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**88 Walker Street & 77-81 Berry Street
Crime Prevention Review
Eastmark Holdings Pty Ltd**

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Appendix A

1. Executive Summary

This Crime Prevention through Environmental Design (CPTED) review was conducted as a desktop study to address certain elements of the Director-General's Requirements for the 88 Walker St & 77-81 Berry St project, located in North Sydney central business district.

Overview

CPTED is a concept which seeks to passively prevent crime by utilising the built environment in such a way that it deters and delays crime, while providing an environment which seeks to elicit feelings of safety and security. This is achieved by adhering to several key principles, those being Natural Surveillance, Territoriality, Ownership and Management. Each principle has distinct methods of implementation which guide architecture and design with the aim to make opportunistic crime unfavourable to the would-be criminal. It is not seen as an active crime prevention measure, but rather one which creates a passive environment which is unfavourable to purveyors of opportunistic crime.

Methodology

In the first instance, a review of local crime statistics was conducted and it was found that the most commonly occurring crimes in the North Sydney area were;

- Steal from a motor vehicle,
- Malicious damage to property,
- Fraud,
- Assault – Non-Domestic Violence.

With these crimes in mind, a review of the designs for the project was undertaken to provide advice and comment on possible environmental enhancements which would benefit the creation of a safe and secure complex.

Key Recommendations

A full list of recommendations has been made below in Section 5, however, the following recommendations comprise the major advice for the 88 Walker St and 77-81 Berry St project:

- Lighting design within the complex should provide a bright, inviting atmosphere which does not create harsh shadows or areas of high contrast. The lighting should be bright enough to illuminate all public spaces and especially thoroughfares, so that pedestrians feel safe in travelling through the complex.
- Design of the built environment which promotes natural surveillance and an unimpeded view from all angles. This design consideration should guide choices of material, façade construction, barriers, plants, foliage and similar design elements throughout the complex. Such issues have been addressed in the current design and provide good natural surveillance.
- Territoriality and a delineation of public and private space has been achieved through real and symbolic barriers which aim to promote use of public space while deterring would-be criminals from conducting unfavourable acts in the private space.
- Effective ownership of the space aids in promoting to the public, a well used and maintained facility, which in turn encourages legitimate activity. The enforcement of ownership aims to deter criminals and vandals from opportunistic crime and vandalism when the space is clean, well lit, and filled with people. Ownership also seeks to provide collaborative decision making and shared responsibility for maintenance and cleanliness. The activation of alleyways and streets through the inclusion of shopfronts and outdoor eating areas will serve this purpose well.
- Management of the 88 Walker St and 77-81 Berry St complex is an important element which should, for instance, guide the choice of low maintenance materials, plants and graffiti resistant surfaces.

2. Introduction

This review represents a desktop analysis of architectural and design elements that can improve the perception of safety and security at a proposed high rise development at 88 Walker St and 77-81 Berry St, North Sydney. This review will address Crime Prevention through Environmental Design (CPTED) topics, provide analysis of the current plans, while suggesting recommendations for crime prevention and minimisation.

The current concept for the multi-story development will allow pedestrian access around the perimeter, through the centre of the buildings and vehicle access into the basement and lower ground levels. The development will also encompass a range of cafes, eateries, and similar speciality retail venues located around the building. An outdoor foodcourt terrace will also be a part of the complex.

In order to minimise crime and project the feeling of safety, applicable elements of CPTED will be considered and discussed. Such elements will address passive safety measures which should be employed in publicly accessible locations throughout the development.

2.1 Crime Prevention through Environmental Design

Crime Prevention through Environmental Design (CPTED) is a socio-scientific approach to designing the built environment in such a way that it passively assists crime prevention and public safety, detection of crime, and supports the feeling of safety within a built environment or community. The fundamentals of CPTED are generally practical applications of security theory which are enabled through the intelligent design of architecture and environmental planning.

The most common attributes of CPTED design include:

- Natural Surveillance
- Territoriality
- Ownership
- Management

These crime prevention elements combine with topics like lighting, construction material type, maintenance and barriers to form a complete CPTED review, which will be addressed below. In essence, CPTED seeks to provide a passive psychological deterrent to opportunistic crimes by creating a space in which detection and response to crimes is easier, thereby, allowing the public to feel safer in this environment.

The CPTED elements are discussed in more detail in the following section.

3. CPTED Elements

CPTED elements will be discussed in detail here, with reference to specific application within the 88 Walker St and 77-81 Berry St project.

3.1 Natural Surveillance

The aim of natural surveillance is to provide awareness to the public regarding potential threats and hazards, as well as creating a sense of openness in which members of the public can observe each other from distinct spaces. This also promotes safety, as individuals can see if others are in distress or danger.

The concept of natural surveillance emphasises clear sightlines and open spaces in the built environment. By using transparent materials, such as glass, the public experience an environment in which they can examine and surveil beyond physical walls and barriers. Where applicable, the use of wide-aperture fencing allows the public to see through barriers which might otherwise conceal illegitimate activities.

The current concept drawings of 88 Walker St and 77-81 Berry St show significant amounts of glass façade, which creates open sight lines into and out of the building and surrounds. The overhead bridge link and sculpture stairs maintain good visibility while the building terrace and laneways appear adequately open. It may be noted that appropriate foliage and plant types should be carefully selected to retain the clear sight lines while providing little opportunity for concealment. Visibility is also available from near by buildings, further adding to the natural surveillance of the complex.

As the ground level of the building will encompass cafes and retail outlets, open spaces have been employed to encourage people to interact with one-another. This will be particularly important if 88 Walker St and 77-81 Berry St is surrounded by multi-story office buildings on each side. The use of retail activation on building fronts promotes the use of the space around the complex and promotes safety through additional public thoroughfares in what may otherwise be unpopulated laneways.

The use of lighting is particularly important in highlighting public spaces and providing a sense of space and security to the users of that space. Lighting designers have been asked to take into account the additional laneways and continuous footpaths located around the complex by providing sufficient lighting to ensure the feeling of safety and security is met.

3.2 Territoriality

Territoriality promotes the delineation of public and private space. The use of barriers, whether real or symbolic, is an effective way to achieve this requirement. The 88 Walker St and 77-81 Berry St design have given consideration to bollards or similar vehicle barriers around the vehicle egress routes, in order to restrict the movement of delivery vehicles to the prescribed roadways. Appropriate road markings would also be complimentary to this measure. Planters or similar vehicle barriers should also be present at the road-side façade of the building if vehicular access is available from street level. This may help to deter couriers and tradesmen from parking on public walkways, however, the presence of a steep staircase into the commercial building may be sufficient to meet these needs.

All publicly accessible levels of the development should promote a delineation of public and private space in order to deter loitering and anti-social behaviour. The use of warning signs is another complimentary way to achieve this. Further enforcement of territoriality can be designed through changes of construction material, changes of level, artwork, signage, low walls and seating to define desired movement areas and delineate borders between public and private spaces. By emphasising the delineation of public and private space through the above listed measures, it is reasoned that such measures will psychologically deter criminals from entering places which appear to be public, populated or with restricted access.

3.3 Ownership

Ownership is the concept where the community and users of public space taking symbolic possession of the space to maintain and protect it. Encouraging the use of public space will aim to populate retail and casual dining outlets around the complex, which in turn will promote care, maintenance and ownership of those spaces. The promotion of easy access to public transport, such as bus stops and train stations, in the vicinity of the complex would be beneficial to the facilitation of public movement through the complex. The current design of 88 Walker St and 77-81 Berry St exhibits a good sense of ownership through the activation of retail shopfronts, inclusion of outdoor dining areas and continuous footpaths around the perimeter.

The management of relationships between key stakeholders with responsibilities for the public realm will ensure collaborative input from multiple sources and help build a sense of ownership of the space.

The use of signage throughout the complex will aid in public thoroughfare by posting directions, landmarks, street names and similar information. By providing such way-finding information, pedestrians will be encouraged to use the space surrounding the development, creating a safer environment with more people accessing the complex

3.4 Management

The concept of management extends to the careful selection of the materials used in construction and the prompt maintenance and repair of the space. This aims to deter crime by presenting an environment which is well maintained and in constant use.

Active measures include choosing graffiti resistant materials for the building perimeter, implementing a system of regular and prompt repair and ensuring public spaces are suitable for use by maintaining rubbish removal and cleanliness throughout the space.

The 88 Walker St and 77-81 Berry St development contains a number of public thoroughfares which need to be well maintained and managed in order to provide the appearance of a safe and secure environment. Specific measures to achieve this are listed in the recommendations section.

4. Risks and Threats

While the 88 Walker St and 77-81 Berry St project will reduce and deter crime, it will still act as a thoroughfare through the North Sydney CBD. In order to provide an indication of the anticipated threat sources for the facility, a whole and complete assessment, crime statistics for the North Sydney area have been gathered to determine the most common occurring crimes. Frequency and occurrence hotspots are also detailed below.

According to the NSW Bureau of Crime Statistics and Research, the most commonly occurring crimes relevant to the commercial premises North Sydney CBD (in descending order) are as follows:

- Steal from a motor vehicle,
 - o Highest frequency during weekdays, 6pm-6am
 - o Highest occurrence in North Sydney CBD, Crows Nest
- Malicious damage to property,
 - o Highest frequency during weekdays, 6pm-6am
 - o Highest occurrence in Crows Nest
- Assault – Non-Domestic Violence.
 - o Highest frequency during Thursday-Sunday, 6pm-6am.
 - o Highest occurrence in North Sydney CBD
- Assault – Alcohol Related
 - o Highest frequency during Thursday-Sunday, 6pm-6am.
 - o Highest occurrence in North Sydney CBD
- Break and Enter – Non-Dwelling
 - o Highest frequency during Sunday-Wednesday, 12am-6am.
 - o Highest occurrence in North Sydney CBD

Crime by premises have also been detailed and highlight Break and Enter – Non Dwelling as the highest occurring crimes within 'Office' premises. This crime type is also high within 'Retail' environments. Carparks have the highest occurrence of Theft from a Motor Vehicle.

These statistics are supported by the more recent NSW Bureau of Crime Statistics and Research Lower Northern Sydney Statistical Subdivision which highlights similar levels of crime across the various categories. The last 5 years of recorded statistics indicate a general downward trend across the major offence categories.

Furthermore, other general types of safety and security issues should also be addressed, including:

- Graffiti,
- Skateboarding,
- Loitering,
- Slips, trips and falls,
- Malicious damage,
- Vandalism.
- Public place – damage fountain/wall etc.
- Public place – damage shrine/monument.

The complete summary of recorded crime statistics can be found in Appendix A.

In order to deter and prevent such crimes, a list of crime prevention topics are discussed in Section 5, with reference to each CPTED issue and recommended remedial actions.

5. Recommendations

The following summarises recommendations for specific, applicable crime prevention, listed under the appropriate categories.

Lighting

- Lighting should be bright and uniform and not create areas of high contrast. This is particularly important if Closed Circuit Television systems are to be employed. Lighting designers will be taking this into account, as designs will be to Australian codes and standards.
- Provide adequate lighting for all enclosed spaces, e.g. alcoves and similar places of potential concealment, particularly on car park levels.
- Particular attention should be given to laneways, such as that between Denison and Spring St. Such laneways are associated with criminal activity.
- Taxi ranks on Little Spring St have been identified as other areas which may require special treatment in terms of additional lighting design. Both architects and lighting designers are aware of this and will incorporate designs to suit.
- Project lighting consultants have been approached and have assured lighting designs will comply with Australian lighting codes and standards. This approach will meet guidelines set out in this document and will ensure adequate lighting and surveillance is achieved.

Natural Surveillance

- Transparent materials have been specified where possible. This will aid in natural surveillance, particularly on the overhead bridge link between the proposed hotel and commercial centre.
- Clear sightlines have been established throughout the complex through the limitation of high barriers and non-transparent materials in public spaces. Glass barriers or wide aperture fencing would be suitable to meet these criteria. The outdoor terrace and food court are good examples of natural surveillance architecture.
- Specify narrow or unobtrusive plants which may otherwise limit sightlines or create places for concealment. This consideration has been factored into account when choosing plants for the outdoor terrace, food court and outdoor dining area.
- Maintain open spaces within pedestrian walkways to ensure there are no places for concealment or ambush. Where possible, this includes removing alcoves and situating doors flush with the building façade.
- To the benefit of natural surveillance, direct sightlines have been incorporated into the design. Continuous footpaths encompass each building in the project (other than the hotel), and visibility of the area is available from adjacent buildings and between 88 Walker St and 77-81 Berry St buildings.
- Retail outlets have been positioned on the perimeter of the commercial building between Denison and Little Spring Street, which will aid in the 'activation' of street front, encourage use of the space and enhance natural surveillance.
- Lifts into the commercial building should have adequate visibility into and out of the lift lobby.
- The sculpture staircase the hotel building (88 Walker St) and the commercial building (77-81 Berry St) has been designed with natural surveillance in mind, and adequately serves the purpose of crime prevention design principles.

Territoriality

- Develop efficient mechanisms for reporting and rectifying maintenance, cleanliness and property damage issues.
- Ensure prompt removal of graffiti and similar vandalism.

- Effectively enhance security and territoriality with low level barriers, bollards, planters and similar physical structures. This has been considered by the architects and implemented in current designs.
- Bollards have been designed into building security considerations at suitable location to delineate pedestrian and vehicular traffic. Such hardware is suitable at ground level at roadsides and along vehicle routes around the project buildings.
- Road marking has also been considered as a suitable measure for enforcing territoriality, and should be used around vehicle or pedestrian routes.
- Where suitable, design unobtrusive barriers to prevent skateboard grinding on low level edges. This may be useful for the Denison Street outdoor dining areas, where pedestrian seating may be used for skateboarding after hours.
- The designs have been created so that the private spaces appear significantly different from public spaces. This includes the use of different textures and materials to designate public or private space. Such consideration has been taken into account in preliminary designs.

Ownership

- Maintain effective communication between owners, stakeholders and lease holders to ensure a collaborative effort in managing property maintenance, cleanliness, security and safety.
- Public utilities, such as bus stops have been located near public walkways to ensure constant public use and thoroughfare through the complex. The constant pedestrian traffic will aid in surveillance and detection of safety or security problems, as well as creating the sense of a well used and welcoming environment. This has been taken into account throughout the complex, with public thoroughfare and taxi ranks located in and around Denison, Little Spring and Walker Streets.
- The current designs have little unusable spaces which may encourage loitering or vandalism. This promotes passive safety and discourages loitering.

Management

- Low maintenance plants and shrubs have been specified where possible.
- Specify graffiti resistant materials where possible.
- Specify vandal resistant fittings and toughened materials which may limit damage of vandalism.

Signage

- Signage has been specified for direction and way finding, including street names, directions of alley ways and routes.
- Provide lit displays for shops and speciality stores to encourage people to visit the space, which may not be fully visible from the street front. Retail activation of building fronts has been designed into the complex, and should prove to be a useful way of encouraging use of the space.
- Clearly label public and private areas with correct signage to prevent loitering and canvassing.
- Provide security signage which should warn off potential offenders. Appropriate signage should address a guarding response, prosecution of offenders, and CCTV in use (if applicable).

Appendix A

NSW Recorded Crime Statistics

2003 - 2007

Recorded Criminal Incidents

North Sydney Local Government Area

Type of offence	2003		2004		2005		2006		2007	
	Total	Rate per 100,000 population	Total	Rate per 100,000 population	Total	Rate per 100,000 population	Total	Rate per 100,000 population	Total	Rate per 100,000 population
Homicide	1	1.7	0	0.0	0	0.0	0	0.0	0	0.0
	0	0.0	0	0.0	2	3.3	0	0.0	0	0.0
	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	0	0.0	2	3.3	0	0.0	0	0.0	0	0.0
Assault	86	143.3	102	168.1	93	151.9	91	147.2	94	152.1
	284	473.3	265	436.6	274	447.6	240	388.3	270	436.9
Sexual offences	14	23.3	14	23.1	17	27.8	11	17.8	10	16.2
	19	31.7	17	28.0	15	24.5	9	14.6	14	22.7
	16	26.7	9	14.8	7	11.4	13	21.0	13	21.0
Abduction and kidnapping	1	1.7	0	0.0	1	1.6	1	1.6	1	1.6
Robbery	37	61.7	34	56.0	22	35.9	22	35.6	26	42.1
	8	13.3	8	13.2	3	4.9	3	4.9	4	6.5
	22	36.7	20	33.0	31	50.6	15	24.3	10	16.2
Blackmail and extortion	2	3.3	0	0.0	0	0.0	1	1.6	0	0.0
Harassment, threatening behaviour and private nuisance	114	190.0	99	163.1	106	173.2	96	155.3	141	228.1
Other offences against the person	3	5.0	11	18.1	13	21.2	11	17.8	8	12.9
Theft	689	1148.4	671	1105.5	413	674.7	542	877.0	510	825.2
	430	716.7	236	388.8	347	566.9	321	519.4	256	414.2
	61	101.7	52	85.7	30	49.0	24	38.8	24	38.8
	215	358.3	203	334.5	153	250.0	140	226.5	183	296.1
	760	1266.7	764	1258.8	440	718.8	491	794.5	730	1181.2
	94	156.7	96	158.2	94	153.6	82	132.7	72	116.5
	190	316.7	167	275.2	154	251.6	156	252.4	160	258.9
	259	431.7	214	352.6	166	271.2	119	192.6	119	192.6
	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	372	620.0	420	692.0	488	797.2	386	624.6	292	472.5
Arson	647	1078.4	624	1028.1	575	939.4	481	778.3	450	728.1
	14	23.3	14	23.1	18	29.4	11	17.8	6	9.7
Malicious damage to property	521	868.3	645	1062.7	682	1114.2	606	980.6	639	1033.9

NSW Recorded Crime Statistics

2003 - 2007

Recorded Criminal Incidents

North Sydney Local Government Area

Type of offence	2003		2004		2005		2006		2007	
	Total	Rate per 100,000 population	Total	Rate per 100,000 population	Total	Rate per 100,000 population	Total	Rate per 100,000 population	Total	Rate per 100,000 population
Drug offences	3	5.0	2	3.3	6	9.8	4	6.5	1	1.6
	Possession and/or use of cocaine									
	3	5.0	3	4.9	2	3.3	1	1.6	4	6.5
	Possession and/or use of narcotics									
	35	58.3	72	118.6	27	44.1	65	105.2	66	106.8
	Possession and/or use of cannabis									
	12	20.0	9	14.8	10	16.3	9	14.6	20	32.4
	Possession and/or use of amphetamines									
	5	8.3	11	18.1	27	44.1	22	35.6	58	93.8
	Possession and/or use of ecstasy									
	5	8.3	7	11.5	10	16.3	4	6.5	10	16.2
	Possession and/or use of other drugs									
	3	5.0	0	0.0	0	0.0	0	0.0	0	0.0
Prohibited and regulated weapons offences	Dealing, trafficking in cocaine									
	0	0.0	1	1.6	0	0.0	0	0.0	1	1.6
	Dealing, trafficking in narcotics									
	1	1.7	2	3.3	2	3.3	2	3.2	1	1.6
	Dealing, trafficking in cannabis									
	2	3.3	0	0.0	4	6.5	2	3.2	0	0.0
	Dealing, trafficking in amphetamines									
	1	1.7	1	1.6	18	29.4	3	4.9	15	24.3
	Dealing, trafficking in ecstasy									
	0	0.0	0	0.0	0	0.0	1	1.6	0	0.0
	Dealing, trafficking in other drugs									
	2	3.3	2	3.3	1	1.6	0	0.0	4	6.5
	Cultivating cannabis									
Disorderly conduct	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Cultivating cannabis									
	2	3.3	2	3.3	1	1.6	0	0.0	4	6.5
	Manufacture drug									
	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
	Importing drugs									
	4	6.7	0	0.0	1	1.6	0	0.0	1	1.6
	Other drug offences									
	14	23.3	24	39.5	38	62.1	23	37.2	15	24.3
	Prohibited and regulated weapons offences									
	39	65.0	25	41.2	52	85.0	49	79.3	41	66.3
	Trespass									
	34	56.7	43	70.8	36	58.8	16	25.9	56	90.6
Betting and gaming offences	Offensive conduct									
	26	43.3	27	44.5	18	29.4	30	48.5	37	59.9
	Offensive language									
	16	26.7	19	31.3	22	35.9	16	25.9	17	27.5
	Criminal intent									
	23	38.3	21	34.6	12	19.6	11	17.8	10	16.2
	Betting and gaming offences									
	0	0.0	0	0.0	1	1.6	3	4.9	6	9.7
	Liquor offences									
	173	288.3	108	177.9	230	375.7	672	1087.3	924	1495.1
	Pornography offences									
	3	5.0	3	4.9	1	1.6	1	1.6	0	0.0
	Prostitution offences									
	7	11.7	2	3.3	0	0.0	2	3.2	1	1.6
Against justice procedures	Escape custody									
	2	3.3	0	0.0	1	1.6	0	0.0	2	3.2
	Breach Apprehended Violence Order									
	28	46.7	60	98.9	31	50.6	54	87.4	32	51.8
	Breach bail conditions									
	18	30.0	29	47.8	23	37.6	27	43.7	34	55.0
	Fail to appear									
	3	5.0	3	4.9	1	1.6	4	6.5	0	0.0
	Resist or hinder officer									
	30	50.0	38	62.6	34	55.5	34	55.0	26	42.1
	Other offences against justice procedures									
	2	3.3	5	8.2	2	3.3	6	9.7	1	1.6

NSW Recorded Crime Statistics

2003 - 2007

Recorded Criminal Incidents

North Sydney Local Government Area

Type of offence	2003		2004		2005		2006		2007	
	Total	Rate per 100,000 population	Total	Rate per 100,000 population	Total	Rate per 100,000 population	Total	Rate per 100,000 population	Total	Rate per 100,000 population
Driving offences^	4	6.7	12	19.8	9	14.7	7	11.3	6	9.7
	243	405.0	224	369.1	260	424.8	221	357.6	237	383.5
	61	101.7	73	120.3	61	99.7	52	84.1	72	116.5
	110	183.3	165	271.9	159	259.8	158	255.7	168	271.8
	309	515.0	326	537.1	307	501.5	190	307.4	298	482.2
	566	943.3	641	1056.1	504	823.4	576	932.0	980	1585.7
	5	8.3	5	8.2	3	4.9	3	4.9	12	19.4
	215	358.3	269	443.2	310	506.4	226	365.7	262	423.9
	1786	2976.7	1667	2746.6	1402	2290.4	1554	2514.5	780	1262.1
	5	8.3	11	18.1	14	22.9	13	21.0	10	16.2
Other regulatory driving offences^	1970	3283.4	1914	3153.5	1917	3131.7	1973	3192.5	2088	3378.5
Transport regulatory offences	298	496.7	261	430.0	207	338.2	490	792.9	350	566.3
Other offences	128	213.3	103	169.7	123	200.9	134	216.8	161	260.5

* Number of recorded victims.

^ Number of legal actions commenced by the NSW Police Force, rather than the number of incidents recorded.

Legal actions include infringement notices, court referrals, formal cautions under the Young Offenders Act and Youth Conference referrals.

The driving offences reported will accord with those in the Australian Standard Offence Classification (ASOC).