

QANTAS FLIGHT TRAINING CENTRE

CPTED REPORT

12 APRIL 2019
P%3994
FINAL
PREPARED FOR QANTAS AIRWAYS LIMITED

URBIS

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EXECUTIVE SUMMARY

This Crime Prevention through Environmental Design (CPTED) assessment has been prepared by Urbis Pty Ltd (Urbis) on behalf of Qantas Airways Limited C/-Urbis (the applicant) in relation to the proposed State Significant Development involving the relocation of their existing flight training centre (the proposal) from its current location within Sydney Kingsford Airport (the Airport) to a new location within their landholdings at 297 King Street, Mascot.

CPTED ASSESSMENT

A CPTED assessment is undertaken to analyse a proposed development and identify potential improvements to the design which may help to reduce crime and anti-social behaviour. The proposal has been assessed against the four CPTED principles:

- Surveillance
- Access control
- Territorial reinforcement
- Site and activity management

Based on the assessment the following priority areas have been identified. A full assessment and recommendations are provided in **Section 5** of this report.

Car parking

The proposal includes a large multi-deck car park which will operate 24 hours with security measures in place for after hour access. Analysis of crime data indicates that Mascot has higher rates of 'steal from motor vehicle' and 'motor vehicle theft' compared with Bayside LGA. The proposal addresses CPTED principles by replacing a large at-grade car parking area with a consolidated multi-storey car park. The multi-deck car park includes access control measures to provide a secure parking for staff car parking and is located away from the perimeter of the site to provide a more active street frontage on King Street. The proposal also includes secure bicycle parking at the ground floor level of the car park and accessible car spaces are located near car park entry and exit points.

Entry and exit points

The proposal is a secure facility and controlled access to the site is required. Crime data also indicates that the site is in a hotspot for 'break and enter non-dwelling.' Entry and exit points to the site and flight training centre are therefore considered a priority area for the proposed development. The proposal addresses CPTED principles through incorporation of access control measures at the exit and entry points, including boom gates, removal bollards and perimeter fencing for flexible perimeter security. A dedicated pedestrian path from King Street is provided to direct pedestrian movements to the main entry and exit point to the flight training centre.

External layout

The proposal will facilitate pedestrian, bicycle, car and private bus movements within a network in internal roads and pathways. The proposal incorporates CPTED principles through dedicated bus stops and drop off-zones to minimise potential conflict between vehicles and pedestrians, and dedicated pedestrian and cycle pathways to provide safe movements for these users.

Maintenance and management

The current site is dominated by an at grade car parking, with informal landscaping and evidence of rubbish dumping and some disrepair. The proposal incorporates CPTED principles through the incorporation of new and improved perimeter landscaping which will define pathways and provide a sense of ownership of the space. Landscaping treatments throughout the site are also proposed to help create a more attractive urban space for employees, pilots and cabin crew training at the flight training centre. The proposal is for a 24-hour use and therefore recommendations include lighting and security strategies to reduce crime risks outside of normal operating hours.

RECOMMENDATIONS

The following recommendations are made to improve the proposal's performance against the CPTED principles and reduce the identified crime and safety risks:

Car parking

- Provision of clearly marked on-road directional signage to indicate pedestrian and cycle movements and avoid conflicts with vehicles.
- Implementation of a lighting strategy and CCTV cameras in car park stairwells.

Entry and exit points

- Provision of signage at key entry and exit points to delineate public and private space.

External layout

- Implement anti-graffiti materials on facades of the flight training centre and car park to minimise opportunities for vandalism.
- Bus stops should be well-lit and include awnings to protect users from weather conditions.
- Preparation of a lighting strategy to provide safe pedestrian and cyclist movements before or after operating hours. All lighting must comply with relevant Australian Standards.
- Pedestrian and cycling paths should be an adequate width and comply with relevant Australian Standards.

Maintenance and management

- Preparation of a plan of management to manage landscaping maintenance, rubbish and graffiti removal, and lighting maintenance.
- Consideration of monitoring of the site by security patrol or an intercom system to provide a response in case of security issues, particularly outside of core business hours.
- Provision of CCTV cameras at key exit and entry points and within the car park to deter criminal activity and assist in ongoing management of the site.
- The Construction Management Plan (CMP) should include measures to manage pedestrian, cyclist and vehicle movements during construction.

CONCLUSION

Urbis has undertaken a CPTED assessment for the proposal against the four CPTED principles and has identified potential risk areas and recommendations which to help to reduce crime and anti-social behaviour.

Overall, the proposal is considered to improve the current site conditions and will help provide an improved streetscape and urban environment, increase permitter activation of the site and improved access and safety controls.

1. INTRODUCTION

This Crime Prevention through Environmental Design (CPTED) assessment has been prepared by Urbis Pty Ltd (Urbis) on behalf of Qantas Airways Limited C/-Urbis (the applicant) in relation to a proposed State Significant Development involving the relocation of their existing flight training centre (the proposal) from its current location within Sydney Kingsford Airport (the Airport) to a new location within their landholdings in Mascot.

The *Botany Bay Development Control Plan 2013 (BBDGP 2013) Part 31.1* provides objectives and controls in relation to crime prevention and safety and security for all developments within the former Botany Bay Local Government Area (LGA). This report assesses the development against these objectives and controls in the DCP and the NSW Police CPTED Guidelines.

1.1. AIM OF THIS REPORT

A CPTED assessment identifies and analyses potential improvements to design which may help to reduce crime and anti-social behaviour. The design of a proposed development is assessed against the four key CPTED principles.

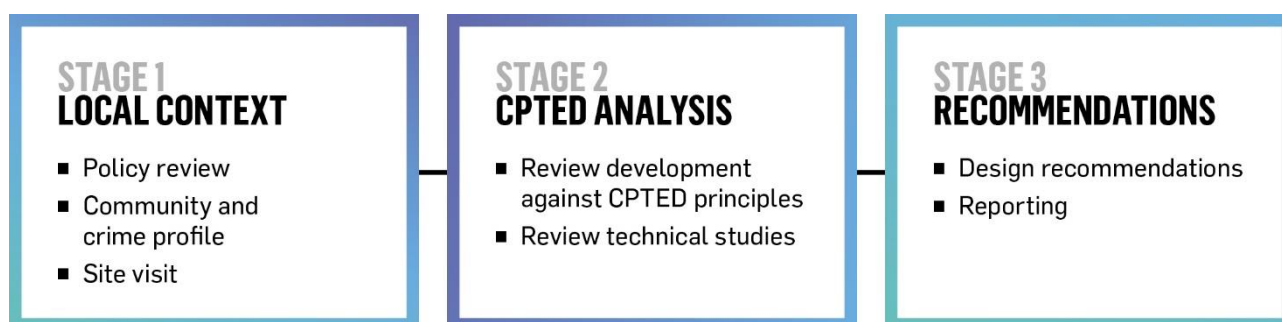
Where CPTED risks are identified, the report makes recommendations to reduce the likelihood of the crime from occurring.

Figure 1 – CPTED principles



This report has been reviewed by a certified professional who has completed the NSW Police Safer by Design Course.

1.2. METHODOLOGY



2. THE PROPOSED DEVELOPMENT

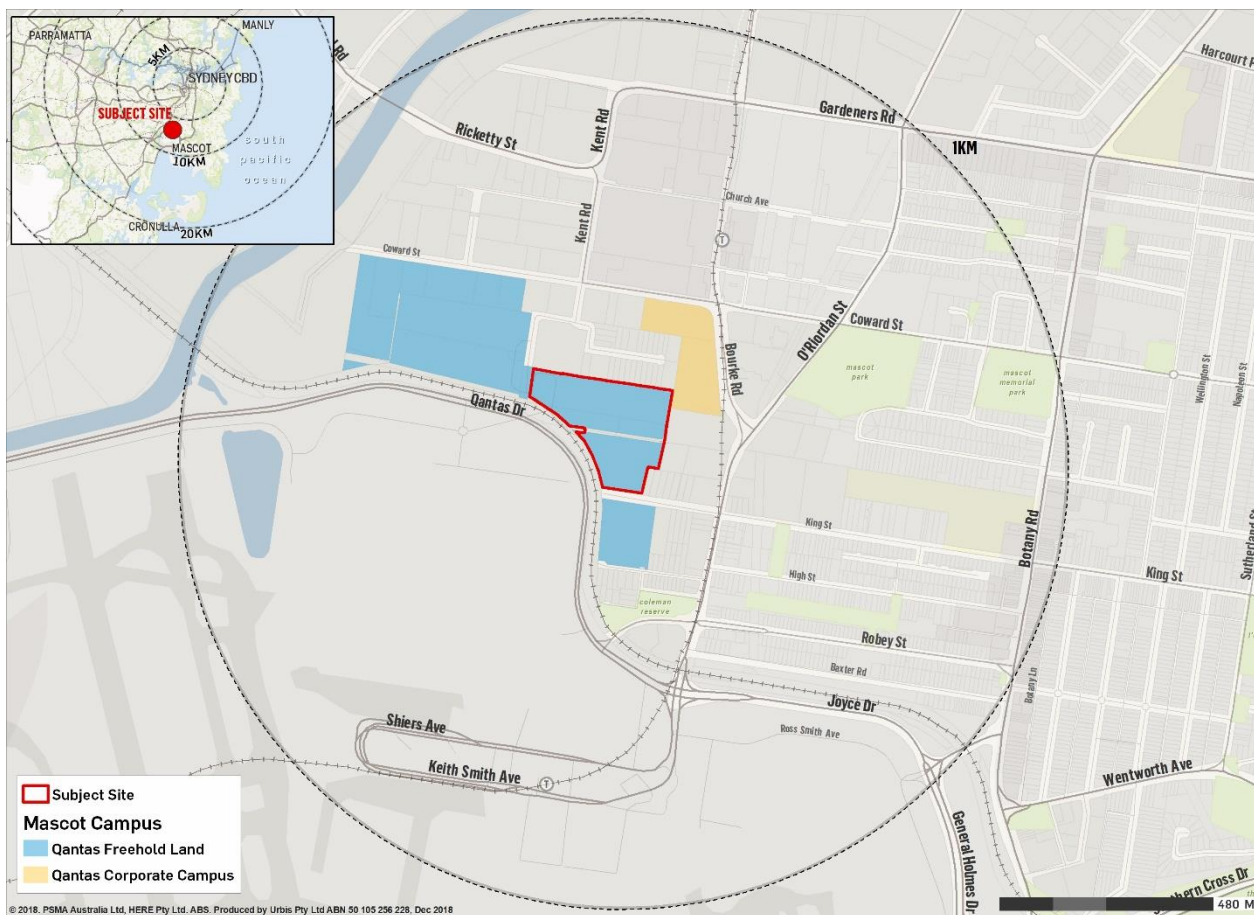
2.1. SITE CONTEXT

The Site is located at 297 King Street, Mascot and is legally described as Lots 2-4 of DP 234489, 1 of DP 202747, Lot B of DP 164829 and Lot 133 DP 659434.

The Site is located within the Bayside Council Local Government Area (LGA). The Site is in close proximity to airport hotels which operate 24 hours, as well as the Qantas catering and corporate head office. Adjacent to the site, on the opposite side of King Street is Qantas Airways Limited (Qantas) freehold land which is currently an unused site with vacant buildings.

The Site is accessed via King Street which ends in a cul-de-sac adjacent the Port Botany Freight Rail Line. Currently, the pedestrian environment of King Street provides limited amenity, evidence of rubbish and poor pavement conditions.

Figure 2 – Aerial photo of site.



Source: Urbis

2.2. THE PROPOSAL

Safety is Qantas' first priority. The flight training centre is a key pillar of this value. The facility enables pilots and flight crews to undertake periodic testing to meet regulatory requirements by simulating both aircraft and emergency procedural environments. The Project seeks consent for the construction and operation of a new flight training centre, and associated ancillary uses including a multi-deck car park. The Project is comprised of the following uses:

Flight Training Centre

The proposed flight training centre will occupy the southern portion of the site. It is a building that comprises 4 core elements as follows:

- An emergency procedures hall that contains;
 - cabin evacuation emergency trainers,
 - an evacuation training pool,
 - door trainers,
 - fire trainers
 - slide descent towers,
 - security room,
 - aviation medicine training and equipment rooms.
- A flight training centre that contains:
 - a flight training hall with 14 bays that will house aircraft simulators,
 - integrated procedures training rooms, computer rooms, a maintenance workshop, storerooms, multiple de-briefing and briefing rooms, pilot's lounge and a shared lounge.
- Teaching Space that contains
 - training rooms,
 - classrooms and two computer based exam rooms.
- Office Space
 - Office space for staff and associated shared amenities including multiple small, medium and large meeting rooms, think tank rooms, informal meeting spaces, a video room and lunch/tea room.
- Ancillary spaces including the reception area at the ground floor, toilets, roof plant and vertical circulation. The external ground floor layout will include a loading dock, at-grade car parking for approximately 39 spaces and a bus drop-off zone at the northern site boundary.

Car Park

The proposed multi-deck car park will be located to the north-east of the flight training centre and adjacent the existing Qantas catering facility and tri-generation plant. The car park is 13 levels and will provide 2059 spaces for Qantas staff. Vehicle access to the car park will be provided via King Street, Kent Road and from Qantas Drive via the existing catering bridge.

2.3. SITE VISIT

A site visit was conducted by Urbis on Friday 18th January 2019 between 11:30am and 12:30pm. The site visit involved a perimeter inspection of the site, observation of key entry and exit points and pedestrian and vehicle movements throughout the site. Also observed during the site visit were existing security measures, including access control measures to the car park. A summary of the site visit observations is provided below:

- Limited pedestrian movement throughout the car park.
- Car parking was at or near capacity, although limited vehicle movements were observed. This is expected, as the site visit was conducted out of regular business hours.
- Swipe vehicle access into car park from King Street.
- Perimeter and low height fencing around the site.
- CCTV cameras at entrance and exit points on King Street.
- Some evidence of litter and rubbish on site.
- Qantas owned vacant buildings to the south of the subject site.

1 SITE - PROPOSED

4 THE PROPOSED DEVELOPMENT

Figure 4 – Site visit photos



Picture 1 – King Street north car park.



Picture 2 – Vehicle access point on King Street.



Picture 3 – Existing perimeter landscaping in the carpark.



Picture 4 – Tri-generation plant, car parking and internal road from the corporate campus.



Picture 5 – Catering facility to the north of the proposal.



Picture 6 – Abandoned buildings on the southern side of King Street (opposite King Street north car park)

3. STRATEGIC CONTEXT

The following section provides a summary of relevant state and local policies in relation to crime and safety.

NSW Crime Prevention and Assessment of Development Applications (2001)

In April 2001, the NSW Department of Infrastructure, Planning and Natural Resources (former Department of Urban Affairs and Planning) introduced the Crime Prevention Legislative Guidelines (the Guidelines) to Section 79C of the Environmental Planning and Assessment Act, 1979. These guidelines require consent authorities to ensure that development provides safety and security to users and the community.

The Guidelines introduce the four CPTED principles which are used in the assessment of development applications. These are: surveillance, access control, territorial reinforcement and space management.

Botany Bay Council, Botany Bay Development Control Plan (2013)

The *Botany Bay Development Control Plan 2013* (BBDCP 2013) *Part 3I* has been developed by Botany Bay Council to assist in the assessment of development applications in relation to CPTED principles. This section of the DCP contains several CPTED principles to be used in the design and assessment of a project to help mitigate against the occurrence of crime and increase safety within a community.

Part 3I of the BBDCP 2013 contains specific objectives and controls relating to all developments. The objectives are provided below and controls relevant to this development is provided in **Appendix C**.

General objectives:

- To develop a safer environment within the Botany Bay local government area;
- To reduce opportunities for criminal activities and anti-social behaviour;
- To improve community safety in streets and the public domain;
- To promote and create attractive and useable urban spaces;
- To provide better integration and connection of the street and public domain; and
- To increase community activities in the public place during the day and night time.

4. COMMUNITY PROFILE

The profile of a community can influence the type and likelihood of crime that may impact a development. The following section contains a brief analysis of the characteristics of Mascot suburb based on data from the Australian Bureau of Statistics (ABS), the Department of Planning and Environment and Bureau of Crime Statistics and Research (BOCSAR).

4.1. DEMOGRAPHICS

The full demographic summary table is provided in **Appendix A**.

In 2016, Mascot suburb had a population of 14,772 people, representing 31% of the Botany Bay LGA population. Key findings of the suburb's population include:

- Mascot suburb is **characterised by young adults** with 47% of the population aged between 20 and 39. This is higher than Botany Bay LGA (34.8%) and Greater Sydney (30.5%).
- Approximately three quarters (60.7%) of Mascot suburb **live in flats or apartments**, which is higher than Botany Bay LGA (52.2%) and Greater Sydney (28.1%).
- Mascot suburb is **characteristic of renters** representing just under half (47.5%) of the population.
- Mascot suburb is **relatively advantaged** with a median household weekly income of \$1,955 which is higher than Botany Bay (\$1,626).
- The Socio-Economic Indexes for Areas (SEIFA) data indicates that Mascot suburb is in the top 10% of advantaged suburbs.
- The Botany Bay LGA population is expected to increase from 48,450 in 2016 to 72,700 in 2036.

4.2. CRIME

Crime data from the NSW Bureau of Crime Statistics and Research (BOCSAR) was analysed to identify the crime profile at Mascot. For comparison purposes, data for both Botany Bay LGA and the NSW average has been used to help assess risk compared to LGA and state-wide averages. The full crime profile is contained in **Appendix B**. Key crime findings of relevance to this assessment include:

- The highest crime type in Mascot suburb is 'malicious damage to property' with a crime rate of 750.8, which is higher than Bayside LGA (599.2) and lower than NSW (794.8).
- The second highest crime type in Mascot suburb is 'steal from motor vehicle' with a crime rate of 515.4 which is higher than Bayside LGA (545.7) and NSW (504.9).
- The site is in a crime hotspot for incidents of theft (break & enter non-dwelling), motor vehicle theft, steal from motor vehicle and malicious damage to property.
- The two-year crime trends (October 2016 – September 2018) indicate that all crime types in Bayside LGA are stable, except for 'steal from dwelling' which has reduced by 10.8% in this time period.

5. CPTED ASSESSMENT

5.1. CPTED PRINCIPLES

A CPTED Assessment identifies and analyses potential improvements to the design of a project which may help reduce crime and anti-social behaviour as per the NSW Government best practice guidelines, outlined below.

Surveillance	Access control	Territorial reinforcement	Space and activity management
			
Places that are well supervised through natural (passive), mechanical (CCTV) or organised (security guard) surveillance are less likely to attract criminal behaviour.	Designing spaces to control who enters and prevent unauthorised access. This can be achieved through natural barriers, mechanical controls or formal controls.	The way in which a community demonstrates ownership over a space. Places that feel owned and cared for are likely to be used, revisited and protected.	Space and activity management involves monitoring site usage, managing site cleanliness and repairing vandalism and broken physical elements to decrease fear of crime.

5.2. PRIORITY AREAS

The discussion below sets out a detailed assessment and recommendations for the following CPTED priority areas:

- Car parking.
- Entry and exit points.
- External layout.
- Maintenance and management.

5.2.1. Car parking

Car parking areas can be common spaces for theft and anti-social behaviour. Car parking is considered a priority area as BOCSAR data indicates that the site is in a hotspot for 'steal from motor vehicle' and 'motor vehicle theft'. Mascot also has a higher rate of both crime types compared with Bayside LGA.

Assessment of proposed development

The BBDCP 2013 contains specific objectives and controls relating to CPTED principles for car parks, as outline in **Appendix C** of this report. The proposal incorporates a number of CPTED principles as summarised below.

- The proposal will replace a currently large at-grade car parking area.
- The proposal has minimal at-grade car parking and will consolidate car parking in a multi-storey car park located away from the perimeter of the site to provide a more active street frontage on King Street.
- Dense vegetation and solid fences are not proposed along the perimeter of the car park.

- Accessible car parking is provided at the lower ground level of the car park, nearest the vehicle and pedestrian entry and exit points.
- Planter boxes are proposed along the facades of the car park to soften the appearance of the built form from the streetscape.
- Secured bicycle parking is provided at the ground floor level of the car park and bicycle paths are provided to and from the car park from King Street.
- The BBDCP 2013 states that stairwells are to be open or transparent to enable informal surveillance to and from the public areas in the car park. The stairwells are required to be fire isolated and of solid construction. Based on this requirement, the recommendation provided below is an alternative strategy to address enclosure and safety in car park stairwells.

Recommendations

- Provision of clearly marked on-road directional signage at all levels of the car park to indicate pedestrian and cycle movements and avoid conflicts with vehicles.
- Implementation of a lighting strategy and CCTV cameras in car park stairwells.

5.2.2. Entry and exit points

Entry and exit points are a key consideration for CPTED assessments because of the interface they provide with the surrounding area. Entry and exit points are considered a priority area for the proposal as BOCSAR data indicates that the site is in a hotspot for 'break and enter non-dwelling'. This crime type is also considered a priority area due to the high security nature of the proposed use.

Assessment of proposed development

The BBDCP 2013 contains specific objectives and controls relating to CPTED principles for entry and exit points, as outline in **Appendix C** of this report. The proposal incorporates CPTED principles, as summarised below.

- During business hours the sliding gates along King Street will remain open for vehicles and pedestrians. Boom gates will be located inside the gate providing access control for vehicles entering the car parking areas. Afterhours access control is proposed for the sliding vehicle gates and pedestrian gate entering, however unrestricted access for pedestrians exiting the site.
- The entry and exit points for the flight training facility, during business hours, will have unrestricted sliding gates for pedestrians to access the ground floor lobby. After hours the sliding gates will have access control.
- The flight training centre entry and exit point is located in close proximity to the on-campus Qantas bus stops to enable direct access to and from the building.
- A dedicated pedestrian path from King Street, along the eastern boundary of the site, is provided to the main entry and exit point to the flight training centre.
- Provision of perimeter fencing and boom gates on both access roads to control entry and exit to the site.

Recommendations

- Provision of signage at key entry and exit points to delineate public and private space.

- Provision of CCTV cameras at key exit and entry points and within the car park to deter criminal activity and assist in ongoing management of the site.

5.2.3. External layout

External layouts can resolve safety conflicts and improve activation of the urban environment. External layout is considered a priority area as the highest crime type in Mascot is 'malicious damage to property'.

Assessment of proposed development

The BBDCP 2013 contains specific objectives and controls relating to CPTED principles for external layout, as outline in **Appendix C** of this report.

The proposal incorporates CPTED principles, as summarised below.

- Bollards are proposed to provide perimeter security while allowing controlled vehicle access to the flight training centre as required.
- Internal dedicated bus stops and drop-off zones are proposed at the northern extent of the site to avoid conflicts with other vehicles and pedestrians.
- Dedicated cycle and walking paths are provided to enable safer pedestrian and cycle movements throughout the site. Pathways are direct with barriers in the form of both landscaping and fencing.
- The boundary fencing proposed will be a steel slatted fence of 2.4m height. While the DCP stipulates a control of 1.2m for front boundary fences and 50% transparency, the proposed fence is considered appropriate for the context of the site, being located at the end of a cul-de-sac street. The fence along the front boundary is predominately steel slats which enables visibility. Areas of solid fencing proposed are only adjacent the sliding gates at the front boundary and therefore it is not expected that visibility will be compromised.

Recommendations

- Implement anti-graffiti materials on facades of the flight training centre and car park to minimise opportunities for vandalism.
- Bus stops should be well-lit and include awnings to protect users from weather conditions.
- Preparation of a lighting strategy to provide safe pedestrian and cyclist movements before or after operating hours. All lighting must comply with relevant Australian Standards.
- Pedestrian and cycling paths should be an adequate width and comply with relevant Australian Standards.

5.2.4. Maintenance and management

Developments that are well managed and maintained are less likely to attract criminal activity through establishing a sense of ownership and pride for those who live and work close by. This crime type is considered a priority area as BOCSAR data indicates that the highest crime type in Mascot is 'malicious damage to property' and the site is located in a hotspot for this crime type.

Assessment of proposed development

The BBDCP 2013 contains specific objectives and controls relating to CPTED principles for landscaping, lighting and management as outlined in **Appendix C** of this report. The proposal incorporates CPTED principles, as summarised below.

- Incorporation of new and improved perimeter landscaping along King Street and side and rear boundaries which will define pathways and provide a sense of ownership of the space.
- The King Street frontage is the only interface with the public domain and landscaped planting has been incorporated along the fence line in the form of small trees with clear trunks and lower level planting. This will maintain passive surveillance and clear sightlines along King Street.
- The flight training centre entry forecourt is a key area for landscaped treatments. A staff breakout area will be located within the forecourt and include fixed benches and a shade structure supported off the security fence and the potential for additional moveable furniture.

Recommendations

- Preparation of a plan of management to manage landscaping maintenance, rubbish and graffiti removal, and lighting maintenance.
- Consideration of monitoring of the site by security patrol or an intercom system to provide a response in case of security issues, particularly outside of core business hours.
- Provision of CCTV cameras at key exit and entry points and within the car park to deter criminal activity and assist in ongoing management of the site.
- The Construction Management Plan (CMP) should include measures to manage pedestrian, cyclist and vehicle movements during construction.

6. CONCLUSION

Urbis has undertaken a CPTED assessment for the proposal against the four CPTED principles and has identified potential risk areas and recommendations to help reduce against crime and anti-social behaviour.

The assessment has found that the design incorporates CPTED principles including improved surveillance and activation of the site, landscaping, access control and dedicated pedestrian and cycle paths. The implementation of lighting, signage, landscaping maintenance and security management procedures will further enable the proposal to adequately incorporate CPTED principles. The recommendations made in this report are considered appropriate to minimise crime related risks to the construction and future occupation of the proposal on site.

Overall, the proposal is considered to improve the current site conditions and will help provide good opportunities for street activation, improved access and safety controls and an improved urban environment.

DISCLAIMER

This report is dated 12 April 2019 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd's (**Urbis**) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of Qantas Airways Limited (**Instructing Party**) for the purpose of CPTED Report (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

In preparing this report, Urbis may rely on or refer to documents in a language other than English, which Urbis may arrange to be translated. Urbis is not responsible for the accuracy or completeness of such translations and disclaims any liability for any statement or opinion made in this report being inaccurate or incomplete arising from such translations.

Whilst Urbis has made all reasonable inquiries it believes necessary in preparing this report, it is not responsible for determining the completeness or accuracy of information provided to it. Urbis (including its officers and personnel) is not liable for any errors or omissions, including in information provided by the Instructing Party or another person or upon which Urbis relies, provided that such errors or omissions are not made by Urbis recklessly or in bad faith.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

APPENDIX A DEMOGRAPHIC PROFILE

Demographic table – 2016 ABS Census data

Data item	Mascot	Botany Bay LGA	Greater Sydney (GCCSA)
Population	14,772	46,654	4,823,991
Median age	32	35	36
Average people per household	2.7	2.7	2.8
Age distribution (%)			
Aged 0-4	5.9	6.2%	6.4%
Aged 5-9	4.1	5.7%	6.4%
Aged 10-14	3.3	5.0%	5.8%
Aged 15-19	5.7	5.7%	6.0%
Aged 20-24	10.5	8.1%	7.1%
Aged 25-29	14.8	9.4%	7.9%
Aged 30-34	12.8	9.3%	8.1%
Aged 35-39	9.2	8.0%	7.4%
Aged 40-44	6.6	7.3%	7.1%
Aged 45-49	5.3	6.5%	6.7%
Aged 50-54	5.0	6.0%	6.3%
Aged 55-59	4.5	5.1%	5.8%
Aged 60-64	3.7	4.4%	5.0%
Aged 65-69	2.6	3.8%	4.4%
Aged 70-74	2.0	3.2%	3.3%
Aged 75-79	1.8	2.6%	2.4%
Aged 80-84	1.3	1.8%	1.8%
Aged 85+	0.9	1.6%	2.0%
Country of birth and Indigenous identification (%)			
Australia	41.3%	48.6%	57.1%
China	10.6%	5.8%	4.7%
Indonesia	6.6%	3.9%	0.6%

Data item	Mascot	Botany Bay LGA	Greater Sydney (GCCSA)
Philippines	2.7%	2.3%	1.5%
Aboriginal or Torres Strait Islander	1.2%	1.7	1.5%
Language spoken at home (%)			
English only	42.9%	49.2%	58.4%
Mandarin	10.7%	5.8%	4.7%
Indonesian	6.7%	4.2%	0.6%
Cantonese	3.9%	2.8%	2.9%
Family composition (%)			
Couple family without children	42.7%	33.6%	33.4%
Couple family with children	41.6%	47.6%	49.5%
One parent family	12.4%	16.0%	15.2%
Other family	3.3%	2.9%	1.8%
Household composition (%)			
Family households	68.4%	69.9%	73.6%
Lone person households	20.2%	23.0%	21.6%
Group households	11.6%	7.1%	4.7%
Dwelling structure (%)			
Separate house	31.9%	33.4%	56.9%
Semi-detached	6.4%	13.2%	14.0%
Flat or apartment	60.7%	52.2%	28.1%
Other dwelling	0.3%	0.7%	0.6%
Tenure (%)			
Owned outright	21.1%	24.2%	29.1%
Owned with mortgage	28.4%	28.5%	33.2%
Rented	47.5%	43.6%	34.1%

Data item	Mascot	Botany Bay LGA	Greater Sydney (GCCSA)
Other tenure type	0.4%	0.6%	0.9%
Occupation (%)			
Professionals	25.6%	22.4%	26.3%
Technicians and Trades Workers	11.4%	12.2%	11.7%
Clerical and Administrative Workers	14.8%	15.3%	14.6%
Managers	14.0%	12.8%	13.7%
Sales Workers	9.1%	9.7%	9.0%
Labourers	8.1%	8.5%	7.5%
Community and Personal Service Workers	10.5%	10.8%	9.6%
Machinery Operators and Drivers	4.9%	6.4%	5.6%
Income (\$)			
Median personal weekly income	\$806	\$720	\$719
Median family weekly income	\$2,103	\$1,921	\$1,988
Median household weekly income	\$1,955	\$1,626	\$1,750
Unemployed	5.2%	5.6%	6.0%
Level of highest educational attainment (%)			
Year 9 or below	5.5%	7.3%	7.1%
Year 10	6.3%	8.3%	9.4%
Year 11	2.1%	2.7%	3.1%
Year 12	21.0%	19.8%	17.3%
Certificate level I-IV	10.1%	11.6%	12.2%
Advanced Diploma and Diploma level	9.0%	9.1%	9.3%

Data item	Mascot	Botany Bay LGA	Greater Sydney (GCCSA)
Bachelor Degree level and above	33.7%	27.0%	28.3%
Motor vehicles (%)			
None	15.8%	15.3%	11.1%
1 motor vehicle	46.7%	42.6%	37.1%
2 motor vehicle	27.2%	28.6%	32.8%
3 or more vehicles	7.3%	9.6%	15.7%

Socio Economic Indexes for Areas (SEIFA)

The Socio-Economic Indexes for Areas (SEIFA) has been developed by the Australian Bureau of Statistics (ABS) to provide an overview of social and economic wellbeing and welfare of communities across a range of spatial scales. Four indices have been developed:

- Index of Relative Socio-Economic Disadvantage: focuses primarily on disadvantage, and is derived from Census variables like low income, low educational attainment, unemployment, and dwellings without motor vehicles.
- Index of Relative Socio-Economic Advantage and Disadvantage: is a continuum of advantage (high values) to disadvantage (low values), and is derived from Census variables related to both advantage and disadvantage.
- Index of Economic Resources: focuses on financial aspects of advantage and disadvantage, using Census variables relating to residents' incomes, housing expenditure and assets.
- Index of Education and Occupation: includes census variables relating to the educational attainment, employment and vocational skills.

Scores: A lower score indicates that an area is relatively disadvantaged compared to an area with a higher score. The area with the lowest score is given a decile of 1, the area with the second lowest score is given a decile of 2 and so on, up to the area with the highest score is given the highest decile.

Table 1 – SEIFA Index, 2016

	Advantage and Disadvantage	
	Score	Decile
Botany Bay LGA	1028	9
Mascot	1073	9

Population projections for Botany Bay LGA.

Botany Bay LGA	Year						
	2016	2021	2026	2031	2036	% of 2036 population	% change 2016 - 2036
Aged 0 to 4	3,300	4,150	4,750	4,650	4,550	6.3%	2.6%
Aged 5 to 9	2,950	3,650	4,050	4,450	4,400	6.1%	3.0%
Aged 10 to 14	2,550	3,200	3,600	3,900	4,250	5.8%	3.5%
Aged 15 to 19	2,450	3,000	3,400	3,750	4,000	5.5%	3.2%
Aged 20 to 24	3,150	3,550	3,700	3,950	4,300	5.9%	2.4%
Aged 25 to 29	3,950	4,650	4,400	4,400	4,650	6.4%	1.4%
Aged 30 to 34	4,450	5,400	5,200	4,900	4,950	6.8%	1.0%
Aged 35 to 39	4,050	5,550	5,700	5,400	5,250	7.2%	2.5%
Aged 40 to 44	3,700	4,650	5,550	5,600	5,350	7.4%	3.4%
Aged 45 to 49	3,250	3,950	4,550	5,300	5,350	7.4%	4.3%
Aged 50 to 54	2,850	3,400	3,900	4,350	5,050	6.9%	4.5%
Aged 55 to 59	2,500	2,950	3,350	3,750	4,150	5.7%	3.4%
Aged 60 to 64	2,350	2,650	3,000	3,300	3,700	5.1%	2.8%
Aged 65 to 69	2,000	2,400	2,650	2,950	3,250	4.5%	2.6%
Aged 70 to 74	1,750	2,050	2,350	2,600	2,900	4.0%	2.4%
Aged 75 to 79	1,350	1,700	1,950	2,250	2,500	3.4%	2.4%
Aged 80 to 84	950	1,200	1,500	1,700	2,000	2.8%	2.2%
Aged 85 +	950	1,200	1,450	1,800	2,200	3.0%	2.6%
Total persons	48,450	59,300	65,000	68,950	72,700	-	50.1%
Change	-	10,850	5,700	3,950	3,750	-	-
Growth rate (%)	-	4.1%	1.8%	1.2%	1.1%	-	-

Source: 2016 ABS Census data, Department of Planning and Environment

APPENDIX B CRIME PROFILE

Table 2 – Crime rates per 100,000 people (October 2016 to September 2018)

Crime type	Mascot	Bayside LGA	NSW
Assault – domestic violence related	273.6	333.0	367.2
Assault – non-domestic violence related	407.2	274.7	415.0
Break and enter – dwelling	171.8	208.6	361.3
Break and enter – non-dwelling	120.9	64.3	139.0
Liquor offences	25.5	24.9	141.4
Malicious damage to property	750.8	599.2	794.8
Motor vehicle theft	273.6	138.3	172.0
Steal from dwelling	216.3	191.7	259.3
Steal from motor vehicle	515.4	345.7	504.9
Steal from persons	292.7	63.1	60.1
Steal from retail store	229.1	220.8	314.8

Source: BOCSAR

The following table contains the two-year crime trends for Bayside LGA and NSW. BOCSAR does not calculate crime trends at a suburb level.

Table 3 – Two-year crime trends (October 2016, September 2018)

Crime type	Bayside LGA	NSW
Assault – domestic violence related	Stable	Stable
Assault – non-domestic violence related	Stable	Stable
Break and enter – dwelling	Stable	-2.9%
Break and enter – non-dwelling	Stable	-4.1%
Liquor offences	Stable	Stable
Malicious damage to property	Stable	-3.6%
Motor vehicle theft	Stable	-3.2%
Steal from dwelling	-10.8%	-3.5%
Steal from motor vehicle	Stable	-2.8%

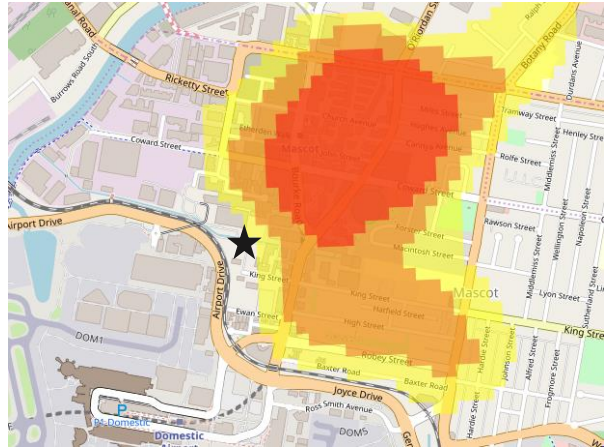
Crime type	Bayside LGA	NSW
Steal from persons	Stable	-8.4%
Steal from retail store	Stable	Stable

BOCSAR publishes 'hotspot' maps to illustrate areas of high crime density relative to crime concentrations across NSW. The maps overleaf show that there are hot spots for a range of crimes in the vicinity of the subject site, including incidents of domestic assault, theft (break & enter dwelling and break & enter non-dwelling, motor vehicle theft, steal from motor vehicle and malicious damage to property.

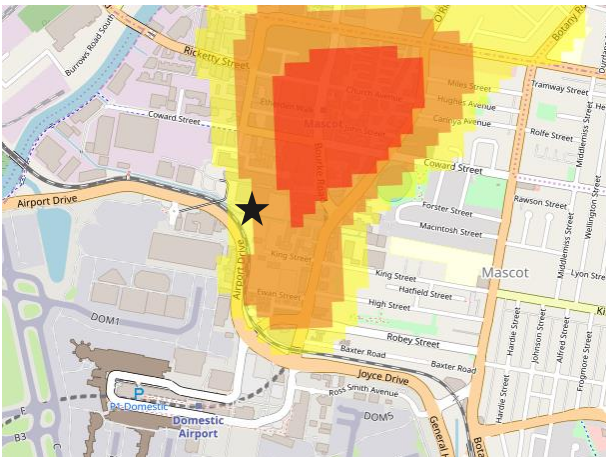
Figure 5 – Crime hotspots, October 2017 – September 2018. Site indicated by star. Source: BOCSAR



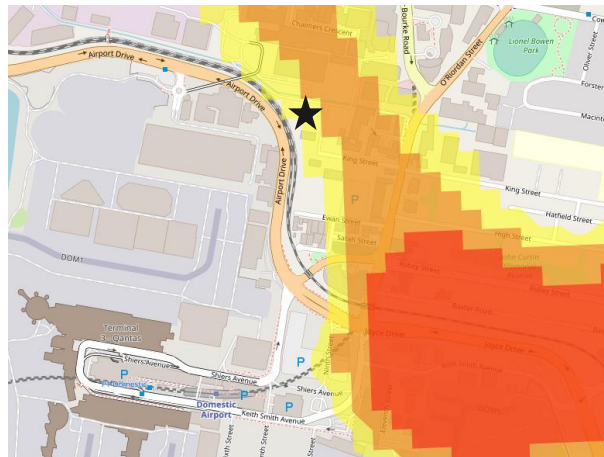
Picture 7 – Incidents of domestic assault



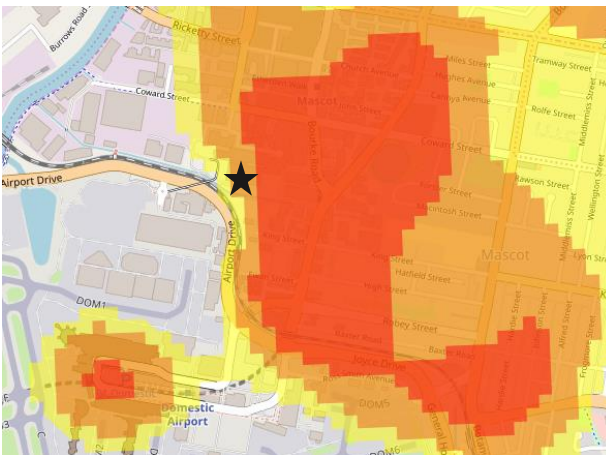
Picture 8 – Incidents of theft (break & enter dwelling)



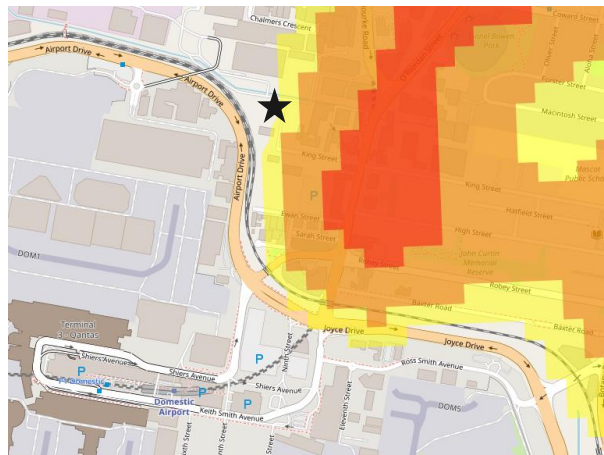
Picture 9 – Incidents of theft (break & enter non-dwelling)



Picture 10 – Incidents of motor vehicle theft



Picture 11 – Incidents of steal from motor vehicle



Picture 12 – Incidents of malicious damage to property

APPENDIX C PART 3I OF BOTANY BAY DCP2013

BBDP 2013 Section	Controls
Site layout, design and uses	<ul style="list-style-type: none"> • C6: Pathways shall be direct with all barriers along pathways being permeable including landscaping and fencing. • C7: Provide pedestrians and cyclists with a choice of formal pathways and routes. • C8: No entrapment spots should be included in any path. • C9: All paths shall be well lit. • C10: Large and unsupervised at-grade car parking areas shall be avoided.
Building design	<ul style="list-style-type: none"> • C3: Buildings and open space areas will be designed to: <ul style="list-style-type: none"> ◦ Enable casual surveillance of streets, open space and entrances to buildings; ◦ Minimise access between roofs, balconies and windows of adjoining developments; and ◦ Ensure adequate lighting to access routes, car park areas and open space. • C4: Long blank walls, car park entrance and exit and service areas along the street frontages shall be avoided. Where it is unavoidable, planting for screening purposes or anti-graffiti paint should be used. • C5: Established setback patterns of the street are to be maintained. • C6: Awning and weather protection shall be provided along pedestrian paths to accommodate usage of all weather conditions. • C9: Provide clear signage and identification of buildings. • C11: Entrances and exits of building shall be well lit, secure and highly visible to and from public spaces, streets and adjoining buildings. • C12: Boundary fences shall not provide opportunities for seclusion and should be of a height that does not prevent the surveillance of streets. • C13: Fences located within the front setback shall not be more than 1.2 metres in height and are not to be less than 50% transparent. • C15: An audio or video intercom system is to be provided at the entry or in the lobby for the visitor to communicate with residents within the new developments.
Landscaping and lighting	<ul style="list-style-type: none"> • C1: Landscape planting and vegetation shall not impede the views to the communal areas or public streets and spaces. • C2: All areas to be used at night shall be well lit (including pathways). • C3: Access and egress routes and dark or sheltered areas will be clearly illuminated. All lighting must comply with relevant Australian Standards. • C4: Pedestrian pathways, laneways, access routes and entrances shall be well lit.

	<ul style="list-style-type: none"> • C5: Vegetation with dense top to bottom foliage to eye level should be avoided where surveillance is required. Plants such as low hedges and shrubs and high or raised canopied trees shall be used for landscaping to provide good natural surveillance. • C6: Landscaping shall not conceal a building entrance. • C7: External lighting must be provided to mixed use developments, commercial developments and industrial areas where pedestrian ways, main building entries, driveways, communal areas and car parks require public access at night or after normal trading hours. • C8: External lighting is to comply with the requirements of Section 9.21: Lighting near Aerodromes, Manual of Standards, Part 139 – Aerodromes Version 1.1, February 2003. All lighting, regardless of location, which may affect the safe operation of aircraft operating at Sydney Airport are required to be compatible with the above requirements.
Public domain, open space and pathways	<ul style="list-style-type: none"> • C5: Landscaping must not obscure the lighting or sightline to the surrounding pedestrian/cycling paths and open space. Landscaping must be provided and designed accordingly. • C6: Walking and cycling paths are to be an adequate width for both pedestrians and cyclists and comply with the following five principles Connection; Convenience; Convivial; Comfortable and Conspicuousness. • C7: Pedestrian and cycling paths must comply with Australian Standard 1428.
Car parking	<ul style="list-style-type: none"> • C1: Large car parking areas are to be located below ground level or under buildings to enable active uses (i.e. retail) and frontages on the street level. At-grade car parking areas are discouraged. • C3: Dense vegetation, solid fences and unnecessary structures along the perimeter of the car parking area is not permitted. • C4: Parking spaces shall be designed to provide effective sightlines from moving cars, and between parked cars to enhance pedestrian safety. • C6: For multi-storey car parking, stairwells are to be open or see through to enable informal surveillance to be provided to and from the public areas. • C7: Pedestrian paths to and from car parking areas are to be well lit, signed, landscaped and clearly marked to clearly define them from the vehicular roads and parking areas. • C8: Car parking pedestrian entry and exit points shall be located on the street level to maximise pedestrian flow and natural surveillance from active uses on the ground floor. • C9: The number of pedestrian entry and exit points for multi-storey car parks are to be minimised. • C10: Parking for people with a disability is to be located in highly visible areas and close to pedestrian entry and exit points of the car park.



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