djrd
architects

Griffith Base Hospital Redevelopment

SSDA
Architectural Design Statement

Rev v1.5

30.03.2021

djrd

Document History, status and distribution

Version	Date Issued	Reviewed By	Issued To	Revision Type
V1.0	5/06/2020	J Collingwood	CBRE,HI	Draft
V1.1	18/06/2020	J Collingwood	CBRE,HI	Draft
V1.2	10/11/2020	J Straesser	CBRE,HI	Draft
V1.3	14/01/2021	J Straesser	CBRE,HI	Draft
V1.4	18/01/2021	D Beekwilder	CBRE,HI	Final
V1.5	30/03/2021	D Beekwilder	CBRE,HI	Final

Contents

1.0 Executive Summary..... 5
2.0 Response to SEARS..... 7
3.0 Response to GANSW..... 8
4.0 Community Consultation..... 9
5.0 Site and Context Analysis..... 10
6.0 Site Strategies..... 16
7.0 Key Design Concepts..... 18
8.0 Options Considered..... 21
9.0 Built Form Context..... 23
10.0 Built Form and Urban Design..... 24
11.0 Design Quality and Built Form..... 27
12.0 Environmental Amenity 33
13.0 Art Strategy..... 40
14.0 Connection to Country..... 42
15.0 Sustainability..... 43
16.0 Crime Prevention Through Environmental Design... 44
17.0 Staging..... 45

djrd
architects

1.0 EXECUTIVE SUMMARY

INTRODUCTION

The Griffith Base Hospital (GrBH) is being redeveloped by Murrumbidgee Local Health District (MLHD) and Health Infrastructure NSW (HI) to upgrade the existing campus into a contemporary regional health facility. The redevelopment will support the regional Griffith Health Service (GrHS) by providing expanded clinical services to meet the growing needs of the community, including inpatient, surgical, ambulatory care and critical care services.

Since the initial funding commitment in June 2017 for enabling works to deliver Clinical Services Plan (CSP) priorities and prepare the site for future redevelopment, a series of early, temporary and enabling works projects have been undertaken to facilitate the proposed redevelopment.

The hospital is identified as 1 Noorebar Avenue Griffith with other street boundaries to Warrambool Street and Animoo Avenue. The site is located within the Griffith City Council Local Government Area (LGA), is zoned R1 Residential and falls within Precinct 8 'Hospital' of DCP No.21 which outlines the particular character and controls for the streets and blocks surrounding GrBH.

There are currently over 30 buildings on the 6.4 hectare site of various ages and condition, most of which are connected by an enclosed corridor system. The large D-shaped block was earmarked for a hospital in Walter Burley Griffin's town master plan. Since then 3 lots have been subdivided from the block for private ownership and now contain St Vincent's Private Community Hospital (SVPCH), a Pathology Centre and a Medical Centre. SVPCH has an easement over the hospital site for access into their loading dock.

Many options have been considered for this project, including construction on a Greenfield site. However, the opportunity to create a health precinct by physically connecting the new public hospital to the existing St Vincent's Private Community Hospital (SVPCH) is a key driver of the project and has resulted in the new hospital being located at the north of the site with a back of house corridor connection into the private hospital. This location also allows for the continued operation of the Main Services Building (MSB), Inpatient Unit (IPU) and other key clinical facilities during construction.

When complete, the remaining existing buildings will be demolished to make way for landscaped car parks and open space. This entry is considered desirable as it maintains the existing street address from Noorebar and the progression through the open space network to reach the public entry is considered a friendly and welcoming approach for the local community, particularly the local Aboriginal community.

PROPOSAL SUMMARY

This proposal for SSDA is to provide a new hospital to replace facilities that do not permit the delivery of contemporary health services. The proposed facility will deliver all clinical services under one roof in a new, purpose designed building with logical zoning that incorporates contemporary models of care. Specifically, this development consent seeks approval for the following works at the hospital site:

- Construction of a new four-storey hospital building
- Demolition of remaining buildings vacated after commissioning of the new hospital including the existing MSB
- Construction of site works including roads, car parking and landscape elements
- Signage

The new hospital building contains;

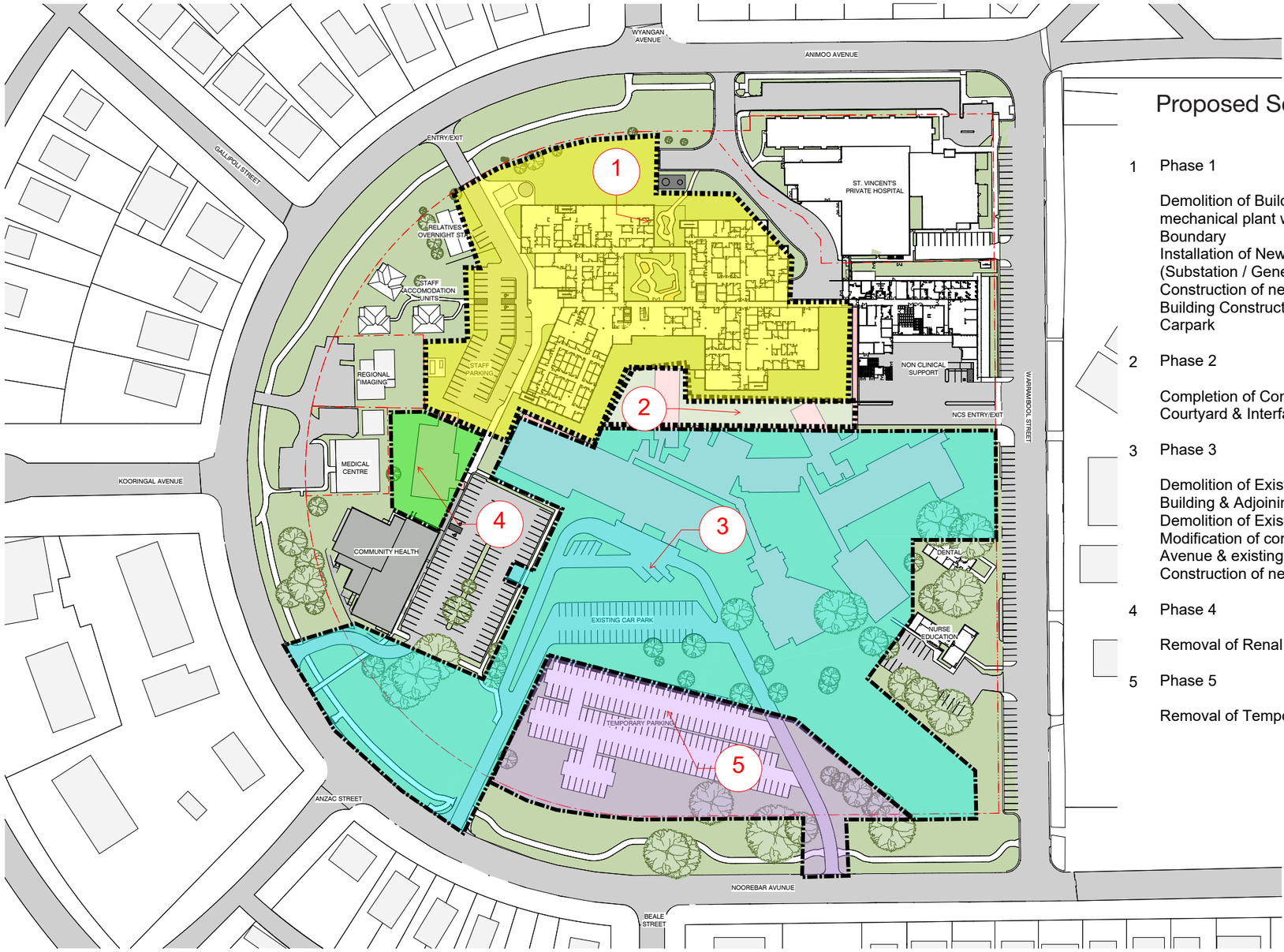
- Main entry with retail café
- Emergency department with acute beds, resuscitation bays, consulting rooms and an ESSU
- Medical Imaging with X-ray, fluoroscopy, ultrasound, CT, MRI and nuclear medicine modalities
- Wellness Centre with ambulatory care clinics, allied health and rehabilitation, specimen collection, oncology, hospital in the home (HiTH) and Renal
- Pharmacy
- Pathology
- Medical Records
- Administration facilities
- Perioperative unit with 2 operating theatres and a procedure room
- Critical Care / ICU
- Maternity and birthing unit with birthing rooms, inpatient beds and a Special Care Nursery
- Paediatric unit with a day recovery area
- One medical inpatient unit and one surgical inpatient unit
- An aged care and rehabilitation inpatient unit

PROJECT OBJECTIVES

The redeveloped Griffith Base Hospital will provide:

- A fit-for-purpose new hospital and retention of existing assets deemed to be of suitable condition, to form a regional health precinct capable of delivering contemporary models of care.
- Upgraded and updated facilities to align with the Clinical Services Plan.
- Replaced existing facilities with modern innovative spaces to support all clinical and non-clinical services.
- Maximise the functionality of the new facility through preferred functional relationships between the various departments and clinical clusters.
- Zoning of the building according to hours of use, nominally a 12-hour zone and a 24-hour zone to facilitate access.
- Direct connection to SVPCH
- A single public entry point providing access to the Emergency Department and the Main Entry Foyer.
- Maximised flexibility and ability to share staff and resources.
- Maintained full operation of the existing services during construction and minimised disruption to ongoing operation through appropriate staging of the project.
- A campus that promotes wellness to the community and respects the cultural diversity of the local area.
- A new building founded on the principles of passive design and ecologically sustainable development (ESD).

djrd
architects



EXISTING AND TEMPORARY BUILDINGS TO BE DEMOLISHED UPON COMPLETION OF NEW HOSPITAL

Proposed Scope of Development

1 Phase 1

Demolition of Building 25 and relocation of mechanical plant within Main Works Boundary
Installation of New Site Infrastructure (Substation / Generator / Fire System)
Construction of new Clinical Services Building Construction of new Western Carpark

2 Phase 2

Completion of Construction of Southern Courtyard & Interface Works

3 Phase 3

Demolition of Existing Clinical Services Building & Adjoining Structures
Demolition of Existing Carparks
Modification of connections to Noorebar Avenue & existing Main Carpark
Construction of new Main Carpark

4 Phase 4

Removal of Renal Building (Building 31)

5 Phase 5

Removal of Temporary Carpark

2.0 RESPONSE TO SEARS

3: Built Form and Urban Design

3.1- Address the height, density, bulk & scale, setbacks & interface of the proposal in relation to the surrounding development, topography, streetscape & any public space.

3.2- Address design quality & built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colours.

3.3- Address how CPTED principles are to be integrated into the development.

3.4- Address how good environmental amenity would be provided, including access to natural daylight & outdoor spaces & future flexibility.

Responses

Refer chapter 10.0 - Built Form and Urban Design

Refer chapter 11.0 - Design Quality and Built Form

Refer chapter 15 - Crime Prevention Through Environmental Design

Refer chapter 12 - Environmental Amenity

3.5- Address how services, including but not limited to waste management, loading zones & mechanical plant are integrated into the design of the development.

3.6- Provide a detailed site & context analysis to justify the proposed site planning & design approach including massing options & preferred strategy for future development.

3.7- Provide a visual impact assessment that identifies any potential impacts on the surrounding built environment & landscape including views to & from the site & any adjoining heritage items.

Responses

Waste management and loading docks are provided in the Non-Clinical Support Building (NCS) which has been approved by REF and not part of this development application. Primary mechanical plant is located on the roof. Refer mechanical engineering.

Refer chapter 5 - Site Analysis

Refer chapter 12 - Environmental Amenity (Visual Impact Statement)

5: Environmental Amenity

5.1- Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing, wind impacts & acoustic impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated.

5.2- Demonstrate how internal amenity for patients & workers would be provided through: access to natural light & ventilation; acoustic separation & solar shading provisions; additional spaces for patients & visitors to gather; visual & physical access to outdoor landscape from inpatient rooms & waiting & circulation areas; interior design strategies to promote patient recovery.

5.3- Provide shadow diagrams

5.4- Provide a view analysis of the site from key vantage points & streetscape locations & public domain including photomontages or perspectives showing the proposed & likely future development.

Responses

Refer chapter 12 - Environmental Amenity

Refer chapter 12 - Environmental Amenity

Refer chapter 12 - Environmental Amenity & drawing SSDA 40

Refer chapter 12 - Environmental Amenity (Visual Impact Statement)

5.5- Provide an analysis of proposed lighting that identifies measures to reduce spill into the surrounding sensitive receivers.

5.6- Provide a view impact assessment that has been prepared in accordance with the established planning principles.

Responses

Refer Electrical Engineers Report

Refer chapter 12 - Environmental Amenity (Visual Impact Statement)

9: Aboriginal Cultural Heritage

9.3- Demonstrate that Aboriginal themed artwork, place naming, planting & other cultural features has been incorporated into the design of the proposed development.

Responses

Refer chapter 13 - Art Strategy, chapter 14 - Connection to Country + chapter 7 Key Design Concepts.

14: Staging

14.1- Assess impacts of staging where it is proposed & detail how construction works & operations would be managed to ensure public safety & amenity on & surrounding the site.

Responses

Refer chapter 16 - Staging and drawing SSDA 50

3.0 RESPONSE TO GANSW

Architecture: GANSW Requirement

"Ensure the design integrity is carried through into the final design and is not compromised through the value management process. The landscape design is a priority as it is critical to the success of this scheme and should not be compromised by value engineering. Consider avenues for cost saving in other design elements for example the proposed facade patterns could be simplified without compromising the integrity of the envelope design."

"Explore the potential for the main entry and waiting area to have a clearer connection to the forecourt."

"The proposed vinyl to the walls, colourful interior design and art strategy should carefully consider context and views so as not to detract from the carefully framed views to the landscape that are the focus of the scheme."

"Consider simplification & integration of the interior design, wayfinding and art strategy to work together with common themes."

Responses

The Design Team and HI agree with this approach. During the VM process we will investigate savings associated with amendments to the building envelope design including the façade system and interior design including the extent of proposed vinyl wall linings.

The Hospital Stakeholders have requested a minimal number of public access points into the building. The scheme originally started with only 1 point of entry/egress from the front forecourt. The current proposal includes the main entry, a separate entry to ED and an entry for the café.

DJRD have reviewed the strategy and propose removal of the vinyl wall graphics to the level 1 and 2 main corridor systems to allow the view of the central courtyard to become the visual focus.

A key design principle has always been to integrate the interior design, wayfinding, art strategy, architecture and landscape design under the umbrella of the theme 'A Woven Connection'. Refer page 20 (of DJRD Architectural Design Statement that this response will be included in).

Architecture: GANSW Requirement

"The clear circulation system combined with art elements at strategic landmarks points may work well to create an integrated wayfinding and art strategy that minimises reliance on signage."

"Further exploration of the opportunity for rainwater retention and re-use is encouraged."

"Consider additional planting to the existing car park where possible to provide shade, canopy and visual privacy."

"The allowance for buses to enter the site and drop off at the main entry is not resolved and is critical for equitable access. The proposed entry canopy and turning circle allow for this which is commended. A through site bus route should be considered."

Responses

Strategic landmark locations have been included into the opportunities identified for the Art Strategy to be developed by the Arts Working Group. Refer chapter 13 Art Strategy.

Griffith typically has unreliable rainfall and the project team has explored solutions for rainwater retention and re-use that does not involve expensive infrastructure required to store water which may be empty for 9 months of the year. Refer to Civil SSDA Design Report for proposed rainwater retention measures.

The landscape design has been updated to include increased canopy planting to the existing retained main car park.

A site access point for public vehicles (including buses) to Warrambool Street has been identified as a safety issue due to the clash with Emergency and Delivery vehicles and the location of the school and church opposite. A key design principle has been to separate functional access points and provide a single point of public entry and egress. Refer page 17.

4.0 COMMUNITY CONSULTATION

Summary of consultation with the community

Consultant and User engagement is fundamental to the success of all projects. The Design of the Redevelopment of Griffith Base Hospital has been developed taking into consideration feedback provided through a number of rounds of meetings with a variety of project stakeholder groups. These have included:

- Community Forums and Focus Groups
- Aboriginal Consultation Group
- Consumer Representatives
- Medical Staff Council
- Government Architect / State Design Review Panel (SDRP)
- Executive User Group (EUG) consultation meetings
- Health Infrastructure Expert Reference Group meetings (ERG)
- Departmental Project User Group (PUG) consultation meetings

Consultation with both Aboriginal Staff and Patrons has occurred through a dedicated focus group in addition to a Consumer Consultation Group that provides the opportunity for Community Feedback through the design period to ensure that the needs of these community groups are catered for.

The Project User Groups provide expert clinical and operational planning input to guide design. A number of meetings have been convened with special interest groups to consider broader campus wide and community issues. These include:

Special Interest / Community Groups				
GANSW SDRP	15/11/19	8/04/20	02/12/20	10.03.21
Aboriginal Consultation	30/07/19	11/12/19	01/12/20	22.02.21
Community Rep	29/08/19	19/11/19	30/07/20	09.02.21
Arts Working Group	03/09/20	10/11/20	14/12/20	10.03.21
Multicultural Council	16/09/20			
Mother's Group	12/08/20			

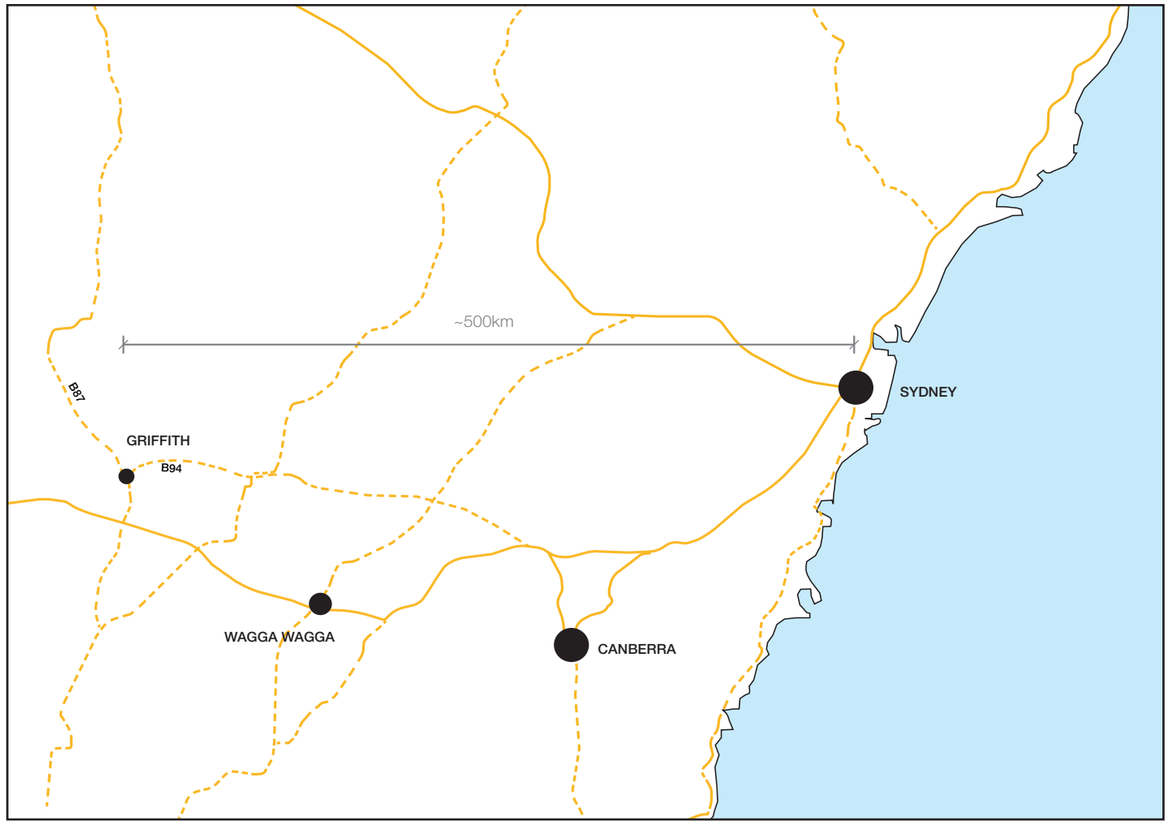
The public Community Consultation process has incorporated both drop in consultation sessions and an online survey.

Community consultation occurred for the Clinical Services Plan from December 2017 through to March 2018, and was then undertaken for master planning and the Early Works in August 2018. Community consultation has also occurred for the concept design (October - November 2019) and for the schematic design (April – June 2020).

5.0 SITE ANALYSIS

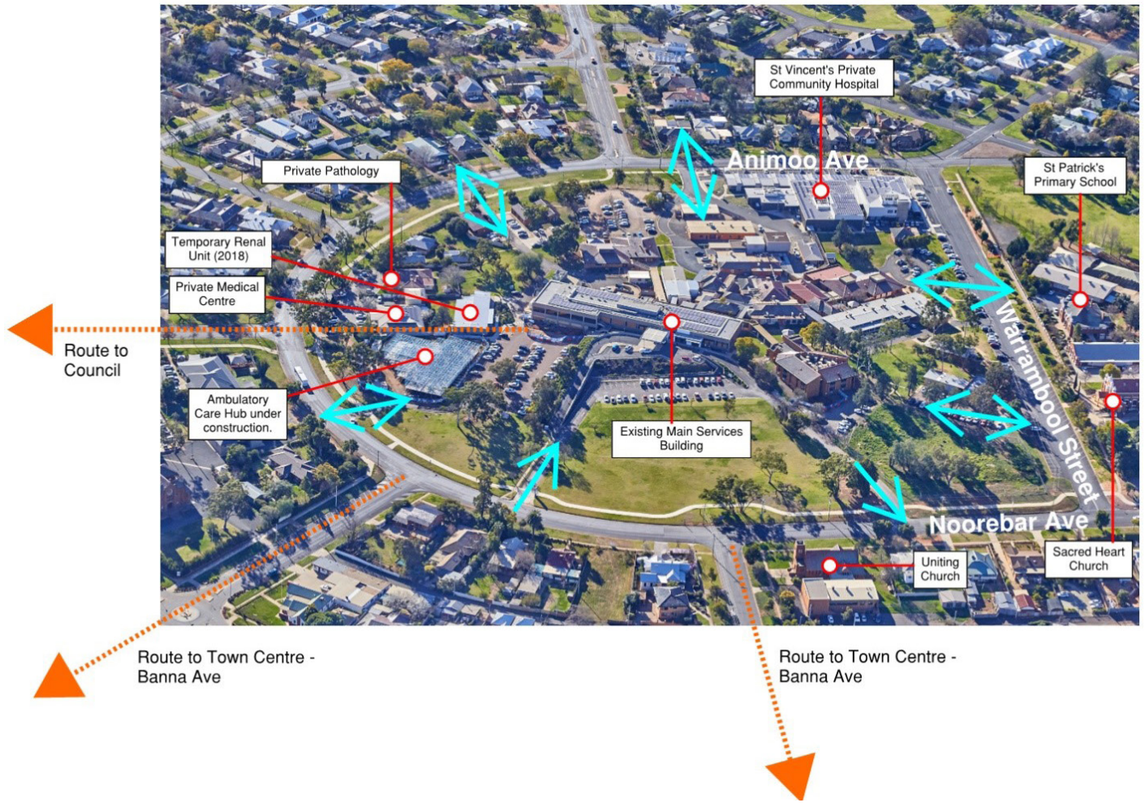
Location

Griffith is a regional city in the Murrumbidgee Irrigation Area (MIA) of NSW, located approximately 570km west of Sydney, 360km north-west of Canberra and 180km north-west of Wagga Wagga. The population of approximately 26,000 is comprised of over 70 different nationalities creating a community built on multi-cultural traditions. The irrigation channels supply water from the Murrumbidgee River for a rich variety of foods including rice, Valencia oranges, stone fruits, vegetables, wheat, cotton and canola. There are 9 successful wineries in the region supplying an international market.



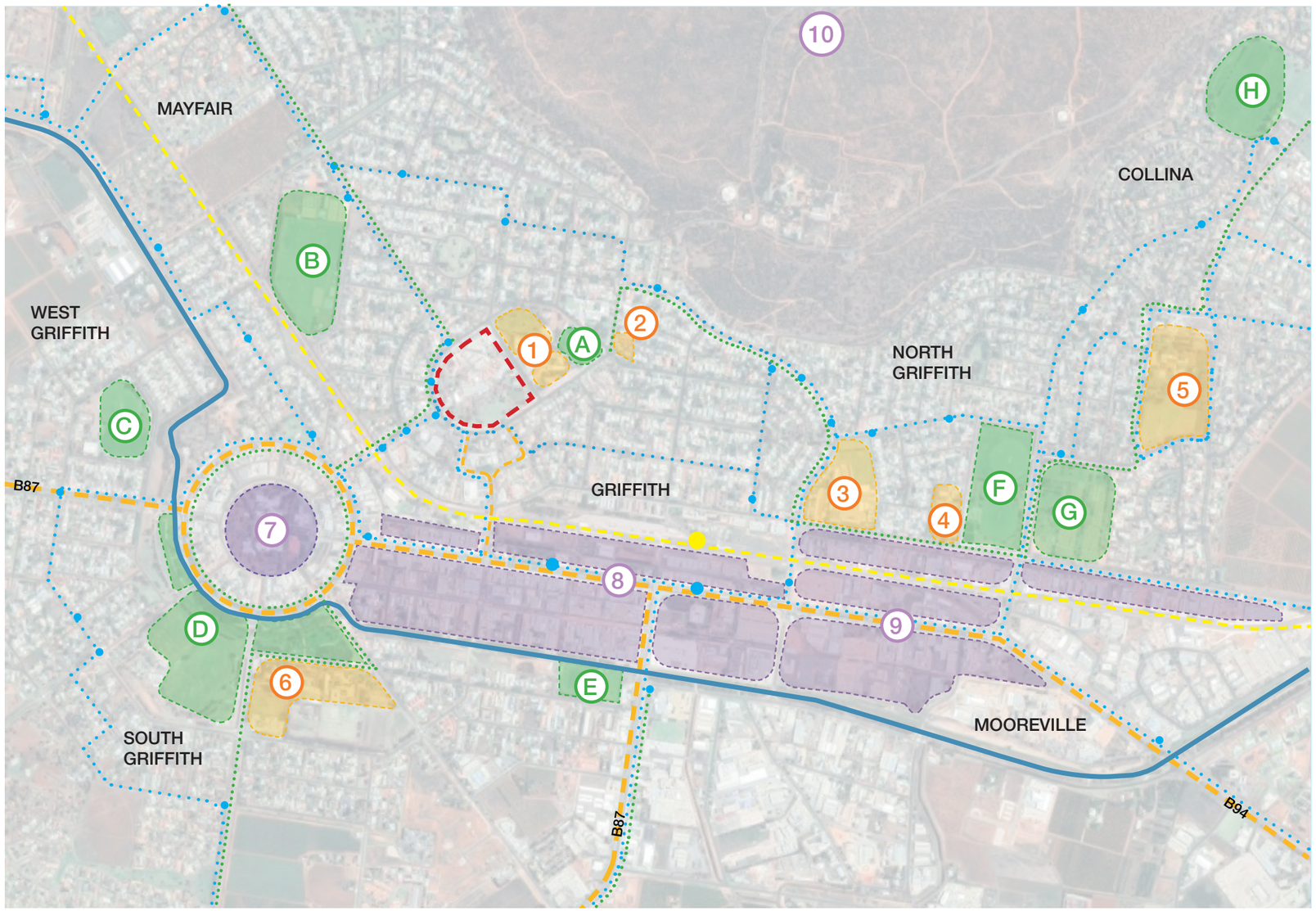
Site Context

The hospital is located on a large D-shaped block of approximately 6.4 hectares, bounded by Warrambool Street to the north-east and Noorebar and Animoo Avenues is a semi-circular boundary. It is approximately 700m from Banna Avenue, the main street of Griffith, and is located in a largely suburban context. The site is zoned R1 Residential within the Griffith City Council LGA and falls within 'Precinct 8 Hospital' of DCP No21. The hospital occupies the majority of an entire block with subdivisions made for a private hospital, St Vincent's Private (SVPCH) owned by Council and operated by St Vincent's, Griffith Medical Centre and Laverty Pathology.



5.0 SITE ANALYSIS

Greater Context



- Subject Site
- Surrounding Schools / Education Centres
- Retail / Commercial Centres
- Recreation / Open space
- Main Roads / Route from hospital to main street
- Train route / Station
- Water course
- Bus Route & Stops
- Cycleway or Shared Path

Schools and Educational Facilities

1. St Patrick Primary School
2. Griffith North Public School
3. Marian Catholic College
4. Griffith East School
5. Murrumbidgee Regional High School
6. Murrumbidgee Regional High School

Others

7. Griffith Grand Circle: Council, Regional Theatre and Charles Sturt University
8. Griffith city centre
9. Business Park
10. Airport

Sports Facilities, Recreation and Open Space

A. Apex Park
B. Jubilee Oval
C. West End Sports Stadium
D. IOOF Park
E. Solar Mad Stadium EW Moore Oval
F. Griffith Exies Sports Club
G. Griffith General Cemetery

djrd
architects

5.0 SITE ANALYSIS

Current Buildings

The current hospital campus consists of 32 buildings of various age and condition, connected by corridors and covered walkways. Much of the development has been ad hoc, resulting in poor functional relationships between units.

The Medical Services Block (MSB) is a large two storey structure at the southern end of the main campus. Due to the fall of the topography, the upper level of this building establishes the main floor level for the Hospital Campus. It has multiple entry points with the main public and emergency accessed from the south. A meandering and at times ramped circulation system connects the MSB to other facilities.

Outpatient and Ambulatory Care Services are located in various buildings both along the main corridor system and in separate outbuildings. This site arrangement results in generally sub-optimal functional relationships and limits efficient staffing, operations and use of resources.

EXISTING SITE ARRANGEMENT

- INPATIENTS
- ENTRY, AD, EDU
- CLINICAL SUPPORT
- AMBULATORY
- NON-CLINICAL SUPPORT
- ACCOMMODATION
- PRIVATE

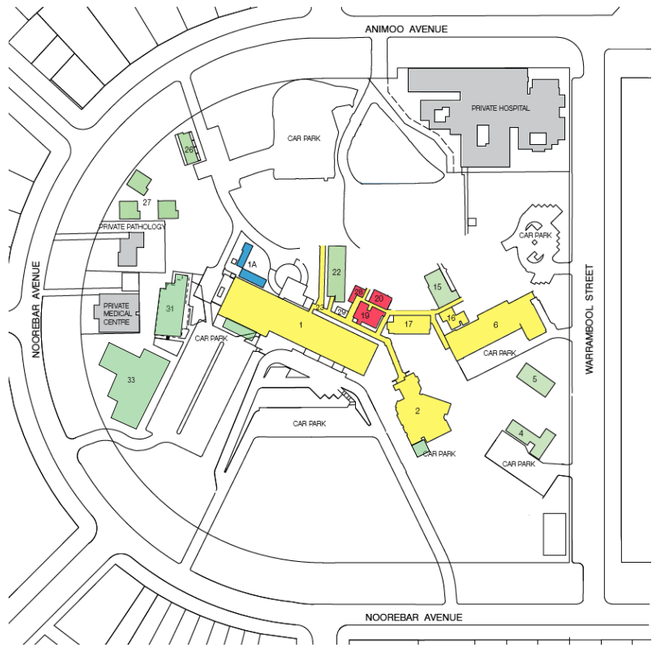
EXISTING FUNCTIONALITY

- FUNCTIONAL FOR CURRENT USE
- MINOR FUNCTIONALITY ISSUES
- MAJOR FUNCTIONALITY ISSUES
- UNSUITED FOR PURPOSE

Existing Buildings - Condition

The poor functional relationships between units across the campus limits operation efficiency. The separation of units into individual buildings results in excessive travel distances between clinical services and limits the efficiency of clinical operations. In the case of the Paediatric Unit that has a variable occupancy rate, the isolation requires a full staffing complement to be maintained even when few patients are admitted. Facilities that are most functional are the separate self-contained facilities including the Dental Unit, the School of Nursing, Ambulatory Care Hub and the accommodation facilities.

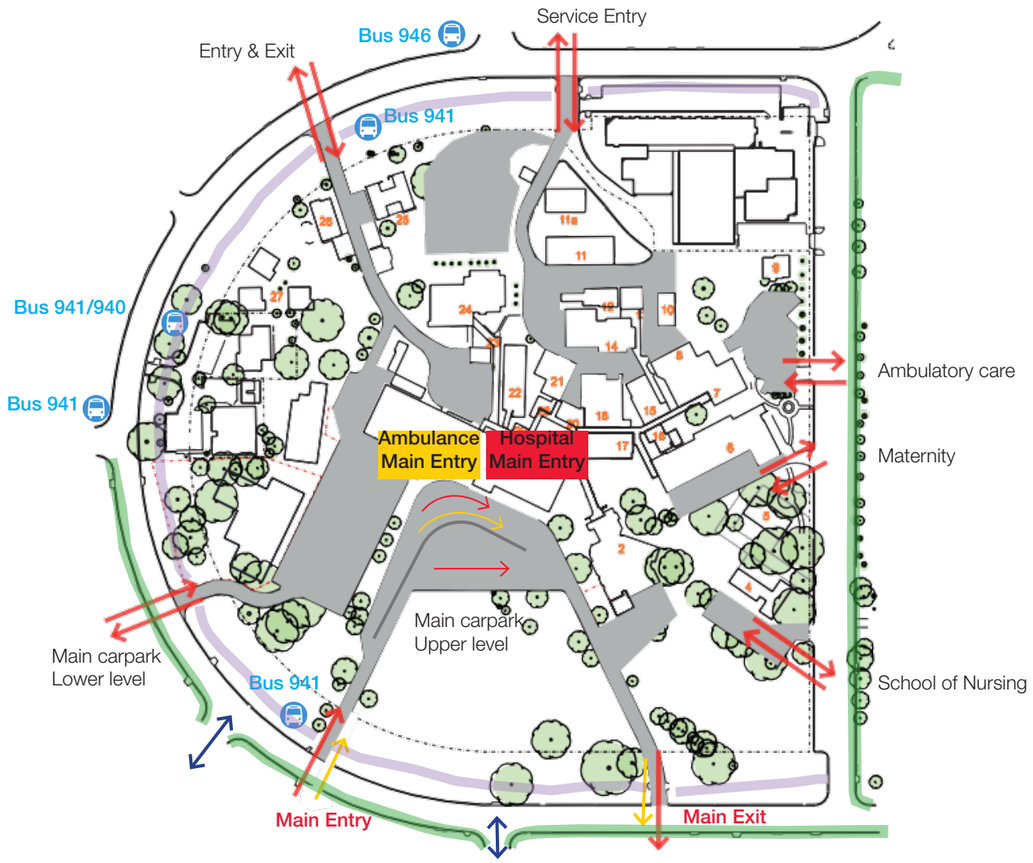
1 Medical Services Block
1A Plant Enclosures
2 General Ward Block
4 School of Nursing
5 Dental Clinic
6 Maternity Unit
15 Renal Unit
16 Doctor's Rooms
17 Specialist Clinics 2
19 Biomedical Building
20 Dietetics Building
22 Riverina Imaging Building
25 TRACS Building
26 Relative's Overnight Stay Units
27 Staff Accommodation Units
28 CAPAC Building
29 Kiosk
31 New Renal Unit
33 New Ambulatory Care Unit



5.0 SITE ANALYSIS

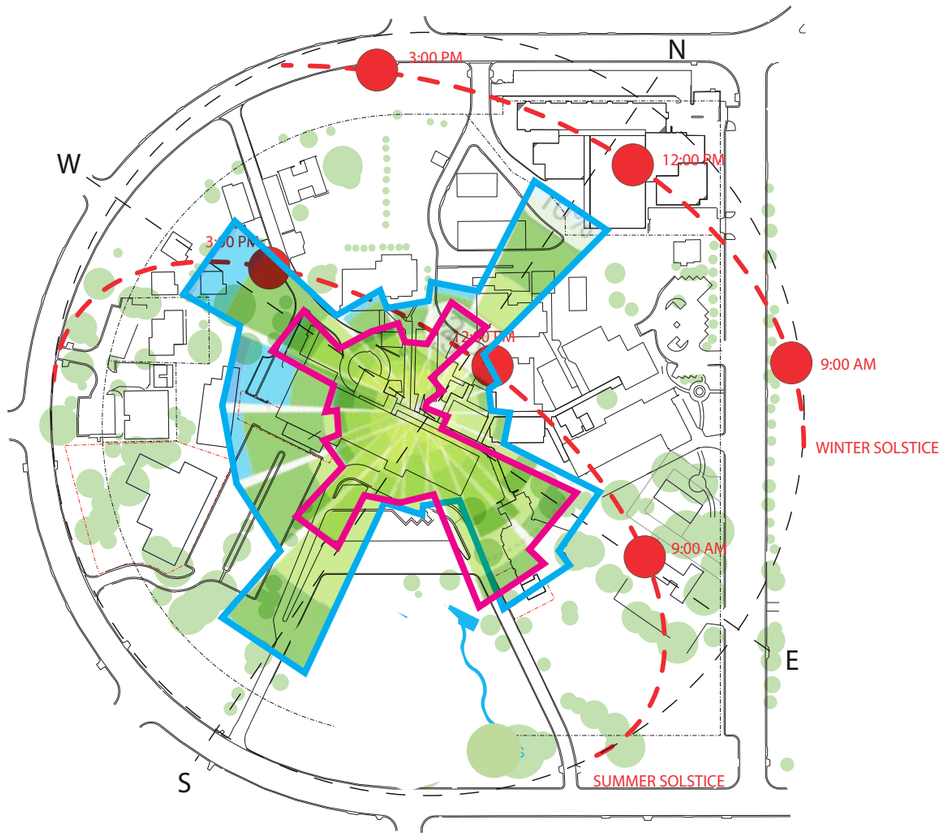
Site Access and Linkages

Access to the site is quite porous in nature due to the radial manner in which many surrounding streets connect to Noorebar and Animoo Avenues, providing various access points. There are 7 vehicular driveways and various parking areas, both paved and unpaved. The main public and emergency access is from Noorebar Avenue in the south and service access is from Animoo Avenue in the north. There is a continuous footpath around the periphery of the site. There are numerous entries to the Hospital. Most buildings have a least one entrance as well as internal access via the main corridor systems which links the main clinical facilities. Main public car parks are a level lower than the Hospital's Main Entry and Emergency Department, and have no direct access to these departments.



Sun and Wind Orientation

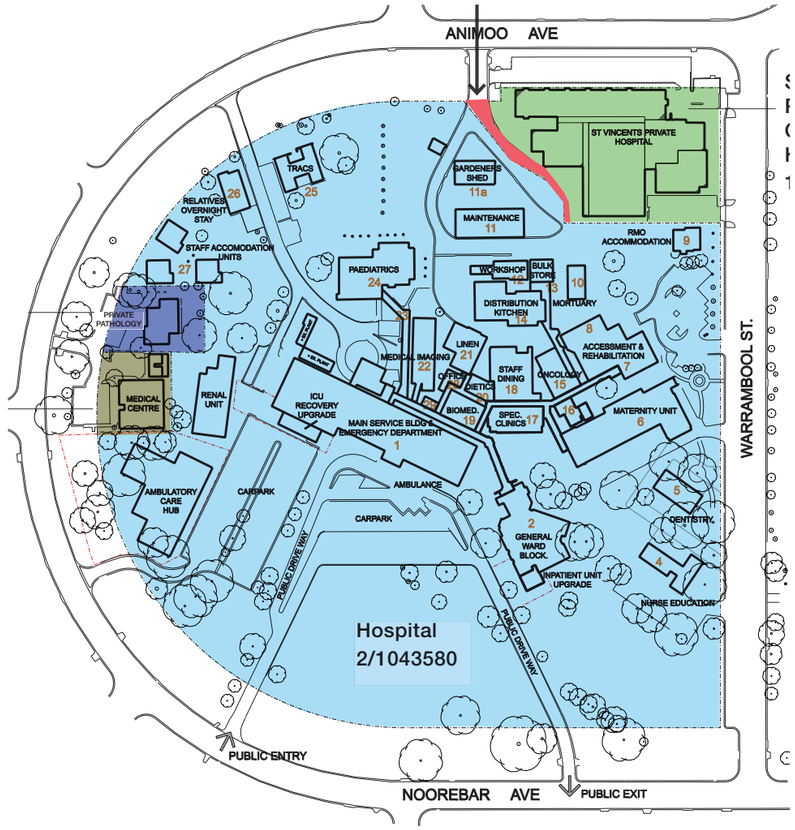
Winds are generally gentle to moderate, measured predominately from East and South directions. During mid-summer, the sun rises approximately 30 degrees South of East and sets approximately 30 degrees South of West. During mid-winter, the sun rises approximately 30 degrees North and East and sets approximately 30 degrees North of West.



5.0 SITE ANALYSIS

Land Ownership, Titles and Zoning

GrBH is located on a large ‘D’ shaped block which was identified for hospital use in the Walter Burley Griffin’s master plan.



HOSPITAL
2/1043580

PRIVATE PATHOLOGY
3/838351

EASEMENT

ST VINCENT’S PRIVATE COMMUNITY HOSPITAL
1/1043580

GRIFFITH MEDICAL CENTRE
4/838351

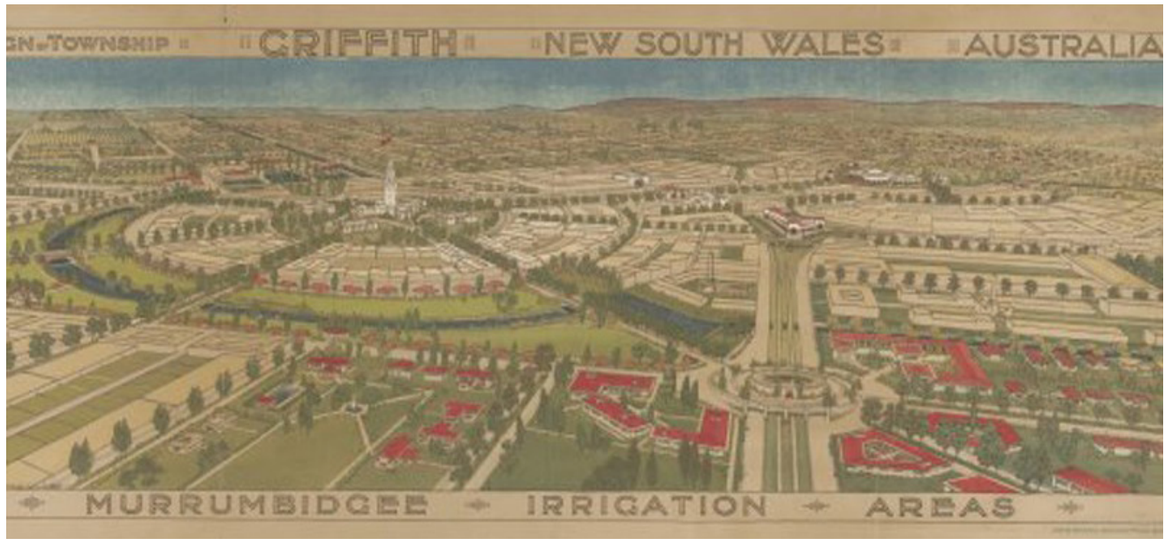
Griffith Urban Design

Griffith was planned by American Architect Walter Burley Griffin in 1914 using the same approach he utilised for Canberra. The series of radiating tree lined streets broken by axial roads linking major commercial zones can be seen today in aerial photographs of the city. Griffin’s legacy cannot be understated in an assessment of the urban design of Griffith. He planned for an elaborate city of 30,000 people with a grand circle for the Centre of Government at the heart. This Civic Circle connects to both Banna Avenue, the city’s main commercial street, and via Kooringal Avenue to the Hospital Precinct. The most important public structures are at the centre of the radial street patterns and dominate views.

GrBH, sited in Griffin’s Hospital Precinct, is historically significant to the community of Griffith for the importance of its location in the town plan. From the high point of the block where the existing building are sited, the hospital, a major commercial public building, commands views over the town towards the CBD.

The Grand Circle contains the Council, Regional Theatre and Charles Sturt University. The precinct is completely circular with radiating streets. Comparatively, the Hospital Precinct is D-shaped with a semi-circular frontage facing the Civic Square and CBD with axial link Kooringal Avenue at the centre tangent. The side of the block facing away from the CBD provides a straight street frontage to Warrambool Street, acting like a bookend.

The streets surrounding the hospital are mostly busy collector roads, 12m to 16m wide with 4.5m to 7m wide tree-lined and grass verges. Building setbacks are typically 6m to 9m. The synthesis of these 2 factors presents the visual impression of a garden city.



5.0 SITE ANALYSIS

Site Constraints and Opportunities

NEW HOSPITAL FRONT ENTRY POINT

LOCATION FOOTPRINT FOR NEW HOSPITAL

NO PUBLIC VEHICULAR ACCESS & URBAN RESPONSE

DIRECT LINKAGE TO SVPH

MAINTAIN SVPCH DOCK ENTRY & EASEMENT

MAIN ROUTE FOR PUBLIC ENTRY TO NEW HOSPITAL

NCS BUILDING UNDER CONSTRUCTION – APPROVED UNDER SEPARATE PLANNING APPROVAL PROCESS)

TEMPORARY PAEDIATRICS (UNDER CONSTRUCTION – APPROVED UNDER SEPARATE PLANNING APPROVAL PROCESS)

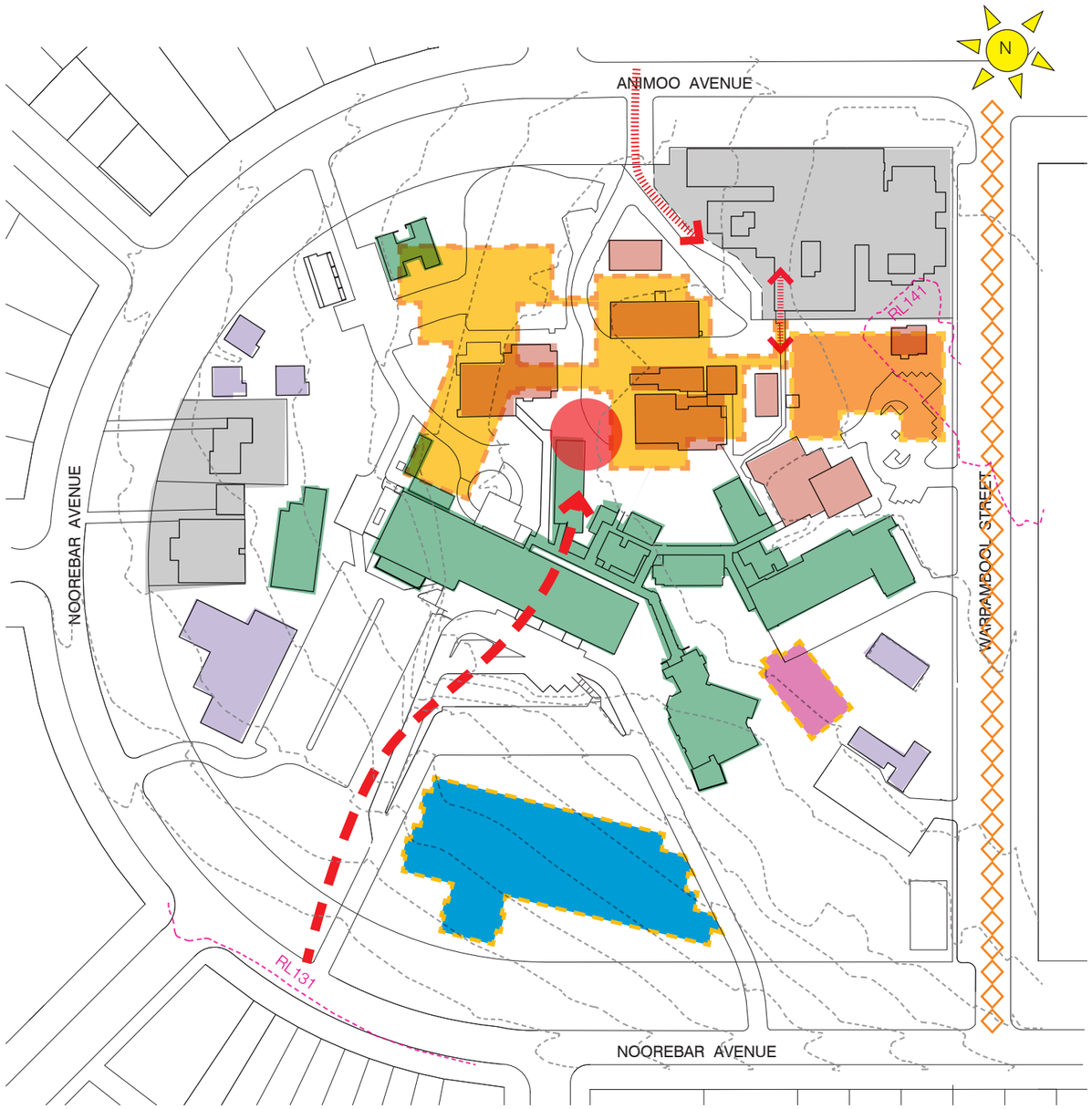
TEMPORARY CAR PARK - (UNDER CONSTRUCTION – APPROVED UNDER SEPARATE PLANNING APPROVAL PROCESS)

BUILDINGS TO CONTINUE OPERATION DURING CONSTRUCTION. DEMOLISHED UPON COMMISSIONING OF NEW HOSPITAL

SATELLITE BUILDINGS TO BE RETAINED PERMANENTLY

SEPARATE TITLES NOT OWNED BY HINSW

TOPOGRAPHY RL141 TO RL131



djrd
architects

6.0 SITE STRATEGIES

Single Point of Public Arrival

The existing hospital site has multiple entry points. Although there is a main public entry located next to Emergency of the ground floor, the main corridor system can be entered in numerous places by the public including through Paediatrics, Maternity, Rehab and the lower ground floor of the MSB. In addition, hospital outbuildings with individual entry points include the Ambulatory Care Hub, Renal Unit, Dentistry and Clinical Education and Training Unit.

It has been a key site consideration since the commencement of master planning that the Clinical Service Building should have a single point of public arrival. Although some outbuildings are still proposed, all public visitors must access the building from the southern entry forecourt from where access is to the Reception or Emergency Department. This location has the further advantage or maintaining the current street address.

Additional entry points into the Clinical Service Building are proposed for staff only via the lower ground entry and from the Non-Clinical Services Building.

Separation of Functional Access Points

The D-shaped hospital site has the advantage of possible access points from all orientations. For this reason there are separate site entry and egress points proposed for public vehicles, staff vehicles, emergency vehicles and service vehicles.

Public vehicular access to the hospital campus will be maintained via the existing drive off Noorebar Avenue from the south. The Users have requested that the existing egress road by removed and the ingress widened to allow for one point of entry /exit and to increase landscaping options. Service / logistics and emergency vehicles access is provided to dedicated service yards and ambulance bays via Warrambool Street to the east, thereby eliminating potential conflict between the two major traffic flows.

The existing easement and service entry to SVPCH service dock will be maintained off Animoo Avenue to the north. This will allow access to the body handling from the back of the proposed hospital. A staff car park will be accessed from the existing entry point near the accommodation buildings.

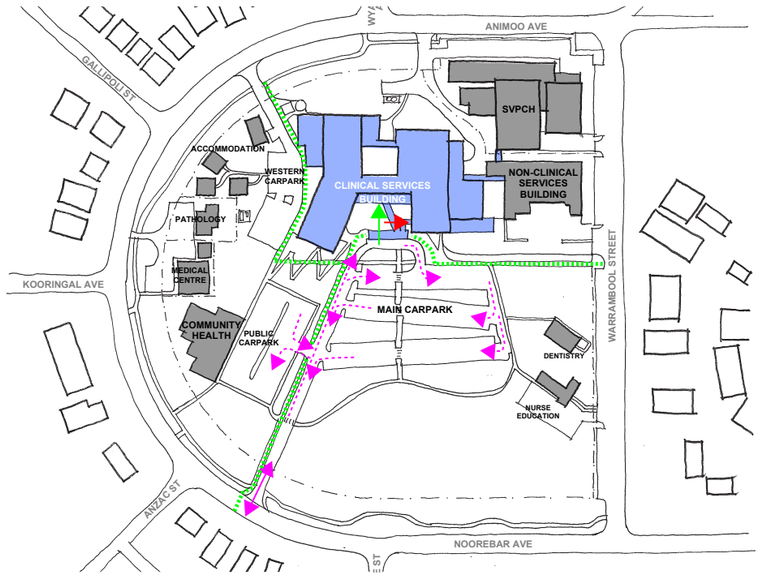
Connect to St Vincent's Private Community Hospital (SVPCH)

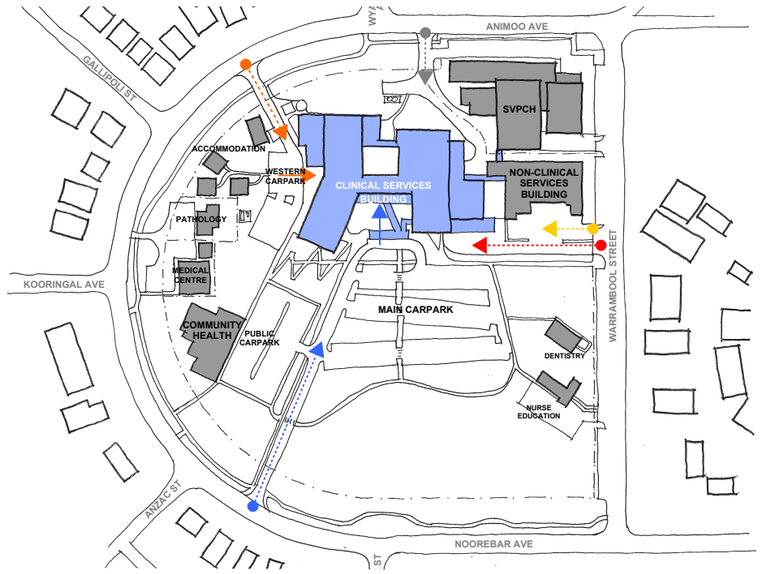
The Griffith Clinical Services Plan states as a consideration for facility planning:

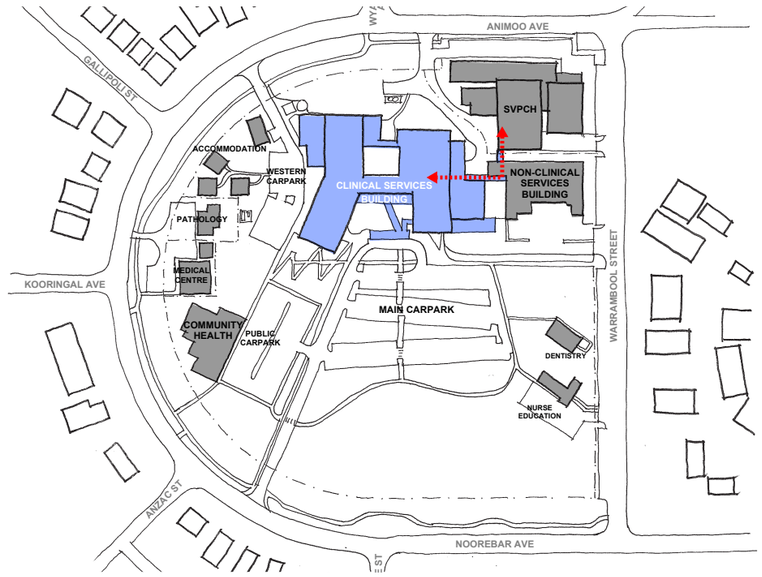
"…the need to consider and develop synergies between Griffith Base Hospital and SVPCH in some specialties and support services to create a critical mass.'

Through the consultation process, the key linkages between SVPCH and GrBH have been explored. The priority linkages considered are Emergency and Medical Imaging, proposed in the new hospital, and theatres existing in the private facility. For this reason the proximity of these services to the link corridor has been considered an adjacency priority.

The redeveloped hospital will also utilise existing education and training facilities in SVPCH. The CSSD in SVPCH already currently services the GrBH and will continue to do so moving forward.







djrd
architects

6.0 SITE STRATEGIES

Embrace Parkland Setting

The Walter Burley Griffin town plan is largely responsible for the parkland setting of the existing hospital and despite the increase in scale of the proposed new Clinical Services Building, the size of the block is such that the hospital can maintain the green setting. The redevelopment of the hospital site is an opportunity to reinvigorate some of the key elements of Burley Griffin plan including tree-lined boulevards and open spaces.

Multiple landscape opportunities exist across the campus and community generated joint use opportunities should be considered a part of the greater community engagement project. The proposed landscape should provide flexibility for this to occur.

The Hospital within the Community Setting

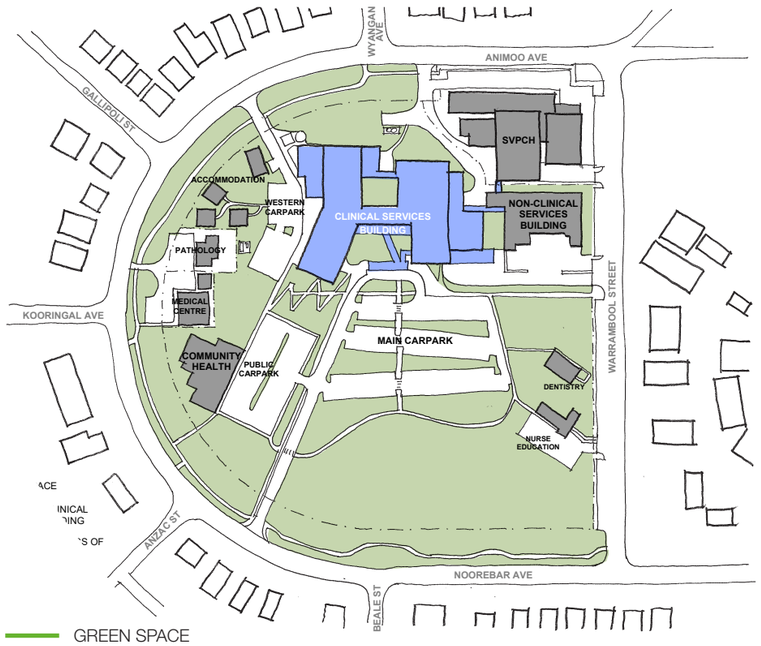
The redevelopment presents the opportunity to enhance the sites engagement with the local community and acknowledge the importance of the site permeability within the great urban context. The existing open space network and surrounding council pedestrian footpaths should be extended through the site to improve local network connections.

This circulation system of walking paths across the campus can incorporate recreational paths to improve community amenity including allowing distance markers on pathways and areas for shaded seating and play. This has the additional benefit of providing horizontal pedestrian links to the various outbuilding locate on the campus.

Future Flexibility and Growth

Future flexibility and growth is an important consideration in the development of any major public asset. The proposed siting of the hospital ensures future expansion is possible to the west over the staff car park and accessed off the internal hospital street.

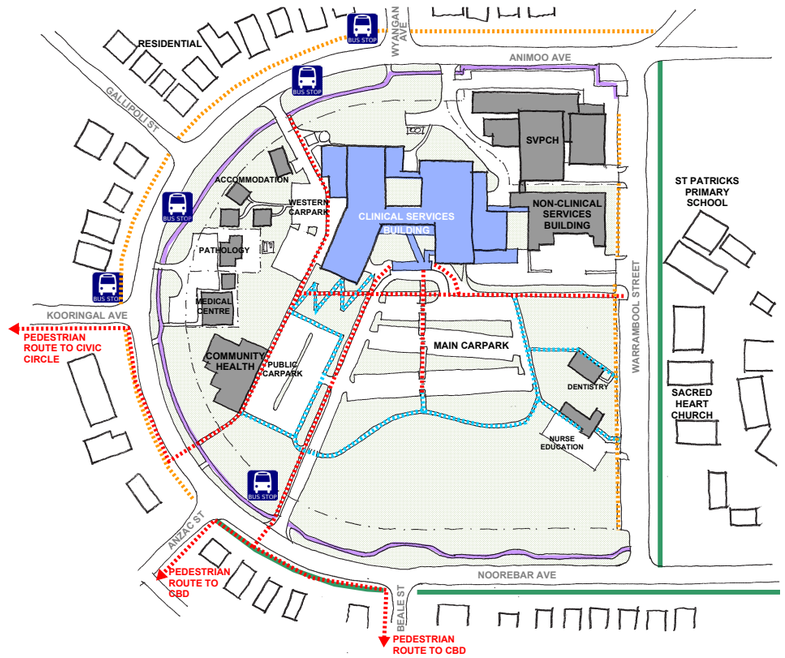
The key clinical services identified for potential future expansion include Ambulatory Care / Wellness Centre to the west and Medical Imaging to the north.



GREEN SPACE

PROPOSED CLINICAL SERVICES BUILDING

EXISTING BUILDINGS OF HEALTH PRECINCT



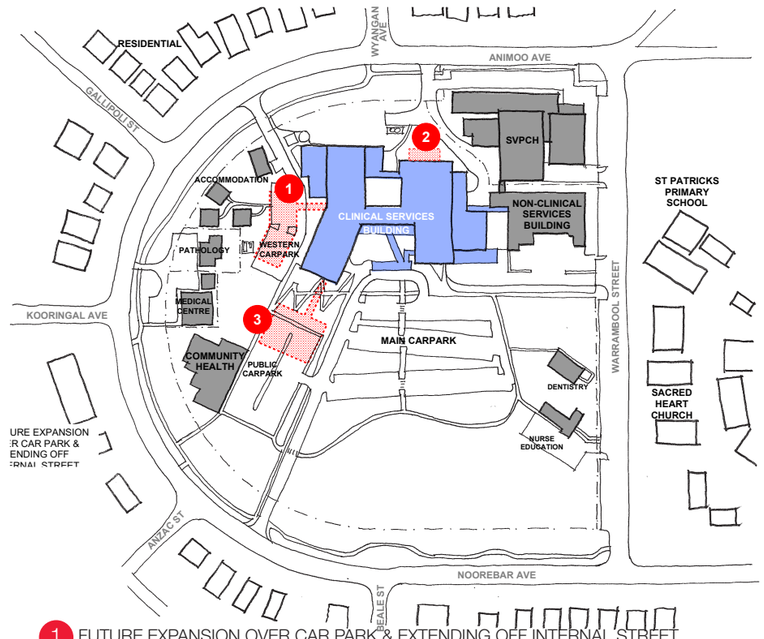
PRIMARY CROSS SITE PEDESTRIAN ROUTES

SECONDARY CROSS SITE PEDESTRIAN ROUTES

EXISTING COUNCIL SHARED FOOTPATH

EXISTING COUNCIL FOOTPATH

PROPOSED COUNCIL FOOTPATH



1 FUTURE EXPANSION OVER CAR PARK & EXTENDING OFF INTERNAL STREET.

2 FUTURE EXPANSION ZONE FOR MEDICAL IMAGING

3 POSSIBLE FUTURE EXPANSION TO THE SOUTH WITH POTENTIAL SEPARATE BUILDING ENTRY & BRIDGE LINK TO MAIN CORRIDOR OF OUTPATIENT CLINICS.

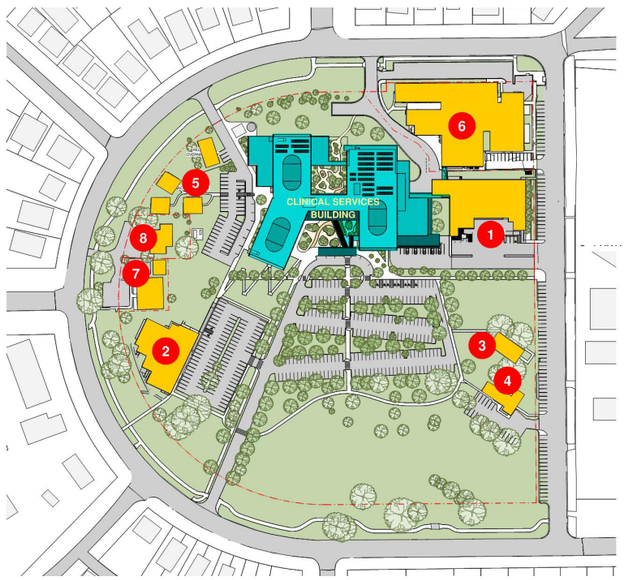
7.0 KEY DESIGN CONCEPTS

Integrated Health Precinct

When Architect Walter Burley Griffin planned the city of Griffith in 1914 with a distinct radial pattern of tree-lined ring roads, he included a grand circle for the Centre of Government at the heart, connected axially to the Hospital Precinct and Main Road. In doing so, Burley Griffin established historical precedence for the Integrated Health Precinct. Private subdivisions to the original D-Shaped block have reduced the potential impact however the other 3 properties in the block contain health related services.

The development of the hospital provides an interesting historical framework. The first hospital at Griffith, then known as Bagtown, was a canvas tent but when the influenza epidemic hit in 1918 a small field hospital was built for 12 beds and one operating theatre. In 1931 a new Griffith Hospital was built on the current site.

The proposed new Clinical Services Building will be located on the elevated northern portion of the site allowing for services and clinical linkages to SVPCH, as well as commanding southern views across the Griffith City Centre and beyond. The existing location and address on Noorebar Avenue is an important identity in the psyche of local residents.



PROPOSED CLINICAL SERVICES BUILDING

EXISTING BUILDINGS OF HEALTH PRECINCT

1 - GrBH NON CLINICAL SERVICES
2 - GrBH COMMUNITY HEALTH
3 - GrBH DENTISTRY
4 - GrBH CLINICAL EDUCATION & TRAINING
5 - GrBH ACCOMMODATION
6 - ST VINCENT'S PRIVATE HOSPITAL
7 - PRIVATE MEDICAL CENTRE
8 - PRIVATE PATHOLOGY

Response to Country and the Local Environmental Context

Griffith is approximately 600km west of Sydney, 360km north-west of Canberra and 180km north-west of Wagga Wagga. It is a remote and harsh environment whose irrigation systems sustain crops during periods of severe draught. During periods of rain, the rich red soil can be covered with semi-arid woodlands of mallee and native pine. Today from the air, the area is blanketed in a colourful patchwork of crops.

This tapestry of vineyards, orchards, cereal crops, cotton and rice edged by a vast expanse of red earth, creates a unique local environment. The aerial aesthetic has provided considerable design inspiration for the Architects and Designers and generated a colour palette responsive to the 'Colours for Country'.

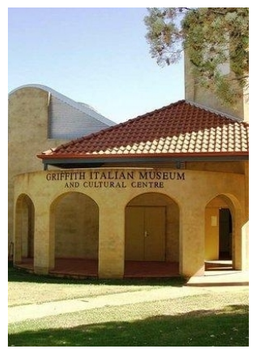
Griffith is an agricultural powerhouse in the Riverina with a local economy largely based on agriculture and related industries. It seems most people have settled in Griffith because of employment opportunities and pride in local industry is a key unifying identity for the local population.

Embrace Local Heritage and Cultural Diversity

Griffith is located on Wiradjuri Country in the Riverina, one of NSW largest Indigenous Nations both geographically and by population. The Wiradjuri are the people of the three rivers, the Womboy (Macquarie), the Gulari (Lachlan) and the Murrumbidgee and have lived on and cared for this Country for many millennia. These rivers sustained the requirements of the family clans including food, shelter, clothing and social needs as well as spiritual rituals.

The Murrumbidgee Irrigation Area (MIA) was established in 1912 with the commissioning of the Burrinjuck Dam and consists of an elaborate series of weirs, canals, holding ponds and purpose built towns including Griffith. In a volatile early twentieth century Europe, migrants were lured to the area hoping for peace and farming success. The MIA has encouraged consistent migration to the region. The Europeans, most notably the Italians, established a prosperous culture which has been enriched by more recent migration from India, the Pacific Islands, Turkey, Afghanistan and the Philippines.

Griffith's Local Government Area (LGA) population in the 2016 census was 25,640 people. About 17% of the population is born overseas and 4.8% count as Aboriginal or Torres Strait Islander, which are comparatively high percentages.



djrd
architects

7.0 KEY DESIGN CONCEPTS

‘A Woven Connection’

The Griffith Region is socially and culturally diverse with a prosperous local economy largely based on agriculture and related industries. It is located on Wiradjuri Country in the Murrumbidgee Irrigation Area of the Riverina and sustains a population that invests time and effort into community development and arts. Griffith is a community where diversity is woven together to form a unified whole.

‘A Woven Connection’ refers to the holistic entwining of design informed by local context to ensure the architecture, interiors, landscape, art and wayfinding work together to create a welcoming and cohesive sense of place.

Architecture

Look to local context to provide a unique, site specific hospital for the Griffith Community. Take inspiration form the patina of the landscape to provide a response to country.

Interior Design

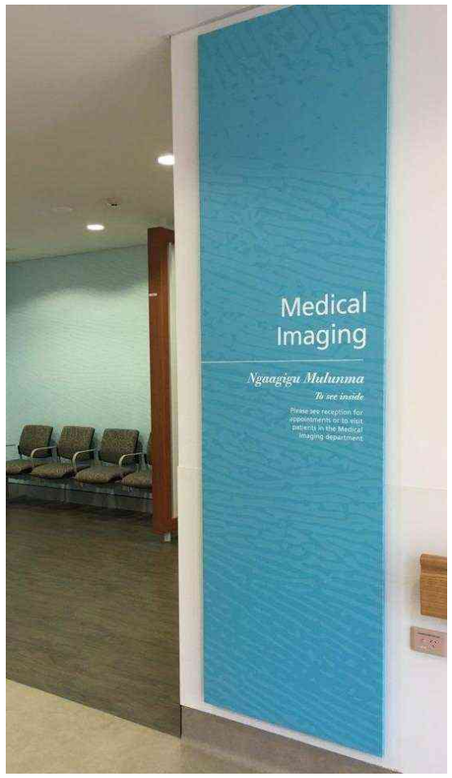
Inspiration from the theme 'Woven Connection' while utilising the colours for country throughout the hospital precinct.

Landscape

Creating spaces for people while encouraging healing and wellbeing. Include indigenous plants and natural materials.

Art

Themes taken from local heritage, cultural diversity, indigenous culture and relationship to country, environmental context and health and wellbeing.



Wayfinding

Intuitive wayfinding is an integral aspect of the overall design strategy, directly impacting the way in which people are able to interpret and find their way around the hospital campus.

7.0 KEY DESIGN CONCEPTS

Promote Wellness to the Community

The project aspires to provide a shift away from the clinical nature of a hospital to a healthy or well environment.

Strategies considered to implement health and wellbeing include;

- Designing spaces to enable a range of actions including quiet contemplation or social interaction
- Running programs that promote active living. Important zones for this are the courtyards and landscaping
- Choosing materials and colours that promote calm and happiness
- Include cultural and creative programs

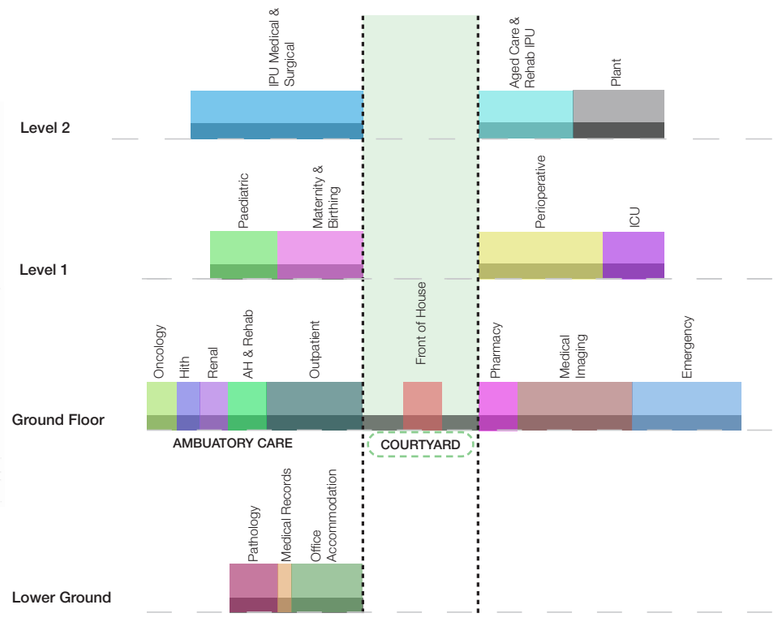
Biophilic and Courtyard Design

The principles of biophilic design have been adopted as a means of connecting the building users to the surrounding environment and promote health and wellness. Biophilia recognises that our species has evolved in adaptive response to the natural world and that nature is instrumental to people's physical and mental health, fitness and wellbeing.

The inclusion of a courtyard will provide maximum daylight opportunities, district and nature views, provide clarity of wayfinding and reduce potential stress associated with hospital visits. The use of the courtyard allows nature to penetrate the mass of the building and improve internal amenity for patients, staff and visitors.

Provide 12-hour and 24-hour Zones and Key Functional Adjacencies

The horizontal and vertical co-location of the 24-hour zones for Emergency, Operating Suites, Maternity and Birthing and Inpatient Units, results in an efficient operational relationship allowing for a definite 12 hour / 24 hour demarcation. The location of the Main Entry at the central courtyard allows for the colocation of the ground floor services into a 12 hours zone including Front-of-House, Wellness Centre, Outpatient Rehabilitation, Medical Imaging and Pharmacy.



djrd
architects

8.0 MASTER PLAN OPTIONS CONSIDERED

The endorsed Master Plan was based on providing the full extent of the CSP with all off-site services being relocated onto the hospital site. When the project funding was announced, a service prioritisation process was undertaken with an Executive User Group (EUG). A series of workshops were held to analysis and establish service strategies using a 3 Tier system, with 1 being the highest priority.

The outcome of the service prioritisation resulted in the development of a number of different infrastructure strategies to deliver the prioritised services. These were presented to the EUG and analysed using the options assessment criteria. In outline the options considered are as follows:

Base Case

(Keep safe and operate – includes Early and Enabling works)

The Base Case completes works for key clinical Priorities – Renal Unit, Recovery and Theatres (including to scope reprocessing), an IPU extension, and the Ambulatory Care Hub (HiTH, Rehabilitation, Allied Health (outpatient gym) and Specialist Clinics).
The Remaining buildings will be kept safe and operational

Option 1

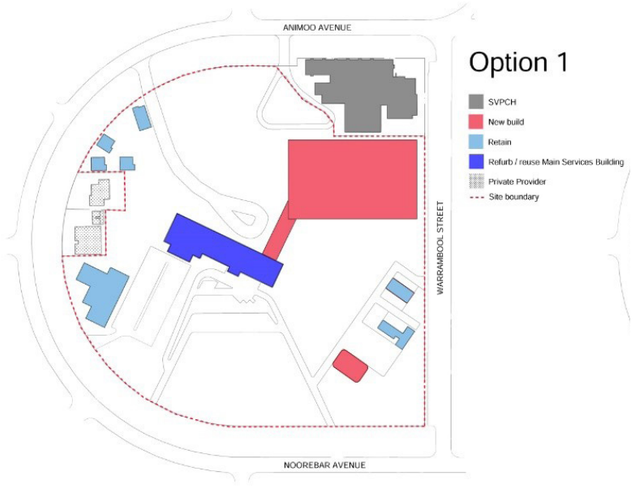
(Refurb, New Build, Non-Capital solutions)

Provides the full Ambulatory Care model and scope. The New Build links the campus and contains Critical Care and IPUs.
Non-capital solutions are utilised for: Food Services, CSSD, Residential Accommodation, Medical Records and Education and Training.
This option includes extensive staging.

Option 2

(Refurb, New Build, Non-Capital solutions)

Meets key CSP priorities through a combination of a New Build, maximal reuse of existing facilities, and ongoing use of off-site facilities.
Both Mental Health and Community Health remain off-site.
Dental remains as provided on site and MRI is provided as a shell.
Non-Clinical Support Services are New Build in this option.
This option includes Non-Capital Solutions for Food Services, CSSD, Residential Accommodation, Medical Records and Education and Training.
This option requires extensive staging.

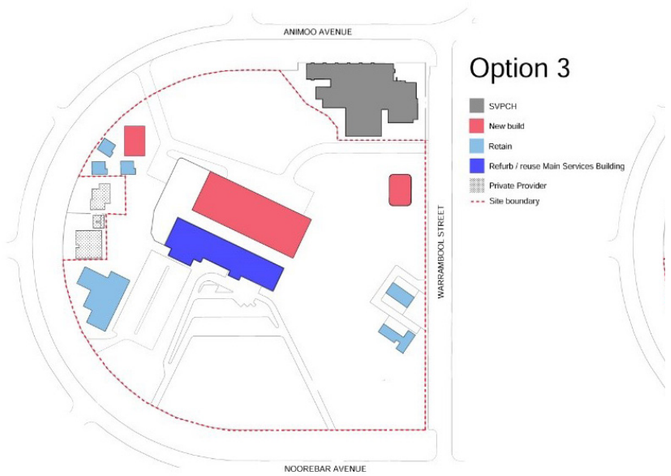


8.0 MASTER PLAN OPTIONS CONSIDERED

Option 3

(Refurb, New Build and maximum reuse of Enabling Works. CSP not met)

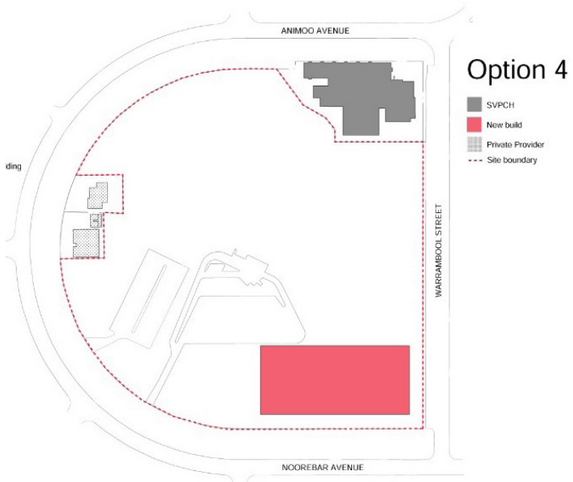
Retain use of the key clinical priorities works scope (Renal, HiTH, Rehabilitation). These services remain at the Enabling Works Scope level only (i.e. CSP scope not met).
New Build is as per Option 1, but includes: Food Services, CSSD, Residential Accommodation and Non-Clinical Services.
Mental Health remains off-site.
Dental is included in the scope, in New Build.
Education and training is provided through a Non-Capital solution.
This option requires some staging.



Option 4

(New Build – 'Green Field', Full scope of CSP provided through new build investment)

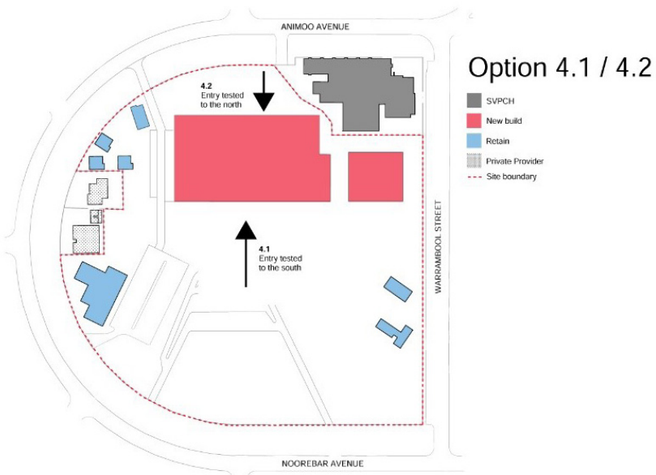
This is a New Build - Green Field Option.
Due to site constraints it does not promote campus linkages, including to SVPCH.
This Option has full provision of the CSP, with all clinical services relocated on site and integrated in to an expanded facility.
Community and Mental Health are relocated on site, and integrated into the Wellness Centre model.
Includes for Food Services, CSSD, Dental, Medical Records and Education and Training to be provided as New Build.
This option requires minor/ limited staging.



Option 4.1/4.2

(New Build, reduced staging/decant, reuse of Ambulatory Care Hub, Non-Capital solutions)

Provides a consolidated building in close proximity to SVPCH.
This Option has no refurbishment and builds the Non-Clinical Services building in its final location to reduce staging.
Dental remains as currently provided, Mental Health is located off-site as currently provided, and MRI is a warm shell.
Community Health is provided through reuse of the Enabling Works 'Ambulatory Care Hub' building.
Features Non-Capital solutions for Food Services, CSSD, Residential Accommodation and Education and Training.
This option also includes for a Temporary Paediatrics unit to facilitate staging however staging is relatively limited.



9.0 BUILT FORM CONTEXT

Built Form Character of Locality

The hospital site is bordered by a mix of single storey, free-standing residential houses along Noorebar and Animoo Avenues and Sacred Heart Catholic Church and St Patrick's School along Warrambool. The precinct contains numerous community facilities including the hospital and medical centres, churches, schools, childcare centres, and parks.

Local architectural materials and established street trees give the area its character including face-brick walls with either tiled or galvanised steel roofs. Residential buildings also utilise a mix of materials including weatherboard and fibre-cement. Front fences typically include a mixture of fencing materials including low brick, steel and picket. Like the hospital, it is common for properties not to have a front fence.

Sacred Heart Precinct, Warrambool Street

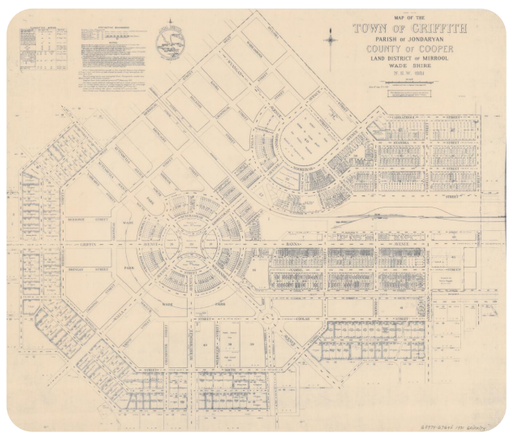
The coherent group of early twentieth century buildings that constitute the Sacred Heart precinct make an important contribution to the streetscape. The buildings dating from 1928 are characteristic of the Interwar, Romanesque style and their grandeur is rare in the city. Characteristic red faced brick and tiled roofs are contrast against cream coloured, smooth render.

The significant buildings are located at the south-eastern end of the site near the corner of Warrambool and Noorebar. The setting on the hospital site opposite is low-density parkland with individual outbuildings for Dentistry and the School of Nursing. This setting will not only be maintained in the proposal for the future hospital but will be improved with the removal of the Maternity and IPU.

Character of Site

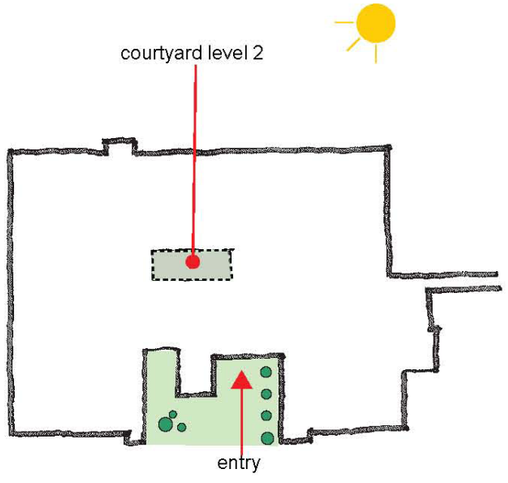
Griffin masterly established the potential for a health precinct while at his drawing board but his radial road planning has also enabled a hospital site with potential for multiple access points. A hospital in the round. The site area of 6.4hectares and wide street verges presents as a regional hospital in a parkland setting. The site is not fenced and can be traversed by both vehicles and pedestrians.

It is not possible to apply a blanket architectural style or urban form to the hospital site due to the ad-hoc construction of buildings and sub-divisions over the years. The first hospital buildings on the site were opened in 1931 and were accessed via a boulevard of trees continuing from the intersection of Kooringal Avenue in tribute to Griffins town plan. The Medical Services Block (MSB) was opened in 1969 and underwent major renovation in 2006. It acts as the main entry and identity for GrBH with the majority of buildings located behind on the high side of the site. There are no consistent building setbacks or height lines. The MSB is 2 storey with a lower ground below the main ground floor level of the hospital. The IPU is also a double storey building but all other structures on site are single storey. Buildings are constructed on a variety of materials with masonry or red brick and tile roofs predominant. SVPCH which opened in 2016, is a one and two storey structure of varying materials including glazed brick, fibre cement and corrugated steel sheet. Most of the built form is at the north of the site and the and the end closest to the town is largely park-like.



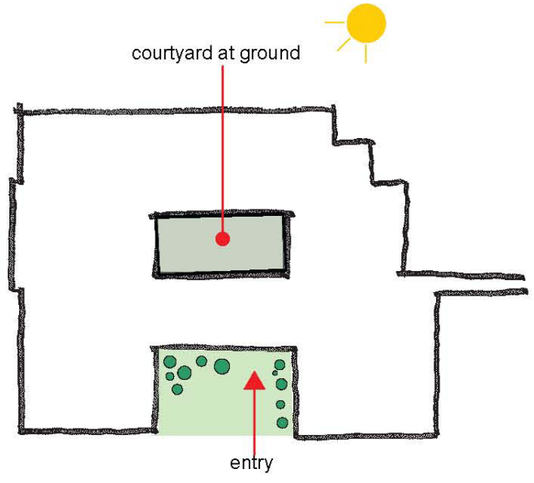
10.0 BUILT FORM AND URBAN DESIGN

Massing Studies - Concept Development



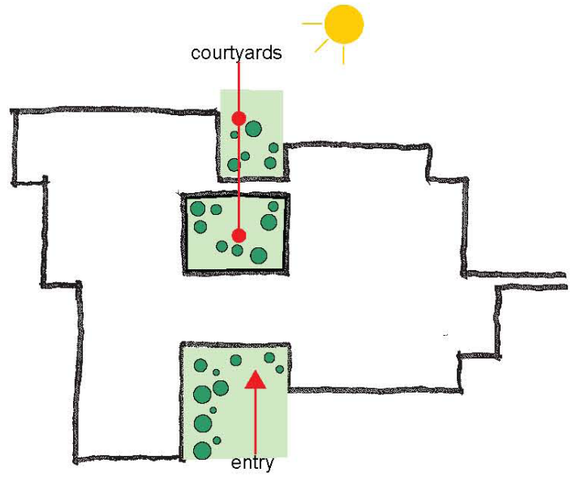
Initial Plan

The deep floor plate provides limited opportunities for natural light, large ground floor volume with terracing of floors over, presents as a single large mass, building does not engage directly with parkland setting.



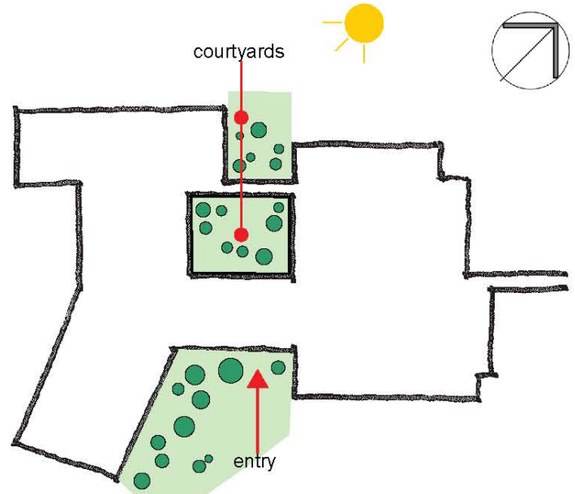
Introduce natural light to centre

3 storey height enclosed courtyard provides daylight opportunity but considered a high density urban approach, still presents as a single mass externally, courtyard permanently shaded and opportunities for district views not maximised.



Break up forms & bring light into the centre

Northern corridor link is single storey allowing northern sun penetration, parkland setting drawn into and through the building, maximises opportunities for daylight and district views, building presents as 2 key masses with a link breaking down massing.

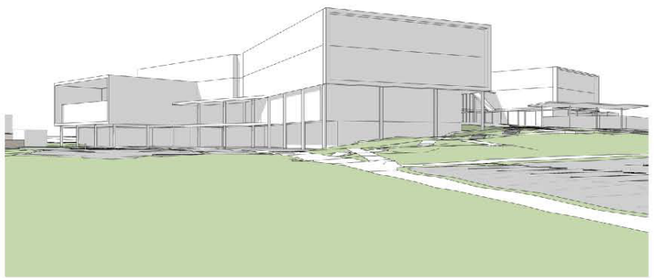


Angle wing to embrace site & landscape

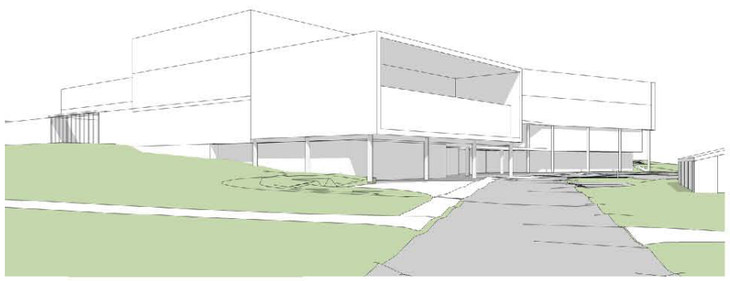
Angling the western wing adjacent the front provides a more open forecourt providing a more welcoming, parkland approach.

Massing Study - Form

Birds-eye view of front entry court



View from south-west or route from Community Health



View from Animoo Avenue entry for staff carpark

10.0 BUILT FORM AND URBAN DESIGN

Topography

The site falls approximately 10 metres from north to south. The northern portion containing most of the current development is reasonably level, permitting most buildings to be at the same floor level as the upper level of the existing Medical Services Block.

The land starts to fall substantially from the north of the existing Children's Ward, Medical Services Block and General Ward, Block. This results in a lower ground floor level for these buildings.

Responding to the fall across the site, a lower ground floor level can be accommodated along the western portion of the building. The western edge of the lower ground floor follows the natural level, while the eastern side has been excavated in partially to fit the lower ground floor facilities.

Building Height

The overall height of the proposed hospital building is 19.3m from the front entry court and 23.5m from the staff entry on the lower ground floor. This includes the rooftop plant.

The building floor footprints vary with respect to each other.The ground floor forms the largest with subsequent floors stepping back to suit a reduction in floor space requirements for the inpatient units. The height of the main parapet is 13.8m above the front entry court and the ground floor podium parapet 5.8m.

The change of level from the east to the west of approximately 5m provides the opportunity to incorporate the part lower ground floor.

Building Levels

The relative level of the ground floor of the hospital building (RL 140.890) has been adopted to be close (200mm above) to the existing SVPCH (RL 140.660) to facilitate patient, staff, and sterile stock between the two buildings. This minor change in level will be accommodated in a shallow 8m long 1:40 ramp within the SVPCH link corridor.

The building is also located on the highest portion of the site to provide for optimal linkage into SVPCH and to minimise rock excavation. This also allows for on grade DDA access, ambulance access and service access from Warrambool Street. Adverse issues resulting from the overland flow of stormwater are also minimised because of the high position of the building.

Section
NTS

A Existing Main Hospital Building
B Existing Maintenance Workshop
C Existing Main Hospital Building
D St Vincent's Private Hospital Ground Floor
E Proposed Ground Floor for New Main Hospital Building & NCS Building

Staff
Service
Public

10.0 BUILT FORM AND URBAN DESIGN

Density, Bulk and Scale

The proposed hospital building has a GFA of 15,934m2 and will increase the density on the site from 0.208:1 (13,351m2 / 6.402ha) to an FSR of approximately 0.302:1 (19,337m2 / 6.402ha). This represents a low-medium density and the Council planning controls for the Hospital Precinct nominate medium density development.

The bulk and scale of the development in minimised by the stepping in of the floor plates after the ground floor podium and the co-location of all major buildings in the health precinct to the northern sections of the site (including SVPCH and the NCS) allows for the retention of the parkland setting at the south of the site.

The building features two main wings that run north-south connected by interlinking corridors; these corridors running south-west create a series of courtyards that break up the bulk of the building and bring in plenty of light and views into the centre of the building.

Setbacks

Site setbacks have not been a major consideration in the siting of the proposed building. Alternatively, it has been the physical connection into SVPCH, avoiding buildings required to maintain the hospital operation during construction, the siting of the NCS building (which is 6m from the boundary and inline with the eastern wall of SVPCH) and avoiding major services.

The setback from the front (southern) site boundary to the facade of the buildings western angled wing is approximately 155m. At the east, the building is approximately 65m from the Warrambool St boundary and 40m from the SVPCH boundary along Animoo Ave to the north. To the west, the building ranges from roughly 35-85m setback from the boundary due to the curve in the urban planning.

Streetscape and Building Location

The new building is to be located prominently in the centre of the existing hospital footprint and will be visible from many directions once completed. The result is that the majority of the ‘bulk’ of the health precinct is contained at the north of the site. The small footprint of the proposed building in comparison the site area maintains the parkland or garden setting at the south of the site.

One of the most compelling aspects of the site, is its continued use as a public hospital that offers considerable open space to the locality. By maintaining deep setbacks and open space, the proposal continues the tradition for public open space, and the provision of paths woven through new landscaping emphasises public amenity within the ‘parkland’ setting.

11.0 DESIGN QUALITY AND BUILT FORM

Public Domain, Public Open Space and Community Uses

It is acknowledged that the proposed building will be a significant public asset for Griffith and offers the opportunity to provide the public with not only a hospital, but also a place where the culturally diverse community can find common ground, display pride, exhibit, perform, volunteer and participate in health and wellness activities.

To this extent the proposed landscaping and siting of the building plays a significant role. By protecting and celebrating the parkland setting we can encourage healing and wellness. The site will provide accessible walking paths with seating at nominated distances (to take a rest) as well as play equipment and an open lawn.

The proposal will create spaces for people. The entry forecourt with cafe will be an important place of gathering and potentially performance. The proposed Aboriginal Courtyard has a private setting entered off the lounge but it can be extended into the courtyard when greater space for ceremonies is required.

There is currently an artwork strategy in place that proposes community engagement whether it be philanthropic or creative. Artwork can be permanent, such as a mural or heritage interpretation, it can be a temporary exhibition or it could be a performance. The proposed hospital design intends to provide the flexibility required for all forms of community involvement to be supported.

Creating connection to the local communities of the past and present by:

- Encourage built forms which recognise unique local heritage
- Encourage the local community and visitors to learn about the history of the hospital and the town and the significance of the site
- Incorporate a celebration of Wiradjuri culture into the design
- Respectful response to local buildings in particular the public buildings including churches and schools
- Interpretation of Walter Burley Griffin's 'hospital' precinct and axial connections to the CBD and Scenic Hill
- Incorporation of locally significant animals and totems.

Colours for Country

djrd
architects

11.0 DESIGN QUALITY AND BUILT FORM

Facade Concepts

Split Building Form - Horizontal Expression

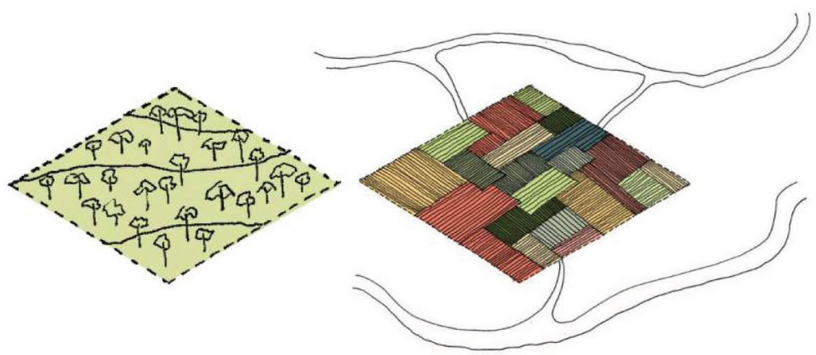
Visually breaking up the mass of the building, and creating visual interest through contrasting facades; a ‘strong’ base vs. shading/screened levels above.

Facade Expression

Consideration of the rhythm of a patterned and textured facade which is modulated/punctuated by glazing and screened elements.

Screens, Fins and Shading Systems

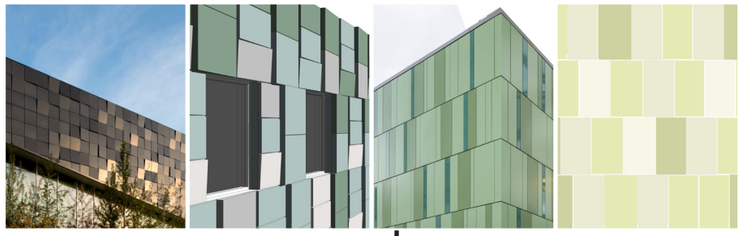
Consideration of shading systems to permit daylight but not excessive direct sun, while also providing visual interest.



11.0 DESIGN QUALITY AND BUILT FORM

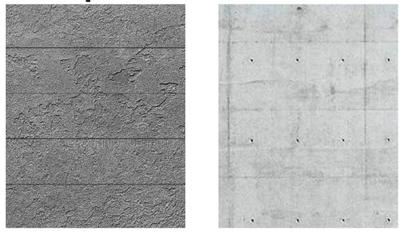
Facade & Materiality - Overview

TEXTURED & PATTERNED FACADE



MULTI-COLOURED SCREENING

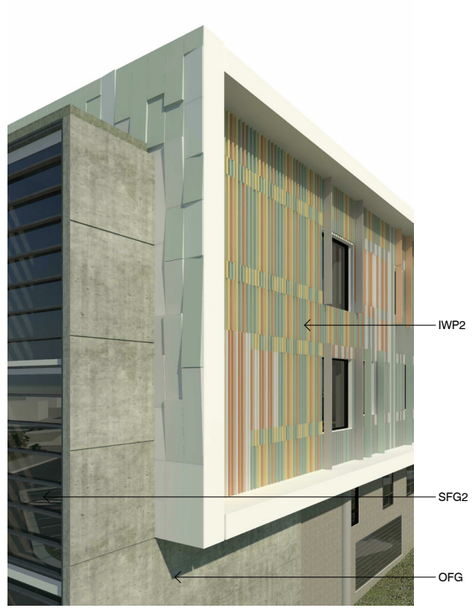
Perspective view of main entry from car park



LOWER LEVEL BASE

11.0 DESIGN QUALITY AND BUILT FORM

Facade & Materiality



FAÇADE TYPES

ARP - ALUMINIUM RAINSCREEN CASSETTE CLADDING PANELS TO LEVELS 1 AND 2

GRC - GRC RAINSCREEN CLADDING TO GROUND AND LOWER GROUND
PROPRIETARY GRC RAINSCREEN CLADDING

SFG1 – SHOP FRONT GLAZING

IWP1 – PROFILED METAL WALL CLADDING

IWP2 – PROFILED METAL WALL CLADDING +
- ADDITIONAL DECORATIVE RHS ALUMINIUM POWDERCOATED VERTICAL RIBS FIXED TO PMWC

SFG 2– SHOP FRONT GLAZING – ESCAPE STAIRS
- TRANSOMS AT 600 CTS WITH POWDERCOATED ALUMINIUM PLANTED 100 X 50 RHS SECTIONS ON EACH TRANSOM

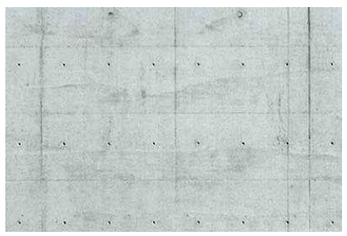
OFC – PAINTED OFF FORM CONCRETE WALLS ESCAPE STAIRS
- OFF FORM REINFORCED CONCRETE

CWG – CENTRE LINK CORRIDOR ZONE & FRONT OF HOUSE
- 2 OFF - ALUMINIUM 600 WIDE GRILLE TYPE SUNHOODS AT EACH FLOOR LEVEL.

AFG – ALUMINIUM FRAMED GLAZING GENERALLY
- DOUBLE GLAZE INSULATING UNITS, FIXED GLAZING.

GRC - GLASS REINFORCED CONCRETE (RAINSCREEN PANELS)

OFC - OFF FORM CONCRETE



ARP - ALUMINIUM CLADDING (RAINSCREEN PANELS)

IWP2 – PROFILED METAL WALL CLADDING WITH ADDITIONAL DECORATIVE VERTICAL RIBS

IWP1– PROFILED METAL WALL CLADDING

djrd
architects

11.0 DESIGN QUALITY AND BUILT FORM

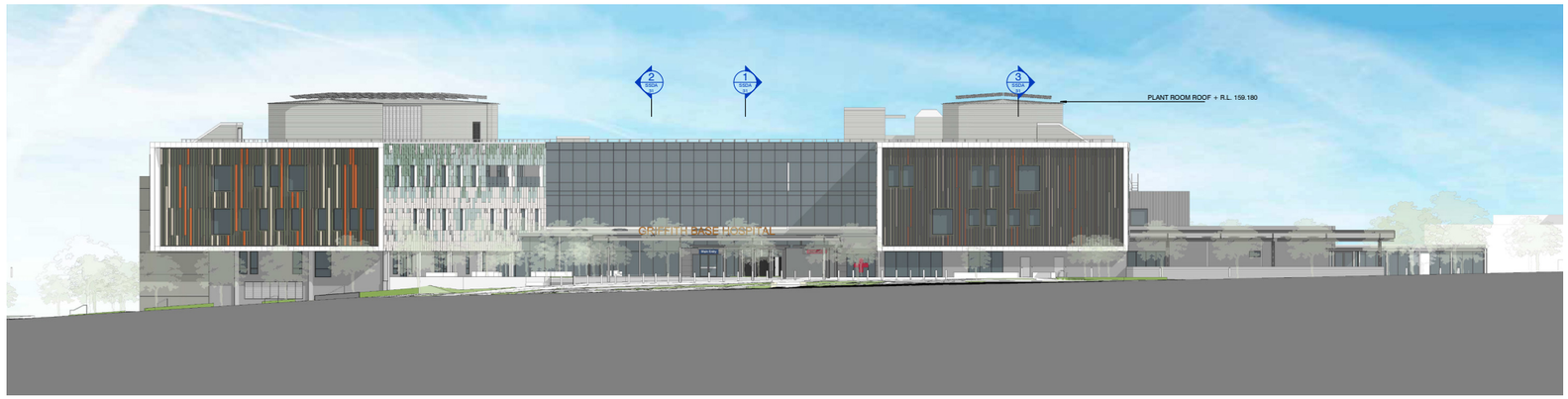
West Elevation

Key performance criteria to be satisfied include the following:

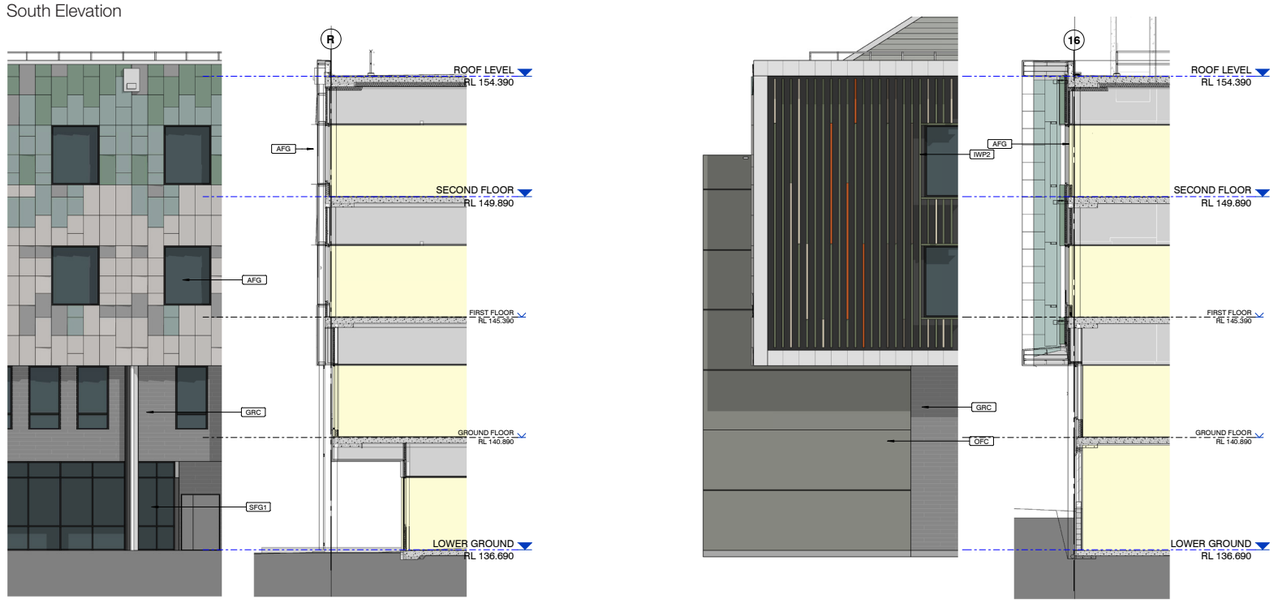
- Non-combustibility – all materials satisfy the code requirements for combustibility. Including any insulated panels which will be composed of steel facing with mineral wool cores.
- Efficient thermal performance and control of condensation.
- Prevention of water penetration and sealing against air leakage
- Provision of natural lighting.
- Durability and low maintenance
- Cost effectiveness
- Buildability

The design proposal incorporates a cladding/facade system for the lower ground and ground floor that responds to the building context and provides a solid base to the building.

The upper levels are clad in a combination of materials; a multicoloured palette of aluminium panels installed to create a ‘shimmering’ effect, and aluminium blades that provide screening, texture and shadows to larger sections of glazing within the building.



South Elevation



Facade Design

LEGEND	
TAG	DESCRIPTION
AFG	Aluminium framed glazing Colour: Basalt
GRC	Glass Reinforced cement rainscreen panels
IWP1	Insulated wall panels type 1
IWP2	Insulated wall panels type 2
OFC	Concrete walls Escape stairs
SFG1	Shopfront glazing type 1

11.0 DESIGN QUALITY AND BUILT FORM

Rooftop

The proposed roofing solutions vary. At the lower levels metal deck roofing is used wherever possible. Metal deck roofing will generally be installed on steel roof framing with roof insulation spacers. In certain areas where a slab is preferred for flexibility to install heavy equipment such as above the Imaging Department, the metal deck is installed above the slab. For external trafficable terraces the slab is set down at the perimeter and laid to falls. Paving slabs on proprietary adjustable pedestal systems allow for level transitions and easy access to membranes for any required maintenance. Rainwater outlets will be spaced regularly in order to provide sufficient redundancy. Overflows will be provided to allow for the maximum design flows.

Regularly spaced overflow scuppers will be located on all parapets and be designed to take the entire design stormwater flow for terraces, thereby eliminating any chance of flooding. There are no captured box gutters. Box gutters where used have been placed outside the line of the external wall thereby becoming concealed eaves gutters.

Parapet walls will be formed generally with concrete upstands. Apart from providing continuity these also allow for a secure bolted connection for the facade maintenance rope access system.

Level 2 Roofs

The plantroom at level 2 will have metal decking on steel framing. Elsewhere the roof to level 2 will be concrete to falls. This provides simple maintenance access over the roof deck area outside the plantrooms and to allow for escape paths across the roof deck, We are proposing a trafficable membrane with a non-slip granular surface that also provides full protection from UV. Having a relatively flat deck to selected areas will allow for easy lifting and replacement of equipment in the future if required. Insulation will be placed under the roof slab at the soffit of Level 2 with an integral vapour barrier.

Membrane Testing

All membrane systems will undergo rigorous testing including the following:

- Full flood testing
- Adhesion testing where applicable

Plantroom Roofs

Plantroom roofs are to be metal deck at 3.5 degrees pitch with external eaves gutters and downpipes.

12.0 ENVIRONMENTAL AMENITY

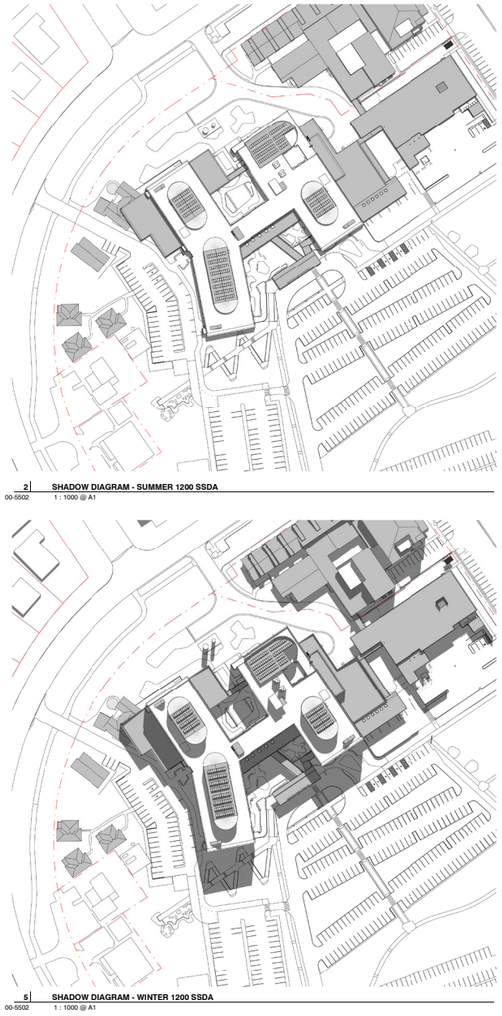
Shadow Diagram Analysis

The shadow diagrams prepared for the development provide an analysis of the impact of the proposal in relation to shadow impacts. They show minimal overshadowing at 9am on the winter equinox to the neighbouring private pathology property, as well as minor morning overshadowing to accommodation buildings which are a part of the hospital. The shadows move throughout the day and do not have any further impacts to separate properties throughout the day. There are no impacts to overshadowing in summer.

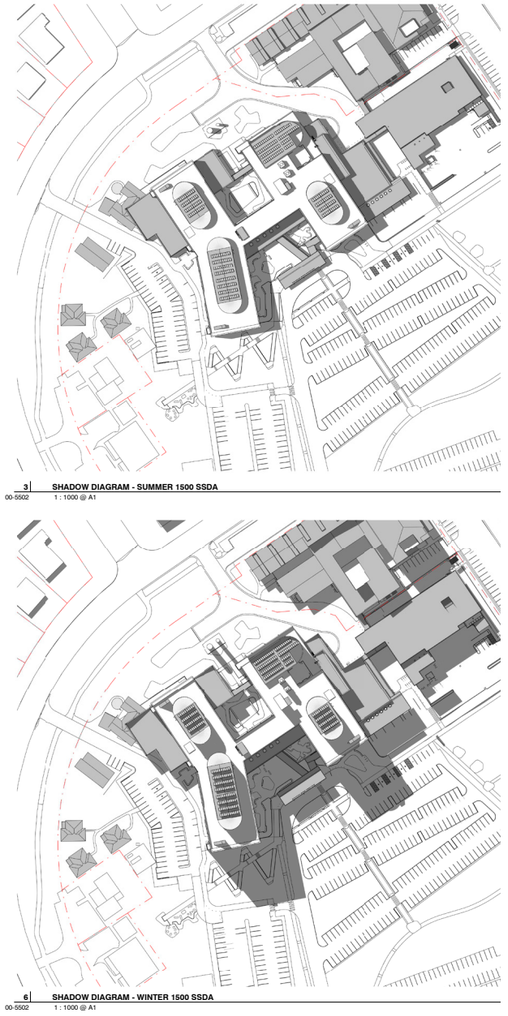
Solar Access & Shading Provision

The glazed bridge connecting the two masses of the building is facing north-west and at midday in summer will have direct solar gain. To provide shading to the windows a 600mm horizontal louvre is proposed (see wall sections under façade design). This system will allow solar gain into the bridge during winter due to the angle of the sun. The glazed bridge orientated to the south is in shadow in all seasons but will provide district views over the city. All other façade wall sections propose a deep window reveal due to the thickness of insulation requirements. This will provide shading onto windows in all orientations. Inpatient Units will provide internal window blinds to prevent any glare.

1 | SHADOW DIAGRAM - SUMMER 0900 SSDA
0-5502 1 : 1000 @ A1



2 | SHADOW DIAGRAM - SUMMER 1200 SSDA
00-5502 1 : 1000 @ A1



3 | SHADOW DIAGRAM - SUMMER 1500 SSDA
00-5502 1 : 1000 @ A1

4 | SHADOW DIAGRAM - WINTER 0900 SSDA
0-5502 1 : 1000 @ A1

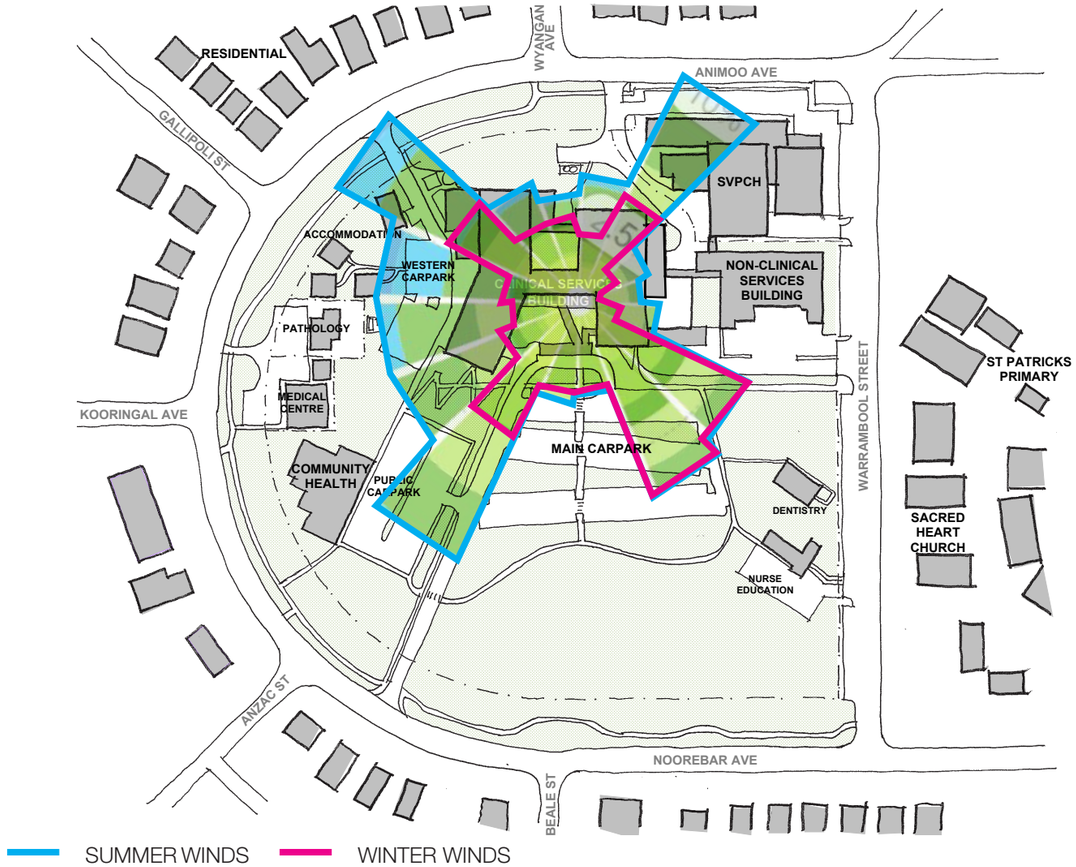
5 | SHADOW DIAGRAM - WINTER 1200 SSDA
00-5502 1 : 1000 @ A1

6 | SHADOW DIAGRAM - WINTER 1500 SSDA
00-5502 1 : 1000 @ A1

12.0 ENVIRONMENTAL AMENITY

Wind Impacts

The siting of the proposed Clinical Service Building has been determined largely by a staging strategy that allows the existing hospital to operate during construction and by providing a linkage to the existing St Vincent's Private Community Hospital (SVPCH). It was also considered desirable by Aboriginal Users that the main building be entered off a parkland to provide a welcoming regional point of entry rather than the more urban approach that would be provided from arriving from the north. Consequently, where the front entry of the proposed building is orientated to winter south easterly and summer south westerly winds, the design solution proposed includes a landscaping buffer zone in the front forecourt and a building airlock. The north facing courtyard is protected from prevailing winds.

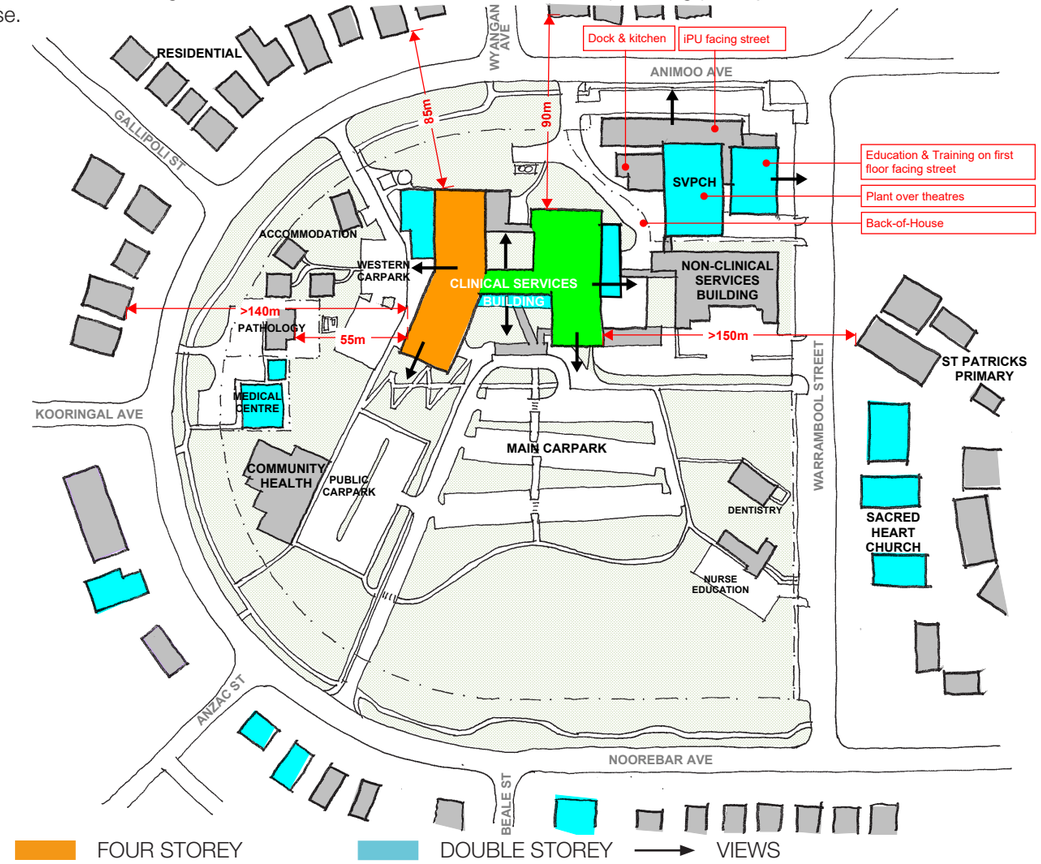


Acoustic Impacts

It is not considered that the proposed development will create any negative impacts to noise given the distance from other building use types surrounding the health campus. In additional, major traffic movements are contained on site.

Visual Privacy

All buildings on the D-Shaped campus are health related. The visual privacy of neighbouring properties will not be impacted due to the shear distance from the new building to other non-health related buildings. Where the building is 3 storeys, it is a distance of over 150m from the Sacred Heart Complex on Warrambool Street to the east. At the west where it is 4 storeys, it ranges from between 85m to 140m from the single storey residences on Animoo Avenue.
Where the new building is close to SVPCH, there will be no windows providing privacy issues as the interface is the back of house.

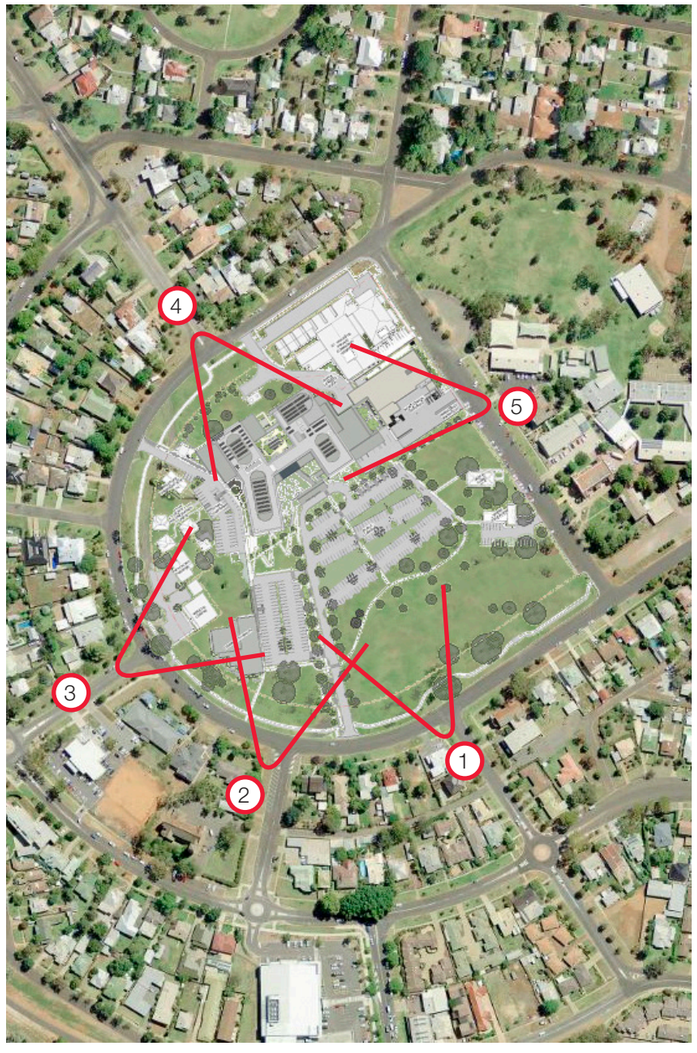


12.0 ENVIRONMENTAL AMENITY

Visual Impact Statement

A number of views have been reviewed from major intersections towards the new Clinical Services Building. The governing design principal for siting orientates the building towards the Griffith CBD to the south maintaining the current address. The massing of the 3-4 storey plus plant building is split into two main components through the inclusion of the front entry court and central courtyard. The parkland setting and landscape solutions will reduce the impact of the scale of the building from surrounding streets.

Key Plan



1. View 1 from Beale Street
2. View 2 from Anzac Street
3. View 3 from Kooringal Avenue
4. View 4 from Wyangan Avenue
5. View 5 from Warrambool Street (from Sacred Heart Complex)

View 1 from Beale Street

Before

After

Viewed from Beale Street the three storeys along the southern elevation are taller than the existing two storeys of the hospital visible from this view, however as the hospital sits on a spacious elevated site, the increased height does not impact views.

The more compact footprint of the hospital maintains and increases views of vegetation around the periphery of the site.

djrd
architects

12.0 ENVIRONMENTAL AMENITY

Visual Impact Statement

View 2 from Anzac Street

Before

After

Viewed from Anzac Street the three storeys along the southern elevation are taller than the existing hospital, however as the hospital sits on a spacious elevated site, the increased height does not impact views.

View 3 from Kooringal Avenue

Before

After

Viewed from Kooringal Avenue the four storeys along the western elevation are taller than the two/three storeys of the existing hospital, which is obscured in this view by other buildings on the site.

There are not currently views across the site to Warrambool Street impacted by the proposal. This view shows the now existing Ambulatory Care Hub as well as the three storey southern elevation and four storey western elevation.

djrd
architects

12.0 ENVIRONMENTAL AMENITY

Visual Impact Statement

View 4 from Wyangan Avenue

Before

After

Viewed from Wyangan Avenue the three storeys along the northern elevation are taller than the existing hospital, however as the hospital sits on a spacious elevated site, the increased height does not impact views across the site.

View 5 from Warrambool Street (from Sacred Heart Complex)

Before

After

Viewed from the Sacred Heart Complex along Warrambool Street, primary views are of the existing buildings and SVPCH.

Upon completion, views of SVPCH will be obscured by the Non Clinical Services Building (completed under the REF), while the upper levels of the main services building will be visible beyond.

There are not significant views considered essential to maintain looking at the site from the Sacred Heart Complex.

djrd
architects

12.0 ENVIRONMENTAL AMENITY

Access to Natural Daylight & Ventilation

There is considerable evidence base that supports the positive connection between human health and wellbeing and access to natural daylight and views. The form, massing and clinical planning of the proposed building aims to provide daylight and views from corridor ends, as well as key patient rooms including IPUs. A design feature is the introduction of the central courtyard and glazed bridge that allows natural light into the circulation spaces and aids in wayfinding. A key objective of this design is to avoid a clinical aesthetic in preference for a regionally appropriate and healthy environment.

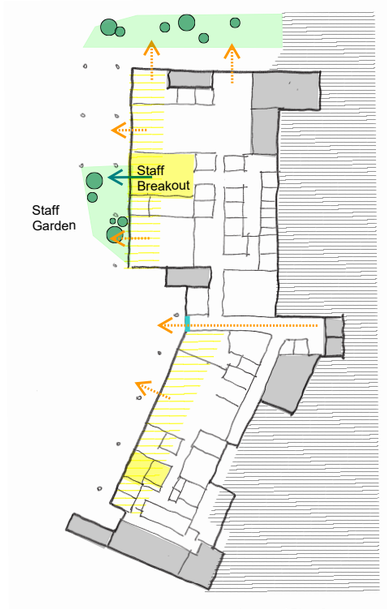
Visual & Physical Access to Outdoor Landscape

The proposed building is permeable at the front entry where a single point of arrival is provided; to the secure central courtyard and to the three terraces located over levels 1 and 2. The lower ground floor provides a staff only access point and an indoor/outdoor relationship between the main staff breakout space and staff garden. An Aboriginal garden is located within the front forecourt, accessed off the Aboriginal lounge and secured for privacy.

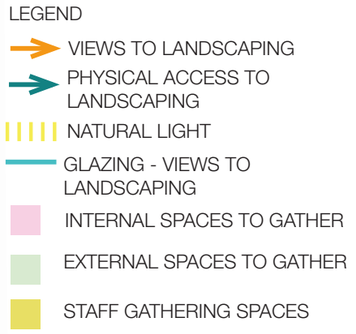
Provision of Spaces for Patients & Visitors to Gather

A hospital is a significant public building where life changing events take place. This design attempts to provide something important for the local community. Health and wellbeing strategies include design spaces to enable a range of actions including quiet contemplation and social interaction.

Public amenity is maximised through the provision of spaces for patients and visitors to gather or sit alone including the retail café located in the front entry, waiting areas suitably located around the facility, the courtyards, entry forecourt and site landscaping, patient lounges, Aboriginal Lounge and Multi-faith room. The campus will offer opportunities for active living including walking and bike paths as well as garden spaces for contemplation and a children's playground.

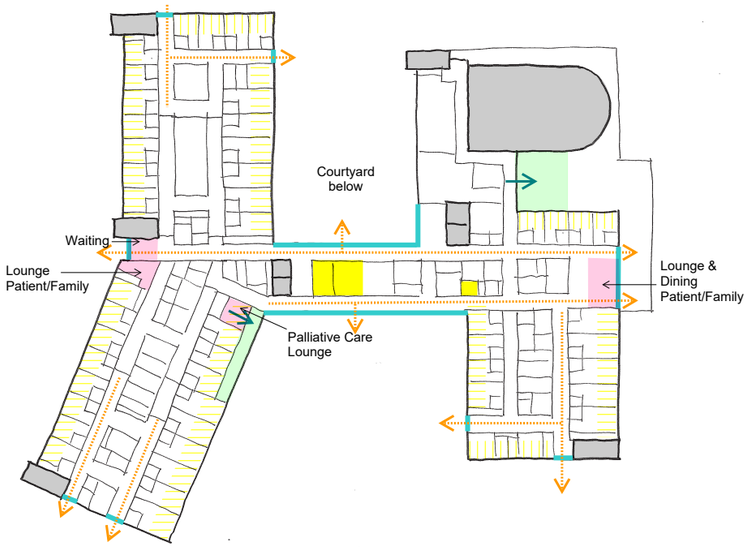


LOWER GROUND FLOOR



GROUND FLOOR

LEVEL 1



LEVEL 2

djrd
architects

12.0 ENVIRONMENTAL AMENITY

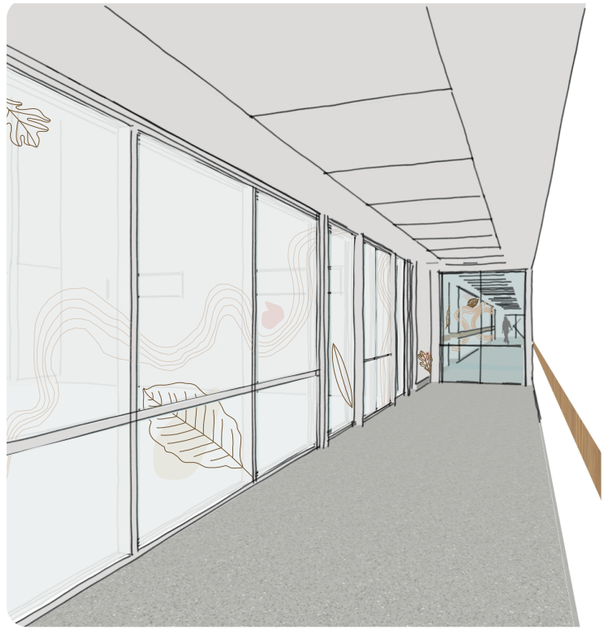
Interior Design Strategies to Promote Patient Recovery

The overarching theme “A Woven Connection’ aims not only to holistically entwine the architecture, interiors, landscaping, art and wayfinding, but also to emotively connect the local population to the campus. The Interior Design concept explores the environmental context of the Griffith area and incorporates the ‘colours for country’ outlined in the art strategy. This aims to utilise the strong connection between the landscape and the regional community building on themes established in consultation with Users including;

- Relationship to Country
- Local Heritage and Cultural Diversity
- Environmental Context
- Local Industry

The interior strategy aims to use the benefits of nature to create a comfortable, inviting and healing interior space. In additional to the themes above, colour palettes have been inspired by the local context and received support from Users. These themes of Canal, Crops, Night and Earth inform colour palettes inspired from the local landscape and plant life to help identify individual departments. Wiradjuri and English language is to be used on the main department identification sinage. This graphic inspiration will also inform glazing film applied to provide privacy around the proposed building.

The landscaped approach to the single point of public arrival and the use of the natural environment to connect two courtyards separated by the transparent entry reception and bridge, is intended to be instrumental in positively impacting patients, visitors and staff’s physical and mental health, fitness and wellbeing. Patient lounges and waiting areas around the hospital will provide a homey experience.

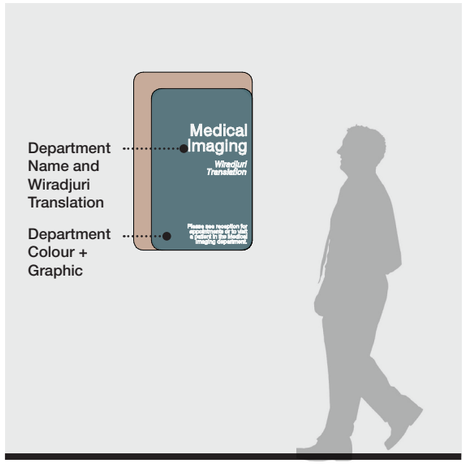


Native Flora Inspiration

Woven through the concept is the intent is to design a Hospital that provides a strong connection to landscape and the regional community and is sensitive to the cultural and environmental context of the site. Each Department Sign will have a subtle graphic applied referencing native flora.

Department Colour Scheme

To help identify individual departments, an assigned feature colour is used.



ID.03

Internal Department Sign

Single Sided, Wall Mounted

13.0 ART STRATEGY

There is considerable evidence base for the connection between the use of arts and a positive impact on health. Contemporary hospital design responds to a patient-centred, integrated model of health which incorporates all of a person's health needs. Utilising the Arts in health settings has been proven to reduce the need for pain medications, improve patient, staff and carer experience, and facilitate community engagement.

Hospitals are significant public buildings where life changing events take place. The proposed Griffith Base Hospital (GrBH) will provide the largest building in the regional centre and provides a unique opportunity to become something truly important to the identity of the town.

The GrBH Project Arts Working Group of the Murrumbidgee Local Health District (MLHD) has been established by the MLHD in accordance with the Corporate Governance and Accountability Compendium for the Ministry of Health. The purpose of this Working Group is to contribute to and advise on arts-in-health opportunities for the GrBH redevelopment. Members of this Group represent GrBH, MLHD, HI, Regional Galleries and Artists and Aboriginal and Multicultural Communities.

Through the consultation process, themes have emerged that are incorporated into the design (architecture, interiors, landscape and signage) and art strategy. Themes that have arisen include:

- Aboriginal Culture and relationship to Country
- Local Heritage and Cultural Diversity
- Local Industry
- Environmental Context
- Health and Wellbeing

The Working Group is currently completing a strategy that will include a variety of art types representing a wide range of communities and local artists. This will include display of items already in the collection, custom pieces commissioned by the MLHD, those procured through philanthropy and local partnerships, display of heritage items, native plant selections and solutions to accommodate temporary exhibitions.

HI have identified a variety of options have been identified for inclusion in the art strategy;

Identified Clinical Spaces:

- Multi-purpose zones for arts/music/biblio-therapy areas
- Palliative care areas: dimmable lighting, speakers for ambient music and projector screen for families to play home movies/photos on USB
- Aboriginal Maternal Health
- Graphic vinyl in Paediatrics Unit
- Relocation of existing collection as appropriate to Interview rooms

Identified Environmental Spaces:

- Garden: spaces for quiet space and family connection points
- Main entry/foyer public art commission and music performance area
- Lighting and GPO/data in central area for special events wayfinding language
- to engage Aboriginal community
- Glazing on windows/walls Aboriginal Courtyard and cultural rooms, Multi-faith Room
- Exhibition areas for rotational displays
- Heritage Graphics as key markers for wayfinding

In addition, project specific opportunities identified include;

- Entry forecourt
- Aboriginal Courtyard
- Staff entry courtyard
- Front of House and internal Hospital Street (temporary exhibitions)
- Waiting areas
- Quiet spaces in the garden
- Interview rooms
- Multi-faith room
- Café
- Paediatric Inpatient Unit
- Maternity

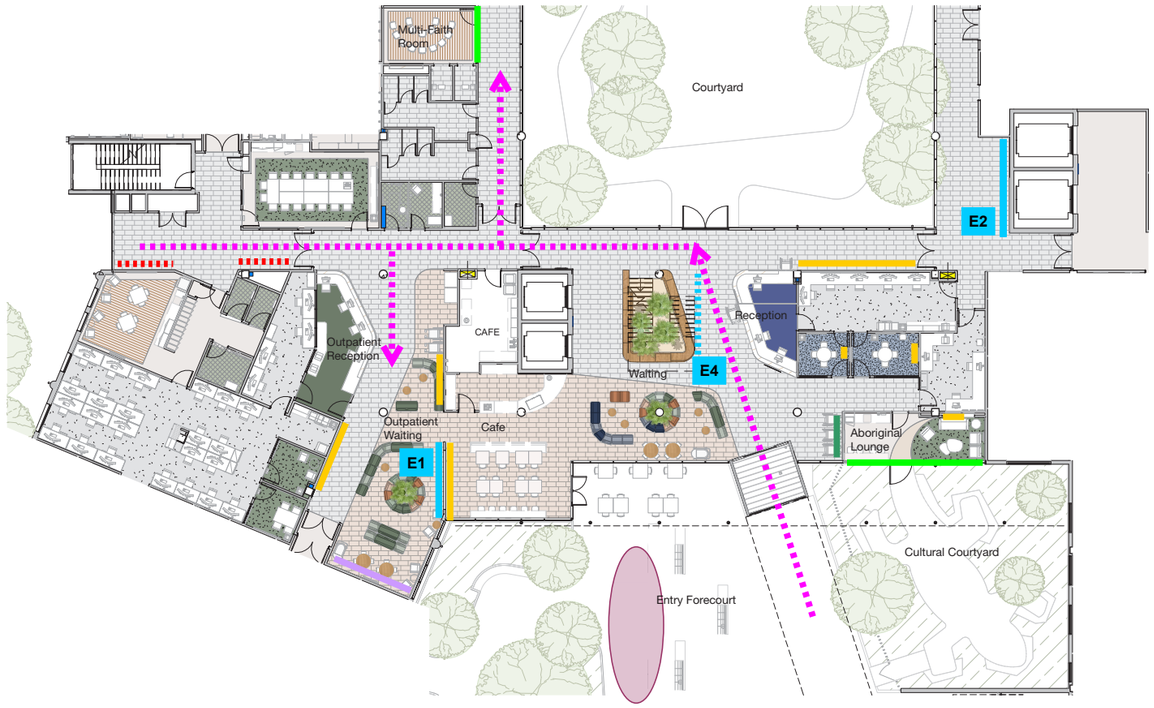
Primary circulation route

Included in Art Strategy

- Hanging Track
- Envirographics
- Paediatric Theme
- Artworks fixed to walls
- Glass Art
- Digital / Screen Acknowledgement of Country
- Performance zone

Envirographic Themes

- E1 History of the Health Service
- E2 Contemporary Griffith
- E4 Heritage (on wall over stair)



djrd
architects

13.0 ART STRATEGY

Masterplan of Opportunities Identified

4 key area types identified

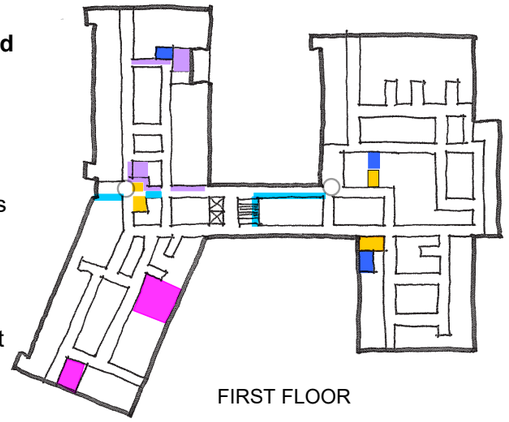
Landscaping

Public Areas
+ Main corridor systems
+ Strategic landmark points
+ Waiting Rooms
+ Lounges

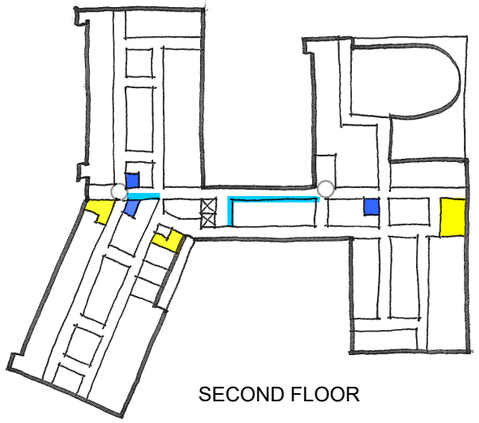
Clinical Areas
+ Art for therapeutic impact
+ Rehabilitation areas

Paediatric theme
+ IPU corridor mural
+ Procedure rooms
+ Consult rooms
+ Waiting Rooms / play spaces

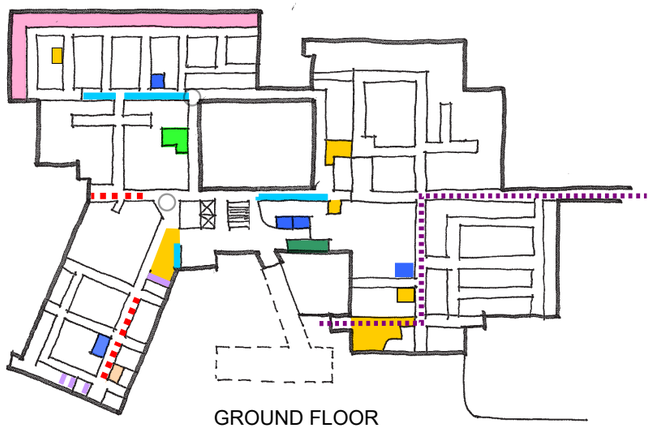
- Hanging Track
- Envirographics
- Waiting Rooms
- Interview Rooms
- Paediatric Theme
- Patient Lounges
- Sound Showers
- Maternity
- AMHS
- Aboriginal Lounge
- The Long Sleep
- Strategic point for wayfinding



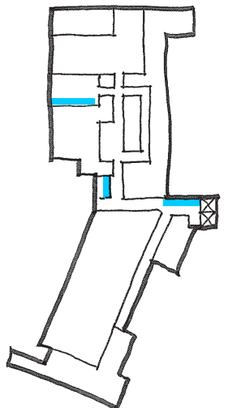
FIRST FLOOR



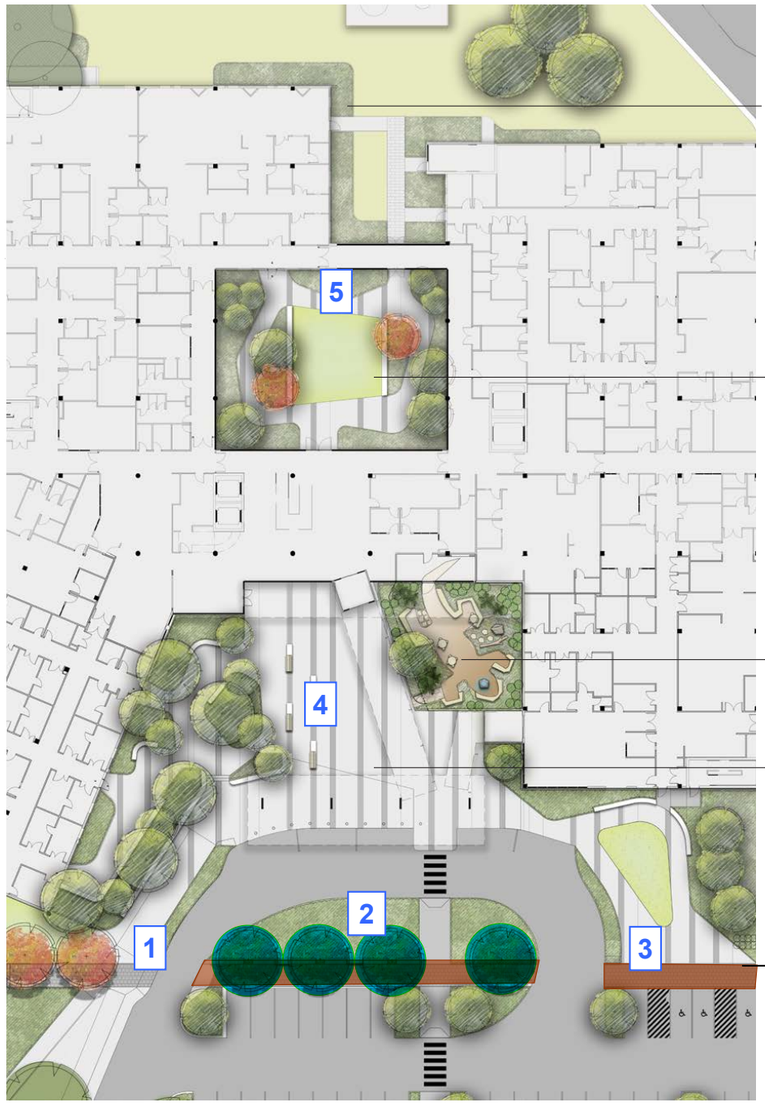
SECOND FLOOR



GROUND FLOOR



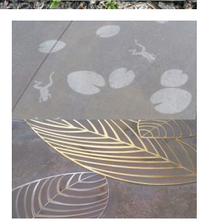
LOWER GROUND FLOOR



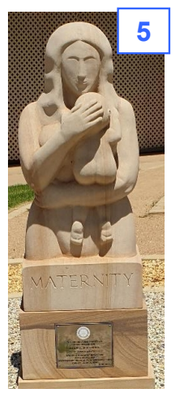
Heritage story

down-light trees along boulevard

Heritage Walk
Option 1 & 2



Forecourt performance space.
To include power, data and lighting



Maternity sculpture

djrd
architects

14.0 CONNECTION TO COUNTRY

Griffith is located at the heart of Wiradjuri Country

Community Engagement;

- Griffith Local Aboriginal Land Council (GLALC) is the Registered Aboriginal Party (RAP)
- Aboriginal Advisory Group with members from;
  - Community
  - Aboriginal Medical Service
  - GLALC
  - Riverina Murray Regional Alliance
  - MLHD

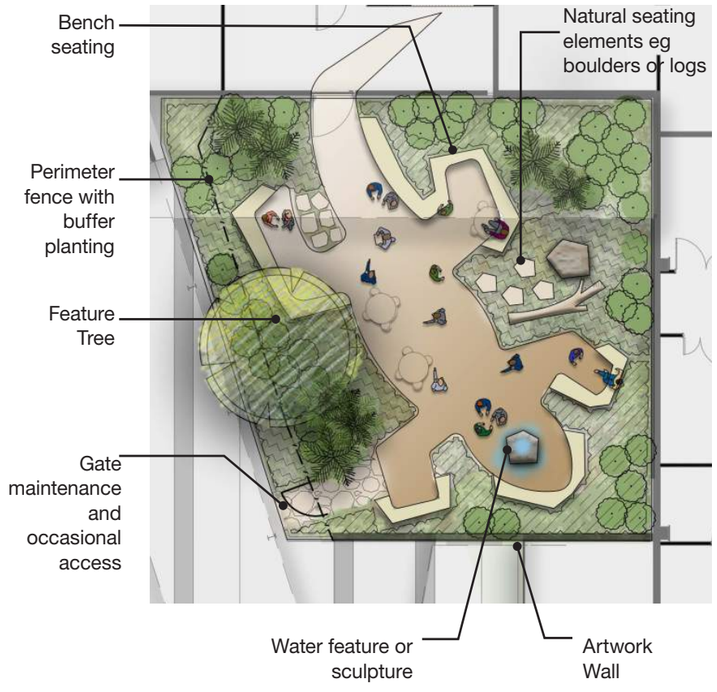
Investigative Studies;

- Aboriginal Cultural Heritage Assessment Report (ACHAR)
- Aboriginal Archaeological Assessment Excavations undertaken in association with GLALC uncovered over 271 artefacts.

Importance of Artefacts found;

- They represent a direct link to ancestors and continued connection to country and culture.
- They confirm the pre-European presence of Aboriginal occupation
- Interpretation of artefacts and Aboriginal heritage is included in redevelopment including story boards, installations and artworks.

Colours for Country used to inform Architectural and Interior material and finishes scheme



Aboriginal Courtyard inspired by the Gugaa.

Johnathon Jones' *Dance Belt*
Auntie Diane McNaboe with community, Dubbo Base Hospital

Art Strategy

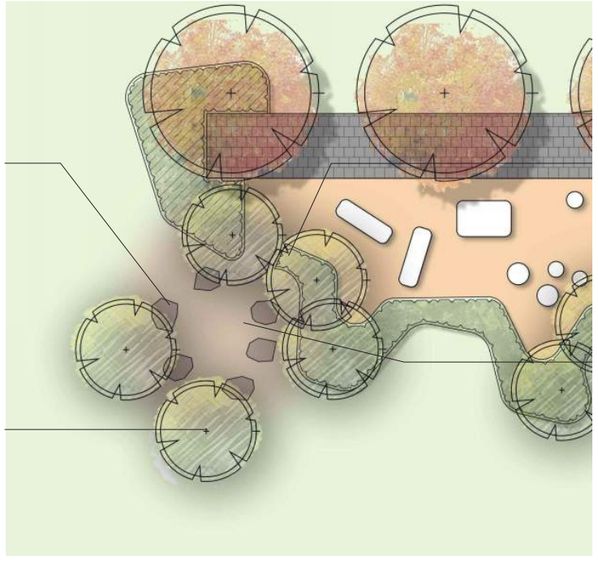
Indigenous Art Strategy
Currently being developed with the Aboriginal Advisory Group & Art Working Group.

Aboriginal Lounge
- Visual link to courtyard with stained glass or film graphic
- Artwork fixed to wall. Could be following Gugaa theme painted by a local Artist. To be developed in further consultation.

The Long Sleep
- Refers to the corridor linking the ED waiting room / After hours entry to the Body Hold.
- Journey includes indigenous themed full wall envirographics starting from ED waiting room / After Hours entry.

AMHS Room
- Theme of 'Women's Business'
- To be further developed in consultation

Digital Screen in Front Reception
- Multi-purpose
- Acknowledgement of Country
- Show footage of Elders telling stories.



Yarning Circle to be located at west of site at end of heritage walk and to north of community health.

15.0 SUSTAINABILITY

Sustainability

HI is committed to improving the environmental sustainability performance of the projects it delivers and the ESD strategy aligns with the objectives of the Department of Planning, Industry and Environment (DPIE).

The minimum ESD performance requirements for the development overall are as followed:

- Compliance with NCC2019 Section J Energy Efficiency Requirements;
- 10% Improvement from the minimum NCC2019 Section J Energy Efficiency Requirements; and
- 4-Star Green Star Design & As Built v1.2 equivalent design

Part J1 Building Fabric

The Part J1 of Section J for Building Fabric has been demonstrated to be compliant with the JV3 performance requirements, with the Contractor to uphold.

Part J3 to Part J8

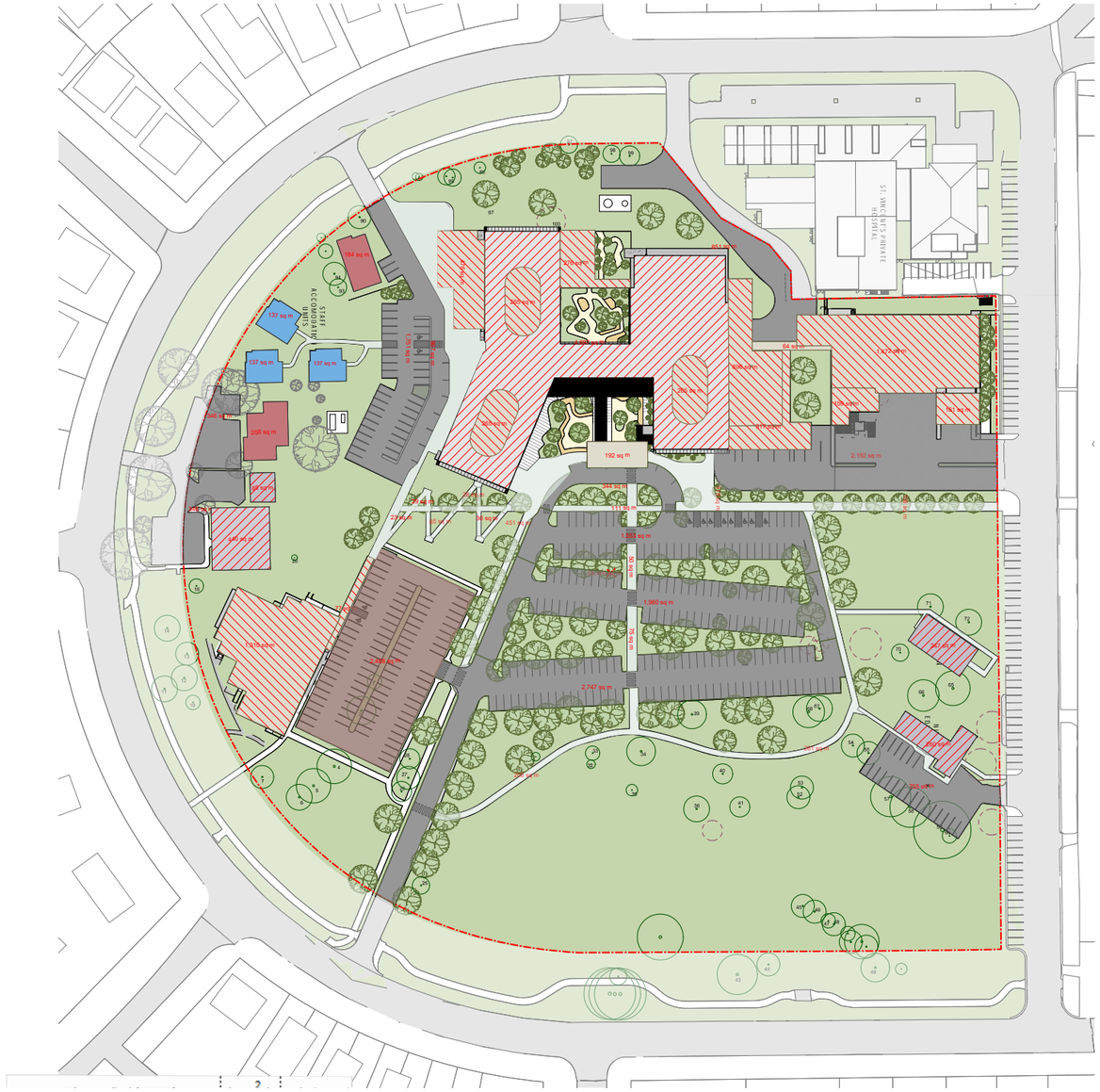
The Contractor shall comply with all DTS performance requirements of Part J3 to Part J8 as shown in the following list:

- Part J3 – Building Sealing
- Park J5 – Air Conditioning and Ventilation Systems
- Part J6 – Artificial Lighting and Power
- Part J7 – How Water Supply and Swimming Pool and Spa Pool Plant
- Part J8 –Facilities for Energy Monitoring

Compliance with BCA Section J Part J3 to Part J8 as listed above are the responsibility of the relevant consultants & contractors

Green Star

The proposed development will achieve an equivalent design that meets Best Practice 4 Star Green Star Design & As Built v1.2. The project is targeting 57.8 points in order to achieve the 45 required points to achieve 4 stars. The reconfiguration of the building through the enhanced design process has resulted in significant improvements in access to views and daylight from within the building. The enhanced design has also disaggregated larger masses of bitumen as part of the landscape urban design and the project's heat island reduction measures. In assessing the Heat Island Effect, DJRD has reviewed the proportion of vegetation and permeable surfaces compared to built and paved areas. Of the 66,529m2 site, 71.52% is vegetation, and 76.34% of the site is vegetation plus concrete paths and driveways of solar reflectance index (SRI) > 39.



Hospital Campus - Heat Island Diagram

djrd
architects

16.0 CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

Crime prevention through environmental design (CPTED) seeks to influence the design of buildings and places by:

- Increasing the perception of risk to criminals by increasing the possibility of detection, challenge and capture
- Increasing the effort required to commit crime by increasing the time, energy or resources which need to be expended
- Reducing the potential rewards of crime by minimising, removing or concealing 'crime benefits'
- Removing conditions that create confusion about required norms of behaviour

CPTED principles for minimising risk have been considered and incorporated throughout the design of the proposed redevelopment of the hospital, including the hospital grounds and outdoor/publicly accessible areas, as well as the hospital building.

Within the building itself, strategies for security and safety have been designed in detail over a series of workshops with the stakeholders, and this has taken into account surveillance and access control across the varying public/operational hours within the hospital. This overview of the implementation of CPTED principles focuses on the environmental aspects of crime prevention throughout the site and the more public aspects of the hospital.

The buildings located across the precinct are interlinked by primary and secondary circulation paths. Primary paths provide direct access between buildings while the secondary paths provide public amenity through the 'parkland' of the site, and could also be used by some patients in rehabilitation. Located on the hospital grounds there are four main car parks; the main 'upper' car park and the 'lower' car park, which are general public car parks for visitors, a staff car park adjacent to the staff entry, and a car park outside the Nurse Education building.

Surveillance - surveillance is incorporated throughout the hospital via natural and technical means

- Clear sight lines will be achieved from the main entry to the entry courtyard via the glazed foyer wall, providing views out from the reception point and security desk at the main entry (normal hospital operating hours) and from the reception point within the Emergency Department (24 hours), as well as from the courtyard cafe.
- Landscaping within car parks and along paths specifies a combination of tall canopy trees with low level planting, meaning that sight lines and passive surveillance within these spaces at eye level are not significantly obstructed by landscaping
- Primary circulation paths, car parks and courtyards will be highly illuminated while secondary paths will have general support lighting – this aims encourage use of primary circulation paths at night
- Security cameras will monitor and record activity along primary paths and within car parks. Signage will clearly indicate the operation of security cameras to deter antisocial behaviour

Access Control – physical and symbol barriers that attract, channel or restrict the movement of people

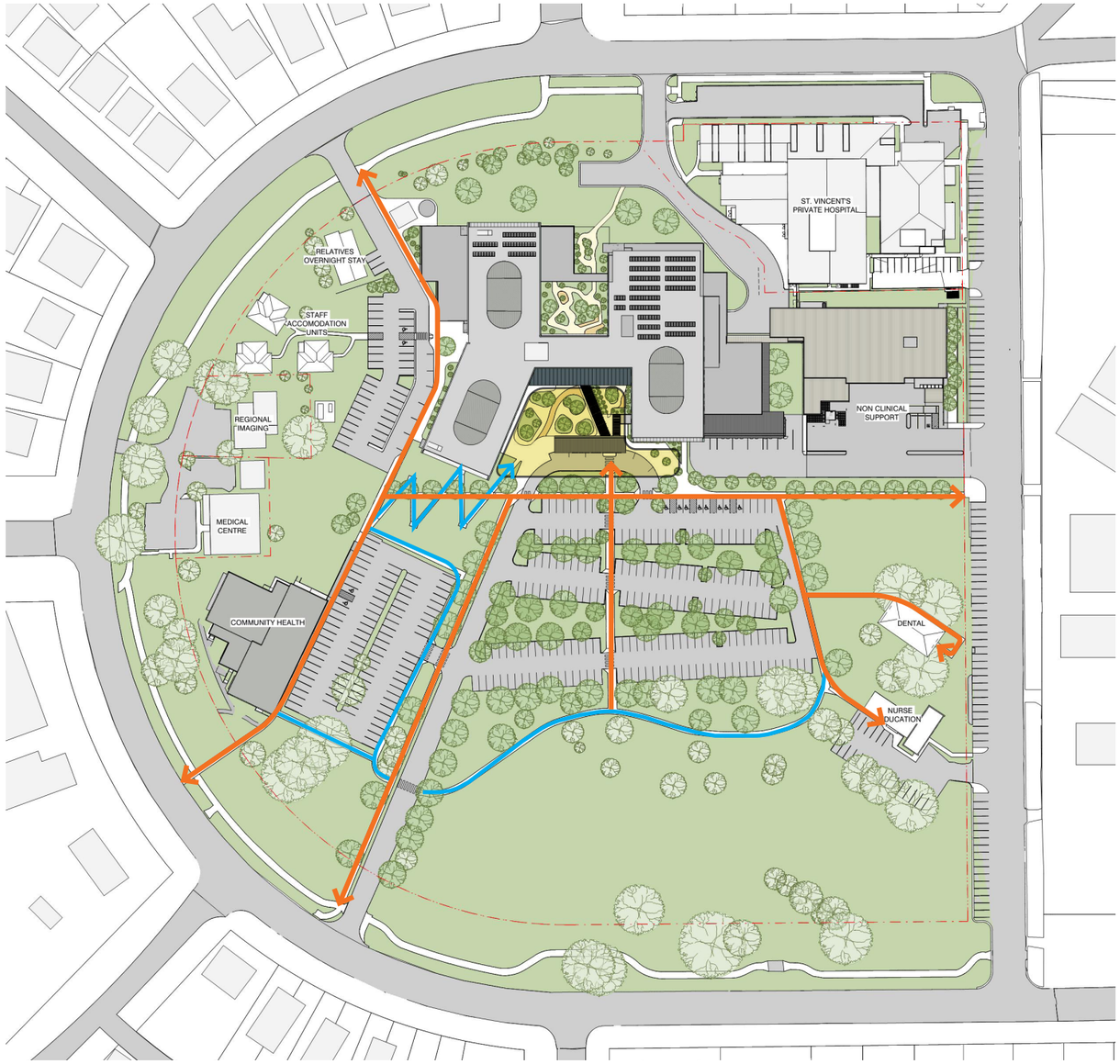
- The doors to the main entry (normal hospital operating hours) and Emergency Department (24 hours) freely open into the reception areas for these spaces, all other doors from the outside of the hospital in, are access controlled
- Doors within the hospital building will restrict / control access between public and secure areas/departments
- Signage at entries to the staff car park will indicate general public presence is not appropriate

Territorial Reinforcement – community ownership of public space

- Areas surrounding the entry courtyard are places where visitors to the hospital will be encouraged to meet, through attractive amenities including overlaps with the café opening into the courtyard, seating, art, landscaping and shading
- Seating and waiting areas outside of this courtyard/entry zone will be minimised to encourage people to gather instead around the entry

Space Management – popular public space that is attractive, well maintained, and well used

- Resilient and available materials have been selected, particularly at low levels of the building, and within the public domain. This enables quick and simple simple cleaning, repair or replacement in the case of damage or vandalism



djrd
architects

17.0 STAGING

The project team has developed a comprehensive staging strategy to allow for the transformation of the existing site. This staging strategy includes a series of early and enabling works that have been scheduled to allow for a systematic approach of decanting existing services to allow the hospital to continue to operate with limited disruption of services.

This strategy has been organised as a series of steps that have been further sub grouped in relation to both planning approval processes and potential contractor procurement as summarised in the following table and as outlined in the staging diagrams.

Phase Description
Phase 1 Early
Demolition of Remaining Infrastructure within Main Works Boundary
Installation of New Site Infrastructure (Substation / Generator / Fire System)
Construction of new Clinical Services Building
Construction of New Western Car park
Commissioning of new Clinical Services Building
Phase 2
Completion of Construction of Southern Courtyard & Interface Works
Phase 3
Demolition of Existing Clinical Services Building & Adjoining Structures
Demolition of Existing Car parks
Modification of connections to Noorebar Avenue & existing Main Carpark
Construction of new Main Car park
Phase 4
Removal of Temporary Renal Building
Phase 5
Removal of Temporary Car park