WALSH BAY ARTS AND CULTURAL PRECINCT

STATE SIGNIFICANT DEVELOPMENT APPLICATION

SSDA 8671

APPENDIX 27:

CPTED REPORT

Infrastructure for New South Wales

Walsh Bay Arts and Cultural Precinct

Crime Prevention Through
Environmental Design Report

Revision 7 SSDA | 21 September 2017

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1 Executive Summary

Walsh Bay Arts and Cultural Precinct (WBACP) aims to create a sustainable and activated arts and culture precinct that supports and nurtures Sydney's home-grown culture and creativity. The WBACP project is focussed on uplifting and improving Pier 2/3 and Wharf 4/5 to provide increased amenity and develop Walsh Bay as one of the premium cultural and arts precincts in Sydney.

Arup has been engaged to provide security consulting services to the WBACP project including Crime Prevention through Environmental Design (CPTED) advice.

Overall, the proposed design for the WBACP provides good natural surveillance, natural access control, and territoriality. The design of space is generally open and visible from several angles, and public spaces are readily accessible, clearly defined, and will activate the space at different times of day.

There are however several opportunities for improving CPTED security measures such as natural surveillance, natural access control, and territoriality within the WBACP designs. These opportunities include:

- Ensure adequate lighting is provided throughout the precinct, particularly at the ends of Wharf 4/5 and Pier 2/3, the precinct and building entry/exit points;

  o Adequate lighting attracts legitimate people to the area at night, facilitates the precinct's use at night, and deters illegitimate users and crime;

- Provide way finding signage throughout the precinct to assist natural access control, and reinforce boundaries;

- Provide security signage throughout the precinct, particularly at precinct and building entry/exit points, to notify people of the security measures in place, and to provide a deterrence;

- Maintain precinct image and repair vandalism or remove graffiti as quickly as possible;

- Activate the precinct as much as possible, to attract legitimate users to the area, and to deter illegitimate users and crime;

- Use as much glazing as possible to assist natural and electronic surveillance;

  o Glazing should be particularly used at ground level, and at function, and hospitality spaces;

- Minimise areas of possible concealment of people, actions, or packages, particularly at the ends of Wharf 4/5 and Pier 2/3, staircases, lifts and the northern most and southern most boardwalks.

By implementing these recommendations, CPTED principles will be further reinforced in the current design, and the opportunity for illegitimate use of the space and crime will be reduced.

Appendix A outlines the recommendations made in this report, and their designated timing and for implementation alongside the responsible party.

2 Introduction

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 designs for the Walsh Bay Arts and Cultural Precinct project (WBACP).

2.2 Aim of this Report

This report aims to ensure that the WBACP is designed in accordance with crime prevention through environmental design principles as required by the SEARs.

2.3 Methodology

In preparing this report, Arup has undertaken the following:

- Review of CPTED theory and how this can be typically applied to arts and cultural facilities;

- Perform a review of the current architectural designs, and relevant reports, with an emphasis on the external site wide areas;

- 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;

- Attend site inspection of the existing WBACP facilities, and liaise with the relevant stakeholders to collaboratively review and discuss the architectural designs, CPTED strategies and stakeholder requirements; and

- Conduct a CPTED review and detail the CPTED strategies, findings and recommendations.

2.4 Recommendations

Recommendations made herein aim to enhance the preventative crime characteristics of the precinct by:

- Increasing the perception of risk to criminals by increasing the presence of deter, detect, delay and response characteristics;

- Increasing the effort required to commit crime by increasing the time, energy or resources which need to be expended by the offender in order for the offence to be successful;

- Reducing the potential rewards of crime by minimising, removing and concealing rewards; and

- Advertising the proper use of space, and making it clear on the types of people permitted throughout the precinct under various operating conditions.

3 Project Context

3.1 The Project

The NSW Government is committed to development of a public arts and cultural precinct at Walsh Bay. Infrastructure NSW is acting on behalf of the client, Arts, Screen and Culture Division in preparing this State Significant Development Application for the Walsh Bay project.

This SSDA will seek approval for the construction and operation of Pier 2/3 and Wharf 4/5 for arts and cultural uses with complementary commercial and retail offerings to activate the precinct.

The site generally comprises Pier 2/3, Wharf 4/5, and Wharf 4/5 Shore Sheds. The site has a street frontage to Hickson Road as shown in Figure 1. The site is part of the Walsh Bay area, which is located adjacent to Sydney Harbour within the suburb of Dawes Point.

Figure 1. The site

The Scope of the Project is as follows:
Pier 2/3
- The adaptive re-use providing for new arts facilities including performance venues for the Australian Chamber Orchestra, Bell Shakespeare and Australian Theatre for Young People;
- Retaining a large heritage commercial events/art space for events such as Sydney Writers Festival, Biennale of Sydney and a wide range of commercial and artistic events;

- A series of stairs, external lift and balconies designed as a contemporary interpretation of the original gantries reflecting the precinct's former industrial heritage
- Modifications to the roof

Wharf 4/5 (including Shore Sheds)
- Refurbishment of the ground floor arts facilities and its associated Shore Sheds for Bangarra Dance Theatre, Sydney Dance Company, Sydney Philharmonia, Gondwana and Song Company;
- New commercial retail opportunities; and
- A series of stairs, external lifts and balconies designed as a contemporary interpretation of the original gantries reflecting the precinct's former industrial heritage
- Modifications to the roof

3.2   Purpose of this Report

The requirements for the SSDA EIS which are stipulated by the Secretary of the Department of Planning and Environment and which are referred to as the "SEARs" have been addressed.

This report has been prepared in response to the SEARs item number two: Polices and Guidelines and planning agreements in which the principles of CPTED are required to be addressed.

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.

3.3   Report Structure

The report is ordered in the following structure:

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- Section 5: Underlying Principles

- Section 6: Crime Profile

- Section 7: CPTED Analysis

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- Section 9: Recommendations

4   Policy Context

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 considered in the WBACP project.

4.2   Local Council Requirements

The WBACP development should meet the security and crime prevention requirements of the Safe City Strategy (City of Sydney, 2016). As WBACP is a development within the CoS, meeting the requirements outlined in the Safe City Strategy would be considered good practice. The Safe City website includes information about CCTV and other crime reduction approaches for the CBD.

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.

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 2).
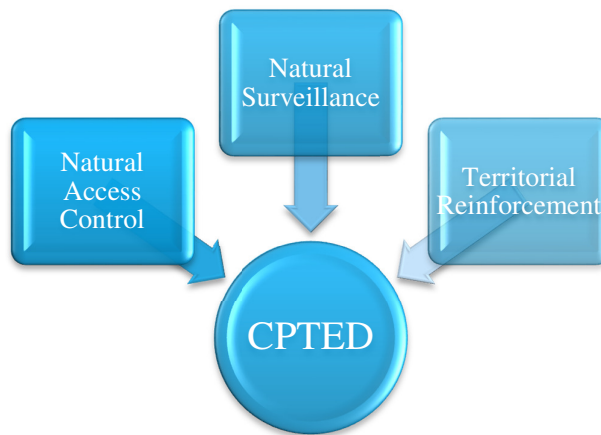
Figure 2. Crime Prevention through Environmental Design (CPTED)

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 WBACP designs, 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 WBACP designs, 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 WBACP designs, and Precinct operations.

6 Crime Profile

6.1 Overview

The proposed WBACP project 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 get reported to Police.

The offences listed below make up the most prevalent crimes that are relevant to the WBACP. 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 WBACP 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 WBACP's crime profile has been conducted in the Security Risk Management Report (251710-SE-SRA-01).

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.

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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 <u>relevant</u> to the WBACP, based on total number of offences. A ranking of how the City of Sydney LGA crime rates compares 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.

1. Theft (Other) (3,948 offences);
2. Assault – non-domestic violence related (3,121 offences);
3. Possession and/or use of cannabis (3,045 offences);
4. Malicious damage to property (2,691 offences);
5. Steal from motor vehicle (1,686 offences);
6. Steal from person (1,661 offences);
7. Possession/Use of amphetamines (1,265 offences);
8. Offensive conduct (1,126 offences);
9. Possession and/or use of ecstasy (1,055 offences); and
10. Harassment, threatening behaviour and public nuisance (943 offences).

Source: BOCSAR

The top offences to occur within an Outdoor/Public Place setting within the Sydney LGA were:

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1. Assault – non-domestic violence related (1,213 offences);

2. Steal from motor vehicle (1,028 offences).

3. Malicious damage to property (753 offences);

4. Steal from person (453 offences);

5. Motor vehicle theft (235 offences);

6. Robbery (225 offences);

7. Assault –domestic violence related (175 offences);

8. Sexual offences (115 offences); and

9. Break and enter non-dwelling (1 offence).

Note: Premises type data is not collected for all offence categories.

The terrorism based security risks relevant to the WBACP include the following:

- Person Borne Improvised Explosive Device (PBIED) / Placed IED;

- Vehicle Borne Improvised Explosive Device (VBIED);

- Hostile Vehicle Attack;

- Active Shooter;

- Knife Attack;

- 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 the WBACP have reduced in occurrence over the previous three and five year periods. Out of the ten most prevalent offences, only drug offences have risen over the three and five year periods.

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.

Five Year Trend Table

Offence	Jan to Dec 11	Jan to Dec 12	Jan to Dec 13	Jan to Dec 14	Jan to Dec 15	3 Year Change	5 Year Change
Other Theft	5110	5379	4880	4692	3948	-19.10%	-22.74%
Assault – non-domestic violence related	3772	3724	3576	3142	3121	-12.72%	-17.26%

Possession and / or use of cannabis	2652	2548	2448	2714	3045	24.39%	14.82%
Malicious damage to property	3599	3332	3343	2876	2691	-19.50%	-25.23%
Steal from motor vehicle	2713	2200	2351	2176	1686	-28.29%	-37.85%
Steal from person	2881	2736	2225	1887	1661	-25.35%	-42.35%
Possession and / or use of amphetamines	2652	2548	2448	2714	3045	24.39%	14.82%
Offensive conduct	1860	1682	1713	1318	1126	-34.27%	-39.46%
Possession and / or use of ecstasy	579	915	929	949	1055	13.56%	82.21%
Harassment, threatening behaviour and public nuisance	973	1023	1025	950	939	-8.39%	-3.49%

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 at the WBACP.

7 CPTED Analysis

7.1 Overview

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

7.2 Lighting Impacts

Improved street lighting may also 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.

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 an area is an effective CPTED strategy that enhances the opportunity for natural surveillance, and encourages territorial reinforcement. A mixed use area increases the chance of the area being used, and lengthens the time that the area is used. 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.

Walsh Bay already incorporates mixed uses to a good effect, and the WBACP project will further improve this. The diverse uses for Walsh Bay include residential areas, office areas, performance and event locations, and hospitality areas, ensuring the precinct is used essentially 24/7, 365 days a year.

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8 Design Assessment

8.1 Precinct

The WBACP provides several opportunities for improving CPTED security measures such as natural surveillance, natural access control, and territoriality. These opportunities have been identified and discussed below.

8.1.1 Natural Access Control

The layout of existing structures at the WBACP (Pier 2/3, Wharf 4/5) provides significant natural access control properties, clearly delineating the precinct's space and perimeter boundaries (Figure 3). Entry and egress areas of the precinct are clearly identifiable, with existing structures forming a natural boundary along the length of Hickson Road. Users of the space are naturally funnelled down predictable pathways, reducing terrain-vagueness and improving way-finding.
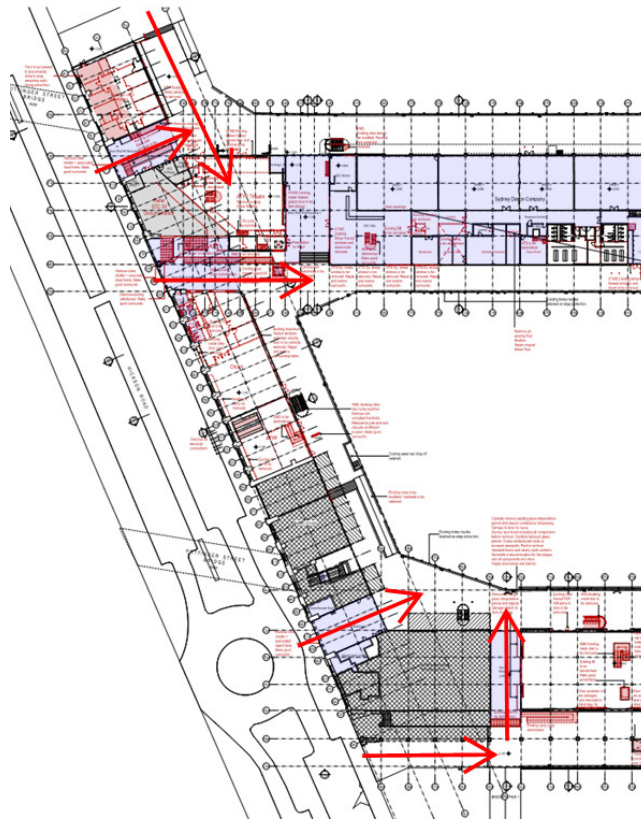

Figure 3. Precinct Access Points

These natural points of access should be reinforced in the design of the precinct, with appropriate signage and other way finding measures (such as visual markers, like lighting) being provided for users. Security signage should be displayed at these natural points of access to deter illegitimate users of the space.

8.1.2 Natural Surveillance

The precinct design facilitates strong natural surveillance properties. Natural surveillance from Hickson Road (Figure 4) along the precinct perimeter is good, with continuous roadside and pedestrian traffic. This visibility from the street reduces the opportunity for loitering, concealment, graffiti, vandalism or other illicit activities from occurring unobserved.
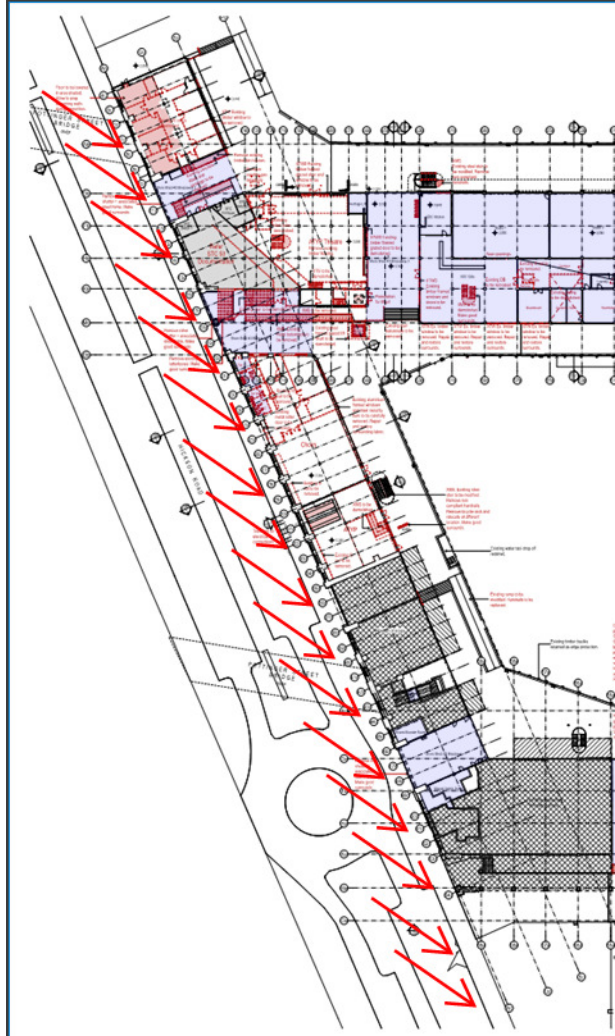

Figure 4. Precinct Road Frontage

To improve this natural surveillance at night, improved lighting should be provided along the perimeter of the precinct where street lighting does not provide sufficient illumination. Improved lighting should look to enhance perimeter CCTV recording where possible to ensure accurate image capture.

8.1.3 Territoriality

Territoriality throughout the precinct should be encouraged and supported. While the precinct will be activated throughout the day and at night, community groups

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should be encouraged to engage with and use the space outside of normal operating hours.

Maintenance of the precinct is important to encouraging community use and the perception that area is cared for and monitored. Clean up of graffiti, vandalism and rubbish is important to curating this image. The provision of security signage and rubbish bins are some examples to improve the perception of a space.

8.2   Wharf 4/5

Wharf 4/5 provides good natural surveillance throughout the public domain, with open and minimalist space design. The provision of a café and scattered seating activates the space and encourages users to interact with the space and surrounding boardwalks. The use of commercial, rehearsal and entertainment spaces throughout the day will encourage a natural flow of individuals and encourage legitimate use of the space.

8.2.1   Café

The café located in Wharf 4/5 provides substantial area activation and encourages continuous pedestrian flow through the space. The location of the café supports natural surveillance (Figure 5).
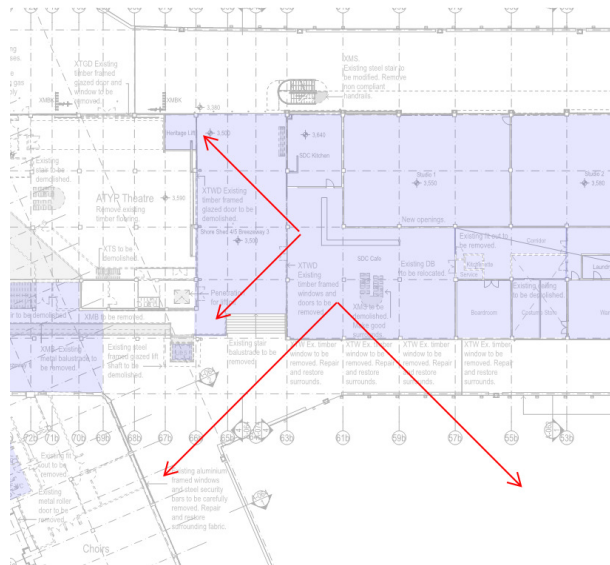

Figure 5. Cafe location and natural surveillance sight lines

While open for business, the café will provide a central point of focus for visitors to the space, encouraging natural way finding and influencing the use of the space.

Glazing should be used as much as possible to ensure natural surveillance from this location. An open frontage with inside/outside seating should also be considered.

8.2.2   Public Space

The walkways (Figure 6) along the apron of Wharf 4/5 provide significant natural surveillance properties for observation of Pier 2/3. The arrangement of the apron should activate the area during day and night activities.
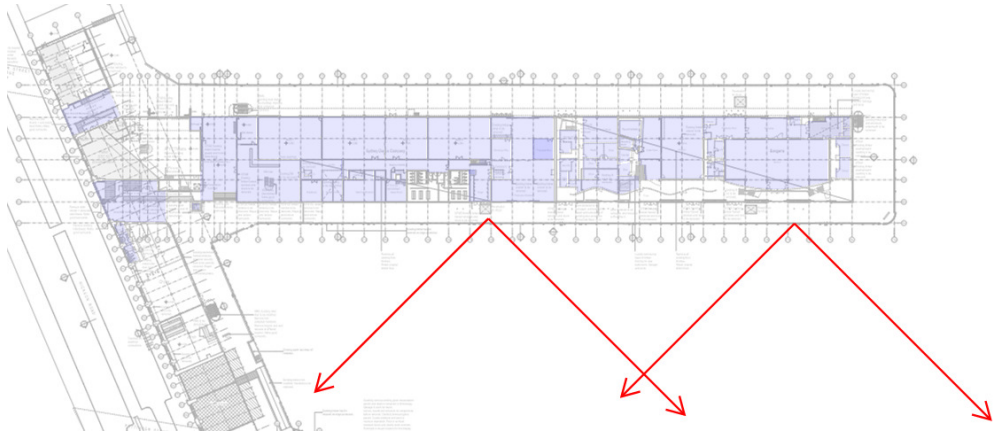

Figure 6. Viewing Areas Wharf 4/5

Seating arrangements and lifts at the end of the Wharf (Figure 6) present some opportunity for improvement, specifically during night-time and after-hours. Use of these areas outside of peak periods reduce the opportunity for natural

surveillance from surrounding areas, and may facilitate the concealment of illicit activities.

The use of this area as a function space does encourage legitimate use, however when the function space is not in use, the low throughput of individuals may lead to an increase in the opportunity for crime to be committed.
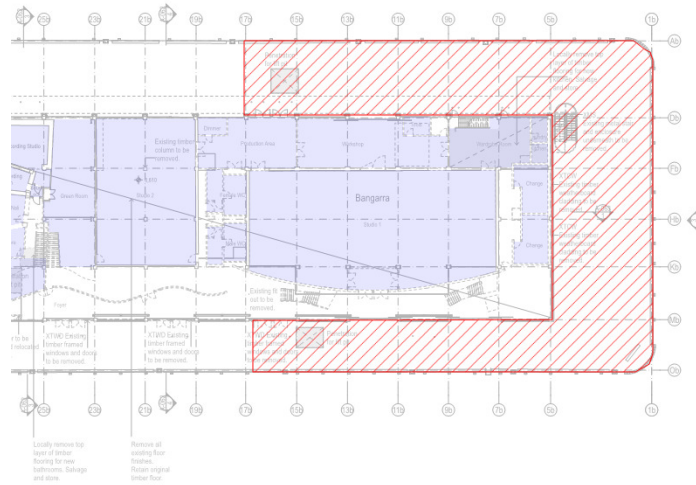

Figure 7. End of Wharf 4/5

These areas should be well lit, especially outside of operating hours at night, and electronic surveillance should be provided to reduce the opportunity for concealment or unmonitored activities to occur.

8.3 Pier 2/3

The Pier 2/3 design provides natural surveillance of the precinct due to its open and minimalist design. The use of commercial, rehearsal and entertainment spaces throughout the day will encourage a natural flow of individuals and encourage legitimate use of the space.

8.3.1 Public Space

The areas along the boardwalk of Pier 2/3 provide significant natural surveillance properties for observation of Wharf 4/5. These areas are well designed and should activate the apron areas during day and night activities.
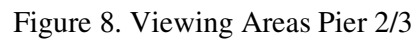
Figure 8. Viewing Areas Pier 2/3

As with Wharf 4/5, the end of the Pier (Figure 9) presents opportunity for improvement, specifically during night-time and after-hours. The design of these areas due to distance and sightlines from other areas of the precinct, and may facilitate the concealment of illicit activities.

Figure 9. End of Pier 2/3

As this section of the Pier is not activated outside of being used for functions, it may attract opportunistic crime when not in use. Good lighting is recommended, especially out of operating hours and at night to increase visibility of individuals in this area.

9   Recommendations

The proposed design for the WBACP generally provides good natural surveillance, natural access control, and territoriality. The design of space is generally open and visible from several angles, and public spaces are readily accessible, clearly defined, and will activate the space at different times of day.

Appendix A outlines the recommendations made in this report, and their designated timing and for implementation alongside the responsible party.

In consideration of these natural access control, natural surveillance, and territoriality aspects of the proposed design, the following considerations are recommended for WBACP:

- Ensure adequate lighting is provided throughout the precinct, particularly at the ends of Wharf 4/5 and Pier 2/3, the precinct and building entry/exit points;

    o Adequate lighting attracts legitimate people to the area at night, facilitates the precincts use at night, and deters illegitimate users and crime;

- Provide way finding signage throughout the precinct to assist natural access control, and reinforce boundaries;

- Provide security signage throughout the precinct, particularly at precinct and building entry/exit points, to notify people of the security measures in place, and to provide a deterrence;

- Maintain precinct image and repair vandalism or remove graffiti as quickly as possible (including public seating, shades, etc.);

- Activate the precinct as much as possible, to attract legitimate users to the area, and to deter illegitimate users and crime;

- Use as much glazing as possible to assist natural and electronic surveillance;

    o Glazing should be particularly used at ground level, and at function, and hospitality spaces;

- Minimise areas of possible concealment of people, actions, or packages, particularly at the ends of Wharf 4/5 and Pier 2/3, staircases, lifts and the northern most and southern most boardwalks.

By implementing these recommendations, CPTED principles will be further reinforced in the current design, and the opportunity for illegitimate use of the space and crime will be reduced.

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10 Appendix A: Mitigation Measures Table

Mitigation Measure	Responsibility	Timing
Ensure adequate lighting is provided throughout the precinct, particularly at the ends of Wharf 4/5 and Pier 2/3, the precinct and building entry/exit points (adequate lighting attracts legitimate people to the area at night, facilitates the precincts use at night, and deters illegitimate users and crime).	Proponent	During detailed design and prior to relevant construction
Provide way finding signage throughout the precinct to assist natural access control, and reinforce boundaries.	Proponent	During detailed design and prior to relevant construction
Provide security signage throughout the precinct, particularly at precinct and building entry/exit points, to notify people of the security measures in place, and to provide a deterrence.	Proponent	During detailed design and prior to relevant construction
Minimise areas of possible concealment of people, actions, or packages, particularly at the ends of Wharf 4/5 and Pier 2/3, staircases, lifts and the northern most and southern most boardwalks.	Proponent	During detailed design and prior to relevant construction
Use as much glazing as possible to assist natural and electronic surveillance (glazing should be particularly used at ground level, and at function, and hospitality spaces).	Proponent	During detailed design and prior to relevant construction
Provide CCTV to perimeter of buildings and the precinct to monitor the space and deter opportunistic crime.	Proponent	During detailed design and prior to relevant construction
Activate the precinct as much as possible, to attract legitimate users to the area, and to deter illegitimate users and crime	Operator	During operation
Maintain precinct image and repair vandalism or remove graffiti as quickly as possible (including public seating, shades, etc.).	Operator	During operation

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