
Appendix L

CPTED Report

Sydney Metro West

Hunter Street East Over Station Development CPTED Report

Appendix L

November 2022



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Glossary

Term	Definition
CBD	Central Business District
Concept and Stage 1 CSSI Application	Application SSI-10038, including all major civil construction works between Westmead and The Bays, including station excavation and tunnelling, associated with the Sydney Metro West line
Concept SSDA	A concept development application as defined in Section 4.22 of the EP&A Act, as a development application that sets out concept proposals for the development of a site, and for which detailed proposals for the site or for separate parts of the site are to be the subject of a subsequent development application or applications.
Council	City of Sydney
CPTED	Crime Prevention Through Environmental Design
CSSI	Critical Stage Significant Infrastructure
DPE	Department of Planning and Environment
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA	Environmental Protection Authority
FSR	Floor space ratio
GFA	Gross floor area
LEP	Local Environmental Plan
LGA	Local Government Area
OSD	Over Station Development
RL	Reduced level
SCEC	Security Construction and Equipment Committee
SEARs	Secretary's Environmental Assessment Requirements
SME	Subject Matter Expert
SSDA	State Significant Development Application
SSI	State Significant Infrastructure
Stage 2 CSSI Application	Application SSI-19238057, including major civil construction works between The Bays and Hunter Street Station
Stage 3 CSSI Application	Application SSI-22765520, including rail infrastructure, stations, precincts and operation of the Sydney Metro West line
Sydney Metro West	Construction and operation of a metro rail line and associated stations between Westmead and the Sydney CBD as described in section 1.1
TfNSW	Transport for New South Wales
The site	The site which is the subject of the Concept SSDA

Executive summary

This Crime Prevention Through Environmental Design (CPTED) assessment report supports a Concept State Significant Development Application (Concept SSDA) submitted to the Department of Planning and Environment (DPE) pursuant to part 4 of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*. The Concept SSDA is made under section 4.22 of the EP&A Act.

Sydney Metro is seeking concept approval for a commercial tower above the Hunter Street Station eastern site (the site), otherwise known as the over station development (OSD).

The Concept SSDA seeks consent for a building envelope and its use for a commercial and retail premises, a maximum building height of 58 storeys (257.7m, reduced level 269.10), a maximum gross floor area (GFA) of 84,223m², pedestrian and vehicular access, circulation arrangements and associated car parking and the strategies and design parameters for the future detailed design of development.

This CPTED report responds specifically to the Secretary's Environmental Assessment Requirements (SEARs) and provides a desktop assessment of the concept architectural plans of the proposed development for the Hunter Street East OSD (referred to hereafter as the 'proposed development').

The report provides an assessment against the six key principles of CPTED, which are natural surveillance, natural access control, territorial reinforcement, image and management/ maintenance, activity support and site/target hardening. The assessment found that the concept design proposed has already incorporated a number of CPTED principles and provides adequate opportunity for the implementation of further CPTED principles in the future design. The future Detailed SSDA will need to address how to implement the following CPTED principles.

Natural surveillance

The proposed development land uses have an opportunity to create formal lobby areas with concierge/security personnel that can provide capable guardianship and surveillance of their respective developments in addition to the adjacent public realm areas. By extension, the design of these ground floor areas, and immediate floors above, should maximise surveillance opportunities.

Natural access control

The urban nature of the station's location may restrict the opportunities for introducing new methods of natural access control; however, the development should seek to leverage the existing built environment to channel natural flow of pedestrian throughput. Intuitive routes should direct legitimate traffic to appropriate areas with natural and electronic surveillance coverage.

Territorial reinforcement

Zoning, in the form of floor surfaces and perceptible architectural branding should be used to indicate passage from public to Metro domains. Clear and unambiguous signage and wayfinding is required for the proposed development as effective wayfinding systems provide assurance, promote throughput and help to reduce unnecessary pedestrian congestion or confusion.

Image management and maintenance

Ensure contractually the ongoing maintenance and upkeep of the proposed development by building management, to include vegetation, landscape and lighting maintenance, site cleanliness, repairing property damage and implementation of an effective Graffiti Management Plan should be incorporated into contractual service level agreements.

Activity support

Environmental designs should promote legitimate activity, particularly at non-peak times when opportunities for crime may increase. Encouragement of socially cohesive activities (e.g. food trucks, street entertainment) will increase the likelihood of desirable behaviour at traditionally quieter times and deter criminal activity.

Site/target hardening

The correct application of CPTED promotes situational crime prevention through the discrete integration of target hardening measures. Where possible, architectural and landscaping features should be used to harden the environment against vehicular incursion. Electronic Security Systems (ESS) should be integrated within the environment to reduce the overt nature of security measures and the associated fear of crime. This will be addressed under the Stage 3 CSSI Application.

1 Introduction

1.1 Sydney Metro West

Sydney Metro West will double rail capacity between Greater Parramatta and the Sydney Central Business District (CBD), transforming Sydney for generations to come. The once in a century infrastructure investment will have a target travel time of about 20 minutes between Parramatta and the Sydney CBD, link new communities to rail services and support employment growth and housing supply.

Stations have been confirmed at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays, Pyrmont and Hunter Street.

Sydney Metro West station locations are shown in Figure 1-1 below.

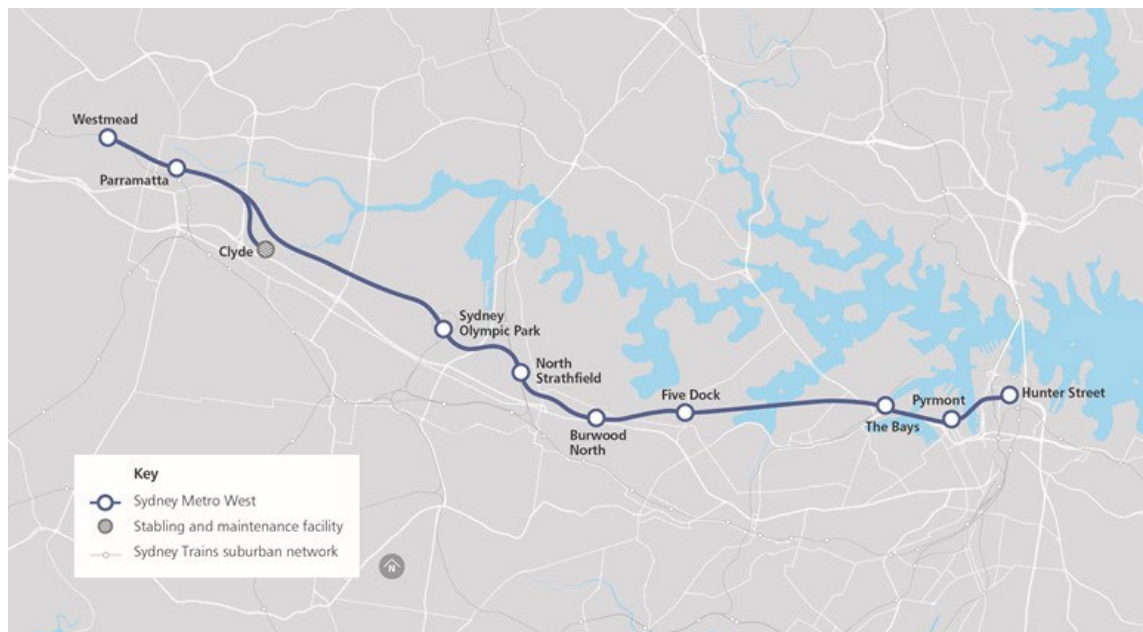


Figure 1-1 Sydney Metro West

1.2 Background and planning context

Sydney Metro is seeking to deliver Hunter Street Station under a two-part planning approval process. The station fit out infrastructure is to be delivered under a Critical State Significant Infrastructure (CSSI) application subject to provisions under division 5.2 of the EP&A Act, while the over station developments are to be delivered under a State Significant Development (SSD) subject to the provisions of part 4 of the EP&A Act. It is noted a Planning Proposal request has been submitted to the City of Sydney Council to amend the planning controls on the site (refer to section 1.2.3).

1.2.1 Critical state significant infrastructure

The state significant infrastructure (SSI) planning approval process for the Sydney Metro West metro line, including delivery of station infrastructure, has been broken down into a number of planning application stages, comprising the following:

- Concept and Stage 1 CSSI Approval (SSI-10038) – All major civil construction works between Westmead and The Bays including station excavation, tunnelling and demolition of existing buildings (approved 11 March 2021).
- Stage 2 CSSI Application (SSI-19238057) – All major civil construction works between The Bays and Hunter Street Station (approved 24 August 2022).
- Stage 3 CSSI Application (SSI-22765520) – Tunnel fit-out, construction of stations, ancillary facilities and station precincts between Westmead and Hunter Street Station and operation and maintenance of the Sydney Metro West line (under assessment).

1.2.2 State significant development application

The SSD will be undertaken as a staged development with the subject concept state significant development application (Concept SSDA) being consistent with the meaning under section 4.22 of the EP&A Act and seeking conceptual approval for a building envelope, land uses, maximum building heights, a maximum gross floor area, pedestrian and vehicle access, vertical circulation arrangements and associated car parking. A subsequent Detailed SSDA/s is to be prepared by a future development partner which will seek consent for detailed design and construction of the development.

1.2.3 Planning proposal

A Planning Proposal request has been submitted to the City of Sydney Council to amend the planning controls that apply to the Hunter Street Station under the Sydney Local Environmental Plan 2012 (LEP). Hunter Street Station includes both an eastern site (this application) and western site.

The Planning Proposal request seeks to enable the development of a commercial office building on the site that would:

- comprise a maximum building height of between reduced level (RL) 257.7m and RL 269.10m (as it varies to comply with the relevant sun access plane controls)
- deliver a maximum gross floor area (GFA) of 84,287m² (resulting in a maximum floor space ratio (FSR) of 22.82:1), measured above ground level
- facilitate the adaptive reuse of the existing Former Skinners Family Hotel within the overall development
- include site specific controls which ensure the provision of employment and other non-residential land uses
- require the mandatory consideration of a site-specific Design Guideline
- allow for the provision of up to 70 car parking spaces
- establish an alternative approach to design excellence.

The Planning Proposal request was submitted to the City of Sydney in May 2022 and is currently under assessment.

1.3 Purpose of the report

This crime prevention through environmental design (CPTED) report supports a Concept SSDA submitted to the Department of Planning and Environment (DPE) pursuant to Part 4 of the EP&A Act. The Concept SSDA is made under section 4.22 of the EP&A Act.

This report has been prepared to specifically respond to the Secretary's Environmental Assessment Requirements (SEARs) issued for the Concept SSDA on 08 August 2022 which states that the environmental impact statement is to address the following requirements.

SEARs requirements	Where addressed
Illustrate the integration between station infrastructure and the development including: <ul style="list-style-type: none">any CPTED mitigation measures required that are related to the SSD.	Section 4 – The proposal
Address how CPTED principles are to be integrated into the development, in accordance with Crime Prevention and the Assessment of Development Applications Guidelines.	Section 3.2 and section 4 – The proposal

This report provides a desktop assessment of the concept architectural plans for the Hunter Street East OSD.

The report provides an assessment against the six key principles of CPTED which are natural surveillance, natural access control, territorial reinforcement, image and management / maintenance, activity support and site/target hardening. The assessment found that the concept design proposed has already incorporated a number of CPTED principles and provides adequate opportunity for the implementation of further CPTED principles in the future design. Mitigation measures for consideration during the preparation of the subsequent design stages are summarised below.

2 The site and proposal

2.1 Site location and description

Hunter Street Station is in the northern part of the Sydney CBD, within the commercial core precinct of Central Sydney and within the Sydney Local Government Area (LGA). The Hunter Street Station includes two sites – the eastern site and the western site. This report relates to the eastern site only.

The Hunter Street Station eastern site (the site) is on the corner of O’Connell Street, Hunter Street and Bligh Street adjacent to the existing CBD and South East Light Rail that extends from Circular Quay to Moore Park, Kensington and Kingsford. The east site is adjacent to the new Martin Place Station which forms part of the Sydney Metro City and Southwest, Australia’s biggest public transport project connecting Chatswood to Sydenham and extending to Bankstown. The remainder of the site is currently occupied by commercial office buildings and a range of ground floor business premises including retail, restaurants and cafes.

The site area is 3,694m² and will be cleared of all buildings and utilities prior to commencement of station construction activities. The site location is shown in Figure 2-1.



Figure 2-1 Location of the site

Table 2-1 sets out the address and legal description of the parcels of land that comprise the site.

Table 2-1 Site legal description

Address	Lot and DP
28 O'Connell Street, Sydney	Lot 1, DP217112
28 O'Connell Street, Sydney	Lot 1, DP536538
28 O'Connell Street, Sydney	Lot 1, DP1107981
48 Hunter Street, Sydney	Lot 1, DP59871
48 Hunter Street, Sydney	Lot 2, DP217112
33 Bligh Street, Sydney	Lot 1, DP626651
37 Bligh Street, Sydney	CP and Lots 1-14, 21-31, 33-36, and 40, SP58859
37 Bligh Street, Sydney	CP and Lots 41-49, SP61852
37 Bligh Street, Sydney	CP and Lots 50-57, SP61922
37 Bligh Street, Sydney	CP and Lots 58-65, SP61923
37 Bligh Street, Sydney	CP and Lots 66 and 67, SP63146
37 Bligh Street, Sydney	CP and Lots 67-70, SP63147
37 Bligh Street, Sydney	CP and Lot 72, SP74004
37 Bligh Street, Sydney	CP and Lots 75-82, SP87437
37 Bligh Street, Sydney	CP and Lots 73-74, SP87628
Total Area: 3,694 m²	

2.2 Overview of the proposal

The Concept SSDA will seek consent for a building envelope above the site (the proposed development). As detailed in Table 2-2 and Figure 2-2.

Table 2-2 Proposed development overview

Built form component	Proposed development outcome
Site area	3,694m ²
Height	Building height up to 257.7m (RL 269.10)
Ground floor area	Up to 84,223m ²
Land Use(s)	Commercial office and retail
Carparking	Up to 70 car parking spaces

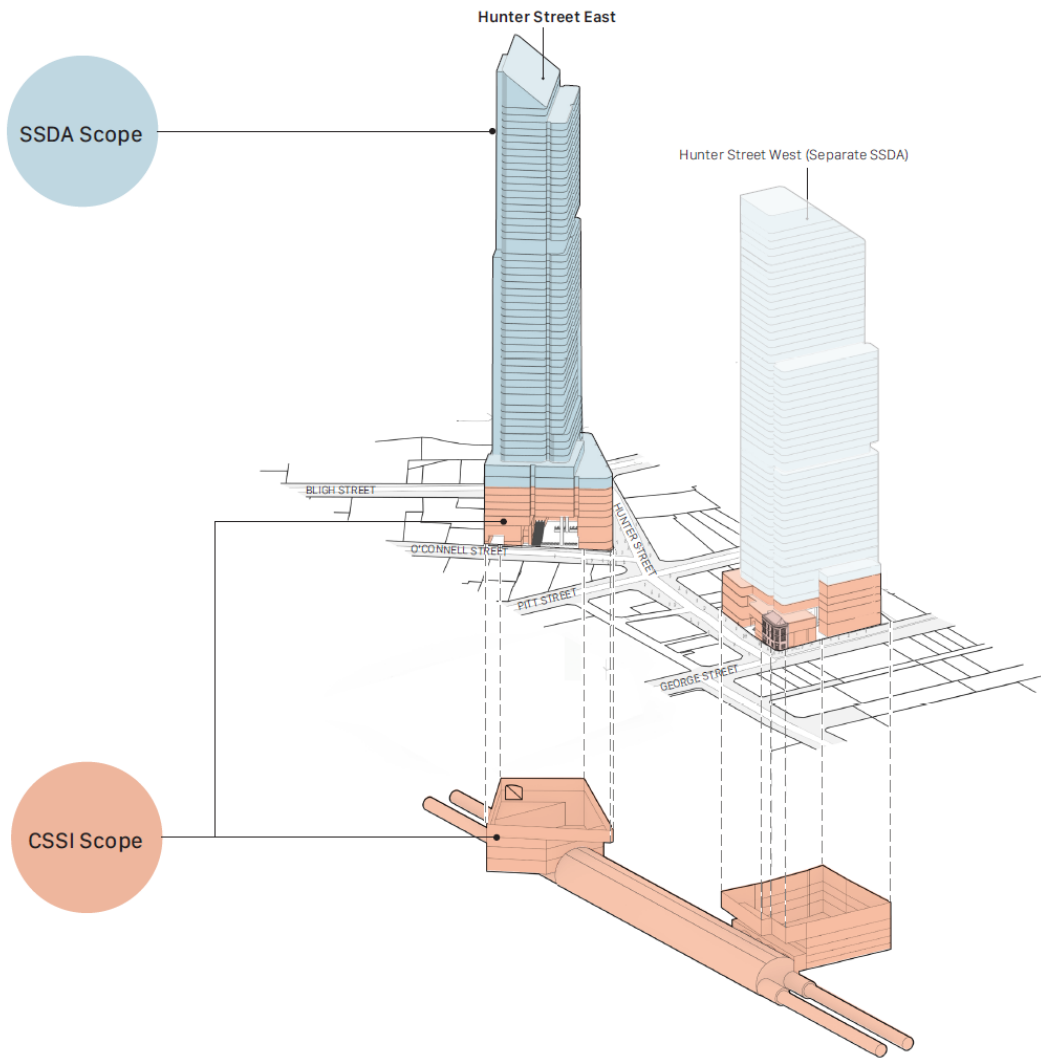


Figure 2-2 Proposed Concept SSDA development and CSSI scope

3 Scope of assessment

3.1 Context

This report provides a desktop analysis of the concept architectural plans for the proposed development.

This report assesses the plans against the following six CPTED principles:

- natural surveillance
- natural access control
- territorial reinforcement
- image and management/maintenance
- activity support
- site/target hardening.

The purpose of CPTED is to utilise design and site management principles to reduce the likelihood of criminal acts occurring and the fear of crime.

This CPTED assessment has been prepared in accordance with the requirements detailed within:

- T MU SY 20001 ST Transport for New South Wales Physical Security Standards
- ISO 22341:2021 - Security and Resilience — Protective Security — Guidelines for Crime Prevention Through Environmental Design.

Note, a Security Risk Assessment is included as part of the Detailed SSDA that considers the security and safety of all users of the broader precinct.

It should be noted that the application of CPTED principles is not a guarantee that all criminal or anti-social behaviour will be prevented. While CPTED principles may not eliminate all crime, their application can significantly reduce criminal and anti-social behaviour. Also, the application of such principles can heighten awareness and increase positive perceptions of personal and public safety, improving the overall liveability of the built environment.

3.1.1 Exclusions

The following items were excluded from consideration:

- Internal areas of Hunter Street Station.

3.2 Principles

CPTED is a strategy aimed at increasing the level of risk perceived by would-be-offenders that they will be seen, challenged or caught. It simultaneously seeks to reduce the risk perceived by legitimate users of space who feel safer due to positive environmental characteristics. This also encourages use of space by legitimate users, who in turn increase guardianship and territoriality.

3.2.1 Natural surveillance

Natural surveillance aims to create opportunities for, and perceived risk of, observation of undesirable activities. Natural surveillance can be achieved through establishing clear sightlines, directing more 'eyes on the street' by designing environments to encourage and attract legitimate users to a space, and through orientation of windows towards areas that might present risk. Areas with good natural surveillance engender the perception for potential offenders that they may be under observation by legitimate users of the space from neighbouring areas, or passing pedestrian and vehicular traffic, which deters and discourages criminal acts.

Natural surveillance provides opportunities for people engaged in lawful activities to observe the space around them and for potential offenders to feel observed, by designing the orientation of physical features in such a way that maximum visibility and positive interaction occurs among legitimate users of the space.

3.2.2 Natural access control

Natural access control involves the use of physical or symbolic barriers to attract, channel, restrict or deter the movement of people. It can be achieved through the use of footpaths, landscaping, lighting, signage, wayfinding, indicator boards, symbols, monuments, markers, or landmarks to direct pedestrian movement through an area, restrict access to assets, and notify or symbolise building/precinct entries, boundaries or areas.

Effective natural access control decreases opportunities for crime by controlling access to a potential target, reducing pedestrian congestion, discouraging, or deterring potential offenders from entering certain areas, and by creating a perception of unacceptable risk to an offender.

3.2.3 Territorial reinforcement

Territorial reinforcement seeks to promote notions of proprietary concern and a sense of ownership and protectiveness in lawful users of a space, thereby reducing criminal opportunities by increasing potential guardianship. It includes symbolic barriers (e.g., signage, subtle changes in road texture), and branding to help citizens identify with the space and feel protective of it.

3.2.4 Image management and maintenance

Image management and maintenance promotes a positive view of the built environment as well as the continued effective functioning of the facility. The physical condition and image of the built environment has the potential to influence the likelihood and fear of crime.

Poorly maintained urban space can attract crime and deter legitimate use. Proper maintenance allows for the continued use of a space for its intended purpose and serves as an additional expression of ownership and care. Maintenance also prevents the compromise of visibility from foliage overgrowth and obstructed or inoperative lighting and CCTV.

Graffiti is a systemic problem in rail and urban environments. The application of CPTED principles at design stages can help with ongoing graffiti management through consideration of canvas reduction and natural surveillance.

3.2.5 Activity support

Legitimate activity support uses CPTED principles to encourage acceptable behaviour in public spaces and orients risky activities (such as those involving money

transactions) in safe locations with high levels of activity and surveillance opportunities. Similarly, safe activities serve as attractors for legitimate users whose presence discourages offending. This concept has clear links with those of social cohesion, territoriality, access control and surveillance.

3.2.6 Site/target hardening

Target hardening increases the effort and risk of offending, reduces the rewards associated with the commission of a crime and is a long-established and traditional crime prevention technique. It focuses on denying or limiting access to a crime target through the use of physical barriers such as fences, gates, security doors and locks, and of security technology. To be considered a principle of CPTED, target hardening measures should be integrated with the built environment at the design stages, to create a defensible space that is not overtly fortified and remains welcoming to legitimate users. Examples would include the use of architectural and landscaping features such as statues, planters, and impact-rated street furniture (benches, bins etc.) to protect concourses, rather than anti-vehicle bollards.

Proposed plans to broaden footpaths or create fully pedestrianised zones outside the station, at both the intersections of O'Connell Street and Bligh Street with Hunter Street, will require careful CPTED and Hostile Vehicle Mitigation (HVM) planning. The plans currently fall outside the scope of the OSD but will have a significant effect on the potential risk to users of the finished environment; therefore, stakeholder engagement must continue for the Stage 3 CSSI Application.

3.3 Methodology

In undertaking the CPTED assessment for this location, a risk-based approach and established CPTED design principles were applied, to enhance the inherent security and safety within the built environment. The CPTED approach used is in accordance with T MU SY 20001 ST Surface Transport Physical Security Standard, and ISO 22341:2021 - Security and Resilience — Protective Security — Guidelines for Crime Prevention Through Environmental Design.

The objective of this CPTED assessment is to identify opportunities for the designing out of security vulnerabilities and designing in of risk mitigating measures by applying the CPTED concepts outlined above.

The methodology for this CPTED assessment included:

- review of the proposed development and associated documentation to identify opportunities to enhance CPTED for this project location
- development of a CPTED report including an introduction to CPTED, methodology used, references, project location demographics, crime assessment, observations from design package review and recommendations for enhancing CPTED.

3.4 Key inputs

The assessment has drawn on a range of primary sources to provide the evidence base for the assessment, including internal subject matter expertise, stakeholder expertise, expert opinion, threat intelligence, and open-source documentation to support our analysis.

3.4.1 CPTED assessment team

The CPTED assessment has been prepared by the resources shown in Table 3-1.

Table 3-1 Security consulting group CPTED assessment team

Resource	Delivery role
Spencer Wakelam	Principal security consultant, project Lead
Simon West	Senior security consultant, peer review and QA, CPTED SME

All members of the assessment team have experience in preparing CPTED assessments, hold current Class 2A Security Licences (or equivalent) and are providing security advice under NSW master security licence 000101614.

3.4.2 Stakeholder engagement

The following stakeholder engagements, for both station design and the proposed development, were undertaken in support of the threat assessment:

- Sydney Metro East Security Team
- Sydney Trains Security Intelligence Team
- Hunter Street Station design walkthrough, 26 November 2021
- Hunter Street Station Security Risk Assessment Workshop 1, 30 November 2021
- Hunter Street Station Security Risk Assessment Workshop 2, 14 December 2021
- Ongoing Security Stakeholder Working Group meetings.

This engagement is ongoing and any further relevant information will be incorporated in subsequent updates to the threat assessment if required.

3.4.3 Reference regulations, standards, and relevant literature

The assessment team referred to the following:

- T MU SY 20001 ST Surface Transport Physical Security Standard
- ISO 22341:2021 - Security and Resilience — Protective Security — Guidelines for Crime Prevention Through Environmental Design
- NSW Police Force Safer By Design Evaluation process
- CPTED requirements of section 4.15 (formally 79C) of the *Environmental Planning and Assessment Act 1979*
- NSW Crime Prevention and the Assessment of Development Applications Guidelines.

3.5 Future works

To demonstrate that CPTED opportunities identified at this concept stage are captured in subsequent stages, as part of the assurance process, it is recommended that for future Detailed SSDA, a further CPTED assessment will be needed for the final design scheme.

3.6 Demographic characterisation¹

Sydney has a diverse and multicultural demographic and a broad range of ancestries and backgrounds, with 43 per cent of Sydney residents having been born overseas. Over 38 per cent of residents speak a language other than English at home, compared with 21 per cent across Australia. Migrant communities are particularly strong in Sydney, and while there is the occasional characterisation of cultural enclaves, people are typically integrated into the broader community and there is little social stratification on the basis of race or culture. It is important to recognise the broad diversity of culture, as there are fundamentally different social and cultural expectations around security, which can be managed for the most part by effective communications around security strategies.

Located within Sydney CBD, the demographic most likely to patronise Hunter Street Station will be the young to middle-aged professional commuters. As the site is located in the commercial area, and the proposal does not include any residential uses, there is typically less social cohesion which presents different challenges in terms of territoriality and guardianship. However, a number of community-supporting initiatives are included in the design plans that will assist in mitigating this.

Throughput and the general demographic are likely to change significantly outside business hours. There are parks, hotels, bars and restaurants in the vicinity, plus iconic landmarks within walking distance, therefore there will be recreational and tourist traffic at most times.

3.7 Crime characterisation

As a CBD-based crowded place it is likely to experience both routine and opportunistic petty crime such as theft, assault, public order, vagrancy and vandalism. Criminal activity may spike at peak times but is likely to maintain a steady level at all other times. The designing-out of vulnerable space and promotion of natural surveillance opportunities, territorial reinforcement in the form of architectural and cultural branding, and site maintenance and management will all contribute to mitigating this risk.

Although the likelihood is low, as a crowded place associated with some of Australia's, and arguably the world's, most iconic landmarks, the proposed development must also be considered an attractive target for terrorists and other extremists and the potential consequences would be catastrophic; therefore, this risk must also be considered in the application of CPTED principles.

¹ [Profile.id.com.au/Sydney/population](https://profile.id.com.au/Sydney/population)

4 Assessment

The following sections make a general assessment of the CPTED strategy against the concept design followed by specific CPTED principles – Natural Surveillance, Natural Access Control, Territorial Reinforcement, Image Maintenance/Management, Activity support and Target Hardening identified during the desktop design package review.

4.1 Natural surveillance

The following measures have been proposed in the concept design that enhance natural surveillance:

- Building layouts not creating blind spots or concealment opportunities, noting it is mainly in block planning stage and therefore it is important that this concept is maintained through subsequent design stages. Curved, rather than acutely angular, direction changes and the avoidance of alcoves or niches, are examples of how this can be achieved.
- Street frontages provide opportunity for glazed facades, offering opportunity for overlooking the surrounding public domain and increasing the perception of being observed
- Opportunities for windows oriented towards risk areas to promote passive surveillance from upper building levels to the external public domain
- Clear sight lines between the building entrances and the external public domain
- Active frontages at ground level create an environment for people to be engaged in legitimate behaviour while observing the space around them
- It is expected that the principle of natural surveillance would be carefully considered during the detailed design of the building, including glazing and entry design.

4.2 Natural access control

The following measures have been proposed in the concept design that enhance natural access control:

- Vehicular access routes have been coordinated to create a new pedestrian prioritised town centre, with vehicular access incorporated in both shared zones and slow street environments.



Figure 4-1 Pedestrian connections

- The ground plane features distinct and easily identifiable access points for individual users, serving to channel persons into the intended locations. Although the detailed internal layout is unknown at this concept stage, corridors within the building would also serve to funnel people to the intended locations. It is anticipated that the specific design of these measures would be developed at the Detailed SSDA.
- It is anticipated the electronic access control system-controlled security doors would be used to control access to restricted areas. Boom gates would also be used to restrict vehicular access to loading dock and station basement areas.
- The development provides opportunity for organised access control including concierge desks in the lobbies, staff and facility managers. Though not directly employed for security purposes, these persons would provide surveillance in and around the development.

4.3 Territorial reinforcement

The following measures have been proposed in the concept design that enhance territorial reinforcement:

- The delineation between the public realm, semi-public, semi-private and private spaces within the proposed development buildings, along with the defined purposes of the buildings (i.e. commercial and retail), is conducive with territorial reinforcement principles.
- At ground level, the proposed uses are clearly defined through the use of separate entries distinct from one another and from the station uses. The distinct entries would direct persons to the intended locations. The separate entries allow for the inclusion of various design cues at the detailed design stage, including colours, materials, landscaping, signage and other elements, to further reinforce the specific uses.

4.4 Image management and maintenance

The following measures are proposed in the concept design to enhance image management and maintenance in the precinct:

- The concept proposal involves no impediments to proper environmental maintenance. It is presumed that ongoing maintenance would be provided by the future building manager.

4.5 Activity support

It is likely that the proposed active street frontages, including the station entries and retail opportunities, would naturally attract users and extend activity in the area beyond core business hours. Generally, mixed use developments also offer extended hours of trade and around-the-clock use of space. This increased activity increases the risks for potential offenders or intruders.

5 Conclusion

This report presents the results of a CPTED assessment on the proposed development. It has been prepared to outline the opportunities for reducing crime at the future development and to specifically respond to the SEARs issued for the Concept SSDA.

5.1 Natural surveillance

- The proposed development has an opportunity to create formal lobby areas with manned concierge/security personnel that can provide surveillance of respective developments in addition to the adjacent public domain. By extension, the design of these ground floor areas, and immediate floors above, should maximise surveillance opportunities.
- All effort should be made to design-out blind spots or concealment opportunities in building layouts within the precinct.
- Plans for the use of trees must accommodate the potential for the obscuring of natural surveillance; where foliage types will have rapid or extensive growth properties, their maintenance must factor in site management plans.
- A security lighting strategy for the proposed development and public realm has yet to be detailed. It is important this is defined and agreed with all stakeholders. The security lighting strategy must meet the Sydney Metro design requirements, which includes but is not limited to providing even distribution of lighting, supporting the public realm CCTV placement, assisting with differentiating between vehicle and pedestrian movements, improving general visibility, and defining activity spaces. An effective lighting strategy will contribute to public perception by reducing fear, increasing community activity and increasing the chance that offenders will be detected and apprehended.

5.2 Natural access control

- The selection of both hard and soft landscaping elements within the proposed development must support the overall CPTED principles. Human factors should be a consideration when designing desired approaches to the station in order to channel legitimate throughput.
- Define an access control strategy for both pedestrians and vehicles, with associated security measures, for the proposed development that delineates security zones such as public, semi-public, semi-private, private and restricted.
- Where relevant, vehicular proximity to the station environment should be prioritised according to the level of regulation available, i.e., buses, regulated taxis, then private vehicles.

5.3 Territorial reinforcement

Signage and wayfinding have been considered in the concept design; however, it is noted that further development is required including stakeholder engagement with TfNSW. The design team should ensure this is developed through the proposed development and broader precinct design process, including synergy and integration between proposed development and precinct, as effective wayfinding systems contribute to a sense of well-being, safety, and security.

Concept designs that draw upon the surrounding heritage building façades will help to reinforce territoriality.

5.4 Image and management/maintenance

The design has considered image management and maintenance to date.

Considerations should include, but not be limited to:

- Landscape and lighting maintenance
- Maintaining cleanliness of the site
- A Graffiti Management Plan that incorporates CPTED principles, and prompt repairing of vandalism

5.5 Activity support

In a close CBD environment, a lack of open, congregational areas can reduce the opportunity for proactive activity support. It is important that legitimate activity support is a consideration in the design stages of the through-site link between Bligh Street and O'Connell Street (east-west), to prevent the formation of unwelcoming choke points that increase the risk of volume crime.

Activity support planning for the expanded Richard Johnson Square should be conducted in conjunction with the other CPTED principles, particularly the designing-in of HVM and other target-hardening measures.

5.6 Site/target hardening

Where opportunities for errant vehicular incursion are identified, consideration should be given to the designing-in of mitigating controls such as architectural or landscaping features. This will be particularly relevant to potential pedestrianised zones and widened footpaths included in the design. This will be addressed under the Stage 30 CSSI Application.

The use of moveable elements such as seating and planting need to be considered with security in mind. There is the possibility these elements could be weaponised during a security incident or could become a source of shrapnel during a blast event, albeit unlikely. If moveable elements are to be used, they should be adequately secured utilising custom fixings that should not be readily removed using basic hand tools.

5.7 Built environment

For CPTED principles to be successful three functions need to be considered – spaces within the built environment need to have a designated purpose, they need to have social, cultural, legal or physical definitions and need to be designed to support and control the function of the space.

Thus, the three functions of designation, definition and design all contribute to the concept of CPTED. In practical terms when executing the future proposed development, it is recommended the following is considered for each space:

- a space should 'belong' or be designated to a person or group to foster guardianship
- the intended use of a space should be clearly defined to reinforce territoriality
- the physical design of a space should match its intended use to promote legitimate activity
- the design of a space should provide means for normal users to naturally control the activities, to control access and to provide surveillance.

The assessment found that the concept design proposed has already incorporated a number of CPTED principles and provides adequate opportunity for the implementation of further CPTED principles in the future design. The proposed mitigation measures should be considered during the preparation of the subsequent Detailed SSDA.

