

Macquarie Capital

**Sydney Metro Martin Place  
Station**

**Stage 1 SSDA Report - Crime  
Prevention Through Environmental  
Design Report**

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This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

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# 1 Executive Summary

This report is designed to provide commentary on indicative architectural plans in consideration of best security practices from a CPTED perspective. The report outlines the project, policy, and crime context for the project and makes recommendations about appropriate CPTED strategies to reduce the opportunity for crime to occur.

## 1.1 Secretary's Environmental Assessment Requirements

This report responds to the Secretary's Environmental Assessment Requirements (SEARs) requirement to provide a CPTED assessment as a plan or document.

## 1.2 Crime Context

A review of crime occurring in the precinct area (the Sydney LGA) was conducted to identify relevant trends. The majority of relevant crimes to the project have been decreasing over the last five years, with trespass and transport regulatory offences increasing within the CBD.

Trend information	2011	2012	2013	2014	2015	24mnth Trend	60mnth Trend
Steal from person	2881	2736	2225	1887	1661	-11.98	-42.35
Harassment, threatening behaviour and private nuisance	973	1023	1025	950	939	-1.16	-3.49
Transport regulatory offences	2382	3172	4948	3942	8755	122.1	267.55
Assault - non-domestic violence related	3772	3724	3576	3142	3121	-0.67	-17.26
Malicious damage to property	3599	3332	3343	2876	2691	-6.43	-25.23
Offensive conduct	1860	1682	1713	1318	1126	-14.57	-39.46
Steal from retail store	2290	2462	2276	2318	2185	-5.74	-4.59
Trespass	449	560	477	508	502	-1.18	11.8
Steal from motor vehicle	2713	2200	2351	2176	1686	-22.52	-37.85
Break and enter non-dwelling	807	819	934	590	450	-23.73	-44.24

Source: BOCSAR

## 1.3 Recommendations

Based on a design assessment and review of crime statistics for the Sydney LGA, several recommendations have been made including:

- Provide clear definition and designation of space in a manner that encourages and predicts authorised movement and does not cause conflict between the intended purpose of the space and the desired behaviour;

- Maximise passenger circulation areas by minimising built structures and avoiding clutter, particularly along pedestrian routes to the station concourse;
- Design and layout of building entrances and foyers to assist natural surveillance by reducing clutter and blind spots, positioning reception/concierge where they have clear sightlines of entrances, the general foyer areas, and waiting areas;
- Use of glass partitions wherever possible to improve site lines and the transmission of natural light, and be fitted with anti-graffiti coatings (where practical) where these partitions are accessible to the public.
- Durable public furniture and amenity construction, to limit damage and subsequent repairs over the life of the facility;
- Keep Macquarie Martin Place Station as clean, tidy and well-presented as possible in order to enhance the territoriality aspects of the site;
- The mixed use areas will help ensure regular and diverse use of the facility which also enhances the territoriality aspects of the site, whilst enhancing the opportunity for natural surveillance. Encouraging regular and diverse use of the site through these and other measures are recommended;
- Ensure adequate lighting is provided throughout the precinct;
- Treat the corridor on the Lower Concourse with appropriate security control measures such as CCTV to reduce the likelihood of opportunistic crime;
- Provide control points between each external interface point and the development (i.e. between the MLC centre and the underground project connection point);
- Ensure public realm lighting is appropriate for use at night;
- Provide signage throughout the precinct to remove excuses for loitering and littering, each being a significant detractor to territoriality; and
- Ensure signage is appropriate to improve way finding and reduce terrain vagueness within the precinct.

Implementing these recommendations will increase the perception of risk to criminals by increasing the presence of deter, detect, delay and response characteristics (physical and electronic security systems) to the precinct. Further, such measures will increase the effort required to commit crime by increasing the time, energy or resources which need to be expended while reduce the potential rewards of crime by minimising, removing and concealing rewards.

## 2 Introduction

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### 2.1 Overview

Arup has been commissioned to provide an initial assessment of opportunities where Crime Prevention through Environmental Design (CPTED) may be incorporated into the plans for the Sydney Metro Martin Place Station Precinct.

### 2.2 Aim of this Report

This report is designed to provide commentary on indicative architectural plans in consideration of best security practices from a CPTED perspective. The report will outline the project, policy, and crime context for the project and make recommendations about appropriate CPTED strategies to reduce the opportunity for crime to occur.

### 2.3 Methodology

In preparing this report, Arup has undertaken the following:

- Review of CPTED theory and how this can be typically applied to projects of this type;
- Collection and analysis of local and state crime statistics, obtained from open sources such as the Bureau of Crime Statistics and Research (BOCSAR), in order to better understand the external security environment;
- Collection and analysis of local demographic statistics, obtained from open sources from the Australian Bureau of Statistics, in order to better understand the external environment;
- Perform a review of the current architectural plans, and relevant reports, with an emphasis on the interfaces between the public domain and the project buildings and infrastructure;
- Conduct a detailed CPTED review and detail the CPTED strategies, including providing detailed findings and recommendations.

## 3 Project Context

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### 3.1 Introduction

This report supports a State Significant Development (SSD) Development Application (DA) submitted to the Minister for Planning pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

Macquarie Corporate Holdings Pty Limited (Macquarie) is seeking to create a World Class Transport and Employment Precinct at Martin Place, Sydney. The application seeks Stage 1 approval for the establishment of building envelopes, maximum Gross Floor Areas and design parameters for two predominantly commercial office Over Station Development (OSD) towers, located above the site of the future Martin Place Metro Station (part of the NSW Government's Sydney Metro project).

This report is designed to provide commentary on indicative architectural plans in consideration of best security practices from a CPTED perspective. The report will outline the project, policy, and crime context for the project and make recommendations about appropriate CPTED strategies to reduce the opportunity for crime to occur.

### 3.2 Background

The New South Wales (NSW) Government is implementing Sydney's Rail Future (Transport for NSW, 2012), a plan to transform and modernise Sydney's rail network so that it can grow with the city's population and meet the needs of customers in the future.

Sydney Metro is a new standalone rail network identified in Sydney's Rail Future. The Sydney Metro network consists of Sydney Metro Northwest (Stage 1) and Sydney Metro City & Southwest (Stage 2).

Stage 2 of the Metro entails the construction and operation of a new Metro rail line from Chatswood, under Sydney Harbour through Sydney's CBD to Sydenham and eventually onto to Bankstown through the conversion of the existing line to Metro standards. The project also involves the delivery of seven (7) new Metro stations, including Martin Place.

This step-change piece of public transport infrastructure once complete will have the capacity for 30 trains an hour (one every two minutes) through the CBD in each direction catering for an extra 100,000 customers per hour across the Sydney CBD rail lines.

On 9 January 2017 the Minister for Planning approved the Stage 2 (Chatswood to Sydenham) Metro application lodged by Transport for NSW (TfNSW) as a Critical State Significant Infrastructure (CSSI) project (reference SSI 15\_7400). TfNSW is also making provision for future Over Station Development (OSD) on the land it has acquired for the Stage 2 Sydney Metro project, including land

acquired for the purposes of delivering Martin Place Station. The OSD development is subject to separate applications to be lodged under the relevant provisions of the EP&A Act.

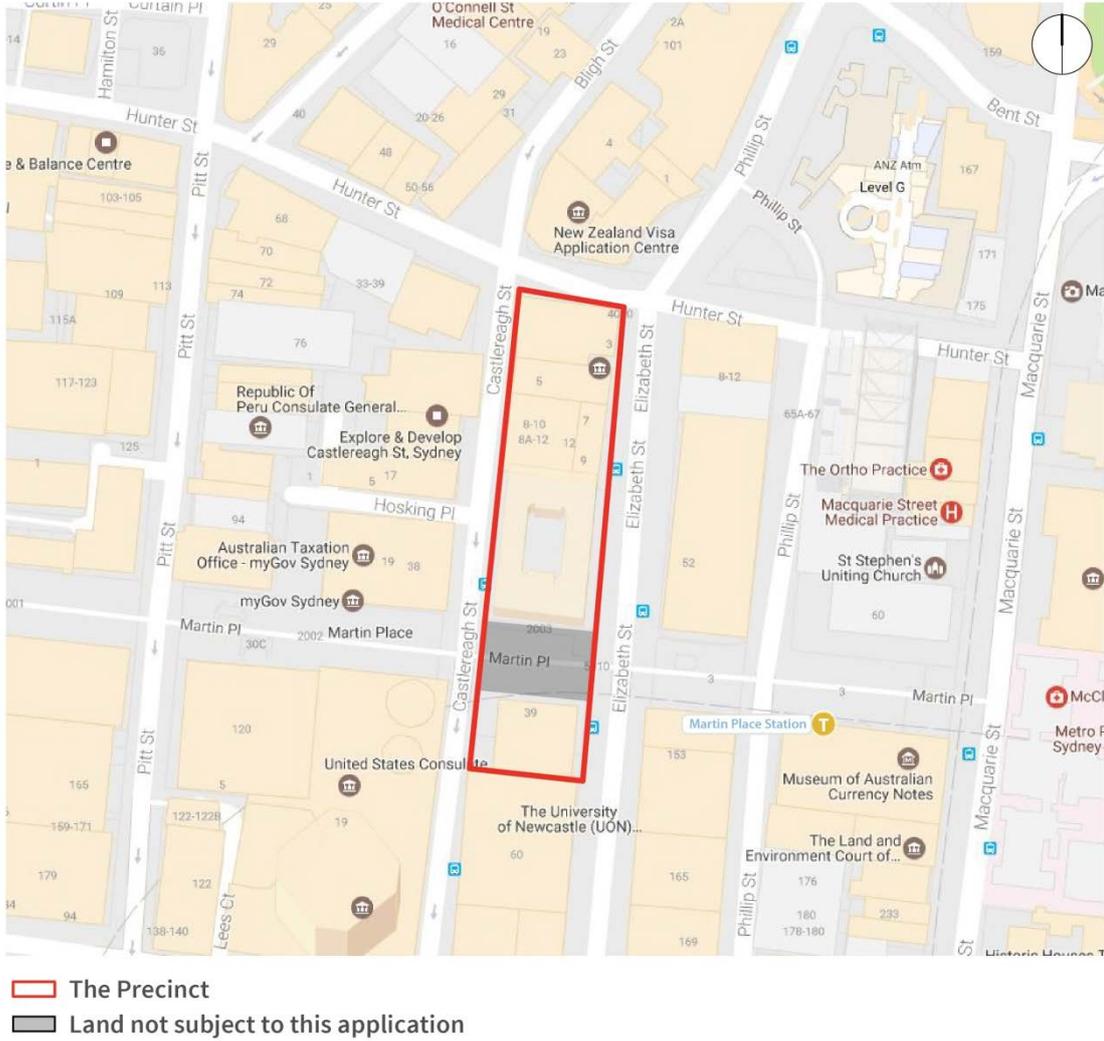
An Unsolicited Proposal submission has been lodged by Macquarie to the NSW Government for the delivery of a single fully integrated station/OSD solution for the new Sydney Metro Martin Place Station.

### 3.3 Site Description

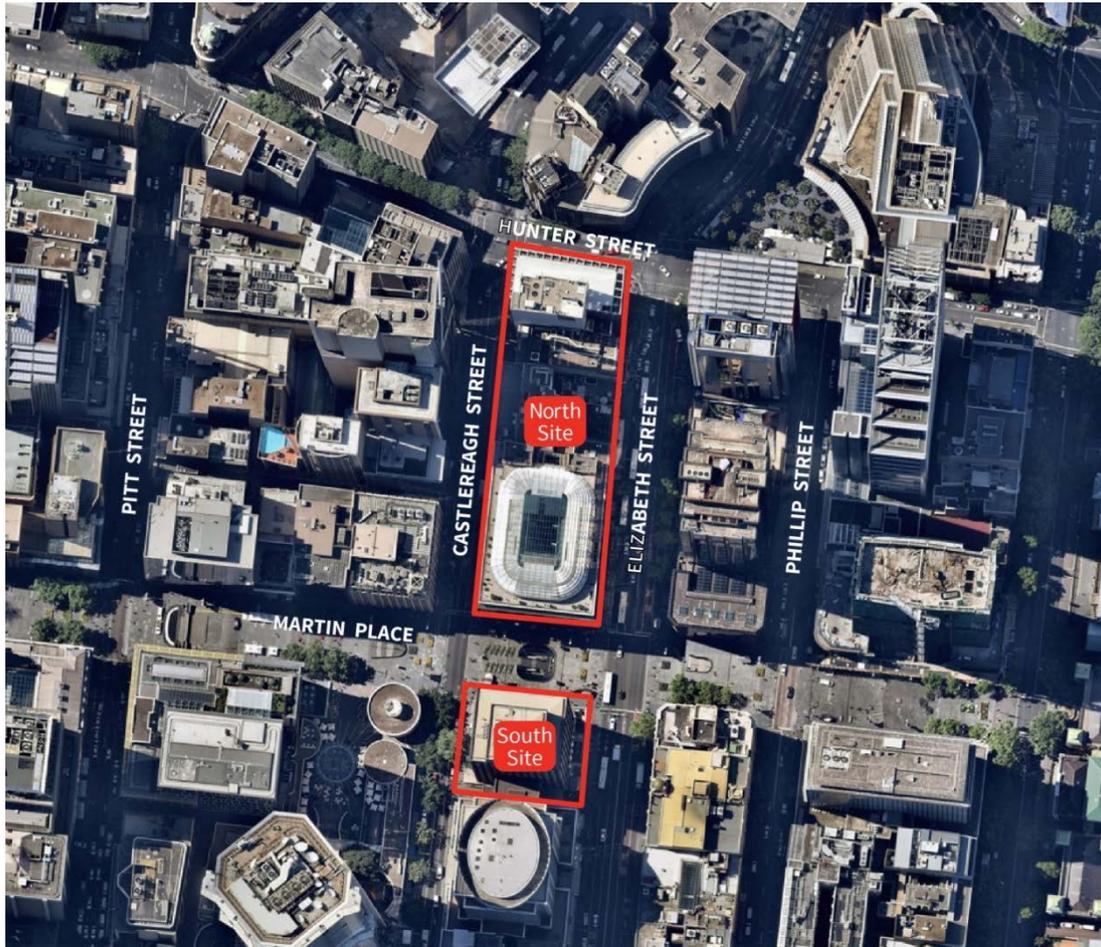
The Sydney Metro Martin Place Station Precinct (the Precinct) project relates to the following properties (refer to **Figure 1**):

- 50 Martin Place, 9 – 19 Elizabeth Street, 8 – 12 Castlereagh Street, 5 Elizabeth Street, 7 Elizabeth Street, and 55 Hunter Street (North Site);
- 39 – 49 Martin Place (South Site); and
- Martin Place (that part bound by Elizabeth Street and Castlereagh Street).

The land the subject of this application relates only to the North and South Site (refer to **Figure 2**). Each site will accommodate one OSD tower above the future Sydney Metro Martin Place Station (representing the northern and southern entries/gateways to the Sydney Metro station). The land acquired for the Sydney Metro Martin Place Station is the same as for the Macquarie proposal, except that the Macquarie proposal includes the two properties north of Martin Place owned by Macquarie, namely 50 Martin Place and 9-19 Elizabeth Street. Both the North and South Sites are regular in shape and have area of approximately 6,022m<sup>2</sup> and 1,897m<sup>2</sup> respectively, totalling 7,919m<sup>2</sup>.



**Figure 1** – Location map of the Precinct  
*Source: Google maps and JBA*



**Figure 2** – Aerial photo of the North and South Site  
Source: Nearmap and JBA

Located close to the centre of the Sydney CBD, the Precinct comprises of the entire City block bounded by Hunter Street, Elizabeth Street, Martin Place and Castlereagh Street; that portion of Martin Place located between Elizabeth Street and Castlereagh Street and the northern most property in the block bounded by Martin Place, Elizabeth Street, Castlereagh Street, and King Street. Together it constitutes an above ground site area of approximately 9,400 square metres, with a dimension from north to south of approximately 210 metres and from east to west of approximately 45 metres. It incorporates a significant portion of one of Sydney's most revered public spaces – Martin Place.

Martin Place is recognised as one of Central Sydney's great public, civic and commemorative spaces, as well as being a historically valued commercial and finance location of Sydney's CBD. Martin Place and a large number of buildings on, or in close proximity to, Martin Place are identified as heritage items, either as items of National, State or Local significance. Number 50 Martin Place, which forms part of the Macquarie North Site, is one of these major heritage items.

There has been a number of redevelopment and refurbishment proposals in recent years along Martin Place to improve existing assets and recapture their premium commercial status (e.g. 5 Martin Place, 50 Martin Place, 20 Martin Place, upgrades of the MLC Centre, and 60 Martin Place). The City of Sydney Council

has also identified a need to reinvigorate Martin Place and upgrade the public spaces.

The surrounding locality is characterised by a variety of built forms and architectural styles, with many of the buildings, including those of relatively recent years, not complying with the current planning controls with respect to building heights, setbacks and street wall heights.

In terms of land use the area is characterised by a predominance of office uses, with some ground floor retailing, cafés, or restaurants and hotels (most notably the Westin and the Wentworth) to support its primary business centre function.

### 3.4 Overview of Proposed Development

The proposal by Macquarie is unique and innovative in aligning the aspirations for public transport, civic amenity and the long-term sustainability of Sydney as a financial centre. This will be achieved through a development designed to maximise the opportunities for an improved Metro Station, integration of the existing and new public transport infrastructure, integration of that infrastructure with modern commercial office towers and world class retailing, along with rejuvenating and complimenting some of Sydney's most revered public spaces, and substantially improving station access and connectivity.

More specifically the development will comprise a concept proposal (under section 83B of the EP&A Act) for the OSD for the North and South Sites. It will be designed as a fully integrated Station and OSD project that, subject to approval, will be built and delivered as one integrated project for opening at the same time as the Sydney Metro is commissioned.

The concept proposal establishes the vision and planning and development framework which will be the basis for the consent authority to assess future detailed development proposals (Stage 2 DAs).

#### The North Site

The Concept Proposal for the North Site is for a new 40+ storey, predominately commercial office building. The proposal seeks to integrate with the existing 50 Martin Place building, supporting large commercial floor plates. No connections to 50 Martin Place are proposed for the basement levels of that building, including the level of the significant heritage Safe Deposit Vault.

#### The South Site

The Concept Proposal for the South Site is for a new 28+ storey predominately commercial office building.

The detailed design of the OSD is still in its preliminary stages. Critically it requires an integrated design approach to be adopted between the commercial OSD components classified as SSD, and the Station components, which are classified as CSSI and have already been approved. This is to ensure:

- all the operational needs of the Metro Station are accommodated in accordance with TfNSW requirements and the structural and other

requirements of the OSD are accommodated within the Station building beneath, in what is essentially one building; and

- a cohesive public domain and built form outcome is achieved for Sydney.

In this regard, OSD uses and structural elements are located within the below ground and lower podium levels, as conceptually approved under the CSSI consent for the Martin Place Station.

The Staged DA will seek consent for, amongst other things, land uses, gross floor area, building envelopes, and vehicle access arrangements.

A more detailed and comprehensive description of the proposal is contained in the Environmental Impact Statement (EIS) prepared by JBA.

### 3.5 Planning Approvals Strategy

The *State Environmental Planning Policy (State and Regional Development) 2011* (SEPP SRD) identifies development which is declared to be State Significant. Under Schedule 1 and Clause 19(2) of SEPP SRD, development within a railway corridor or associated with railway infrastructure that has a capital investment value of more than \$30 million and involves commercial premises is declared to be State Significant Development (SSD) for the purposes of the EP&A Act. The proposed development (involving commercial development that is both located within a rail corridor and associated with rail infrastructure) is therefore SSD.

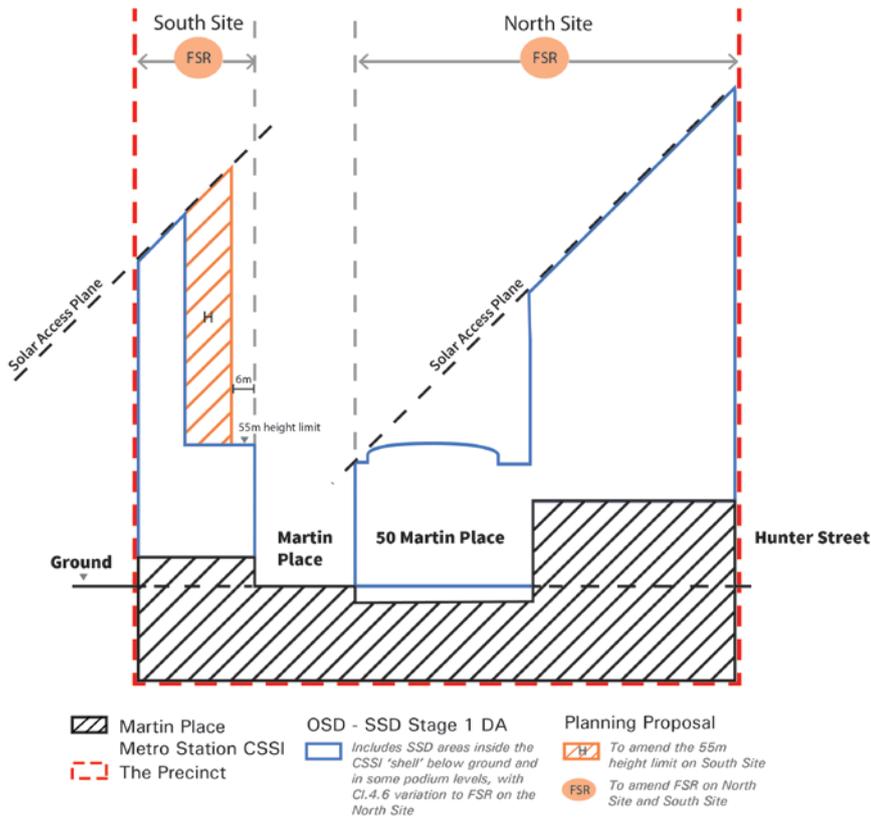
Pursuant to Section 83B of the EP&A Act a Staged DA may be made setting out concept proposals for the development of a site (including setting out detailed proposals for the first stage of development), and for which detailed proposals for separate parts of the site are to be the subject of subsequent DAs. This SSD DA is a staged development application made under Section 83B of the EP&A Act.

A detailed development application(s) (Stage 2 DAs) will accordingly follow, seeking approval for the detailed design and construction of all or specific aspects of the proposal in accordance with the approved staged development application.

Submitted separately to this SSD DA are applications to modify the CSSI approval together with a Planning Proposal relating to the North Site (FSR only) and South Site (height and FSR).

For clarity, **Figure 3** below is a diagrammatic representation of the suite of applications proposed by Macquarie, to show the relationship of the SSD DA (the subject of this report) to the Planning Proposal and the Martin Place Metro CSSI.

The Department of Planning and Environment have provided Secretary's Environmental Assessment Requirements (SEARs) to the applicant for the preparation of an Environmental Impact Statement for the proposed development. This report has been prepared having regard to the SEARs as relevant.



**Figure 3** – Relationship of planning applications  
 Source: JBA

## 4 Policy Context

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### 4.1 Overview

As a major development within the City of Sydney (CoS) and the state of NSW, the requirements detailed in the sections that follow have been for the Sydney Metro Martin Place Station Precinct.

### 4.2 Local Council Requirements

The Sydney Metro Martin Place Station Precinct development should meet the security and crime prevention requirements of the Safe City Strategy. As the Sydney Metro Martin Place Station Precinct is a development within the CoS, meeting the requirements outlined in the Safe City Strategy would be considered best practice.

The City of Sydney Safe City Strategy is a multi-faceted strategy, combining a number of different types of approaches to crime prevention based on ‘best practice’. The key objectives of the strategy are to:

- Reduce crime and anti-social behaviour – including addressing domestic and non-domestic assaults, targeting steal from motor vehicle offences, reducing steal from person offences, reducing fraud, tackling victimisation of international students and visitors and providing crime prevention information to residents and business;
- Tackle complex crime and safety issues in areas of public housing – including delivering the Creating a Safer Community Project aimed at addressing fear of crime and social exclusion, Council representation at relevant forums and creating a Public Housing Liaison Officer position;
- Improve the look and feel of the built environment – by delivering good urban design, on-going CPTED Protocol Referral with NSW Police, extending the CCTV Street Safety Camera Network, initiating community safety audits, rapid graffiti removal, delivering high quality cleansing services, improved street lighting and the reactivation of laneways and public parks;
- Deliver primary prevention and early intervention initiatives – including increasing opportunities for recreation and learning and investing in programs which increase the chances of vulnerable children and young people and their families at key transition points in life;
- Target risk factors associated with offending behaviours – including supporting ex-offenders to successfully reintegrate in to the community;
- Strengthen communities and increase opportunities for people to engage in legitimate activities – by recognising the specific needs and developing appropriate responses to key community groups including Aboriginal people, Culturally and Linguistically Diverse Communities (CALD), Older People, Gay, Lesbian, Bisexual and Transgender (GLBT) communities and Women; and

- Advocate to higher levels of Government for more resources aimed at crime prevention – in recognition that the City has an important role to play in ensuring that Federal and State Government continue to support initiatives aimed at reducing and preventing crime at the local level.

### 4.3 SSSA Requirements

State Significant Development Applications (DA's) within NSW typically require a crime prevention through environmental design assessment to be conducted.

This is a requirement of the Environmental Planning and Assessment Act 1979, and further detailed in the following Guideline produced by the NSW Department of Urban Affairs and Planning;

- Crime Prevention and the Assessment of Development Applications - Guidelines under Section 79C of the Environmental Planning and Assessment Act 1979.

As detailed in the Guideline specified above, before a decision can be made on a development application, a consent authority must consider the application under Section 79C of the Environmental Planning and Assessment Act 1979. Included in Section 79C are subsections requiring the consent authority to consider;

- The likely impacts of that development, including the environmental impacts on the natural and built environments, and social and economic impacts on the locality; and
- The public interest.

Crime prevention falls under these subsections of 79C.

The SEARs for this development require a CPTED assessment as part of the plans and documents. This report addresses this requirement.

## 5 Underlying Principles

### 5.1 Overview

Crime Prevention through Environmental Design (CPTED) is the use of design and space management principles in order to influence human behaviour. CPTED is a crime prevention strategy based on the proper planning, design and structure of cities, neighbourhoods, precincts or individual sites to create an effective use of the built environment which can lead to a reduction in the fear and incidence of crime, as well as an improvement in quality of life.

The design of a particular space has to ensure that the intended activity can function properly, as well as directly support the control of behaviour, in order to reduce the opportunity for crime. The design of the precinct should strive to incorporate the three overlaying CPTED strategies – Natural Access Control, Natural Surveillance and Territorial Reinforcement (Figure 4).

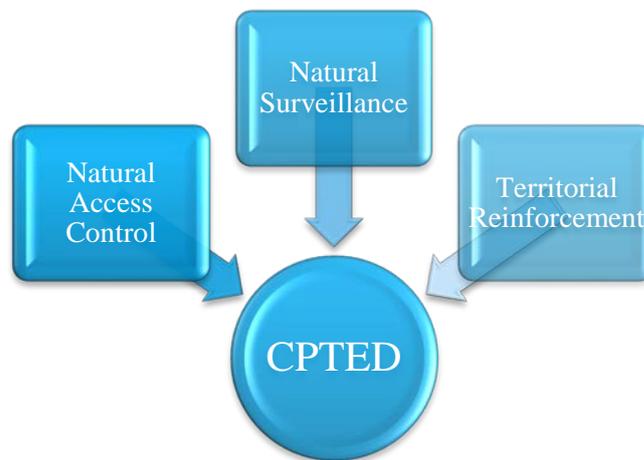


Figure 4. Crime Prevention through Environmental Design (CPTED)

### 5.2 Natural Access Control

Natural access control involves decreasing opportunities for crime by controlling access to a potential target and by creating a perception of risk to an offender. Physical and symbolic barriers can be used to attract, channel or restrict the movement of people.

Effective natural access control can be achieved by creating:

- Designed landscapes and physical locations e.g. footpaths that direct pedestrians into and throughout target areas;
- Public spaces which attract people into the area and discourage intruders;
- Restrict access to internal areas or high-risk areas like car parks or other rarely visited areas (e.g. by having doors, shrubs, fences and gates); and

- Selectively placed entrances and exits, fencing, lighting and landscaping to control the flow of access or to limit access.

Where practical, the intent of these natural access control measures should be incorporated into the project plans, and on-going precinct operations.

## 5.3 Natural Surveillance

Natural surveillance is about creating environments that keep intruders under observation. It aims to provide opportunities for people engaged in their normal daily business to observe the space around them.

Natural surveillance means creating clear sightlines. It works by designing the placement of physical features, activities and people in such a way so that maximum visibility and positive interaction occurs among legitimate users of the space.

Quality surveillance can be achieved or improved by considering the following design principles:

- Streets and public spaces can be observed from nearby buildings;
- Clear sightlines exist between public and private places;
- Open plan and minimalist (clutter-free) designs;
- Effective lighting of public places is adopted;
- Spots that facilitate entrapment are eliminated;
- Attractive and well maintained landscaping, with proper light and clear sight lines, is used to prevent offenders finding a place to hide or entrap victims; and
- Activation of the space or surrounding areas that encourages regular and diverse use of the space.

Where practical, the intent of these natural surveillance measures should be incorporated into the project plans, and on-going precinct operations.

### 5.3.1 Territoriality

Territoriality or territorial reinforcement is about clearly defining private space from semi-public and public space, and by attracting legitimate users to an area in order to create a sense of ownership. The created ownership shows that the owner has a vested interest in the location, which increases the actual and perceived risk of detection of offenders.

Fences, change in pavements, signs, lighting and landscaping can be used to define public, semi-public and private space. Care is necessary to ensure that territorial reinforcement is not achieved by making public spaces into private spaces, through gates and enclosures.

Territorial reinforcement can be achieved through:

- Design with a clear distinction between public and private spaces by using physical barriers (e.g. fences) and symbolic barriers (e.g. vegetation);
- Design that encourages people to gather in a public space and to feel some responsibility for its use and condition;
- Environmental markers (e.g. signage, walkways, pavers, lighting, bollards and fencing) which define intended use and ownership; and
- Regular maintenance of vegetation, infrastructure, and prompt removal of graffiti and vandalism.

Where practical, the intent of these territorial reinforcement measures should be incorporated into the project plans, and precinct operations.

## 6 Crime Profile

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### 6.1 Overview

Sydney Metro Martin Place Station Precinct is located in the Sydney Local Government Area (LGA). It should be noted that the crime figures included in this section of the report were those crimes recorded by NSW Police. These figures do not necessarily represent all crimes committed in the Sydney LGA as not all crimes are reported to Police.

The offences listed below make up the most prevalent crimes that are relevant to the Sydney Metro Martin Place Station Precinct. Their five year trend is also included in order to identify if the security risks that they pose is likely to increase or decrease in the future. It is these offences that CPTED and other security measures employed within the Sydney Metro Martin Place Station Precinct are most likely to have to protect against.

While a snapshot of the crime profile has been included in this report to provide contextual understanding for the CPTED analysis and treatment measures identified, a more detailed assessment of the Sydney Metro Martin Place Station Precinct's crime profile has been conducted in the Security Risk Management Report (SRA01).

### 6.2 NSW Crime Profile

According to the Bureau of Crime Statistics and Research (BOCSAR), in the 24 months to June 2016, two of the 17 major offences showed a significant upward trend across NSW, nine were trending downward and the remaining six offences were stable. The offences trending upward were steal from retail store (up 6.3%) and fraud (up 1.7%).

The nine offences which showed a downward trend over the last 24 months were:

- Murder (down 32.1%);
- Robbery without a weapon (down 25.9%);
- Robbery with a firearm (down 41.7%);
- Robbery with a weapon not a firearm (down 22.2%);
- Break and enter dwelling (down 7.2%);
- Motor vehicle theft (down 12.6%);
- Steal from dwelling (down 6.6%);
- Steal from person (down 9.9%); and
- Malicious damage to property (down 3.2%).

Due to these trends, 12 major categories of crime in NSW are now at their lowest level in 20 years.

The 12 categories of crime at their lowest in 20 years are:

- Murder;
- Robbery without a weapon;
- Robbery with a firearm;
- Robbery with a weapon not a firearm;
- Break and enter dwelling;
- Break and enter non-dwelling;
- Motor vehicle theft;
- Steal from motor vehicle;
- Steal from retail store;
- Steal from dwelling;
- Steal from person; and
- Malicious damage to property.

Shootings are also at the lowest level in 20 years.

### 6.3 Local Crime Profile

The following is a list of the most prevalent crimes to occur in the City of Sydney LGA that are relevant to Sydney Metro Martin Place Station Precinct, based on total number of offences. A ranking of how the City of Sydney LGA crime rates compared to the other 141 LGA's cannot be provided because its residential population does not accurately reflect the number of people present in the area each day.

<b>Offence Category</b>	<b>Number</b>
Transport regulatory offences	8755
Assault - non-domestic violence related	3121
Malicious damage to property	2691
Steal from retail store	2185
Steal from motor vehicle	1686
Steal from person	1661
Offensive conduct	1126
Harassment, threatening behaviour and private nuisance	939
Trespass	502
Break and enter non-dwelling	450

Source: BOCSAR

The terrorism based security risks relevant to Sydney Metro Martin Place Station Precinct include the following:

- Person Borne Improvised Explosive Device (PBIED) / Placed IED;
- Vehicle Borne Improvised Explosive Device (VBIED);
- Hostile Vehicle Attack;
- Active Shooter;
- Melee Attack (including knife);
- Hostage / Siege Scenario; and
- Chemical / Biological / Radiological Attack (CBR).

## 6.4 Five Year Trend

As can be seen in the five year crime trend table below, seven of the ten most prevalent offences applicable to Sydney Metro Martin Place Station Precinct have reduced in occurrence over the previous five year period.

Based on these trends, the likelihood of these seven offences occurring in the future should generally either remain the same as currently assessed, or reduce.

Trend information	2011	2012	2013	2014	2015	24mnth Trend	60mnth Trend
Steal from person	2881	2736	2225	1887	1661	-11.98	-42.35
Harassment, threatening behaviour and private nuisance	973	1023	1025	950	939	-1.16	-3.49
Transport regulatory offences	2382	3172	4948	3942	8755	122.1	267.55
Assault - non-domestic violence related	3772	3724	3576	3142	3121	-0.67	-17.26
Malicious damage to property	3599	3332	3343	2876	2691	-6.43	-25.23
Offensive conduct	1860	1682	1713	1318	1126	-14.57	-39.46
Steal from retail store	2290	2462	2276	2318	2185	-5.74	-4.59
Trespass	449	560	477	508	502	-1.18	11.8
Steal from motor vehicle	2713	2200	2351	2176	1686	-22.52	-37.85
Break and enter non-dwelling	807	819	934	590	450	-23.73	-44.24

Source: BOCSAR

General statistical information related to crime types was sourced from BOCSAR relating to crime incidents that have occurred in the City of Sydney LGA. These statistics are not detailed to suburb or street level and therefore they may not provide a complete representation of historic incidents around the site.

## 7 CPTED Analysis

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### 7.1 Overview

An analysis of some of the key factors that can impact on the CPTED characteristics of the project are detailed below.

### 7.2 Lighting Impacts

Improved lighting may cause a reduction in crime. Improved lighting leads to increased surveillance of potential offenders (both by improving visibility and by increasing the number of people on the street) and hence to increased deterrence of potential offenders. Improved lighting also signals community investment in the area and that the area is improving, leading to increased community pride, community cohesiveness, and informal social control.

It is important to ensure adequate lighting is provided throughout the precinct, particularly around the interfaces between the station and the public domain to reduce crime opportunity at night.

A meta-analysis on the lighting-crime link has shown that improved lighting led to a significant (21%) decrease in crime in experimental areas compared with comparable control areas. Furthermore, other studies have found that the financial savings from reduced crimes greatly exceeded the financial costs of the improved street lighting.

### 7.3 Mixed Use Activation

Mixed use activation of a precinct is an effective CPTED strategy that enhances the opportunity for natural surveillance, and encourages territorial reinforcement. A mixed use area increases the diversity of individuals using the space, encouraging a safer and more welcoming environment. Conversely, a single use area, such as a business park, tends to have high use during business hours on week days, but remains largely vacant on the weekends and outside of business hours. These low use times increase security risk, as criminals are less likely to be seen committing offences. By encouraging mix use, opportunity for crime can be reduced due to the natural increase in surveillance by every-day users.

### 7.4 Territoriality

Territoriality should be encouraged in users of the space and reinforced by the owner/operator as much as possible. By maintaining the project area throughout its life, providing a clean and accessible space, and encouraging mixed use, opportunity for crime can be reduced. Train stations naturally attract crimes against property, and such crimes (particularly graffiti, scratching, or etching) should be cleaned or removed as quickly as possible to encourage legitimate users to continue to care for the space.

## 8 Design Assessment

This section will discuss observations about the indicative scheme for the SSSA application from a natural surveillance, territoriality, and natural access control perspective. The CPTED assessment has been conducted for both the Southern and Northern Towers.

### 8.1 Southern Tower

#### 8.1.1 Natural Surveillance

The southern Tower receives good natural surveillance from the public realm, particularly due to the mixed use activity experienced along Martin Place. The area around this entrance is generally busy throughout the day and night, which attracts a wide variety of individuals to the area, bolstering surveillance and reducing the opportunity for crime.

The location of retail, cafes, and offices throughout the precinct significantly reduce the likelihood of crime during business hours. Importantly, the location of the Southern Tower is bordered by taxi ranks, bus stops, and heavily used streets. This all contributes to strong natural surveillance and a reduction in opportunistic crime.

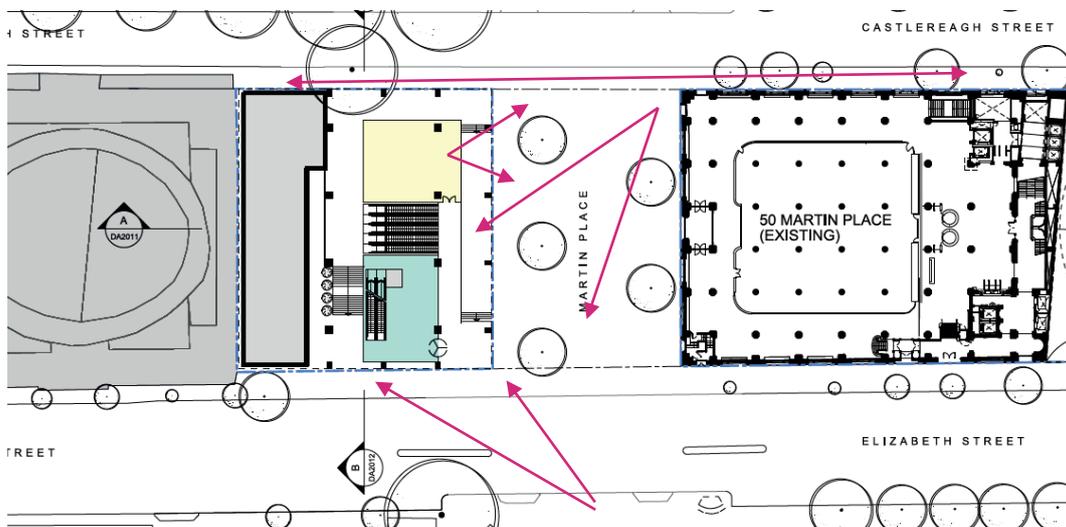


Figure 5. Southern tower natural surveillance

#### 8.1.2 Natural Access Control

The tower layout is well positioned to naturally control access to a few controlled points, and does not encourage individuals to enter the space without a legitimate reason. As opposed to the North Tower, the South Tower provides stronger natural access control due to the layout and natural path of travel for individuals within Martin Place.

## 8.2 Northern Tower

### 8.2.1 Natural Surveillance

The Northern Tower provides substantial mixed use immediately adjacent to the main entry with several retail stores providing natural surveillance oversight for users entering and exiting the space. There are good sightlines from the street corners around the two entry points along Hunter Street, reducing the opportunity for opportunistic crime from loiterers.

The retail stores will attract users to the space who will increase the amount of activity in the area during shopping hours, bringing more ‘eyes on the street’ to report and monitor potential crime during their normal activities.

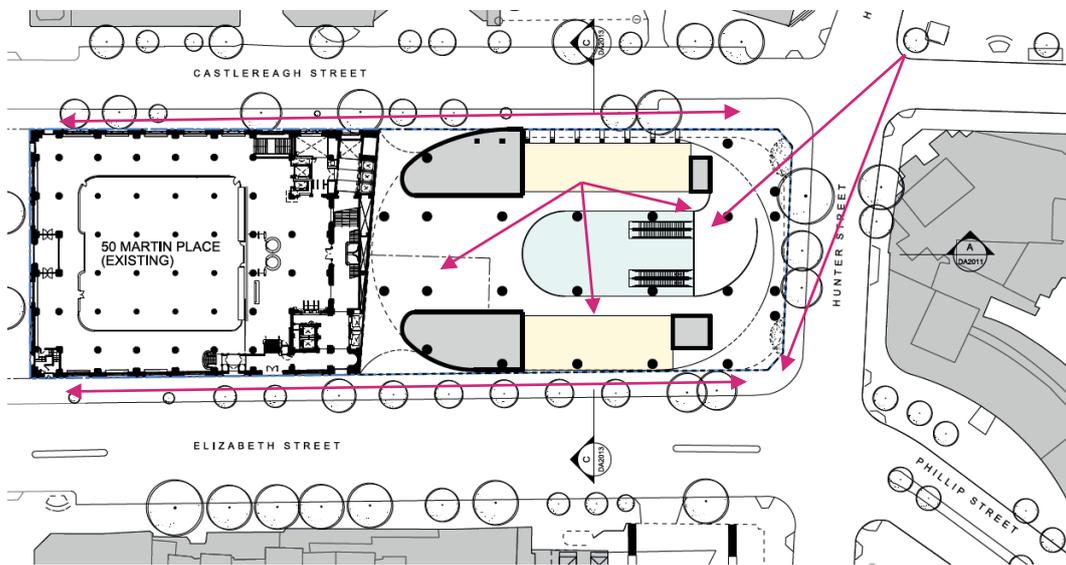


Figure 6. Northern tower natural surveillance

Overall the location of this tower is ideal from a natural surveillance perspective, with lots of street activity throughout the day, including busses, private vehicles, taxi ranks, and several surrounding office buildings.

### 8.2.2 Natural Access Control

The Northern Tower is slightly less controlled than the Southern Tower, as the mixed use interior will attract individuals who are not necessarily wanting to use the building proper. This is both a positive and negative, as increased foot traffic and through traffic can lead to higher likelihood of crime, however the increase in user diversity and number of people encourages the feeling of safety and natural surveillance.

## 8.3 Territoriality

As a whole, the development is designed in such a way that users are naturally funnelled towards their intended destinations, however this should be strongly reinforced with appropriate way finding tools. Way finding signage reduces

terrain-vagueness, encouraging users to feel safe and in control, which in turn reduces the opportunity for crime to occur.

Importantly, loitering and littering should be treated where possible, as these activities reduce user ownership of the space and reduce comfort.

Lighting in the public realm and throughout the development is very important in providing a safe and secure space, particularly at night. Adequate lighting should be provided at all entry and exit points of the development, and throughout the concourse levels.

## 9 Recommendations

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In consideration of the design assessment, several recommendations are suggested. These recommendations include the implementation of several natural surveillance, natural access control, and territoriality measures to improve the CPTED characteristics of the current plans.

These recommendations are:

- Provide clear definition and designation of space in a manner that encourages and predicts authorised movement and does not cause conflict between the intended purpose of the space and the desired behaviour;
- Maximise circulation areas by minimising built structures and avoiding clutter, particularly along pedestrian routes;
- Design and layout of building entrances and foyers to assist natural surveillance by reducing clutter and blind spots, positioning reception/concierge where they have clear sightlines of entrances, the general foyer areas, and waiting areas;
- Use of glass partitions wherever possible to improve site lines and the transmission of natural light, and be fitted with anti-graffiti coatings (where practical) where these partitions are accessible to the public.
- Durable public furniture and amenity construction, to limit damage and subsequent repairs over the life of the facility;
- Keep the surrounds as tidy and well-presented as possible in order to enhance the territoriality aspects of the site;
- The mixed use areas will help ensure regular and diverse use of the facility which also enhances the territoriality aspects of the site, whilst enhancing the opportunity for natural surveillance. Encouraging regular and diverse use of the site through these and other measures are recommended;
- Ensure adequate lighting is provided throughout the precinct;
- Ensure public realm lighting is appropriate for use at night;
- Provide signage throughout the precinct to remove excuses for loitering and littering, each being a significant detractor to territoriality; and
- Ensure signage is appropriate to improve way finding and reduce terrain vagueness within the precinct.

CPTED is only one part of a holistic security strategy, and the implementation of physical, electronic, and operational security controls will be required to provide effective security protection for the site.