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**Stage 1 Crime Prevention Report:
West Keira Project**

We have pleasure in submitting this Final Report for the above development. Should you have any questions please do not hesitate to contact me.

Yours sincerely,

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Principal Consultant



Harris Crime Prevention Services Stage 1 Crime Prevention Report

for the
**West Keira Development
Project Application**
on behalf of
The GPT Group

July 2011

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1 INFORMING BRIEF

Harris Crime Prevention Services (HCPS) has been commissioned to provide consultancy services in relation to the proposed West Keira (Street) development (the development or the project), as part of a Project Application (PA) by Hansen Yuncken and the GPT Group.

Hansen Yuncken advise: *"The major project works to which this scope of works relates is the construction of a new 6 level retail centre on and to the west of Keira Street and north of Crown Lane in the Wollongong CBD, on top of which (to be built at a later stage but requires consideration during the design of the retail centre) will be a accommodation tower and a commercial tower. The mixed-use complex will be interconnected by a tunnel and bridge under/over Keira Street to the existing Wollongong Central Shopping Centre. The Wollongong Central Shopping Centre itself is to be subject to various alterations and additions and is to be part of the design brief."*

In 2008, the NSW Minister for Planning granted approval for the development as a "major project" (06 0209) under the Part 3A provisions of the Environmental Planning and Assessment Act, 1979 (EPA Act), conditional on adopting the (Planning) Director General's requirements as Schedule 1, 2 and 3, now applicable to the 2011 PA. Within Schedule 3, the Director General notes (Item 20 A) *"The proponent will adopt the recommendations of the security review prepared by Harris Crime Prevention Services and submitted with the application in relation to (a) incorporating appropriate security design specifications into detail design documentation (b) establishing a whole-of-site security strategy and (c) considering the preparation of a post-construction Security Awareness Plan, in consultation with relevant stakeholders such as Wollongong City Council, local police and transport authorities."*

In response, Hansen Yuncken have outlined scoped requirements for a subsequent HCPS consultancy. HCPS has proposed the consultancy as three (3) inter-related scoped stages:

- Stage 1: Review plans and drawings prepared for the Project
- Stage 2: Input into Design Development
- Stage 3: Post Construction Security Awareness Policy and Management Plan

This Report covers the agreed Stage 1 scope.

The consultancy brief is also informed by the requirements under Section 79C of the EPA Act and the requirements of Wollongong City Council's Community Safety and Crime Prevention Plan, together with the (draft) Safety in the City Strategy and relevant sections of Council's Development Control Plan.

2 THE PROPOSED DEVELOPMENT

The development is a Section 75 W submission of the original plan, that is - the construction of a new 6-level retail centre on and to the west of Keira Street and north of Crown Lane in the Wollongong CBD, on top of which (to be built at a later stage) will be a residential tower and a commercial tower. This mixed-use complex will be interconnected by a tunnel and bridge under/over Keira Street to the existing up-graded Wollongong Central Shopping Centre. The major project comprises:-

- demolition of all existing structures on the West Keira site;
- excavation to a maximum depth of around 14 metres below existing ground level to accommodate the proposed basement car park and lower ground retail level;



- closure of the southern end of Richardson Street and associated subdivision to facilitate its sale and transfer to the GPT Group;
- construction on the West Keira site, of a new 6-level retail centre comprising a single-level basement car park, 3 levels of retail (including one at lower ground level), and 2 levels of above-ground parking, including necessary support structures for the erection in the future of 2 towers (one commercial, one residential) and their associated parking above the roof of the retail podium;
- interconnection of the new West Keira retail podia with Wollongong Central shopping complex across Keira Street via a tunnel and a bridge, and the creation of stratum lots associated therewith;
- realignment of the eastern end of Crown Street through demolition of No. 228 Crown Street on Lot 1 in DP 154592, and the creation of a new piazza at the corner of Crown Lane, Crown Street, and Keira Street.

The development is in line with Wollongong City Council's vision of encouraging residential development within the City's hub and encouraging mixed use businesses to complement that initiative. Over time, this will create socially and economically vibrant spaces where focal point activity could be generated on a 24/7 basis. This has significant implications for security. Nothing will negate vision, vibrancy and viability faster than perceived or real anti-social or criminal behaviour; hence the security emphasis.

Eventually, each of the development's mixed use precincts – retail, commercial, recreational and residential - should reflect seamless security as part of the aesthetics and commercial outcomes. There is an opportunity for the total development to present a 'security model' for the CBD, especially in terms of Council's city centre planning. In this light, the development's architecture becomes a foundational 'safe space' platform.

The development will be genuinely regarded as a collective community facility in the sense that it will significantly add to the vision for a re-vitalised CBD. The development's relationship to other aspects of the Mall, including the relationship to transport, neighbouring park land (for example McCabe Park) and streetscapes is, from a security perspective, critical. Matters of personal safety and property security within the CBD will be paramount; hence the need for this development to contribute to this goal.

High 'levels of comfort' will therefore be expected in relation to all forms of security. The client seeks to present an environment where security unobtrusively embraces the entire site, without any unnecessary compromise on the overall design and operational objectives. Thus, the security strategy must blend and function holistically.

Hopefully, the strategy will set a standard for similar and subsequent developments in and around the CBD. The combined emphasis on security design, security technology and human security solutions, aims to establish a whole-of-site post-construction security regime that will be professionally and seamlessly managed.

3 THE CONTEXT AND STAKEHOLDERS

In recent years Wollongong City Council (the Council) has been engaging in re-master planning the City's CBD. There have been continuing reports and incidents occurring within the Crown Street Mall, to the perceived detriment of social and retail activity. Council is determined to reverse this perception through its re-vitalisation plans for the CBD. Developing unobtrusive security and community safety strategies are central to this process in order to curb the negative impact of anti-social behaviour and criminal activity in and around CBD streets and



built form precincts. Council's re-think of strategies aims to reduce the risks, threats and incidents of such behaviour with the intention of making all civic and built form space safer.

Council's policies and planning instruments have consistently addressed issues of community safety, particularly with regard to proposed developments within the CBD. The on-going concerns raised by CBD business owners, by staff and public accessing those businesses, by Council in relation to public space criminal damage and by the NSW Police in relation to anti-social behaviour and assaults within and around CBD premises, have prompted Council's initiatives. To re-iterate, this project (incorporating the redeveloped Crown Central Shopping Complex) should play an integral role in Council's overall crime reduction and prevention strategy.

We see two opportunities to positively influence, and therefore support, the initiatives. First, by incorporating 'bench mark' security design into all relevant aspects of the project, the developer's will signal agreement to a new security design standard for the CBD. Secondly, by implementing a post construction security awareness and management strategy, the development's reputation will be enhanced, again setting a new standard for protecting people and place.

The diverse stakeholder base comprises

- NSW Government;
- Wollongong City Council;
- NSW police;
- the developer(s);
- retail shoppers drawn from the local, neighbouring and hopefully, distant communities;
- owner/occupiers of the retail, commercial and residential precincts;
- recreational users of active and passive areas;
- staff and contractors servicing all aspects of the development.

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

4 THE SPECIFIC SECURITY ISSUES

The following broad security issues relate to this development:

- While concentrating on the retail development, the risks and risk mitigation through design and management should 'straddle' the entire foreshadowed project, using the retail development as a foundational platform. The immediate overall risks relate to the public connectivity with (a) the retail podia (b) pedestrian and car park entrances and space (c) Wollongong Central (d) public transport (bus) interchange, (e) proposed adjacent Keira Street) secure taxi rank and (f) surrounding streets including a re-furbished Mall.
- Anti-social and crime risk behaviours are often perceived as one and the same. They are not. However, alcohol and/or other drug-fuelled anti-social 'noise' and intimidating behaviour can lead to criminality if not addressed. As the development seeks to present its 'market' to a wide demographic including young people, the security design features of design development/detail must encourage 'safe' retail activity through architecture likely to generate such behaviour. West Keira and Wollongong Central will become and remain into



the foreseeable future, Wollongong's premier CBD addresses. This reinforces the abovementioned need for a progressive whole-of-site approach to security design and management, placing both GPT developments at the forefront of best security (design and management) practice. Whole-of-site security integrity positions the interconnected retail destinations as taking a lead in the safer CBD and broader LGA community objective. Future users of the different spatial 'zones' or precincts must be able to feel confident as they move to and from each, confident of integrated and effective protection.

- The key concerns (identified by anecdotal and statistical evidence - refer 6.1) likely to detract from a 'safe space' reputation relate to (a) property damage including graffiti, (b) assaults on staff, contractors and members of the public, (c) theft of, or theft from vehicles and (d) unruly or noise-generated (anti-social) behaviour likely to intimidate individuals or groups.

Every new urban development is now partly measured in terms of its reputation for personal safety (security). This redevelopment is no exception. Owner/occupier stakeholders must know that every effort has been made to incorporate 'security' into the development design brief as forethought, not afterthought. It is also essential that stakeholders accept a role in a post-construction security awareness and/or management plan.

In today's climate of fear and uncertainty about urban crime, governments and stakeholder-clients alike are keen to address security whenever new people-focussed developments are proposed. Where once security was a peripheral issue, it is now a critical consideration to this and almost all similar urban developments across Australia.

The consultants acknowledge that the client has accepted 'security' as a critical component of the master plan and detailed design. This report's analyses, commentary, conclusions and recommendations are presented against this philosophy.

5 THE STAGE 1 (SECURITY DESIGN) SCOPE

- 5.1 Research local area, current trends/crime rates/ technologies etc. and produce report on findings.
- 5.2 Understand the project's security parameters within the overall design framework and review all briefs, plans and drawings accordingly.
- 5.3 Review plans, briefs and drawings prepared for the Project Application Approval specifically to ensure they meet security design guidelines relevant to all authorities.
- 5.4 Conduct physical inspections of site and neighbouring areas to understand current trends/technologies and crime prevention measures and effectiveness in the current environment.
- 5.5 Produce ideas/implementations and professional views/recommendations on the project design towards crime prevention.
- 5.6 Ensure compliance with the requirements of relevant state and local planning authorities including Project Application Approval and all associated amendments.
- 5.7 Make relevant recommendations for foreshadowed design development changes where requested by authorities or other parties.
- 5.8 Specifically review the parking provisions for cars, contractor vehicles, motorbikes and bicycles for all security requirements in accordance with the methodology that was previously adopted in the TIA and accepted by the RTA and WCC.

The project combines a bounded retail, and future commercial and residential development connecting with the re-developed Wollongong Central Shopping Centre. West Keira is



contained within Market Street, Keira Street, Richardson Street and Crown Lane. The development fronts Keira Street, the Crown Street Mall and Church Street.

From a security perspective, the significance of this total environmental footprint cannot be underestimated. Its commissioning will form the hub of Wollongong City Council's vision for a re-vitalised Central Business District (CBD) of which security (public and personal safety) is a core component. This is reflected in the Council's aforementioned Safety in the City Strategy. Therefore the development's reputation as 'welcoming safe space' becomes essential to the Strategy. The development's approach to designing-out-crime or 'security design' is therefore critical.

We define 'security design' as *"an environmental crime prevention strategy; applying aspects of architecture, engineering and technology to all urban development proposals."*

'Welcoming safe space' may be defined as *'built form and public domain environments where the prevention of anti-social and criminal behaviour is in part realised by incorporating security design into master-planning, design development, design detail and construction processes, leading to the enhancement of a development's overall marketability and reputation as a preferred destination.'*

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. Local and State authorities throughout Australia have adopted CPTED principles as part of planning instruments relating to the security of built environment development proposals..

The operational out-workings of 'security design' are underpinned by Crime Prevention Through Environmental Management (CPTM), an intentional strategy combining security (crime prevention) awareness policies with design maintenance and whole-of-site (security) risk management.

6 SCOPE OBJECTIVES AND OUTCOMES

Against the brief, context and scope, we have identified three security objectives:

- **Security Objective 1:** Contextual Crime Risk Assessment (Scope 5.1, 5.2 and 5.4)

This involves assessing neighbouring and wider local environments in terms of anti-social behaviour, criminal activity or potential crime risks and their likely impact on the commercial goals of the project and associated stakeholders.

- **Security Objective 2:** Security Design for the Project (Scope 5.3, 5.5, 5.7 and 5.8)

This 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 3:** Compliance with Planning Instruments (Scope 5.6)

The project should comply with the security requirements of Council and/or State planning instruments, specifically the requirements of Section 79C of the EPA Act, and requirements within Wollongong City Centre Revitalisation documentation, expressed through the 'Vision,'

'Civic Improvement Plan', strategic crime prevention policies, policies and Council's Development Control Plan.

6.1 Security Objective 1: Contextual Crime Risk Assessment

To assess the environmental 'mix' surrounding the proposed development in terms of causing, condoning or promoting anti-social or criminal behaviour and/or constituting increased crime risks to the proposed development. Conversely, concept drawings should reflect the development's intent to reduce and prevent anti-social or criminal behaviour and/or prevent any increase in CBD related community crime or crime risks.

6.1.1 Analysis and Commentary

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. 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.

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

As a major mixed-use development, the design must aim to provide a vibrant and inter-connecting safe environment. Hence there is need to pay close attention to the way both aspects of the development inter-relate and to understand how the entire development relates to the rest of Wollongong's CBD.

Regrettably, parts of Wollongong CBD have been the targets of both anti-social behaviour and criminal activity (in some cases serious crimes) over a number of years. Pedestrian and vehicle corridors leading to and from the Mall have also been targeted by those intent on creating public nuisance and/or property damage. Information obtained from local police on reported crime in and around the Mall and neighbouring streets reveals criminal activities across the following categories:

- malicious damage to property (including graffiti);
- attempted sexual and other assaults;
- break and enter premises; threatening behaviour towards shoppers;
- vehicle theft and stealing from vehicles;
- stealing, particularly bags or wallets.

Many of these crimes stem from alcohol and other drug-fuelled behaviour which often occurs in the area from intoxicated individuals or groups migrating along the Mall's east-west trajectory to or from nearby liquor outlets in Crown and Keira Street late at night or on week-ends. Council, local police and private security companies have combined to initiate frequent patrolling at vulnerable times and to roll-out CCTV cameras throughout the CBD, including in the vicinity of the proposed development.

Wollongong Local Area Command has indicated a downward trend in assaults within and surrounding Wollongong Central shopping centre. However there is an up-ward trend in vehicle theft and, to a lesser extent, theft from vehicles mostly parked in CBD streets. Vehicle theft



from Wollongong Central's car park levels has stabilised and is trending downwards, due to a number of factors including patrolling and CCTV surveillance. Assaults within those same car parks have also diminished significantly over the past three years.

The design of vehicle ramps and car parks, their security monitoring and management, is therefore critical to maintaining low risk levels in the new development. Special mention has been made in the Director General's requirements of the need for specific treatment of ground plane street frontage facades. Our assessment notes that, at the time of writing, graffiti damage along Keira Street, Market Street, Richardson Street, Crown Lane, Crown Street (west) and the Crown Street Mall is minimal, indicating that this form of property crime is being successfully mitigated.

CBD stakeholders surveyed reported little 'post-weekend' damage to retail and commercial premises along the aforementioned streets, even though Crown Street in particular has several disused and/or boarded up frontages which would normally 'attract' graffiti or encourage more serious property damage. The neighbouring hotel and licensed bar are cooperative in regulating noise within and near their premises.

To some extent, mitigation of local crime risks will also depend on the relationship between the project and its 'neighbours' – the public transport arrangements, the retailers opposite and along the Mall, adjacent commercial and retail premises and the varied pedestrian entry and exit points from street levels.

The main bus routes along Keira and Crown Streets provide a limited surveillance presence. However the proposal to re-locate the secure taxi rank at the project's Keira Street frontage (combining the current Market and Burelli Street ranks) has merit in providing essential late night and general after-hours transport.

6.1.2 Crime Statistics, 2006 to 2010: Source - NSW Bureau of Crime Statistics and Research (BOCSAR)

The following crime statistics are relevant to West Keira project for the months January-December, each year. Number of recorded incidents and rate per 100,000 population. Data is gathered on officially reported crime against recognised crime categories.

What is significant is the consistent overall reduction in the crime quantum across all categories with the exception of indecent and/or sexual assault. However there are some trends upwards in the category of retail theft which could be significant to this development. The BOCSAR 'hot spot' indicators (not shown below) for all categories indicates a consistent pattern of crimes occurring in and around the CBD.

Recorded victims within the Wollongong Local Government Area.	2006	2007	2008	2009	2010
Murder	1	4	1	1	0
Assault –domestic violence related	730	726	684	696	621
Assault – non-domestic related	1337	1290	1214	1208	1009
Sexual assault	122	119	136	142	136
Indecent assault/act of indecency/other sexual offences	127	98	100	141	174
Robbery without a weapon	111	102	98	82	80
Robbery with a firearm	3	8	1	4	6

Robbery with a weapon not a firearm	61	47	32	34	37
Break & enter – dwelling	1530	1053	1263	896	1110
Break & enter non dwelling	958	671	692	394	469
Motor vehicle theft	856	634	607	617	553
Steal from motor vehicle	1402	1535	1349	958	987
Steal from retail store	551	683	744	914	645
Steal from dwelling	709	696	578	574	533
Steal from person	295	252	225	200	193
Malicious damage to property	3447	3406	3278	3163	2674
Arson	283	242	283	302	168

6.1.2.1 Trends in Recorded Crime Statistics, 2006 to 2010

Offence category	24-month trend^^	60-month trend^^
Murder^	nc**	nc**
Assault - domestic violence related	Stable	-4.0%
Assault - non-domestic violence related	-16.5%	-6.8%
Sexual assault	Stable	Stable
Indecent assault, act of indecency and other sexual offences	Stable	Stable
Robbery without a weapon	Stable	-7.9%
Robbery with a firearm	nc**	nc**
Robbery with a weapon not a firearm	Stable	-11.7%
Break and enter - dwelling	23.9%	-7.7%
Break and enter - non-dwelling	19.0%	-16.4%
Motor vehicle theft	Stable	-10.3%
Steal from motor vehicle	Stable	-8.4%
Steal from retail store	-29.4%	4.0%
Steal from dwelling	Stable	-6.9%
Steal from person	Stable	-10.1%
Malicious damage to property	-15.5%	-6.2%
Arson	-44.4%	-12.2%

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. ^ For murder and manslaughter, the data are counts of recorded victims, not criminal incidents. ^^ The trend test used was a two-tailed Kendall's rank-order correlation test with a 0.05 level of significance.

For the 24-month trend the annual percentage change is provided if the trend was significant. For the 60-month trend the average annual percentage change is provided if the trend was significant. Rates are only calculated for the major offences. Ranks are not calculated for murder due to the low number of recorded victims per LGA.

** Trend information is not calculated (nc) if at least one 12-month period in the selected timeframe had less than 20 incidents.

Note: 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. Therefore, it is important that any increase in criminal activity should be factored into the auditing and development of site policies, procedures (including maintenance), technology and training.

6.1.3 Security Objective 1: Conclusions and/or Recommendations

From our review of the Project's application drawings, 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 constitutes an additional built form 'strategy' to assist Council in promoting their 'welcoming and safe space' vision for the CBD. Further, the project's overall design and operations is likely to positively impact upon current levels of anti-social behaviour and criminal activity through design and re-design specifics aimed at re-assuring stakeholders that security risks have been considered and ameliorated.

The developer is aware of the need to monitor and manage crime risk factors associated with the project's eventual operation and specifically within the site's physical boundaries.

6.2 Security Objective 2: Security Design and the Project's Concept Design

The development should reflect a 'welcoming and safe space' approach to security by incorporating CPTED principles into design concept (and progressively) into development and design detail documentation; applying aspects of architecture, engineering and technology to promote best-practice crime prevention (security) solutions for each of the project's sub-precincts and their mixed use applications.

6.2.1 Analysis and Commentary

The development's desired security (safety) outcomes in part are achieved by interior and exterior design features that reflect CPTED principles. Reference is specifically made to Council's Community Safety and Crime Prevention Plan and their Development Control Plan, complementing the Director General's Item 20A requirements. In the following analysis, there is reference to six primary CPTED or security design tools, namely, lighting design, way-finding



and other signage, the use of technology, passive surveillance design, activity separation and landscaping.

Throughout the retail levels, including the proposed over-bridge and tunnel, pedestrians must feel encouraged to access and 'congregate' without feeling insecure or threatened; particularly during evening retailing hours. In this regard, lighting, sight lines and the availability of emergency contact points are therefore critical to all of the above.

West Keira's security design should interface with the security design of (i) the re-developed Wollongong Central complex, (ii) the to-be-redeveloped Crown Street Mall and (iii) the design of intersecting streets and roadways, including refurbishing of the bus hub and proposed Keira Street taxi rank. The objective is to provide interlinked safe environments, characterised by creative and collective CPTED architecture. West Keira's immediate contribution to this objective is in relation to:

- perimeter definition and building facades;
- public access and inter-centre pedestrian linkages;
- precinct purpose and separation;
- vehicle access and parking;
- retail concourses and corridors
- lift and lift foyers (lobbies);
- stairwells, passageways and public toilets;
- utilities infrastructure and plant;
- loading docks and waste disposal;
- IT and security communications;
- security control and monitoring.

6.2.1.1 Perimeter Definition and Building Facades

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, could 'spill' across to neighbouring environments.

With the exception of set-back ramps, gates and doorways, the development's perimeter is defined by walled facades aligned to footpaths, roads and/or laneways, which from a security perspective requires strategic attention to lighting design. Uniform lighting design will act as a damage deterrent. Use of under-awning down lighting or aesthetically positioned wall mounted 'down' lighting will provide a pleasing but consistent (shadowless) wash along perimeter footpaths and along perimeter building walls, including limited access doorways. Where glazed awnings are contemplated, down lighting fittings could be mounted within cantilevered awning supports.

Perimeter fire exit and other restricted access doors should have minimum set-back clearances to avoid concealment and should be clearly identified as 'belonging' to the development envelope and numbered as such.

We encourage the client to strategically locate surveillance cameras as part of a total technical surveillance package, in order to guarantee total definitional coverage of perimeters and their access/egress points to assist in identifying suspicious or unauthorised activity.

The majority of the development's front-of-house perimeters comprise glass and/or walled facades at street level and above, which are typically targeted for graffiti or other forms of property damage. While premises in this part of the CBD have been damaged in this way from

time to time, the 'newness' of this development will increase vulnerability. It is new, therefore it is a challenge. While security management strategies will assist in minimising this risk, non-glazed building frontage design (even above street level) should feature the most recent anti-graffiti coatings.

There is minimal external landscaping as part of perimeter definition. However, entry-statement 'boxed' (contained) planting should feature elliptical or round containers which discourage their use as rest receptacle furniture.

6.2.1.2 Public Access and Inter-Centre Pedestrian Linkages

Attractive main entrance architecture is the key to emphasising the development's 'welcome mat'. This includes bridge and tunnel entrance design. The security value in attending to entrance design is in maximising opportunities for natural and technical surveillance. Broad, aesthetically pleasing and well lit street-level entry points are planned for the two Keira Street entries enabling 'suspect' or threatening behaviour to be more easily observed.

Review of the drawings indicates a seamless pedestrian interchange between Wollongong Central and Keira Street via the over-bridge and tunnel. Where possible, the bridge architecture should permit on-street surveillance while the tunnel requires attention to lighting and sight line detail. Safer night time pedestrian movement between both centres and the mall is likely where integrated street, centre and mall lighting is integrated. While this would be a Council initiative, it may be a point for discussion with Council at design development stage to ensure some uniform pattern to all external (security related) lighting.

(Ideally, all street frontage speciality retail should permit maximum surveillance by staff of interior space. Where possible, retail staff should have a clear view of shop and/or street-level entrances and their immediate external surroundings. Also, when it comes to shop fit-out design detail, consideration should be given to limiting display shelf or cabinet heights in specialty shops to prevent opportunities for concealment within premises and to maximise surveillance either side of shop entrances.)

6.2.1.3 Precinct Purpose and Separation

In security design terms, all connecting and welcoming space should provide 'on-approach' certainty and should eliminate any fear or perception of likely anti-social or criminal behaviour. All aspects of the development's design should reflect that destination certainty to prevent inadvertent or deliberate 'wandering'. Signage and lighting are again critical to separation certainty.

With this development, there appears to be clear delineation between concourse space, and retail, space. Concept drawings indicate way-finding certainty from pedestrian and car park entrances. We understand that lighting design detail will maximise an overhead or 'down' lighting philosophy throughout each of the six levels, improving surveillance coverage and negating shadowing while being aesthetically pleasing.

6.2.1.4 Vehicle Access and Parking

The client's intention is to ensure that all vehicle access and parking is designed with a security and safety focus, including loading docks, contractor access and waste removal. There are five critical security aspects – general lighting, way-finding lighting, designated vehicle separation, vehicle surveillance and signage.



- **General Lighting:** We encourage the client to maximise the lighting effect by painting all (enclosed) car park ceilings white to better reflect lighting which should be housed in anti-glare fittings and located at points where (support) column shadowing cannot occur. Well directed tower lighting for roof top parking should be augmented with appropriate way-finding lighting and signage.
- **Way-Finding Lighting:** Down lighting of greater intensity should illuminate pedestrian corridors and associated retail, and public amenity access or egress points.
- **Designated Vehicle Separation:** A critical security point is to identify parked vehicles and to be in a position to observe along (rather than across) parked vehicle lines when emerging from escalators or lifts. Within engineering constraints, from a security perspective, it is advisable to avoid square or rectangular support columns throughout all parking levels in favour of elliptical or round shaped structures to minimise opportunities for 'column concealment'. As with column supports in retail areas, square or rectangular car park columns could be encased in a circular or elliptical façade. Drawings reviewed indicate the proposed configuration of vehicle parking is consistent with good passive or technical surveillance at all parking levels.
- **Vehicle Surveillance:** A critical point with CCTV vehicle surveillance is to ensure that cameras are able to view along lines of parked cars, rather than across the lines, in much the same way as vehicle owners are able to observe as they move to and from car parks.
- **Signage:** Clear way-finding signage is obviously beneficial in vehicle location. There is an added security bonus if the signage is well lit, even at roof top levels. Directional signage and pathways are critical over such large areas in 'guiding' casual users, staff, and contractors to specific locations. Uncertainty often causes hesitancy, even panic, when way-finding is vague or is poorly lit, especially when much of the site is likely to be deserted at night.
- **Help Points:** In light of the perception and history of assault and theft within car parks, design detail should install help points at around car park perimeters and adjacent to lift and escalator lobbies. These points should be well lit, have clear signage and be under CCTV surveillance. This additional security design safeguard is critical where late night retail shoppers and staff may be confronted with near empty car parks as they enter or exit either level.

Desirably, graduated 'down' lighting should feature at all entry ramps to maximise visual adjustment from external to internal environments and vice-versa. Similarly ramps should be consistently lit to at least minimum recommended lux and separation standards. Bollard lighting should be avoided along or near any vehicle access points or ramps, as should wall (eye level) panel lighting.

We also recommend that ramp walls be coated with anti-graffiti paint and that CCTV cameras be installed to track vehicles at critical arrival and departure points. Surveillance tracking is especially critical for vehicles accessing remote or locked-off areas of the site after hours.

All vehicle parking leads to one or more lobbies, which in turn convey pedestrians to other levels via stairs, escalators, ramps or lifts. These lobbies appear to be clearly visible on approach affording reasonable surveillance opportunities.

Where car parking areas are to be locked off at certain times, barriers should be installed to control access. Electronic access control, (for example) proximity reader technology for after-

hours and/or specific level access, should also be installed. Security access and separation is particularly important for after-hours staff and contractors.

6.2.1.5 Retail Concourses and Corridors

Retail concourses are typical mass and/or busy movement points. They are also the social attractors to both shopping complexes. From a security perspective, concentrated and busy movement especially at peak usage times can lead to bag or wallet 'snatching'. The lighting strategy should continue thematic highlighting of concourse precincts and corridors.

In terms of retail activity, the totality of the development encourages integrated public pedestrian movement to and between the different precincts. The tunnel in particular requires creative 'safe space' treatment. Drawings reviewed indicate security design attention to concourses, corridors and social gathering space.

Food court precincts will require sound attenuation attention to encourage calm, low noise circulation activity. While passive surveillance is always difficult in such high volume areas, the design detail should maximise sight line opportunities both by shoppers and retail staff.

Concourse and corridor lighting throughout should reflect security design principles; specifically, to avoid internal free-standing decorative light poles and their fittings which are prone to targeted damage and/or injury from 'skylarking'. Also, as a general rule, the use of free-standing bollards or lamp posts in busy and/or public movement or congregating space should be resisted.

A potential problem exists with the public amenities corridor exiting south from the tunnel. Long amenities-connecting corridors within shopping complexes are undesirable in that they lead to uncertain end points, especially where toilet entrances are not easily identifiable. Ideally, as with other levels, the amenities on the lower ground level should 'front' the concourse.

6.2.1.6 Lifts, Lift and Escalator Lobbies

All lift and lobby areas should present safe waiting space. Goods lift areas are often neglected in this security requirement. The lift lobbies on the retail levels front concourses afford adequate surveillance. Lift lobbies on both car park levels should be accessed from both driveway points, again to maximise surveillance. Escalator lobbies are centrally located within the car parks and there is reasonable connectivity between lifts and escalators.

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.

6.2.1.7 Stairwells, Passageways and Public Toilets

Lighting and signage are key elements of design for the narrower corridors accessing loading docks, service points and public amenities (toilets). Adequate and graduated lighting should feature along these access corridors. In these contexts, staff may be required to negotiate narrow corridors, often delivering or moving goods. Again, clear and, where desirable, 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 with

emergency egress capability only (meeting all regulatory requirements) and appropriately signed.

The centre's public toilet design should reflect clear vision on approach, on entry and on exit. The development presents an opportunity to adopt open entry (curvilinear design) toilets and change rooms. These 'best practice' designs obviate the need for entry void doorways and promote passive surveillance at entry points, at least as far as the washing areas. All toilet doors should swing outwards, or should specify removable hinges. Approach lighting and signage should be above the lux levels of immediate surrounds. Surveillance cameras should be located outside entries.

6.2.1.8 Utilities Infrastructure and Plant

All infrastructure should be considered vulnerable at connection and feeder points. We note the location of utilities and plant rooms are isolated. The location of the sub-station is appropriate. However, we suggest that all infrastructure kiosks (a) be protected from general view, not just caged, and (b) that they be monitored via CCTV.

Part of a future security management plan will be to observe the movement of contractors accessing these spaces. Surrounding areas should be clear of clutter and should provide contractors and security personnel with clear sight lines to doorways.

6.2.1.9 Loading Docks and Waste Disposal

The loading docks as envisaged provide adequate separation and surveillance for trucking movements, loading, unloading and post-dock delivery to retail outlets. Delivery movement corridors and goods lifts should follow the 'lift and lift lobby' lighting design detail and we understand that CCTV will cover all loading and goods movement points, for example to lifts and corridors, to avoid any likelihood of entrapment or isolation at key delivery points.

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 individuals and CCTV technology. Fire detection and fire suppression systems should be installed.

In terms of cash-in-transit movements, a secure parking area should be set aside within the loading docks for armoured (cash transport) vehicles with clear unobstructed routes of travel within the developments for the delivery and pick up of cash.

6.2.1.10 IT and Security Communications

Access to IT servers should be electronically access controlled. It is important that there be state-of-the-art communication technology between security staff, retail staff and centre patrons.

6.2.1.11 Security Control and Monitoring

The complex should if possible incorporate a visible centrally located ergonomically designed security control room capable (in design and management terms), of monitoring interconnected activity between Keira Street and Wollongong Central. The control room(s) should be a design feature where the role of security staff can include passive surveillance and a point of reference.

6.2.2 Conclusions and Recommendations

We note that, from a security perspective, the project's concept drawings reflect opportunities for appropriate security design detail based on CPTED principles. The applicant client intends to adopt these principles throughout design development/detail with the further intention to implement a whole-of-site security awareness and management (CPTM) strategy. We recommend that the project's application approval reflect these intentions.

6.3 Security Objective 3: Compliance with Planning Instruments

With respect to security considerations, the Project's Application documentation should conceptually incorporate aspects of design to comply with Section 79C Guidelines of EPA Act, with sections/clauses of the NSW Department of Planning Director General's requirements and with Wollongong Council's City Centre Revitalisation, Community Safety and Crime Prevention Plan, the Safety in the City Strategy and Council's Development Control Plan.

6.3.1 Analysis and Commentary

The NSW 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"*.

There are two elements to meeting this objective. Both are indicatively present.

1. The Project's Documentation indicates that crime risks have been considered as part of the master-planning and modified concept planning stages, and
2. The security (design) considerations can be seen to reflect *"...the public interest"* in terms of the State legislation and guidelines.



In this case “*the public interest*” clearly is to reduce and/or prevent any development -based or development-caused behaviour that might cause offence to any person accessing any part of the retail podia, and later, residential or commercial towers.

The “*public interest*” is broader in relation to this development. In part it will be a ‘new’ focal point, although arguably, the Wollongong Central development already holds that reputation. In relation to the West Keira development, the “*public interest*” will be best served if the design and operation of this (retail) site demonstrates an improvement in the perception and reality of safe space. This is particularly relevant in attracting the planned interactivity (interconnectivity) between both sites using the tunnel and over-bridge.

In the same way as hoteliers have some responsibility for the behaviour of patrons entering or leaving premises, the “*public interest*” could arguably extend to such behaviour occurring at or beyond the perimeters of the site, although strictly speaking, the developer has no responsibility for such behaviour. Nonetheless, the GPT group has indicated, in line with the Director General’s requirements, its intention to exercise a whole-of-site security management regime.

Wollongong City Council has enacted several policies relevant to this project. Its Community Safety and Crime Prevention Plan has five key areas, one of which states: “*Practice through adopting the principles of Crime Prevention Through Environmental Design and Management (CPTED and CPTM) as well as linking the Plan with the Council’s Strategic, Corporate, and Social Plans, Graffiti Management and Cultural Plans*”.

Council’s (draft) Safety in the City Strategy, has three aims for the CBD: “*1. Increase actual and perceived Community Safety in the City Centre 2. Reduce graffiti and vandalism 3. Reduce antisocial behaviour and crime associated with alcohol use*”. It is seeking a partnership approach with all CBD, transport, police and community stakeholders to ensure integrated positive ‘targeting’ of ‘hot spot’ areas.

The matter of community safety and the reduction of crime across the CBD is also referred to in the 2007 joint publication between the NSW Department of Planning and Wollongong City Council, *Revitalising Wollongong City Centre Plan: Civic Improvement Plan*.

Chapter E2 of The Council’s Development Control Plan 2009 (currently under review) is explicit in its detail regarding CPTED compliance requirements for built form categories. This development falls within those requirements. The chapter requires the following to be considered in CPTED design terms: (i) lighting, (ii) sightlines (iii) signage, (iv) building design, (v) land use mix, (vi) landscaping, (vii) spaces safe from entrapment, (viii) management and maintenance, (ix) public open space and parks, (x) community facilities, (xi) bus stops and taxi ranks and (xii) public toilets. These aspects are referred to in Security Objective 2 above.

The Chapter sets out the CPTED principles and objectives, requiring this development to comply with those principles and objectives in all relevant design aspects. The DCP states in part: “*CPTED is a tool which modifies the built environment to reduce opportunities for crime. Traditional tactics of CPTED include creating territoriality, natural surveillance and ‘eyes on the street’, and focusing on access into and out of buildings and neighbourhoods.*”

The Director General’s requirements (Item 20 A) have also been satisfied in that the overall (strategic) design of the project will incorporate CPTED (Safer-by-Design or security design) principles to be expressed more specifically throughout design detail and, in terms of CPTM, as a deliberate whole-of-site security (safety) management strategy.



Drawings provided for Project Application purposes have been carefully reviewed in relation to compliance with EPA Act's Section 79C guidelines and those aspects of security design reflected in Council's planning and/or policy instruments. We are satisfied that the client has taken a whole-of-site approach to security; the intention of which is to show-case the prevention of crime and the curbing of anti-social behaviour, particularly within all areas of the retail podia, the car parks, public amenities, interface with the surrounding streetscapes and the interconnectivity with Wollongong Central and the Mall.

6.3.2 Security Objective 3: Conclusions and/or Recommendations

The review concludes that, from a security perspective, documentation prepared for the Project Application reflect the intent of Section 79C Guidelines. The development has considered the City of Wollongong's requirements for a safe and welcoming city centre, by incorporating, or intending to incorporate, CPTED principles as recommended or specified in the earlier referred to instruments and policies.

It is our belief that the whole-of-site security proposed for both aspects of the development will attempt to dissuade or displace behaviour that might impact upon the Mall or adjacent premises. However, the client recognises the need to detail security design specifics throughout the design-and-construct documentation.

We are of the view that the Project's Application documentation provides the developer with an appropriate foundation upon which to incorporate detailed crime prevention design and security management strategies.

7 CONSULTANCY METHODOLOGY

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

- (a) reviewed the drawings in order to understand the commercial and architectural goals of the development;
- (b) received input from the development's design representatives;
- (c) explored the crime risk backdrop;
- (d) visited the site and surrounding CBD neighbourhood;
- (e) obtained information in relation to local crime risks and statistics;
- (f) examined State and local planning and/or policy instruments in relation to (security focussed) aspects of the project.

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APPENDIX 1: CRIME PREVENTION – A DESIGN 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 on place-specific crimes, targeting offences and offenders by pro-active and responsive security, law enforcement or focussed design 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 term of the 1970s from the United States. It applies architectural design principles to urban development, underpinned by the principles of spatial relationships, territoriality, surveillance and access control. CPTED and the other models have largely been adopted throughout the developed world as legitimate crime prevention strategies. 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.

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 built 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 this 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: *casual, social and technological*.

Casual surveillance encourages random observation and limited monitoring of built form and public domain.

Social surveillance encourages intentional stakeholder observation and monitoring (by owners or regular users of built form or public domain) to challenge or report suspicious pedestrian, vehicle movements and property or domain damage.

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.
