

CPTED ASSESSMENT REPORT

APPENDIX W





Sydney Metro City & Southwest Victoria Cross Over Station Development:

Crime Prevention Through Environmental Design (CPTED) assessment report

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Author:	Mecone
Owner	Transport for NSW
Status:	Final Draft
Version:	5
Date of issue:	16 May 2018
Review date:	16 May 2018
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1.0 Introduction

1.1 Purpose of this report

This report supports a concept State Significant Development Application (concept SSD Application) submitted to the Department of Planning and Environment (DP&E) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The concept SSD Application is made under Section 4.22 of the EP&A Act.

Transport for NSW (TfNSW) is seeking to secure concept approval for a commercial office tower above the Victoria Cross Station, otherwise known as the over station development (OSD). The concept SSD Application seeks consent for a building envelope and its use as a commercial premises (office, business and retail), maximum building height, maximum gross floor area, pedestrian and vehicular access, circulation arrangements and associated car parking, future subdivision (if required) and the strategies and design parameters for the future detailed design of development.

TfNSW proposes to procure the construction of the OSD as part of an Integrated Station Development package, which would result in the combined delivery of the station, OSD and public domain improvements. The station and public domain elements form part of a separate planning approval for Critical State Significant Infrastructure (CSSI) approved by DP&E on 9 January 2017.

As the development is within a rail corridor, is associated with railway infrastructure and is for commercial premises with a Capital Investment Value of more than \$30 million, the project is identified as State Significant Development (SSD) pursuant to Schedule 1, 19(2)(a) of the *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP).

This report has been prepared to specifically respond to the Secretary's Environmental Assessment Requirements (SEARs) issued for the concept SSD Application for Victoria Cross OSD on 30th November 2017 which state that the Environmental Impact Statement (EIS) is to include a Crime Prevention Through Environmental Design (CPTED) assessment.

This CPTED Assessment Report is a desktop analysis based on indicative building plans (refer to Appendix D of the EIS) prepared as part of the concept proposal. This CPTED Assessment Report assesses the concept proposal in terms of the key principles of CPTED and provides recommendations that can be implemented as part of a future detailed development application for OSD.

1.2 Overview of the Sydney Metro in its context

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*.

Sydney Metro is Australia’s biggest public transport project, consisting of Sydney Metro Northwest (Stage 1), which is due for completion in 2019 and Sydney Metro City & Southwest (Stage 2), which is due for completion in 2024 (Refer to **Figure 1**).



Figure 1: Sydney Metro alignment map

Stage 2 of Sydney Metro includes the construction and operation of a new metro rail line from Chatswood, under Sydney Harbour through Sydney’s CBD to Sydenham and on 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 at North Sydney. Once completed, Sydney Metro will have the ultimate capacity for 30 trains an hour (one every two minutes) through the CBD in each direction - a level of service never seen before in Sydney.

On 9 January 2017, the Minister for Planning approved the Sydney Metro City & Southwest - Chatswood to Sydenham application lodged by TfNSW as a Critical State Significant Infrastructure project (reference SSI 15_7400), hereafter referred to as the CSSI Approval.

The CSSI Approval includes all physical work required to construct the CSSI, including the demolition of existing buildings and structures on each site. Importantly, the CSSI Approval also includes provision for the construction of below and above ground structures and other

components of the future OSD (including building infrastructure and space for future lift cores, plant rooms, access, parking and building services, as relevant to each site). The rationale for this delivery approach, as identified within the CSSI application, is to enable the OSD to be more efficiently built and appropriately integrated into the metro station structure.

The EIS for the Chatswood to Sydenham component of the City & Southwest project identified that the OSD would be subject to a separate assessment process.

Since the CSSI Approval was issued, Sydney Metro has lodged four modification applications with DP&E to amend the CSSI Approval as outlined below:

- Modification 1- Victoria Cross and Artarmon Substation which involves relocation of the Victoria Cross northern services building from 194-196A Miller Street to 50 McLaren Street together with inclusion of a new station entrance at this location referred to as Victoria Cross North. 52 McLaren Street would also be used to support construction of these works. The modification also involves the relocation of the substation at Artarmon from Butchers Lane to 98 – 104 Reserve Road. This modification application was approved on 18 October 2017.
- Modification 2- Central Walk which involves additional works at Central Railway Station including construction of a new eastern concourse, a new eastern entry, and upgrades to suburban platforms. This modification application was approved on 21 December 2017.
- Modification 3 - Martin Place Station which involves changes to the Sydney Metro Martin Place Station to align with the Unsolicited Proposal by Macquarie Group Limited (Macquarie) for the development of the station precinct. The proposed modification involves a larger reconfigured station layout, provision of a new unpaid concourse link and retention of the existing MLC pedestrian link and works to connect into the Sydney Metro Martin Place Station. It is noted that if the Macquarie proposal does not proceed, the original station design remains approved. This modification application was approved on 22 March 2018.
- Modification 4 - Sydenham Station and Sydney Metro Trains Facility South which incorporates Sydenham Station and precinct works, the Sydney Metro Trains Facility South, works to Sydney Water's Sydenham Pit and Drainage Pumping Station and ancillary infrastructure and track and signalling works into the approved project. This modification application was approved on 13 December 2017.

Given the modifications, the CSSI Approval is now approved to operate to Sydenham Station and also includes the upgrade of Sydenham Station.

The remainder of Stage 2 of the City & Southwest project (Sydenham to Bankstown) proposes the conversion of the existing heavy rail line and the upgrade of the existing railway stations along this alignment to metro standards. This part of the project, referred to as the Sydenham to Bankstown Upgrade, is the subject of a separate CSSI Application (Application No. SSI 17_8256) which is currently being assessed by the DP&E.

1.3 Planning relationship between Victoria Cross Station and the OSD

While the Victoria Cross Station and OSD will form an Integrated Station Development, the planning pathways defined under the *Environmental Planning & Assessment Act 1979* require separate approval for each component of the development. In this regard, the approved station works (CSSI Approval) are subject to the provisions of Part 5.1 of the EP&A Act (now referred to as Division 5.2) and the OSD component is subject to the provisions of Part 4 of the EP&A Act.

For clarity, the approved station works under the CSSI Approval include the construction of below and above ground structures necessary for delivering the station and also enabling construction of the integrated OSD. This includes but is not limited to:

- Demolition of existing development
- Excavation
- Station structure including concourse and platforms
- Lobbies
- Retail spaces within the station building
- Public domain improvements
- Pedestrian through-site link
- Access arrangements including vertical transport such as escalators and lifts
- Structural and service elements and the relevant space provisioning necessary for constructing OSD, such as columns and beams, space for lift cores, plant rooms, access, parking, retail and building services.

The vertical extent of the approved station works above ground level is defined by the 'transfer slab' level (which for Victoria Cross is defined by RL 82), above which would sit the OSD. This delineation is illustrated in **Figure 2**.

The CSSI Approval also establishes the general concept for the ground plane of Victoria Cross Station including access strategies for commuters, pedestrians and workers. In this regard, pedestrian access to the station would be from Miller and Denison Streets and the commercial lobby would be accessed from Miller Street. Retail uses (approved under the CSSI Approval) would be located on the ground floor of the development at both the Miller Street and Denison Street levels activating the through-site link. Separate consent would be sought in the future for the fit-out and specific use of this retail space.

Since the issue of the CSSI Approval, TfNSW has undertaken sufficient design work to determine the space planning and general layout for the station and identification of those spaces within the station area that would be available for the OSD. In addition, design work has been undertaken to determine the technical requirements for the structural integration of

the OSD with the station. This level of design work has informed the concept proposal for the OSD. It is noted that ongoing design development of the works to be delivered under the CSSI Approval would continue with a view to developing an Interchange Access Plan (IAP) and Station Design Precinct Plan (SDPP) for Victoria Cross Station to satisfy Conditions E92 and E101 of the CSSI Approval.

The public domain improvement works around the site would be delivered as part of the CSSI Approval.

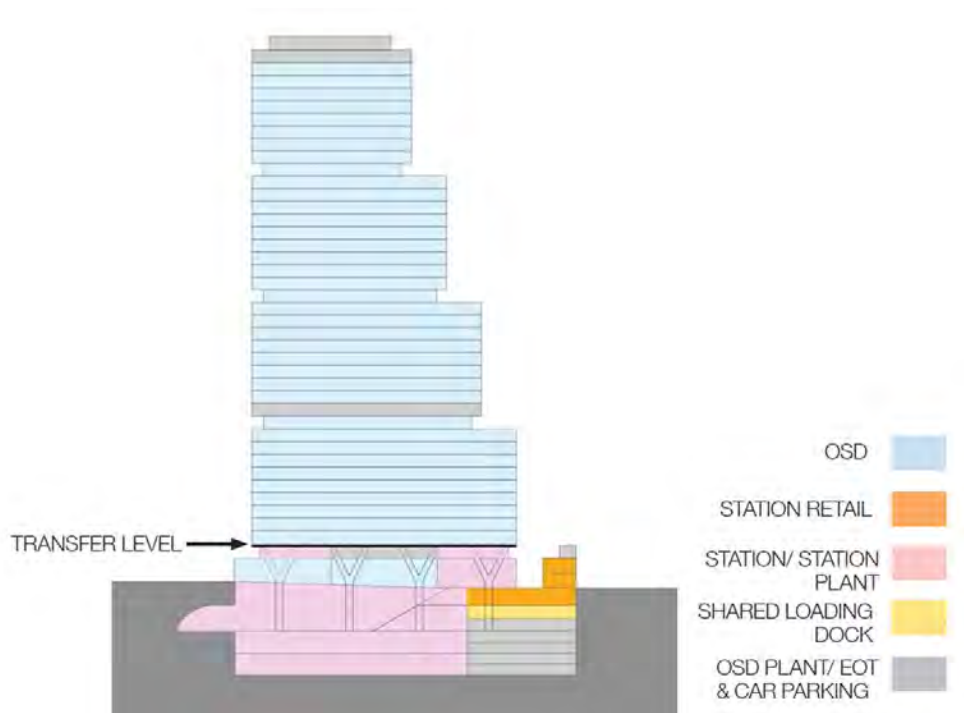


Figure 2: Delineation between the Metro station and OSD

1.4 The Site

The Victoria Cross OSD site is located at the southeast corner of the intersection of Miller and Berry Streets, North Sydney, above the southern portal of the future Victoria Cross Station (refer to **Figure 3**). The site is located in North Sydney CBD, which is identified as part of Sydney’s “Harbour CBD” (along with Sydney CBD) in the *Greater Sydney Region Plan* (2018). It is the third largest office market in Sydney and is a key component of Sydney’s Eastern Economic Corridor.



Figure 3: Victoria Cross Station location plan

The site is located in the North Sydney Local Government Area approximately 3km north of Sydney CBD, 5km southeast of Chatswood and 2km southwest of St Leonards.

The site (refer to **Figure 4** below) is irregular in shape, has a total area of approximately 4,815 square metres and has street frontages of approximately 37 metres to Berry Street, 34 metres to Denison Street and 102 metres to Miller Street.

The site comprises the following properties:

- 155–167 Miller Street SP 35644 (formerly Tower Square)
- 181 Miller Street Lot 15 in DP 69345, Lot 1 & Lot 2 DP 123056, and Lot 10 in DP 70667
- 187 Miller Street Lot A in DP 160018
- 189 Miller Street Lot 1 in DP 633088
- Formerly part 65 Berry Street Lot 1 in DP 1230458

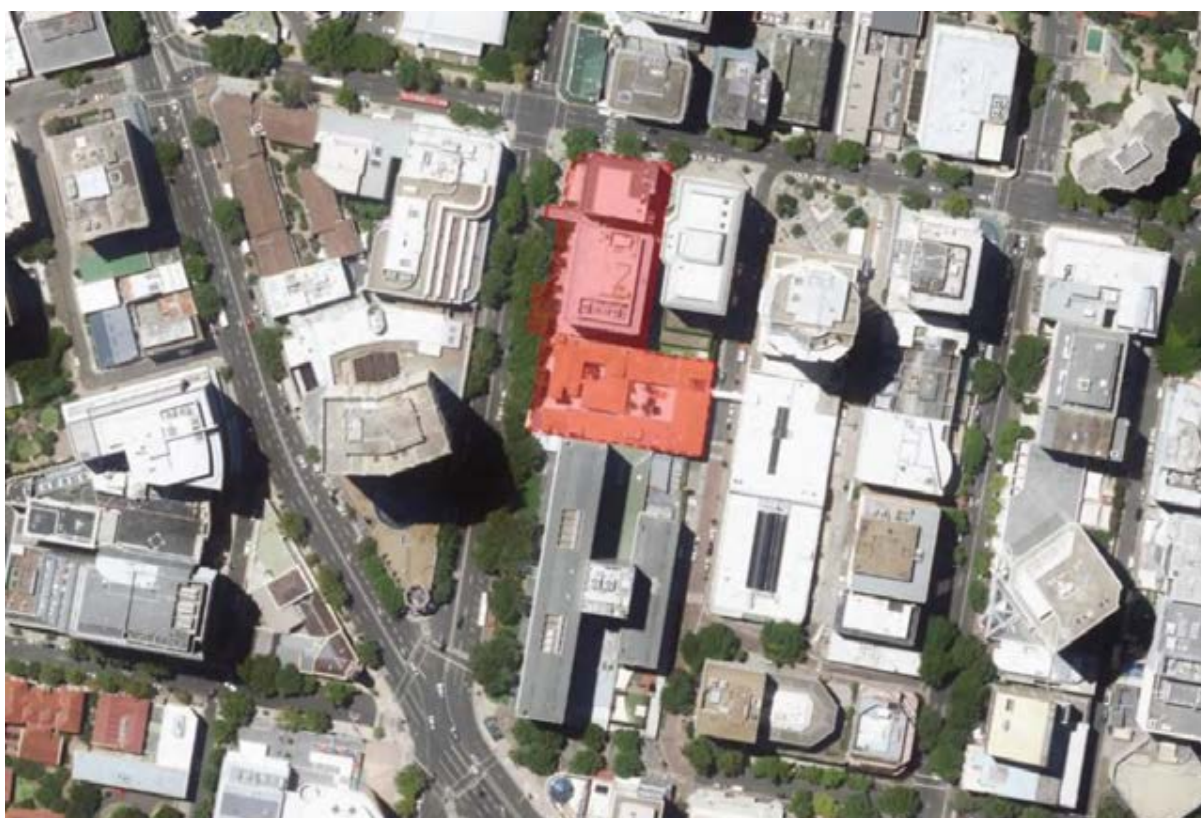


Figure 4: The Site

1.5 Overview of the proposed development

This concept SSD Application comprises the first stage of the Victoria Cross OSD project. It will be followed by a detailed SSD Application for the design and construction of the OSD to be lodged by the successful contractor who is awarded the contract to deliver the Integrated Station Development.

This concept SSD Application seeks approval for the planning and development framework and strategies to inform the future detailed design of the OSD. It specifically seeks approval for the following:

- A building envelope as illustrated in **Figure 5**
- A maximum building height of RL 230 or 168 metres (approximately 42 storeys, comprising 40 commercial storeys and 2 additional storeys for the roof top plant) for the high rise portion of building envelope and RL 118 or 55 metres (approximately 13 storeys) for the lower rise eastern portion of the building envelope
- A maximum gross floor area (GFA) of 60,000 square metres for the OSD component, which is equivalent to a floor space ratio of 12.46:1
- Use of the building envelope area for commercial premises including commercial office, retail and business premises

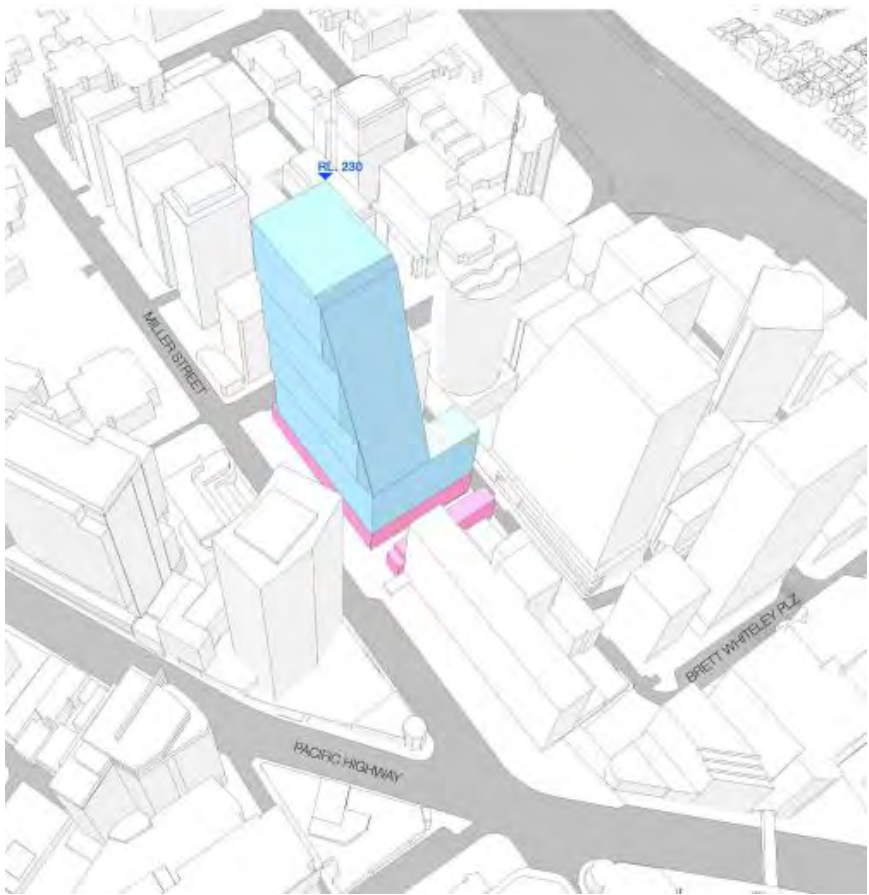
- Use of the conceptual OSD space provisioning within the footprint of the CSSI Approval (both above and below ground), including the OSD lobby and associated retail space, basement parking, end-of-trip facilities, services and back-of-house facilities
- Car parking for a maximum of 150 parking spaces over four basement levels with an additional 11 parking spaces allocated to the station retail approved under the terms of the CSSI Approval
- Loading, vehicle and pedestrian access arrangements from Denison Street
- Strategies for utility and services provision
- Strategies for the management of stormwater and drainage
- A strategy for the achievement of ecologically sustainable development
- Indicative signage zones
- A strategy for public art
- A design excellence framework
- The future subdivision of parts of the OSD footprint (if required).

The total GFA for the Integrated Station Development including the station GFA (i.e. retail, station circulation and associated facilities) and the OSD GFA is 67,000 square metres and is equivalent to a FSR of 13.9:1.

A drawing illustrating the proposed building envelope is provided in **Figure 5**. The concept SSD Application includes an indicative design for the OSD to demonstrate one potential design solution within the proposed building envelope (refer to **Figure 6**). The concept ground floor plan is provided at **Figure 7**.

Victoria Cross Station is to be a key station on the future Sydney Metro network, providing access to the growing North Sydney Central Business District (CBD). The proposal combines the Metro station with a significant commercial office tower, contributing to the North Sydney skyline. The OSD would assist in strengthening the role of North Sydney as a key component of Sydney's global economic arc and would contribute to the diversity, amenity and commercial sustainability of the CBD.

It is noted that Victoria Cross services building and new station entrance at Victoria Cross North do not form part of the concept SSD Application.



- VICTORIA CROSS STATION CSSI APPROVAL - INCLUDES STRUCTURE AND BUILDING INFRASTRUCTURE AND SPACE FOR LIFT CORES, ACCESS, PARKING, RETAIL AND BUILDING SERVICES FOR THE FUTURE OSD

- OSD CONCEPT SSDA ENVELOPE INCLUDES OSD AREAS INSIDE THE CSSI 'SHELL' BELOW GROUND AND IN THE PODIUM LEVELS

Figure 5: Proposed Victoria Cross OSD building envelope

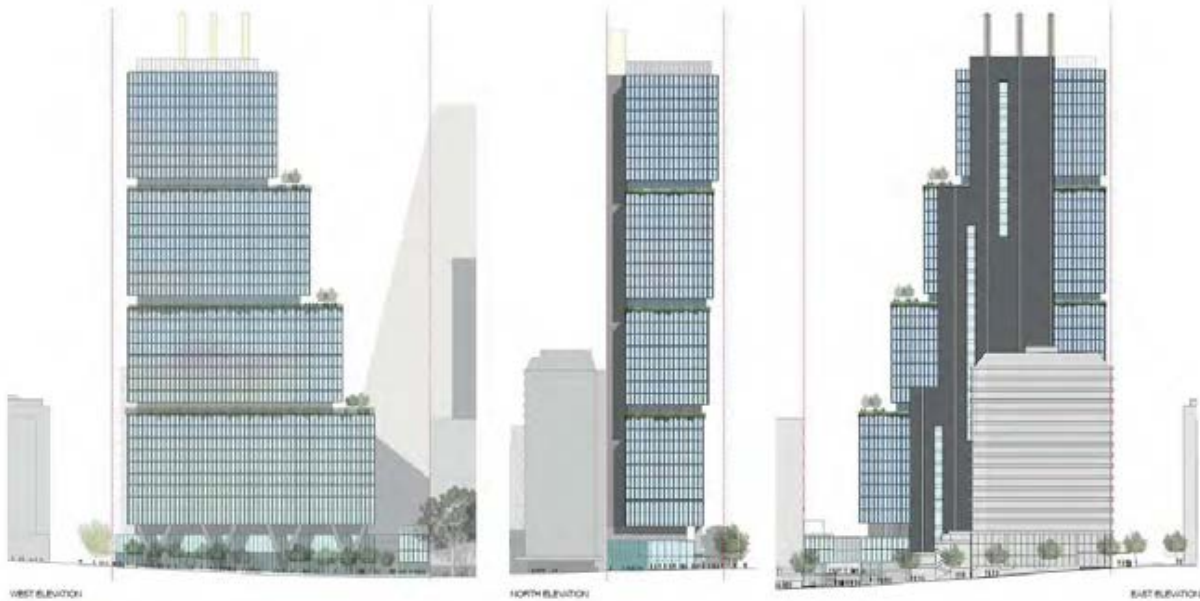


Figure 6: Victoria Cross indicative OSD design

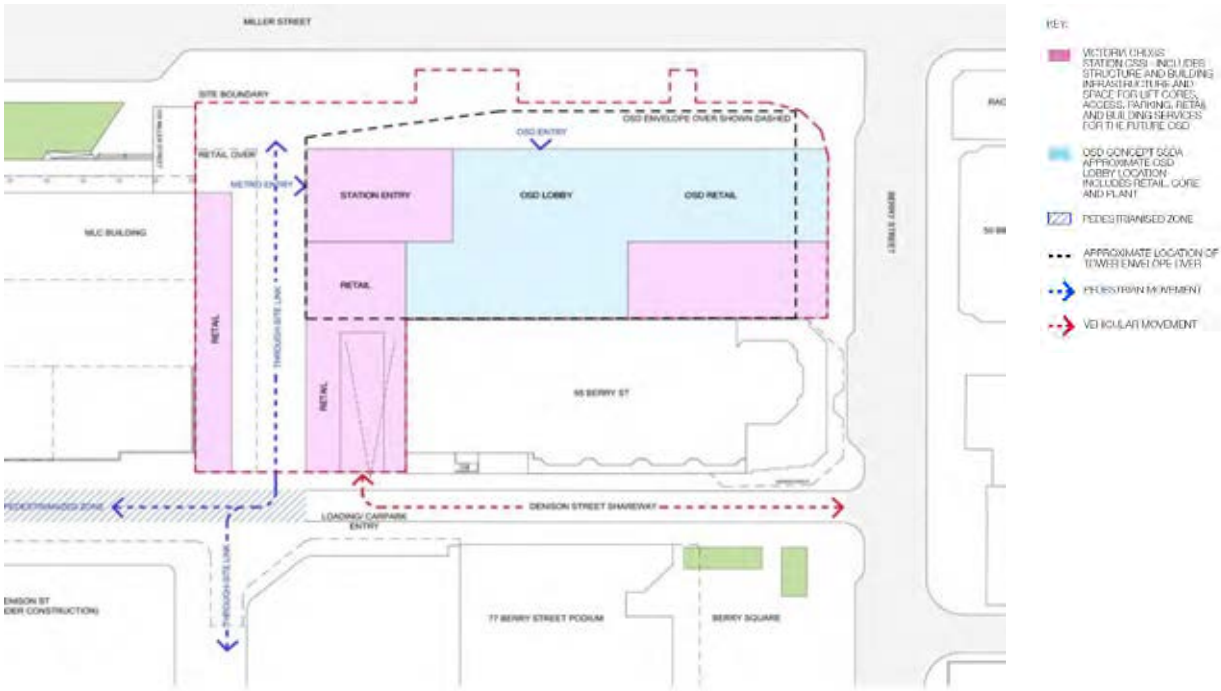


Figure 7: Ground floor concept plan

2.0 Existing crime environment

The NSW Bureau of Crime Statistics and Research (BOSCAR) publishes crime incident data recorded by the NSW Police. A review of BOSCAR data for the North Sydney Local Government Area (LGA) in 2016 shows that the most common crimes occurring within the LGA were:

- Fraud;
- Malicious damage to property;
- Stealing from dwellings;
- Non-domestic assault;
- Stealing from a motor vehicle;
- Stealing from a retail store;
- Break and enter dwelling;
- Domestic assault; and
- Break and enter non-dwelling.

As shown in **Appendix A**, the site is located within or in close proximity to a number of high-incidence areas for the following crimes:

- Non-domestic assault;
- Domestic assault;
- Break and entering dwelling;
- Break and entering non-dwelling;
- Theft (stealing from dwelling);
- Stealing from motor vehicle; and
- Malicious damage to property.

The recommendations set out in **Section 4.0** below are aimed at reducing the likelihood of persons committing these crimes at the future Victoria Cross OSD.

The high-incidence crimes listed above are not unique to North Sydney CBD and therefore, the general recommendations identified in **Section 4.0** of this report are considered appropriate to address the crime environments around the site.

3.0 CPTED principles

In 2001 the Minister for Planning introduced 'Crime prevention and the assessment of development applications – guidelines under section 79C of the *Environmental Planning and Assessment Act 1979*' (CPTED guidelines). These CPTED guidelines require consent authorities to ensure that development provides safety and security to users and the community. It is noted that as of 1 March 2018, changes to the EP&A Act 1979 came into effect, with section 79C now being amended to be referenced as section 4.15 of the EP&A Act.

CPTED is a crime prevention strategy that focuses on the planning, design and structure of cities and neighbourhoods. It reduces opportunities for crime by using design and place management principles. CPTED aims to create the perception that the risk of committing the crime is greater than the likely benefits. This is achieved by:

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

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

- Surveillance;
- Access control;
- Territorial reinforcement; and
- Space management.

These are discussed below in the context of the concept SSD Application. Consideration of the indicative design for the OSD has informed this assessment and the recommendations in **Section 4.0** of this report.

3.1 Surveillance

Surveillance seeks to keep potential offenders under observation, both natural and technical.

The concept proposal provides ample opportunity to incorporate natural surveillance, particularly at the retail and lobby areas at ground level (refer to **Figure 7**). Effective natural surveillance in these locations can be achieved through the use of extensive glazing to the facades and lighting of the building and its surrounds appropriate to the design and users. These active, glazed areas will create an ideal environment for people to be engaged in their normal behaviour while observing the space around them, creating natural community policing of the area.

The proposed entry locations offer clear sightlines to and from the public domain, increasing the ability for these areas to be passively monitored.

There is also opportunity for technical surveillance opportunities if required, such as CCTV at key locations.

The station components of the Integrated Station Development, including station entry and retail-activated through-site link, provide further opportunities for natural and technical surveillance. These opportunities will be pursued through the CSSI Approval process.

3.2 Access control

Access control aims to decrease access opportunities for criminals through the use of physical and symbolic barriers. These barriers can attract, channel and restrict the movement of people and minimise opportunities for crime. Access barriers can be implemented through landforms, building configuration, pathways and landscaping, as well as more direct forms of access control such as fences, gates, intercoms and camera surveillance.

The concept proposal provides sufficient opportunity for effective access control. Pedestrian access to the OSD will be controlled through the use of a separate lobby area distinct from the public uses associated with the station (refer **Figure 7**). It is anticipated that this lobby will feature a concierge desk and potentially access-controlled gates. Access to the OSD retail areas will be similarly controlled via separate entrances.

It is anticipated that vehicular access to basement levels will be controlled by use of a controlled gate.

3.3 Territorial reinforcement

Territorial reinforcement seeks to define types of spaces and promote a sense of ownership of these spaces. Areas displaying strong ownership and territorial cues promote activity and are less likely to be improperly used. Territorial reinforcement can be achieved through the use of building design, distinctive paving finishes, tactile surfaces, screening, fencing, lighting, landscaping and signage. In general, the design of an area is a far better communicator than signage.

The OSD uses (lobby and retail) are clearly defined by their use of separate entries, which are distinct from the station uses. This clear delineation between OSD and non-OSD space will provide strong territorial cues to users (refer **Figure 7**).

It is expected that a concierge desk and potentially access-controlled gates will be provided in the OSD lobby, providing clear indication of the private nature of the OSD use.

Differentiation in architectural design and materials will further assist the delineation between private OSD and public station uses.

More broadly, the Integrated Station Development is expected to be a world-class development, which will foster a sense of pride for building users and visitors, providing further defence against unwanted social behaviour.

3.4 Space management

The level of maintenance of an environment can affect a person's sense of safety. Generally speaking, a high level of maintenance communicates care and guardianship, while a low level of maintenance signals neglect and attracts potential offenders. Well-maintained public space and community facilities encourage regular use, which in turn creates natural surveillance of public spaces. Ongoing maintenance also reinforces territoriality and access control.

Maintenance of the future OSD will be the responsibility of the building owner. Measures for achieving effective space management include activity coordination, site cleanliness, rapid repair of vandalism, quick replacement of lighting and refurbishment of physical elements. These measures can be resolved during the detailed SSD Application stage and implemented during future operation of the building through the building management statement.

4.0 Recommendations

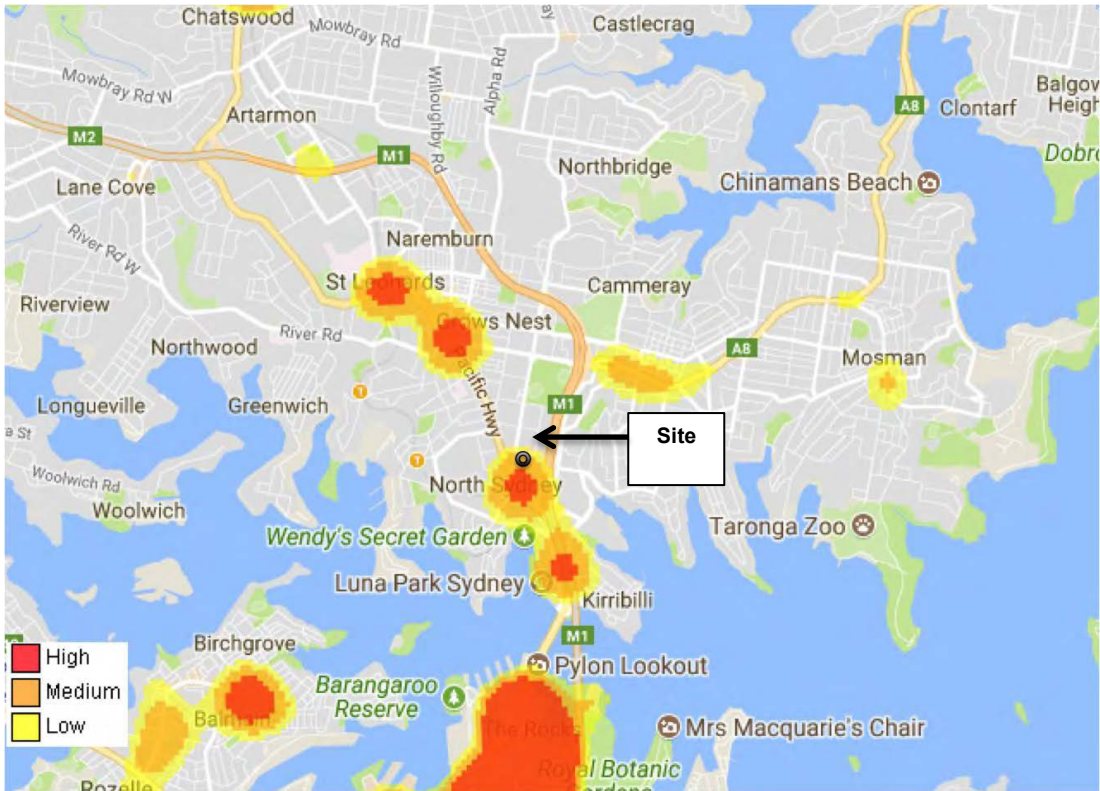
The following general recommendations have been developed to inform a future detailed development application for OSD:

- Entry points should be designed so as to maximise surveillance opportunities to and from these areas.
- Clear sightlines should be maintained between the development and the public domain, particularly around entries.
- Consideration should be given to the orientation of entry points to improve natural vantage points and potential guardianship from neighbouring developments and surrounding public domain.
- Future design should consider and seek to minimise potential concealment or entrapment areas.
- There should be appropriate wayfinding and identification signage within and around the building in order to aid legibility and promote territorial reinforcement.
- Blind bends and corners should be avoided in building corridors, walkways whenever possible. Where they cannot be avoided, surveillance can be enhanced through the use of vandal resistant mirrors, windows (where applicable) and bright, evenly distributed lighting.
- Lighting should be designed to the Australian and New Zealand Lighting Standards and appropriate for users and activities of the area.
- Landscaping should be used to enhance the appearance of the development and assist in reducing opportunities for vandalism. Landscaping should seek to maintain sightlines at eye level.
- Formal access control, such as security gates or swipe cards, should be considered to restrict unwanted guests.
- A maintenance plan should be put in place to ensure ongoing maintenance of the building, open space areas and the public domain connections.

CPTED treatments to the public domain and station areas will be implemented through the CSSI Approval process, in particular through incorporation of the *Sydney Metro City & Southwest Chatswood to Sydenham Design Guidelines* (June 2017), which have been developed to establish the design standards for the Sydney Metro Chatswood to Sydenham project. These guidelines include consideration of CPTED principles (at sections 1.6, 3.15, 3.26) and will be utilised to inform the detailed design of the station. A key requirement in the guidelines is that '[a] Crime Risk Assessment audit must be applied to the precinct design to ensure that all precinct areas comply with CPTED guidelines'.

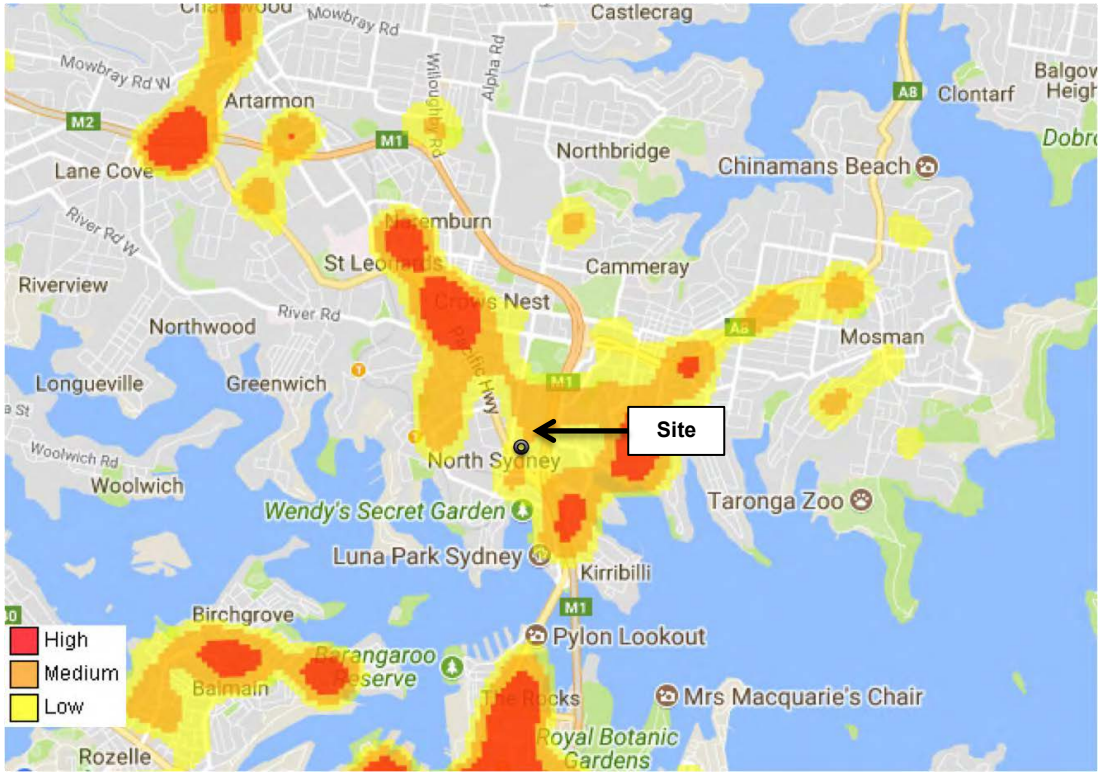
Appendix A

BOSCAR 'hotspot' mapping



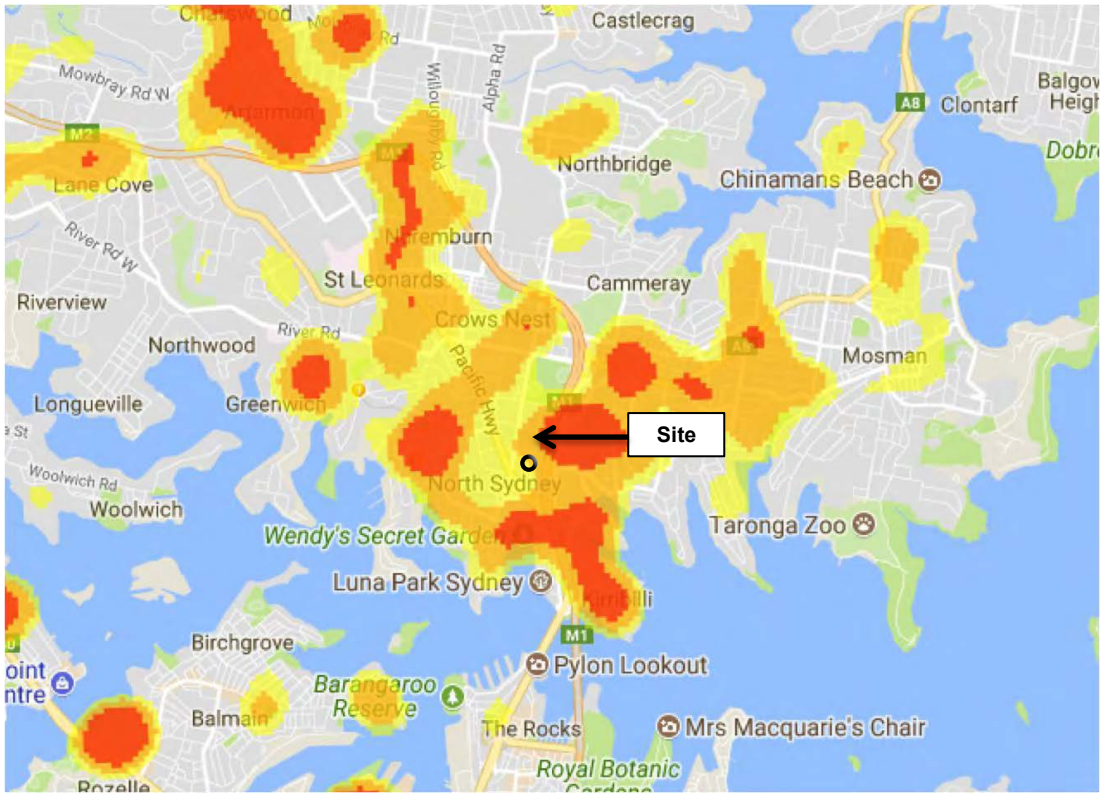
Hot spot map – assault (non-domestic)

Source: BOSCAR



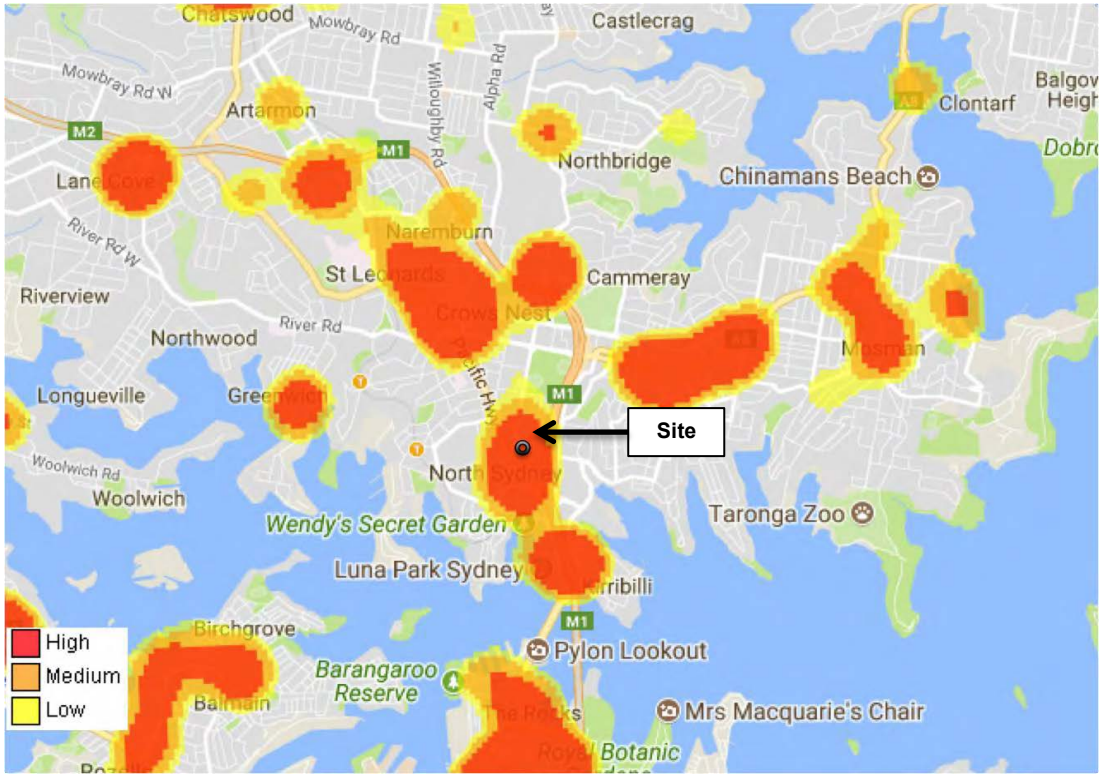
Hot spot map – assault (domestic)

Source: BOSCAR



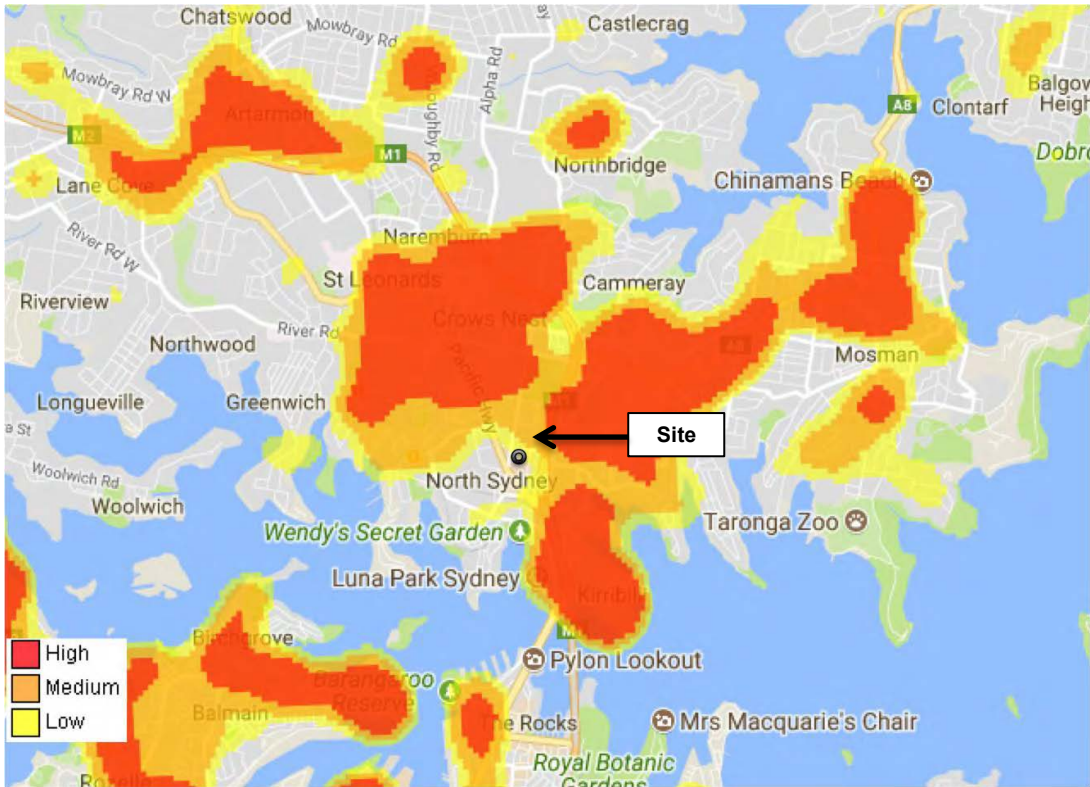
Hot spot map – break and entering (dwelling)

Source: BOSCAR

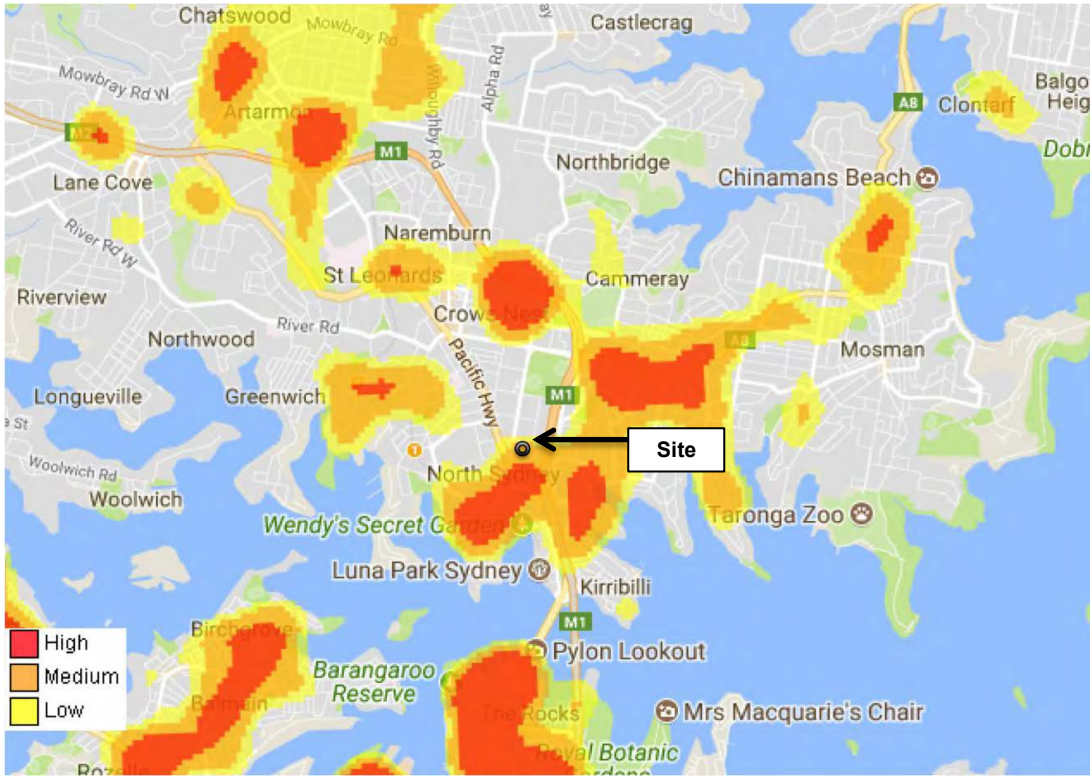


Hot spot map – break and entering (non-dwelling)

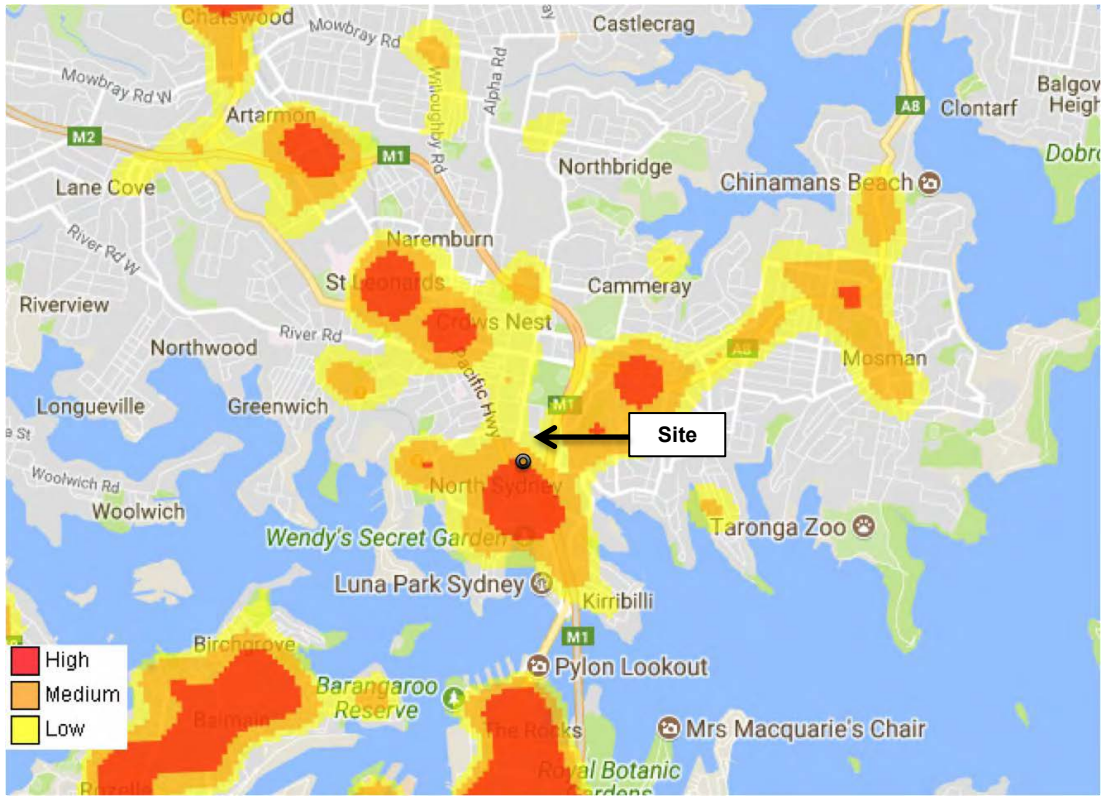
Source: BOSCAR



Hot spot map – theft (stealing from dwelling)
 Source: BOSCAR



Hot spot map – theft (stealing from motor vehicle)
 Source: BOSCAR



Hot spot map – malicious damage to property
Source: BOSCAR