

Stage 1 State Significant Development Application Crime Prevention Through Environmental Design Report



Harbourside, Darling Harbour Redevelopment of Harbourside Shopping Centre

Submitted to NSW Department of Planning and Environment
On Behalf of Mirvac Projects Pty Ltd (Mircvac)

October 2016 ■ 14657

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1.0 Introduction

This Crime Prevention Through Environmental Design (CPTED) assessment has been undertaken to assess the elements of crime, and the fear of crime that may be associated with the proposed redevelopment of the Harbourside Shopping Centre within Darling Harbour, as envisaged within the Stage 1 State Significant Development Application (SSD DA), to which this report is appended.

CPTED is a situational crime prevention strategy that focuses on the design, planning and structure of the environment. It aims to reduce opportunities for crime by employing design and place management principles that minimise the likelihood of essential crime ingredients.

This assessment has been prepared and reviewed by Certified NSW Police Risk Assessors, and uses qualitative and quantitative measures of the physical and social environment to analyse and suggest treatments to mitigate crime opportunity in accordance with the Australian and New Zealand Risk Management Standard AS/NZS 31000:2009.

In accordance with the NSW Department of Planning and Environment's guidelines (2001) the aim of the CPTED strategy is to influence the design of buildings and places by:

- increasing the perception of risk to criminals by increasing the possibility of detection, challenge and capture;
- increasing the effort required to commit crime by increasing the time, energy or resources which need to be expended;
- reducing the potential rewards of crime by minimising, removing or concealing 'crime benefits'; and
- removing conditions that create confusion about required norms of behaviour.

Architectural Concept Drawings prepared by Francis Jones Morehen Thorp Architects (fjmt) and Public Domain Drawings prepared by ASPECT Studios (Aspect) have been reviewed as part of this assessment.

In addition, the following tasks were undertaken in the preparation of this assessment:

- review of key literature on CPTED by the Department of Attorney General and Justice Crime Prevention;
- collection and analysis of local and NSW State crime statistics from the Bureau of Crime Statistics and Research (BOSCAR); and
- a crime risk assessment, in accordance with the current NSW policy and practice, of the following regulation and assessment principles:
 1. Surveillance
 2. Lighting/technical supervision
 3. Territorial reinforcement
 4. Environmental maintenance
 5. Activity and Space Management
 6. Access control

A site inspection was undertaken on 11 April 2016 between the hours of 11.30am and 1.00pm in order to assess the current site conditions and situational crime prevention measures and safety impacts.

Disclaimer:

CPTED strategies must work in conjunction with other crime prevention strategies and police operations. By using recommendations contained within this document, any person who does so must acknowledge that:

- it is not possible to make areas assessed completely safe for the community and their property;*
- recommendations are based upon information provided to, and observations made at the time the document was prepared; and*
- this document does not guarantee that all risks have been identified, or that the area evaluated will be free from criminal activity if its recommendations are followed.*

2.0 The Site

The Harbourside shopping centre site is located within the Darling Harbour Precinct and falls within the City of Sydney Local Government Area (LGA). It is bound by Pyrmont Bridge to the north, the Sydney International Convention, Exhibition and Entertainment Precinct (SICEEP) to the south, Darling Drive and the alignment of the light rail to the west and Cockle Bay to the east.

The Harbourside site is irregular in shape and is approximately 2.05ha in area. A site location plan and an aerial photograph are included at **Figures 1** and **2**.

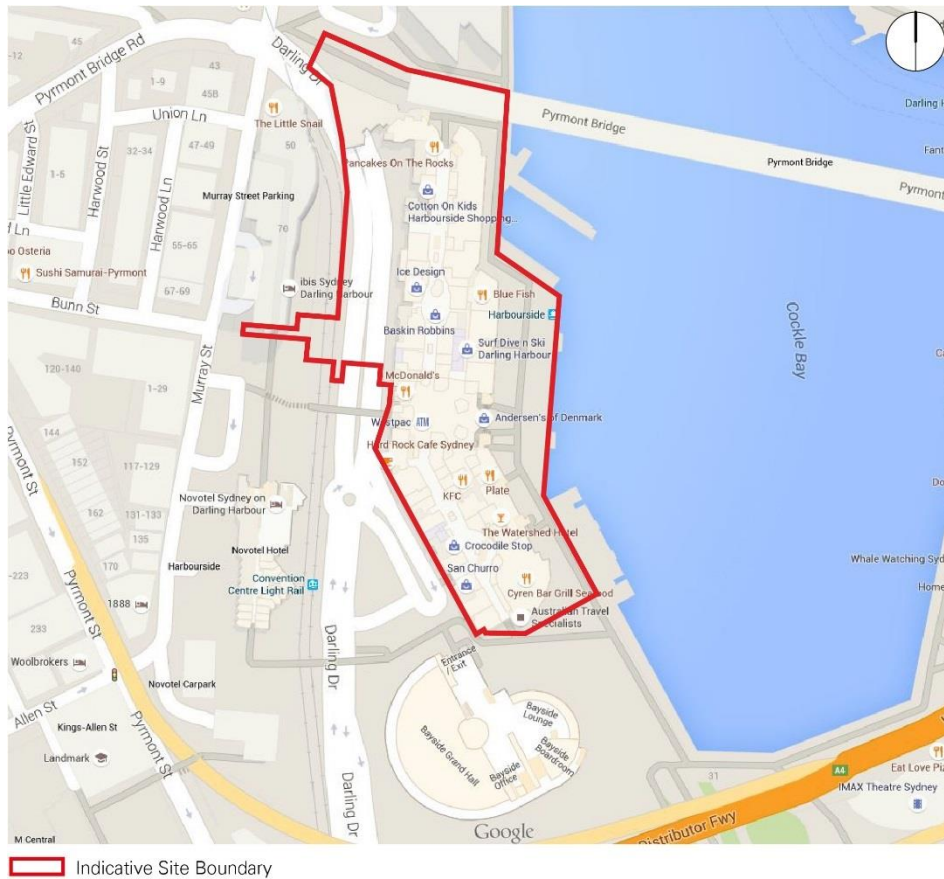


Figure 1 – Site location map
Source: Google Maps and JBA



Figure 2 – Aerial view of Harbourside
Source: JBA and Google Maps

2.1 Existing Development

The development currently existing on the site comprises the following elements:

- a three storey shopping centre (known as Harbourside),
- a public domain area located along the foreshore between the shopping centre and Cockle Bay;
- a public domain area beneath Pyrmont Bridge located to the north of the shopping centre;
- pedestrian linkages across Darling Drive which generally provide access to the Ibis and Novotel hotels and 50 Murray Street; and
- the former monorail station located above the northern end of the shopping centre.

Photographs of the existing development are included at **Figures 3-6**.



Figure 3 – The eastern façade of the Harbourside shopping centre and the waterfront public domain area, viewed from the south east from Darling Harbour (April 2016)
Source: JBA

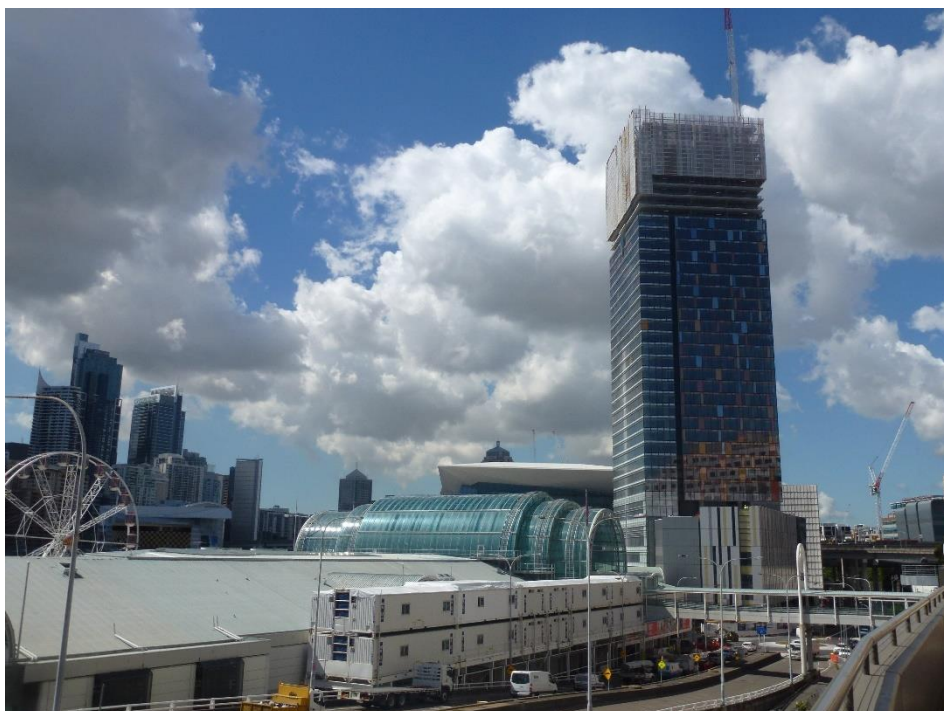


Figure 4 – View from the north of the southern pedestrian bridge over Darling Drive (October 2016)
Source: JBA



Figure 5 – View from the west of the northern pedestrian bridge over Darling Drive and the Light Rail track (April 2016)
Source: JBA

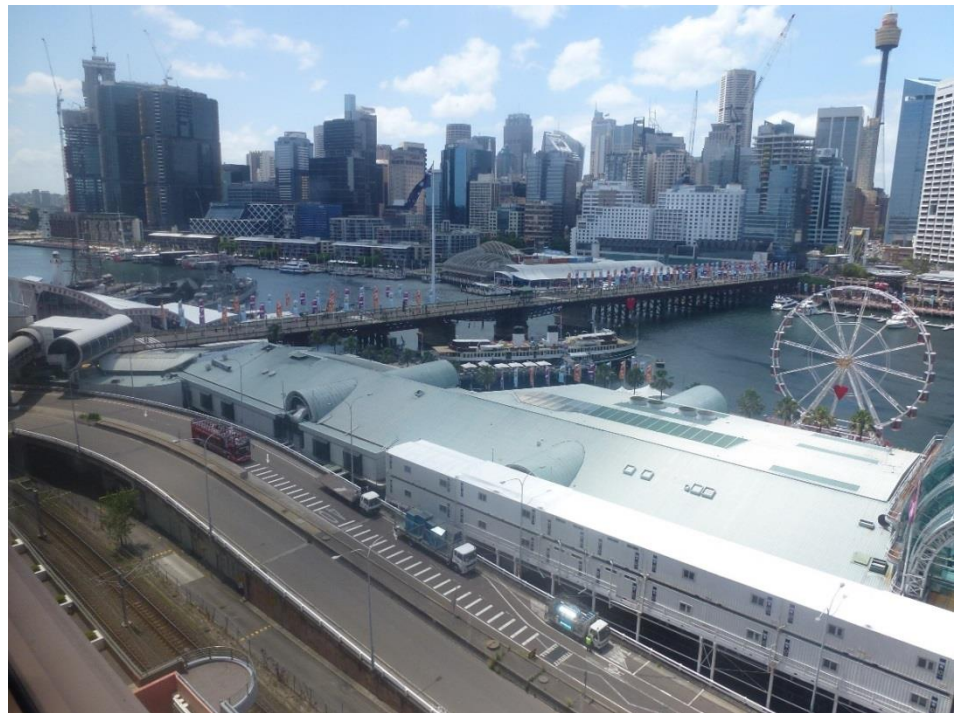


Figure 6 – View of the western façade of the Harbourside shopping centre, with the Pyrmont Bridge in the background (April 2016)
Source: JBA

2.2 Access

2.2.1 Pedestrian Access

The area surrounding the site has a well-established pedestrian network and is characterised with high levels of pedestrian activity as a result of the commercial, retail and tourist land uses.

Pedestrian access to the site is provided via a combination of footpaths, steps, ramps and lifts from the foreshore area adjacent to Cockle Bay (**Figure 7**), and the Pyrmont Bridge and the pedestrian area beneath and to the north of the bridge (**Figure 8**).

Pedestrian connections to the west are inhibited by the light rail corridor and the topography of the land, however, pedestrian access from the west is presently available via two separate elevated pedestrian walkways leading from the Harbourside shopping centre to the now closed Convention Centre monorail station and the Novotel Hotel, the Ibis Hotel and 50 Murray Street.

It is understood that the new SICEEP development situated to the south of the site will provide a new 20m wide pedestrian boulevard which will run southwards to Chinatown.



Figure 7 – Cockle Bay foreshore pedestrian area with Harbourside shopping centre situated to the right (April 2016)
Source: JBA



Figure 8 – Pedestrian walkway situated to the north of Pymont Bridge (April 2016)
Source: JBA

2.2.2 Vehicular Access

Vehicular access to the site is from Darling Drive, however, vehicular access to/ from Darling Drive is only used for servicing purposes. The site currently does not contain any car parking.

2.3 Security

Lighting and CCTV cameras are currently in operation as shown in the photographs at **Figures 9** and **10**. However, it is considered that the lighting which is currently in operation would benefit from an upgrade. It is also understood that a security presence is also in force within the existing shopping centre, however, given the shopping centre is to be demolished and replaced, the exact details are not relevant to this report.



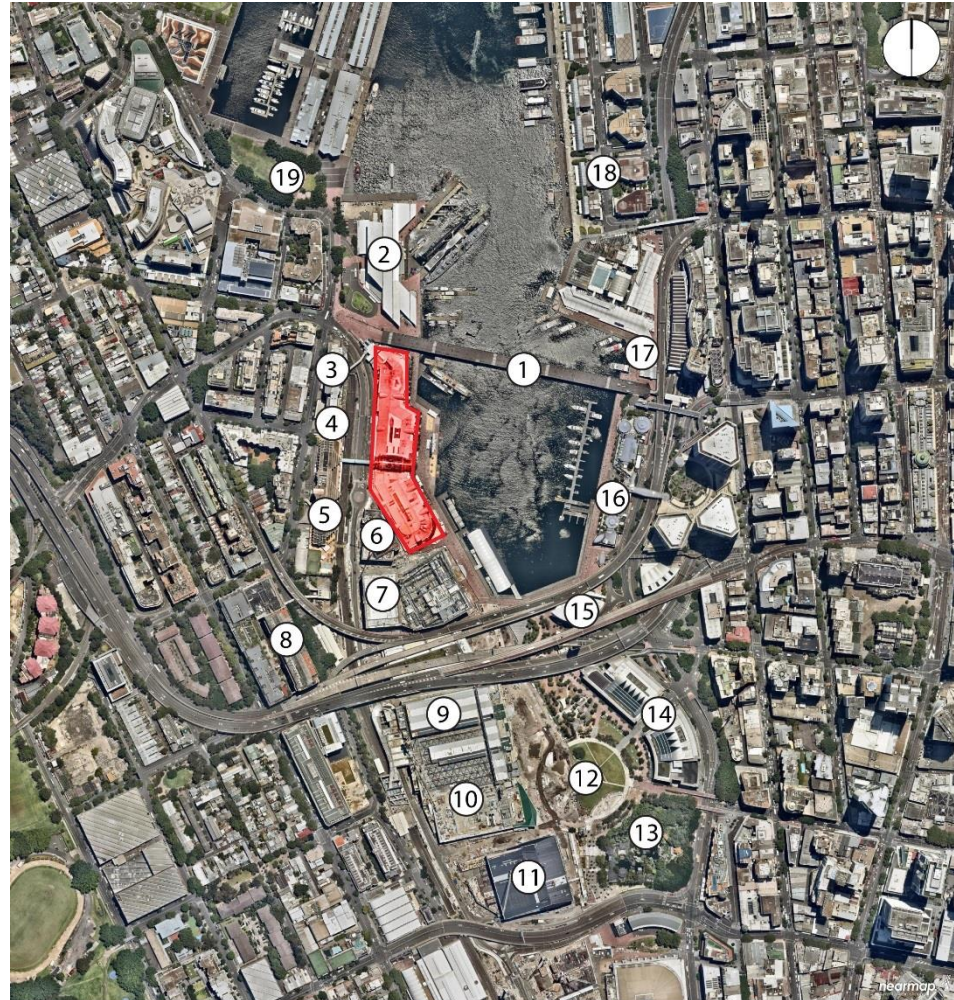
Figure 9 – Existing lighting located beneath Pymont Bridge (April 2016)
Source: JBA



Figure 10 – Example of a CCTV camera, located to the north of the site adjacent to Pymont Bridge (April 2016)
Source: JBA

2.4 Surrounding Development

The site is surrounded by a mix of commercial, tourist, entertainment and residential related development. The main developments within the immediate locality of the site are illustrated in **Figure 11**.



- | | | |
|---|--------------------------------|----------------------------------|
| 1. Pyrmont Bridge | 7. ICC | 13. Chinese Garden of Friendship |
| 2. Maritime Museum | 8. Oaks Goldsbrough Apartments | 14. Darling Quarter |
| 3. One Darling Harbour – 50 Murray Street | 9. Exhibition Centre | 15. LG Imax Theatre |
| 4. Ibis Sydney | 10. Event Deck | 16. Cockle Bay Wharf |
| 5. Novotel Hotel | 11. The Theatre | 17. Cockle Bay East |
| 6. ICC HOTEL | 12. Tumbalong Park | 18. King Street Wharf |
| | | 19. Pyrmont Bay Park |

Figure 11 – Key development surrounding the site
Source: JBA

3.0 The Proposed Development

The Environmental Impact Statement (EIS), to which this CPTED Report is appended, is submitted to the NSW Department of Planning and Environment in support of a SSD DA for the following Concept Proposal components and development parameters:

- in-principle demolition of existing site improvements, including the Harbourside Shopping Centre, the southern pedestrian bridge link across Darling Drive, obsolete monorail infrastructure, and associated tree removal;
- concept for a network of open space areas and pedestrian links generally as shown within the Public Domain Concept Proposal, to facilitate re-integration of the site into the wider urban context;
- building envelopes;
- land uses across the Site, including non-residential and residential uses;
- a maximum total Gross Floor Area (GFA) of 87,000m² for the future mixed use development (comprising both non-residential and residential floor space);
- basement parking;
- car parking rates;
- Urban Design and Public Realm Guidelines to guide future development of the built form and the public domain;
- a framework for achieving design excellence; and
- strategies for remediation, a strategy utilities and services provision, managing drainage and flooding, and achieving ecological sustainable development.

Whilst the SSDA Concept Proposal will establish the future land uses, gross floor area, building envelopes, public domain concept, pedestrian and vehicle access and circulation arrangements and associated car parking provision for the Harbourside redevelopment, detailed development application/s (Stage 2 DAs) will follow at a later stage which will seek approval for the detailed design and construction of all or specific aspects of the proposal in accordance with the approved SSDA Concept approval. The details of the future detailed development are indicative at this time, however, the following features are relevant to this CPTED Assessment:

- Basement car parking which is to be accessed from the existing access road off Darling Drive and will provide a mix of private car parking spaces (to serve the needs of the future proposed residential uses) and public car parking spaces.
- Provision of a new pedestrian through-site link (including a bridge over Darling Drive) connecting Bunn Street in Pyrmont to Darling Harbour.
- Provision of a new drop-off facility that will provide car, taxi and coach drop-off, which will run from the existing Darling Drive up ramp between the roundabout and Pyrmont Bridge Road intersection (refer to Figure 12).
- Upgrade of the public domain area (refer to **Figures 13 and 14**) to the east of the site, adjacent to Cockle Bay which includes the following areas:
 - The Boulevard – the main spine and circulation route through the public domain;
 - The Event stairs – seating terrace for viewing of the large event space;
 - Pyrmont Bridge interface and stairs (Ribbon stairs) – seating terrace and access to Pyrmont Bridge; and
 - retail spill areas/ dining adjacent to the building.

Aspect have stated within their Public Domain report that the public domain has been designed with regard to the following CPTED principles to minimise the opportunity for and incidence of crime:

- provide clear and framed views on the waterfront and streetscape. Planting to be designed to be below 1.2m in height and maintain tree canopies at above 3m in height;
- maintain open views throughout the public domain by removing existing high visual barriers and keeping seating and walls under 0.6m;
- design planning that allows clear sightlines through, minimising the creation of blind spots and co-ordinate the placement of lights and trees to prevent shadow spots;
- retain and install additional lighting throughout the public domain to ensure facial recognition from a distance and to enhance the feeling of safeness;
- ensure that adjoining buildings have good vision to external spaces by carefully planning placement of trees and plants, allowing for passive surveillance to occur; and
- create a legible, generous, pedestrian circulation network that is well connected to building and primary site entries.

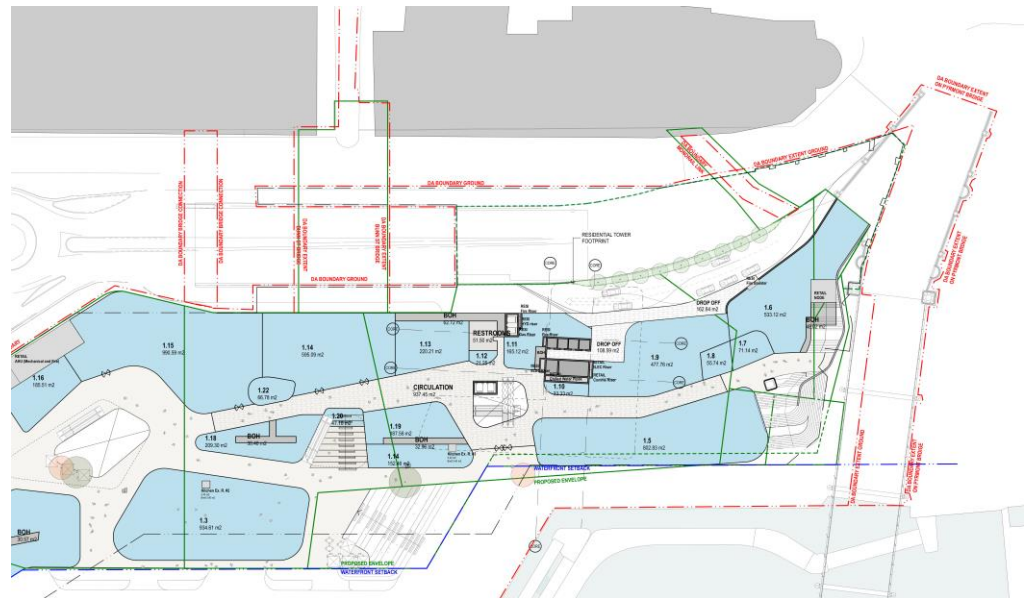


Figure 12 – Proposed indicative drop-off
Source: *fjmt*

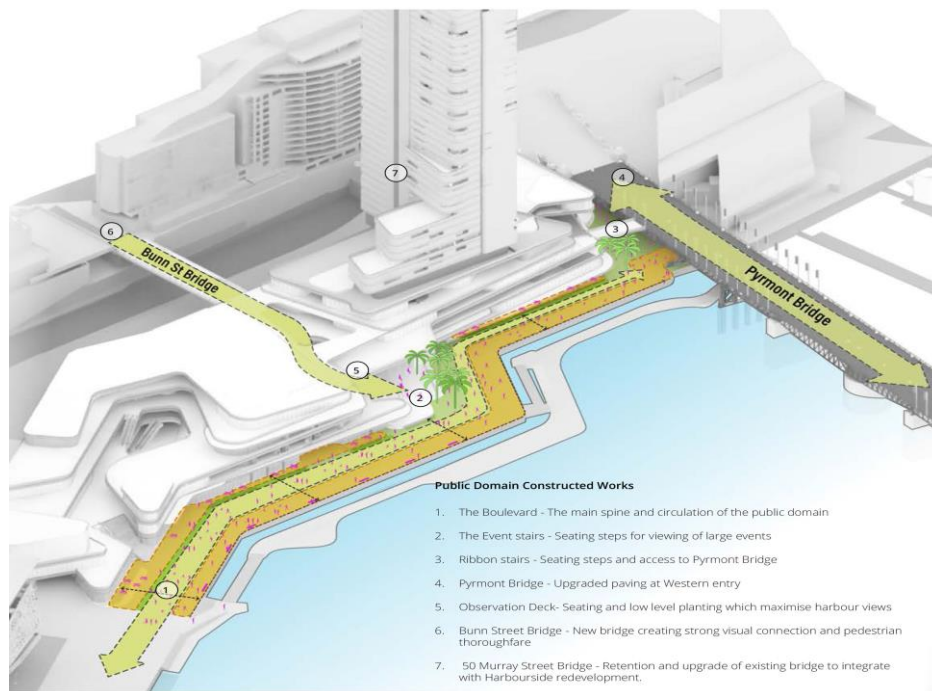


Figure 13 – Public Domain Key Spaces
Source: ASPECT Studios



Figure 14 – Public Domain Concept Plan
Source: ASPECT Studios

4.0 Nature of Recorded Crime

Crime statistics obtained from the NSW Bureau of Crime Statistics and Research (BOSCAR) represents criminal incidents recorded by NSW Police. A review of the local statistics for 2015¹ found that the most commonly occurring crimes within the City of Sydney Local Government Area (LGA) were:

- fraud;
- assault - non domestic violence related;
- malicious damage to property;
- stealing from a retail store;
- stealing from a motor vehicle; and
- stealing from a person.

As shown in **Figures 15 - 24**, the BOSCAR database indicates that the Site is located within a high density hotspot for the following crimes:

- assault – non-domestic violence related;
- assault – domestic violence related;
- robbery;
- break and enter dwelling;
- break and enter-non dwelling;
- theft of motor vehicle;
- steal from motor vehicle;
- steal from dwelling;
- teal from person; and
- malicious damage to property;

Notwithstanding the above, hotspots indicate areas of high crime density (number of incidents per 50m by 50m) relative to crime concentrations across NSW. They are not adjusted for the number of residents and visitors in the area and thus may not reflect the risk of victimisation. In addition, we note that the BOSCAR statistics indicate that the majority of Sydney CBD is included within these hotspot areas.

¹ The most recent crime data available in relation all crimes affecting the Site/Sydney City LGA is 2015

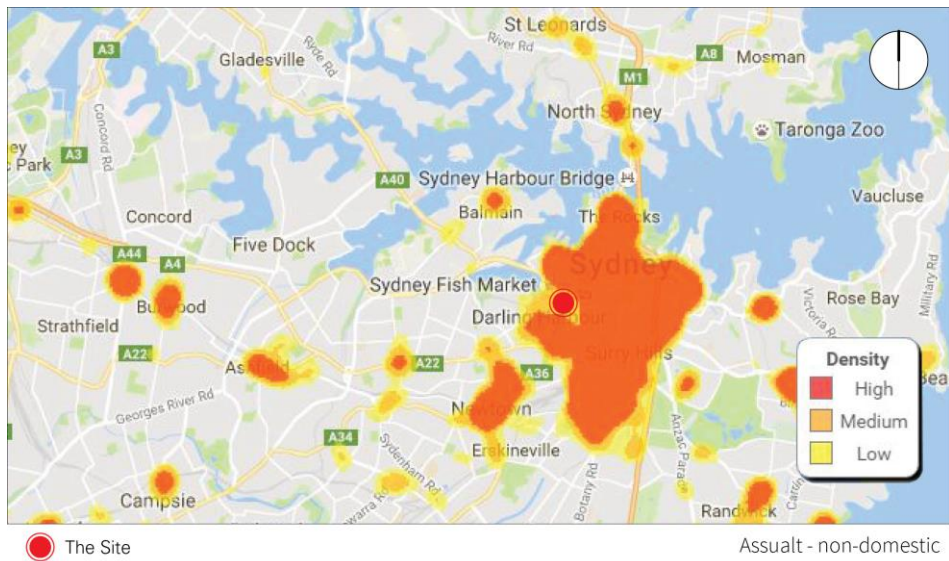


Figure 15 – Assault – non domestic violence related hotspot map
Source: BOSCAR

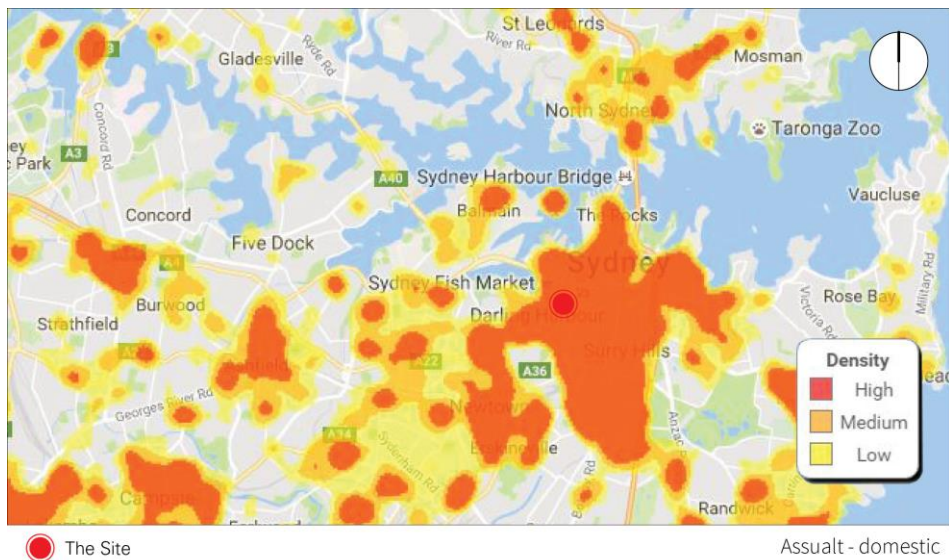


Figure 16 – Assault – domestic violence related hotspot map
Source: BOSCAR

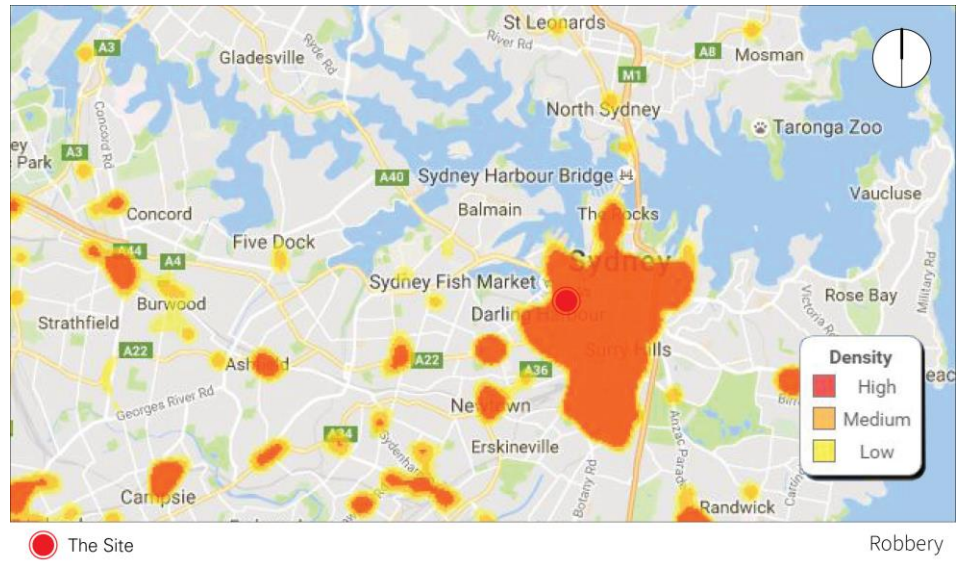


Figure 17 – Robbery hot spot map
Source: BOSCAR

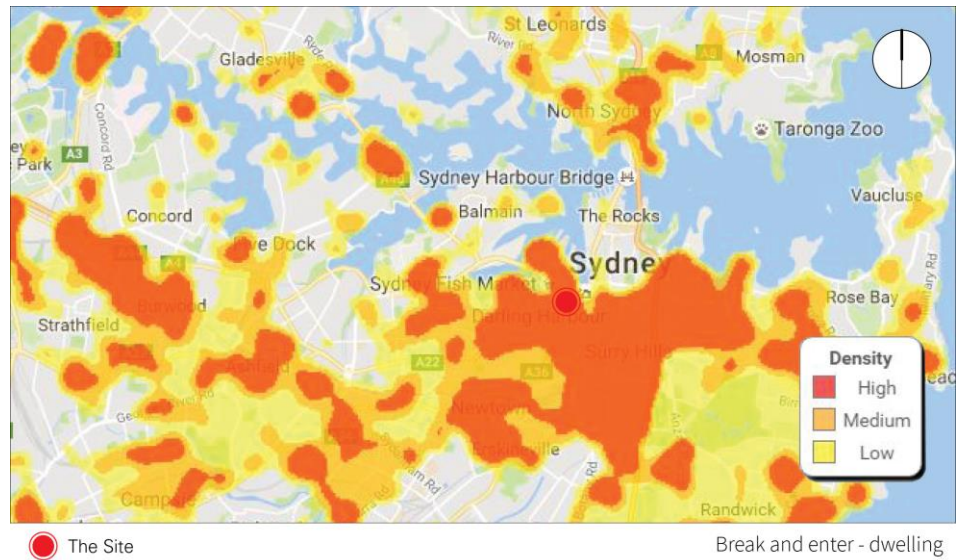


Figure 18 – Break and enter dwelling hotspot map
Source: BOSCAR

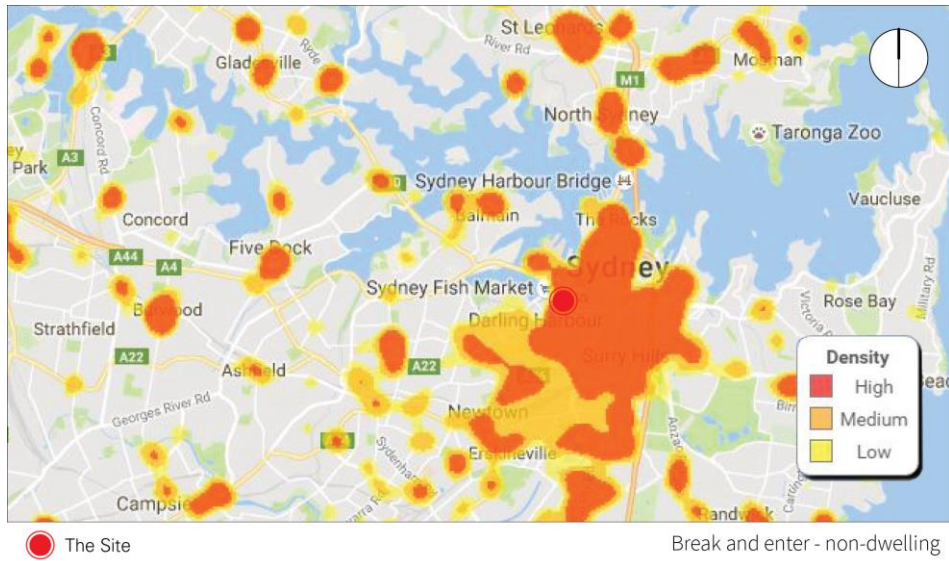


Figure 19 – Break and enter non-dwelling hotspot map
Source: BOSCAR

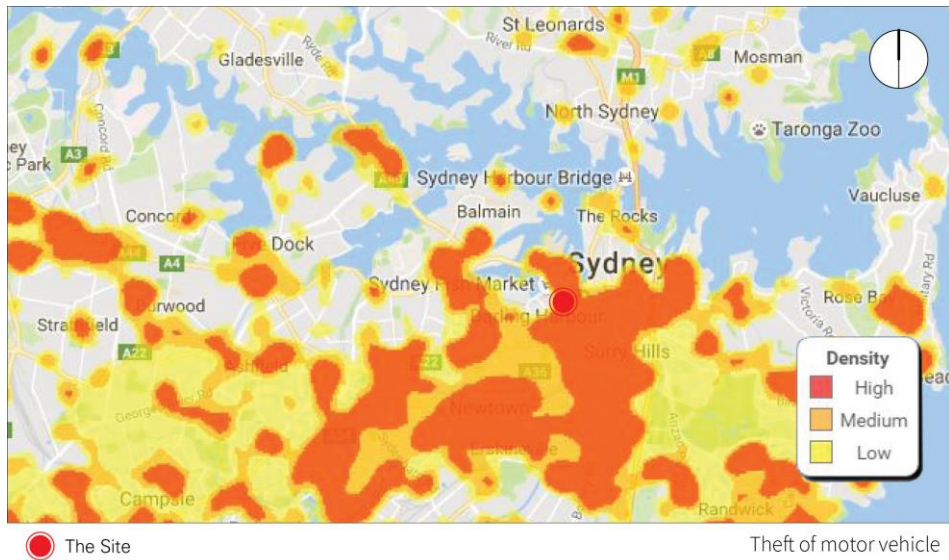


Figure 20 – Theft of motor vehicle hotspot map
Source: BOSCAR

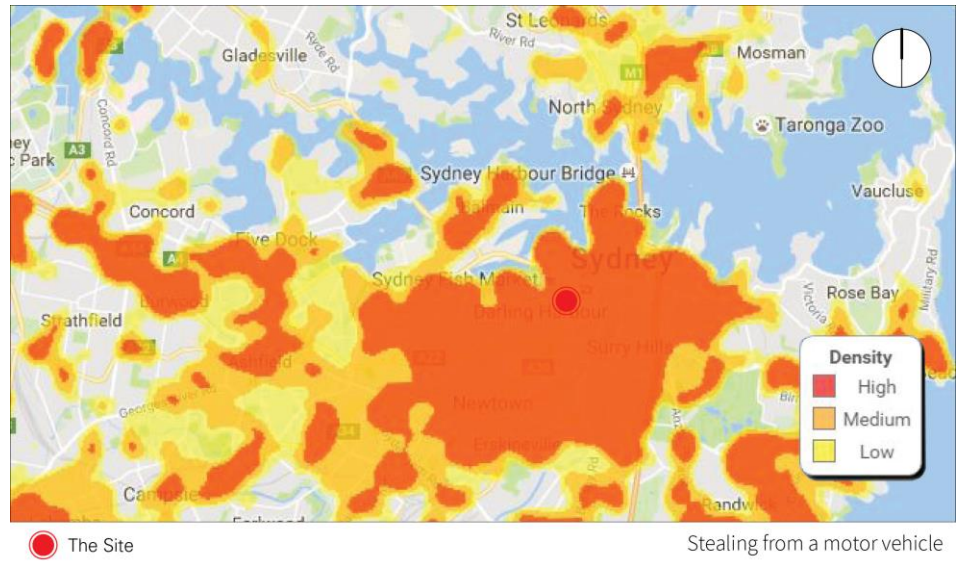


Figure 21 – Steal from motor vehicle hotspot map
Source: BOSCAR

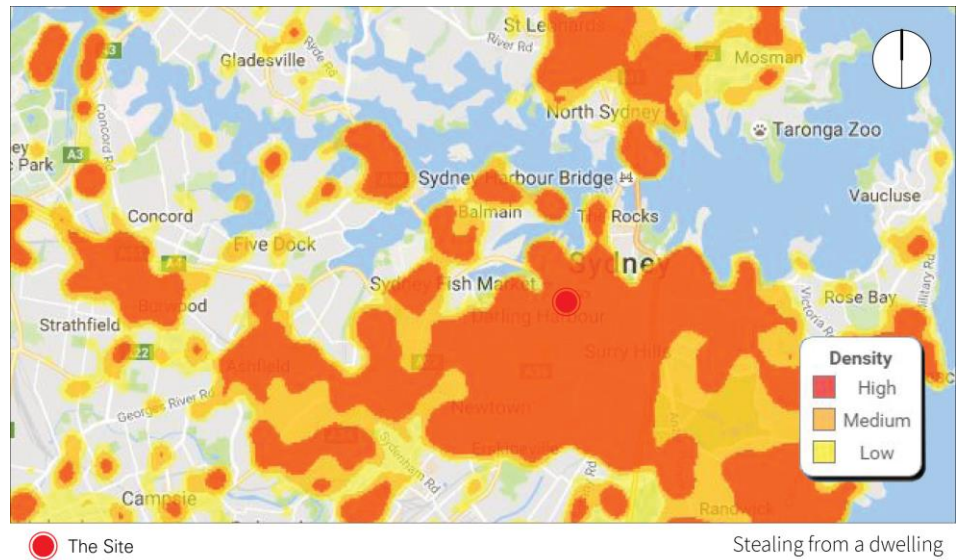


Figure 22 – Steal from dwelling hotspot map
Source: BOSCAR

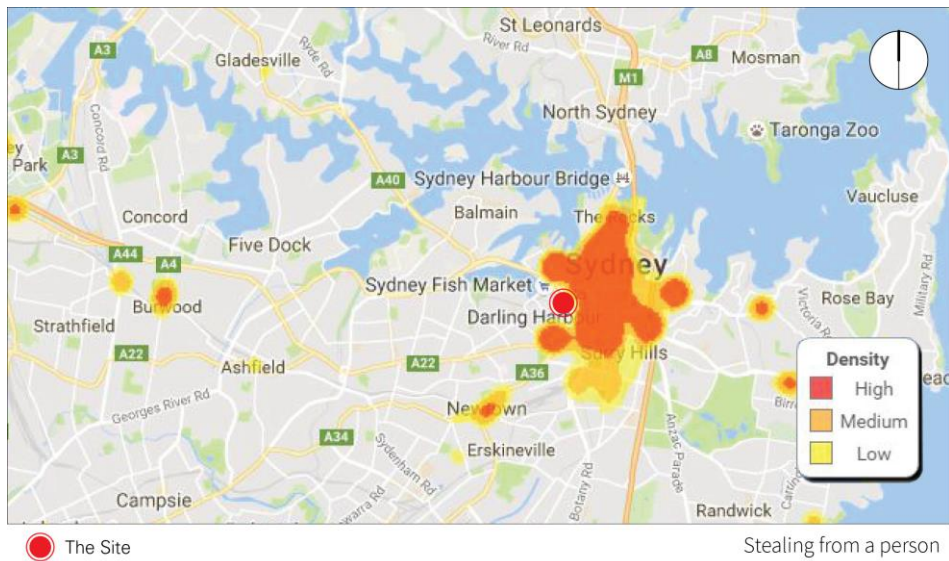


Figure 23 – Steal from person hotspot map
Source: BOSCAR

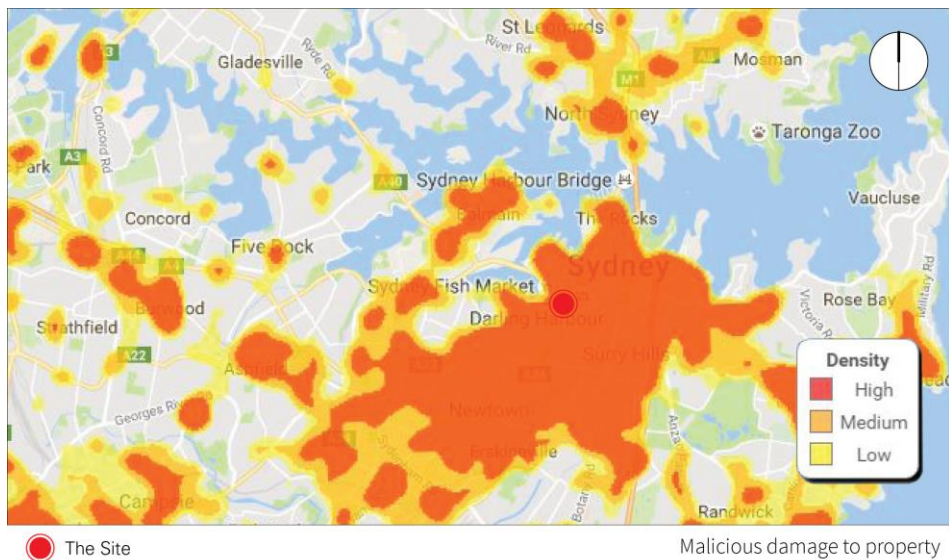


Figure 24 – Malicious damage to property hotspot map
Source: BOSCAR

5.0 Matters for Consideration

The built environment does not cause criminal behaviour, but its propensity to influence behaviour is well recognised. Many predatory offenders make cost benefit assessments of potential crime victims and targets before committing criminal acts. Given that assault, malicious damage to property and stealing could potentially be the main criminal offences affecting the users of the proposed development, the following comments and recommendations are made.

5.1 Surveillance

The natural surveillance opportunities over the future Harbourside development and the public domain areas will come from the users of the development, and pedestrians along Pyrmont Bridge and the new and upgraded public domain areas. However, should the future development provide a vehicular drop-off and entry in to the basement car park on the western side of the development as envisaged in the illustrative concept drawings, the opportunity of natural surveillance is more limited. Notwithstanding this, casual surveillance opportunities over these areas will be provided to some degree from the Ibis Hotel, Novotel Hotel and the residential development at 50 Murray Street, which are all located on the western side of Darling Drive.

As set out in the 'NSW Safer by Design Guidelines', predatory offenders target locations where this is a high likelihood of personal reward and low risk of detection and apprehension. Furthermore, the orientation of a building is a key factor in facilitating natural connections between occupants and visitors and the use of windows, doors and balconies which face public areas can maximise natural surveillance opportunities. The proposed building envelope has the ability to look out over the public domain areas included on the site and surrounding it, including the area beneath Pyrmont Bridge, therefore it is considered that the proposed future development will be able to maximise surveillance opportunities.

In addition, entry areas such as foyers and lobbies can be supervised naturally through the strategic placement of capable guardians (i.e. concierges, occupants, care takers, general public etc.). The proposed indicative retail and restaurant uses at the lower levels of the development will also provide opportunities for natural surveillance over the Boulevard area. The provision of a publicly accessible rooftop space on the podium building will enhance natural surveillance opportunities across the public domain area below, significantly enhancing perceptions and feelings of safety within the precinct. Good surveillance opportunities are also available from surrounding buildings/structures over the podium rooftop, particularly from the ICC Hotel and Pyrmont Bridge.

The new pedestrian linkages proposed in the redevelopment appear to be well positioned and will lend themselves to good open sightlines. The location of the residential tower in the central-northern portion of the podium will allow for clear view lines along the Bunn Street pedestrian bridge, ensuring good surveillance opportunities are able to be created for the detailed design of this feature.

The provision of dedicated off-street parking within the basement levels of the development will reduce the opportunity for vehicle theft. In order to maximise surveillance opportunities within the car parking areas, the following is recommended for the future detailed design:

- the internal car park structures are strategically placed to prevent opportunities for cover and entrapment;
- the configuration of car parking spaces maximise natural surveillance opportunities (i.e. using grid rows instead of a herringbone design);
- way-finding signage is provided to ensure that users know how and where to enter, exit and find assistance;

- the height on ceilings in the car parking areas ensure that lighting is distributed across the entire car park evenly and to a standard which provides a perception of spaciousness and comfort; and
- lighting is provided which is bright enough to permit an observer to see inside a parked vehicle.

5.2 Lighting/ Technical Supervision

Studies indicate that effective lighting can reduce fear, increase community activity, improve visibility and increase the likelihood of offenders being detected and apprehended. The proposed redevelopment of the Harbourside site, provides the opportunity for all lighting within the vicinity of the site including the public domain areas to be upgraded to meet the minimum Australia and New Zealand Standards and in particular the objectives for crime and fear reduction as outlined in Australian Lighting Standard AS/NZ 1158 for public streets, car parks and pedestrians areas.

High quality lighting throughout all publicly accessible areas should be adequate to permit facial recognition, informal surveillance and reduce the threat of predatory crime. Furthermore, the proposed redevelopment provides the opportunity for a new CCTV system to be installed within all internal and external publicly accessible areas to increase the technical supervision of the site. Along with this CCTV system there should be effective and well distributed lighting.

Overt CCTV is likely to deter some crimes, however, in many instances, they passively record events rather than prevent them. System weaknesses and blind spots are generally exploited by persistent criminals, therefore any CCTV system should comprehensively cover all areas of risk. Consultation with the Sydney Harbour Foreshore Authority (SHFA) and the NSW Police Local Area Command in regard to linking the proposed CCTV system with the wider SHFA system should be undertaken to ensure incidents are automatically reported to NSW Police.

5.3 Territorial Reinforcement

People generally recognise areas that are well cared for, and areas that display strong ownership cues are less likely to be improperly used than those that do not. Ownership cues are heightened and fear can be reduced amongst users through the personalisation, marking, maintenance and decoration.

People are commonly attracted to vibrant public areas, and well used areas are made safer by natural community supervision. Furthermore, an areas reputation can affect the liveability, social impact and economic prosperity of the area. The redevelopment of the Harbourside site will undoubtedly increase the quality and vibrancy of the environment and link in well with the SICEEP development to the south, both in terms of public domain upgrades and the creation of a more modern and high quality development. Overall, the redevelopment will act to prevent improper use of spaces and provide strong ownership cues.

5.4 Environmental Maintenance

It is commonly understood that area image can impact on feelings of safety and danger, influence local confidence and individual decisions to withdraw or engage in community life. It can also affect the economic prosperity of areas and lessen the likelihood of visitors to return.

As shown in the Design Report and Concept Drawings, the proposed illustrative scheme provides a finer grained and higher quality building than the existing building, together with a more sophisticated public domain design than the existing situation. The parameters set out within the Urban Design and Public Realm Guidelines will ensure that significant environmental improvements are made to the site and public domain areas, which will reduce the possibility for graffiti, litter and urban decay, which

all negatively impact upon perceptions of safety, community confidence to use public space and ultimately crime opportunity.

5.5 Activity and Space Management

The introduction of new forms of activity (i.e. additional retail uses and residential accommodation) will result in a greater number of people on the site. Furthermore, the provision of retail and food and drink offerings in the podium building will revitalise the site and is likely to increase the levels of activity during both the day and night. This in turn can increase surveillance and natural community policing and provide guardianship 24 hours a day. However, care will need to be taken to ensure that the needs of one user group do not conflict with or override the needs of others. The principles of activity and space management should be considered in further detail during the development of the detailed building designs.

5.6 Access Control

Access control strategies restrict, channel and encourage the movement of people and vehicles into and around designated areas. Physical barriers increase the effort required to commit crimes and will prevent unauthorised entry. Consideration will need to be given to the proposed mechanisms within the future detailed development to control unauthorised access into the different parts of the development, particularly given the high volume of users and the potential opportunity for offenders to make excuses about their actions with multiple uses provided in the same built form.

Examples of effective access control strategies include:

- car park/ vehicular access control:
 - use of boom gates or a security door at the entrance/ exit into the car park;
 - compartmentalisation of the car parking areas through design or the use of internal security doors or boom gates;
 - careful planning of traffic flow throughout the car park areas;
 - use of robust construction materials for car park storage areas; and
 - restricted pedestrian access to the private car park area, through the interior of the building.
- safety/ entry control systems:
 - electronic communication devices such as voice or visual intercom for visitors into the different parts of the development (specifically the residential component);
 - separated entrances and restricted access to the different parts of the development, i.e. resident lifts/ resident floors separate to the retail facilities etc.; and
 - use of concierges/ receptions and formal guardians in lobbies and entrances to the different uses.

6.0 Crime Risk Rating and Recommendations

Overall, it is considered that the proposed State Significant Development Application for the Harbourside Shopping Centre Concept Proposal will facilitate a mixed use development which will significantly improve the image of the site, and in turn will contribute to the provision of a safe and secure environment for future users.

In particular it is considered that:

- it will increase the surveillance opportunities over the public domain areas, Darling Drive and the Darling Harbour precinct in general;
- it will provide the opportunity to ensure that suitable lighting, technical supervision and access control mechanisms can be integrated into the new development and rejuvenated public domain areas;
- it will provide strong ownership cues and provide the opportunity for an increase in vibrancy and natural community policing 24 hours a day;
- it will provide the opportunity for environmental improvements to the site, and immediate locality, which in turn will increase the perception of the area as a high quality and safe environment; and
- it will enable future access control provisions to be effectively implemented to ensure the security of future building users/residents and visitors to the site.

Specific CPTED recommendations in relation to the design of the future development will be made at the detailed design stage, however, high level design recommendations that should be implemented in the final design include:

- Provision of separate entries to the residential, non-residential and car park uses.
- Installation of CCTV throughout all external and internal publicly accessible areas, with any CCTV cameras to be accompanied by well distributed and high quality lighting.
- Use of a 24 hour concierge or security for the residential lobby areas.
- Provide systems (i.e. key/ card controlled access and security shutters etc.) to control access to the different uses within the non-residential and residential uses outside of business hours.
- Provide access control mechanisms within the car park.

The Concept Proposal is supportable from a crime and safety perspective and importantly accords with the CPTED principles. It is recommended that a CPTED review of any detailed proposal is undertaken at the appropriate stage.