



Crime Risk Assessment Report

CONSOLIDATION OF LOTS AND CONSTRUCTION OF EIGHT, THREE STOREY BUILDINGS CONTAINING 146 SELF-CARE HOUSING UNITS AND RESIDENTIAL AGED CARE UNIT WITH 74 BEDS, A ONE STOREY WELLNESS CENTRE AND THREE BASEMENT LEVELS OF CAR PARKING ACCOMMODATING APPROXIMATELY 383 CAR SPACES

No. 3 Quarry Road and 4 Vineys Road, Dural NSW 2158

Lot 2A in DP 158064 and Lot 1 in DP 230172

Prepared for:

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Introduction

This Report has been prepared for Thelem Consulting Pty Ltd being the proponent of the subject development. It undertakes a Crime Risk Assessment and Safety Audit of the proposed combined Independent Living Units, Residential Aged Care Facility, Communal Area, Wellness Centre and Craft Room against the provision of the NSW Police Guidelines 'Safer by Design' and the Department of Planning and Infrastructure's Crime Prevention and the Assessment of Development Applications: Guidelines.

The purpose of this Report is to undertake an assessment of the crime profile of the area, the likely crime risks associated with the development and the built features of the proposal and its context, setting and potential operation to ensure that the proposal adequately minimises crime opportunity through implementation of the Crime Prevention Through Environmental Design (CPTED) Principles.

This CPTED Report is to be read in conjunction with the submitted Statement of Environmental Effects as well as the architectural plans prepared by Marchese Partners International Pty Ltd.

Locality and Site Analysis

The Site is located at 3 Quarry Road and 4 Vineys Road, Dural.

The Site is irregular in shape and is legally described Lot 2A in DP 158064 and Lot 1 230172, respectively.

Existing attributes of the Site are noted as follows:

- The Site has a total area of approximately 29,898m²;
- The Site has a frontage of 94m to Quarry Road, 85m to Vineys Road and a depth of 225m between the primary road frontages;
- An overland flow path is located across the centre of the Site flowing west to east through the Site from the dam on land at 835-837 Old Northern Road, north-east of the Site, to Berowra Creek.
- The Site is largely comprised of cleared land with native vegetation generally removed. A small portion of vegetation is located adjacent to the eastern boundary of the Site.

The Site has previously been used for agricultural purposes, however has not been utilised for these purposes in several years. The locality is evolving from larger lot residential and occasional agricultural land use to an urban environment.

The surrounding locality is predominately zoned RU2 Rural Landscape with large lot residential and agricultural uses however it is noticeably going through an evolution into an urban environment.

The Site is located immediately opposite (south-west of the Site) the North Q Business Centre which is zoned B2 Local Centre and comprises a large range of services and retail premises servicing the specific needs of the local community.

The Site contains several additional commercial premises, including rural supplies, McDonalds, KFC, Cafés and Retail stores. The land further south of the North Q Business Centre is zoned IN2 Light Industrial and R2 Low Density Residential.

To the west of the Site is an existing pine plantation as well as a Child Care Centre fronting Quarry Road. Adjacent to Vineys road on the eastern and western sides are large single dwellings on substantial parcels of land. East of the Site and fronting Quarry Road is The Green Gallery Nursery.

UNIT MIX					
LEVEL	TWO BED	TWO BED+STUDIO	THREE BED	SUB TOTAL	RAC
G	12	11	21	44	16
1	14	11	26	51	29
2	14	11	26	51	29
3	0	0	0	0	0
TOTAL	40	33	73	146	74
	27%	23%	50%		

Accommodation

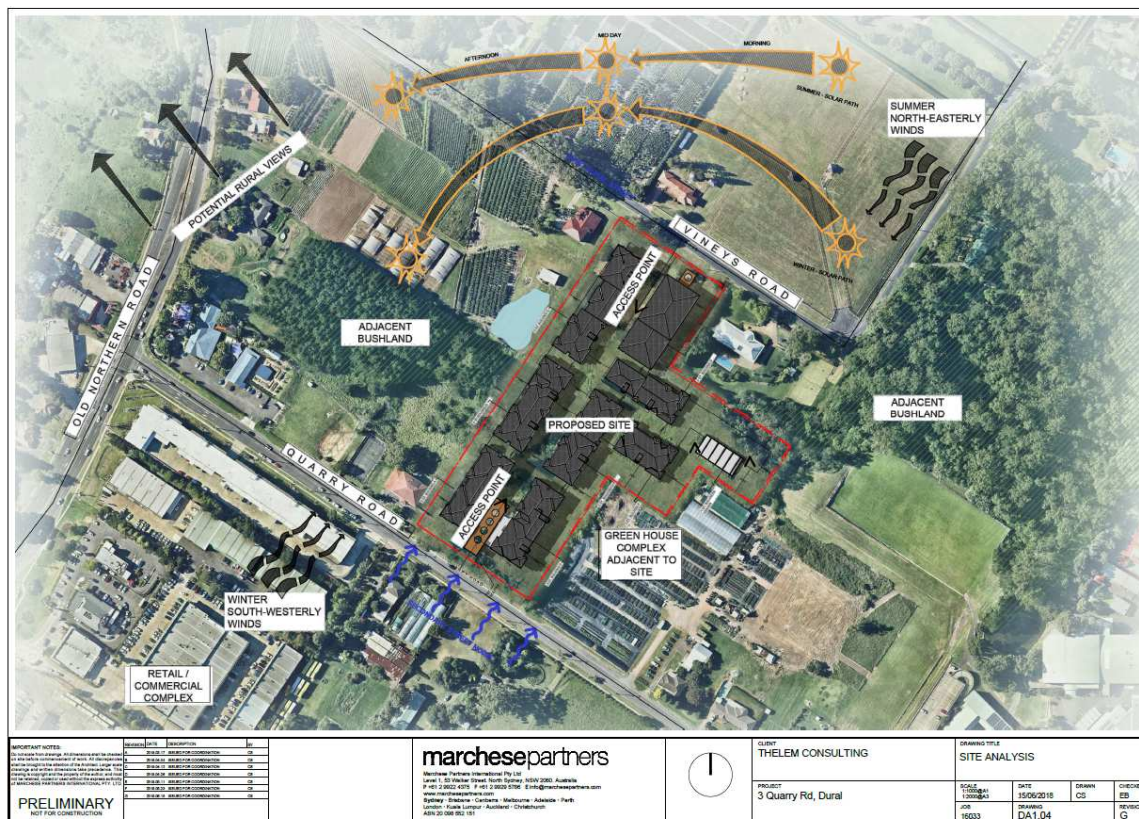


Figure 1 Aerial Photograph of the subject site and surrounds (subject site outlined in red)

Proposal

In summary, the development consists of the following:

- Preparatory demolition of existing structures, vegetation removal and excavation work;
- Construction of eight (8), three (3) storey buildings containing 146 self-care housing units and 74 aged care bedrooms plus, a one (1) storey Wellness Centre building.
- Basement level car parking accommodating approximately 383 car spaces;
- The Site is zoned RU2 Rural Landscape under the provisions HLEP 2013. The RU2 Zone is not a zone that is identified as primarily for urban purposes however the site adjoins B2 zoned land.

Ground Level Access to the Building

Vehicular access to the basement parking levels for ILUs is via Quarry Road and for RACF via Vineys Road. A security shutter is to be fitted to the entry/exit to the basement car park. A dedicated port-cochere drop off zone are located off of a one-way driveway along both roads. A dedicated ambulance bay is located in the RACF's basement 1.

The proposal has pedestrian access point at both roads Ground Level and Basement Levels. The main pedestrian access point at ground level is via Quarry Road's footpath, via the main Facilities building – at the center of the southern boundary. Both are well separated from the vehicle movement areas for the pick-up/drop-off driveway and service areas.

The residential aged care facility is to have one pedestrian access at ground level via a large main entry and foyer to be fitted out with a reception desk and waiting lounge.

The main entry path for both roads between the one-way driveway and the building façade is to be partly covered by an awning that extends across the footpath.

Access to the remainder of the ground level surrounding the exterior of the buildings (that is, areas excluding the driveway access from Quarry Road and Vineys Road) is to be restricted by security fencing separating the areas to be publicly accessible (as described above) from private spaces ancillary to the ILUs and aged care facility. Pedestrian access to these private ground level spaces is via common circulation and waiting room spaces.

Basement Access to the Building

Basement Level 1 contains the two-way vehicle access ramps from both Quarry Road and Vineys Road, and a loading bay for services. Beyond the loading bay the ramp continues to Basement Levels 2 and 3. All Basements Levels 1, 2 and 3 are intended to provide parking for residents, staff and visitors.

Pedestrian Circulation Within the Buildings

It is intended that visitors, residents and staff of this facility will potentially have access to:

- Recreation rooms and amenities in ground level at both facilities buildings;
- The outdoor recreation spaces at ground level external to the buildings;

This access will be subject to risk assessments by staff, staff assistance where necessary and monitoring of the appropriate hours and days for access to those areas as determined daily by staff.

Areas deemed for staff-only and/or requiring staff supervision will be secured by swipe card or security code access. CCTV of all internal and external spaces will be linked to 24-hour live monitoring staffed at the main reception desk at ground floor level.

Figures 1, 2, 3 and 4 indicate primary pedestrian access points in red, secondary pedestrian access points in orange and vehicular access points in blue.

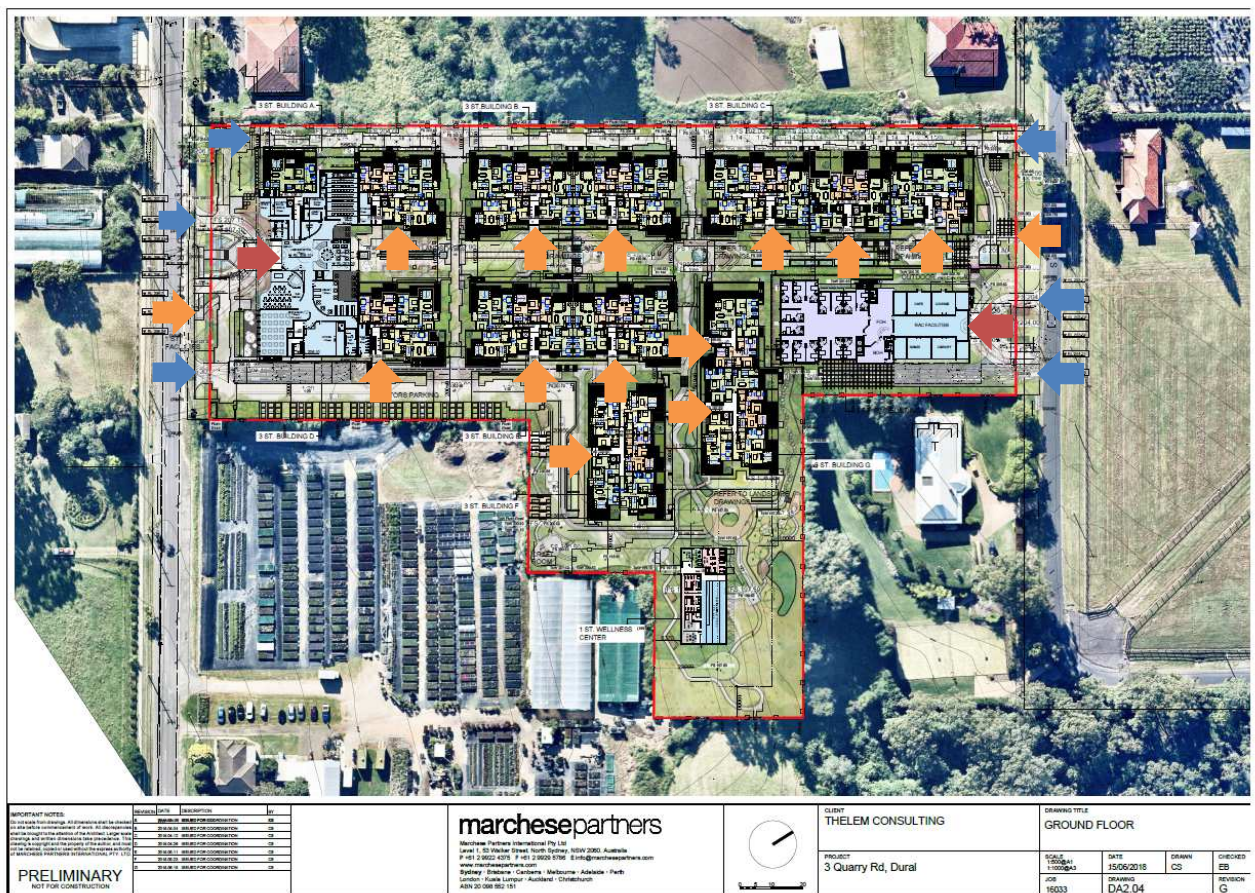


Figure 1 Ground Floor Plan of the proposal – pedestrian and vehicular access points

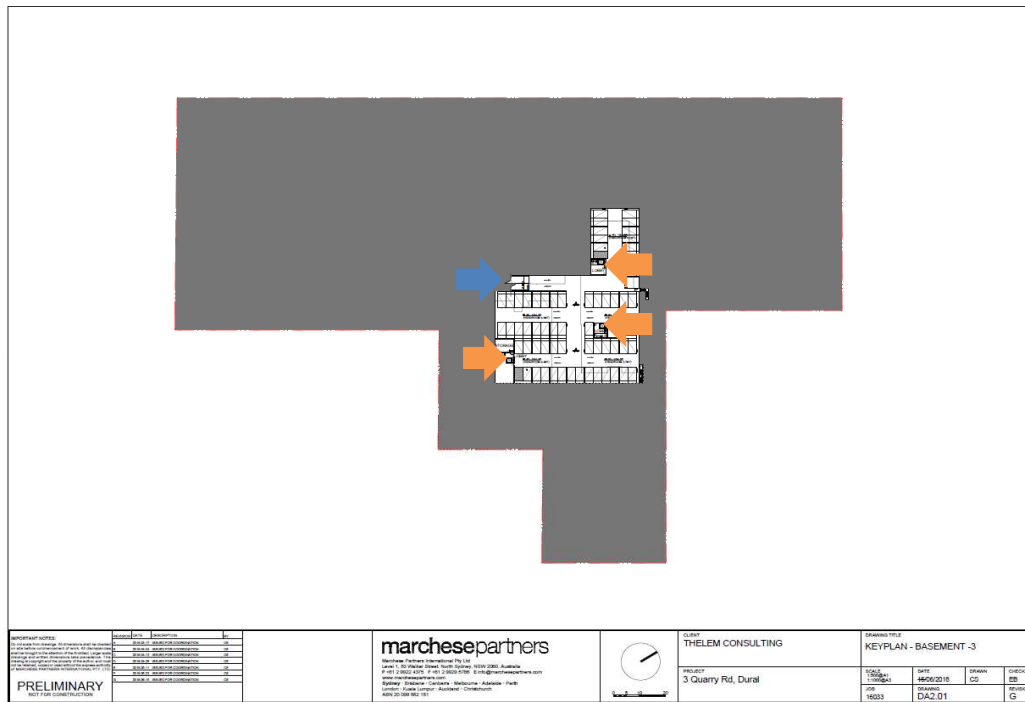


Figure 2 Basement 3 Car Parking Plan pedestrian and vehicular access points

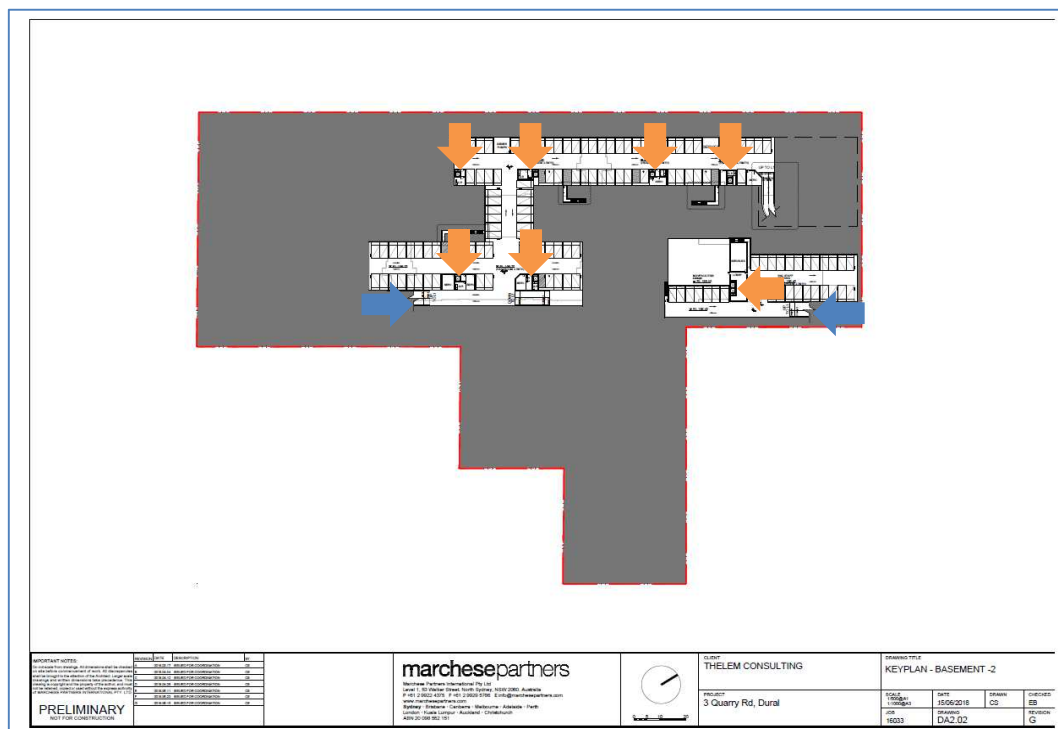


Figure 3 Basement 2 Car Parking Plan pedestrian and vehicular access points

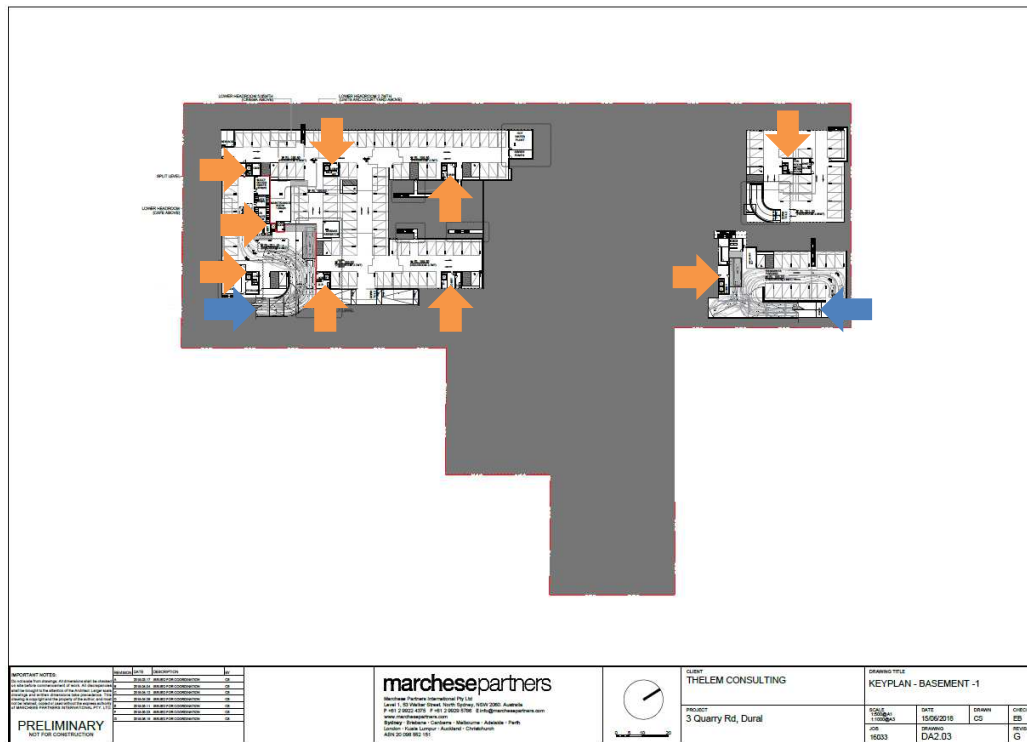


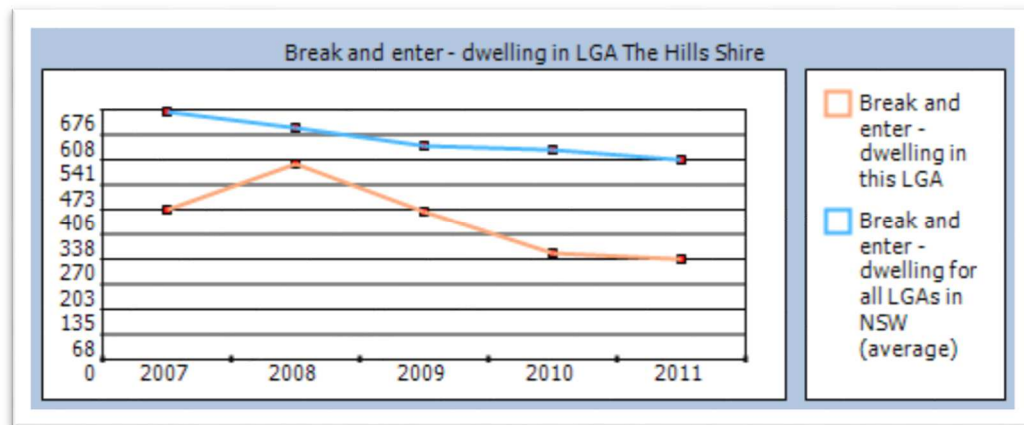
Figure 4 Basement Level 1- Car Parking Plan pedestrian and vehicular access points

Crime Profile of Dural (2007 – 2011)

Information published by the NSW Bureau of Crime Statistics and Research (BOSCAR) between 2007 and 2011 has been gathered to provide a crime profile of the Hills Shire Local Government Area (LGA). Graphs 1, 2, 3 and 4 below identifies a range of offences, their incidence in the Hills Shire LGA of (over 3,000 persons) as well as the local and state wide trends in the occurrence of each offence. This data is relied on to determine the crime profile of the area.

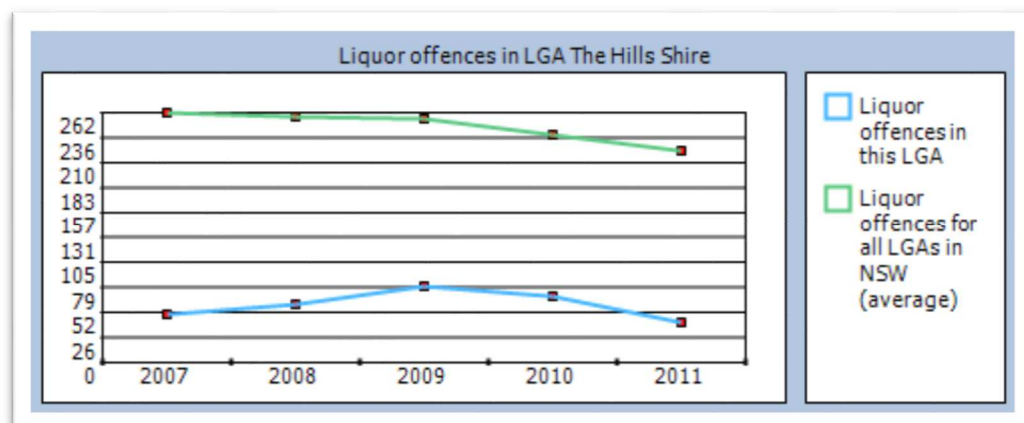
Graph 1 - Break and enter – dwelling

The Hills Shire was ranked 117 out of 154 Local Government Areas that have populations greater than 3000



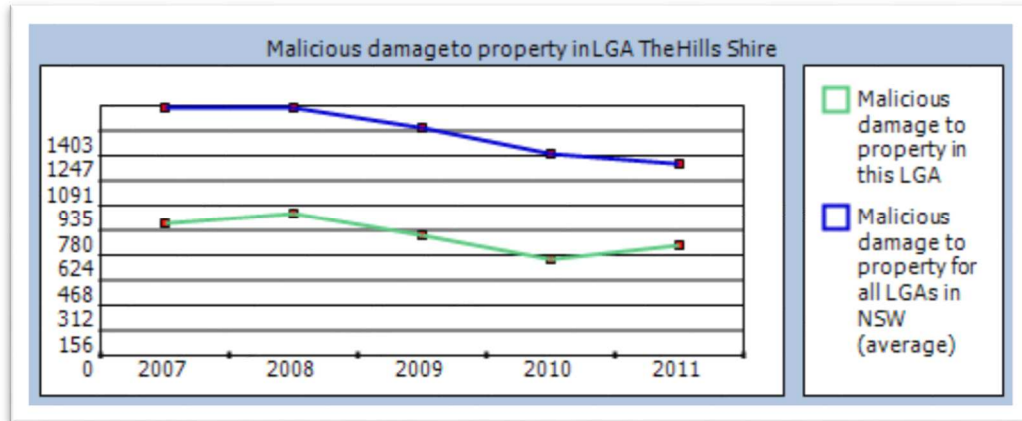
Graph 2 - Liquor offences

The Hills Shire was ranked 132 out of 154 Local Government Areas that have populations greater than 3000



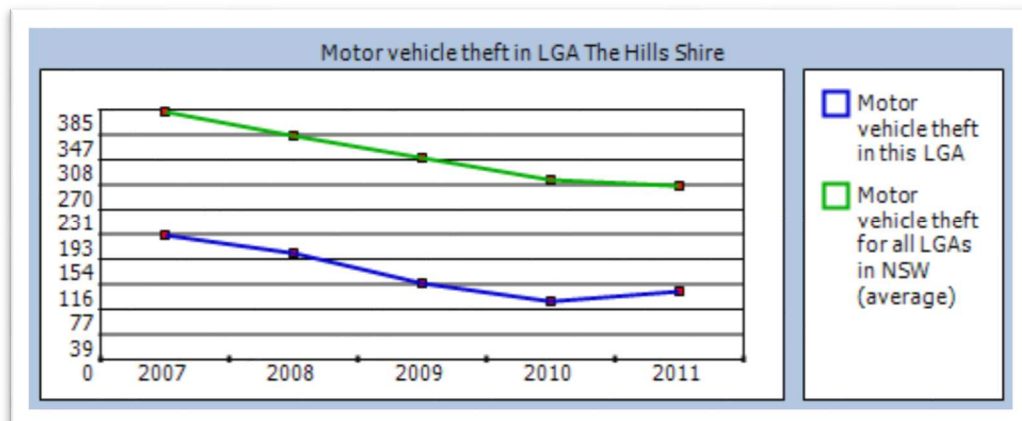
Graph 3 - Malicious damage to property

The Hills Shire was ranked 118 out of 154 Local Government Areas that have populations greater than 3000



Graph 4 - Motor vehicle theft

The Hills Shire was ranked 110 out of 154 Local Government Areas that have populations greater than 3000



Note:

Crime statistics obtained from NSW Bureau of Crime Statistics, Department of Attorney General and Justice. Data excludes incidents occurring in correctional facilities.

Crime Prevention and the Assessment of Development Applications: Guidelines under Section 79C of the Environmental Planning and Assessment Act 1979 identify four Crime Prevention through Environmental Design (CPTED) Principles

Part B of the Department of Urban Affairs and Planning's (now Department of Planning & Environment) *Crime Prevention and the Assessment of Development Applications: Guidelines under Section 79C of the Environmental Planning and Assessment Act 1979* identify four Crime Prevention through Environmental Design (CPTED) principles which are summarised in Table 2. Each of the principles seeks to reduce opportunities for crime and have been used to inform the *NSW Police Safer by Design Guidelines for Crime Prevention*.

Table 2 CPTED Principles

Surveillance

The attractiveness of crime targets can be reduced by providing opportunities for effective surveillance, both natural and technical. Good surveillance means that people can see what others are doing. People feel safe in public areas when they can easily see and interact with others. Would be offenders are often deterred from committing crime in areas with high levels of surveillance. From a design perspective, 'deterrence' can be achieved by:

- clear sightlines between public and private places;
- effective lighting of public places; and
- landscaping that makes places attractive, but does not provide offenders with a place to hide or entrap victims.

Access Control

Physical and symbolic barriers can be used to attract, channel or restrict the movement of people. They minimise opportunities for crime and increase the effort required to commit crime. By making it clear where people are permitted to go or not go, it becomes difficult for potential offenders to reach and victimise people and their property. Illegible boundary markers and confusing spatial definition make it easy for criminals to make excuses for being in restricted areas. However, care needs to be taken to ensure that the barriers are not tall or hostile, creating the effect of a compound. Effective access control can be achieved by creating:

- landscapes and physical locations that channel and group pedestrians into target areas
- public spaces which attract, rather than discourage people from gathering
- Restricted access to internal areas or high-risk areas (like car parks or other rarely visited areas). This is often achieved using physical barriers.

Territorial Reinforcement

Community ownership of public space sends positive signals. People often feel comfortable in, and are more likely to visit, places which feel owned and cared for. Well used places also reduce opportunities for crime and increase risk to criminals. If people feel that they have some ownership of public space, they are more likely to gather and to enjoy that space. Community ownership also increases the likelihood that people who witness crime will respond by quickly reporting it or by attempting to prevent it. Territorial reinforcement can be achieved through:

- design that encourages people to gather in public space and to feel some responsibility for its use and condition
- design with clear transitions and boundaries between public and private space
- Clear design cues on who is to use space and what it is to be used for. Care is needed to ensure that territorial reinforcement is not achieved by making public spaces private spaces, through gates and

enclosures.

Space management

Popular public space is often attractive, well maintained and well used space. Linked to the principle of territorial reinforcement, space management ensures that space is appropriately utilised and well cared for.

Space management strategies include activity coordination, site cleanliness, rapid repair of vandalism and graffiti, the replacement of burned out pedestrian and car park lighting and the removal or refurbishment of decayed physical elements.

Safety Audit

A safety audit of the proposed building against the *Crime Prevention Through Environmental Design* and *NSW Police Safer by Design Guidelines for Crime Prevention* is provided in Table 3 below:

Requirement:

Natural Surveillance

Table 3 CPTED & NSW POLICE SAFER BY DESIGN – SAFETY AUDIT

	Comments	Performance
Building openings should be designed to overlook public places to maximise casual surveillance.	The proposed health care facility/aged care facility is designed to ensure that: There are multiple outlooks from all aspects of the building. Windows of the patient wards and aged care rooms, common dining and seating areas and staff office rooms facilitate passive surveillance to the Quarry Road and Vineys Road frontages; and The design of the health care facility/aged care facility facilitates direct passive surveillance to the adjacent public areas with direct lines of sight between the reception areas and drop off zones via the main entry foyers.	Safe
The main entry to a building should face the street.	The proposal provides clear main entrances along the southern boundary, facing Quarry Road, with a large open foyer for the facility component.	Safe
An external entry path and the foyer to a building must be direct to avoid potential hiding places.	The external entry paths from the public footpath in both Quarry Rd and Vineys Rd have linear sections which have satisfactory lines of sight with low level landscaping and open form fencing. The paths cannot be a single straight line as they are required to be physically separated from the one-way driveway area within the Quarry Road setback. The awning covering the drop off zone and ambulance bay will not obstruct sight lines. There are no potential hiding places at each entry point.	Safe
Entry lobby areas to and from car parking areas should be transparent allowing viewing into and from these areas.	Full height glazed double doors are proposed to the southern façade of the main entry lobby and the secondary lobby for the aged care facility at ground level. Floor to ceiling glazing and glass doors are proposed between the visitor waiting area and the private children's play area.	Safe

Requirement:
Active Surveillance Measures

Table 3 CPTED & NSW POLICE SAFER BY DESIGN – SAFETY AUDIT

Doors and side windows to the lobby of the facilities are to have floor to ceiling glazing.		
Landscaping must not conceal the front door to a building when viewed from the street	<p>A clear turfed area and low planting with scattered canopy trees are to be provided adjacent to the walkways along the building frontage.</p> <p>Landscaping will not obstruct the pathway and will be designed to provide clear and legible access to the facility and will be enhanced with security lighting.</p>	Safe
Pedestrian access should be well lit and maximise sightlines	Pedestrian access to the main entry points will be provided with lighting after daylight hours compliant with Australian Standards for public spaces. The drop off zones, ambulance bays, visitor parking areas, secondary pedestrian access and pedestrian movement space throughout the facility will be fitted with appropriate lighting to provide continuity in illumination compliant with Australian Standards. A detailed lighting plan is proposed to be submitted with the Construction Certificate.	Safe
Landscaping should not inhibit straight lines	Landscaping is to be designed to avoid obscuring sight lines as detailed in the Landscape Plan prepared by Sym Studio and submitted with the development application. There are no large trees or vegetation provided that will inhibit site lines as discussed above.	Safe
ATM design and location is within direct view of pedestrian paths so that they can be overlooked from vantage points	N/A – No ATM proposed.	N/A
The street number of a building must be visible from the street and made of a reflective material to allow visitors and emergency vehicles to easily identify the location of the building.	Street numbering and signage are anticipated to be installed and maintained to enable easy identification and way-finding. Signage will appropriately identify the use of the building and provide clear directions for visitors and service staff from both street frontages. Pedestrian access gates in Quarry Road and Vineys Road will be clearly signposted for way-finding.	Safe – subject to recommendation
Landscaping should be designed to maximise sight lines.	Landscaping will not affect sight lines as it will be confined to low planting and in landscaped garden beds and scattered canopy trees to be maintained with no lower level branches.	Safe subject to maintenance as recommended
A security alarm system must be installed in a building.	A security alarm can be installed and linked to all entry/exit points to the facility and all openings to be activated in the event of forced or unauthorised entry.	Safe – subject to recommendations.

Table 3 CPTED & NSW POLICE SAFER BY DESIGN – SAFETY AUDIT

Security Devices		CCTV will be subject to live-time monitoring by reception staff.	
	All windows and doors on the ground floor must be made of toughened glass to reduce the opportunities for 'smash and grab' and 'break and enter' offences.	All windows and doors are to be made of commercial grade toughened glass.	Safe – subject to recommendations.
	Unless impractical, access to an outdoor car park must be closed to the public outside of business hours via a lockable gate.	A outdoor visitor car park is proposed. The car parking spaces located on site, next to Quarry Road's facilities building will be clearly labelled for service purposes and short term stay only.	Safe - subject to recommendations.
	CCTV system must cover all high-risk areas and including all entry areas and the laneway.	A CCTV system is to be installed throughout the facility to monitor internal and external spaces. Specifically, at the building entry points, the outdoor communal areas, and the basement and at the security gate for the vehicle (basement) access point to the car park from Quarry Road and Vineys Road. CCTV monitoring will be operable within the office/reception area for on-site, real time response.	Safe – subject to recommendations
Access Control	Loading docks in the vicinity of main entry areas are secured outside business hours.	A patient and visitor pick-up/drop off area is located at the main entrances Port-Cocheres and adjacent to a staffed reception area.	Safe - subject to recommendations
		Access to the recreation rooms of the aged care facility will be subject to the use of an intercom, swipe card or security code system to be activated by staff only.	
		The deliveries and loading dock located next to the ambulance bay area at Basement level 1 will operate under direct surveillance from the reception area.	
		The main deliveries and service vehicle dock is accessed via the basement ramp from both Quarry Road and Vineys Road and is located on Basement Level 1. Vehicular access to this area is to be restricted via an intercom which allows staff to grant access.to incoming vehicles to the doors adjacent to the dock area.	
		A card lock system will be implemented for all staff working within the facility and will grant access to specific areas relative to their role.	

Table 3 CPTED & NSW POLICE SAFER BY DESIGN – SAFETY AUDIT

	Access to a loading dock or other restricted areas in a building must only be available to tenants via a large security door with an intercom, code, or card lock system	All openings are to be lockable and fitted with an alarm system which will be activated upon forced entry after typical visitor hours. All authorised persons granted access to the facility after typical visiting hours will be provided with secured swipe card access to nominated access points.	Safe – subject to recommendations
	Clear signage should be erected indicating loading docks should not be accessed by the general public.	Clearly defined signage and pavement markings can be located to define existing parking spaces suitable for loading facilities. CCTV real-time monitoring will also allow surveillance of the loading dock area to ensure appropriate use.	Safe – subject to recommendations
Territoriality/ Ownership	Site planning provides a clear definition of territory and ownership of all private, semi-public and public places	<p>The site design, partitioning and use of signage throughout the health care facility and aged care facility will clearly define the private, service and common areas. The facility will be staffed 24 hours.</p> <p>Staff will be responsible for controlling access throughout the building by residents, patients and visitors. Areas designated strictly for staff will be accessed only via a swipe card or security code system on designated doors.</p> <p>Signage is anticipated to convey information to the public regarding allowable access for specific areas within the facility, including ownership and management.</p> <p>The aged care facility is to be subject to a Plan of Management.</p> <p>External spaces are to be separated for public and private use by 1.8m high open palisade security fencing and appropriate signage on access gates.</p>	Safe
Lighting	Both natural and artificial lighting is used to reduce poorly lit or dark areas and therefore deterring crime and vandalism.	Basement areas, parking areas, internal and external common areas and foyer areas are to be suitably illuminated. Under-awning lighting will ensure appropriate standards of lighting at the entrances. Lighting will be provided across the car park entry and exit and within each area of the basement. All lighting will comply with AS/NZS 1158 (2010) Lighting for roads and public spaces and will also meet the requirements for illumination suitable for safe operation of CCTV. A detailed lighting plan will be submitted with the Construction Certificate.	Safe – subject to recommendations
	Lighting must be provided to the following areas of a	Lighting is to be provided at the car park entry, along the external pedestrian pathways, main and secondary pedestrian entrances, outdoor	Safe – subject to recommendations

Vandalism and Graffiti

Table 3 CPTED & NSW POLICE SAFER BY DESIGN – SAFETY AUDIT

<p>building to promote safety and security at night:</p> <p>A) An external entry path, foyer, driveway and car park to a building.</p> <p>B) The shop front. This may be in the form of motion sensitive lighting or timer lighting.</p> <p>C) The underside of an awning</p>	<p>courtyards, underside of the awnings, common areas and in entry foyers. Lighting will be continuous after daylight hours.</p>	
<p>A pedestrian entry path and driveway to a car park that are intended for night use must be well lit using a vandal resistant, high mounted light fixture.</p>	<p>The driveway access and pedestrian entry and exit along Quarry Road and Vineys Road are to be illuminated to <i>AS/NZS 1158 (2010) Lighting for roads and public spaces</i> and to the standards necessary to maintain CCTV surveillance. Lighting to the exterior and interior of the building will be activated during non-daylight hours' subject to a detailed lighting plan to be submitted with the Construction Certificate and in a manner compatible with the effective operation of CCTV. Vandal resistant light fittings will be used and details can be provided with a Construction Certificate.</p>	<p>Safe – subject to recommendations</p>
<p>The lighting in a car park must conform to Australian Standards 1158.1, 1680, 2890.1.</p>	<p>Lighting is to comply. A detailed lighting plan is to be submitted with the Construction Certificate.</p>	<p>Safe – subject to recommendations</p>
<p>Car parking areas should be painted in light colours which will increase levels of illumination.</p>	<p>Light colours are recommended in the basement.</p>	<p>Safe</p>
<p>Development minimises blank walls along all street frontages</p>	<p>No blank walls to street frontages are proposed.</p>	<p>Safe</p>
<p>The exterior to a building wall on the ground floor must be painted in a graffiti resistant coating.</p>	<p>The building design includes some sections of exterior blank walls. However, these walls will be protected by fencing and will be finished with a graffiti resistant coating.</p>	<p>Safe – subject to recommendations.</p>
<p>Maintenance regimes should be implemented which ensure all public areas are well maintained.</p>	<p>External and internal areas are to be kept well maintained by staff and regularly inspected.</p>	<p>Safe – subject to recommendations</p>
<p>Cleaning regimes should be implemented which ensure all main public areas are free of rubbish.</p>	<p>External and internal areas are to be kept well maintained by staff and regularly inspected.</p>	<p>Safe – subject to recommendations</p>
<p>Graffiti removal regimes should be implemented which ensure graffiti is promptly removed.</p>	<p>The facility management should ensure that graffiti is removed promptly if found anywhere on the premises.</p>	<p>Safe – subject to recommendations</p>

Recommendations

As indicated in Table 3, the subject development performs well in terms of achieving the safer by design guidelines for crime prevention. The development is deemed to be either safe or safe subject to the consideration of the following recommendations:

- The proposed vegetation surrounding the facility is to be limited to scattered canopy trees in accordance with the approved landscape plan that will not obstruct direct lines of sight throughout the open space surrounding the building. The vegetation at the site frontage is to be maintained to ensure that vegetation does not obstruct sight lines from the adjoining public roadway;
- The main pedestrian access points to the buildings as well as the facades of the building, basement areas, the external courtyards and areas beneath the awnings are to be illuminated after daylight hours to a level that allows clear lines of sight from the street frontages and spaces immediately surrounding the building as well as in a manner compatible with the safe operation of CCTV;
- Vehicular access to the basement carpark can be restricted via a lockable security gate operating outside visiting hours with access being controlled by intercom to staff on duty and subject to an adopted Plan of Management;
- A security alarm is to be linked to all openings to be activated in the event of forced entry;
- A CCTV surveillance system can be installed to appropriately monitor internal and external spaces and linked to real-time on-site monitoring staffed at the reception and office spaces within the building;
- The street number and purpose of the subject building is to be readily identifiable from 3 Quarry Road and 4 Vineys Road with the provision of appropriate signage;
- Vehicular access, the basement car park levels and the pedestrian path are to be illuminated by lighting after daylight hours and subject to a Plan of Management to be adopted by Council;
- All painted surfaces on the external parts of the building are to be treated with a graffiti resistant coating;
- Staff are to be responsible for the maintenance of the building and the surrounding private and publicly accessible spaces and removal of any graffiti will be required in accordance with a Plan of Management.

The proposed 24 hour 7-day presence of staff, residents, patients and visitors within the proposed development will provide continued activity and passive surveillance which is expected to reduce the opportunity for incidents of non- domestic assault.

Robbery and theft from a motor vehicle are expected to be addressed by the proposed development through the operation of alarm systems to all openings in the case of forced entry and the installation of CCTV throughout the building including basement spaces. Signage will also be installed throughout the basement car parking area reminding drivers to secure their vehicles and not to leave valuables unattended in vehicles. The likelihood of malicious damage is to be addressed by the live-time monitoring of CCTV for all internal and external spaces accessible by non-staff.

Conclusion

The proposed development will need to incorporate the recommended advice regarding the CPTED principles to provide and maintain a safe and secured facility.

The safety audit assessment evaluates the proposal against the *Crime Prevention Through Environmental Design Principles* and the *NSW Police Safer by Design Guidelines for Crime Prevention*.

The proposal satisfies the relevant principles and guidelines achieving the desired levels of safety in all aspects subject to the implementation of the recommendations of this Report.