12 June 2012

Mr Shaun Farren
Senior Development Manager
Crown International Holding Group
Level 11/68 Alfred Street
MILSONS POINT NSW 2061

Dear Shaun,

Security Design and Management Report:
V by Crown, Parramatta
[45 – 47 Macquarie Street and 134 – 140 Marsden Street]

Please find enclosed our report in respect of the Section 75W amended proposal for the above development.

Thank you for engaging Harris Crime Prevention Services.

Yours sincerely,

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

Security Design and Management Report

for

V by Crown Development

on behalf of

Crown International Holdings Group

June 2012

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A   EXECUTIVE SUMMARY

1   The Development and Security Issues

On the 28 October 2011, the NSW Minister for Planning granted approval of the Crown International Holdings Group (Crown Holdings) V by Crown development as a "major project" (MP 09_0167) under the Part 3A provisions of the Environmental Planning and Assessment (EPA) Act, 1979, conditional on adopting the (Planning) Director General's requirements as Schedule 2 Parts A to F of the approval.

Crown Holdings has revised the development's parameters and is submitting a new proposal under Section 75W of the EPA Act. Harris Crime Prevention Services (HCPS) has reviewed the new proposal to assess whether and how changes to the development's design might impact on the security design and management issues canvassed in the original HCPS March 2010 Report submitted as part the Part 3A application by Crown Holdings.

In reviewing Section 75W proposal, HCPS is of the opinion that the four Security Objectives outlined in this latest Report have been, are being, or will be, met by the proposed design revisions indicated in development drawings. The following is a summary of the four objectives, with the conclusions from each.

1.1   Security Objective 1: Compliance with Planning Instruments

With respect to security considerations, the Section 75W documentation should comply with Section 79C guidelines of the New South Wales Government's EPA Act, the Department of Planning, Director General's Section 75F Requirements and should also comply with Parramatta City Council's City Centre Crime Prevention Plan 2008 to 2013; with reference to building and environmental design aspects.

Conclusions: With regard to Security Objective 1, the Section 75W application documentation provides the developer with an appropriate foundation upon which to build crime prevention design and security management strategies; to be detailed in the design-and-construct and subsequent documentation.

HCPS is of the opinion that, in terms of Section 79C and 75F of the EPA Act, and Parramatta Council's DCP and Crime Prevention policy requirements, the revised documentation reflects intended compliance.

1.2   Security Objective 2: Impact and Minimisation of Crime Risks

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

Conclusions: Our review of the Section 75W documentation indicates that the development's overall design is not likely to cause, condone or promote anti-social or criminal behaviour to the surrounding CBD locality. In particular, the proposed design of the ground floor precincts should positively assist in 'modelling' socially acceptable behaviours within the immediate and

surrounding neighbourhoods. While the heritage precinct could 'attract' targeted anti-social or criminal activity, the protective measures proposed alleviate increased risk concerns.

The mixed use operations accord with other CBD interactivity, with pedestrian and vehicle movements to and from the site and its immediate surrounds, generating purposeful presence. The additional legitimate activity will add welcome interspatial flow to that part of the CBD.

1.3   Security Objective 3: Designing Out Crime

The development should reflect a 'welcoming and 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 (design) solutions to each of the site's retail, residential, heritage, communal and basement precincts.

Conclusions: We note that, from a security perspective, drawings to be submitted as part of the Section 75W application reflect opportunities for appropriate 'security design' based on CPTED principles, to be incorporated into relevant aspects of the development's detailed design which should focus on:

- the role of architecture and engineering in achieving an integrated 'whole-of-site' security outcome;
- innovative solutions for securing the heritage precinct;
- access control for pedestrian and vehicular traffic;
- layout and interconnectivity of vehicle entrances, exits, loading and parking spaces with the various mixed use operations;
- intra and inter-precinct pedestrian flow and interactivity;
- form and robustness of building perimeter facades and set-back spaces;
- technical surveillance of sensitive precincts including utilities infrastructure;
- development of an interdisciplinary lighting, landscaping and signage sub-plan for the above specifics.

We are satisfied that the developer's intention to apply security design solutions to relevant aspects of design documentation included in, but not necessarily limited to 3.3.3 to 3.3.11 in the detailed Report.

1.4   Security Objective 4: Marketability, Reputation and Management

Together with recommended and/or agreed security design solutions in Security Objective 3, the implementation of a security awareness, maintenance and risk management plan – CPTEM - should enhance the overall marketability, reputation and duty-of-care of the development.

Conclusions: It is essential that the on-going security reputation of V by Crown is served by implementing a whole-of-site CPTEM plan even though such a plan may not be a stipulated as a consent condition. A site wide plan will enhance the addresses reputation as desired welcoming

and safe space. We acknowledge that ultimately, it is the responsibility of the owner/occupier clients to agree on, and implement, such a plan.

Security Objective 4 is linked to compliance requirements (Security Objective 1). The development's operations stakeholders have on-going responsibility to identify and manage (reduce or prevent) risks associated with future site-based anti-social and criminal behaviour. The community (public) interest is a continuing one. The Council's City Centre Crime Prevention Plan seeks integrative responses from all activity generated within the Parramatta CBD.

We recommend that, prior to post-construction commissioning, the client seek advice in preparing and implementing a CPTEM plan, by consulting with local police, the Council, Chamber of Commerce and Heritage Council representatives, together with owner/operators of surrounding precincts to ensure that the plan converges with similar initiatives in place, or proposed, throughout Parramatta's City Centre.

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B   THE REPORT

1   Security Scope of the Proposed Development

This proposal is a 'Section 75W' submission; incorporating variations of the original concept/master plan to develop a Parramatta CBD site bounded by Macquarie Street to the north, Marsden Street to the east and Hunter Street to the south. The western perimeter borders an existing multi-storey complex. The revised development proposal comprises retail and residential components. The site's heritage significance continues as a prominent feature of the development, rendering that part of the site's footprint particularly 'security vulnerable'.

The Crown Holdings aim is to present a 'welcoming and safe environment' across the entire footprint; an holistic aim. HCPS defines this aim as: '*a built form environment where security has been considered as part of the master-planning, design and construction processes and where security outcomes will enhance a project's overall reputation through sound security risk management.*'

'Security' in any built form context may be defined as: '*planning, design and management measures whose outcome is to reduce, minimise and/or prevent the likelihood of anti-social or criminal behaviour targeting property or persons in any given urban or rural built form environment*'.

'Security design' is based on the principles of Crime Prevention Through Environmental Design (CPTED); an internationally accepted model for applying aspects of architecture, engineering and technology to reduce or prevent crime in urban environments. Post construction security outcomes are based on Crime Prevention Through Environmental Management (CPTEM) - Refer Appendix 1.

Security (inter-alia 'safety' in this context) is the prevention of anti-social and criminal behaviour. It is critical to the development's overall commercial and heritage objectives. Security of the entire footprint should protect the interests of both. The Report examines security issues in that dual light.

The development's scale and significance poses some critical security challenges. Four fundamental security objectives emerge in responding to these challenges. They constitute the Report's scope and solutions platform.

Security Objective 1   Compliance
Security Objective 2   Crime Risk Impacts
Security Objective 3   Security Design
Security Objective 4   Security Reputation through Risk Management

- **Security Objective 1**   Compliance with Planning Instruments

Relevant design and risk management documentation should comply with the security requirements of State planning instruments, specifically the requirements of Section 79C of the EPA Act, the Director General's Requirements under Section 75F of the Act, relevant consent conditions which may impact the Section 75 application and the crime prevention policy guidelines of Parramatta City Council's Development Control Plan, 2007, (DCP) and City Centre Crime Prevention Plan 2008-2013.

- **Security Objective 2**   Contextual Crime Risk Assessment

Objective 2 assesses the proposed development's positive or negative impacts on the immediate neighbourhood in relation to anti-social or criminal behaviour. It also involves assessing the current 'status' of neighbouring and wider (but local) environments in terms of these behaviours including known crime risks and statistical evidence of LGA criminal activity. In summary, does the overall security design provide adequate protection for the complex and its stakeholders; retail, and community employees or volunteers, residents, visitors, contractors, commercial clients and retail customers, and does the building's design enhance the overall security integrity of the site?

- **Security Objective 3**   Security Design - CPTED

The third objective seeks to affirm appropriate security design strategies, and/or to recommend possible changes to aspects of the development's architecture and/or engineering, likely to enhance the project's safe space and commercial objectives. It also seeks to identify potentially vulnerable or sensitive aspects of the development requiring additional (risk mitigating) security design input.

- **Security Objective 4**   Security Risk Management - CPTEM

The fourth objective seeks operational stakeholder-client instigation of security risk awareness, monitoring and management protocols and practices aimed at ensuring 'welcoming and safe environment' sustainability, in order to preserve marketability and duty-of-care reputation. The risk management objective should also ensure that there are security technology maintenance and redundancy strategies in place to complement the risk management objective.

In addressing these objectives, the consultants acknowledge that the client's overall vision includes 'security' as a critical component of the development's overall design and operational goals.

The proposed Section 75W design and use variations (amendments) are relevant to all four objectives. All are critical to the marketability, reputation and overall (security) duty-of-care towards retail and residential stakeholders and towards residential visitors, shoppers and individuals or groups accessing the site for heritage inspection and education.

From a security (crime prevention) perspective, the revised development should maintain a desire to design and manage the breadth of security risks on any part of the footprint, but specifically that of the six basement levels, the ground floor and the site's perimeter. Design and management of these risks aim to reduce and/or prevent initial and on-going operational anti-social and criminal behaviour.

There are only passing references to matters of security design and management in the October 2011 approval by the NSW Department of Planning and Infrastructure. Within Schedule 2, there are references to car park design, perimeters sight lines, emergency access, waste storage, lighting (including security lighting) and general matters of landscaping and signage. However, the revised development requires a re-examination of the security risks identified in the original development proposal and covered in the HCPS 2010 Report.

The revised development proposal must still comply with security-related State and Local Government legislation, including the Director General's Requirements (DGRs) pursuant to Section 75F of the EPA Act. (Security Objective 1).These requirements seek compliance with Safer-by-Design principles in relation to built form and other (security) measures related to the purposes outlined in the Development Application (DA). Safer-by-Design principles are in turn based on CPTED. Reference to this requirement falls within "Point 3 – Urban Design", of the DGRs covering the total development's design and public domain.

The Section 75W proposal should ensure that post-construction operations should positively impact on reducing or preventing anti-social or criminal risk/activity in the surrounding neighbourhood (Security Objective 2). Design revisions should incorporate CPTED principles (Security Objective 3) and post-construction operations should include a security awareness and place management plan (Security Objective 4). We understand that it is Crown International Group's intention to develop the site, intentionally reflecting these objectives.

Vision for the development creates an innovative and interactive footprint for each of the 'uses', connecting commerce and residents with community and the contemporary with the historic. The central piece of history will showcase an important piece of Parramatta's (European) settlement history. The site contains foundations and lower walls of convict-built structures which have been excavated. The excavation fronting Macquarie Street is to be preserved for public viewing, rendering that part of the site's footprint particularly 'security vulnerable'. The juxtaposition of historic and contemporary architecture poses additional security challenges. The excavations will encourage casual visitors, history, architecture and archaeology students together with their professional counterparts, highlighting the Macquarie Street (level) precinct as a place of purpose in line with the vision and planning of Parramatta City Council (the Council).

Security design for, and security management of, this space requires treatment sensitivity involving inter-disciplinary solutions. Under the revised proposal the heritage precinct complements the ground level entry statement. It presents as a unique meeting, learning, socialising and welcoming environment – an environment protected by unobtrusive security solutions. The precinct's significance cannot be overstated; hence the need for a precinct-specific sub-plan engaging architectural form with the specialist disciplines of lighting, signage, landscaping and technology to arrive at the desired protective outcomes.

Co-location of the retail, community and residential footprint provide diverse yet consistent and frequent pedestrian and vehicle volumes, particularly during business hours. While these characteristics are less evident at night or on week-ends, the ebb and flow of 'eyes-and-ears' security 'traffic' is no less important in complementing (security) design and management strategies. The legitimate presence of people is a proven deterrent of opportunistic anti-social or criminal behaviour, particularly behaviour targeting (Parramatta) city centre premises, street scapes or public space. Carefully managed 24/7 secure residential and retail secure access should reduce unauthorised access risks.

As the site is physically exposed on the northern, eastern and southern boundaries, perimeter security is a central plank of deterrence and prevention. Sound perimeter security indicates to passing 'traffic' equally high levels of internal security. This presents a picture of overall (site wide) security integrity.

In today's climate of fear and uncertainty about urban crime associated with high profile CBD space, governments and stakeholder-clients alike are keen to address security whenever new people-focussed developments are proposed; another reason for employing an intentional site-wide solution. Council's policy of reclaiming and transforming CBD precincts for purposeful and casual pedestrian activity, emphasises the need for clever perimeter (security) design, thereby contributing to that policy outcome.

Each precinct therefore has particular security risks. Each has particular solutions. However all are interconnected in marketing an inclusive spectrum of 'safe space'. The key issues pertinent to achieving the four security objectives are:

- the role of architecture and engineering in achieving an integrated 'whole-of-site' security outcome;
- innovative solutions for securing the heritage precinct;
- access control for pedestrian and vehicular traffic;
- layout and interconnectivity of vehicle entrances, exits, loading and parking spaces with the various mixed use operations;
- intra and inter-precinct pedestrian flow, liveliness and interactivity;
- form and robustness of building perimeter facades and set-back spaces;
- technical surveillance of sensitive precincts including utilities infrastructure;
- development of an interdisciplinary lighting, landscaping and signage sub-plans

2   The Stakeholders

The diverse stakeholder base comprises:

- Crown International Holdings Group
- The New South Wales Department of Planning;
- Parramatta City Council;
- The Heritage Council
- the broader (Parramatta) community;
- retail, commercial, heritage and residential owner/occupiers;
- Parramatta Local Area (Police) Command;
- visitors and contractors casually or intentionally accessing the site.

Each of these sub-groups will have different security expectations, pertinent to their specific involvement with the site, its safety for commercial, retail, residential and heritage operations. However, their broad expectations are similar in that personal and property safety will be a 'given' of the development. Therefore a 'welcoming and safe environment' is critical to the development's on-going financial viability and, more importantly, its stakeholder requirements associated with that viability.

3   Security Objectives and Outcomes

3.1   Security Objective 1: Compliance with Planning Instruments

With respect to security considerations, the Section 75W documentation should comply with Section 79C guidelines of the New South Wales Government's EPA Act, the Department of Planning, Director General's Section 75F Requirements and should also comply with Parramatta City Council's City Centre Crime Prevention Plan 2008 to 2013; with reference to building and environmental design aspects.

Drawings have been reviewed to assess security design and management compliance with the following planning instruments – the NSW Environment Planning and Assessment (EPA) Act, 1979 and Parramatta City Council's DCP and Council's City Centre Crime Prevention Plan.

3.1.1   Compliance with State Government Legislation and/or Policy

The NSW EPA Act, 1979 allows provision 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*".

Interpretation of "the public interest" includes the relevant stakeholder individuals and groups – in this case, government, commercial, retail, heritage and community groups. The public interest in relation to the proposed development is to create, sustain and promote 'safe space' outcomes, thereby preventing any anti-social and/or criminal behaviour that might put at risk any of those outcomes at risk. The public interest could arguably extend to preventing unacceptable behaviour near to and beyond the perimeters of the site, although strictly speaking, the developer has no responsibility for such behaviour. However, one outcome of a successful whole-of-site security regime would be to model that success to neighbouring premises and or streetscapes.

The other obvious outcome of successful site-wide security is to displace potential unruly behaviour. This (unintended) consequence can be enhanced if the development's stakeholders agree to work with Council and 'neighbours' to spread or share security success such that potential crime risks fail to eventuate through dissuasion. A review of current drawings indicates the client's design intention to dissuade and displace potentially crime-related behaviour.

The NSW Department of Planning has issued 'Director General's Requirements' (DGRs) pursuant to Section 75 F of the EPA Act. These requirements seek compliance with Safer-by-Design principles in relation to built form and other (security) measures related to the purposes outlined in the Development Application (DA). Safer-by-Design principles are in turn based on Crime Prevention through Environmental Design (CPTED) an internationally accepted model for applying aspects of architecture, engineering and technology to reduce or prevent crime in urban environments. Reference to this requirement falls within "Point 3 – Urban Design", of the DGRs covering the total development's design and public domain.

3.1.2   Compliance with Local Government Legislation and/or Policy

Parramatta City Council's DCP, 2007, requires developers to consider CPTED principles when submitting DA documentation. Council's City Centre Crime Prevention Plan (2008 -2913) sets out key initiatives for maintaining the CBD as 'safe space'. Council's 2025 vision document detailing the City Centre's revitalisation insists that the control and prevention of anti-social and criminal behaviour is an essential component of future visionary architectural form. Council is working with the Department of Planning in ensuring a coordinated approach to compliance through innovative design.

Throughout New South Wales and other States, development applications are increasingly required to demonstrate the incorporation of CPTED or Safer-by-Design principles into master planning and design documentation. (*These principles are explained fully as Appendix 1*)

Documentation for the proposed development should incorporate relevant CPTED design features to better reflect compliance with State and Local requirements. Specific opportunities for the client to address CPTED options are referred to in Security Objectives 3 and 4 of this Report. However, we are satisfied that the client has taken a whole-of-site approach to security; the intention of which is to ensure the prevention of crime and the curbing of anti-social behaviour as critical to the redevelopment's success.

3.1.3   Security Objective 1:   Conclusions

With regard to Security Objective 1, the Section 75 W application documentation provides the developer with an appropriate foundation upon which to build crime prevention design and security management strategies; to be detailed in the design-and-construct and subsequent operational documentation.

HCPS is of the opinion that, in terms of Section 79C and 75F of the EPA Act, and Parramatta City Council's DCP and Crime Prevention policy requirements, the revised documentation reflects intended compliance.

3.2   Security Objective 2: Impact and Minimisation of Crime Risks

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

3.2.1   Urban Developments and Crime Risks

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. The (security) reputation and therefore viability of every new commercial, retail, recreational and residential development, especially in town and city centres is often put at risk from either a development's omission to seriously consider security strategies at design and post construction management, or conversely, from the impact of neighbouring precincts permitting crime risk and activity to 'spill' over to a new development.

Identifying crime trends and crime risk impacts 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.

Therefore the security design and security management of this development must assume that random (opportunistic) anti-social behaviour and/or crime will occur in and around its three street frontages, unless effective counter measures are put in place.

From a crime minimisation and crime prevention perspective, V by Crown must be viewed in relationship to neighbouring or adjoining environments. However we again stress that in the first instance, a site-wide security strategy must set benchmarking standard that might then be emulated by adjacent complexes and beyond.

This suggests a continuum of perimeter strategies. The goal is to foster a different non-tolerance of crime reputation through a determination to 'build' an alternative reputation for the immediate and surrounding precincts. Design of the development's perimeters, vehicle and pedestrian access points should minimise opportunities for anti-social or unlawful behaviour, which if allowed to gain any tolerance or momentum, will 'contaminate' adjacent scapes and structures.

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

Mitigation of local crime risks will also depend on the relationship between the development and its 'neighbours' – adjacent office and retail blocks and their associated streetscapes.

3.2.2   Determining Crime Risks and Their Impact

The Australian and New Zealand Risk Management Standard and Guidelines (AS/NZS ISO 3000:2009) is the current benchmark instrument whereby generic risk is identified, quantified and 'modelled' as a risk management tool. The Standard is used nationally and, to a growing extent, internationally. It is an imperfect but useful method to tabulate and understand the nature, source, frequency, and consequences of risk 'types'. Initial or assessed risk calculations are given levels based on a lickert-style scale, usually as 'negligible' 'low' 'medium' 'high' and 'extreme'.

In determining specific crime risks for this development, the Standard provides guidance only. Scaled crime risk levels may be determined (assessed) from objective (official) crime statistics, police intervention, community observations and Council concerns.

But determining risks associated with crime in and around Parramatta's CBD sites is equally subjective in the way those risks are identified, quantified, assessed and managed. Subjectivity comes from different versions and/or perceptions of behaviours which may or may not become criminal incidents. Anti-social behaviour is common in some CBD precincts in towns and cities, especially at night when young people tend to 'cruise' empty and echoing streets, irrespective of whether they intend to commit crime. Noise and boisterousness do not constitute unacceptable behaviour to some, while they do to others. If alcohol is involved, then noisy night time behaviour by individuals or groups can escalate and deteriorate into criminality.

The purpose of this objective is to identify the development's impact on the immediate and surrounding streets. If the impact is deemed negative, then this could add to the 'safe space' aim for all who legitimately access the site. There are two issues, (i) does the proposed development's design or operations impede or support the perception or reality of personal and property safety and (ii) are there any design or operational compromises that might cause, or cause an increase in, anti-social or criminal behaviour in the nearby streets or premises?

There is a third issue – that of existing anti-social or criminal activity in the immediate and neighbouring CBD streets. This is a separate matter that is unrelated to this security objective. The developers have no responsibility for broader security certainty. They obviously have no moral or legal obligation with regard to broader negative or positive security outcomes. However their approach to security design and management for the site may have a positive 'spill' and indirect influence on that environment. It depends on (a) how the development's security model is understood and received and (b) how that model accords with police and Council initiatives. If the model is right, positive displacement of crime risks and activity is more likely to occur; a win for stakeholder interests.

Crown International's duty-of-care is simply to provide site wide safety for its stakeholders; that is, providing a development where property and people are protected and where safety (security) is promoted through appropriate design and management.

In summary, this objective 'measures' existing neighbourhood (CBD) crime risks while simultaneously assessing how the proposed development (positive or negative) impacts upon those risks. While the Standard can be used to conduct a longitudinal study of crime risks impacting on the CBD, it is not a model for determining more pragmatically, potential or actual crime risks. More immediate data enabling analysis comes from:

- characteristics of neighbouring CBD premises and streets, conducive to a safe or unsafe local environment ;
- local police intelligence, operational intervention in the vicinity of the site;
- perceptions and interventions by Council and business groups;
- trends from the NSW Bureau of Crime Statistics and Research (BOCSAR), refer *Appendix 1.*

Collectively, these sources show continuous but not alarming concern at the range of property and person-related crimes in and around the city centre. Council and the Parramatta Local Area Command confirm that there are occasional 'spikes' in anti-social and criminal activity in or around the proposed V by Crown development due possibly to sporting or cultural activities centred on the mall, in nearby park lands or at sporting venues.

The BOCSAR statistics indicate a disturbing upward trend in property damage for the LGA between 2007 to 2011.

Throughout the CBD there is evidence of property damage, often from graffiti, and damage to street furniture, signs and facades, especially in areas where after-hours and night time occupancy of premises is less than might be the case towards the main shopping centre (Westfield) and Church Street Mall. Alcohol fuelled aggressive behaviour is reported to police by patrolling security officers and concerned or targeted individuals. Parklands to the north and west of the proposed development attract their share of damaging or aggressive behaviour, again mainly on week-ends and at night. Vehicle and/or property theft is prevalent in and around streets adjacent to Westfield Shopping Centre. Actual statistics vary.

The upward trend in property damage confirms the need to address the development's perimeter (security) design in particular with attention to facade materials, paints, glazing, gating, entry points, recesses and lighting. *(refer Security Objectives 3)*

Council's City Centre Crime Prevention Plan notes the following:

"*Central to any effort to prevent crime is a solid understanding of the nature of existing crime problems. This requires detailed analysis of existing crime data. Detailed crime data was provided by the Parramatta Local Area Command (NSW Police Force) for the purposes of examining existing crime problems in the City Centre. While not all crime is reported to police, reported crime data does provide very important insights into the nature and extent of crime in a particular area.*" (2008:13)

According to locally compiled Police and Council statistics (Crime Prevention Plan op cit), the most frequently reported crimes in the Parramatta City Centre continue to be stealing from retail stores, from motor vehicles, stealing of motor vehicles and stealing from individuals. Assaults and malicious damage are the other most common offences. These are similar to criminal activity in most high density urban settings. They reflect the nature of a city centre.

There are many and varied explanations for levels, types, sources and frequency of such offences and behaviour in and around the CBD but debate around these characteristics is only relevant to devising design and management strategies that will 'secure' V by Crown in such a way as not to add to existing anti-social or criminal activity. The responsibility of this development is to, at worst contain, but at best, make a positive contribution to the goal of preventing anti-social or criminal activity anywhere in the CBD. In this regard, Objectives 3 and 4 of this Report are the key.

3.2.3   Crime Risks in Neighbouring Environments

Parramatta CBD is the subject of revitalisation master planning. Currently, there are precinct pockets where vandalism and other criminal damage is evident. There are safety concerns from commuters accessing or exiting the transport interchange and nearby streetscapes. Public parks and CBD open spaces have been frequented (especially on week-ends and at night) by individuals and groups intent on causing nuisance, harm or damage to visitors and locals transiting or seeking recreational enjoyment. Council, commerce, police, the State Government and the community have been collaborating on Parramatta 2020, a plan to re-develop the entire CBD to attract business, residential and recreational activity, with security (personal and property safety) as a key platform.

Initiatives for open space, commercial, retail, residential and recreational connectivity have begun with an initial focus on transport, streetscape design and community facilities. CBD development proposals should reflect the master plan's intent. A recent example is the justice precinct where building and intra spatial relationship design have exemplified new standards of security. The transport interchange and treatment of the Church Street civic place extension are other examples.

These are the beginnings of master planning. Each affords 'security' new prominence. Each is a step in reducing anti-social and criminal behaviour risks, threats and incidents Each contributes to creating the vision of a transformed and safe CBD.

While this development has no direct relational responsibility for anti-social and criminal behaviour (security) issues in neighbouring and surrounding environments, there is the obvious obligation under Council's DCP and City Centre Crime Prevention Plan to avoid the perception that anti-social and criminal behaviour is of no consequence to the security of surrounding neighbourhoods.

3.2.4. Adjoining and Surrounding Buildings

In the last 12 months, there have been negligible increases in property graffiti vandalism or serious damage targeting premises in close proximity to the proposed V by Crown development; to the north, east or south. Buildings in surrounding streets are dual or multi-storey, comprising mixed use commercial, government office and retail space. Each appears to have uncoordinated combinations of external perimeter security lighting and/or CCTV coverage. There are no observable lighting 'standards' or strategies from one structure to the next. Nor is there any attempt to complement perimeter lighting with street lighting.

External lighting, landscaping and CCTV coverage of the proposed site could (should) showcase the precinct. Perimeter security strategies of recent developments could be assessed as to:

(i)   their relevance and effectiveness for V by Crown to ensure relevance and effectiveness;
(ii)   opportunities for neighbouring premises to adopt V by Crown perimeter security design;
(iii)   establishing a 'standard' (or guidelines) for possible 'roll out' by Council across other CBD locations.

3.2.5   LGA Crime Statistics and Trends

The following crime statistics are relevant to the Parramatta environment. They are issued by the NSW Bureau of Crime Statistics and Research.

It is important to note that all crime statistics relate to reported and recorded crime. Most serious assaults, robbery offences and property damage (other than graffiti) are usually reported to police and/or the Council. Therefore, a number of categories may also show lower than actual incidents.

Further, 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.

Recorded victims within the Parramatta Local Government Area.	2007	2008	2009	2010	2011
Murder	2	2	0	0	0
Assault (domestic violence related)	653	610	638	621	691
Assault (non domestic violence related)	1101	1197	1017	992	927
Sexual assault	96	79	79	82	89
Indecent assault/act of indecency/other sexual offences	99	133	124	148	135
Robbery without a weapon	214	174	167	166	167
Robbery with a firearm	25	27	30	28	26
Robbery with a weapon not a firearm	112	106	106	81	86
Break & enter – dwelling	1415	1313	1268	1292	1168

Break & enter non dwelling	496	360	330	258	267
Motor vehicle theft	868	790	677	616	592
Steal from motor vehicle	1987	1702	1046	1027	1211
Steal from retail store	821	774	843	741	786
Steal from dwelling	357	334	392	435	388
Steal from person	523	392	303	291	236
Malicious damage to property	1936	2096	1903	1673	1730
Arson	180	139	114	94	76

Trends in Recorded Crime Statistics 2007 to 2011 by offence category	24 month trend	60 month trend
Murder	No Change	No Change
Assault - domestic violence related	Stable	Stable
Assault - non-domestic violence related	Stable	-4.2%
Sexual assault	Stable	Stable
Indecent assault, act of indecency and other sexual offences	Stable	Stable
Robbery without a weapon	Stable	Stable
Robbery with a firearm	Stable	Stable
Robbery with a weapon not a firearm	Stable	-6.4%
Break and enter dwelling	Stable	-4.7%
Break and enter non-dwelling	Stable	-14.3%
Motor vehicle theft	Stable	-9.1%
Steal from motor vehicle	Stable	-11.6%
Steal from retail store	Stable	Stable
Steal from dwelling	Stable	Stable
Steal from person	-18.9%	-18.0
Malicious damage to property	Stable	-2.8%
Arson	Stable	-19.4%

3.2.6   Security Objective 2:   Conclusions

Our review of the Section 75W documentation indicates that the development's overall design is not likely to cause, condone or promote anti-social or criminal behaviour to the surrounding CBD locality. In particular, the proposed design of the ground floor precincts should positively assist in 'modelling' socially acceptable behaviours within the immediate and surrounding neighbourhoods. While the heritage precinct could 'attract' targeted anti-social or criminal activity, the protective measures proposed alleviate increased risk concerns.

The mixed use operations accord with other CBD interactivity, with pedestrian and vehicle movements to and from the site and its immediate surrounds, generating purposeful presence. The additional legitimate activity will add welcome interspatial flow to that part of the CBD.

3.3   Security Objective 3: Designing Out Crime

The development should reflect a 'welcoming and 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 (design) solutions to each of the site's retail, residential, heritage, communal and basement precincts.

3.3.1   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.

CPTED principles are basic to Council's DCP and underpin the crime prevention requirements of the Department of Planning (refer Objective 1). The latest drawing variations are mindful of the significant issues with regard to pedestrian and vehicle movement as that movement impacts on the mixed use vision for the site. Therefore way-finding and parking design is critical to preventing and/or resolving security related tensions in the accessing the various precincts. Macquarie Street is the site's welcoming heart. Security design should support the heart's form. Importantly, the heart is heritage which again from a security perspective requires design sensitivity.

CPTED, Safer-by-Design or security design, principles seek inter and intra spatial architectural connectivity which maximises legitimate people-centred activity encouraged by perceptions of personal safety and belonging. This is achieved by designing for territorial (precinct) ownership, good surveillance sight lines and clarity of access – the three themes of Oscar Newman's 'Defensible Space' concept of the 1970's (*refer Appendix 1*).

HCPS has considered the following design aspects or parameters of the Section 75W documentation in relation to incorporating CPTED principles, facilitating spatial (territorial) definitions, passive and active surveillance and access control through welcoming way finding.

Design development/detail should document specific security design in relation to:

- lighting, landscaping and signage
- building and site perimeters
- the heritage precinct and archaeological centre
- street level pedestrian entry
- contained (purposeful) and casual pedestrian flow
- vehicle movement and parking
- contractor and emergency vehicle access
- utilities infrastructure
- alarm and surveillance technology

3.3.2   Underpinning Sub-Disciplines - Lighting, Landscaping and Signage

In essence, these three architectural sub-disciplines provide a coordinated foundation for meeting the whole-of-site security design objective. In concert, they define, identify, guide, permit and restrict vehicle or pedestrian movement to or from each precinct. It is therefore

recommended that interdisciplinary sub-planning occur to create an overarching (security) design strategy for each of the areas referred to in 3.3.3 to 3.3.11.

Lighting in this context refers to external and internal public space illumination – façades, landscaped areas, pathways, corridors, lobbies, reception foyers, vehicle ramps, parking areas, perimeter set-backs and/or recesses. From a security perspective lighting design must coordinate all mono and multi-chromatic spectra, ideally eliminating 'up' or eye level 'throw' which causes glare. (Bollard lighting is an example. While an aesthetically pleasing way-finding option, bollards can cause glare and shadowing. They often become 'buried' in mature landscaping and are targets for vandalism. We recommend that these not be used in the heritage precinct or in terraced areas.)

Our preferred (security) option is to 'down light' all relevant areas. Overhead lighting maximises surveillance opportunities and minimises glare-related confusion. In this context there is opportunity for under-eave, high wall and pole mounted luminaires all of which will add to site-wide lighting pattern consistency, assisting with purposeful way-finding. Down lighting also reduces long shadowing, reducing concealment.

Landscaping is critical to territorial definition and surveillance facilitation. The Macquarie Street precinct and Level 1 terrace gardens will require attention in keeping with CPTED principles maintaining low level shrubs, grasses or planter box or grasses at 1.0 to 1.5 metres high at maturity, again to reduce opportunities for concealment. Where trees are being considered, at maturity, under-storeys should be ground-cleared by at least 1.0 metre.

Signage has two security (and safety) purposes – directional and controlling. Directional signage should provide coordinated way-finding clarity throughout the site. Colour coded signage in line with safety Standards has beneficial security outcomes, complementing lighting, even landscaping, in 'guiding' purposeful or casual pedestrian flow. Uncertainty often causes hesitancy, even panic, when way-finding is vague or is poorly lit. Controlling signage should indicate restricted access and off-limits demarcation. It is a pre-challenge measure to advise (notify, identify, clarify) persons and vehicles as their location and its legitimacy.

Design development presents an opportunity to incorporate appropriate security architecture from the three sub-disciplines into car vehicle ramps and parking, terraces, all street-active areas and main or foyer entrances.

3.3.3   Building and Site Perimeters

The three street frontages require attention to facades to minimise opportunities for graffiti and other damage. The design of public and stakeholder entry points should maximise surveillance through attention to sight lines looking towards and away from access points. Landscaping and lighting play a key role in sight line effectiveness.

Street level retail and/or public domain facades should be constructed and/or treated with graffiti resistant materials, including paints and colours to dissuade vandalism. We note the intention to use aluminium composite cladding or similar, with glazed retail frontages to be 'toughened' (to the relevant Standard) to resist damage.

The perimeter definition along Macquarie Street and north east corner of Marsden Street proposes stepped entry statement leading to the plaza, permitting good casual (surveillance) viewing to and from the street corner While the extensive ground level perimeter and plaza glazing increases the risk of damage, the overall treatment of the northern, eastern and southern perimeters affording appropriate street and set-back surveillance, should counter this risk.

Lighting design, favouring overhead treatment within the plaza space and at the residential entries off Marsden and Hunter Streets, will support night time sight line continuity.

3.3.4   Heritage Precinct and Interpretation Centre

Since the Report by Edward Higginbotham and Associates (September 2009), there have been extensive consultations as to design, preservation and access of the precinct. The new design locates the archaeology below the plaza with restricted access via the café and/or interpretation centre. A glazed balustrade will be erected within the plaza to permit 'plan' viewing of the precinct. The archaeology display (archaeology level) will be protected by additional balustrades and designated walkways.

In an earlier report on the archaeology and the Centre we made the following recommendations which, in our view remain relevant. We note that these (or like) recommendations will be incorporated into the precinct's overall security design.

(a) Maintain strict security measures throughout construction – fully enclosed, alarmed, CCTV monitored and externally lit protective structures;

(b) Pedestrian movement at or near the areas should be designed to maximise interest while minimising unlawful access opportunity;

(c) Installation of 'activity driven' recording cameras would augment, but integrate with, whole-of-site CCTV and alarm detection systems;

(d) The Interpretation Centre should also be under constant internal and external CCTV surveillance;

(e) The design and location of possible concierge style security offices/control points within observational 'reach' of the sites would facilitate purposeful passive surveillance;

(f) Regular security patrols should focus on the archaeology, particularly at vulnerable evening and week-end periods.

3.3.5   Street Level Pedestrian Entry, Lifts and Lobbies

Pedestrian (resident, visitor, contractor and corporate) access to the mezzanine level and all other levels is either concierge-controlled and/or managed by proximity card technology, activating sliding glass doors into lobbies. There are three entry points – (i) from the plaza, (ii) from Marsden Street and (iii) from Hunter Street. After-hours access for residents will only be possible from Hunter Street.

Public access to retail/heritage space is via Macquarie Street. Management of access and egress to the heritage precinct is to be resolved at design detail. The Macquarie Street (heritage) plaza affords maximum passive and technical surveillance options for a significant public domain. The plaza's re-design retains a breadth and depth, affording wide angle passive or technical surveillance. Activity generation within this space will assist in passive surveillance enhancement.

Sight lines from Marsden Street to the residential lift/lobby are unobstructed due to the 'three way' approach. The intention is to retain a Hunter to Macquarie Street pedestrian flow. Graduated overhead lighting would add to lift and lobby certainty, particularly for 'first time' visitors to upper levels. The width and depth of the Hunter Street (residential) entry provides residents and visitors with an appropriate and controlled entry statement.

The drawings indicate safe waiting space for public and goods lifts and lobbies at each basement level and at ground and mezzanine levels. There is adequate surveillance from the residential lobby 'concourse' and from basement car parks. The 'enclosed' lobby design at basement lift lobbies is not recommended for basement access.

Subject to BCA and fire regulations, all goods and passenger lifts should feature safety glass panels, specified to maximise sight lines for those entering and exiting lifts. CCTV surveillance should operate in or around all lift foyers, including goods lifts.

The security design specifics of all lifts, lobbies and lobby access should be addressed during design development to ensure uniform treatment. Corridor, lobby and lift locations adequately define movement certainty. CCTV surveillance at all key entry/exit points, including basement vehicle-pedestrian 'interchange' walkways to or from lobbies is strongly recommended.

3.3.6   Contained (purposeful) and Casual Pedestrian Flow

The drawings indicate contained and controlled pedestrian movement from the basement and street levels. All, except visitors and members of the public, have designated entry and limited access points determined by appropriate signage and access control technology. Design detail will better express the flow consistency. From a security perspective, movement confusion has been eliminated. Public access to mezzanine, residential amenities (Level 1), conference and additional amenities (Level 2) and residential tower levels is by restricted invitation. There is always an issue around unauthorised 'following' but this is a post construction security management matter.

3.3.7   Vehicle Movement and Parking

There are six basement levels accessed from Hunter Street. There is a single entry two-way ramp and all levels are access controlled. Location of the (recessed) main roller shutter is subject to design detail to take account of loading dock requirements. Basement 1 (designated as retail and visitor spaces) will have a perforated roller shutter, appropriately controlling access to the remaining (residential parking) levels.

Basement drawings indicate orderly parking and vehicle movement layouts. Technical surveillance should also cover all basement level lift lobbies and (as mentioned elsewhere) the entrances to infrastructure and systems control rooms.

Lighting is critical in all vehicle movement space. Graduated overhead lighting should inform the ramp's entrance to and through the roller shutter, which should feature an over-riding mechanism located away from easy external manual reach. The waste storage and loading dock areas should be illuminated (ideally above the minimum Standard) to highlight these spaces. Even though all vehicle movements are controlled, there is always the possibility of unanticipated tail-gating. Therefore, throughout the basement levels, lighting should provide high-definition vehicle recognition and recognition of pedestrians moving towards or away from vehicles. Reflective ceiling paint aids lumen strength and minimises shadowing.

There is good (security) alignment between parking spaces and structural columns, which ideally should be round or elliptical to avoid concealment; notwithstanding the acknowledgement that all levels are access controlled. Basement lift lobbies are clear of obstructions (apart from the occasional structural column), again providing wide-angle sight lines. The sight lines between spaces and along parking rows are appropriate.

3.3.8   Contractor and Emergency Vehicle Access

This relates primarily to ramp approach, turning and designated parking spaces for at least one emergency vehicle on each basement level. Well lit and signed areas should indicate reserved contractor and emergency vehicle spaces as part of each basement level's vehicle movement and parking plan. Camera surveillance of all access and parking points is essential.

3.3.9   Utilities Infrastructure

All utilities and communications infrastructure are vulnerable at connection and feeder points. There is appropriate emphasis on access control to these zones. Designated plant, motor and control rooms are isolated and appear to adequately protect all systems. HCPS recommends camera surveillance of all plant/control room entry doors. Contractors should be made aware of this security management measure as part of their induction. Infrastructure plant, control and caged spaces should be free of clutter to enable easy access by contractors and/or emergency personnel.

3.3.10 Waste Storage and Removal

The garbage room and bulk waste areas have been clearly defined with no public access. There is adequate surveillance within the loading dock to monitor waste containment and safe removal. The loading/unloading area should be under camera surveillance.

Waste storage can be intentionally or accidentally set alight therefore, combustible waste materials should be stored where its location and collection may be observed by human resources and technology, e.g. CCTV. Fire detection and fire suppression systems should be installed.

3.3.11 Alarm and Surveillance Technology

The nature of this development requires appropriate security and surveillance technology to support physical (security) design. The technology's function is to detect and deter suspicious, anti-social or criminal behaviour. While there is on-going debate as to effectiveness, it is now a mainstream design measure. Where potential law-breakers are aware of the presence of technology, such awareness and deterrence strengthens prevention. Security technology specifications should be integrated with fire and emergency systems.

We are of the view that camera surveillance technology should support the development's physical design and (post-construction) management measures, not the reverse. While technical surveillance must be 'published' to alert owner/occupiers and casual users, the location of cameras should focus on key areas including, the Macquarie Street, main entry and heritage precinct, pedestrian entry points in Marsden and Hunter Streets, reception foyers, lift lobbies, building perimeters, vehicle entry and loading points, vehicle parking, infrastructure and key installations co-located within basement parking. Regular testing of systems capability is essential (refer Objective 4).

3.3.12 Security Objective 3:   Conclusions

We note that, from a security perspective, drawings to be submitted as part of the Section 75W application reflect opportunities for appropriate 'security design' based on CPTED principles, to be incorporated into relevant aspects of the development's detailed design which should focus on:

- the role of architecture and engineering in achieving an integrated 'whole-of-site' security outcome;
- innovative solutions for securing the heritage precinct;
- access control for pedestrian and vehicular traffic;
- layout and interconnectivity of vehicle entrances, exits, loading and parking spaces with the various mixed use operations;
- intra and inter-precinct pedestrian flow and interactivity;
- form and robustness of building perimeter facades and set-back spaces;
- technical surveillance of sensitive precincts including utilities infrastructure;
- development of an interdisciplinary lighting, landscaping and signage sub-plan for the above specifics.

We are satisfied that the developer's intention to apply security design solutions to relevant aspects of design documentation included in, but not necessarily limited to 3.3.3 to 3.3.11 above.

3.4   Security Objective 4: Marketability, Reputation and Management

Together with recommended and/or agreed security design solutions in Security Objective 3, the implementation of a security awareness, maintenance and risk management plan – CPTEM - should enhance the overall marketability, reputation and duty-of-care of the development.

3.4.1   Post-Construction Operational Security Management

The effectiveness of an holistic security regime will depend on the capacity of V by Crown's owner-occupier stakeholders to develop and deliver formal security awareness, procedures and practices – CPTEM – as a strategy to manage on-going anti-social and crime (security) risks. CPTEM is the point of connection with security design.

Implementation of a CPTEM regime should contribute to the development's 'duty of care' and occupational health and safety requirements.

Ultimately, from a security perspective, V by Crown will succeed as a preferred 'destination' (a) if there is good security design (detailed in Objective 3) and (b) on-going security risks are identified and managed to support design. This fourth objective encourages the developer to match the design benefits with professional security operations management. The simplistic notion that deploying contracted security patrols or guards, as *the* solution, is but a small part of meeting this objective.

In line with Objective 2, a continuum of effective security management should enhance the design aim of welcoming and safe space while indirectly (hopefully) seeking to promote and model broader (beyond site) crime free environments. There is no point in 'designing out' crime if there are no post-construction strategies to monitor and manage on-going crime risks.

The development's marketability and initial reputation in the first instance will stem from its appeal as a new and exciting 'address'. In the longer term, reputation will in part depend on how security is valued as a contributor to the address. From the outset, security will impact on marketability as the address is 'sold' to its prospective client base. There are four elements to ensuring cost-effective CPTEM outcomes:

- scheduled security technology maintenance,
- skilled security monitoring and incident response,
- sound security procedures and practice,
- targeted management of reputation and 'new' risk.

These four elements form the framework for a recommended Security Management Plan (SMP).

3.4.2   Scheduled Security Technology Maintenance

There are two issues – failure and redundancy.
It is our experience that security technology, once installed, fails for lack of comprehensive maintenance scheduling. Failures occur in systems relating to security communications, CCTV surveillance, access control and alarms. Installation of coordinated camera or alarm systems throughout the site is of little value unless there is regular maintenance and testing scheduling. It is also critical that owner occupiers, including casual and contract staff servicing the complex, have a working knowledge of the interconnectivity of each technology type. There are two aspects:

(i)   Accredited technicians must regularly test all equipment, not just systems which require mandatory checks.
(ii)   The testing regime must include checks of incident response communication equipment to ensure clear and rapid reporting and recording of systems reliability.

It is also our experience that redundancy is often not part of security budget planning. There are two types of redundancy, a use-by date and the roll out of new technologies. In both cases, technologies need to be constantly reviewed and realigned to meet contemporary (risk) challenges and conditions and in order to ensure that the hardware and software interfaces continue to complement (support) the human resource and security procedures/practice strategies. Capabilities must match specifications. This particularly applies to V by Crown given (a) its mixed use profile and (b) its custodianship of the heritage precinct.

3.4.3   Security Monitoring and Incident Response

HCPS understands that an in-house or contracted security and facilities management team will be appointed. The team should have the overall carriage of a CPTEM plan, including responsibility for security monitoring and incident response.

Security monitoring involves the creation of a security monitoring system (SMS); a template and check list detailing zoned coverage of the site. The template should feature a site map with each of the physical points to be formally checked by staff and/or technicians assigned for that purpose on a random and scheduled basis. The map's template log should be managed electronically. Intra-site coordination is essential ensuring that designated personnel have simultaneous access to all aspects of the monitoring and checking process. Key security

technology, lighting and signage distribution points throughout the towers, retail areas, heritage precinct, basements, roofs and perimeter, should feature clearly on the site map.

Incident response procedures should be clear with all owner/occupiers understanding emergency and general communication lines to report suspicious or threatening activity. Regular incident reporting rehearsals should be part of this aspect of security management, in line with other emergency response rehearsals. Key criteria for engaging security (patrol) contractors (perhaps even security technicians) must be a demonstrated familiarity with intra-site systems distribution, understanding of environmental observation methods (situational awareness) and interpersonal communication skills.

3.4.4   Sound Security Procedures and Practices

A practical and easily disseminated security awareness (procedures and practices) program is necessary for all site operations. Security awareness is as essential as Work Health and Safety (WHS) and emergency procedures awareness.

Security awareness is usually resisted by owner/occupiers who would rather leave all crime related matters to employed professionals. In one sense this is appropriate. In another it is not. While professional management of security is part of any holistic regime, in this sensitive CBD environment involving complex mixed use operations and involving heritage protection, informal and internal procedures must also apply. As with WH&S and as with fire and other emergencies, security should be a condition of access and occupation. Usually when emergencies arise there are security implications. Either the emergency is sparked by a crime-related threat or incident, or the emergency requires security procedures to be implemented as part of limiting harm or damage. Our experience shows all too often, that security awareness, procedures, practice and management fails to gain owner-occupier attention.

Site security (safety) awareness within and surrounding the development should be developed in conjunction with Council officers and police to maximise the collective aim of keeping the CBD crime free. All stakeholders of the development have an obligation to accept some responsibility to contribute to the collective well-being of Parramatta City.

Although the security (awareness) emphasis is 'low key' and largely unobtrusive through architecture and alarm technology, there is every reason to encourage a security awareness mind-set, particularly for each of the operational precincts. Security awareness should form part of the mandatory site induction particularly for retail and commercial tenants, contractors and, to a lesser extent, residents. The awareness for retail tenants should include capability to understand and/or manage, in so far as their responsibilities permit, the SMS. Implementation of a security awareness, procedures and practice plan will assist in managing overall legal liability, providing tangible evidence as part of 'duty of care' and other risk management requirements.

3.4.5   Targeted Management of Reputation and 'New' Risk

Shared security goals should lead to shared security expertise and a shared approach to security and emergency risk management; the final element in achieving the fourth objective.

Lasting security outcomes are usually jeopardised if there is no clear plan by the major owner-stakeholder leadership to proactively manage security; that is, to manage the technology, manage full-time or contracted security teams and, ipso facto, manage new crime risks, which if ignored could relegate the development to 'just another CBD address'.

We would encourage the allocation of resources to developing a *formal* strategy as part of the overall CPTEM plan. An executive facilities management led strategy is one which:

- establishes and monitors a formal security management plan, including the development of informal security awareness procedures and practices,
- oversees its implementation and assessment as to effectiveness,
- assesses the effectiveness of SMS and security design interaction,
- takes responsibility to conduct random and scheduled security systems checks,
- formally liaises with counterparts in neighbouring premises, with Council and with police to inform and be informed about collaborative security management initiatives;
- researches new technologies,
- manages and provides input into annual security budgeting processes with regard to the above.

An effective CPTEM plan engages internal and external stakeholders, drives acceptance and participation and drives a regime of continuous improvement.

3.4.6 Security Objective 4: Conclusions

It is essential that the on-going security reputation of V by Crown is served by implementing a whole-of-site CPTEM plan even though such a plan may not be a stipulated as a consent condition. A site wide plan will enhance the addresses reputation as desired welcoming and safe space. We acknowledge that ultimately, it is the responsibility of the owner/occupier clients to agree on, and implement, such a plan.

Security Objective 4 is linked to compliance requirements (Security Objective 1). The development's operations stakeholders have on-going responsibility to identify and manage (reduce or prevent) risks associated with future site-based anti-social and criminal behaviour. The community (public) interest is a continuing one. The Council's City Centre Crime Prevention Plan seeks integrative responses from all activity generated within the Parramatta CBD.

We recommend that, prior to post-construction commissioning, the client seek advice in preparing and implementing a CPTEM plan, by consulting with local police, the Council, Chamber of Commerce and Heritage Council representatives, together with owner/operators of surrounding precincts to ensure that the plan converges with similar initiatives in place, or proposed, throughout Parramatta's City Centre.

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4   Consultancy Methodology

The methodology indicates the perspective taken by the consultants in undertaking our analysis and making recommendations. The consultants have:

(a) reviewed the drawings marked 02/16/12 10052 in order to understand the commercial and architectural goals of the proposed development;
(b) received input from the developers' design and management representatives;
(c) explored the crime risk backdrop including information about local anti-social and criminal activity;
(d) visited the site during daylight and evening hours;

(e) obtained information in relation to (security focussed) planning authority instruments.

5   References

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Appendix 1:
Crime Prevention as a Design and Management Strategy

A 1.1   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 of 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 is 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 1.2   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 1.3 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 1.4 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.

Geason and Wilson (1989:5) 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 1.5 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 1.6   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; ie 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.

A 1.7   Crime Prevention Through Environmental Management (CPTEM)

The application of CPTED design principles (A1.1 to A1.6) must be reinforced by the place management of identified security (anti-social and criminal behaviour) risks. The two strategies complement each other. Design seeks to reduce risks through creative physical intervention. Management seeks to build on the design outcomes by monitoring and managing on-going risks through stakeholder awareness protocols, through technology maintenance and renewal and through cooperative place management by police, security and facilities operatives.

CPTEM is often over-looked to the detriment of a development's reputation outcomes – marketability and stakeholder duty-of-care. On-going security management may fail if it is not approached strategically and responsibly. Ad hoc and/or intermittent attention to CPTEM can negate the design strategy and can leave owner-occupiers exposed to litigation in the event of threats or incidents occurring on any part of a development's footprint.

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