HEALTH INFRASTRUCTURE
ROUSE HILL HOSPITAL

SECURITY RISK MANAGEMENT AND CPTED REPORT

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1 Executive Summary

This Crime Prevention Through Environmental Design (CPTED) report supports the State Significant Development Application (SSDA) for the new Rouse Hill Hospital. The report presents a structured assessment of CPTED principles in accordance with the NSW Police CPTED audit framework, supported by broader guidance from the NSW Government's CPTED Guidelines and AS/NZS ISO 31000:2018.

Rouse Hill Hospital will deliver critical public health infrastructure to Sydney's northwest growth area. The design is in the early stages, and this CPTED review was undertaken to ensure security, safety, and crime prevention outcomes are integrated from the outset. A total of 100 audit criteria were assessed, with the following results:

- **46 items (46%) scored "Positive (+)"**, indicating a compliant or favourable design outcome based on current plans or project context
- **38 items (38%) scored "Requires Risk Controls (–)"**, reflecting typical uncertainties at this early phase of design development. These are items to be further assessed via security risk assessment during schematic and detailed design and monitored as the design progresses. Controls will be designed subject to risk assessment during detailed design.
- **16 items (16%) were marked "Not Applicable"**, often relating to post-occupancy management or operational matters beyond the current design scope

The audit yields an overall compliance score of **45%**, which is categorised as **Moderate** by NSW Police standards. Importantly, the items marked "Needs Action" are generally not design failures but placeholders for further resolution once detailed design progresses. These include unresolved access control measures, lighting specifications, landscape treatments, and post-occupancy operational considerations—all of which are expected to be addressed in the next project phase.

A detailed analysis has been provided under the four core CPTED principles: **Surveillance**, **Access Control**, **Territorial Reinforcement**, and **Space and Activity Management**. A series of practical recommendations are included to inform subsequent design development and to ensure CPTED objectives are met in full prior to completion.

The assessment concludes that the project is well-positioned to satisfy the CPTED performance expectations for a facility of this scale and complexity. With the outstanding matters addressed in detailed design, Rouse Hill Hospital will present a secure, legible, and inclusive environment that promotes community safety and deters crime.

2 SUMMARY OF RECOMMENDATIONS

2.1 Surveillance

1. During the early concept and schematic design stages, ignore the use video surveillance cameras, and aspire to design spaces where users can easily see and be seen – then add the cameras later.

2. Design a Security Operations Centre (SOC) to the standard of *AS 2201.2:2022 Alarm and electronic security systems Monitoring centres*. There is no requirement for the RHH to be graded or certified as a professional monitoring centre, but it should aspire to perform at that level to the extent practicable within the project and operational constraints. Use *ISO 11064 Ergonomic design of control centres* to inform the ergonomic features.

3. Design the surveillance strategy with a view to maximise situational awareness in the SOC and enable earliest possible *detection* of a Code Black incident. Understand that by the time a duress is activated, it is possible that a physical assault has already been in progress for some time, and therefore the security response will already be delayed. With the number of camera scenes a project of this nature could accumulate (150-300), assume that when an incident takes place, the control room operator will not be specifically monitoring that scene. Achieving earliest detection of the incident will require a holistic strategy that is not exclusively reliant and cameras and duress buttons, and it will also require the use of video analytics to enhance the control room operator.

2.2 Access Control

1. During the early schematic design stages, agree on the access control boundaries as early as practicable, then ignore the use of electronic access control systems. In a vacuum, any single access control door can be easily defeated by a motivated offender. Therefore, design a space that is not exclusively reliant on systems to maintain the integrity of its access control boundaries, then add the electronic interventions later.

2. The facility design must enable an effective and efficient tactical response to a Code Black incident, because every second matters in the context of a violent, physical assault. Therefore, aim to design a space that enables the fastest possible response by security and police personnel, as well as the fastest possible removal of any victims trapped within the space.

3. Agree on the Code Black and Facility Lockdown strategies as early as practicable. These are essential inputs into the design.

4. Begin considering after-hours safe routes and hostile vehicle mitigation as early as practicable during schematic design.

2.3 Territorial Reinforcement

1. Design for ease of maintenance – from a security perspective, paying special attention to the problem of graffiti removal.

2.4 Space & Activity Management

1. Design the overall ‘carespace’ with a view to prevent or de-escalate unnecessary escalations aggression by reducing stress -- understanding and having empathy for those users who may be experiencing very stressful,

life-crisis situations. The design already shows evidence of this style of thinking, and we encourage that continue throughout the future design stages.

3 Introduction

3.1 Purpose of the Report

This Crime Prevention Through Environmental Design (CPTED) report has been prepared by WEBB Australia Group to support a State Significant Development Application (SSDA) for the construction and operation of a new hospital campus at the Corner of Commercial Road and Windsor Road, Rouse Hill. It presents the CPTED strategy for the Rouse Hill Hospital and aims to ensure a safe, secure and supportive environment for patients, staff and visitors. The strategy integrates CPTED principles with broader architectural and operational considerations to effectively mitigate security risks while supporting the hospital's mission of providing high-quality healthcare.

This report has addressed the following matters within the Secretary's Environmental Assessment Requirements (SEARs) issued for the SSDA (see Table 1). It has been prepared in accordance with the *Crime Prevention and the Assessment of Development Applications Guidelines (2001)* issued by the NSW Department of Urban Affairs and Planning. The strategy integrates the four core principles outlined in the Guidelines—Surveillance, Access Control, Territorial Reinforcement, and Space Management—into the design of both internal and external public spaces. The CPTED measures described in this report are consistent with the NSW Guidelines and have been informed by stakeholder engagement with Health Infrastructure, local police, community representatives, and design consultants to ensure the development provides a safe, secure, and accessible environment for all users.

Table 1 – Relevant SEARs items

SEARs item	Response
7. Public Space Address how Crime Prevention through Environmental Design (CPTED) principles are to be integrated into the development, in accordance with Crime Prevention and the Assessment of Development Applications Guidelines.	• Enhances **surveillance** through transparent facades, clear sightlines, and comprehensive lighting to maximise visibility and deter unauthorised activity in public areas. • Applies **access control** measures by defining entry points, controlling movement with signage and pathways, and restricting access to sensitive zones while maintaining accessibility. • Reinforces **territorial ownership** with landscaping, boundary markers, and intuitive circulation to clearly delineate public, semi-public, and private areas. • Supports **space management** through the provision of well-maintained, welcoming spaces that encourage positive activity and community interaction, reducing opportunities for crime.

3.2 Scope of Audience

The report is intended primarily for government planners involved in reviewing and approving the State Significant Development Application (SSDA) for Rouse Hill Hospital. It will also serve as a comprehensive guide for hospital administrators, project directors, project managers, architects and engineering consultants. The scope includes the application of CPTED principles, alignment with regulatory standards and the integration of broader security measures necessary for successful implementation.

3.3 Project Overview

Rouse Hill Hospital is a key healthcare infrastructure project designed to serve the growing needs of the Rouse Hill community and surrounding regions. It aims to provide high-quality medical services, encompassing both inpatient and outpatient care. Given the hospital's designation as a State Significant Development, its design and operation must adhere to stringent safety, security and efficiency standards. The CPTED strategy forms a crucial part of ensuring that the hospital not only meets these standards but also provides a safe, welcoming and efficient environment for all users.

The proposal is for the construction and operation of a new hospital campus at the Corner of Commercial Road and Windsor Road, Rouse Hill (SSD-96248991). The proposed development comprises:

- Site preparation including earthworks and tree removal;
- Construction of internal roads with access from Commercial Road;
- Upgrade of Commercial Road/Hospital Road Intersection;
- Incoming electrical and communications services
- Construction of hospital buildings up to eleven storeys;
- Construction of a ten storey above-ground car park;
- Pedestrian and cycle pathway connections; and
- Landscaping.

The scope of the proposed works includes:

- An emergency department and primary access clinic
- Comprehensive birthing services including birthing rooms and a maternity inpatient unit
- Inpatient beds and day surgery services
- Short stay medical assessment services
- Pathology, pharmacy, and medical imaging services
- Outpatient and ambulatory care services including paediatrics and renal dialysis and antenatal and postnatal services
- Virtual care and hospital in the home services
- Prehabilitation, rehabilitation and lifestyle medicine.
- Administration, staff support, loading dock and back-of-house services; and
- Ancillary commercial uses to support the hospital, including retail.

3.4 Local Crime Risk

The following data is has been obtained from the NSW Bureau of Crime Statistics and Research (BOCSAR) for the suburb of Rouse Hill.

3.4.1 Malicious Damage to Property

- **Trend**: Stable.
- **Count and Rate**: The number of incidents increased from 72 (577.3 per 100,000) in 2023 to 82 (657.5 per 100,000) in 2024.
- **Interpretation**: The trend remains stable, but there has been a slight increase in both the count and rate. This suggests that malicious damage incidents are somewhat persistent and may require focused efforts to curb.

3.4.2 Drug Offences

- **Trend**: Stable.
- **Count and Rate**: Incidents decreased from 41 (328.8 per 100,000) in 2023 to 34 (272.6 per 100,000) in 2024.
- **Interpretation**: While the trend is stable, there has been a noticeable reduction in drug offences. This positive change may reflect effective law enforcement or community initiatives to tackle drug-related crime.

3.4.3 Assault

- **Trend**: Significant Increase.
- **Count and Rate**: Assaults have increased from 92 (737.7 per 100,000) in 2023 to 155 (1242.9 per 100,000) in 2024, indicating a 68.5% increase per year.
- **Interpretation**: The sharp increase in assaults suggests a concerning rise in aggressive incidents. This trend may require urgent intervention, such as improved surveillance, better lighting, and targeted community outreach.

3.4.4 Domestic Assault

- **Trend**: Stable.
- **Count and Rate**: Incidents increased slightly from 32 (256.6 per 100,000) in 2023 to 40 (320.7 per 100,000) in 2024.
- **Interpretation**: The rate of domestic assault remains relatively stable but shows a small increase. This may indicate an area where additional community support services and preventive measures could make an impact.

3.4.5 Non-Domestic Assault

- **Trend**: Significant Increase.
- **Count and Rate**: Increased from 59 (473.1 per 100,000) in 2023 to 111 (890.1 per 100,000) in 2024, showing an 88.1% rise.
- **Interpretation**: The significant rise in non-domestic assaults highlights a possible increase in public disputes or confrontations. Enhanced public safety measures in high-traffic areas may help address this issue.

3.4.6 Assault (Police)

- **Trend**: Not Calculated (n.c.) for Rouse Hill.
- **Count and Rate**: Incidents increased from 1 (8.0 per 100,000) in 2023 to 4 (32.1 per 100,000) in 2024.
- **Interpretation**: Although the overall numbers are low, there has been a noticeable increase in incidents of assault against police. This suggests the need for interventions to ensure the safety of law enforcement officers, possibly through increased police presence or community-police engagement programs.

3.4.7 Overall Summary

- **Concerning Trends**: The significant increase in both general and non-domestic assaults is alarming, indicating a potential rise in violence in public settings. Addressing this trend could involve enhancing natural surveillance, increasing patrols, and improving community programs.
- **Positive Trends**: The decline in drug offences is promising and may reflect effective community or law enforcement interventions.
- **Recommendations**: Focused CPTED strategies, such as better lighting, improved surveillance, and community engagement, could be effective in managing the rise in assault cases and preventing malicious damage. Enhanced community support and targeted interventions in public spaces may also help in reducing non-domestic violence and safeguarding both law enforcement officers and civilians.

3.5 THREAT ASSESSMENT

The following table presents a very high-level threat assessment for Rouse Hill Hospital:

Threat category	Context & drivers (Rouse Hill locality and service model)	Indicative threat level (likelihood / consequence)
Violence & aggression from patients / visitors	Rouse Hill Hospital will operate a 24/7 Emergency Department. NSW Health incident data show hospital-based aggression is concentrated in these functions. Local crime trends are a strong predictor of elevated presentations involving intoxication, mental-health crisis or drug withdrawal.	**High / Moderate**
Domestic-violence spill-over and carers in crisis	Domestic-violence assault rate is stable but rising slowly. Victims and offenders may arrive concurrently, creating risk in ED and public forecourt.	**Medium / Moderate**
Drug- and alcohol-affected persons	Rouse Hill's decrease in recorded drug offences masks the region-wide pattern of meth- and polysubstance-related ED presentations. Proximity to *The Fiddler* late-trading venue (<100 m) heightens after-hours intoxication risk.	**Medium / Moderate**
Disoriented geriatric patients	Wandering, absconding and unintentional aggression are foreseeable, particularly where open-plan wards meet public corridors.	**Medium / Low**
Petty crime (theft, malicious damage)	Malicious-damage incidents have trended upward and the precinct records the fourth-highest "steal-from-person" rate in NSW. Unattended property, unsecured plant rooms and car-park vehicles are exposed.	**Medium / Low**
Insider misuse (staff, contractors, volunteers)	Access to drugs, patient data and valuables presents ongoing temptation. Insider events are typically low-frequency but high-impact on reputation and continuity of care.	**Low / Moderate**
Organised crime / targeted theft (pharmaceuticals, copper)	Controlled substances, gas cylinders and copper cabling will be attractants.	**Low / Low**
Issue-motivated groups / protest activity	Hospital offers elective termination, gender-affirming care and vaccination clinics. Small, peaceful protests more likely than violent action; disruption to access and intimidation of patients are principle concerns.	**Low / Low**
Terrorism / hostile-vehicle attack	No specific intelligence; Windsor Rd is a 70 km/h arterial capable of providing vector. Crowded-place classification (health sector) warrants proportionate standoff and glazing resilience.	**Very low / High**

3.5.1 Overall exposure

Rouse Hill Hospital will face **routine, high-frequency aggression incidents** driven by local assault trends and 24-hour emergency care. This will be the primary issue to be addressed. The CPTED and security design must therefore prioritise:

- Immediate detection and de-escalation of violent or intoxicated persons at public interfaces.
- Clear zoning, resilient glazing and controlled after-hours access to contain aggression and limit petty theft.
- Adequate vehicle stand-off, surveillance and bollard protection along Windsor Rd to mitigate low-probability, high-consequence hostile-vehicle threats.

4 CPTED PRINCIPLES AND LIMITATIONS

The CPTED strategy for Rouse Hill Hospital is based on four key principles that guide the design and operational integration of security measures:

4.1 NATURAL SURVEILLANCE

Enhancing visibility throughout the hospital premises is critical to deterring unauthorised activities and ensuring safety. This principle is achieved through the use of transparent facades, open layouts, strategic lighting and landscape designs that avoid creating hiding spots. By ensuring clear sightlines both indoors and outdoors, the design encourages passive observation, which acts as a deterrent to unwanted behaviour.

4.2 NATURAL ACCESS CONTROL

Natural access control aims to manage the flow of people within the hospital, guiding them through appropriate entrances, exits and pathways while restricting access to sensitive areas. This principle is implemented through features such as well-defined entry points, clear signage, controlled doorways, fencing and natural barriers. The goal is to discourage unauthorised access while maintaining a welcoming environment for patients, staff and visitors.

4.3 TERRITORIAL REINFORCEMENT

Territorial reinforcement defines ownership of spaces, conveying which areas are intended for public use and which are restricted. Distinctive landscaping, pathways, facade materials and signage all contribute to an intuitive understanding of boundaries between public, semi-public and private spaces. This fosters a sense of ownership, discouraging unauthorised behaviour.

4.4 SPACE AND ACTIVITY MANAGEMENT

Space and activity management involves designing areas to support positive activities and reduce opportunities for undesirable behaviour. External gardens, waiting areas and recreational spaces encourage positive social interactions and foster a sense of community. Maintenance strategies are crucial for keeping the environment clean, minimising opportunities for criminal behaviour and enhancing the overall sense of safety.

4.5 LIMITATIONS OF CPTED

While CPTED principles are highly effective for creating a secure environment, there are inherent limitations that require complementary measures to fully mitigate risks:

- **Dynamic Threats**
  CPTED focuses largely on static design features, such as visibility and access control. However, healthcare facilities face dynamic threats, such as unpredictable acts of aggression or emergencies, which require real-time responses. Static design features alone cannot adapt to rapidly changing situations without additional measures like active monitoring and a trained response team.

- **Complexity of Healthcare Environments**
  Hospitals are complex environments that must balance security with accessibility and patient care. Conflicting design requirements may arise - for example, creating open, welcoming spaces while maintaining effective security controls. The diverse needs of patients, visitors and staff mean that no single CPTED measure can adequately address all security challenges without careful consideration of operational needs and flexibility.

- **Human Behaviour and Stress Factors**
  The behaviour of individuals, especially in a healthcare setting, is often influenced by high-stress factors. CPTED principles may not fully control the behaviour of individuals experiencing distress, mental health challenges, or heightened emotions. Aggressive behaviours may occur despite environmental deterrents, highlighting the need for complementary protocols and staff training to manage and de-escalate such incidents.

- **Risk-Based Engineering of Security Systems**
  Traditional CPTED planning often excludes the risk-based engineering of security systems that integrate technological solutions with physical infrastructure. Designing and implementing advanced security systems, such as electronic access controls, VCA-driven surveillance and integrated alarm systems, require specialised risk assessments that go beyond typical CPTED considerations. Incorporating these systems helps bridge the gap between static design features and the need for dynamic, responsive security measures.

- **Need for Broader Security Integration**
  To fully overcome the limitations of CPTED, it must be integrated into a broader risk-based security framework that includes technology, staff training and emergency protocols. Technology, such as VCA-driven surveillance, provides real-time monitoring and analysis, while the Security Operations Centre (SOC) coordinates responses to emerging incidents. Capacity building in staff training and governance ensures the hospital can adapt and respond to threats beyond what CPTED measures can handle alone.

5 INTEGRATION OF CPTED PRINCIPLES IN DESIGN

Hospitals are, by necessity, highly accessible public institutions; yet they must also safeguard vulnerable occupants, critical services and high-value assets. CPTED provides the analytical framework for reconciling these competing demands during the formative stages of design. This section evaluates the Rouse Hill Hospital concept against the four foundational CPTED principles and identifies the precise interventions required to elevate security performance without compromising clinical or community objectives.

To ensure traceability with statutory review processes, each CPTED principle is cross-referenced to the corresponding components of the NSW Police Crime Risk Assessment methodology and checklist, as shown below. The detailed audit sheets appear in Appendix A:

CPTED principle (report)	NSW Police audit components incorporated
Natural Surveillance	*Surveillance + Lighting*
Natural Access Control	*Access Control*
Territorial Reinforcement	*Territorial Reinforcement + Design / Definition / Designation*
Space & Activity Management	*Space & Activity Management + Environmental Maintenance*

The objective is to progress the scheme from its present **"High" Site Opportunity Assessment rating**—derived from the aggregate Police audit counts—to a minimum **"Medium"** rating prior to completion of Design Development, well in advance of construction procurement.

5.1 NATURAL SURVEILLANCE

Natural surveillance is a critical component of the CPTED strategy for Rouse Hill Hospital, aimed at maximising visibility throughout the environment to discourage unauthorised or unwanted activities. The goal should be to achieve effective surveillance through environmental design without immediately relying on video cameras. Key design features include:

- **Transparent Facades**
  Facilitation and promotion of passive surveillance into public spaces from buildings wherever possible. The use of glass in building facades helps maintain clear sightlines between internal spaces and external areas, improving visual connection and making it easier to identify potential threats.

- **Strategic Lighting**
  Lighting is designed to illuminate all key areas, including entrances, exits, walkways, parking lots and gardens, minimising dark or shadowed spots where unauthorised activities could occur.

- **Open Layouts**
  Providing unrestricted sight lines between spaces and avoiding blind spots where possible. Interior and exterior layouts are designed with visibility in mind, ensuring that public and semi-public spaces can be monitored by staff, either directly or through passive observation. This is particularly important in the design of waiting rooms and staff hubs, where staff should be positioned to easily observe users as well as entries and exits in their space.

5.1.1 Design Assessment

The proposed design of Rouse Hill Hospital demonstrates a mixed performance in relation to the principles of natural surveillance and supportive lighting, with several positive elements identified, alongside multiple items requiring further development or confirmation during subsequent design phases.

Several strengths are apparent within the current schematic design. The main public frontage appropriately addresses Windsor Road and Commercial Road, incorporating active glazing and a legible entry forecourt, which

supports visibility and the perception of oversight. Similarly, the integration of landscape buffers contributes to the formation of effective transitional zones, enhancing passive observation opportunities.

Internally, the hospital is expected to incorporate significant volumes of lobbies, foyers, and waiting areas, all of which represent high-traffic zones where natural surveillance can be leveraged—provided internal sightlines are maintained. However, visibility within buildings remains a known vulnerability in healthcare settings, and will require attention to internal spatial layout, transparency, and surface treatments.

The building perimeter also presents typical vulnerabilities observed in similar facilities, particularly in regard to delivery zones and potential communal areas, both of which demand careful delineation and surveillance integration to prevent unauthorised access and antisocial behaviour.

Transitional zones along the eastern and southern boundaries, which currently adjoin undeveloped lots, are of particular concern. These areas will necessitate interim fencing and temporary lighting solutions to mitigate concealment and entrapment risks until adjacent developments mature. Grade separation is minimal across the site, which is a positive aspect for maintaining clear lines of sight.

Specific infrastructure elements such as ATMs, transport shelters, and shared pedestrian pathways are planned and assumed to reflect current best practice, although detailed CPTED performance is not yet confirmed. Wayfinding—a frequent challenge in hospital settings—is also flagged for detailed resolution, particularly in shared access spaces.

The Multi-Storey Car Park (MSCP) forms a significant component of the site. While its inclusion within the build scope is very positive, there is a limited ability to evaluate it at this design stage. Surveillance-related features within the car park—such as internal obstructions, ceiling heights, surveillance, lighting, and after-hours safe routes—will be finalised as the design progresses.

Finally, concealment and entrapment opportunities remain a persistent challenge within healthcare facilities. Unless intentionally designed out, hospital environments frequently contain recessed or secluded spaces that can be exploited. This risk is acknowledged and will need to be systematically mitigated through detailed design.

Lighting design has been assumed adequate in principle, based on precedent from comparable recent projects. All key lighting parameters—type, brightness, distribution, reflection, colour rendition, and vandal resistance—have been marked positive in the audit, contingent on final specifications confirming compliance with applicable standards.

However, key surveillance-enabling elements such as lighting in signage zones, around corridors and fire exits, and in relation to mirrors and ATMs, must still be confirmed in detailed design documentation. These features are critical in hospital environments where low-light conditions or high patient throughput can degrade spatial awareness.

Help points, public address systems, and intercom infrastructure are assumed to be incorporated, but the design remains unresolved. Video Surveillance System (VSS) components—particularly regarding coverage, vandal resistance, and camera typology—are also unresolved at this stage. These elements historically represent contentious aspects of hospital projects and should be developed in close coordination with operational security stakeholders.

5.1.2 Recommendations

1. During the early concept and schematic design stages, ignore the use video surveillance cameras, and aspire to design spaces where users can easily see and be seen – then add the cameras later.

2. Design a Security Operations Centre (SOC) to the standard of *AS 2201.2:2022 Alarm and electronic security systems Monitoring centres*. There is no requirement for the RHH to be graded or certified as a professional

monitoring centre, but it should aspire to perform at that level to the extent practicable within the project and operational constraints. Use *ISO 11064 Ergonomic design of control centres* to inform the ergonomic features.

3. Design the surveillance strategy with a view to maximise situational awareness in the SOC and enable earliest possible *detection* of a Code Black incident. Understand that by the time a duress is activated, it is possible that a physical assault has already been in progress for some time, and therefore the security response will already be delayed. With the number of camera scenes a project of this nature could accumulate (150-300), assume that when an incident takes place, the control room operator will not be specifically monitoring that scene. Achieving earliest detection of the incident will require a holistic strategy that is not exclusively reliant and cameras and duress buttons, and it will also require the use of video analytics to enhance the control room operator.

5.2 NATURAL ACCESS CONTROL

Effective access control is fundamental to managing the movement of individuals throughout the hospital. The goal should be to achieve effective access control through design before considering electronic measures. The design incorporates:

- **Defined Entry Points**
  The hospital has clearly marked entrances and exits to manage flow and restrict unauthorised access. Access to critical areas such as the emergency department, in-patient wards and staff-only zones is controlled through the use of gates, card-access doors and strategic placement of barriers. The number of public entries into the hospital will be limited, and most of these will be secured after hours.

- **Signage and Pathways**
  Clear signage directs patients, visitors and staff along appropriate routes, reducing confusion and limiting access to unauthorised areas. Pathways are designed to funnel movement to desired areas, minimising opportunities for wandering.

- **Ward and Waiting Room Design**
  Wards and waiting rooms are designed with controlled access points to ensure only authorised individuals can enter. Strategic placement of nurse stations allows staff to effectively monitor entry points, enhancing safety and security within these areas.

5.2.1 Design Assessment

The audit of natural access control elements within the current Rouse Hill Hospital schematic design reveals several strategic positives, tempered by a significant number of unresolved or undeveloped components. A layered approach to access control has been preliminarily embedded into the site's layout, though extensive refinement is required during the next design stage to ensure robust perimeter security, circulation logic, and functional compartmentalisation.

The site benefits from a favourable street interface. Both **Windsor Road and Commercial Road** are **4-lane arterial roads**, supported by **continuous footpaths, kerbs, and median fencing**, providing a strong boundary condition with inherent deterrence value. **Hostile Vehicle Mitigation (HVM)** will be incorporated at the entry forecourt, further enhancing security at key points of vulnerability.

Public and pedestrian connectivity is provisioned via **linking pathways** to surrounding transport corridors, including a future Metro/bus interchange. However, the **shared path layouts remain schematic**, and specific treatments—such as lighting, CPTED-compliant sight lines, and fencing—are yet to be confirmed.

The **building footprint exhibits multiple entry/egress points**, which, while operationally necessary, requires stringent access control design to mitigate risks associated with unauthorised movement. Several features critical to secure building access—such as **fire exit doors**, **service areas** (including **dumpsters and loading docks**),

and **perimeter barriers**—have not yet been resolved in the current design and are flagged as requiring detailed development.

Uncontrolled access via **building side and rear zones** remains a concern. The current configuration appears to offer **easy perimeter access by design**, without clear passive or mechanical controls. These areas are typically exploited for concealment or intrusion in comparable healthcare settings and will require mitigation through fencing, natural surveillance, and restricted circulation.

Some positive features are noted in the **natural topography**, with the **absence of obvious 'natural ladders'** (e.g., retaining walls, service structures) that could facilitate unauthorised climbing. However, **no visible fencing** or **defensive vegetation** has been incorporated to support perimeter integrity or to reinforce transitions between public, semi-public, and restricted zones.

The **Multi-Storey Car Park (MSCP)** is within the current build scope, but internal operational elements remain undefined. Critical issues such as **vehicle access control**, **pedestrian segregation**, **recreational use**, and the **integration of symbolic barriers** require detailed design definition to prevent informal access and misappropriation of space. The **management of car park space** is noted as an operational issue to be addressed at a later phase, though early incorporation of CPTED principles is recommended to shape vehicle and pedestrian flow from inception.

The audit also identifies the absence or immaturity of several access-sensitive spaces, including **child play areas**, **safe pedestrian routes**, and **informal desire lines or shortcuts**, all of which demand early resolution to prevent the establishment of informal movement corridors. The presence of **retail vendors**, anticipated on-site, introduces additional complexity in securing **cash handling routes**, which are not yet defined.

Lastly, multiple security-critical features such as **entry door systems**, **glazing protection**, **window locking**, and **reception/cashier zone design** remain undeveloped. These areas are well-documented targets for unauthorised access and theft in hospital environments and must be addressed through compliant physical design, material selection, and secure spatial planning.

5.2.2 Recommendations

1. During the early schematic design stages, agree on the access control boundaries as early as practicable, then ignore the use of electronic access control systems. In a vacuum, any single access control door can be easily defeated by a motivated offender. Therefore, design a space that is not exclusively reliant on systems to maintain the integrity of its access control boundaries, then add the electronic interventions later.

2. The facility design must enable an effective and efficient tactical response to a Code Black incident, because every second matters in the context of a violent, physical assault. Therefore, aim to design a space that enables the fastest possible response by security and police personnel, as well as the fastest possible removal of any victims trapped within the space.

3. Agree on the Code Black and Facility Lockdown strategies as early as practicable. These are essential inputs into the design.

4. Begin considering after-hours safe routes and hostile vehicle mitigation as early as practicable during schematic design.

5.3 TERRITORIAL REINFORCEMENT

Territorial reinforcement helps create a clear understanding of which spaces are public, semi-public, or private. Design features that contribute to territorial reinforcement include:

- **Landscaping and Materials**
  Differentiated landscaping and pavement materials signify transitions between zones. For example, public areas may have open landscaping, while restricted areas are demarcated by fencing or specific pavement patterns.

- **Signage**
  Signage is used to indicate restricted areas and reinforce a sense of ownership. Hospital staff-only areas are clearly marked, discouraging unauthorised individuals from attempting entry. The design will ensure that circulation patterns are unambiguous and do not create confusion in offering too many options for travel

- **Boundary Markers**
  The use of fencing, bollards and natural barriers (e.g., hedges) helps delineate boundaries between public and restricted spaces, signalling territorial ownership and limiting access.

5.3.1 Design Assessment

The evolving design of Rouse Hill Hospital demonstrates a considered approach to territorial reinforcement, supported by an emerging environmental maintenance framework that, while largely conceptual at this stage, is underpinned by sound assumptions drawn from comparable healthcare infrastructure projects.

Territorial cues are generally well-articulated across the hospital precinct, with early integration of design elements that delineate ownership and establish a legible hierarchy of space. Passive surveillance is bolstered by the adjacency of the retail arcade and the orientation of the public lobby and volunteer desk, all overlooking the Windsor Road / Commercial Road forecourt. These components serve as informal guardianship mechanisms, promoting natural oversight and reinforcing the hospital's presence within the civic landscape.

Design features such as hospital branding, low-scale landscaping, and a strong entry canopy assist in communicating clear transitions from public to semi-public and private domains. While elements such as place making, animation, and entry definition are evident in the concept imagery, the internal and external **wayfinding systems remain underdeveloped**, a common shortfall in healthcare projects that requires dedicated resolution in future design stages.

Risks emerge from the **site's proximity to high-patron night-time venues**, most notably The Fiddler Hotel, located directly across Commercial Road. This venue's extended trading hours, alcohol-related activity, and history of public disorder elevate the potential for spill-over impacts to the hospital frontage. When combined with broader crime trends—particularly the **documented increase in both general and domestic assaults within the Rouse Hill area**—these factors underscore the need for robust territorial demarcation and a visible security presence.

From an environmental maintenance perspective, the site benefits from **a positive initial presentation**, with clean, green concept imagery and no evidence of urban decay. **Public realm treatments, structures, and external furniture** are assumed to be durable and aligned with hospital standards, although specific materials and treatments (e.g., anti-graffiti coatings, fixings, and surface protections) remain to be confirmed.

However, several maintenance elements are still to be defined, particularly:
- Procedures for **lighting, landscape, and general infrastructure upkeep**,
- Clarity around **ownership of maintenance responsibilities**, and
- The integration of **operational controls for waste management**, especially in high-traffic areas.

These gaps, while not unusual at this stage, represent critical dependencies for long-term CPTED performance. Without a proactive maintenance regime, even the most well-resolved territorial cues can degrade quickly, undermining perceptions of safety, care, and control.

5.3.2 Recommendations

1. Design for ease of maintenance – from a security perspective, paying special attention to the problem of graffiti removal.

5.4 SPACE AND ACTIVITY MANAGEMENT

Designing spaces that encourage positive activity while minimising the potential for misuse is central to space and activity management:

- **Carespace Design**
  'Carespace', or the environment where care is delivered, is integral to space and activity management within a hospital setting, creating environments that reduce stress and promote positive social interactions at every point in the patient journey. Gardens, waiting areas, and recreational spaces are designed to foster relaxation and community well-being, contributing to the broader security and therapeutic goals of the hospital.

- **External Gardens and Waiting Areas**
  Spaces are designed to encourage positive interactions among patients, visitors and staff. Gardens and waiting areas provide locations for relaxation, which helps reduce stress and mitigate aggressive behaviour.

- **Well-Maintained Environment**
  Regular maintenance ensures that spaces remain clean, inviting and free of damage. A well-maintained environment reduces opportunities for unwanted behaviour, as people are less likely to misuse areas that are visibly cared for.

- **Recreational and Gathering Spaces**
  Recreational spaces encourage legitimate activities that foster natural surveillance and help deter criminal behaviour. These spaces also provide a sense of ownership and community.

5.4.1 Design Assessment

The audit indicates that the proposed Rouse Hill Hospital design exhibits generally clear land use and effective segregation of functions. The site benefits from a greenfield context, free of incompatible or legacy land uses, and no conflicting activity is presently anticipated. This clarity is further reinforced through a mixed-use interface comprising entertainment, retail, and residential elements, which, while active, does not presently exhibit functional conflict.

However, several areas warrant further design development. Of particular concern is the site's immediate proximity to *The Fiddler*, a large-format, high-patron, late-trading liquor venue situated directly across Commercial Road. This introduces a credible risk of alcohol-related antisocial behaviour, loitering, and reduced amenity during the evening period. Additionally, the site's adjacency to the Rouse Hill Metro Station will contribute to high levels of evening foot traffic and natural surveillance, though this activity must be supported by an integrated suite of lighting, surveillance, and help points.

The hospital's 24-hour operations, especially within the Emergency Department and public-facing areas, will support consistent daytime and evening activation, reducing periods of low occupancy. However, night-time activity around the site perimeter—particularly across vacant lots and transition zones—remains a concern. Five line items in this domain require further resolution, primarily in relation to night-time activation, mixed zoning, and transitional edge management.

The design as presented demonstrates a well-structured and harmonious alignment between the purpose of space and its physical definition. Audit items relating to design intent, spatial function, and the visibility of social and

cultural norms are rated positively. Responsibility for space—while not explicitly defined at this stage—is assumed to follow established hospital operational models and is considered adequate, subject to later confirmation. One item—legal and administrative enforcement—remains outstanding. This is an operational matter which typically develops in parallel with final site planning and precinct operations. It is not expected to materially impact early-stage design, though it will require alignment with governance frameworks closer to commissioning.

Overall, the hospital benefits from strong spatial definition and purpose alignment, supported by continuous hospital activity and a greenfield site free of legacy use constraints. However, the transitional nature of adjoining lots and the adjacency to high-risk venues present legitimate concerns requiring proactive design responses. These include lighting, sightlines, patrols, and an escalation pathway for antisocial conduct. While foundational spatial and governance principles are strong, ongoing refinement during detailed design is essential to ensure risk-aligned outcomes.

5.4.2 Recommendations

1. Design the overall ‘carespace’ with a view to prevent or de-escalate unnecessary escalations aggression by reducing stress -- understanding and having empathy for those users who may be experiencing very stressful, life-crisis situations. The design already shows evidence of this style of thinking, and we encourage that continue throughout the future design stages.

6 HOLISTIC, RISK-BASED APPROACH TO SECURITY

6.1 CAPACITY BUILDING

To address the inherent limitations of CPTED, a holistic security approach incorporates capacity building as a foundational solution. The five pillars of capacity building which RHH will consider in its design are:

I. Infrastructure
Ensuring that all physical components of the hospital - such as building materials, layout, lighting and barriers - contribute effectively to overall security.

II. Domain Awareness
Maintaining situational awareness across the entire hospital campus through monitoring systems, access controls and information sharing to detect and respond to potential threats. Within a care environment, this extends to situational awareness beyond traditional security matters and more towards the overall patient experience.

III. Culture and Governance
Establishing a culture of safety through clear governance frameworks, policies and protocols that promote security awareness among all hospital users, including staff, patients and visitors.

IV. Staff Professionalism
Training and educating hospital staff to ensure they are equipped with the skills to recognise, respond to and de-escalate incidents. Professionalism and readiness are key to a successful security strategy.

V. Response Capability
Ensuring there are efficient response mechanisms in place, including both physical infrastructure (such as alarms and barriers) and coordinated procedures for responding to incidents like Code Black situations.

6.2 TECHNOLOGICAL INTEGRATION

Technology is utilised as a force multiplier to significantly enhance the effectiveness of CPTED principles by providing real-time situational awareness and improving response capabilities. A force multiplier enhances the reliability and effectiveness of human capabilities, particularly by overcoming physiological limitations such as reaction time and situational awareness. By leveraging technology, security measures are able to achieve greater coverage, faster response times and improved decision-making support.

- **Video Content Analytics (VCA)**
  VCA is used to analyse surveillance footage, recognise unusual behaviours and provide early warnings, thereby multiplying the efficiency of security personnel.

- **Real-Time Locating Systems (RTLS)**
  RTLS helps track the movement of individuals and assets, providing valuable data during emergencies or incidents, enabling security staff to respond more effectively.

- **Security Operations Centre (SOC)**
  The SOC serves as the central hub for monitoring activities, managing information from various security systems and coordinating responses, acting as a force multiplier to ensure efficient utilisation of security resources.

6.3 INTEGRATION WITH CODE BLACK AND EMERGENCY PROTOCOLS

The hospital's design incorporates CPTED principles in coordination with emergency response protocols to effectively handle Code Black incidents and other emergencies. Specific response mechanisms are integrated into the architectural layout:

- **Clear Egress Pathways**
  Critical for managing evacuations and ensuring that staff and patients can move quickly to safety.

- **Safe Zones and Secure Areas**
  Defined locations where patients and staff can shelter safely during emergencies.

- **Technology-Driven Alerts**
  Integration with alarm systems, duress buttons and communication channels to ensure rapid response in crisis situations.

6.4 SECURITY OPERATIONS CENTRE (SOC)

The SOC plays a pivotal role in ensuring the effectiveness of the holistic security approach. Key responsibilities of the SOC include:

- **Continuous Monitoring**
  Monitoring all areas of the hospital campus through cameras, RTLS and access control systems to maintain real-time situational awareness.

- **Incident Response Coordination**
  Coordinating response activities during incidents, whether related to unauthorised access, aggressive behaviour, or medical emergencies.

- **Communication Hub**
  Acting as the primary communication point for disseminating information to hospital staff, security personnel and emergency responders.

7 STAKEHOLDER ENGAGEMENT PROCESS

7.1 STAKEHOLDER IDENTIFICATION

Effective stakeholder engagement is critical to the success of the CPTED strategy. Key stakeholders identified for Rouse Hill Hospital include:

- **Hospital Staff**
  Clinical and non-clinical staff who are directly involved in patient care and hospital operations. Their insights help in understanding potential risks and ensuring that safety measures do not impede day-to-day activities.

- **Local Police**
  Engaging local law enforcement helps align the hospital's security measures with broader community safety initiatives and ensures effective coordination during emergency situations.

- **Community Members**
  The surrounding community is impacted by the hospital and their perspectives help shape a CPTED strategy that considers community interactions and shared spaces.

- **Government Planners and Project Managers**
  Government officials responsible for approving the SSDA and project managers coordinating the development play a key role in aligning the CPTED strategy with broader planning and regulatory requirements.

- **Architects and Engineering Consultants**
  These stakeholders are instrumental in incorporating CPTED principles into the physical design and ensuring that all infrastructure components support the overall security strategy.

7.2 ENGAGEMENT APPROACH

The engagement process for the CPTED strategy of Rouse Hill Hospital involves multiple methods to ensure that diverse viewpoints are gathered and integrated:

- **Workshops and Consultation Sessions**
  A series of workshops have been conducted with hospital staff, architects, engineers and government planners to identify security needs, potential risks and practical solutions that align with operational workflows.

- **Community Meetings and Feedback Channels**
  Community engagement meetings have been held to gather input from local residents on how the hospital would impact them, with a focus on understanding concerns around public safety, access and interaction with hospital facilities.

- **Collaboration with Law Enforcement**
  Ongoing discussions with local police have been conducted to establish protocols for emergency response, communication channels during incidents and preventive measures for crime deterrence.

- **Review and Iterative Improvement**
  Stakeholder input has been collected at different phases of the project and iterative reviews will be further conducted to integrate feedback and adjust the design and operational planning accordingly. This ensures that the planned CPTED measures remain practical, feasible and adaptable to evolving needs.

8 COMPLIANCE WITH STANDARDS AND REGULATIONS

8.1 STANDARDS OVERVIEW

The CPTED strategy for Rouse Hill Hospital aligns with key standards and regulatory frameworks to ensure a comprehensive, compliant approach to security. These standards provide guidelines for implementing CPTED principles effectively, guaranteeing safety and operational efficiency. The primary standards considered in this strategy include:

- **NSW Health Protecting People & Property Manual**
  Provides specific guidelines for the safety of healthcare facilities, focusing on both physical infrastructure and operational protocols.

- **Australian Health Facility Guidelines (AusHFG)**
  Sets standards for healthcare facility design, ensuring that safety, efficiency and patient care are central considerations.

- **NSW Police Safer-by-Design Guidelines**
  Offers recommendations on incorporating CPTED principles to create safer public spaces, including hospitals.

- **Work Health and Safety Act (WHS Act) 2011**
  Ensures that all safety measures align with occupational health and safety requirements, focusing on the well-being of staff, patients and visitors.

- **AS/NZS 4485:2021: Security for Healthcare Facilities**
  Provides guidelines for security in healthcare facilities, emphasising risk management and physical security measures.

- **AS/NZS 31000:2009: Risk Management – Guidelines**
  Establishes risk management frameworks that are integrated with CPTED measures to ensure a proactive approach to identifying and mitigating risks.

- **ISO 11064: Ergonomic Design of Control Centres**
  Focuses on ergonomic design of control centres, which is crucial for the effectiveness of the Security Operations Centre (SOC).

- **AS 3745:2010 - Planning for Emergencies in Facilities**
  Provides guidelines for emergency planning, including the establishment of clear evacuation procedures and safe zones within healthcare settings.

- **HB 167:2006 Security Risk Management**
  Offers comprehensive guidance on managing security risks, which supports the risk-based engineering of security systems.

8.2 COMPLIANCE CONSIDERATIONS

Compliance with these standards is not only essential for regulatory approval (including the SSDA) but also ensures that the security measures are in line with industry best practices. Key compliance considerations include:

- **Alignment with Regulatory Requirements**
  Ensuring that all aspects of the CPTED strategy meet the stringent safety and security regulations required for healthcare facilities, including the requirements of NSW Health and WHS legislation.

- **Integration of Standards into Design and Operations**
  CPTED measures are integrated into the architectural and operational planning of the hospital, ensuring that physical and technological measures work cohesively to meet safety objectives.

- **Continuous Monitoring for Compliance**
  Regular audits and assessments are conducted to ensure ongoing compliance with these standards. This involves adapting to new guidelines, updating systems and ensuring that both staff training and security procedures are up to date.

9 REFERENCES TO OPERATIONAL PROCEDURES AND TRAINING

Addressing operational needs during the hospital design phase is essential for ensuring the built environment effectively supports day-to-day activities. By integrating training and procedures early on, the design can align seamlessly with operational requirements, enhancing functionality. Although project staff may be primarily focused on infrastructure, considering these operational needs ensures that staff can use the facility as intended, leading to improved safety, efficiency and effectiveness.

9.1 STAFF TRAINING PROGRAMS

The effective implementation of CPTED measures requires well-trained staff who are prepared to respond to security incidents and uphold security protocols. Staff training programs focus on equipping both clinical and non-clinical personnel with the skills necessary to maintain a secure environment while providing high-quality care.

Staff are trained to respond appropriately to various emergency situations, including Code Black incidents, ensuring they understand evacuation procedures, communication protocols and safe zones. To achieve the best outcomes, regular training should take place within the operational environment where staff regularly work.

9.2 STANDARD OPERATING PROCEDURES (SOPS)

SOPs play a critical role in the effectiveness of the CPTED strategy by providing clear, standardised guidelines for maintaining security. Key SOPs related to the CPTED strategy include:

- **Access Control Management**
  SOPs outline procedures for managing access to restricted areas, including the use of ID cards, visitor management and access logs.

- **Incident Reporting and Management**
  SOPs detail the process for reporting security incidents, responding to emergencies and conducting post-incident reviews to ensure continuous improvement.

- **Maintenance of Security Systems**
  SOPs provide guidelines for the regular inspection and maintenance of security systems, including lighting, surveillance cameras, access controls and alarms, to ensure they remain functional and effective.

10 CONCLUSION

The CPTED strategy for Rouse Hill Hospital integrates principles of natural surveillance, access control, territorial reinforcement and space management to create a safe, welcoming and efficient environment. By combining these principles with a holistic, risk-based approach that incorporates technological integration, stakeholder engagement, compliance and continuous monitoring, this strategy ensures a proactive approach to security and safety.

This report emphasises the importance of aligning design and operational needs, incorporating input from key stakeholders and adhering to relevant standards and regulations. The strategy is designed not only to meet current security challenges but also to adapt to future changes and evolving risks, ensuring the hospital remains a safe space for patients, staff and visitors.

Moving forward, it is essential to maintain open lines of communication among stakeholders, regularly assess the effectiveness of CPTED measures and remain adaptable to emerging needs. The commitment to safety, efficiency and well-being will ensure Rouse Hill Hospital continues to provide high-quality care in a secure environment.

APPENDIX A – CPTED AUDIT WORKSHEET