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22 June 2009

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Dear Greg,

We have pleasure in submitting this Final Report for the Redfern RSL Mixed Use Development.

We would like to express our gratitude to yourself and the other members of the project team for the time and valuable input provided to the consultants.

Thank you for engaging Harris Crime Prevention Services.

Yours sincerely,

Leon L Harris Dip.Sec.Studs.,CPP
Principal Consultant



Security Review Report For Development Application

Redfern RSL Mixed Use Development

on behalf of

DeiCorp Pty Ltd



June, 2009

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1. BACKGROUND TO THE PROPOSED DEVELOPMENT

The proposed Redfern RSL mixed use development (the development) is bounded by Redfern, Gibbons, Regent Streets and a public access laneway. The development incorporates residential, retail, commercial and RSL Club (recreational) use.

The internal design/layout of the RSL Club development is outside the scope of this report.

The development is close to Redfern Railway Station and forms part of the Redfern central business district. Redfern is known for its residential, commercial and cultural diversity but also unfortunately in the past for social tensions.

Crime issues likely to impact on the development cover the gamut of offences arising in most urban settings. These typically include car theft, stealing from vehicles, property damage (graffiti), unauthorised entry into premises, burglary and assaults. These offences are often preceded by anti-social or nuisance behaviour which, if unchecked, become the catalysts for crime.

Regrettably, the reputation (desirability and marketability) of Sydney's suburbs is often defined in terms of perceived or real crime. Our reports continually emphasise that issues of anti-social behaviour, crime and crime risk management in dense urban environments are far from academic in today's security conscious world.

This is particularly the case in relation to public space and recreational or retail outlets. In this case the space leading to, and defining, Redfern's town centre is important. Its reputation as welcoming and inviting space will probably define the positive or negative reputation of the hub's 'spokes'; that is, its surrounding residential neighbourhoods, especially the re-development of Eveleigh Street including "the Block".

Redfern is a hub of commercial, residential and retail activity, at least by day. Its reputation as 'safe space' will impact upon the development's reputation.

From a security perspective, the development's reputation must be as a 'welcoming and safe (crime free) environment (space)'. This means that the development's design outcomes should not risk that reputation. Nor should any existing anti-social or criminal activity in adjoining or surrounding precincts be ignored by authorities or the community. Otherwise that behaviour is likely to 'spread' to the (new) development.

Discussions with local Police indicated that, with exception of alcohol related crime, there are no significantly high crime issues in the immediate area and, as the current RSL development is in such close proximity to the Police Station, police call-outs are generally alcohol related.

A welcoming and safe environment may be defined as:

"an environment where security has been considered as part of the master-planning, design and construction processes and where the security outcome enhances the development's overall reputation."

Each of the precincts - residential, commercial, retail and recreational - should reflect seamless security as part of the aesthetics. To this end, the architecture becomes foundational to the security platform.



In addressing the three-fold scope, the report considers security design (crime prevention) issues likely to positively or negatively influence the development's reputation as a desirable destination. This desirability extends to Redfern's broader urban footprint.

2. SCOPE OF THE REVIEW

The scope required the consultants to review available drawings to be submitted to meet the Department of Planning's requirements.

There are three key security objectives relevant to this review:

Objective 1: ensuring compliance with the security requirements of Council and/or other planning instruments, including the requirements of Section 79C of the Environmental Planning and Assessment Act (**EPA Act**);

Objective 2: assessing the local and neighbouring environments in terms of anti-social behaviour, criminal activity or potential crime risks and their likely impact on the commercial goals of the developer and associated stakeholders;

Objective 3: affirming appropriate security design strategies for the development, and/or recommending possible changes to aspects of the development's architecture and/or engineering, likely to enhance overall security objectives.

In meeting the three objectives, it is our opinion that the development's security integrity (reputation) begins with good security design (*Appendix 2*).

Security' is a critical component of the development. The Report's review acknowledges the implicit or explicit security brief of the stakeholders. Our analyses, commentary, conclusions and recommendations are presented to reflect that brief.

In the context of this review, we define 'security design' as '*an environmental crime prevention strategy; applying aspects of architecture, engineering and technology to all urban development proposals.*'

The principles of security design are underpinned by Crime Prevention Through Environmental Design (**CPTED**); a mainstream crime prevention strategy applied to medium and large scale urban development projects (*Appendix 2*).

Local and State authorities throughout Australia have adopted CPTED (or similar) principles as part of planning instruments relating to the security of built environment DAs.

3. THE STAKEHOLDERS

The stakeholder client base comprises:

- the developers and design development team,
- approving State and Local government departments,



- retail shoppers from the local and neighbouring communities,
- owner/occupiers of the commercial, retail and residential precincts,
- members of, and visitors to, the RSL Club,
- staff and contractors servicing the development.

Each of the (non-government) client sub-groups have different security expectations, pertinent to their specific, working, visiting or living environments within the development. However, their broad expectations are similar in that personal and property safety are a stakeholder 'given'. This then becomes the project's inclusive security goal.

4. THE PROPOSED DEVELOPMENT: Security Issues

The following aspects of the development relate to security (crime prevention or community safety) issues.

- The mixed use application could increase security risks in that there is a range of client use and occupancy objectives necessitating different forms of inter and intra building or spatial access. The security design features should take account of those differences.
- With exception of the vehicular entry off the site is exposed on two boundaries to vehicular and pedestrian traffic, perimeter security is a central issue. Sound perimeter security indicates to passing 'traffic' equally high levels of internal security. This presents a picture of overall (total site) security integrity, whereby users of the different spatial 'zones' or precincts can move to and from each, confident of integrated and effective protection.
- 'Security integrity' positions the development to enjoy a positive security reputation beyond its boundaries to hopefully influence the adjacent town hub, railway station, connecting streets and the broader Redfern community.

To minimise security risks, the development's design should encourage a sense of overall safety for owners, lessees, visitors, members (club) and contractors accessing the site and associated (surrounding) public, commercial or private space. The specifics relate to:

- defining the perimeter;
- clear direction or way-finding, with regard to building and spatial location;
- passive surveillance by residents, retail operators, members (club) and other legitimate precinct occupants;
- technical surveillance and monitoring;
- pedestrian movement corridors;
- vehicle access and parking that safely interfaces with pedestrian movement;
- lighting design that reflects safe night time interconnectivity;
- the protection of communications and utilities infrastructure.

By strategically implementing these design solutions, positive security outcomes are more likely. Each is specifically addressed under Security Objective 3.



High 'levels of comfort' should therefore be expected in relation to all forms of security. Owner-occupier stakeholders seek an environment where security unobtrusively embraces the entire site, without any sense of intrusion on overall design aesthetics and operational objectives. The security design must therefore integrate with other design imperatives.

Hopefully, the development's security design strategy will:

- (a) set new (security) standards for similar developments,
- (b) set a new standard for the remainder of Redfern's redeveloping footprint, and/or
- (c) reflect the existing satisfactory standard of that footprint.

In summary, the development's desired security (safety) outcomes are best realised by incorporating security solution options into the master-planning and detailed design stages.

Meetings with the developers identified they are aware of their security/safety obligations for the project and have agreed to undertake a number of proactive strategies. It is also anticipated that the design development stages will incorporate options highlighted within Security Objective 3.

In meeting all three security objectives, the security design solutions should be based on parameters that:

- meet State and local government crime prevention regulations and/or guidelines.
- are incorporated into relevant aspects of the architecture and engineering briefs;
- do not detract from the development's creative form and function goals;
- are unobtrusive and minimalist in overall impact;
- consider the specific (security) needs of all user and owner clients;
- are cost-effective;
- meet the flexible requirements of a diverse accessing population;
- can be integrated with post-commissioning security procedures and management;
- set a (security) standard in line with community and client expectations.

If incorporated into design development, the above cost-effective solutions are possible. When security solutions are retro-fitted they are more likely to unduly impose on a development's function, its aesthetics and ultimately its (security) costs.

5. REVIEW OUTCOMES:

Security Objectives, Analyses, Conclusions and Recommendations

As earlier mentioned, there are three security objectives relevant to this review:

- (1) compliance with planning instruments,
- (2) minimisation of local anti-social behaviour, criminality and crime risks,
- (3) security design as a strategy to enhance the development's (security) marketability and reputation as a welcoming and safe environment.



5.1 Security Objective 1: Compliance with Planning Instruments

With respect to security considerations, the development's DA documentation should comply with Section 79C guidelines of the New South Wales Government's EPA Act and should also comply with policy and protocol requirements of City of Sydney's Safe City Strategy 2007 – 2012.

5.1.1 Compliance Requirements

The NSW Environmental Planning and Assessment (**EPA**) Act, 1979 allows for provision to be made for instruments to regulate or codify issues pertaining to environmental impacts of (normally) large scale and modest developments. Security (crime prevention) is one of the "impacts" allowed for.

Section 79C (1) states: "*In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development, the subject of the development application*".

Section 79 (1) (b) adds: "*...the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality*".

Section 79 (1) (e) adds: "*...the public interest*".

The 2001 amendments to the interpretive guidelines for this Section state: "*...Crime prevention falls under these subsections of 79C. Councils have an obligation to ensure that a development provides safety and security to users and the community. If a development presents a crime risk, these guidelines can be used to justify:*

- *modification of the development to minimise the risk of crime, or*
- *refusal of the development on the grounds that crime risk cannot be appropriately minimised*".

City of Sydney (Council) has a strategic crime prevention policy with regard to design provisions for open and built environment space. Under its Safe City Strategy (2007 to 2012), Council's stated intent is to: "*Improve the look and feel of our built environment – by delivering good urban design, ongoing 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.*"

The Strategy also makes reference to "safe urban design" in its planning and development guidelines, in line with Section 79C (1) (e) above.

Documents provided for this development's DA submission have been reviewed in relation to compliance with EPA guidelines, CPTED principles and the City of Sydney Strategy. Our review indicates the following:

- (a) The DA documentation indicates no underlying design concerns likely to negatively impact on the development's security goals.



- (b) The development's design can be seen to reflect “*..the public interest*” in terms of State legislation and the City of Sydney's crime prevention guidelines.

In this case “*the public interest*” relates to reducing and/or preventing any development-based or development-caused behaviour that might lead to anti-social behaviour and/or illegal activity against any person accessing the site, or against any property associated with the development and its stakeholders.

5.1.2 Security Objective 1: Conclusions and Recommendation

The review concludes that documentation submitted for the DA reflects the intent of Section 79C and complies with City of Sydney's Strategy and Development Application Guidelines including the Safer-By-Design protocols of the NSW Police (with which we are familiar). These protocols are also based on CPTED theory and practice.

The DA documentation provides the developer with an appropriate foundation upon which to build crime prevention design solutions at design development stages.

In terms of Section 79C of the EPA Act and City of Sydney's requirements, we recommend approval, on the understanding that design-and-construct documentation will reflect specific solutions outlined in Security Objective 3.

5.2 Security Objective 2: Minimisation of Local Crime Risks

The proposed development's design and/or 'operations' should not cause, condone or promote anti-social or criminal behaviour and/or constitute any increase in community crime or crime risks.

5.2.1 The Impact of Neighbouring Environments

While the development has no direct responsibility for security issues in neighbouring and surrounding environments, the Department of Planning's requirements, City of Sydney's Safe City Strategy, including the Redfern-Waterloo Community Safety Plan, are clear that the development should positively contribute to safety and social well being.

The consultants believe that, to realise its 'welcoming and safe environment' potential, any proposed security solutions should take account of impacting factors that currently exist which could compromise the development's intended security outcomes.

5.2.2 Anti-Social Behaviour and Crime Statistics

As previously advised, discussions with local Police indicated with exception of alcohol related crime there is no high crime issues in the immediate area and as the current RSL development is in such close proximity to the Police Station it was confirmed Police are generally called for alcohol related incidents.



One of the key security outcomes for the proposed development is to avoid any possible negative growth of crime to the immediate area.

5.2.3 Adjoining and Surrounding Buildings

The adjoining and surrounding, retail and commercial buildings reveal some levels of graffiti or other external damage as well as used syringes. The development's post construction management role should be to work with the Department of Planning and The Redfern Waterloo Authority and other community stakeholders to ensure that all active or passive social engagement maintains an expectation of no anti-social or criminal activity.

5.2.4 Vehicle and Pedestrian Access.

Design of the development's perimeters, vehicle and pedestrian access points should minimise opportunities for unlawful entry which could generate unwanted anti-social or unlawful behaviour, which, if allowed to gain any tolerance or momentum, could 'spoil' the sense of stakeholder security.

A feature of the development is pedestrian-friendly northern colonnade which provides clear sight lines of the surrounding streetscape and buildings. A whole-of-site security regime begins with controlling access. Access forms part of perimeter security and it is essential that all who move towards and away from the main entrances (pedestrian and vehicular), should experience a sub-consciousness sense of safety from any form of intrusion.

5.2.5 Crime Trends and Minimisation

Identifying crime trends can be fairly subjective. Statistics only relate to reported crime. The subjectivity arises when a crime risk analysis tries to second-guess total crime and crime trends by linking reported crime to anecdotal 'evidence' of unreported crime; sometimes said to be equal to, or more than, the reported crime in the more common property categories.

Over recent years, there have been significant reductions in the perceived and actual crime rates in the vicinity of the development and throughout the wider Redfern community. This has been due to community groups, retailers and commercial stakeholders working constructively with local police and the City of Sydney to invest heavily in safety initiatives, including changes to streetscape and building design. This development's perimeter design features in particular should positively contribute to these efforts.

However there will always be the 'spoilers'; those intent on random (opportunistic) or targeted anti-social behaviour and/or even where effective design and management counter measures are put in place. Specific security initiatives applied to design documentation will almost certainly reduce both site based crime and crime in the immediate neighbourhoods.

From a crime minimisation and crime prevention perspective therefore, this development must be viewed in terms of impact upon, and relationship with, the security (well being) of neighbouring or adjoining environments.

As a major mixed-use development, the design must aim to provide design leadership in its desire to inter-connect with, and promote, a safe environment. Hence the need to pay close attention to the way the vehicle and pedestrian access interacts with the railway and town hub.



Obviously design is not the only way to counter the fear and reality of crime. It is one well-recognised approach aimed at complementing other social, environmental and policing measures that already exist in the broader Redfern community. However, the DA documentation indicates a potential through design development, to facilitate the containment and/or reduction of crime within and adjacent to the proposed site.

To some extent, mitigation of local crime risks will also depend on the relationship between the development and its ‘neighbours’ – the Railz Hotel, retailers including restaurants, and commercial premises.

The design and operation of public transport and taxi services is also critical to presenting a positive whole-of-site security reputation. We reiterate the need for a cooperative and strategic approach between the development and surrounding stakeholders if neighbourhood crime risks are to diminish in favour of a low or no tolerance mindset.

In terms of the EPA legislation, “the public interest” therefore extends to the broader community beginning with attention to security design and extending its reach to security operational management aspects, aimed at consolidating and continuing the design contribution.

Security design solutions and ultimately the security management solutions should therefore ‘model’ and reflect the initiatives of other aspects of Redfern’s built environment. To this end, the design-and-construct documentation should emphasise perimeter and access security to demonstrate determination for ‘front-of-house’ and façade security in the first instance, utilising appropriate architecture and technology to meet that objective

5.2.6 Security Objective 2: Conclusions and Recommendation(s)

From our review of the DA documentation, there is no indication that the development’s overall design is likely to cause, condone or promote anti-social or criminal behaviour.

In our view, the development does not constitute an increased crime risk to the immediate site or to the surrounding locality. Further, we are of the view that, if the developer implements specific measures outlined in Objective 3, then the overall design, particularly with regard to perimeter and access security, should positively act to contain, reduce or prevent future anti-social behaviour and criminal activity within and surrounding the site.

5.3 Security Objective 3: Designing Out Crime

The development should reflect a ‘safe space’ approach to security by incorporating CPTED principles into design development ‘sign- off’; applying aspects of architecture, engineering and technology to promote best-practice security solutions for each of the project’s sub-precincts.



5.3.1 Overall Security Design

Designing *out* crime implies designing *in* security (safety). As mentioned above, if implemented, each of the following design specifics should enhance the collective sense of security.

5.3.2 Defining the Perimeter

This is critical to presenting the external face of security design. The revised plans indicate a northern colonnade, flanked by round columns and connecting with the main commercial, retail and RSL entrance. The Gibbons Street perimeter is the access point for the residents.

Plans indicate at-ground glass facades in the main, with intermediate structural walls and supporting masonry. Where possible external wall and colonnade column finishes of the development should feature graffiti-resistant paint. The site is fully exposed to two perimeter streets, thereby increasing the likelihood that façades and associated property could be targeted. Consistently targeted under-eave down lighting should characterise both exposed streets for the length of each perimeter. A potential problem exists over the choice and location of perimeter lighting. It is essential that the type of down lighting and general perimeter lighting 'blend' with the City's street lighting regime. Clashes between yellow and white-blue light should be avoided; hence the need for consultation before finalising an external lighting strategy. While compliance with minimum standards is essential, it is also essential that there be a consistent approach from City and the developer as to the most effective application of lighting for the perimeter and for the surrounding area.

The laneway between the RSL Club development and Railz Hotel has in the past been a point of seclusion and vandalism. Present monitoring and lighting is inadequate. It is therefore essential that the laneway be lit to the same consistency and that CCTV be installed to monitor the entire lane precinct. Ideally it should be gated but, given its designation as a public thoroughfare, permission may be difficult to obtain.

There is one other common factor. Many developments are targeted simply because they are new and are there. They become a challenge to deface and damage; hence the need for design innovation in the first instance. Facades and solid, e.g. sheet metal gates provide an easy opportunity for 'tagging', for example. Clearly defining the building's site boundaries as indicated will be seen as a first defence. Monitoring 'suspicious' activity either passively or technically complements that defence in first response terms. The installation of CCTV cameras around the entire perimeter, both main entrances, the entrance to the car park and including the laneway between the RSL Club development and Railz Hotel, is essential

Stormwater downpipes will be concealed within the building structure to prevent their use in the accessing of upper balcony levels.

5.3.3 Precinct Separation and Way-finding Signage

It is important that there is clear delineation between public space, residential, commercial and Club activity. Design detail should indicate clear way-finding signage to and from access and egress points, but particularly to and from the commercial, retail and Club (Redfern Street) entrance and the residential entrance (Gibbons Street). The vehicle entry (laneway) point should be well lit and clearly signed to delineate legitimate access, as should the immediate loading dock area.



It is essential that appropriate security and emergency signage be located in all areas of the basement car parks, indicating reserved areas, off limit areas (such as the plant, storage and garbage rooms). There is a need to ensure that all lift lobby and car park walkway lighting is of sufficient intensity and separation to distinguish locations and pedestrian corridors from surrounding structures.

5.3.4 Passive Surveillance

Successful passive (or human) surveillance depends on the level and frequency of activity within and adjacent to, the development. The major pedestrian activity centres on the main entrance, where commercial and retail movement will occur during week-day mornings and afternoons. Pedestrian movement to and from the Club will occur afternoons and evenings week-days and week-ends. We note that the Club employs contracted security staff during their busiest evenings – Thursdays and Saturdays. The residential entrance will attract sporadic movement at undefinable times.

The architecture should provide maximum opportunity for surveillance at these entrances and throughout the Club and retail spaces. While CCTV will enhance overall surveillance, movement corridors and connecting spaces should avoid unnecessary architectural ‘clutter’, thereby enhancing line-of-sight anticipation. Lighting consistency and intensity is critical to promoting a surveillance culture by legitimate user-stakeholders.

Security of the entire development will be enhanced where there are opportunities, through appropriate spatial architecture and lighting for stakeholder-occupants, including club participants, to also observe, unobtrusively, street level activity.

5.3.5 Technical Surveillance and Monitoring

CCTV should provide additional technical surveillance at street level, throughout car parking, at car park entry/exits, car park lift lobbies, within lift cars, at utilities kiosks, pedestrian entrances, the loading dock and, where possible, in the vicinity of the public toilet entrances within the Club.

5.3.6 Pedestrian Movement Corridors

Initial documentation suggests that the development is pedestrian friendly. It encourages exploration, including purposeful movement between retail, and commercial precincts. As designed, all internal corridors provide a sense of directional security, which will be enhanced by the installation of creative ‘security friendly’ lighting and supportive way-finding signage.

We emphasise that beyond - minimum lux levels should be reflected in the lighting plans for critical security points at the residential entrance lobby, all lift lobbies, car park entrances and at the Club’s toilet entrances.

The matter of two way lift related observation has been an issue in many contexts for a number of years particularly in transport, retail and mixed use complexes. In these contexts, developers are increasingly opting for (a) an observation panel in lift doors or (b) fully transparent lift doors or (c) lifts and lift wells constructed of glass and or (d) the installation of CCTV cameras within lift carriages. Our preferred recommendation is option (a) which would complement the recommendation regarding CCTV surveillance in the lift well areas.



We recognise that there are cost implications and we also recognise that there may be legislative and or compliance implications which may prevent the installation of glass panels.

In this context, the developers have advised they will be installing CCTV cameras within lift carriages, at ground and car park lift foyers.

Adequate and graduated lighting should feature at stairwell entrances and emergency exit points. Clear and, where possible, back lit signs directing pedestrian movement to particular locations – other than the mandatory exit signs – offer movement certainty.

Ideally, fire exit doors should be electronically locked (meeting all regulatory requirements) including emergency egress capability or alternatively, doors alarmed with door open too long (DOTL) monitored alarms. We understand the developers have adopted the latter recommendation for the door which will open into a lane between the development and Railz Hotel. Warning signage to be placed on doors advising of monitored alarms. CCTV cameras and high intensity lighting should be installed along the laneway.

5.3.7 Vehicle Access and Parking

Vehicles entering or exiting the site should be directionally ‘guided’ in a security sense; that is, clearly signed and well lit ramped areas guide vehicles towards designated and secure parking throughout basement levels and including loading and waste removal bays.

Underground vehicle access is via a laneway off Marian Street with exit onto Gibbons Street. From a security perspective, graduated ‘down’ lighting should feature at all entry points to maximise visual adjustment from external to internal environments and vice-versa.

To avoid any sight line glare, no eye level wall mounted or bollard lighting should feature on approaches to, or within, the car parks.

We recommend that all basement vehicle parking ceilings be painted white to maximise lighting levels and minimise shadowing. At the very least, above minimum standard lumen (lux) levels should be specified throughout the car parks. We also recommend that CCTV cameras be installed to track vehicles at critical arrival and departure points. Surveillance tracking is especially critical for vehicles accessing the car park after hours.

Structural integrity may require square or rectangular support columns throughout car parks. We recommend where space provides the installation of one metre high elliptical or round column facades to minimise opportunities for ‘column concealment’. Where this is not possible owing to space issues car spaces are to have constant and even lighting eliminating shadows.

Car park signage should clearly denote vehicle locations and their direction. While users will generally quickly become familiar with vehicle positioning and designated infrastructure locations, illuminated signage throughout will overcome any temporary recognition lapses. These small measures remove confusion and add to a sense of security (safety) certainty.

The location of lifts and special purpose rooms is appropriate in that the overall layout affords ample vision to and from those spaces – particularly if high lumen levels are applied.

The proposed configuration of vehicle parking is consistent with good passive or technical surveillance at all levels.



It is noted that the lift well foyers provide visual reference points into car space areas and the location of disabled parking adjacent or proximate to these foyers provides an added sense of security.

All vehicle parking leading to the residential or commercial lobbies which should be clearly visible on approach and should afford as much of a 'panoramic' view as structural engineering will allow.

It is evident that car parks will be accessible only via electronic access controlled perforated roller shutters and remote entry technology to reduce the likelihood of unlawful access. Contractors should be required to register their access intentions to avoid (security) confusion and delays in emergency utilities or communications call-outs. Electronic access control, e.g. proximity reader technology for residential and after-hours specific level access, e.g. elevators should be installed.

Basement Plan 2 parking spaces 2.21 and 2.22 to have bollards or other suitable vehicle stops to prevent vehicles travelling into lift foyer.

5.3.8 Lighting Design

We have referred throughout to lighting's critical security role in this development, especially the critical role of external and street lighting - styles and intensity (lux levels) which, for security purposes should often exceed normal lighting standards for reasons stated above (5.3.2, 5.3.3, 5.3.4, 5.3.6 and 5.3.7, 5.3.10).

We reiterate that, in developing a lighting 'sub-plan' for the development, there are three key principles in relation to security. First there should be lighting consistency and high intensity in key movement corridors. Second there should be a mixing of 'like lighting', avoiding type mis-matches; for example locating mercury and sodium (white and yellow) lighting together. Thirdly, avoid up-lighting or eye-level lighting where glare and shadowing restricts forward and rear vision.

5.3.9 Communications and Utilities Infrastructure

All infrastructure should be considered vulnerable at connection and feeder points. We note the location of storage, plant and utilities kiosks, cautioning that these critical areas are vulnerable to those intent on causing maximum disruption. They should be signed and should (a) be protected from general view, not just caged, and (b) ideally be monitored/recorded via CCTV. Surrounding areas should be clear of clutter and should provide contractors and residents with clear site lines to infrastructure doorways.

We note that the garbage room will be mechanically secured and provided these doors remain locked, the likelihood of arson, should unauthorised entry into basement level 1 occur, will be reduced. It is also advisable fire detection and fire suppression systems should be installed.

5.3.10 RSL and Commercial Pedestrian Entry

The RSL and commercial entry is via Redfern Street. It is advisable this area be locked off after hours with appropriate glass panelled doors to prevent this area being targeted by anti social or criminal activities including used for entrapment. Commercial tenants requiring after-hours access would be managed using programmed proximity cards. Removable bollards should be considered for the main entrance to prevent a vehicle being used to ram the glass doors.



There are two potential ‘blind spots’ at the main entrance. The design precludes splayed or curved approaches to the entrance. The developers have agreed to ensure greater opportunities for passive surveillance from glazed panels fronting either side of the entrance; especially when exiting into Redfern Street from the RSL, retail and commercial precincts. Concentrated lighting at these points will enhance surveillance opportunities.

5.3.11 Residential Pedestrian Entry

Entry is from Gibbons Street through two sets of electronically controlled (air lock) doors. Video intercoms to residential units are to be located outside the first door and again at the lifts enabling residents to have the capability remotely unlock the two sets of doors and call the elevator to their respective floors once visitors have entered the car.

5.3.12 RSL Smokers Lounge Balustrade

Above ground smoking areas in Club and similar recreational premises are potentially hazardous, especially where those designated spaces overlook streetscapes or car parks. The combination of alcohol and noise could lead to an escalation of objects being thrown, or personal injury from falling or being pushed from the balcony. To reduce these risks with this development, the developers have agreed to an aluminium framed 1.8 metre (minimum) toughened glass barrier being installed. This will also increase passive street surveillance.

5.3.13 Security Objective 3: Conclusions and Recommendation(s)

We note that, from a security perspective, the DA documentation reflects opportunities to incorporate security design specifics (based on CPTED principles) as outlined above.

In particular we recommend that construction documentation detail specifications in relation to promoting effective security that focuses on the issues raised. We repeat that the measures, if incorporated during construction, are cost-effective, especially when incorporated into the construction briefs of architecture and engineering.

We recommend that the DA approval reflect the developer’s intention to incorporate appropriate security design measures into detailed design documentation.

6. APPENDIX 1: SYDNEY LGA CRIME STATISTICS

The following crime statistics include the Redfern environment. They are issued by the NSW Bureau of Crime Statistics and Research.

Recorded victims within the Auburn Local Government Area.	2004	2005	2006	2007	2008
Murder	5	3	5	3	3
Assault (domestic violence related)	792	723	874	855	892
Assault (non domestic violence related)	4131	4220	4103	4284	4383
Sexual assault	206	177	185	185	172
Indecent assault/act of indecency/other sexual offences	284	233	232	300	263
Robbery without a weapon	1101	1371	1030	1044	940
Robbery with a firearm	61	55	74	64	45
Robbery with a weapon not a firearm	486	474	467	423	269
Break & enter – dwelling	2290	2434	1708	2021	1566
Break & enter non dwelling	2126	2024	1692	1587	1302
Motor vehicle theft	1714	1211	1357	1314	988
Steal from motor vehicle	6752	5386	6963	7918	5675
Steal from retail store	1567	1718	1595	1767	1880
Steal from dwelling	1151	1210	1073	986	941
Steal from person	4927	4493	4532	4399	3566
Arson	114	122	106	79	81
Malicious damage to property	3863	4024	4264	4352	4381

Sydney LGA

Trends in Recorded Crime Statistics, 2004 to 2008

Offence category	Annual percentage change 2007 to 2008	Average annual percentage change 2004 to 2008
Murder*	N.A.	N.A.
Assault - domestic violence related	Stable	Up by 3.0%
Assault - non-domestic violence related	Stable	Stable
Sexual assault	Stable	Stable
Indecent assault, act of indecency and other sexual offences	Down by 12.3%	Stable
Robbery without a weapon	Stable	Down by 3.9%
Robbery with a firearm	Down by 29.7%	Stable
Robbery with a weapon not a firearm	Down by 36.4%	Down by 13.7%

Break and enter - dwelling	Down by 22.5%	Down by 9.1%
Break and enter - non-dwelling	Down by 18.0%	Down by 11.5%
Motor vehicle theft	Down by 24.8%	Down by 12.9%
Steal from motor vehicle	Down by 28.3%	Stable
Steal from retail store	Stable	Up by 4.7%
Steal from dwelling	Down by 4.6%	Down by 4.9%
Steal from person	Down by 18.9%	Down by 7.8%
Fraud	Stable	Stable
Malicious damage to property	Stable	Up by 3.2%

This table shows the results of statistical tests for a significant upward or downward monthly trend in the number of criminal incidents * recorded over 2 years and 5 years respectively, for selected offence categories. Where the trend is significant, the annual percentage change in the number of incidents is shown.

"N.A." indicates that the number of incidents recorded was too small for a reliable trend test to be performed.

* For murder, the trend test is applied to the monthly number of recorded victims.

The statistics need to be treated with caution as they represent only reported crime, therefore, a number of categories may also show lower than actual incidents. They do not statistics or trends in relation to victims or victimisation.

Further, it is important to note that changes in reported crime are also significantly affected by factors other than changes in victimisation. including (i) changes in the willingness of the public to report crimes to police, and (ii) changes in policing policy and practice. The second factor particularly affects trends in recorded drug and weapons offences, and trends in offensive behaviour, so changes in the number of incidents for these offences may reflect shifts in policing, rather than in actual crime rates.

Where the number of recorded incidents is low, a very small change in the actual number of incidents may result in a disproportionately large change in derived ratios such as the rate per resident population or the percentage change over time.

The purpose of this statistical review is to note any upward crime trends. Such trends may be relevant in developing security design and/or security management plans for the redevelopment.



7. APPENDIX 2: Crime Prevention as a Design Strategy

A 2.1 Rationale

Crime prevention has been linked to urban design since the late 1970s. The concept originated in the United States and Canada when sociologists, criminologists and architects began to link criminal behaviour in public spaces with poor design and layout of those spaces.

Today, there are four broadly defined models of crime prevention. They may be implemented individually, although ideally initiatives derived from each will overlap. The four models are:

Crime Prevention By Social Intervention – a model that sustains the integrity and safety of (often disadvantaged) communities through government and corporate and local support for programs, development initiatives and improvements to infrastructure.

Crime Prevention By Community Development – a model that encourages settled communities to develop partnerships in accepting responsibility for protecting personal and neighbourhood assets through a commitment to networking and sharing responsibility for community development goals.

Situational Crime Prevention – a model that focuses on place-specific crimes, targeting offences and offenders by pro-active and responsive security or law enforcement strategies.

Crime Prevention By Environmental Design – a model that incorporates aspects of architecture, engineering and technology to enhance the form, function and reputation of the built environment as “safe space”.

Crime Prevention Through Environmental Design (**CPTED**) is a coined version of the Crime Prevention By Design model; one that takes a specific approach to reducing and preventing crime by applying architectural design principles to urban developments which focus on territoriality, surveillance and access control. CPTED and the other models have largely been adopted throughout the developed world as legitimate crime prevention strategies.

Throughout the 1980s and 1990s, State and local authorities within Australia, responsible for urban development approvals, have been gradually adopting the CPTED or similar crime prevention (design) concepts when approving both large and small scale development applications.

Within Australia, there is recognition by all stakeholders involved in urban development, (however the term is defined) that designing out crime should form part of *mandated* development application criteria.

In 2001-2, the New South Wales Parliament assented to changes in guidelines under Section 79C of the EPA Act to include crime prevention as one of the “matters of public interest” which must be considered in approving development applications.

Increasingly, local authorities are introducing instruments and/or guidelines requiring ‘security’ to form part of DA documentation.



Notwithstanding local and State based regulatory requirements, it would seem prudent that developers seek to incorporate crime prevention-by-design guidelines to all projects, especially given the marketing and legal emphases on personal and community safety (security) Australia.

It is conceivable that, if built environments can be “secured” by adopting agreed crime prevention design guidelines, (protocols, etc.), then such guidelines will in time become mandatory in much the same way as Building Codes and Occupational Health and Safety standards have been adopted.

Incorporation of crime prevention architecture and engineering into relevant planning documentation throughout the design-and-construct stages is the ideal way to ensure compliance with local and State requirements.

A 2.2 Aims: Crime Prevention By Design

The broad aim of crime prevention design principles is to create and sustain safer communities by incorporating crime prevention design initiatives into all urban development.

From the literature, it is possible to identify two specific aims:

- To promote the legitimate and safe use of all natural and built environments by incorporating crime prevention or security design codes or guidelines into all development planning and approval processes.
- To enhance the reputation of developed environments by ensuring that crime prevention or security design criteria are integral to all architectural and engineering documentation submitted for review and approval by relevant authorities.

A 2.3 The Concept of “Defensible Space”

Oscar Newman (1972) coined the term. He developed the concept in relation to significant crime problems in high-rise ghetto type housing developments of New York City in the 1960s. Newman suggested that the urban design of inner city precincts was directly attributable to anti social behaviour and high crime rates.

Newman recognised that there were three spatial issues that should be addressed in all future urban planning – territoriality, surveillance and access control. Each can be linked with architectural and/or engineering documentation in a coordinated approach towards making public and private spaces relatively crime free.

A 2.4 The Concept of Territoriality

It is essential to provide a sense of territorial definition and boundary limits from the first point of contact with any built environment design. That point of contact may be the front door of a building. It may be the off-road set back of an industrial estate, or it may be the main street – boulevard, divided road and/or entry statement – of a new sub-division. “On approach”, the sense of definition of access and use should be evident.

Crowe (2000:37) suggests that the right physical design contributes to a positive sense of territorial use and ownership – a sense of territorial influence. In urban developments, territory may be



defined or classified as public space, semi-private or communal space, restricted space and private or secure space.

Mixed use sub-divisions are particular cases in point. Each such development concept should flag spatial use and spatial hierarchy. This hierarchy should be evident as concepts, principles and foreshadowed specifics at the DA stage, to be followed by detail submitted throughout relevant aspects of design documentation.

The DA stage and design documentation architecture (and engineering) of vehicle or pedestrian corridors, commercial, retail, recreational, institutional, and residential precincts is as important as the architecture of the buildings that will eventually occupy those precincts. One without the other contributes to a sense of territorial confusion where territorial clarity is required.

Some planners claim that well designed housing projects make it clear which spaces belong to whom – some being completely private, some being shared and some public. Architects and developers of course claim that these aspects are always part of concept design, master-planning and detailed documentation. The difference is that they are seldom designed to standards or principles aimed at repelling crime.

A 2.5 The Concept of Surveillance

Spatial design should maximise opportunities for surveillance – formal and informal. The design principle here is to increase the number and length of sight lines; the capacity of people and technology to observe movement and activity at distance.

The location, mass, height, proximity and form of buildings therefore become critical design features. The relationship of buildings to all open spaces and to roads, pathways, cycle-ways, parks and other streetscape forms is equally critical.

There are three agreed forms of surveillance that should be encouraged: *natural*, *social* and *technological*.

Natural surveillance encourages casual observation and monitoring of all users and owners of known and defined urban space.

Social surveillance encourages casual observers, through natural surveillance, to routinely monitor, challenge or report suspicious pedestrian and vehicle movements through precincts or into buildings.

Technological surveillance employs CCTV and other monitoring devices to alarm premises or spaces to deter/detect and respond to unlawful access or unlawful behaviour. In the past, analogue CCTV surveillance technology consumed personnel resources including managing the recording, e.g. replace tapes of these early systems. Network cameras and network video recording (NVR's) offers a more cost-effective alternative. Modern fast moving 'dome' cameras, which respond to alarm pre-set positions can be utilised. The 'alarm' may be a help call button being activated, a secured door being opened (using a door contact) or movement (using a passive infrared detector) and transmitted real time to wireless hand held technology.



A 2.6 The Concept of Access Control

Debate continues about ways to control, restrict or prevent access to buildings and to open precincts. The deployment of technology has been the recent favoured design strategy. This (in our view) over-reliance on technology has tended to limit creative physical design alternatives.

In the mid-1980s a significant study was carried out in the UK into some of England's (often referred to as) notorious or infamous housing estates – high and medium rise ghettos where crimes against property and people has been running rife.

The study by Coleman (1985) showed in part that there were numerous building and precinct design flaws which encouraged uncontrolled access to ill-defined spaces. Coleman suggested that gates, gaps, fences, landscaping, lighting, doorways, stairwells, steps, paths, seats, power poles coupled to ad hoc building design and poor definition of territory, not only attracted unauthorised access, but once access was gained, the various design flaws encouraged graffiti, vandalism, theft and assault.

The point of all physical (built environment) design from a crime perspective is to define and indicate purpose. For example a gate to a property must be positioned to indicate whether or not it is a main entry and, if so by signage, mechanical, electronic or other means, entry is generally allowed or is by permission only. A gate's design and integration with a fence or adjoining building gives some indication of who and how entry is to be gained.

Gates are usually the most common definers of territory, separating private and public space in industrial, commercial, institutional and residential precincts. There are some precincts without gates at their points of entry, thus inviting crossover to the next point of territory definition; i.e. a building, parking area etc.

While gates (and similar barriers) present as recognised objects for territorial definition and separation, crime prevention-by-design principles encourage broader and less intrusive definitional architecture; architecture which not only restricts or halts access, but which encourages entry, access and movement. Lighting, pathways, landscaping, low-line fencing, steps and doorways are obvious examples.

Coleman's study, highlights the need for developers to think holistically about distinguishing between legitimate (legal) access and users and occupiers of urban space and those seeking access illegally.

By applying crime prevention design principles to housing estates, to commercial, institutional and industrial complexes, to retail and recreational outlets and to transport infrastructure, there is more than one opportunity to clearly define appropriate entry and movement corridors.



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