

14 February 2023

RP Infrastructure Pty Ltd

Level 19, 9 Hunter Street, Sydney New South Wales, 2000

Attention: Yonis Ahmed

**REF Architectural Design Statement - TAMWORTH MENTAL HEALTH UNIT, TAMWORTH HOSPITAL
BUILT FORM AND URBAN DESIGN**

Silver Thomas Hanley is engaged by Health Infrastructure NSW in the role of Architect for the new Tamworth Mental Health Unit (TMHU) project. The purpose of this statement is to address the documents

- Government Architect of NSW - Better Places,
- HI Policies for Design, Placemaking and Sustainability,
- Crime Prevention Through Environmental Design Principles (CPTED),
- And the general building description addressing
 - The height, density, bulk and scale, and setbacks of the Proposal in relation to the locality and the surrounding development, topography and streetscape.
 - Design quality, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colours.
 - How services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development Internal and external amenity.
 - Identify any specific issues of Built form and urban design impacting the Review of Environmental Factors (REF) Application.



LEVEL 4, 89 YORK ST
SYDNEY NSW 2000 AUSTRALIA

T | +61 2 8299 4600
E | sydney@sth.com.au

SILVER THOMAS HANLEY
(AUS) PTY LTD
ABN 21 134 476 065

Nominated Architects: Ernest Girardi (8173), Natalie Pitt (9490)

STH.COM.AU

Project Context and Design Vision

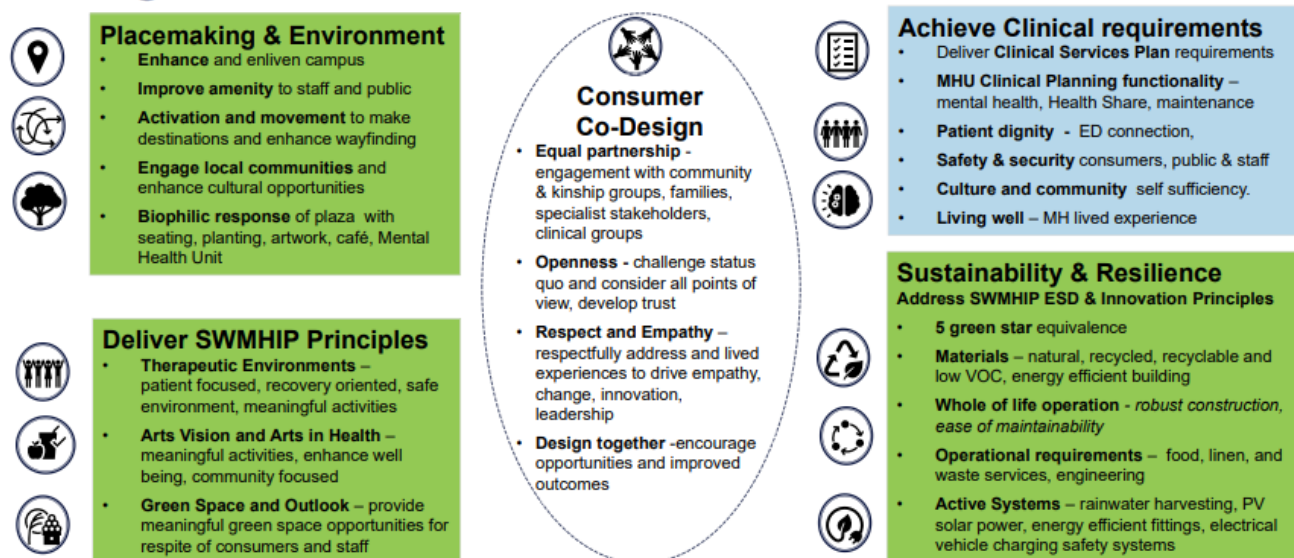
The new Tamworth Mental Health Unit (TMHU) will replace the existing Banksia Acute Mental Health Unit on the Tamworth Hospital site. The existing unit is at the rear northern edge of the built site and does not connect directly to the new Acute Services Building (ASB) and does not accommodate contemporary models of care as adopted in the current State-Wide Mental Health Infrastructure Program (SWMHIP).

The project and SWMHIP program have the following design vision:

- Deliver the clinical requirements of the service
- Deliver the principles of the Program (SWMHIP)
- Enhance placemaking, environment, sustainability, and resilience in consultation with the HI Design Advisor
- With these elements informed by a comprehensive Consumer Co-Design process, including consultation with
 - clinical and non-clinical hospital streams,
 - Co-design with representatives who have lived experience of mental health and
 - Connecting with country through workshop with local indigenous peoples including those with lived experience.

The Design Vision is represented by the following diagrams.

Design Vision



Existing site

The proposed site is currently occupied by

- At the site for the original new Banksia MHU, a number of different services occupying small cottage on the site and these will be relocated prior to works commencing.
- Visitor carpark B occupies the west part of the site and will necessitate relocation of 90 car spaces, together with construction of 47 additional spaces for the new services. Of the 90, 8-spaces and for accessible parking. The relocations will be undertaken as Early works so that there is minimal loss of parking, if any, during the Main Works to building the new Tamworth Mental Health Unit.
- Further, 8 additional spaces in the remaining carpark area will require resumption for new vehicle circulation and these will be reinstated at the interface of this carpark and the MHU forecourt areas. It is intended these spaces will be reinstated as accessible parking spaces to replace 8-off lost spaces
- The site also has crossing services to be removed/relocated and will necessitate installation of a new padmount transformer to meet the facility electrical power requirements

Placemaking and design

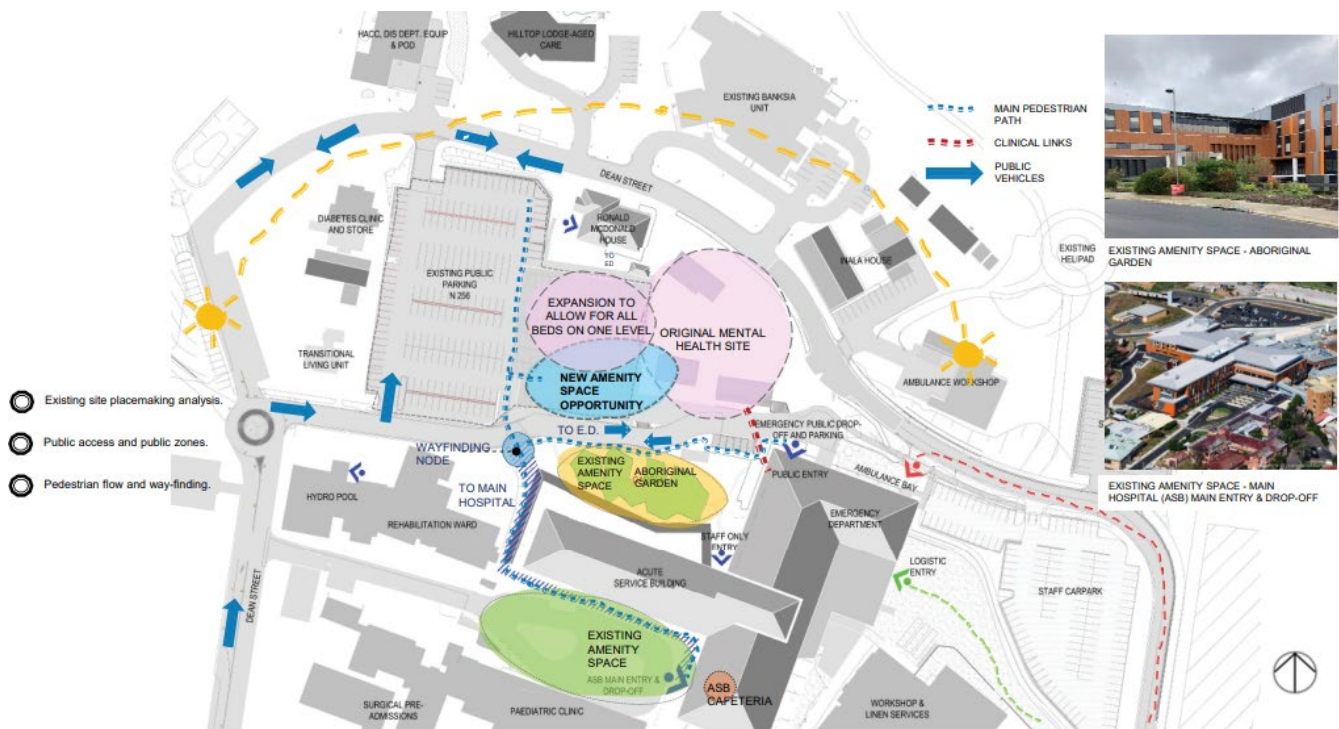
The MHU site is located on the LHD preferred site, selected because it provided the clinical links to the Acute Services Building (ASB). The ASB is critical as

- most consumers are admitted to the MHU from the Emergency Department and this can be undertaken in a dignified and weather enclosed overhead link
- Central linen, food service and waste disposal facilities are located in the ASB.
- Patients are transferred for medical treatment to the ASB as required

The challenge of the location for the initial 'Banksia MHU' project was its clinical program fitting onto the previous smaller and constrained site.

The funding of the increased scope of the Mental Health Clinical Service with the additional Adolescent inpatient beds being required on the one IPU floor plate, as well as the CAMHS Community Health at Level 1 (Entry level), provided the opportunity for the building to expand across the hospital site to the south west. This provides the following design and placemaking opportunities:

- An ability to introduce new community amenity to the campus via a forecourt and landscaped areas
- Enhance campus connections, wayfinding and circulation
- Acknowledge and connect both visually and culturally with the adjacent Aboriginal garden.
- Create a strong link to the existing ASB main entry and the new unit



Site analysis, concept placemaking design informed by wayfinding and preferred access.

Recognising the constraint of the existing site, it being bounded by Dean St Loop to the North-West, constrained by the internal Emergency Road to the South and the Carpark to the west, workshops were held with the HI Design Advisor to establish concepts for placemaking and environment with the following key comments:

1. Provide public amenity to the Hospital campus
2. Provide respite for staff and consumers
3. Provide therapeutic amenity for mental health consumers

Studies were undertaken of the existing hospital campus to outline the current landscaped areas, existing public amenity, wayfinding, consumer pathways and flows. The new development saw opportunity to expand on the existing Aboriginal Garden and established the building entry location along the pedestrian pathway between the ASB and the main visitors carpark.

The following elements were created as a response for placemaking and environment, establishing the 'green heart' concept:

Item	Element	Response
1.	The Entry Forecourt	- A public forecourt is introduced in response to improving the public amenity and allow better wayfinding to the campus by having direct access from the main visitor's carpark. - The forecourt expands on the existing Aboriginal garden. - The forecourt contains landscaped and paved area, creating gathering spaces for visitors.
2.	The Central atrium	- The scheme introduced a central atrium connecting the public forecourt, the atrium and Adult Courtyard. - The atrium provides respite for internal spaces for both staff and consumers - The atrium is a generous size to allow for natural light to enter internal spaces and provide views to the sky
3.	The Main Courtyard	- The main courtyard provides amenity for inpatient consumers - It connects the main recreation spaces and the atrium

These three elements connect creating the 'green heart'. The clinical and operational requirements are designed around this concept and the outcome successful for patient and staff flows, as well as the clinical and safety requirements.

The expansion will extend and improve upon the previous campus connection strategies using the existing colour and materials palette, landscape selections for dry country, as per the original consultation and places to lunch in sunshine in the winter and seek deep shade in the summer heat. The expended program allows these areas to reach to natural and existing defined movement areas for improved wayfinding, social connection, reduced stigma and opportunities for community integration.

A key element to building approach and integrating the building and service with country, is the entry pathways from the primary campus public wayfinding point, via the forecourt through the entry vestibule to a large internal open atrium and with visual connections to an on-ground consumer courtyard on the far side of the building, as a journey of an 8m climb across the site,

Interior design for wellness, biophilic connections, and robust functionality is a key project driver and the design include artworks that connect with country, by local firsts nations peoples, have been included in the consultation process.

These strategies fulfill the Government Architect Better Places objectives as per the extract below.

						
OBJECTIVE 1.	OBJECTIVE 2.	OBJECTIVE 3.	OBJECTIVE 4.	OBJECTIVE 5.	OBJECTIVE 6.	OBJECTIVE 7.
Better fit contextual, local and of its place	Better performance sustainable, adaptable and durable	Better for community inclusive, connected and diverse	Better for people safe, comfortable and liveable	Better working functional, efficient and fit for purpose	Better value creating and adding value	Better look and feel engaging, inviting and attractive

Connection with Country

Connecting with Country is a key objective for the building design and its fit with the campus and local community and place. The connections include design as seen from the community, from within the facility to its locale and the manner in which it functionally integrates.

Design and functionality connections will continue to be sought with consumers in rural communities and connections through co-design with adherence to previous Banksia Aboriginal co-design input, Connecting with Country Workshops (led by Yerrabingin), Project User Groups, and the Lived Experience co-design workshops.



Placemaking and forecourt space making opportunities for sun, shade, wind-screens for seating in public and semi-personalised zones.

Greener places and Better spaces:

The NSW Government Architect advocates for an integrated approach to creating green spaces and better places to create open space for people to connect through greening of the site using open recreation space urban tree canopy, bushland and waterway.

The proposed MHU location of the facility is in an area directly visible from the public visitors carpark and across the road from the Acute Services Building and Emergency Entry, and with the Aboriginal Gardens, nested between the two buildings.

Implementation of the policy

The key opportunity of the expanded facility on a less constrained has been the placemaking opportunities for the campus and greater connection with country. Workshops with Health Infrastructure were held in Concept Design to develop the placemaking principle and to meet excellence in design and connecting with country design principles.

The public domain key benefits achieved are:

- Enhance public domain to improve staff and consumer experience of the campus,
- Improve service identity, access, and wayfinding,
- Acknowledge and establish visual connection with the Aboriginal garden and the new building landscape,
- Establish a new entry plaza with shade from Tamworth's dry and hot environment,
- The atrium or 'green heart' is a commitment to a consumer focused, recovery orientated approach to the overall therapeutic environment of the design. The visibility of the green heart from the initial wayfinding point of the campus was seen as a key arrival element in the building concept and biophilic response to SWMHIP principles of wellbeing and understanding of lived experience of consumers and carers. It provides a better sense of good treatment of family and enduring calmness,
- The design connects the Aboriginal gardens, the forecourt, internal atrium, through the adult recreation areas to the on-ground adult courtyard – adopting the principles of connecting with country and connecting to the ground, sky and community as expressed from the Aboriginal co-design group.

Landscape Plans

Landscape plans have been prepared by Taylor Brammer that are the result of co-design consultation meetings and workshops including

- Previous 2020/21 Banksia MHU (with smaller scope) Aboriginal and lived experience co-design consultation; and,
- Health Infrastructure workshops at concept stage to instigate the opportunities of the large site and evolving HI CwC and Design excellence requirements in Hospital design introducing the community forecourt and expanded green heart
- Current 2022/23 Tamworth MHU (redesign with increased scope) Aboriginal Connecting with Country and Lived Experience Co-Design committee
- HNELHD clinical and nonclinical consultation including CPTED consideration.

It should be noted that the external landscape spaces have been revised most by the current process, whilst the enclosed consumer courtyards have been adapted from previous Aboriginal and consumer consultation reviewed with the clinical overlay in this design and in consideration of their revised locations to address the new land-sky and community visual connections.

Final Connecting with country and lived experience workshop are yet to take place.

The design objectives and the manner in which they have been met.

Objectives	Landscape Implementation
Adapt to the landform	Adapt to the 3m rise across the forecourt area to the Building Entry, and the additional 5m rise from the glazed entry to the Atrium, Adult Recreation area, and Adult Secure Courtyard tell this story; The Atrium represents the green heart of the facility that the building wraps around and is visible visitors, staff and consumers alike. The project landscaping allows visual connection to the Aboriginal garden to the south, adjacent the ASB.
Connect with country and develop land-sky and community connections	Landscape and over-reaching building forms reinforce the horizon and ground-sky connection. The stair alignment at Entry seeks to take visitors on a visual journey to the atrium back to the forecourt (at stair landing) and landscape and to the entry

	Provide sunny and shaded spaces to walk, sit and reflect as individuals and as large family group areas
Connect with community	Public entry forecourt at it lower level connects with carpark and campus pedestrian areas and will offer opportunity to meet family and friends before visiting loved ones, fundraising space, artworks to be suspended at the ground or on the blade columns.
Active areas that tell Aboriginal stories	Landscape forecourt paving – Aboriginal images, Constellation patterns in ceiling and possibly paving and contribute to wayfinding
Address seasonal change	Meadows planting with seasonal flowering planting Planting with edible berries/flower
Appropriate Planting	Dry area native and exotic planting selections and dry creek bed design concepts Planting irrigated from 98% roof-rainwater collection storage (with backup) Trees around the building perimeter of the facility for consumer privacy which consumers also will see into the canopies to see bird life, wind movement, dappled light and views beyond. Tree'd area between the carpark and the forecourt / consumer recreation areas above that to filter the view of the carpark and vice versa.
Passive and active space Territorial reinforcement and passive CPTED	Low planting near the edges of pathways, to maximise vision, passive feeling of safety and increasing in height beyond the edges of active areas, and where wind screening for seats is provided Landscaping to the northern building perimeter is a major enhancement in the redesign. Planting will meet the road kerb edge and not offer opportunity to walk on the south side of the roadway. This is for privacy for the adjacent bedrooms and CPTED reasons. Similarly, the landscape wedge between the MHU and Ronald McDonald House is purely passive and LHD required no activate space or pathway here. Active spaces and the passive verges will have CCTV coverage and increased night-lighting and discourage use beyond
Enclosed Courtyards	Each of the four consumer pods have courtyards with planting to soften the spaces and create a foil to the coloured perforated steel and glass enclosing screens. Noting the Adult courtyard will be on-ground as requested by the initial Aboriginal consultation.

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ENTRY PLAZA

KEY

- ① Existing Indigenous garden embellished and extended
- ② Feature native shade trees
- ③ Accessible pedestrian ramp with stairs
- ④ Open meeting space
- ⑤ Open seating adjacent to dry creek bed
- ⑥ Community gathering space
- ⑦ Raised pedestrian threshold



Figure above: The landscape design is in response to the themes from Aboriginal and Lived Experience Co-Design community workshops.

Safe/Comfortable – Crime Prevention Through Environmental Design principles

The building has been reviewed extensively with respect to the following principles

- Crime Prevention Through Environmental Design CPTED,
- NSW Health Directive Protection of People and Property (PPP)-
- HNE requirements following consultation with Clinical PUGS and non-clinical engineering/security services.

External CPTED is noted in landscaping above and in Appendix 1

Consultation has continued through the Design Development phase and has addressed

- Staff : Safe access for staff at shift change night and day to staff parking areas –
 - Staff Carpark D (Zone 1) is enlarged by 32 spaces in the Early Works. With the expanded area dedicated to night staff in boom-gated zone.
 - New Level 1 secure Staff Entry provided away from public entry also closest point to the ED Entry and the ASB staff entrance.
 - Existing lighting and CCTV from there to Car park A and additional CCTV, lighting proposed at expanded carpark.
- Staff: Opportunities for safe work in Consumer occupied areas includes
 - Dual doorways wherever possible for Interview and selected other rooms.
 - Duress mobile and fixed alarm points including mobile coverage to the building interior areas, courtyards, engineering areas, lifts, stairs and forecourt.
- Visitors: confined to lobby, stair and lift waiting areas and otherwise limited areas of the building only with staff escort.

Refer to Appendix 1

Fit for Purpose – the clinical requirements of the service,

Clinical Project User Group (PUG) Meetings have been held with Adult Acute/HAZ IPU, CMH/Adolescent pod, Older Persons pod, MH Managers, Co-Design, HealthShare and Back of House. Each meeting has reviewed functionality, safety, comfort and wellness opportunities for consumers, visitor and staff alike.

- Wellness
 - Maximise opportunities for natural light, outlook, green-scape, visual connection to community,
 - Opportunities for zones for passive recreation, creative /group activities, individual rest zones and moments of respite along paths of travel,
 - Ensure where possible that privacy is maintained on the secure side of reception.
- Safety -
 - Anti-ligature design fixtures including door hardware, sanitary fixtures, furniture, construction,
 - Building features that minimize potential for self-harm or harm to others,
 - Minimise slip, trip fall potential.
- Robust Construction and fixtures
 - Glass and window framing suitable for the specific MH environment, as necessary,
 - Partition construction to reduce self-harm but avoid high maintenance issues,
 - Wall & envelope construction for longevity and low maintenance,
 - Manual and electronic door hardware to fit for purpose.

BUILDING DESIGN

STACKING AND BLOCKING

The stacking of and building form design are the result of:

- The previous Banksia MHU design required all inpatient services at level 2 to connect via the elevated link-bridge to the ASB and the collocated expanded inpatient services necessarily required the building mass to extend out from the previous site to the only available space to the west. The finger form is the result of many rooms briefed requiring external outlook.
- The new outpatient services were located Level 1 (at ground) closest to public parking areas to avoid the need for the lift access. The collocation of inpatient and outpatient service entries from a single lobby
- Staff areas agreed to be retained and located at Level 3 as in the earlier project'
- The previous design had a large internal atrium that was reduced due to previous scope expansion and became too small. A key driver encouraged by Health infrastructure was to reinstate the larger atrium. This became the green heart and the central focus of all circulation for wayfinding and to benefit all occupants and visitors. It led to the story of connecting the lowest to the highest part of the site and the building essentially as two building masses, connected by transparent bridges at both ends and with the most open forecourt and the most enclosed adult courtyard at opposite ends

The new development is located north of the existing Acute Services Building (ASB), with all the Inpatient Unit (IPU) on Level 2 in order to link directly (via the link bridge) with the ASB Level 2. Level 1 accommodates The Child and Adolescent Community Mental Health adjacent the building main Entry and the Enclosed Transfer Bay and engineering are located away from Public forecourt whilst Level 3 accommodates the Staff Areas & the main plant.

The highest part of the site is adjacent the Level 2 Acute Adult Courtyard which is almost 8m above the lowest part at the Emergency Road crossing. Whilst the majority of the building at IPU level is elevated to meet the clinical need, the Entry and Community Health at Level 1 are above natural ground level at the front but in excavation ground at the northern side. This affords the forecourt a wonderful, high space as the site climbs from the southwest to the north-east, whilst meeting the roadway levels opposite the Emergency Parking areas, Bedrooms on the north and north-west of the Unit look around the Ronald McDonald House to the mountain range to the west, north and east.

The Building and site sections shown describe the finished building height of the proposed development which does not exceed the 15m limit requirement of the planning pathway.



Section through Central atrium (grid 2b to 6) looking south toward the Acute Services Building.

The central atrium garden provides the new unit many opportunities for natural light and a landscaped outlook. The atrium garden ascends from the level 1 forecourt through the Atrium and up to Level 2 Acute service Recreation are to the on-ground Level 2 Courtyard and street, telling the story of the site and connection from the ground to the sky. The atrium garden contributes to the biophilic design and is a wayfinding feature for consumers, visitors and staff alike.

BUILDING DESIGN CONCEPT



Illustration of Developed accessible path and drop-off road to the Main Entry
Different colours on the facade express the layering of the river and the river bank.

The key outcome for material selection has been the result of previous Banksia Aboriginal and lived experience co-design engagement, that selected local blue stone from Tamworth, landscape species selection and natural gabion walls. These selections updated with the consultation of the current co-design and CwC are implemented into the current design.

The building articulation follows that of the ASB. The horizontal datum lines at each level of the ASB have been followed and wrap around level 2 and 3 of this building. The verticality of the panels on the ASB have been interpreted using the prefinished CFC panels. Like the ASB these vertical panels start and stop at the datum lines. The CFC panels are in different colours from the ASB, that emulate the concept of the River Bank to align with the concept established during the Banksia Co-design workshop. Level 1 does not use this as it is intended to appear to grow out of the ground and support the building above. Level 1 is porcelain panels of occupied areas and gabion infill where not occupied

The focus is to create the best possible surroundings for patients as well as staff, by ensuring ample light throughout the building, external outlook, access to nature and outdoor spaces. This allows consumers and staff to connecting visually with ground, sky and community, acknowledging key connection with country principles.

The following features are incorporated to promote health and wellbeing:

- Natural light through skylights, internal atriums and north facing courtyards.
- Natural tactile materials with a soft palette that is carried from outside to inside adult areas; but, .
- A more vibrant and bright interior colour palette for the adolescent services.

The forecourt paved and landscaped surfaces and the Level 1 walls rising from the ground are proposed as:

- Gabion retaining walls using the grey-blue stone, with mineral-tinged orange and red are common around Tamworth and including windscreen landscape walling (using quarried or gather site stones).
- Forecourt paving being similar hues and incorporating the Aboriginal themes and patterns as presented in the landscape plans
- Walls of occupied building finished with 'Frontek' cladding panels– closely echoing these rocks but smooth, and with walls insulated as needed for 5-star rating
- Walls of unoccupied undercroft also being the same gabion wall finish, rising from the ground and landscape
- With all walls misaligned to the Level 2 wall plane above
- Exposed natural concrete columns -and where support the buildings overhanging the forecourts, blades are used to intentionally be part of the forecourt artwork / totem

Level 2 walls :

- Prefinished face fixed compressed fibre-cement panels using the colour palette above (blues, greens, orange and greys) and in a variety of different textures according to height and having a horizontal rhythm of colour change, representing the irregular seasonal changes
- and with walls insulated as needed for 5-star rating

Level 3 walls

- Prefinished fibre cement cladding and insulation as above
- Louvred wall panels as required for mechanical plant room

Roof

- Heavy-duty Trimdeck 700 insulated metal roof , Surfmist colour, at nominal 3 and 5-degree pitch
- Rainwater goods including 300mm dia half round gutters on structural brackets and 150mm dia round downpipes in dark grey.

Wall colours

- The three rivers surrounding Tamworth are significant to the community. The river represents movement, flow and change. The change of the seasons expresses life, from drought to floods. The seasonal changes are expressed in the landscape, from droughts and dry creek beds to floods with gushing rivers and lush landscapes

Forecourt ceiling

- Within a border of fibre-cement cladding, that encircles the elevated level 2. The CwC consultation has articulated that the expanse of the forecourt ceilings will feature a starry night lighted theme as requested in the Connecting with Country workshop.



*Left and centre: Forecourt ceiling with stary night ceiling either as built soffit or a projected changeable scene;
Right: Sensory Rooms - LED ceiling panels with programmable scenes (wall panels similar).*

Dark Sky Principles – Exterior lighting

The new facility will not significantly contribute light to the night sky. Exterior lighting will be developed to light the ground plane in line with CPTED- Crime prevention through environment design and for walkways and carpark to meet Protecting People and Property Directive of NSW Health.

Security lighting under the building forecourt and around the non-forecourt edges of the building will be on solar switching and PIR activation to minimise unnecessary light.

Whole of Life Cycle Design - Sustainable/Durable

In pursuit of Ecologically Sustainable Design principles across the development, the new Tamworth Mental Health Unit will implement sustainable design principles and initiatives designed to work toward 5 Star Green Star equivalency rating under the Health Infrastructure DGN #58. The design approach will be focused on the following key initiatives:

- Integrate passive design elements, as far practically possible, to naturally provide comfort, quality and minimise energy consumption,
- Create healthy interiors, including reduction in the use of harmful VOCs in glues, sealants and paints, and protection from dust and other external airborne pollutants,
- Bespoke design solutions that provide a sustainable outcome, avoiding over engineering and providing for long term climate adaptation and resilience,
- Minimise consumption of natural resources, including water and raw materials,
- Minimise environmental impacts through construction, including embodied energy and the ecological cost of materials,
- Minimise environmental impacts through operation, including energy consumption, waste creation and discharge of pollutants,
- Promote urban ecology through biophilic design elements, the use of green roofs, green walls, extensive landscaping,
- Provide sustainable, integrated, convenient travel, and
- Promote biodiversity through careful building and landscape design that benefits indigenous or endangered plant and animal species.

The scheme responds to the following documents:

- The Hunter New England Sustainable Health Care: Together Towards Zero Plan (HNESHCTTZ) outlines the district's ambition to become a more environmentally aware and sustainable health district and support the New South Wales State Government's Net Zero Plan.

- The HNE Sustainable Health Care: Together Towards Zero Plan provides direction for the monitoring, development and implementation of sustainability initiatives within the health district. The priority domains are outlined below.
 - Neutrality by 2030:
 - HNE Health District will be carbon and waste neutral by 2030.
- Solar Energy Generation:
 - All hospitals and health buildings will have solar panels installed.
 - All hospitals and health buildings will trade fossil fuels with renewables.
- Zero General Waste to Landfill
 - The District is investigating waste to approach every day disposal of food scraps, general waste and recycling
 - The District is investigating health-specific waste to be diverted from landfill such as oxygen masks, pvc tubing, and clean single use plastics used in operating theatres and are appropriate for recycling
- Water Sustainable Practices
 - The District aims to collect 100% of rainwater that falls on hospital rooftops
 - District is investigating ways to reuse and recycle water within each hospital
 - Expand on the existing renal dialysis water recycling scheme to 10 more renal units within the District
- Sustainable Transport
 - The District's fleet vehicle will be transitioned to hybrid then pure electric models
 - E-charging stations will be installed on all District sites
- Inclusive/Connected/Diverse
 - CwC
 - Co-Design
 - Cultural awareness
 - Environment

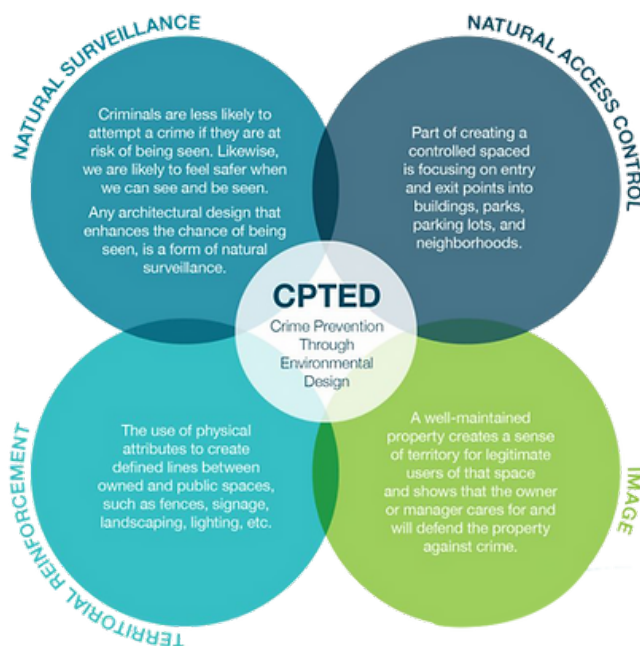
Company Silver Thomas Hanley (Aus) Pty Ltd
 Project Number: 10500.00
 Project Leader: Philip Taylor
 Position: Associate Principal
 Qualifications: Bachelor of Architecture (Hons), ARB #5983

Signature



APPENDIX 1

Crime Prevention Through Environmental Design (CPTED)



The building has been reviewed extensively with respect to the following principles to maximise the sense of safety and well-being in the use of the facility and the environment immediate to and affected by the design of the project including the mental health unit, access to the Acute Services Building, new/alterd visitor and staff carparks.

- Crime Prevention Through Environmental Design CPTED,
- NSW Health Directive Protection of People and Property (PPP)-
- HNE requirements following consultation with Clinical Project User Groups (PUGs) and non-clinical engineering/security services.
- Sustainable Hospitals Carparking Infrastructure Programme Guidelines (SCHPIP) parts 1A and 1B.

Consultation for Security has impacted wayfinding, public access to forecourt as opposed to landscaped areas, internal public and secured staff/escorted persons circulation, lockdown required flexibility of security, wrning systems for safe access, and for duress incidents.

Consultation for CPTED and security in general has included:

- Health Infrastructure
- Local LHD Clinical Planner
- LHD executive
- MHU staff at that hold roles from NUM, nursing, registrars, occupational therapists, volunteers
- HealthShare services staff (linen, food delivery, cleaning)
- Engineering staff (security, fire officer, engineering personnel)
- Community Co-design contributors of Aboriginal descent and those of lived experience with mental health of themselves, or as carers.
- And a balanced view of the risks and opportunities addressing lessons learnt, design improvement and supporting innovation were discussed at all levels.

In consideration of these documents and the embedded principles, the project address

- Passive surveillance and minimising obscured areas, re-entrant building corners, and where vandalism or criminal activity is not visible. Passive or natural surveillance is promoted through clear lines of site in movement areas clear lines of site from active areas of the facility and from the other buildings surrounding the open grounds
- Active surveillance of external areas of the public forecourt, engineering under-croft area, new carparking areas, through the use of CCTV, Video Intercom access, address PPP and SCHPIP guidelines,

It is considered that the engineering undercroft will rely mostly on active surveillance equipment but that passive surveillance will also be provided by engineering services and staff movement to & from the staff carpark D and the ASB as well as visitors utilising the Emergency parking spaces opposite.

- Lighting of building perimeter areas, intentional access pathways, and new carparks.
- Territorial reinforcement
 - Specifically avoids the use of fences (Ronald McDonald House fencing to be retained),
 - passively reinforces acceptable areas for activity as opposed to areas for visual enhancement
 - Uses landscape planting in a manner that reinforces passive viewing spaces only.
 - This does not apply to Consumer courtyards which must be securely enclosed to meet statutory and safety requirements of the Mental Health Act.
- Activity and space management is addressed including:
 - Clear wayfinding and signage as required.
 - separating visitor entry and general movement pathways.
 - keeping engineering functional spaces away from the public forecourt.
 - separated staff access.
- Considers environmental maintenance –
 - Quite simply, dilapidated unkept or unloved areas will attract unwanted and antisocial activity,
 - Consultation to develop the design from concept through to design development has considered.
 - Ways to activate the external spaces through various seasonal changes for sunny space seating, deep shade refuge, weather refuge from wind and rain, etc in conjunction with the building form, times of day, etc and with reference to sun and shade diagrams at the various times of seasons and day; and considered opportunities to use the spaces near the lower parking level s and areas closer too the entry for seating, meeting, volunteer fund raising stalls; engagement with local community for display of artwork in the forecourt areas.
 - Appropriate lighting to prevent unwanted graffiti, refuse, disposal, pest infestation and the like through considered maintenance access for cleaning,
 - Appropriate luminaire selection, lighting as art, lamp-life, replacement access, to avoid poor maintenance contributing to visual decay.

- Easily maintained slip resistant surfaces/gradients, bin receptacle placement ease of wayfinding and minimal unnecessary signage
- Planting appropriate to micro-climate location to maximise potential for plant-life cycle; with
- Roof rainwater capture to for planting irrigation,
- Access Control
 - Building access is generally separated by function into the following groups
 - Public access areas without escorted access
 - Public access via secure corridors under escort by clinical staff
 - Consumer secure areas for each of the four pods (plus additional potential separation in Adolescent and Adult areas
 - Staff only spaces
 - Engineering spaces (key-access)
 - Access control secures the building interior using electronic access control for clinical and non-clinical staff to suit the campus operational security policies.
 - Key access is provided to engineering spaces and key override for access to engineering plant on level 1 and 3, services cupboards and risers with the occupied building.
 - Only permitted access is available to the mental health inpatient unit level and other occupied staff areas.
- Video Intercom intercommunication
 - Video Intercom will be provided at the Enclosed Transfer Bay doorways for access into the unit by LHD patient transport, NSW Ambulance, Police, and others need to enter the building via the staff access points including the Enclosed Patient Transfer Bay , Staff Entry, and for visitors meeting consumers whom need to leave the Family Lounges.
 - Connections of the Video intercom to be to reception and when not occupied to the Clinical Work Room(s)