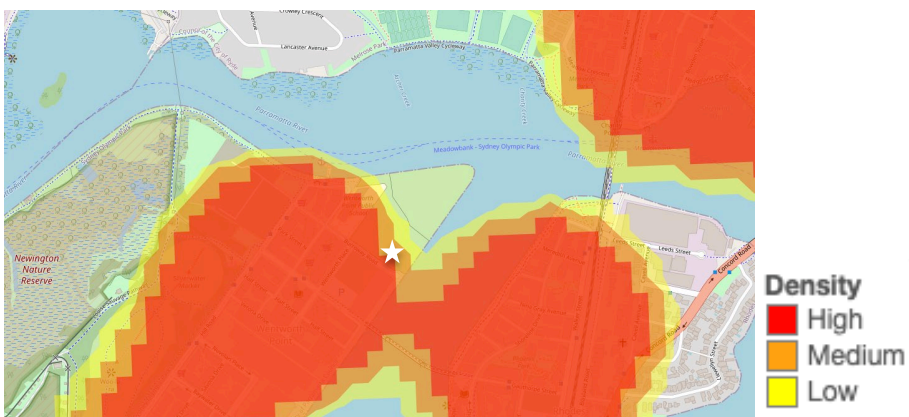


Figure 6: Incidents of theft (break and enter dwelling) hot spot map

Source: BOSCAR NSW

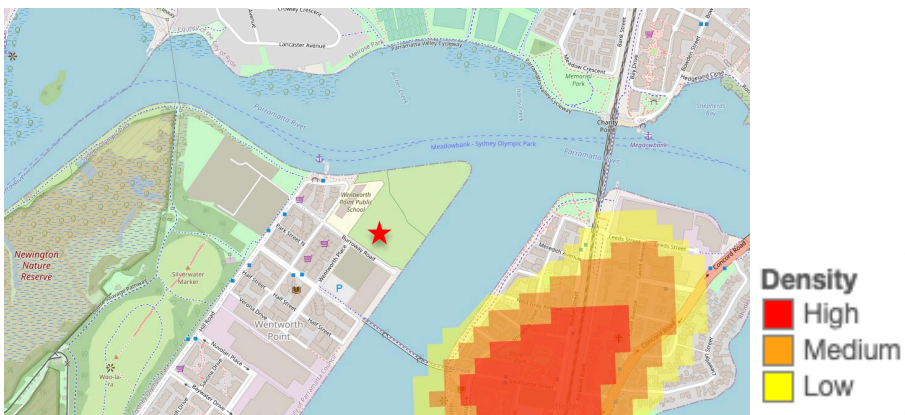


Figure 7: Incidents of theft (break and enter non-dwelling) hot spot map

Source: BOSCAR NSW

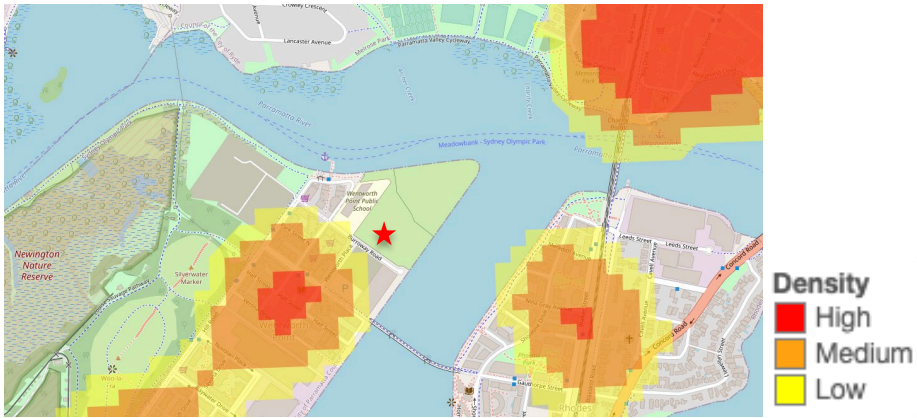


Figure 20: Incidents of theft (motor vehicle theft) hot spot map
 Source: BOSCAR NSW

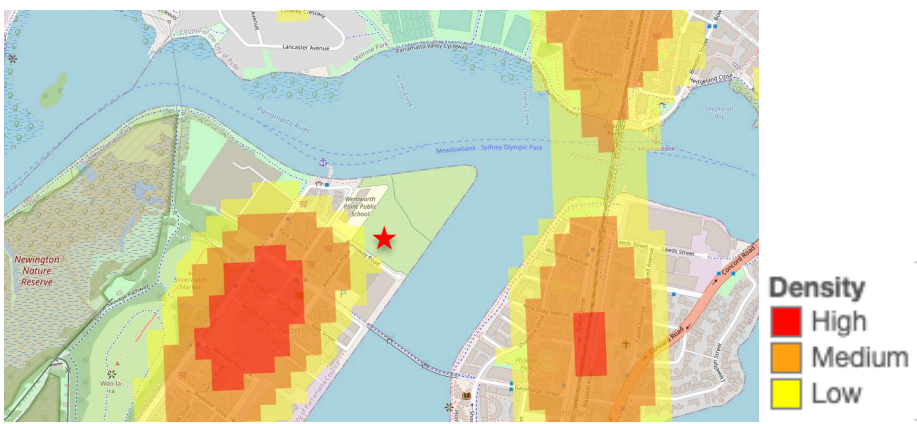


Figure 21: Incidents of theft (steal from motor vehicle) hot spot map
 Source: BOSCAR NSW

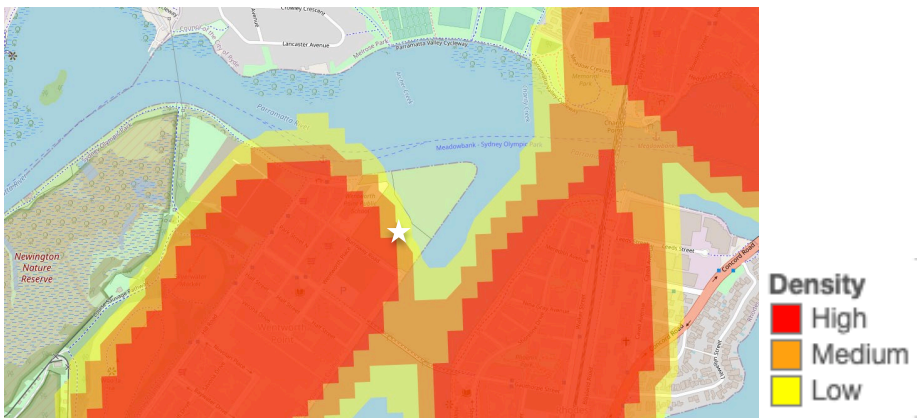


Figure 22: Incidents of theft (steal from dwelling) hot spot map
 Source: BOSCAR NSW



Figure 23: Incidents of theft (steal from person) hot spot map
 Source: BOSCAR NSW

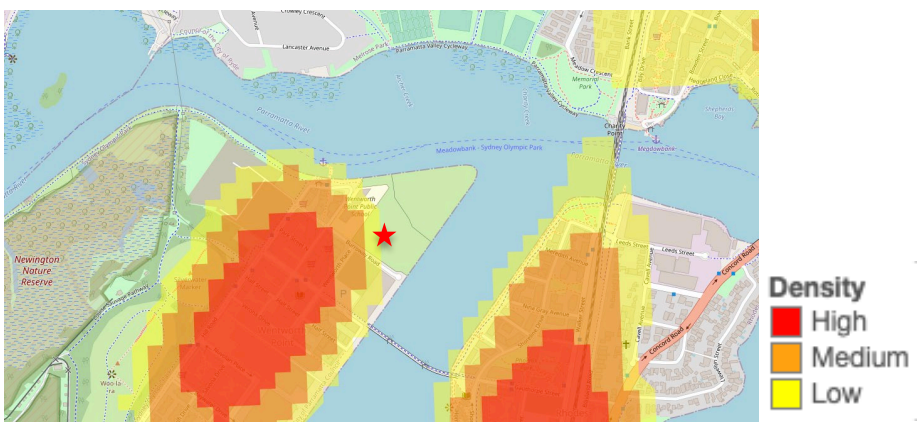


Figure 24: Incidents of malicious damage to property hot spot map
 Source: BOSCAR NSW

Overall, the crime data for the suburb of Wentworth Point and Parramatta LGA point to a **medium-incident crime environment**.

5 CPTED Principles

This report utilises the principles of CPTED, which are based on a situational approach to crime prevention that seeks to minimise the risks for possible crime offences to occur. This is achieved by:

- Increasing the possibility of detection, challenge and capture;
- Increasing the effort required to commit crime;
- Reducing the potential rewards of crime by minimising, removing or concealing 'crime benefits'; and
- Removing conditions that create confusion about required norms of behaviour.

Notwithstanding, this report and approach acknowledge that any design strategy cannot operate effectively in isolation and is just one element of a broader approach to a crime prevention strategy that includes social and community inputs and complementary strategies.

There are four key CPTED principles laid out in the CPTED guidelines:

- Natural surveillance;
- Access control;
- Territorial re-enforcement; and
- Space management.

The following subsections discuss these principles in greater detail in the context of the proposed development. Additionally, an assessment against the NSW Police Force CPTED Checklist is provided at **Appendix 1**.

5.1 Natural Surveillance

NSW police defines natural surveillance as follows:

Natural surveillance is achieved when normal space users can see and be seen by others. This highlights the importance of building layout, orientation and location; the strategic use of design; landscaping and lighting – it is a by-product of well-planned, well-designed and well-used space.

Natural surveillance is achieved by:

- Orienting buildings, windows, entrances and exits, car parks, rubbish bins, walkways, landscape trees and shrubs, in a manner that will not obstruct opportunities for surveillance of public spaces;
- Placing persons or activities to maximise surveillance possibilities; and
- Providing lighting for night-time illumination of car parks, walkways, entrances, exits and related areas to promote a safe environment.

5.1.1 Evaluation

Our review of the plans indicates the following in relation to natural surveillance:

- The school has been sited around a central courtyard, with twin 6-storey teaching wings and an attached 2 storey gym and movement studio forming a 'U' shape. This provides ongoing natural and passive surveillance of the courtyard and walkways;

- Buildings are aligned and set back to the street frontage, which affords opportunities for passive and natural surveillance along Burroway Road and the future Eastern Road;
- The central courtyard will have high levels of visibility throughout school hours and will be off limits to community use after school hours;
- The ground floor has been raised by 1.2m above street level in response to contaminated soil. This naturally provides overlooking opportunities to the surrounding public domain;
- The buildings provide windows on all elevations that facilitate natural surveillance of the site entries, at-grade car park and broader outdoor areas;
- It is anticipated the secondary entrance and cluster of facilities in the north-eastern corner of the site to be used by the community after-hours will be adequately lit in the evenings;
- Uses within the building are positioned such that there will be ongoing activity throughout all areas of the building, providing ongoing opportunity for overlooking by staff of the surrounding areas;
- Circulation areas have been designed to promote natural surveillance, with staircases and lifts located at both the end and central portions of corridors; and
- All frontages will contribute to an attractive, animated streetscape that will encourage pedestrian activity and help create natural community policing.

5.1.2 Recommendations

- Entries should be illuminated during night-time in accordance with relevant standards;
- All areas intended to be used at night should allow for appropriate levels of visibility;
- Staffing of the secondary entrance should be considered when in use given its surrounded by periodically used rooms including the canteen, male bathrooms and gym, and its location off the central courtyard;
- CCTV at both entries should be considered however, these should be discrete and incorporated into the building design having regard for the overall use of the site;
- Landscaping should utilise low level shrubs interspersed with canopy trees to allow for sightlines at eye-level and to minimise opportunities for hiding, particularly where level changes are significant; and
- Trees should be maintained by a regular maintenance plan that keeps good sightlines to the building entries, particularly along the central courtyard.

5.2 Territorial Re-Enforcement

NSW Police defines territorial re-enforcement as follows:

Territorial re-enforcement uses actual and symbolic boundary markers, spatial legibility and environmental cues to 'connect' people with space, to encourage communal responsibility for public areas and facilities, and to communicate to people where they should/not be and what activities are appropriate.

Territorial enforcement is achieved by:

- Enhancing the feeling of legitimate ownership by reinforcing existing natural surveillance and natural access control strategies with additional symbolic or social ones;
- Designing space to allow for its continued use and intended purpose; and
- Using landscaping, pavement finishes, art, screening and fences to define and outline ownership of space.

5.2.1 Evaluation

Our review of the plans indicates the following in relation to territorial re-enforcement:

- The development has been designed for specific purposes with general learning spaces, library, specialised teaching spaces, administration and staff facilities, gym and amenity areas provided;
- The vertical separation of subject specific classrooms by floor is well considered in context of the school's function and assists with navigation on the school campus;
- This separation will assist with legibility and direct movements from students into their respective areas and avoid unnecessary access or confusion through the campus;
- The design of the building and its 'kit of parts' façade module is clearly delineated in relation to adjoining uses. Different boundary treatments, such as solid palisade fencing and pivot/sliding gates respond to the various conditions on the site boundaries and are suitably incorporated into the overall campus design.
- The building entries have regard to existing site topography, interfaces and are located and designed to be easily identifiable;
- The use of fencing has been minimised where possible, with buildings used as boundaries to minimise harsh visual impacts;
- It is anticipated that building entries will be marked with appropriate wayfinding signage; and
- The development's materials and finishes will distinguish the development from the surrounding public domain.

5.2.2 Recommendations

- The buildings should incorporate appropriate entry signage and wayfinding signage, particularly within the central courtyard and interface to the future open space to the north;
- Appropriate signage and wayfinding should be provided in the surrounding public domain; and
- Outdoor seating areas should be located in areas of active use.

5.3 Access Control

NSW Police defines access control as follows:

Access control treatments restrict, channel and encourage people and vehicles into, out of and around the development. Way-finding, desire-lines and formal/informal routes are important crime prevention considerations. Effective access control can be achieved by using physical and symbolic

barriers that channel and group pedestrians into areas, therefore increasing the time and effort required for criminals to commit crime.

Access control is achieved by:

- Using footpaths, pavement, lighting and landscaping to clearly guide the public to and from entrances and exits; and
- Using of gates, fences, walls, landscaping and lighting to prevent or discourage public access to or from dark or unmonitored areas.

5.3.1 Evaluation

Our review of the plans indicates the following in relation to access control:

- The campus limits pedestrian entry to two entry locations – Burroway Road and the future eastern road. The limited entries will serve to channel people into the desired lobby areas and associated learning spaces;
- Limited entry points and fit-for-purpose fencing create a safe and secure school campus;
- The proposed pivot/sliding gates will accommodate large volumes of movement between the school and future open space, whilst also creating a safe and secure campus when not in use;
- The building entries are positioned to allow clear and direct access to the surrounding pedestrian network, roads and future open space; and
- It is anticipated that appropriate signage will direct pedestrians to the entries.

5.3.2 Recommendations

- The campus facilities should be locked after hours and only be accessible via a security key;
- Consideration should be given to limiting access from the secondary entry point to the eastern road. The canteen and male bathrooms are located directly off this entry, with limited natural surveillance afforded due to the lack of development adjacent to this entry. Access should be prioritised through the main entry point, which is located on Burroway Road.
- Service entries need to be locked at all times;
- Appropriate signage should be implemented that delineates the school access points, especially to the boundary of the future open space area;
- All pathways should be clearly illuminated to provide a clear and safe path of travel from the school grounds;
- When the cluster of community facilities to the north of the site are in use by the community after hours, temporary fencing measures or the like should be erected in the walkway connecting this area to the central courtyard, to prevent access to the rest of the school campus;
- Fire exit doors should be fitted with measures to restrict unauthorised access from the outside; and
- All areas should be fitted with doors that comply with relevant Australian Standards.

5.4 Space/Activity Management

NSW Police defines space/activity management as follows:

Space/Activity Management strategies are an important way to develop and maintain natural community control. Space management involves the formal supervision, control and care of the development. All space, even well planned and well-designed areas need to be effectively used and maintained to maximise community safety. Places that are infrequently used are commonly abused. There is a high correlation between urban decay, fear of crime and avoidance behaviour.

Space/activity management is achieved by:

- Ensuring premises are well maintained and cared for; and
- Ensuring rapid repair of vandalism and replacement of lighting.

5.4.1 Evaluation

Our review of the plans indicates the following in relation to space/activity management:

- The building has been designed for specific purposes and will be owned and maintained by DoE; and
- It is anticipated that a management plan/strategy will be put into place to ensure proper building maintenance.

5.4.2 Recommendations

- Consideration should be given to the use of graffiti-resistance materials;
- Graffiti management measures should be incorporated into the maintenance plan/strategy for the building. Research has shown that the most effective strategy for reducing graffiti attacks is the quick removal of graffiti within a 48-hour period;
- The building maintenance plan/strategy should provide information within the building on how to report maintenance or vandalism;
- The building maintenance plan/strategy should also maintain landscaping to ensure the site displays strong ownership; and
- The design should incorporate a robust material palette, particularly for outdoor spaces in order to reduce susceptibility to vandalism and wear and tear.

6 Conclusion

This CPTED report supports a SSDA submitted to the DPIE for the proposed Sydney Olympic Park new high school.

The proposed development has been evaluated in the context of the four key principles of CPTED and relevant data from BOSCAR.

Section 5 of this report outlines measures that will enable the design and ongoing use of the development to align with those CPTED principles to reduce opportunities for crime.

The recommendations identified are minor in scope and can be achieved by means of conditions of consent or otherwise detailed in the Construction Certificate drawings.

This CPTED report demonstrates that the proposed new school campus will promote casual surveillance of the surrounding public domain, further activate the area and provide appropriate security measures to ensure the safety of students and broader public.

Given the above, we conclude that the development is acceptable from a crime risk perspective.

Appendix 1

NSW Police CPTED Guideline Assessment

NSW Police CPTED Guideline Assessment

Standard	Provisions	Compliance
Natural Surveillance	Openings in buildings are located and designed to overlook public places to maximize casual surveillance.	Entry points are visible and clearly distinguishable.
	The main entry to a building should face the street.	The main entry to each building faces the central courtyard, providing natural surveillance of the courtyard and the entrances. Windows are provided to the external facing facades that overlook Burroway Road, the adjacent primary school and the future eastern road.
	An external entry path and the foyer to a building must be direct to avoid potential hiding places.	Paths provide no opportunity for potential hiding places and direct line of sight into the building.
	Entry lobby areas to and from car parking areas should be transparent allowing viewing into and from these areas.	Entrances to lobby areas are clearly defined and transparent.
	Landscaping must not conceal the front door to a building when viewed from the street	Able to be implemented.
	Pedestrian access should be well lit and maximize sight lines.	Pedestrian access paths are direct and provide sight lines into the development.
	Landscaping should not inhibit sight lines.	Able to be implemented.
	ATM design and location is within direct view of pedestrian paths so that they can be overlooked from vantage points.	No ATMs are proposed.
	The street number of a building must be visible from	Able to be implemented, if required.

NSW Police CPTED Guideline Assessment

Standard	Provisions	Compliance
	the street and made of a reflective material to allow visitors and emergency vehicles to easily identify the location of the building.	
	Landscaping should be designed to maximise sight lines.	Able to be implemented.
Measures /security devices	All windows and doors on the ground floor must be made of toughened glass to reduce the opportunities for 'smash and grab' and 'break and enter' offences.	Able to be implemented.
	A security alarm system must be installed in a building.	Able to be implemented.
	Unless impracticable, access to an outdoor car park must be closed to the public outside of business hours via a lockable gate.	Able to be implemented.
	CCTV system must cover all high-risk areas and including all entry areas.	Able to be implemented.
	Access control	Loading docks in the vicinity of main entry areas are secured outside of business hours.
Access to a loading dock, or other restricted area in a building must only be accessible to tenants via a security door, intercom, code or other mechanism.		N/A.
Clear signage should be erected indicating loading docks and other areas which		Able to be implemented.

NSW Police CPTED Guideline Assessment

Standard	Provisions	Compliance
	cannot be accessed by the general public.	
Territoriality/ownership	Site planning provides a clear definition of territory and ownership of all private, semi-public and public places.	The site and design make a clear distinction between private and public areas.
Lighting	Both natural and artificial lighting is used to reduce poorly lit or dark areas and therefore deterring crime and vandalism.	Natural and artificial light will improve visibility of the development, the semi-public spaces and the street.
	<p>Lighting must be provided to the following areas of a building to promote safety and security and night;</p> <p>A – an external entry path, foyer, driveway and car park to a building</p> <p>b- shopfront. This may be in the form of motion sensitive lighting or timer lighting</p> <p>c – the underside of an awning.</p>	Able to be implemented.
	Lift access to a car park that are intended for night use must be well lit using a vandal resistant, high mounted light fixture.	N/A.
	The lighting in a car park must confirm to Australian Standards 1158.1, 2890.1.	Able to be implemented.
	The use of lighting fixtures, and vandal resistant, high mounted light fixtures, which are less susceptible to damage in the car park and laneway areas.	Able to be implemented.

NSW Police CPTED Guideline Assessment

Standard	Provisions	Compliance
	Car parking areas should be painted in light colours which will increase levels of illumination.	Able to be implemented.
Vandalism and graffiti	Development minimizes blank walls along all street frontages.	The design includes articulation and modulation in the façade and choice of materials to both express the building and avoid graffiti opportunities.