



# ENVIRONMENTAL IMPACT STATEMENT

Griffith Base Hospital Redevelopment

Prepared for  
**HEALTH INFRASTRUCTURE**  
15 April 2021



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Project Code	P0014571
Report Number	Final

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# SIGNED DECLARATION

## SUBMISSION OF ENVIRONMENTAL IMPACT STATEMENT

### Environmental Assessment prepared by:

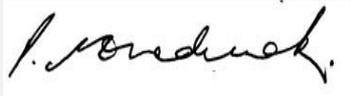
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Address:	Urbis Pty Ltd Level 8, 123 Pitt Street Sydney NSW 2000
In respect of:	SSD-9838218

### Applicant and Land Details:

Applicant:	NSW Health Infrastructure
Applicant address	1 Reserve Road, St Leonards, NSW 2065
Land to be developed:	5-39 Animoo Avenue, Griffith NSW 2680
Legal description:	Lot 2 in Deposited Plan 1043580
Project Summary	Construction of a four-storey Clinical Services Building; demolition of buildings; site works including roads, car parking; landscaping; and signage.

We certify that the content of the Environmental Impact Statement, to the best of our knowledge, has been prepared:

- In accordance with the Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*;
- Contains all available information relevant to the environmental assessment of the development, activity or infrastructure to which that statement relates; and
- The information contained in this statement is neither false nor misleading.

Name/Position:	Peter Strudwick, Director	Jayne Klein, Associate Director	Georgia McKenzie, Consultant
Signature:			
Date:	14 April 2021	14 April 2021	14 April 2021

## GLOSSARY AND ABBREVIATIONS

Reference	Description
ACHAR	Aboriginal Cultural Heritage Assessment Report
AQIA	Air Quality Impact Assessment
ARI	Average Recurrence Interval
BAM	Biodiversity Assessment Method
BC Act	<i>Biodiversity Conservation Act 2016</i>
BC Reg	<i>Biodiversity Conservation Regulation 2017</i>
BDAR	Biodiversity Development Assessment Report
CEEC	Critically Endangered Ecological Community
CDA	Concept Development Application
CEMP	Construction Environmental Management Plan
CMP	Construction Management Plan
CTMP	Construction Traffic Environmental Plan
DCP	Development Control Plan
DPIE	NSW Department of Planning, Industry and Environment
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPA Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EIS	Environmental Impact Statement
EPA	NSW Environment Protection Authority
HIPAP	Hazardous Industry Planning Advisory Paper
LEP	Local Environmental Plan
MNES	Matters of National Environmental Significance
NRAR	Natural Resource Access Regulator
OEMP	Operational Environmental Management Plan
PBP	Planning for Bushfire Protection
PCT	Plant Community Type

<b>Reference</b>	<b>Description</b>
POM	Plan of Management
PSI	Preliminary Site Investigation
SAIL	Serious and Irreversible Impacts
SARs	Commonwealth Supplementary Assessment Requirements
SEARs	Secretary's Environmental Assessment Requirements
SEPP	State Environmental Planning Policy
Site	Lot 2 in Deposited Plan 1043580
SRD SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2009</i>
SSD	State Significant Development
SSDA	State Significant Development Application
TIA	Traffic Impact Assessment
UXO	Unexploded Ordnance
WMP	Waste Management Plan
WSUD	Water Sensitive Urban Design

# EXECUTIVE SUMMARY

The Environmental Impact Statement (EIS) has been prepared on behalf of NSW Health Infrastructure in support of a State Significant Development Application (SSDA) for the construction of the new Griffith Base Hospital at 5-39 Animoo Avenue, Griffith.

The SSDA seeks consent for the construction of a four-storey Clinical Services Building (CSB); demolition of buildings; and site works including roads, car parking, landscaping and signage.

Development for the purposes of a hospital with a capital investment value (CIV) of more than \$30 million is identified in Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* and is therefore declared to be State Significant Development (SSD) for the purposes of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*. A CIV Statement has been prepared by MBM that confirms the project has a CIV of greater than \$30 million. This is provided under a separate cover.

This EIS has been prepared to support the SSDA and responds to the relevant matters listed within the Secretary's Environmental Assessment Requirements (SEARs) issued on 29 October 2020 (refer to **Appendix B**).

Figure 1 Photomontage



Source: DRJD Architects

## BACKGROUND

In 2018, the NSW Government announced the full redevelopment of Griffith Base Hospital. The redevelopment involves the planning, design and delivery of a hospital campus designed to meet the needs of the Griffith community both now and into the future.

Two alternatives were considered:

1. Option 1 – 'Do nothing' or
2. Option 2 – 'Demolish and construct buildings.'

### Option 1 – Do Nothing

The majority of existing buildings and facilities are outdated and unsuited to the delivery of contemporary models of care. The 'Do Nothing' approach would mean Griffith Hospital is not operating to its highest potential and not responding to health services demands and community expectations regarding health services within the Murrumbidgee Local Health District.

## Option 2 – Demolish and Construct

Option 2 allows Health Infrastructure to respond to current and future demand by replacing outdated building stock with contemporary models of care. It will also allow Health Infrastructure to commence early works on the site which will simplify the staging process during the future main works build and allow the hospital to maintain operations with minimal disruption to patients, staff and visitors.

## THE SITE

The SSDA applies to 5-39 Animoo Avenue, Griffith and is legally described as Lot 2 DP1043580. The site is an irregular shaped parcel of land and occupies an area of approximately 6.4 hectares.

Development on the site has occurred in a piece-meal manner over a long period of time. As a result, several buildings and facilities are now becoming outdated. The primary objective of the proposed works is to demolish poor quality building stock, relocate services into contemporary facilities and provide new integrated and contemporary hospital facilities that respond to current and future demand.

The existing hospital comprises a tightly arranged series of buildings of varying ages and conditions. A total of 32 buildings are located across the site, connected by corridors and covered walkways. The buildings are clustered towards the centre of the site, set back from Animoo Avenue, Noorebar Avenue and Warrambool Street by areas of grassed lawn.

The medical services block is a large two storey structure at the southern end of the main campus. This building contains the main entrance, emergency department, medical imaging, operating theatres and administration facilities. Inpatient accommodation is in three separate freestanding buildings distributed across the site and is linked to the medical services block by a corridor system. Clinical and non-clinical support facilities are also located across the campus.

Griffith is a major regional city in the Riverina area of New South Wales, located approximately 570km west of Sydney, 360km north-west of Canberra, and 180km north-west of Wagga Wagga. It has a population of approximately 26,000 people and services a far greater population catchment area. The site is within the Murrumbidgee Local Health District (MLHD).

## DEVELOPMENT DESCRIPTION

The key features of the proposal are summarised below:

- Demolition of building 25;
- Construction of a new four-storey Clinical Services Building, containing:
  - Main entry with retail café
  - Emergency department with acute beds, resuscitation bays, consulting rooms and an Emergency Short Stay Unit (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 (clinical care that reduces the length of stay in hospital or may avoid an admission altogether) and Renal
  - Pedestrian link to St Vincent’s Private Community Hospital
  - Pharmacy
  - Pathology
  - Medical records
  - Administration facilities
  - Perioperative unit with two operating theatres and a procedure room
  - Critical care / intensive care unit (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;
- Demolition of remaining buildings vacated after commissioning of the new hospital including the existing medical services block;
- Construction of site works including roads, car parking and landscaping; and
- Signage.

## PLANNING CONTROLS

This EIS considers the relevant regulatory framework applicable to the site and the proposal and contains an assessment of the proposal against the following statutory controls and regulatory instruments:

- *State Environmental Planning Policy (State and Regional Development) 2011*
- *State Environmental Planning Policy (Infrastructure) 2007*
- *State Environmental Planning Policy No. 64 – Advertising and Signage*
- *State Environmental Planning Policy No. 55 – Remediation of Land*
- *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*
- *Draft State Environmental Planning Policy (Remediation of Land)*
- *Draft State Environmental Planning Policy (Environment)*
- *Griffith Local Environmental Plan 2014.*

The proposal has also been assessed in accordance with its consistency with the key planning objectives, priorities and actions outlined within relevant strategic land use and transport planning policies including:

- *NSW State Priorities*
- *State Infrastructure Strategy 2018 – 2038 Building the Momentum*
- *Future Transport Strategy 2056*
- *Crime Prevention Through Environmental Design (CPTED) Principles*
- *Better Placed: An integrated design policy for the built environment of New South Wales (GANSW, 2017)*
- *Healthy Urban Development Checklist*
- *Draft Greener Places Design Guide*
- *Riverina Murray Regional Plan 2036*
- *Griffith Local Strategic Planning Statement*
- *Griffith Pedestrian and Bicycle Strategy 2018.*

## STAKEHOLDER CONSULTATION

Community and stakeholder engagement has been undertaken by Health Infrastructure in the preparation of the SSDA. This includes direct engagement and consultation with:

- Griffith City Council
- NSW Government Architect's Office
- Transport for NSW

- Griffith Local Aboriginal Land Council
- St Vincent's Private Community Hospital
- Local Health Advisory Committee (LHAC)
- Griffith Aboriginal Medical Service
- Leeton Shire Council
- Hay Shire Council
- Multicultural Council of Griffith
- State MP Helen Dalton
- Adjoining landowners and occupants.

Where relevant, the outcomes of the community and stakeholder engagement have been incorporated into the design of the proposed development.

## IMPACTS AND MITIGATION MEASURES

This EIS assesses the proposed development in relation to relevant planning instruments and policies and considers the likely environmental impacts of the proposal.

Each of the recommended mitigation measures has been reviewed in detail and it is considered that they can be incorporated as conditions of consent and implemented during the demolition, construction and operational phases of the development.

## CONCLUSION

This Environmental Impact Statement (**EIS**) has been prepared on behalf of Health Infrastructure in support of a State Significant Development Application (**SSDA**) for the construction of the Griffith Base Hospital at 5-39 Animoo Avenue, Griffith. The EIS has addressed the issues identified in the SEARs and has been prepared in accordance with Schedule 2 of the EP&A Regulation.

Having regard to the biophysical, economic and social considerations, including the principles of ecologically sustainable development, the proposed development is justified for the following reasons:

- The proposal satisfies the applicable state planning policies, and relevant environmental planning instruments that apply to the site:
  - The proposed uses are permitted with consent and meet the objectives of the R1 General Residential zone pursuant to the *Griffith Local Environmental Plan 2014*, and
  - The proposal is permissible under *State Environmental Planning Policy (Infrastructure) 2007*.
- The Project is consistent with relevant strategic planning documents as it will deliver significant investment in and the construction of critical infrastructure, add to the creation of construction related and long-term operational jobs and will improve health facilities and services for the community of the Riverina-Murray region.
- The specialist plans and reports detail the way in which the building has been sited and design to optimise its potential benefits and minimise its potential impacts on the locality.
- The design of the new Clinical Services Building has been through a process with the GANSW (through the NSW State Design Review Process) with three meetings held since November 2019. The GANSW supports the design response.
- Design measures have been incorporated into the proposal to respond to the topography of the site as well as take advantage of views out to the landscape; to provide a considered landscape strategy that takes advantage of the hospital's parkland setting; to enhance internal amenity through access to natural light in the building, amongst other measures.
- The proposal will have an acceptable level of environmental impact for the following reasons:

- The proposal has no unacceptable traffic impacts and will facilitate increased use of walking, cycling and public transport as a means of travel.
- There are minimal impacts to the surrounding properties.
- The bulk, scale and urban design of the development is appropriate to the site and surrounding context.
- There will be very high positive benefits resulting from the proposed development.
- There will be no adverse impacts upon Aboriginal or European heritage.
- There will be no adverse impacts on biodiversity and the trees to be removed will be replaced by suitable replacement trees.
- Estimated peak stormwater flows from the site will be less than the pre-development flows and there will be no increase in flood levels downstream of the site. The development can be adequately serviced by essential infrastructure without unreasonable demands on existing networks.
- The issues identified during the stakeholder consultation have been incorporated into the final design and detailed works and can be implemented in the construction and operation of the proposed development.

Having considered all relevant matters, we conclude that the proposed development is appropriate for the site and approval is recommended, subject to appropriate conditions of consent.

# 1. INTRODUCTION

## 1.1. PROJECT OVERVIEW

This EIS is submitted to the Department of Planning, Industry and Environment (**DPIE**) on behalf of NSW Health Infrastructure and in support of an application for SSD application number SSD-9838218 at 5-39 Animoo Avenue, Griffith.

Figure 2 Locality Map



Source: Urbis

Figure 3 Aerial Photo of Site



Source: Urbis

The SSDA seeks consent for:

- Demolition of building 25;
- Construction of a new four-storey Clinical Services Building, containing:
  - Main entry with retail café
  - Emergency department with acute beds, resuscitation bays, consulting rooms and an Emergency Short Stay Unit (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 (clinical care that reduces the length of stay in hospital or may avoid an admission altogether) and Renal
  - Pedestrian link to St Vincent’s Private Community Hospital
  - Pharmacy
  - Pathology
  - Medical records
  - Administration facilities
  - Perioperative unit with two operating theatres and a procedure room
  - Critical care / intensive care unit (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;
- Demolition of remaining buildings vacated after commissioning of the new hospital including the existing medical services block;
- Construction of site works including roads, car parking and landscaping; and
- Signage.

The project will provide expanded inpatient, surgical, ambulatory care and critical care services to Griffith Base Hospital. It will also enable the consolidation of several ageing and dislocated buildings into an integrated and contemporary healthcare facility.

Development for the purposes of a hospital with a capital investment value (**CIV**) of more than \$30 million is identified in Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)* and is therefore declared to be State Significant Development (**SSD**) for the purposes of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*. A CIV Statement has been prepared by MBM that confirms the project has a CIV of greater than \$30 million and is provided under a separate cover.

The Minister is the consent authority for the proposal in accordance with section 4.5 of the *Environmental Planning and Assessment Act 1979 (EP&A Act)*. Accordingly, this DA is being lodged with the DPIE as an SSDA seeking development consent for the redevelopment of Griffith Base Hospital.

This EIS has been prepared to support the SSDA and responds to the relevant matters listed within the SEARs issued on 29 October 2020 (refer to **Appendix B**).

## 1.2. PROJECT OBJECTIVES

The key objectives for the proposed development and the way in which these have been achieved are summarised as follows:

- 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 Griffith Base Hospital Clinical Services Plan.
- Replacement of 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 the St Vincent's Private Community Hospital.
- 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.
- Maintaining full operation of the existing services during construction and minimising 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).

The proposal will address the principles of ecologically sustainable development (**ESD**) in accordance with the requirements of the *Environmental Planning and Assessment Regulation 2000 (EP&A Regulation)* and as outlined below.

### Precautionary Principle

The precautionary principle relates to uncertainty around potential environmental impacts and where a threat of serious or irreversible environmental damage exists, lack of scientific certainty should not be a reason for preventing measures to prevent environmental degradation.

This EIS has not identified any serious threats of environmental damage that cannot be adequately mitigated or addressed based on current scientific standards and best practices. In this regard, the proposed development can be considered generally consistent with the precautionary principle.

### Intergenerational Equity

Intergenerational equity ensures the needs of future generations are considered in decision making and that environmental values are maintained or improved for the benefit of future generations.

The proposed development is intended to benefit both the current and future generations and incorporates adequate environmental protection and impact mitigation measures to ensure environmental values are maintained and improved as a result of the development.

### Conservation of biological diversity and ecological integrity

The conservation of biological diversity and ecological integrity is to be a fundamental ESD consideration.

A Biodiversity Development Assessment Report (BDAR) has been prepared by Abel Ecology (**Appendix H**). The report addresses the likely impacts of the proposal on species and ecological communities present on the site. Abel Ecology have identified opportunities to minimise impacts and to assess the credit requirement within the Biodiversity Offsets Scheme identified in Section 7.4 of the *Biodiversity Conservation Act 2016*.

### Improved valuation, pricing and incentive mechanisms

This requires the holistic consideration of environmental resources that may be affected as a result of the development including air, water and the biological realm. It places a high importance on the economic cost to environmental impacts and places a value on waste generation and environmental degradation.

The EIS is supported by specialist reports which provide a comprehensive assessment of the potential environmental impacts of the proposed development, including demand for services and waste generated during the demolition, construction and operational phases. Appropriate mitigation and management measures are recommended to avoid unacceptable impacts.

## **1.3. PROJECT HISTORY**

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

Development on the site has occurred progressively over the years which has resulted in several buildings and facilities becoming outdated. The primary objective of the proposed redevelopment is to demolish poor quality building stock, relocate services into contemporary facilities and provide new integrated and contemporary hospital facilities that respond to current and future demand.

## **1.4. PROJECT ALTERNATIVES**

Health Infrastructure identified two high-level project options which were considered in respect to the identified need for Griffith Base Hospital.

### **Option 1 – Do Nothing**

The majority of existing buildings and facilities are outdated and unsuited to the delivery of contemporary models of care. The 'Do Nothing' approach would mean Griffith Hospital is not operating to its highest potential and not responding to health services demands and community expectations regarding health services within the Murrumbidgee Local Health District.

The 'Do Nothing' option will also inhibit Health Infrastructure from commencing early works which will facilitate the new hospital building (i.e. main works build).

### **Option 2 – Demolish and Construct**

Option 2 allows Health Infrastructure to respond to current and future demand by replacing outdated building stock with contemporary models of care. It will also allow HI to commence early works on the site which will simplify the staging process during the future main works build and allow the hospital to maintain operations with minimal disruption to patients, staff and visitors.

## **1.5. PREFERRED OPTION JUSTIFICATION**

The preferred option is Option 2 which is to proceed with the proposed demolition and construction works. This option is consistent with the principles of ecologically sustainable development, in that it does not give rise to serious or irreversible environmental damage; nor impact the health, diversity and productivity of the natural or built environment.

Within Option 2, six alternatives were considered, as detailed in the Architectural Design Statement at **Appendix E**. Of the six alternatives, Option 4.1/4.2 was chosen as it provides a consolidated building in close proximity to the St Vincent's Private Community Hospital.

## **1.6. SECRETARY'S ENVIRONMENTAL ASSESSMENT REQUIREMENTS**

The following table provides a summary of the SEARs and outlines where the requirements are addressed in the main body of the report or appendices (i.e. within a specialist consultant report).

Table 1 Summary of SEARs

Requirement	Location in EIS
<b>General Requirements</b>	
<p>The Environmental Impact Statement (EIS) must be prepared in accordance with and meet the minimum requirements of clauses 6 and 7 of Schedule 2 of the Environmental Planning and Assessment Regulation 2000 (the Regulation).</p>	<p>Throughout the EIS and Appendices.</p>
<p><b>Environmental Risk Assessment</b></p> <p>Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development.</p>	<p>Throughout the EIS and Appendices.</p>
<p>In addition, the EIS must include:</p> <ul style="list-style-type: none"> <li>▪ an executive summary.</li> <li>▪ a complete description of the development, including: <ul style="list-style-type: none"> <li>○ the need for the development</li> <li>○ justification for the development</li> <li>○ suitability of the site</li> <li>○ alternatives considered</li> <li>○ likely interactions between the development and existing, approved and proposed operations in the vicinity of the site</li> <li>○ a description of any proposed building works</li> <li>○ a description of existing and proposed hospital operations</li> <li>○ site survey plan, showing existing levels, location and height of existing and adjacent structures / buildings and site boundaries</li> <li>○ a detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development</li> <li>○ plans, elevations and sections of the proposed development</li> <li>○ cladding, window and floor details, including materials</li> <li>○ a site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process)</li> <li>○ plans and details of any advertising/business identification signs to be installed, including size, location and finishes</li> <li>○ any staging of the development</li> <li>○ details of construction and decommissioning including timing</li> </ul> </li> </ul>	<p>Throughout the EIS and Appendices.</p>

Requirement	Location in EIS
<ul style="list-style-type: none"> <li>○ an estimate of the jobs that would be created during the construction and operational phases of the development along with details of the methodology to determine the figures provided.</li> <li>▪ a detailed assessment of the key issues identified below, and any other significant issues identified in the risk assessment, including: <ul style="list-style-type: none"> <li>○ a description of the existing environment, using sufficient baseline data and methodology to establish baseline conditions</li> <li>○ an assessment of the potential impacts of all stages of the development on all potentially impacted environments, sensitive receivers, stakeholders and future developments. The assessment must consider any relevant legislation, policies and guidelines</li> <li>○ consideration of the cumulative impacts due to all other developments in the vicinity (completed, underway or proposed)</li> <li>○ identification of all proposed monitoring or required changes to existing monitoring programs</li> <li>○ measures to avoid, minimise and if necessary, offset predicted impacts, including detailed contingency plans for managing any significant risks to the environment and triggers for each action</li> <li>○ details of alternative measures considered.</li> </ul> </li> <li>▪ a consolidated summary of all the proposed environmental management and monitoring measures, identifying all commitments included in the EIS.</li> <li>▪ the reasons why the development should be approved and a detailed evaluation of the merits of the development, including consequences of not carrying out the development.</li> </ul>	
<p><b>Capital Investment Value</b></p> <p>The EIS must be accompanied by a report from a qualified quantity surveyor providing a detailed calculation of the Capital Investment Value (CIV) (as defined in clause 3 of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived.</p>	<p>A CIV Report has been provided to DPIE</p>
<b>Key Issues</b>	
<p><b>1. Statutory and Strategic Context</b></p> <p>Address the statutory provisions contained in all relevant environmental planning instruments, including but not limited to:</p> <ul style="list-style-type: none"> <li>▪ State Environmental Planning Policy (State and Regional Development) 2011</li> <li>▪ State Environmental Planning Policy (Infrastructure) 2007</li> <li>▪ State Environmental Planning Policy No. 64 – Advertising and Signage</li> <li>▪ State Environmental Planning Policy No. 55 – Remediation of Land</li> <li>▪ State Environmental Planning Policy No. 33 – Hazardous and Offensive Development</li> </ul>	<p>Section 4</p>

Requirement	Location in EIS
<ul style="list-style-type: none"> <li>▪ Draft State Environmental Planning Policy (Remediation of Land)</li> <li>▪ Draft State Environmental Planning Policy (Environment)</li> <li>▪ Griffith Local Environmental Plan 2014.</li> </ul> <p>Having regard to the relevant environmental planning instruments:</p> <ul style="list-style-type: none"> <li>▪ address the permissibility of the development, including the nature and extent of any prohibitions.</li> <li>▪ identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards.</li> <li>▪ adequately demonstrate and document how each of the provisions in the listed instruments are addressed, including reference to necessary technical documents.</li> </ul>	
<p><b>2. Policies</b></p> <p>Address the relevant provisions, goals and objectives in all relevant planning policies including but not limited to the following:</p> <ul style="list-style-type: none"> <li>▪ NSW State Priorities</li> <li>▪ State Infrastructure Strategy 2018 – 2038 Building the Momentum</li> <li>▪ Future Transport Strategy 2056</li> <li>▪ Crime Prevention through Environmental Design (CPTED) Principles</li> <li>▪ Better Placed: An integrated design policy for the built environment of New South Wales (Government Architect NSW (GANSW), 2017)</li> <li>▪ Healthy Urban Development Checklist (NSW Health, 2009)</li> <li>▪ Draft Greener Places Design Guide (GANSW)</li> <li>▪ Riverina Murray Regional Plan 2036</li> <li>▪ Griffith Local Strategic Planning Statement</li> <li>▪ Griffith Pedestrian and Bicycle Strategy 2018.</li> </ul>	Section 3
<p><b>3. Built Form and Urban Design</b></p> <ul style="list-style-type: none"> <li>▪ Address the height, density, bulk and scale, setbacks and interface of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces.</li> <li>▪ Address design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colours.</li> <li>▪ Address how Crime Prevention through Environmental Design (CPTED) principles are to be integrated into development.</li> </ul>	Section 6.1, Section 6.2 and Appendix D and Appendix E.

Requirement	Location in EIS
<ul style="list-style-type: none"> <li>▪ Address how good environmental amenity would be provided, including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility.</li> <li>▪ Address how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.</li> </ul> <p>Provide:</p> <ul style="list-style-type: none"> <li>▪ A detailed site and context analysis to justify the proposed site planning and design approach including massing options and preferred strategy for future development.</li> <li>▪ A visual impact assessment that identifies any potential impacts on the surrounding built environment and landscape including views to and from the site and any adjoining heritage items.</li> </ul>	
<p><b>4. Tree Removal and Landscaping</b></p> <p>Provide:</p> <ul style="list-style-type: none"> <li>▪ An Arboricultural impact assessment, prepared by a Level 5 (Australian Qualifications Framework) Arborist which details the number, location and condition of trees to be removed and retained and existing canopy coverage on-site.</li> <li>▪ A detailed site-wide landscape strategy, that <ul style="list-style-type: none"> <li>• details the proposed site planting, including location, number and species of plantings, heights of trees at maturity and proposed canopy coverage.</li> <li>• demonstrates how the proposed development would: <ul style="list-style-type: none"> <li>– contribute to long term landscape setting in respect of the site and the streetscape.</li> <li>– mitigate the urban heat island effect and ensure appropriate comfort levels on-site.</li> <li>– contribute to objectives to increase urban tree canopy cover.</li> </ul> </li> </ul> </li> <li>▪ A detailed landscape plan prepared by a suitably qualified person, which details footpaths and road reserves. Any proposed street trees should be selected in consultation with Council.</li> </ul>	<p>Section 6.1.3, Section 6.17 and Appendix M and Appendix Y</p>
<p><b>5. Environmental Amenity</b></p> <p>Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing, wind impacts and acoustic impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated.</p> <p>Demonstrate how internal amenity for patients and workers would be provided through:</p>	<p>Section 6.2, Appendix E and Appendix V</p>

Requirement	Location in EIS
<ul style="list-style-type: none"> <li>▪ Access to natural daylight and ventilation.</li> <li>▪ Acoustic separation and solar shading provisions.</li> <li>▪ Additional spaces for patients and visitors to gather.</li> <li>▪ Visual and physical access to outdoor landscape from inpatient rooms and waiting and circulation areas.</li> <li>▪ Interior design strategies to promote patient recovery.</li> </ul> <p>Provide:</p> <ul style="list-style-type: none"> <li>• Shadow diagrams.</li> <li>• A view analysis of the site from key vantage points and streetscape locations and public domain including photomontages or perspectives showing the proposed and likely future development.</li> <li>• An analysis of proposed lighting that identifies measures to reduce spill into the surrounding sensitive receivers.</li> <li>• A view impact assessment that has been prepared in accordance with the established planning principles.</li> </ul>	
<p><b>6. Transport and Accessibility</b></p> <p>Include a transport and accessibility impact assessment, which includes, but is not limited to the following:</p> <ul style="list-style-type: none"> <li>▪ Analysis of the existing transport network.</li> <li>▪ Details of the proposed development.</li> <li>▪ Analysis of the impacts due to the operation of the proposed development.</li> <li>▪ Measures to ameliorate any adverse traffic and transport impacts due to the development based on the above analysis.</li> <li>▪ Identify infrastructure (if required) to ameliorate any impacts on traffic efficiency and road safety impacts associated with the proposed development, including details on improvements required to affected intersections.</li> <li>▪ Analysis of the impacts of the traffic generated during construction of the proposed development.</li> <li>▪ A preliminary Construction Traffic and Pedestrian Management Plan.</li> </ul>	<p>Section 6.3 and Appendix F and Appendix G</p>
<p><b>7. Ecologically Sustainable Development (ESD)</b></p> <p>Detail:</p> <ul style="list-style-type: none"> <li>▪ How ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) would be incorporated in the design and ongoing operation phases of the development.</li> <li>▪ Proposed measures to minimise consumption of resources, water (including water sensitive urban design) and energy.</li> </ul>	<p>Section 6.4, Appendix O and Appendix Z</p>

Requirement	Location in EIS
<ul style="list-style-type: none"> <li>▪ How the future development would be designed to consider and reflect national best practice sustainable building principles to improve environmental performance and reduce ecological impact. This should be based on a materiality assessment and include waste reduction design measures, future proofing, use of sustainable and low-carbon materials, energy and water efficient design (including water sensitive urban design) and technology and use of renewable energy.</li> </ul> <p>Include:</p> <ul style="list-style-type: none"> <li>▪ An assessment against an accredited ESD rating system or an equivalent program of ESD performance. This should include a minimum rating scheme target level.</li> <li>▪ A statement regarding how the design of the future development is responsive to the CSIRO projected impacts of climate change.</li> <li>▪ An Integrated Water Management Plan detailing any proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design.</li> </ul>	
<p><b>8. Heritage</b></p> <ul style="list-style-type: none"> <li>▪ Provide a statement of significance and an assessment of the impact on the heritage significance of the heritage items on and adjacent to the site in accordance with the guidelines in the NSW Heritage Manual (Heritage Office and DUAP, 1996) and Assessing Heritage Significance (OEH, 2015).</li> <li>▪ Address any archaeological potential and significance on the site and the impacts the development may have on this significance.</li> </ul>	<p>Section 6.6 and Section 6.8 and Appendix P and Appendix Q</p>
<p><b>9. Aboriginal Cultural Heritage</b></p> <ul style="list-style-type: none"> <li>▪ Provide an Aboriginal Cultural Heritage Assessment Report (ACHAR) that: <ul style="list-style-type: none"> <li>– identifies and describes the Aboriginal cultural heritage values that exist across the site.</li> <li>– includes surface surveys and test excavations where necessary.</li> <li>– has been prepared in accordance with the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH, 2010).</li> <li>– incorporates consultation with Aboriginal people in accordance with Aboriginal Cultural Heritage Consultation Requirements for Proponents (Department of Environment, Climate Change and Water, 2010).</li> <li>– documents the significance of cultural heritage values of Aboriginal people who have a cultural association with the land.</li> <li>– identifies, assesses and documents all impacts on the Aboriginal cultural heritage values.</li> <li>– demonstrates attempts to avoid any impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR and EIS must outline measures proposed to mitigate impacts. Any</li> </ul> </li> </ul>	<p>Section 6.7 and Appendix Q</p>

Requirement	Location in EIS
<p>objects recorded as part of the assessment must be documented and notified to the Environment, Energy and Science Group of the Department of Planning, Industry and Environment.</p> <ul style="list-style-type: none"> <li>▪ Any Aboriginal objects recorded as part of the Aboriginal Cultural Heritage Assessment must be documented and notified to the Aboriginal Heritage Information Management System (AHIMS) within Heritage NSW of the Department of Premier and Cabinet.</li> <li>▪ Demonstrate that Aboriginal themed artwork, place naming, planting and other cultural features has been incorporated into the design of the proposed development.</li> </ul>	
<p><b>10. Social Impacts</b></p> <p>Prepare a social impact assessment, which:</p> <ul style="list-style-type: none"> <li>▪ Identifies and analyses the potential social impacts of the development, from the points of view of the affected community/ies and other relevant stakeholders, i.e. how they expect to experience the project.</li> <li>▪ Considers how potential environmental changes in the locality may affect people’s way of life; community; access to and use of infrastructure, services, and facilities; culture; health and wellbeing; surroundings; personal and property rights; decision-making systems; and fears and aspirations, as relevant and considering how different groups may be disproportionately affected.</li> <li>▪ Assesses the significance of positive, negative, and cumulative social impacts considering likelihood, extent, duration, severity/scale, sensitivity/importance, and level of concern/interest.</li> <li>▪ Includes mitigation measures for likely negative social impacts, and any proposed enhancement measures.</li> <li>▪ Details how social impacts will be adaptively monitored and managed over time.</li> </ul>	Section 6.5 and Appendix N
<p><b>11. Noise and Vibration</b></p> <p>Provide a noise and vibration impact assessment that:</p> <ul style="list-style-type: none"> <li>▪ Includes a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation and construction.</li> <li>▪ Details the proposed construction hours and provide details of, and justification for, instances where it is expected that works would be carried out outside standard construction hours.</li> <li>▪ Includes a quantitative assessment of the main sources of operational noise.</li> <li>▪ Outlines measures to minimise and mitigate the potential noise impacts on nearby sensitive receivers.</li> <li>▪ Considers sources of external noise intrusion in proximity to the site (including, road, rail and aviation operations) and identifies building</li> </ul>	Section 6.9 and Appendix R

Requirement	Location in EIS
<p>performance requirements for the proposed development to achieve appropriate internal amenity standards.</p> <ul style="list-style-type: none"> <li>▪ Demonstrates that the assessment has been prepared in accordance with policies and guidelines relevant to the context of the site and the nature of the proposed development.</li> </ul>	
<p><b>12. Biodiversity</b></p> <ul style="list-style-type: none"> <li>▪ Provide a Biodiversity Development Assessment Report (BDAR) that assesses the biodiversity impacts of the proposed development in accordance with the requirements of Section 7.9 of the <i>Biodiversity Conservation Act 2016</i>, <i>Biodiversity Conservation Regulation 2017</i> and Biodiversity Assessment Method, except where a BDAR waiver has been issued in relation to the development or the development is located on biodiversity certified land.</li> <li>▪ Where a BDAR is not required because a BDAR waiver has been issued in relation to the development, provide: <ul style="list-style-type: none"> <li>– a copy of the BDAR waiver and demonstrate that the proposed development is consistent with that covered in BDAR waiver.</li> <li>– assessment of flora and fauna impacts where significant vegetation or flora and fauna values would be affected by the proposed development.</li> </ul> </li> </ul>	<p>Section 4.2 and Section 6.16, Appendix H</p>
<p><b>13. Contributions</b></p> <p>Identify:</p> <ul style="list-style-type: none"> <li>▪ Any Section 7.11/7.12 Contribution Plans, Voluntary Planning Agreements or Special Infrastructure Contribution Plans that affect land to which the application relates or the proposed development type.</li> <li>▪ Any contributions applicable to the proposed development under the identified plans and/or agreements. Justification is to be provided where it is considered that the proposed development is exempt from making a contribution.</li> <li>▪ Any actions required by a Voluntary Planning Agreement or draft Voluntary Planning Agreement affecting the site or amendments required to a Voluntary Planning Agreement affected by the proposed development.</li> </ul>	<p>Section 6.20</p>
<p><b>14. Staging</b></p> <ul style="list-style-type: none"> <li>▪ Assess impacts of staging where it is proposed and detail how construction works and operations would be managed to ensure public safety and amenity on and surrounding the site.</li> </ul>	<p>Section 2.2.2 and Appendix E</p>
<p><b>15. Utilities</b></p> <p>In consultation with relevant service providers:</p> <ul style="list-style-type: none"> <li>▪ Assess the impacts of the development on existing utility infrastructure and service provider assets surrounding the site.</li> </ul>	<p>Section 6.14 and Appendix U and Appendix V</p>

Requirement	Location in EIS
<ul style="list-style-type: none"> <li>▪ Identify any infrastructure upgrades required off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained.</li> <li>▪ Provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development.</li> </ul>	
<p><b>16. Stormwater Drainage</b></p> <p>Provide:</p> <ul style="list-style-type: none"> <li>▪ A preliminary stormwater management plan for the development that: <ul style="list-style-type: none"> <li>– is prepared by a suitably qualified person in consultation with Council and any other relevant drainage authority.</li> <li>– details the proposed drainage design for the site including on-site detention facilities, water quality measures and the nominated discharge point.</li> <li>– demonstrates compliance with Council or other drainage authority requirements.</li> </ul> </li> <li>▪ Stormwater plans detailing the proposed methods of drainage without impacting on the downstream properties.</li> <li>▪ Where drainage infrastructure works are required that would be handed over to Council, provide full hydraulic details and detailed plans and specifications of proposed works that have been prepared in consultation with Council and comply with Council's relevant standards.</li> </ul>	Section 6.18 and Appendix Z
<p><b>17. Flooding</b></p> <ul style="list-style-type: none"> <li>▪ Identify any flood risk on-site in consultation with Council and having regard to the most recent flood studies for the project area and the potential effects of climate change, sea level rise and an increase in rainfall intensity.</li> <li>▪ Assess the impacts of the development, including any changes to flood risk on-site or off-site, and detail design solutions to mitigate flood risk where required.</li> </ul>	Section 6.18 and Appendix Z
<p><b>18. Soil and Water</b></p> <p>Provide:</p> <ul style="list-style-type: none"> <li>▪ An assessment of potential impacts on surface and groundwater (quality and quantity), soil, related infrastructure and watercourse(s) where relevant.</li> <li>▪ Details of measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles.</li> <li>▪ An assessment of salinity and acid sulphate soil impacts, including a Salinity Management Plan and/or Acid Sulphate Soils Management Plan, where relevant.</li> </ul>	Section 6.19 and Appendix Z

Requirement	Location in EIS
<p><b>19. Waste</b></p> <ul style="list-style-type: none"> <li>▪ Identify, quantify and classify the likely waste streams to be generated during construction and operation.</li> <li>▪ Describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste.</li> <li>▪ Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site.</li> </ul>	<p>Section 6.15 and Appendix W and X</p>
<p><b>20. Contamination</b></p> <ul style="list-style-type: none"> <li>▪ Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with SEPP 55. This must include the following prepared by certified consultants recognised by the NSW Environment Protection Authority: <ul style="list-style-type: none"> <li>– Preliminary Site Investigation (PSI).</li> <li>– Detailed Site Investigation (DSI) where recommended in the PSI.</li> <li>– Remediation Action Plan (RAP) where remediation is required. This must specify the proposed remediation strategy.</li> <li>– Preliminary Long-term Environmental Management Plan (LEMP) where containment is proposed on-site.</li> </ul> </li> <li>▪ Provide a hazardous materials survey of existing aboveground buildings that are proposed to be demolished or altered.</li> <li>▪ Assess how the development would comply with Council’s Contamination Land Management Policy.</li> </ul>	<p>Section 6.10 and Appendix I, Appendix J and Appendix L</p>
<p><b>21. Hazards and Risks</b></p> <p><b>Provide:</b></p> <ul style="list-style-type: none"> <li>▪ A preliminary risk screening completed in accordance with SEPP 33, providing a clear indication of class (and any subsidiary hazard), quantity and location of all dangerous goods and hazardous materials associated with the development.</li> <li>▪ Should the preliminary risk screening indicate that the development is “potentially hazardous”, a Preliminary Hazard Analysis must be prepared.</li> </ul>	<p>Section 6.11 and Appendix K</p>
<p><b>Plans and Documents</b></p> <p>The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the <i>Environmental Planning and Assessment Regulation 2000</i>. These are to be provided as part of the EIS rather than as separate documents.</p> <ul style="list-style-type: none"> <li>▪ Section 10.7(2) and (5) Planning Certificates (previously Section 149(2) and (5) Planning Certificate).</li> </ul>	<p>Throughout EIS and appendices</p>

Requirement	Location in EIS
<ul style="list-style-type: none"> <li>▪ Design report to demonstrate how design quality would be achieved in accordance with the above Key Issues including: <ul style="list-style-type: none"> <li>– architectural design statement</li> <li>– diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal</li> <li>– detailed site and context analysis</li> <li>– analysis of options considered to justify the proposed site planning and design approach</li> <li>– summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice</li> <li>– summary report of consultation with the community and response to any feedback provided.</li> </ul> </li> <li>▪ Geotechnical and Structural Report.</li> <li>▪ Accessibility Report.</li> </ul>	
<p><b>Consultation</b></p> <p>During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, relevant special interest groups, including local Aboriginal land councils and registered Aboriginal stakeholders and affected landowners. In particular, you must consult with:</p> <ul style="list-style-type: none"> <li>▪ the relevant Council</li> <li>▪ Government Architect NSW (through the NSW SDRP process)</li> <li>▪ Transport for NSW.</li> </ul> <p>Consultation should commence as soon as practicable to inform the scope of investigation and progression of the proposed development.</p> <p>The EIS must describe and evidence the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided.</p>	Section 5

## 1.7. STRUCTURE OF THE EIS

The EIS provides the following sections:

- **Section 2:** describes the site and provides a description of the proposed development.
- **Section 3:** details the strategic context including the planning policies and guidelines relevant to the site and the proposal.
- **Section 4:** provides a detailed assessment of the State, regional and local strategic planning policies and the development contributions framework.
- **Section 5:** details the community and stakeholder engagement undertaken by the applicant as part of the preparation of this EIS.

- **Section 6:** provides a comprehensive assessment of the existing environment, potential impacts, and mitigation measures for each of the key criteria in the SEARs.
- **Section 7:** lists the recommendations and mitigation measures based on the technical studies undertaken as part of this application.
- **Section 8:** provides an assessment of the proposal against the matters of consideration listed in Section 4.15 of the EP&A Act 1979.
- **Section 9:** provides concluding statements and a recommendation for determination of the application.

## 1.8. PROPONENT DETAILS

This EIS has been prepared on behalf of Health Infrastructure. A range of specialist consultants were engaged by Health Infrastructure to assist with the preparation of plans and technical documentation, including:

Table 2 Project Team

Discipline	Consultant
Statutory Planning	Urbis
Architecture, Built Form, Urban Design	DJRD Architects
Landscape	Site Image Landscape Architects
Arboricultural Impacts	Creative Planning Solutions
Biodiversity	Abel Ecology
BCA Compliance	Blackett Maguire + Goldsmith
Accessibility	Blackett Maguire + Goldsmith
Civil, Stormwater and Flooding	Bonacci
Land Surveyor	Rivland Surveyors
Ecologically Sustainable Development	LCI Consulting
Aboriginal Heritage	Comber Consultants
European Heritage	Comber Consultants
Transport and Traffic	PTC Consultants
Noise and Vibration	Indigecco/ EMM Consulting
Social Impact	Urbis
Hydraulic and Fire Protection Services	Stantec Australia
Mechanical and Electrical Services	Steensen Varming
SEPP 33 Assessment	Arup
Geotechnical	JK Geotechnics

<b>Discipline</b>	<b>Consultant</b>
Environmental Site Investigation	JK Environments
Asbestos and Hazardous Materials	Coffey / GHD
Waste Management	Encycle Consulting
Quantity Surveyor	MBM
Remediation	JK Environments

## 2. PROJECT DESCRIPTION

The SSDA has been lodged as a State Significant Development (SSD) in accordance with section 4.36(2) of the *Environmental Planning and Assessment Act 1979* (the **EP&A Act**).

The existing GFA on the site is 13,700m<sup>2</sup> and this will increase to 18,145m<sup>2</sup> as a result of the proposed development. The existing maximum building height is approximately 11m and the proposed maximum building height is 22.195m. The pre-development parking capacity is a total of 314 parking spaces and the proposed car parking is 345 standard parking spaces and 12 accessible parking spaces. The existing hospital provides 88 hospital beds and this will increase to 117 as a result of the proposed development.

The key features of the proposed development are summarised in the table below.

Table 3 Numeric Overview of Proposal

Descriptor	Proposed
Site Location	5-39 Animoo Avenue, Griffith
Site Area	64,023m <sup>2</sup>
Land Use	Hospital
Gross Floor Area	18,145m <sup>2</sup>
Height of Building	22.195m
Landscaped Area	35,272m <sup>2</sup>
Standard Parking Spaces	345
Accessible parking spaces	12
Bicycle Parking	30 bicycle spaces
Construction Hours	Monday to Friday 7am to 6pm Saturday 8am to 1pm, and No construction works is to take place on Sundays or public holidays
Operational Details	24 hours a day, 7 days a week
Hospital Beds	117
Number of Employees	86 full time equivalent additional employees, combining to a total of 441 full time employees

The site and proposed development are discussed in further detail within the following sections of the report.

### 2.1. THE SITE AND SURROUNDING CONTEXT

The site is located at 5-39 Animoo Avenue, Griffith, also referred to as 1 Noorebar Avenue. The site is legally described as Lot 2 in Deposited Plan 1043580 and has an area of approximately 6.4 hectares. A site survey showing the geographic features and contours of the site is provided in **Appendix C**. A Site Location Map is provided below.

The site falls approximately 10 metres and generally slopes toward the south (Noorebar Avenue), with a portion falling toward the north-west corner to Animoo Avenue. There are internal overland flow paths between buildings which traverse the site, following the exiting ground falls. There are existing pit and pipe stormwater networks within the site that are connected to either the kerb (Animoo Avenue and Warrambool Street) or the street stormwater pit and pipe system in Noorebar Avenue.

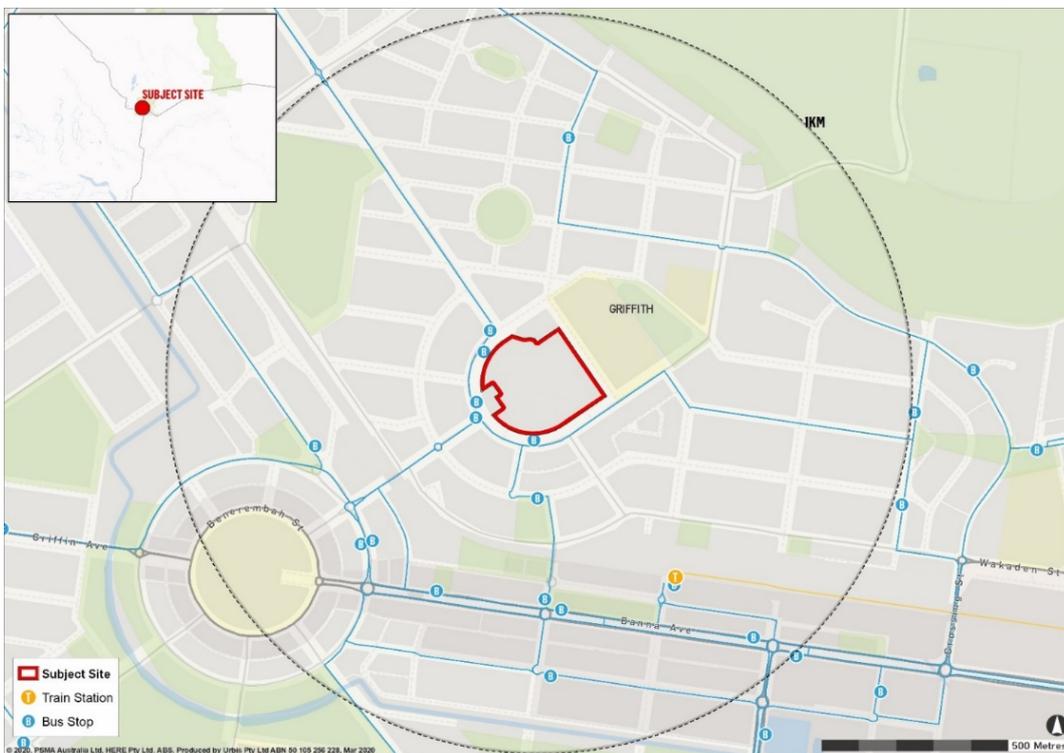
The site contains Griffith Base Hospital which is situated on a D-shaped block and set back from the road by landscaping. It has frontage to Noorebar Avenue, Animoo Avenue and Warrambool Street. The hospital occupies the majority of the block with subdivisions made for St Vincent's Private Community Hospital, Griffith Medical Centre and Laverty Pathology.

The existing hospital is an 88-bed facility and comprises an emergency department and intensive care unit. The hospital is also equipped with telehealth cameras to connect the team in Griffith with specialists across the NSW Critical Care Advisory Service.

The hospital comprises several attached and detached buildings, all of which are of varying size, age and condition. Health services provided at the hospital include:

- Alcohol and drug unit;
- Coronary care unit;
- Domiciliary care unit;
- Emergency department;
- Intensive care unit;
- Maintenance renal dialysis unit;
- Obstetric services;
- Oncology unit;
- Pediatric service; and
- Rehabilitation unit.

Figure 4 Site Location Map



Source: Urbis

Figure 5 Existing Site Plan



Source: DJRD

## Access and Parking

### Pedestrian Access

Footpaths are provided around the hospital frontage, which are generally wide and can adequately accommodate two-way pedestrian flow. Most buildings have at least one pedestrian access point as well as internal access via the main corridor system which links the main clinical facilities.

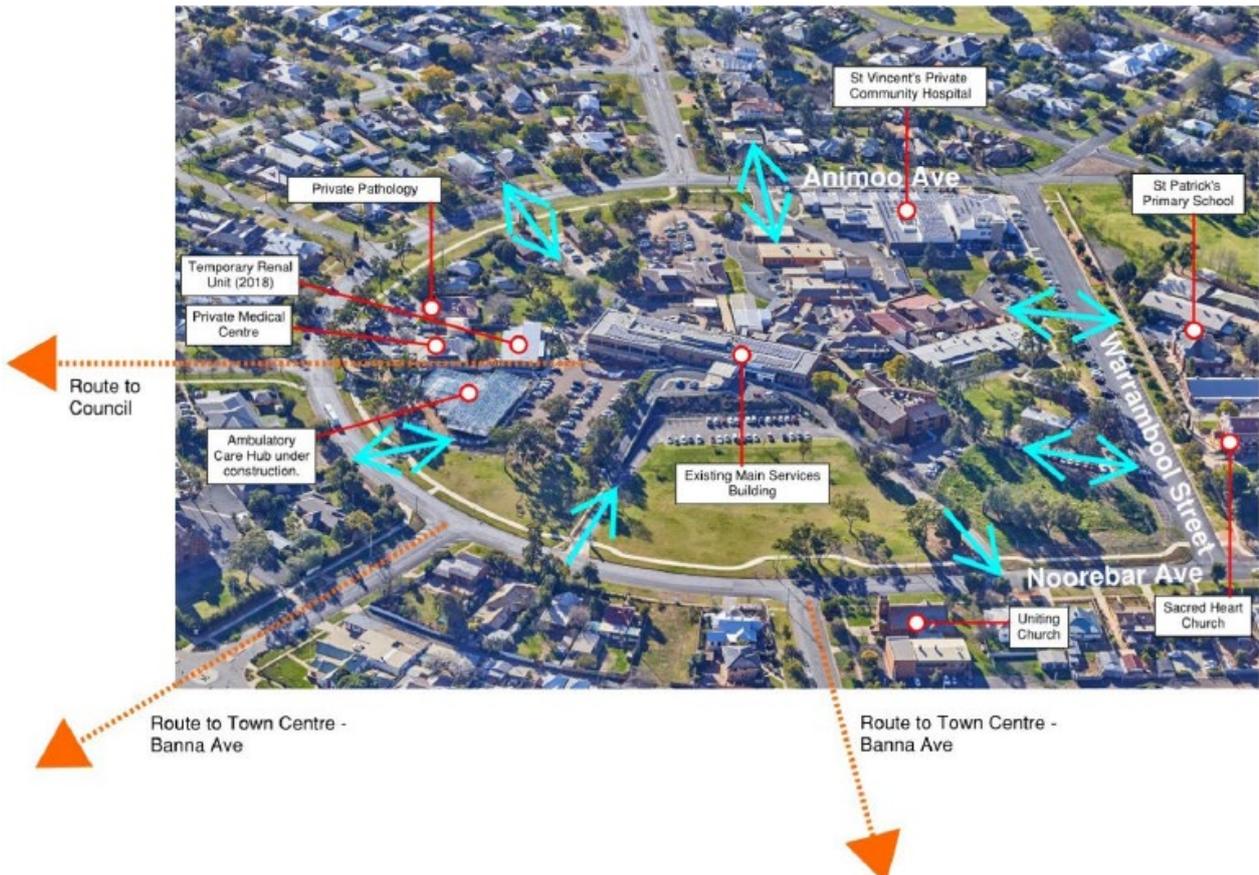
### Vehicular Access

There are several vehicular access points available from Noorebar Avenue, Animoo Avenue and Warrambool Street. The primary public and emergency access point is from Noorebar Avenue and service access is from Animoo Avenue. The hospital comprises seven car parks and a total of 311 car spaces.

## Site Surrounds

- **North:** Low density residential housing. Further to the north, approximately 3km from the site, is Griffith City Airport which provides daily flights to Melbourne and Sydney.
- **East:** St Patricks Catholic Primary School, Sacred Heart Church and Griffith North Public School.
- **South:** Immediately to the south is low density residential housing, interspersed with other land uses including a childcare centre, two churches, Lavery Pathology and the Griffith Blood Donor Centre. Approximately 700m south of the site is Banna Avenue, the main street of Griffith. The main street comprises a mix of retail and commercial developments.
- **West:** West of the site is primarily low density residential housing. At the westernmost edge of the City Centre is Griffith Regional University Study Centre which is located on the TAFE NSW Riverina Institute Griffith Campus.

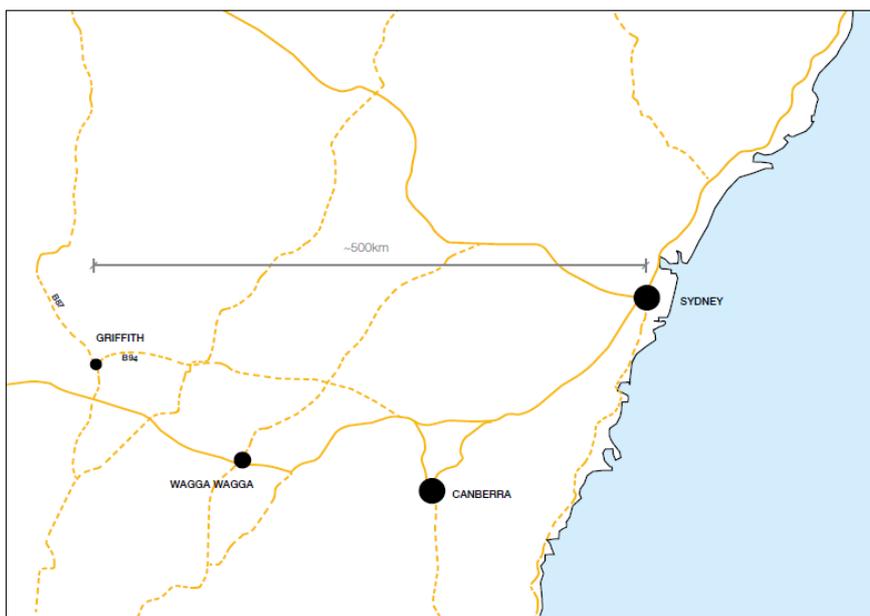
Figure 6 Site Context Plan



Source: DJRD

Griffith is a major regional city in the Riverina area of New South Wales, located approximately 500km west of Sydney, 360km north-west of Canberra, and 180km north-west of Wagga Wagga. It has a population of approximately 26,000 people, however it services a far greater population catchment area. It is within the Murrumbidgee Local Health District (MLHD). Griffith can be accessed by road from Sydney and Canberra via the Hume Highway and the Burley Griffin Way and from Melbourne via the Newell Highway.

Figure 7 Regional Context Map



Source: DJRD

## 2.2. DEVELOPMENT PROPOSAL

The proposal comprises the redevelopment of the site as outlined below:

- Demolition of building 25;
- Construction of a new four-storey Clinical Services Building, containing:
  - Main entry with retail café
  - Emergency department with acute beds, resuscitation bays, consulting rooms and an Emergency Short Stay Unit (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 (clinical care that reduces the length of stay in hospital or may avoid an admission altogether) and Renal
  - Pedestrian link to St Vincent's Private Community Hospital
  - Pharmacy
  - Pathology
  - Medical records
  - Administration facilities
  - Perioperative unit with two operating theatres and a procedure room
  - Critical care / intensive care unit (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;
- Demolition of remaining buildings vacated after commissioning of the new hospital including the existing medical services block;
- Construction of site works including roads, car parking and landscaping; and
- Signage.

The Architectural Drawings are attached at **Appendix D** and the Architectural Design Report is at **Appendix E**. Plan extracts are provided below which show the ground floor and typical tower floor. The following subsections detail the development phases and core features of the proposed development.

### 2.2.1. Site Strategies / Key Design Concepts

#### Single point of public arrival –

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 of maintaining the current street address.

#### 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.

### **Connect to St Vincent's Private Community Hospital –**

Throughout the consultation process, the key linkages between St Vincent's Private Community Hospital and Griffith Base Hospital 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 the private hospital.

### **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.

### **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.

### **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; and cultural and creative programs.

### **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 hour zone including Front-of-House, Wellness Centre, Outpatient Rehabilitation, Medical Imaging and Pharmacy.

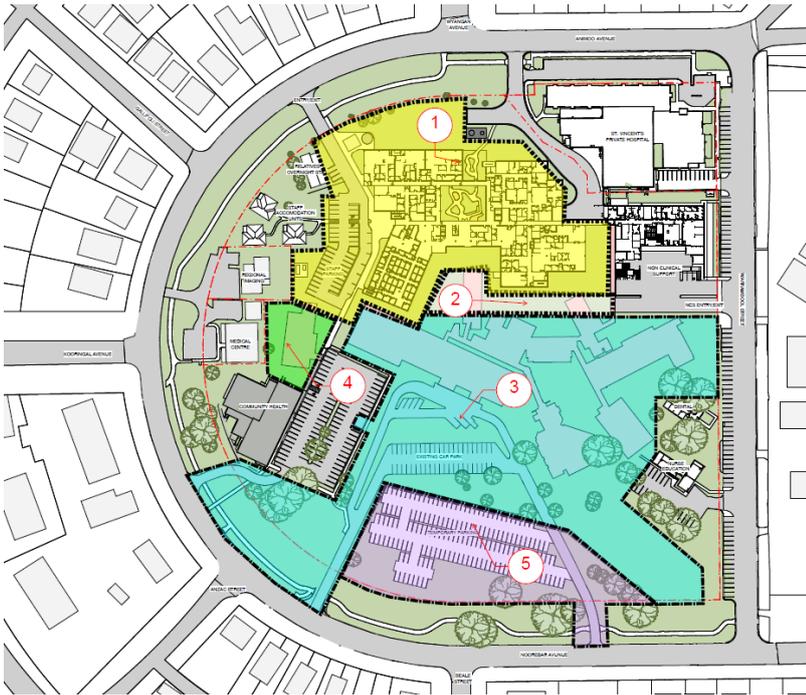
## **2.2.2. Development Staging**

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.

The development has been staged into five phases.

- **Phase 1 (Q1 2022 – Q3 2024):** Demolition of building 25; relocation of mechanical plant within main works boundary; installation of new site infrastructure (substation / generator / fire system); construction of new Clinical Services Building, linkages to Non-Clinical Services building, St Vincent's Community Private Hospital and western car park and northern landscape works.
- **Phase 2 (Q3 2024 – Q4 2024):** Demolition of buildings 15 and 22; construction of southern courtyard and ambulance entry.
- **Phase 3 (Q4 2024 – Q2 2025):** Demolition of existing Clinical Services Building and adjoining structures; demolition of existing carparks; modification of driveway to Noorebar Avenue; construction of new public carpark and landscape works.
- **Phase 4 (Q1 2025 – Q2 2025):** Removal of mobile Renal Building (building 31).
- **Phase 5 (Q2 2025 – Q3 2025):** Removal of temporary carpark. Complete landscape works.

Figure 8 Development Staging Plan

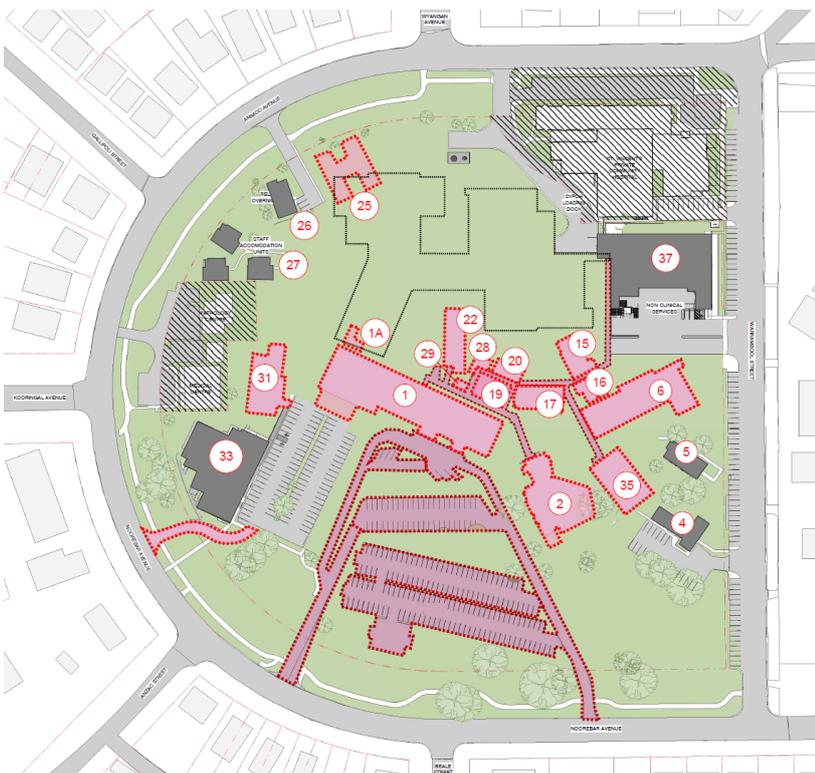


Source: DRJD

### 2.2.3. Demolition

Phase 1 of the proposal involves the demolition of Building 25. Phase 2 involves demolition of buildings 15 and 22. Phase 3 includes the demolition of the existing Clinical Services Building and adjoining structures and demolition of existing car parks. Phase 4 is removal of the mobile Renal Unit (building 31). Phase 5 includes removal of the temporary car park.

Figure 9 Demolition Plan



Source: DJRD

## 2.2.4. Remediation

The site will be remediated in accordance with the Remediation Action Plan (RAP) prepared by JK Environments (refer to **Appendix I**). This includes excavation and, preferably, off-site disposal of Asbestos Containing Material (**ACM**) impacted soil; consolidation and containment of ACM-impacted soils in a designated containment cell if off-site disposal is not possible; and excavation and off-site disposal of the underground storage tanks (USTs) (and nearby impacted soils) and associated infrastructure.

JK Environments are of the opinion that the site can be made suitable for the proposed development subject to the implementation of this RAP. A Validation Report is to be submitted to the consent authority on completion of remediation to demonstrate that the site (or each development stage) is suitable for its intended use.

## 2.2.5. Site Preparation and Civil Works

The Civil Report at **Appendix Z** addresses the redirected, upgraded and proposed new stormwater drainage networks related to the redevelopment works, new carparks and access roads and driveways, construction of carparks and footpath pavement, and bulk earthworks associated with the development. The Civil Report also includes the Water Sensitive Urban Design measures which have been incorporated into the design to address the quality of stormwater discharge. This includes construction of grassed open drains/swales allowing cleansing and infiltration of stormwater runoff.

The Civil Report confirms that the proposed redevelopment will not require the augmentation of Council's stormwater infrastructure adjacent to the site.

The hospital site is located on the high side of the stormwater catchment adjacent to a localised crest/top of the catchment. Therefore, there are no upstream/uphill areas that will drain through the site. The estimated total stormwater catchment size is approximately 2.80ha in area.

The site is not shown to be flood affected in Griffith City Council's flood mapping. However, areas downstream of the site (to the south) are flood affected. It is crucial that the pre-development and post development stormwater runoff from the site is maintained at the same rates or, where possible, the post development runoff is reduced.

Earthworks have been adjusted to institute a balanced earthworks approach for the site. The total cut volume is 15,000m<sup>3</sup> and the total fill volume is 18,000m<sup>3</sup>, with excess fill volume of 3,000 m<sup>3</sup>. Compliance with dust and soil and water management plans will ensure there are no adverse impacts on the surrounding community.

## 2.2.6. Building Construction

A four-storey Clinical Services Building is proposed to be constructed which comprises 117 beds, outdoor communal spaces, car parking and ancillary facilities.

As described in the Structural Report at **Appendix AA**, the new Clinical Services Building is a concrete framed building. The main foundations have been designed as pad footings founded into highly weathered rock. The floor slabs are proposed to be post tensioned band beams.

The proposal incorporates high quality materials and finishes, as detailed in the schedule provided by DJRD in the Architectural Design Statement at **Appendix E**.

### **Façade -**

Key features of the proposed materials and finishes are summarised below:

- The design proposal incorporates a cladding/façade 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.

Key performance criteria which the building seeks to satisfy 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.

Figure 10 Façade Design



Source: DJRD

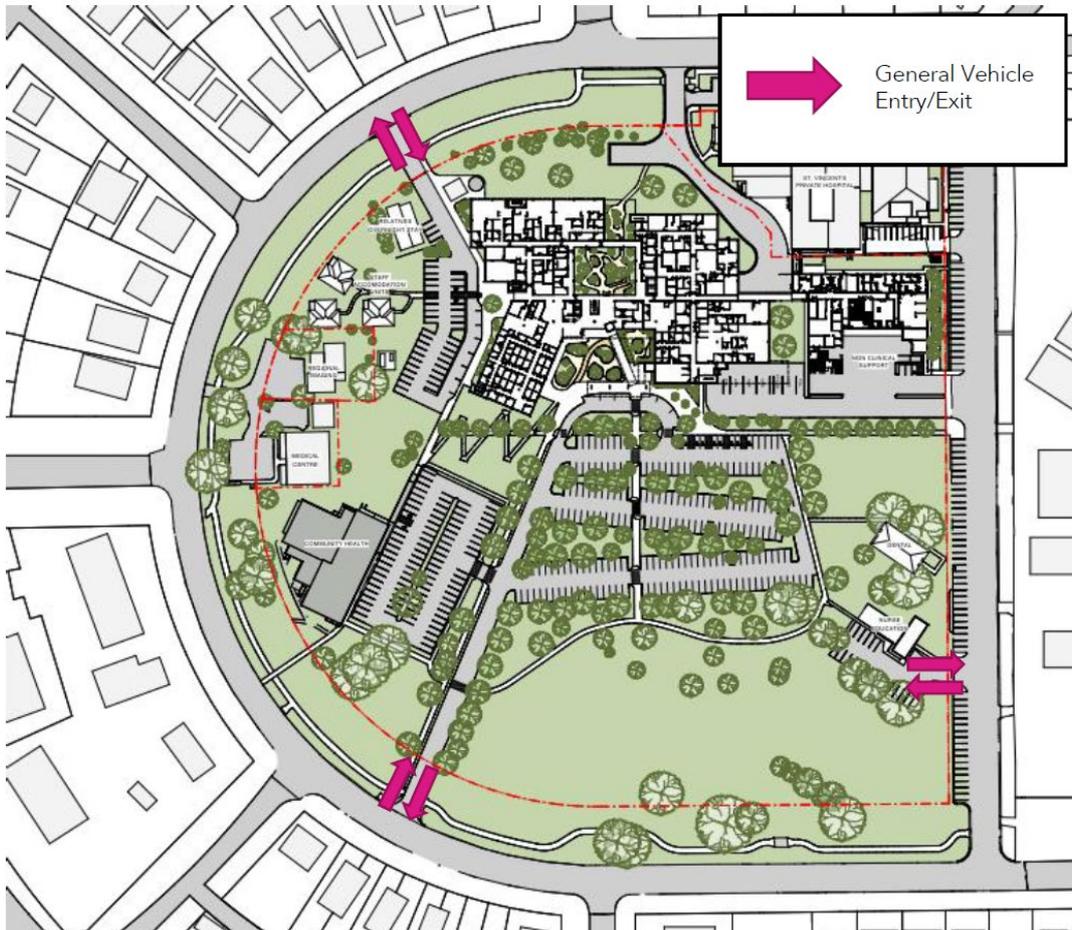
### ***Rooftop -***

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 roofing is installed above the slab.

### ***Parking and Access -***

Details of parking and access are provided in the Traffic and Parking Report at **Appendix F**. General vehicular access will be via three proposed access driveways along Animoo Avenue, Noorebar Avenue and Warrambool Street. It is estimated that the peak construction workforce will be 200 to 250 employees.

Figure 11 Proposed general vehicular access



Source: PTC

The driveway along Animoo Avenue will serve the new western car park (43 spaces) which is convenient for access into the Lower Ground Floor. This is an existing access; however, the roadway will be adjusted to make room for the Clinical Services Building.

The driveway along Noorebar Avenue will provide access into the new main car park and the existing secondary car park (total of 280 spaces). This driveway will also provide access to the five drop-off spaces along the port-cochere in front of the main entrance into the hospital.

The driveway along Warrambool Street will provide access into the car park associated with the Nurses Education Building. This access is an existing driveway which will be retained as part of the redevelopment. However, as part of the redevelopment, the car park will be extended to provide 10 additional spaces and a turning bay.

A total of 357 car spaces will be provided at the site, consisting of 345 standard spaces and 12 accessible spaces. There will be a staff parking area adjoining the proposed main hospital building which will have a separate access point off Animoo Avenue.

Ambulance access will be via a new driveway cross-over along Warrambool Street. The emergency drop-off bays are provided on the eastern end of the site.

## 2.2.7. Landscaping

A Landscape Strategy Report has been prepared by Site Image Landscape Architects and is at **Appendix M**. The Landscape Strategy includes a range of design solutions, including a building forecourt which will provide the main, central community facing space and entry to the hospital. A walkway provides a connection from the carpark to the building entry. Bench seating will flank the pathway and massed planting will soften the edges of the space. An Aboriginal cultural courtyard is provided at the eastern edge of the forecourt,

Other landscape features include a through site link plaza from the new Clinical Services Building to the main car parking area to the south. There will be a central courtyard provided within the new Clinical Services Building for the use of patients and their visitors. A staff garden is proposed adjoining the main hospital building on the lower ground level, for staff to take their breaks and hold gatherings.

The proposal provides deep setbacks and extensive areas of open space. The new landscaping emphasises public amenity and the enhancement of healing / wellness within the 'parkland' setting. The planting will be a mixture of native and exotic species primarily chosen to be low maintenance and suitable for the local growing conditions. All species selected are to be low allergenic and non-toxic.

Figure 12 Landscape Masterplan



Source: Site Image Landscape Architects

The removal of 26 trees is proposed, including:

- Five (5) trees of 'Medium' retention value and seven (7) trees of 'Low' retention value due to falling directly within the footprint of proposed buildings, car parks, driveways, footpaths or hard stand areas;
- One (1) tree of 'High' retention value, eight (8) trees of 'Medium' retention value and four (4) trees of 'Low' retention value due to suffering unsustainable levels of incursion to the TPZ/SRZ as a result of the proposed works; and
- One (1) tree which observed as dead which has a retention value of 'Consider Removal'.

## 2.2.8. Signage

A Wayfinding Signage Strategy has been prepared by DJRD and is located within the Architectural Plans at **Appendix D**. The new signs have the following description and dimensions:

- Hospital identification sign, primary entrance identification / gate sign, freestanding sign of double-sided monolith. Dimensions 4.2m high by 1.5m wide.
- Hospital identification sign, secondary entrance identification, freestanding single or double-sided internally illuminated stencil cut monolith. Dimensions 1.5m high by 1.5m wide.
- External free-standing pedestrian wayfinding sign. Dimensions 1.8m high by 0.6m wide.
- Building identification sign located on the building façade of the main hospital entry. Dimensions are 17.78m wide and 0.8m high. Aluminium cut out letters powder coated in colour.

Figure 13 External identification and directional signage



Source: DJRD

Figure 14 Main building signage



Source: DJRD

## 2.2.9. Infrastructure Delivery

A Hydraulic and Fire Protection Services Report has been prepared by Stantec (**Appendix U**). A Mechanical and Electrical Services Report has been prepared by Steensen Varming (**Appendix V**).

### **Water connection -**

The site is supplied by a cold water ring main which has been formed in the early stages of the project. The ring main has one 100mm metered connection to Warrambool Street, near St Vincent's Private Hospital. This existing connection will be upgraded to 150mm and have its own dedicated meter and backflow prevention assembly.

### **Sewer connection -**

There are two council sewer mains which are located around the site. One main is located at the top of the site and drains along Animoo Ave. Council has advised that this sewer main is connected to the G3 catchment, which has very limited capacity.

The other sewer main is located to the south of the site on Noorebar Avenue. This sewer main is connected to the Council G1 catchment and is understood to have more capacity and is council's preferred connection point for sewer discharges for the site.

### **Gas connection -**

The site is supplied by a 35kPa gas service in Warrambool street. A gas meter will be located on the line to the Non-Clinical Services building and the Clinical Services Building. Both lines will need to be regulated prior to use at the building connection.

### **Fire hydrant system connection -**

The existing hydrant system is extended from the town main water supply in Noorebar Avenue. The existing system was extended in 2018 to provide coverage for the Renal unit and Ambulatory Care Hub. Provision for further extension of the main was incorporated at that time.

### **Electrical -**

No upgrades are required to the surrounding Essential Energy infrastructure and there is sufficient capacity in the existing network to service the additional load introduced by the project. The new high voltage cable within the hospital site is to be at existing Essential Energy pole 96-5177.

### **Telecommunications -**

New incoming telecommunications services will be arranged for the site by the MLHD and will link into the main communications room on the lower ground floor of the new Clinical Services Building. Following the construction of this new communications room, all new and existing telecommunications requirements for the site will be serviced by this room.

### **Road works -**

The existing access road from Noorebar Avenue will require minor reconstruction to connect to the proposed new car park. Existing services and associated infrastructure will not have to be relocated as part of the road reconstruction works.

## 2.2.10. Operational Details

The Griffith Base Hospital currently employs 355 full-time employees. The forecasted number of full-time employees after the proposed redevelopment is 441 employees. The Griffith Base Hospital is open 24 hours, 7 days a week.

An Operational Waste Management Plan has been prepared by Encycle Consulting (**Appendix X**). The waste management plan identifies the estimated waste and management, minimisation and storage requirements which reflect best-practice and promote strong sustainability initiatives.

### **3. STRATEGIC CONTEXT**

In accordance with the SEARs, the following strategic planning policies have been considered in the assessment of the proposal.

- *NSW State Priorities*
- *State Infrastructure Strategy 2018 – 2038 Building the Momentum*
- *Future Transport Strategy 2056*
- *Crime Prevention Through Environmental Design (CPTED) Principles*
- *Better Placed: An integrated design policy for the built environment of New South Wales (GANSW, 2017)*
- *Healthy Urban Development Checklist*
- *Draft Greener Places Design Guide*
- *Riverina Murray Regional Plan 2036*
- *Griffith Local Strategic Planning Statement*
- *Griffith Pedestrian and Bicycle Strategy 2018.*

The following GANSW draft document has also been considered:

- *Draft Connecting with Country Guide (GANSW, 2020)*

The proposal is consistent with the following planning strategies as detailed below.

#### **3.1. NSW STATE PRIORITIES**

*NSW State Priorities* is the State Government’s plan to guide policy and decision making across the State. The proposed redevelopment at the site is consistent with key objectives contained within the plan, including:

- Delivering critical and important social infrastructure.
- Creation of jobs in the construction and operation phases.
- Improving Government Services, including delivering modern, expanded and high-quality healthcare services.
- Improving service levels in hospitals and for the Riverina-Murray region.
- Encouraging investment and generating significant economic multiplier effects.
- Building significant regional infrastructure.
- Delivering better services for the community and region, including cutting wait times for planned surgeries.

The Project is consistent with relevant Premier and NSW Government Priorities as it will deliver significant investment in and the construction of critical infrastructure, add to the creation of construction related and long-term operational jobs and will improve health facilities and services for the community of the Riverina-Murray region.

#### **3.2. STATE INFRASTRUCTURE STRATEGY 2018 – 2038 BUILDING THE MOMENTUM**

The 20-year State Infrastructure Strategy prepared by Infrastructure NSW makes recommendations for each of NSW’s key infrastructure sectors – transport, energy, water, health, education, justice, social housing, culture, sport and tourism. The health strategic objective is to Plan and deliver world class health infrastructure that supports a 21<sup>st</sup> century health system and improved health outcomes for the people of NSW.

The proposed Griffith Base Hospital redevelopment will deliver significant investment in and the construction of critical infrastructure, add to the creation of construction related and long-term operational jobs and will improve health facilities and services for the community of the Riverina-Murray region.

### 3.3. FUTURE TRANSPORT STRATEGY 2056

*Future Transport 2056* is an update of NSW's Long-Term Transport Master Plan which seeks to promote the use of public transport as an effective travel option. A key outcome for the plan is to support successful places by creating a transport network across the State that better connects regional cities and centres and will increase access to regional jobs, services and education.

Improved transport will broaden the catchment and improve access to services at Griffith Base Hospital. The proposal will:

- Facilitate effective movement networks for people and various forms of transport.
- Ensure the Griffith Base Hospital includes a clear and interconnected circulation and movement network that supports legible access and the integration of public transport and pedestrian infrastructure.
- Support a range of transport strategies and measures, including a Green Travel Plan to promote alternative and active travel.

The Traffic Impact Assessment prepared by PTC Consultants (**Appendix F**) provides details on the pedestrian, cycling and public transport options available to provide sustainable transport infrastructure to the Project. A preliminary Green Travel Plan has been prepared to promote alternative and active travel. The Project is consistent with the *Future Transport Strategy 2056*.

### 3.4. CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED) PRINCIPLES

The Crime Prevention Through Environmental Design (CPTED) guidelines were prepared by the NSW Police in conjunction with the former Department of Urban Affairs and Planning. CPTED provides a clear approach to crime prevention and focuses on the 'planning, design and structure of cities and neighbourhoods'.

The main aims of the policy are to:

- Limit opportunities for crime;
- Manage space to create a safe environment through common ownership and encouraging the public to become active guardians; and
- Increase the perceived risk involved in committing crime.

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 publicly accessible areas. This is detailed in the Architectural Design Report prepared by DJRD Architects (**Appendix E**) and Social Impact Assessment prepared by Urbis (**Appendix N**). A summary of the key design solutions incorporating CPTED principles is summarised below:

- 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).
- Landscaping within carparks 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.
- Primary circulation paths, carparks and courtyards will be highly illuminated while secondary paths will have general support lighting – this aims to encourage use of primary circulation paths at night.
- The doors to the main entry (normal hospital operating hours) and Emergency Department (24 hours) will freely open into the reception areas for these spaces. All other doors from the outside of the hospital in, are access controlled.

### 3.5. BETTER PLACED

*Better Placed – An integrated design policy for the built environment of NSW* (2017), prepared by the NSW Government Architect, advocates that everyone has a role in ensuring our cities and towns are better places. The policy is based on seven objectives that define the key considerations in the design of the built environment:

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

The Architectural Design Statement prepared by DJRD (**Appendix E**) discusses how the proposal has adopted these seven objectives into the design process. The Griffith Base Hospital redevelopment responds to clinical needs, functionality and identity as a major hospital, whilst also respecting the scale of surrounding development and the broader contextual setting in response to the surrounding urban areas.

### 3.6. HEALTHY URBAN DEVELOPMENT CHECKLIST

The *Healthy Built Environment Checklist*, prepared by NSW Health in 2020, is a tool to help deliver the quality local environments needed for well-connected and liveable communities in NSW, through engagement with planning and development processes. The Project is consistent with and will contribute to the delivery of the following key directions and strategies:

- Promote opportunities for walking, cycling and other forms of active transport.
- Consider crime prevention and a sense of security.
- Provide access to green and blue open spaces and natural areas.
- Engender a sense of cultural identity, sense of place and incorporate public art.
- Provide access to a range of facilities to attract and support a diverse population.
- Respond to existing and projected community needs and current gaps in facilities and/or services.
- Consider the potential for natural and manmade hazards and mitigate them.
- Meet environmental sustainability objectives.

The proposed redevelopment of Griffith Base Hospital is consistent with the Healthy Urban Development Checklist as its key objectives are aligned with the Checklist's directions and strategies. This is achieved because the Project will provide a fit-for-purpose new hospital founded on the principles of passive design and ecologically sustainable development, on a campus that promotes wellness to the community and respects the cultural diversity of the local area.

### 3.7. DRAFT GREENER PLACES DESIGN GUIDE

The *Draft Greener Places Design Guide* prepared by the NSW Government Architect in 2020 provides information on how to design, plan and implement green infrastructure in urban areas throughout NSW. The draft guide provides strategies, performance criteria and recommendations to assist planning authorities, and design and development communities to deliver green infrastructure.

The landscape design has been prepared by Site Image Landscape Architects (**Appendix M**) in line with the following design principles:

- Protect and celebrate the existing parkland setting;
- Create spaces for people; and

- Encourage healing/wellness.

The landscape design has focused on the retention of existing trees and landscapes wherever possible, and the addition of both native and exotic new planting suitable to the local growing conditions.

### 3.8. RIVERINA MURRAY REGIONAL PLAN 2036

Griffith is identified in the *Riverina Murray Regional Plan 2036*, the 20-year blueprint for the future of the Riverina Murray area. It provides an overarching framework to guide land use plans, development proposals and infrastructure funding decisions. It sets directions for regional growth to achieve sustainable development outcomes that are balanced with environmental values. It aims to protect and restore environmental values and connections to the landscape, to contribute to healthy, engaged communities.

Griffith is the focal point for population and housing growth in the west of the region. The redevelopment of the Griffith Base Hospital is consistent with the following relevant Goals and Directions of the Plan:

- *Goal 1: A growing and diverse economy*
  - Direction 5: Support the growth of the health and aged care sectors
  - Direction 6: Promote the expansion of education and training opportunities
- *Goal 4: Strong, connected and healthy communities*
  - Direction 22: Promote the growth of regional cities and local centres
  - Direction 23: Build resilience in towns and villages

The Regional Plan highlights that the NSW Government is supporting the Riverina Murray economy and communities through infrastructure investments including the redevelopment of the Griffith Base Hospital.

### 3.9. GRIFFITH LOCAL STRATEGIC PLANNING STATEMENT

The draft *Griffith Local Strategic Planning Statement (LSPS)* provides the land use planning vision for Griffith over the next 25 years. This planning statement contains 14 planning priorities organised around the central themes of infrastructure, liveability, productivity, sustainability and implementation. The planning priorities which are relevant to the site and proposed development are discussed below.

#### ***Protect and enhance key infrastructure***

Griffith supports a population of over 60,000 residents in Western Riverina for several commercial and high order services. The LSPS states that a master planned Health and Education Precinct around the Griffith Base Hospital and St Vincent's Private Community Hospital would increase Griffith's prominence as a regional centre for health and education.

#### ***A regional centre for health, education and services***

The Riverina Murray Regional Plan recognises Griffith as a regional hub for health and education. The Regional Plan recommends a priority to support the establishment of a health precinct around Griffith Base Hospital and St Vincent's Private Community Hospital.

#### ***Strengthen and grow employment lands***

The Griffith Base Hospital will provide 172 jobs in construction and 441 jobs in operation, which will further strengthen employment opportunities in the region.

### 3.10. GRIFFITH PEDESTRIAN AND BICYCLE STRATEGY 2018

The aim of the Griffith Pedestrian and Bicycle Strategy is to support the development of a fully accessible community with high quality pedestrian and bicycle facilities that encourage walking and cycling.

The proposed hospital redevelopment presents the opportunity to enhance the site's engagement with the local community and acknowledge the importance of the site's permeability within the broader urban context. This circulation system of walking paths across the campus can incorporate recreational paths to improve community amenity associated with areas for shaded seating and play. This has the additional benefit of providing pedestrian links to the various outbuildings located on the campus.

### **3.11. DRAFT CONNECTING WITH COUNTRY GUIDE (GANSW, 2020)**

The draft Connecting with Country Guide (**draft Country Guide**) was prepared by the GANSW in November 2020 and provides a draft framework for developing connections with Country to inform the planning, design and delivery of built environment projects. The draft Country Guide encourages place-led design approaches to support a strong and vibrant Aboriginal culture in the building environment.

The project seeks to align with Aboriginal values through cultural awareness and implementation of tangible responses to the Indigenous history of the site. This will be achieved through:

- Engagement with the local Aboriginal community to discuss potential opportunities to use Aboriginal names for rooms within the hospital; and
- Working with the local Aboriginal community in the final stages of design for the cultural courtyard.

## 4. STATUTORY CONTEXT

Various legislative and statutory planning instruments require consideration in the assessment of the proposal. In accordance with the SEARs, this EIS considers the following applicable to the proposal:

- *State Environmental Planning Policy (State and Regional Development) 2011*
- *State Environmental Planning Policy (Infrastructure) 2007*
- *State Environmental Planning Policy No. 64 – Advertising and Signage*
- *State Environmental Planning Policy No. 55 – Remediation of Land*
- *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*
- *Draft State Environmental Planning Policy (Remediation of Land)*
- *Draft State Environmental Planning Policy (Environment)*
- *Griffith Local Environmental Plan 2014.*

The permissibility of the proposed development and the application of the relevant statutory planning instruments that apply to the site and the proposed development are addressed in detail below.

### 4.1. PERMISSIBILITY

*Griffith Local Environmental Plan 2014 (GLEP 2014)* is the primary environmental planning instrument applying to the site and the proposed development.

The site is zoned R1 General Residential in accordance with the GLEP 2014. The proposed development is consistent with the relevant zone objectives as outlined below (**emphasis added**):

- *To provide for the housing needs of the community.*
- *To provide for a variety of housing types and densities.*
- *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*
- ***To facilitate development of social and community infrastructure to meet the needs of future residents.***
- *To allow people to carry out a reasonable range of activities from their homes, if such activities do not adversely affect the living environment of neighbours.*

The proposed development is defined as a health services facility in accordance with the GLEP 2014. Health services facilities are permitted with development consent in the R1 General Residential zone. The redevelopment of the Griffith Base Hospital will facilitate the development of community infrastructure to meet the needs of future residents.

It is also noted that under Clause 57 of the *State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)*, health services facilities may be carried out by any person with consent on land in a prescribed zone. Under Clause 56 of the ISEPP, the R1 General Residential zone is a prescribed zone.

### 4.2. BIODIVERSITY CONSERVATION ACT 2016

The *Biodiversity Conservation Act 2016 (BC Act)* establishes a scientific method for assessing the likely impacts on biodiversity values of proposed development and land use change.

Under Section 7.9 of the BC Act, a development application for SSD is required to be accompanied by a Biodiversity Development Assessment Report (**BDAR**) unless “the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values.”

A Biodiversity Development Assessment Report has been prepared by Abel Ecology and is discussed in detail in **Section 6.16** and is provided at **Appendix H**.

### 4.3. STATE ENVIRONMENTAL PLANNING POLICY (STATE AND REGIONAL DEVELOPMENT) 2011

The *State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)* identifies development that is state significant. Pursuant to the SRD SEPP, a project will be State Significant Development (SSD) if it is listed in Schedule 1 of the SEPP. "Hospitals, medical centres and health research facilities" with a CIV of \$30 million or more are identified as SSD and are considered to be development of State significance.

The works have a CIV in excess of \$30 million and as such the proposal is SSD. The Capital Investment Value Report will be provided under separate cover.

### 4.4. STATE ENVIRONMENTAL PLANNING POLICY (INFRASTRUCTURE) 2007

The ISEPP aims to facilitate the effective delivery of infrastructure across NSW and identifies matters to be considered in the assessment of development adjacent to particular types of infrastructure development.

#### 4.4.1. Health Services Facilities

Under Clause 57 of the *State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)*, health services facilities may be carried out by any person with consent on land in a prescribed zone. Under Clause 56 of the ISEPP, the R1 General Residential zone is a prescribed zone.

#### 4.4.2. Traffic Generating Development

The ISEPP aims to ensure that the RMS (now Transport for NSW) is made aware of and is given an opportunity to make representations in respect of traffic generating development. Schedule 3 of the ISEPP sets out the types of development which must be referred to Transport for NSW. For hospitals, a threshold of 200 beds is identified as the trigger for traffic generating development (unless the site has access to a classified road or to road that connects to classified road within 90m of the site).

The proposed Griffith Base Hospital will provide 117 beds, therefore not meeting the threshold to trigger consultation with RMS.

Notwithstanding this, consultation will be carried out with Transport for NSW as required by the SEARs.

### 4.5. STATE ENVIRONMENTAL PLANNING POLICY NO 64 – ADVERTISING AND SIGNAGE

*State Environmental Planning Policy No.64 – Advertising and Signage (SEPP 64)* aims to ensure that signage is compatible with the desired amenity and visual character of an area, provides effective communication in suitable locations, and is of high quality design and finish.

Clause 13 of SEPP 64 requires a consent authority to consider the objectives of the policy and the assessment criteria contained within Schedule 1. An assessment against Schedule 1 is outlined in the table below.

Table 4 Consistency with Schedule 1 SEPP 64

Criteria	Assessment	Compliance
<p><b>1 Character of the Area</b></p> <p><i>Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?</i></p> <p><i>Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?</i></p>	<p>Yes. The character of the area is not likely to be altered by the proposed signage. The proposed wayfinding signage replaces existing signage and will be clearly visible to visitors of the hospital and staff members.</p>	<p>Yes</p>

<b>Criteria</b>	<b>Assessment</b>	<b>Compliance</b>
<p><b>2 Special Areas</b></p> <p><i>Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?</i></p>	<p>The proposal is not located within an environmentally sensitive area and will not adversely impact upon the visual qualities of heritage areas or items.</p>	Yes
<p><b>3 Views and vistas</b></p> <p><i>Does the proposal obscure or compromise important views?</i></p> <p><i>Does the proposal dominate the skyline and reduce the quality of vistas?</i></p> <p><i>Does the proposal respect the viewing rights of other advertisers?</i></p>	<p>No views or vistas will be lost or compromised.</p> <p>The signage does not dominate the skyline.</p> <p>The proposal does not impact on the viewing rights of other advertisers.</p>	Yes
<p><b>4 Streetscape, setting or landscape</b></p> <p><i>Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?</i></p> <p><i>Does the proposal contribute to the visual interest of the streetscape, setting or landscape?</i></p> <p><i>Does the proposal reduce clutter by rationalising and simplifying existing advertising?</i></p> <p><i>Does the proposal screen unsightliness?</i></p> <p><i>Does the proposal protrude above buildings, structures or tree canopies in the area or locality?</i></p> <p><i>Does the proposal require ongoing vegetation management?</i></p>	<p>The signage is appropriate given its location and is compatible with the existing streetscape.</p> <p>Whilst multiple signs are proposed, they are minor in scale, refined in nature and will not result in any visual clutter.</p> <p>The signage will not protrude above buildings or tree canopies in the area and will not require ongoing vegetation management.</p>	Yes
<p><b>5 Site and Building</b></p> <p><i>Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?</i></p> <p><i>Does the proposal respect important features of the site or building, or both?</i></p>	<p>The proposed signage will complement the new hospital building.</p> <p>The signage has been designed taking into account the design of the new building and to assist with wayfinding.</p>	Yes

Criteria	Assessment	Compliance
<i>Does the proposal show innovation and imagination in its relationship to the site or building, or both?</i>		
<p><b>6 Associated devices and logos with advertisements and advertising structures</b></p> <p><i>Have any safety devices, platforms, lighting, devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?</i></p>	N/A	N/A
<p><b>7 Illumination</b></p> <p><i>Would illumination result in unacceptable glare?</i></p> <p><i>Would illumination affect safety for pedestrians, vehicles or aircraft? Would illumination detract from the amenity of any residence or other form of accommodation?</i></p> <p><i>Can the intensity of the illumination be adjusted, if necessary?</i></p> <p><i>Is the illumination subject to a curfew?</i></p>	Illumination is currently not proposed.	NA
<p><b>8 Safety</b></p> <p><i>Would the proposal reduce the safety for any public road?</i></p> <p><i>Would the proposal reduce the safety for pedestrians or bicyclists?</i></p> <p><i>Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?</i></p>	The proposed signage zones are not considered to have any impacts on the safety of the surrounding public roads, pedestrians, or cyclists.	Yes

Overall, the proposed signage satisfactorily addresses each of the relevant provisions of SEPP 64 and is considered appropriate for the site and the locality.

## 4.6. STATE ENVIRONMENTAL PLANNING POLICY NO 55 – REMEDIATION OF LAND

*State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)* establishes state-wide provisions to facilitate the remediation of contaminated land. The policy states that land must not be developed if contamination renders it unsuitable for a proposed use. If the land is unsuitable, remediation must take place before the land is developed.

An Additional Environmental Site Assessment and Remediation Action Plan (**RAP**) have been prepared by JK Environments (**Appendix H and I**).

JK Environments recommend the following strategies to render the site suitable for the proposed development:

- Implementation of the RAP prepared by JK Environments.
- Submission of VA report to the consent authority on completion of remediation to demonstrate that the site is suitable for its intended use.

JK Environments conclude that the site can be made suitable for the proposed development subject to the implementation of the RAP.

#### **4.7. DRAFT STATE ENVIRONMENTAL PLANNING POLICY (REMEDIATION OF LAND)**

The draft State Environmental Planning Policy (Remediation of Land) will provide a state-wide planning framework for the remediation of land. As discussed in **Section 4.6**, an Additional Environmental Site Assessment and Remediation Action Plan have been prepared by JK Environments (**Appendix H and I**).

#### **4.8. STATE ENVIRONMENTAL PLANNING POLICY NO. 33 – HAZARDOUS AND OFFENSIVE DEVELOPMENT**

*State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)* aims to facilitate hazardous and offensive development and to ensure appropriate measures are employed to reduce the impact of the development.

SEPP 33 requires an assessment of hazardous materials, involving a screening method based on the quantities of dangerous goods on a site, to assist in determining if a development is likely to be a potentially hazardous industry.

Whilst the development does not consist of new hazardous activities, an assessment of the nature and quantity of dangerous goods that will be stored and used at Griffith Base Hospital in accordance with the requirements of SEPP 33 has been undertaken.

The SEPP 33 Assessment Report has been prepared by Arup and is provided at **Appendix K**. The assessment outlines that a Preliminary Hazard Analysis is not required as none of the threshold quantities of Dangerous Goods has been exceeded.

Urbis is satisfied that construction, subject to the implementation of the mitigation measures in **Section 6.11**, will not result in development that is considered to be potentially hazardous or offensive.

#### **4.9. DRAFT STATE ENVIRONMENTAL PLANNING POLICY (ENVIRONMENT)**

The Draft State Environmental Planning Policy (Environment) seeks to consolidate the planning legislation for water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property.

A Biodiversity Development Assessment Report (**BDAR**) has been prepared by Abel Ecology (**Appendix H**). The report addresses the likely impacts of the proposal on species and ecological communities present on the site. Abel Ecology conclude that the site can be made suitable for the proposed development subject to the implementation of the recommended mitigation measures in **Section 6.16**.

#### **4.10. GRIFFITH LOCAL ENVIRONMENTAL PLAN 2014**

The *Griffith Local Environmental Plan 2014 (GLEP 2014)* is the primary environmental planning instrument applying to land within Griffith Local Environment Area (**LGA**).

##### **Zoning and Permissibility**

The site is zoned R1 General Residential in GLEP 2014. A hospital is permissible with consent in the R1 Zone.

The objectives of the R1 zone are:

- *To provide for the housing needs of the community.*
- *To provide for a variety of housing types and densities.*

- To enable other land uses that provide facilities or services to meet the day to day needs of residents.
- To facilitate development of social and community infrastructure to meet the needs of future residents.
- To allow people to carry out a reasonable range of activities from their homes, if such activities do not adversely affect the living environment of neighbours.

The proposed development will facilitate the development of social and community infrastructure to meet the needs of current and future residents.

### Other LEP Provisions

Key controls of the GLEP 2014 are addressed in the table below.

Table 5 GLEP 2014 Key Controls

Development Standard	Control	Comment
<b>4.3 Height of Buildings</b>	No height control applies to the site.	Architectural plans and Architectural Design Report are provided at <b>Appendix D</b> and <b>Appendix E</b> .
<b>4.4 Floor Space Ratio</b>	No FSR control applies to the site.	Architectural plans and Architectural Design Report are provided at <b>Appendix D</b> and <b>Appendix E</b> .
<b>5.10 Heritage Conservation</b>	Conserve the environmental heritage of Griffith and the heritage significance of heritage items and heritage conservation areas. Conserve archaeological sites and Aboriginal objects and places of heritage significance.	<p>The site is listed as containing a locally listed heritage item known as “<i>Former Matron’s House and Nurses Quarters at Base Hospital</i>”. Both the Nurses Quarters and Former Matron’s House have been previously approved for demolition under a separate planning pathway. The Nurses Quarters have already been demolished.</p> <p>The site is located opposite St Alban’s Anglican Cathedral (Item 12) and Sacred Heart Catholic Church (Item 19), both of which are local heritage items. A Statement of Heritage Impact is provided at <b>Appendix P</b> and assesses the impact of the proposed development on these surrounding heritage items.</p> <p>An Aboriginal Cultural Heritage Assessment Report (<b>ACHAR</b>) is provided at <b>Appendix Q</b> and assesses the potential for impacts upon Aboriginal cultural heritage.</p> <p>Details of consultation undertaken for the ACHAR will accompany the SSD application.</p>

Development Standard	Control	Comment
7.1 Earthworks	Ensure earthworks will not have a detrimental impact on environmental functions and processes, neighbouring uses, cultural or heritage items or features of the surrounding land.	<p>A Remediation Action Plan, including cut and fill plan, is provided at <b>Appendix I</b>.</p> <p>A Sediment and Erosion Control Plan is provided in the Civil Report at <b>Appendix Z</b>.</p> <p>A mitigation measure is recommended (refer <b>Section 6.7</b>) whereby if any previously unexpected or undetected Aboriginal objects are uncovered during the proposed hospital redevelopment, all works should cease in the vicinity of that object and further advice should be sought from the consultant.</p>
7.2 Flood planning	Minimise flood risk to life and property associated with the use of land.	The site is not within a flood planning area, however areas downstream of the site are flood affected. A Flood Impact Assessment is provided within the Civil Report at <b>Appendix Z</b> .
7.8 Airspace operations	Provide for the effective and ongoing operation of the Griffith Airport by ensuring that such operation is not compromised by proposed development that penetrates the Limitation or Operations Surface for that airport.	The proposed development will not penetrate the Limitation or Operations Surface for the airport.
7.9 Development in areas subject to aircraft noise	<p>This clause applies to development that—</p> <p>(a) is on land that—</p> <p>(i) is near the Griffith Airport, and</p> <p>(ii) is in an ANEF contour of 20 or greater, and</p> <p>(b) the consent authority considers is likely to be adversely affected by aircraft noise</p>	<p>The site is not within an ANEF contour of 20 or greater. An ANEF contour diagram is provided at <b>Appendix DD</b>.</p> <p>The proposed development will not be adversely affected by aircraft noise associated with Griffith Airport.</p>

## 5. COMMUNITY AND STAKEHOLDER ENGAGEMENT

Community and stakeholder engagement has been undertaken by Health Infrastructure in the preparation of the SSDA. This included direct engagement and consultation with:

- Griffith City Council
- NSW Government Architect's Office
- Transport for NSW
- Griffith Local Aboriginal Land Council
- St Vincent's Private Community Hospital
- Local Health Advisory Committee (LHAC)
- Griffith Aboriginal Medical Service
- Leeton Shire Council
- Hay Shire Council
- Multicultural Council of Griffith
- State MP Helen Dalton
- Adjoining landowners and occupants.

The community and stakeholder engagement undertaken has sought to address the requirements of the SEARs. A summary of the responses to issues raised by stakeholders during the engagement process is provided in the table below.

Table 6 Community and Stakeholder Engagement: Issues and Responses

Stakeholder	Date of Consultation	Issues Raised	Response
<b>Agency Consultation</b>			
Government Architect NSW	02/12/2020	Refer minutes of meeting at <b>Appendix CC</b> .	Refer details of response in Architectural Design Statement at <b>Appendix E</b> .
Transport for NSW	11/02/2021	Refer minutes of meeting at <b>Appendix CC</b> .	Refer minutes of meeting at <b>Appendix CC</b> .
Jemena	03/02/2021	Stantec discussed the project with the State Network Development Manager from Jemena. No major concerns were raised due to the negligible increase in gas load for the main works.  The Jemena representative advised the application for	N/A

Stakeholder	Date of Consultation	Issues Raised	Response
		amendment to the existing gas agreement will be lodged with Health Infrastructure's gas retailer which is believed to be Origin Energy.	
Griffith City Council (Councillors and senior staff)	19/05/2020	Briefing given; there was general support for the proposal.	N/A
Griffith City Council	20/10/2020	Briefing given; there was general support for the proposal.	N/A
Griffith City Council	18/12/2020, 11/01/2021 and 22/01/2021	Refer minutes of meetings at <b>Appendix CC.</b>	Refer minutes of meetings at <b>Appendix CC.</b>
Essential Energy	07/01/2020	No upgrades are required to the surrounding Essential Energy infrastructure and there is sufficient capacity in the existing network to service the additional load introduced by the project.	N/A
<b>Community and Other Consultation</b>			
Briefing with State MP – Helen Dalton	27/05/2020	There was general support for the proposal.	N/A
Letterbox drop to community (12,000 households in Griffith, Yenda and Hanwood)	09/06/2020	There was general support for the proposal.	N/A
Poster on display at hospital and Council	May – June 2020	There was general support for the proposal.	N/A
2 x staff virtual Q&A sessions	June 2020	There was general support for the proposal.	N/A
Briefing to St Vincent's Private Community Hospital	24/06/2020	There was general support for the proposal.	N/A
Community briefing to Local Health Advisory Committee (LHAC)	23/07/2020	There was general support for the proposal.	N/A

<b>Stakeholder</b>	<b>Date of Consultation</b>	<b>Issues Raised</b>	<b>Response</b>
Community briefing to Griffith Local Aboriginal Land Council (and additional consultation with this party and other Aboriginal stakeholders as part of Aboriginal Cultural Heritage Assessment Report)	11/08/2020	There was general support for the proposal.	N/A
Community briefing to Griffith Aboriginal Medical Service	11/08/2020	There was general support for the proposal.	N/A
Community briefing to New Mothers Group	12/08/2020	There was general support for the proposal.	N/A
Community briefing to Leeton Shire Council	12/08/2020	There was general support for the proposal.	N/A
Community briefing to Hay Shire Council	25/08/2020	There was general support for the proposal.	N/A
Consultation with Multicultural Council of Griffith	16/09/2020	There was general support for the proposal.	N/A
Briefing with State MP, Helen Dalton	20/10/2020	There was general support for the proposal.	N/A

## 6. ENVIRONMENTAL IMPACT ASSESSMENT

This section describes the way in which the key issues identified in the SEARs have been assessed. It provides a comprehensive description of the specialist technical studies undertaken regarding the potential impacts of the proposed development and recommended mitigation, minimisation and management measures to avoid unacceptable impacts.

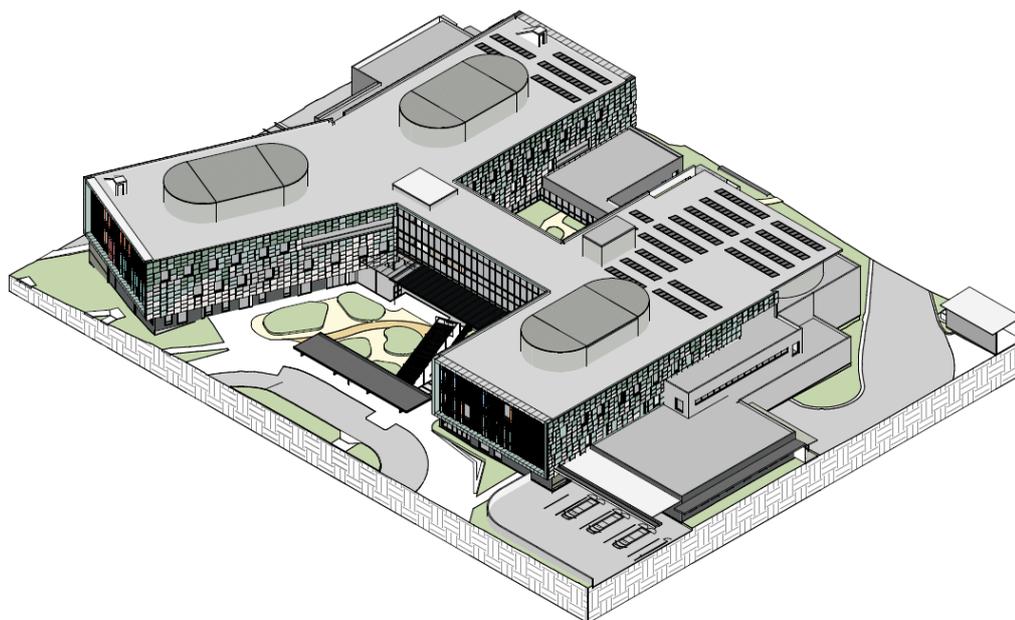
### 6.1. BUILT FORM AND URBAN DESIGN

#### 6.1.1. Bulk, Scale and Urban Design

Sections 7 and 8 of the Architectural Design Report prepared by DJRD (**Appendix E**) provide a comprehensive assessment of the urban context, including the way in which the proposed built form, height, bulk and scale, setbacks and interface respond to the surrounding locality and the public domain.

The new building will be located prominently in the centre of the existing hospital footprint and a majority of the bulk of the health precinct will be contained at the north of the site. The proposed Clinical Services Building has a GFA of to 18,145m<sup>2</sup> and a floor space ratio (FSR) of 0.283:1. The bulk and scale of the development is 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. This allows for the retention of the parkland setting at the south of the site.

Figure 15 Proposed Built Form



Source: DJRD

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

Section 7 of the Architectural Design Report prepared by DJRD (**Appendix E**) details the massing studies prepared to determine the optimal massing design. The final built form was designed to maximise natural light to the centre of the building, embrace the open space and support legibility and wayfinding.

#### Mitigation Measures

Subject to the design being implemented in accordance with the proposed plans, no further mitigation measures are proposed.

Figure 16 Massing Study



Source: DJRD

### 6.1.2. Setbacks

The siting of the proposed new Clinical Services Building has been driven by the physical connection into St Vincent's Private Community Hospital, the need to avoid buildings required to maintain the hospital operation during construction, the siting of the new Non-Clinical Services building (which is 6m from the boundary and in line with the eastern wall of St Vincent's Private) and avoiding major services.

The setback from the front (southern) site boundary to the facade of the building's western angled wing is 155m. At the east, the building is 65m from the Warrambool Street boundary and 40m from the St Vincent's Private Community Hospital boundary along Animoo Avenue to the north. To the west, the building ranges from 35-85m setback from the boundary due to the curve in the western boundary.

#### Mitigation Measures

Subject to the design being implemented in accordance with the proposed plans, no further mitigation measures are proposed.

### 6.1.3. Public Realm and Landscape Design

The proposal offers considerable open space to the locality. By maintaining deep setbacks and open space, the hospital site continues to provide a large amount of public open space. The provision of paths woven through the new landscaping emphasises public amenity within the 'parkland' setting.

A Landscape Strategy Report has been prepared by Site Image Landscape Architects (**Appendix M**). The planting will be a mixture of native and exotic species primarily chosen to be low maintenance and suitable for the local growing conditions. All species selected will be low allergenic and non-toxic.

The design incorporates courtyards to provide maximum daylight opportunities, district and nature views and provide clarity of wayfinding. The courtyards will penetrate the mass of the building and improve internal amenity for patients, staff and visitors.

#### Mitigation Measures

Subject to the design being implemented in accordance with the proposed plans, no further mitigation measures are proposed.

### 6.1.4. Crime Prevention Through Environmental Design (CPTED)

The Architectural Design Statement prepared by DRJD Architects (**Appendix E**) and Social Impact Assessment prepared by Urbis (**Appendix N**) detail the CPTED principles implemented in the proposed development.

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. Key features of the design include:

- 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).
- Landscaping within carparks 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.

- Primary circulation paths, carparks and courtyards will be highly illuminated while secondary paths will have general support lighting – this aims to encourage use of primary circulation paths at night.
- The doors to the main entry (normal hospital operating hours) and Emergency Department (24 hours) will freely open into the reception areas for these spaces. All other doors from the outside of the hospital in, are access controlled.

### **Mitigation Measures**

Subject to the design being implemented in accordance with the proposed plans, no further mitigation measures are proposed.

## **6.2. ENVIRONMENTAL AMENITY**

### **6.2.1. Overshadowing and Solar Access**

DJRD have prepared shadow diagrams (**Appendix E**) that 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 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.

Overshadowing of the southern courtyard will occur to varying degrees between 9am and 3pm at mid-winter. This will provide a choice of seating spaces if some people prefer not to sit in the sun in the central courtyard.

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. This system will allow solar gain into the bridge during winter due to the angle of the sun. The glazed bridge oriented 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.

### **Mitigation Measures**

Subject to the design being implemented in accordance with the proposed plans, no further mitigation measures are proposed.

### **6.2.2. Visual Privacy and Overlooking**

The visual privacy of neighbouring properties will not be impacted due to the distance from the new building to buildings on neighbouring properties.

Where the building is three storeys, there is a separation distance of over 150m to the Sacred Heart Church complex on Warrambol Street to the east. On the building's western side where it is 4 storeys, the separation distances range from between 85m to 140m from the single storey residences on Animoo Avenue.

Where the new building is close to St Vincent's Private Community Hospital, there will be no windows on this side as it is the back of house area of the new building, ensuring there will be no privacy issues at this interface.

### **Mitigation Measures**

Subject to the design being implemented in accordance with the proposed plans, no further mitigation measures are proposed.

### **6.2.3. Wind**

The siting of the proposed Clinical Services Building has been determined largely by a staging strategy that allows the existing hospital to operate during construction and provides a linkage to the existing St Vincent's Private Community Hospital. 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 oriented 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.

### **Mitigation Measures**

Subject to the design being implemented in accordance with the proposed plans, no further mitigation measures are proposed.

## **6.2.4. Light Spill**

The Mechanical and Electrical Services Report prepared by Steensen Varming (at **Appendix V**) addresses light spill. The external lighting will focus on functional illumination and key accents to support the user journey at night-time, facilitating wayfinding and orientation and assisting in the creation of a safe environment. External lighting will be designed in consideration of minimizing spill light to adjacent properties and in consideration of public amenity.

The external lighting will focus on key elements including the external carparks, connecting pedestrian pathways, building transition points from internal to external (forecourts and plaza pedestrian links) and landscaped courtyards.

### **Mitigation Measures**

The following measures will be considered to minimise light spill:

- Selection of luminaires with appropriate distribution for the task;
- Where lighting horizontal surfaces, luminaires to have minimal upwards light ratio;
- Mounting orientation of light sources;
- Direction of light;
- Fitting selection with good optical control;
- Minimisation of direct visibility of light sources (no omni-directional luminaires);
- The use of any uplighting shall be carefully positioned and aimed to the underside of canopies, reducing upward spill light;
- Use of shields and louvres where appropriate;
- Pole lighting with direct downward lighting and full cut-off optics;
- Consideration of sight lines and different viewing angles to minimise glare;
- Use of lighting control system to automate the timing of the lighting and in certain areas allow adjustment of intensity.

## **6.2.5. Visual Impact**

Views have been analysed from major intersections towards the new main hospital building – refer details in the Architectural Design Report at **Appendix E**. The governing design principle for siting of the building 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 when viewed from surrounding streets.

The overall visual impacts of proposed development were found to be acceptable.

Figure 17 Visual Impact Assessment



Before



Before



Before



After



After



After

Source: DJRD

### Mitigation Measures

Subject to the design being implemented in accordance with the proposed plans, no further mitigation measures are proposed.

### 6.2.6. Internal Amenity

The Architectural Design Report at **Appendix E** addresses internal amenity of the proposed Clinical Services Building, including access to natural daylight and ventilation, visual and physical access to outdoor landscape and provision of spaces for patients and visitors to gather.

The form, massing and clinical planning of the proposed building aims to provide daylight and views from corridor ends and key patient rooms including inpatient units. 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 to a regionally appropriate and healthy environment.

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.

Health and wellbeing strategies include 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 facilities, the courtyards, entry forecourt and site landscaping, patient lounges, Aboriginal Lounge and multi-faith room.

### Mitigation Measures

Subject to the design being implemented in accordance with the proposed plans, no further mitigation measures are proposed.

## 6.2.7. Art Strategy

The Griffith Base Hospital Project Arts Working Group has been established to contribute to and advise on arts-in-health opportunities for the proposed redevelopment. Members of this group represent the Griffith Base Hospital, MLHD, Health Infrastructure, regional galleries and artists and Aboriginal and multicultural communities. 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.

### Mitigation Measures

Provision of an art strategy for the redeveloped hospital incorporating a variety of art types representing a wide range of communities and local artists.

## 6.3. TRANSPORT AND PARKING

A Traffic and Parking Report and a Green Travel Plan (GTP) have been prepared by PTC Consultants (**Appendix F** and **Appendix G**) to assess the traffic and parking impacts of the proposal.

### Assessment

The proposed development has been assessed based on its strategic transport context, an assessment of parking requirements based on the proposed land use and predicted modal share of transport movements. Consideration was given to the potential traffic generation of the proposal, the adequacy of the proposed loading and service vehicle provisions, alternative forms of transport and preparation of a GTP to encourage sustainable transport modes.

The post-redevelopment traffic generation has been calculated on a pro-rata basis using the pre-redevelopment parking capacity (314 spaces) and traffic generation (278 trips in the AM peak and 266 trips in the PM peak). This will result in post-redevelopment traffic generation of approximately 317 trips in the AM peak and 304 trips in the PM peak. This represents an additional net traffic generation of 39 and 38 trips in the AM and PM peaks respectively. This is considered a minor increase taking into consideration the existing traffic conditions of the surrounding road network.

The results from the SIDRA analysis conducted by PTC Consultants indicate that the proposed redevelopment will have a minor impact on the existing road network conditions and operations of the major intersections surrounding the site. Each performance measure has increased marginally, however the level of service of the intersections has not changed.

The parking demand and supply analysis conducted by PTC Consultants found the total on-campus demand for parking is 357 spaces. The proposal includes 357 vehicle spaces, meeting the estimated demand. It is also noted that on-street parking survey results indicate that on-street parking spaces are generally underutilised with minimal fluctuations throughout the day.

A review of the facility has been undertaken with reference to Health Infrastructure's Hospital Car Park Design Guidelines, AS2890.1, AS2890.2 and AS2890.6. The assessment found that the proposal meets the intent of the relevant standards and guidelines.

Swept path assessments have been undertaken to ensure that the largest vehicle can enter and exit the site in a forward direction.

There are two bus services serving the hospital, both at a frequency of every 90 minutes on weekdays with two services on weekends. The existing pedestrian facilities are considered adequate for the hospital. There is limited cycling infrastructure for the hospital at the current time, however Council has future plans for improving the pedestrian and bicycle network. It is considered that walking and cycling will be viable alternative modes of transport in the future for visitors and employees of the hospital.

### **Green Travel Plan -**

A Green Travel Plan (GTP) has been prepared which encourages use of transport modes that have low environmental impacts, including walking, cycling, public transport, and better management of car use. The GTP will be implemented during the operational phase of the development, including:

- Public transport maps provided on noticeboards, newsletters, websites, social media to alert students to the alternative transport options.
- Information within the GTP will be provided to the hospital community in a Travel Access Guide.

- A formal Travel Plan Co-ordinator (TPC) will develop, implement and monitor the GTP.

The GTP will be monitored to ensure that it is achieving the desired benefits, including travel surveys to establish travel patterns and mode share of trips to and from the site. The GTP may be updated to influence further changes to the travel behaviour.

Overall, the traffic and parking implications are not expected to result in any discernible adverse impact on the surrounding road network, with management measures to ensure minimal traffic and parking implications for both construction and operation of the Griffith Base Hospital.

#### **Mitigation Measures**

- The Construction Traffic and Pedestrian Management Plan is to be implemented prior to and during construction works.
- The Green Travel Plan is to be implemented prior to the new Clinical Services Building becoming operational.

## **6.4. ECOLOGICALLY SUSTAINABLE DEVELOPMENT**

An Ecologically Sustainable Development (ESD) Report has been prepared by LCI Consulting (**Appendix O**). The report provides detail on how the overall planning and design of the building has incorporated ESD principles in accordance with the *Environmental Planning and Assessment Regulation 2000*.

#### **Assessment**

The principles of ecologically sustainable development were an integral consideration in the design of the proposed development. The sustainability targets for the development will be achieved through minimising the need for energy consumption (via passive measures), consumption optimisation (energy efficiency) and use of renewable resources, where required.

The design has adopted passive design principles that respond to the local climate and local sun path, reducing the building's demand for active building-services systems to provide thermal comfort and artificial lighting, and reducing peak energy demand and annual energy consumption.

The redevelopment has implemented the NSW Health Infrastructure Engineering Services Guidelines (NSW HI ESG), which provide a performance-based guide for the development of design and specification documentation for healthcare facilities.

More specifically, the project has utilised the following ESD measures for the hospital redevelopment:

- Passive sustainable design strategies, including passive heating and cooling, daylighting, access to views;
- Energy and water efficiency;
- Sustainable and low-carbon material considerations;
- Waste reduction design measures;
- Future proofing;
- 4-Star Green Star Design & As Built v1.2 equivalent design; and
- 10% or more improvement on the minimum NCC2019 Section J Energy Efficiency Requirements.

Overall, the proposed hospital redevelopment is considered to be an ecologically sustainable development.

#### **Mitigation Measures**

ESD measures are to be implemented through each stage of the project to achieve sustainability targets.

## 6.5. SOCIAL IMPACTS

A Social Impact Assessment (SIA) has been prepared by Urbis (**Appendix N**). The SIA has identified and analysed the potential positive and negative social impacts associated with a development proposal.

### Assessment

Urbis prepared a social baseline that identifies the demographic and social characteristics of the existing community. Griffith has the following demographic and social characteristics:

- High proportion of children and elderly people
- High proportion of Aboriginal and/or Torres Strait Islander Peoples
- Diverse migrant population
- Strong health sector employment
- Less people with tertiary education qualifications
- High proportion of socio-economic disadvantage
- More people receiving Jobseeker or youth allowance payments in October 2020 than December 2019
- Steady population growth.

Based on the assessment in this report, the key social impacts of this proposal are:

- **Delivery of new and improved regional hospital services:** The new contemporary building and health precinct will provide the local Griffith community, and the wider Murrumbidgee district community with a transformative and significant public asset that delivers on key State and local strategic planning visions. Therefore, it is considered that delivery of a new and improved regional hospital will have a very high positive impact on the community.
- **Improvement to community health from a new focus on wellness:** The shift from a clinical approach to a holistic health approach with a focus on wellness and preventative health measures is likely to provide the community with greater awareness about their health and wellbeing. Therefore, improved community health from a new focus on wellness is likely to have a high positive impact on the community.
- **Improved built environment and layout:** The new Hospital will improve the built environment and layout from the current situation by consolidating services in one building to enhance operational efficiencies and connections between units and St. Vincent's Private Hospital. Crucial to the design and payout is maximising natural light into the building, especially to in-patient rooms. Therefore, it is likely that improved built environment and layout will have a very high positive impact on the community.
- **Enhanced community confidence in the future of Griffith:** The investment in the Griffith Base Hospital is a regionally significant project that will enhance community confidence among the local Griffith community, as well other rural and regional communities. Therefore, it is likely that enhanced community confidence in the future of Griffith will have a high positive impact on the community.
- **Increased job opportunities:** Additional jobs that will be created with the expansion of the hospital, as well as the delivery of a new, contemporary hospital is likely to encourage health professionals within and outside the Griffith community to work at the hospital. Greater awareness of the health sector may also encourage the younger population in Griffith to enrol in health-related tertiary education opportunities. Therefore, increased job opportunities are likely to have a high positive impact on the community.
- **Enhanced engagement with Aboriginal culture and heritage:** The inclusion of Indigenous spaces within the new hospital, including an Aboriginal lounge and courtyard, and greater connection of the new hospital to the natural environment will assist in creating a welcoming and inclusive environment for Aboriginal patients, staff and visitors. This enhanced engagement with Aboriginal culture and heritage through the design of the new hospital is likely to have a high positive impact on the community.
- **Increase in open space and public amenity:** The redevelopment of the Griffith Base Hospital will enhance the existing parkland setting by providing embellished courtyards, including a cultural, indigenous focused courtyard, forecourt areas and lawns. Pedestrian pathways, with boundary

landscaping will also provide the community with recreational paths throughout the site, connecting to the broader street network and open space. Therefore, increased open space and public amenity is likely to have a high positive impact on the community.

### Mitigation Measures

The following recommendations are provided to further manage the potential impacts from the proposal:

- Consider community feedback for mental health services to also be provided at the Griffith Base Hospital.
- Provide specific programs and/or activities that address prevention of diabetes and obesity to address unique challenges for Griffith.
- Implement health and wellbeing programs that can be delivered virtually or through outreach programs to rural communities in the Murrumbidgee district.
- Hold a public open day when the Hospital opens to provide an opportunity to showcase the Hospital and engage with the local community.
- Develop partnerships with local tertiary institutions (including Charles Sturt University, Griffith Campus and Griffith TAFE) to provide on-site clinical teaching and student placement opportunities.
- Engage with the local Aboriginal community to discuss potential opportunities to use Aboriginal names for rooms within the hospital.
- Work with the local Aboriginal community in the final stages of design for the cultural courtyard.
- Consider any potential joint use arrangements with the broader community to use open space, particularly the cultural courtyard and lawn area.
- Engage with Council to consider how walking and cycling paths outside the Hospital site could be connected to enhance connections to the open space network.

In summary, Urbis concluded that the redevelopment of the Griffith Base Hospital will have a very high positive impact on the community. It will provide a regionally significant public asset that will provide contemporary and holistic health approaches with focus on preventative health and wellbeing for the local and regional community.

## 6.6. EUROPEAN HERITAGE

Comber Consultants were engaged to prepare a Statement of Heritage Impact (SoHI) (**Appendix P**) to assess the impacts of the proposed development on heritage items and archaeology. A summary of the assessment and recommended mitigation measures for both the built heritage and non-Aboriginal archaeology is provided below.

### Assessment

The SoHI identifies the heritage listed items through a search of Commonwealth, State and local statutory and non-statutory heritage registers. The Griffith Base Hospital is not listed on the State Heritage Register. The Griffith Base Hospital is listed on the s.170 NSW State Agency Heritage Register. Listing on the s.170 Register requires that Health Infrastructure considers the impact of the proposal on the heritage significance of the Griffith Base Hospital.

A further three s.170 listed items were identified in a 1 km radius around the study area. This includes:

- Griffith Courthouse (Dept. of Justice and Attorney General s.170 Register)
- Griffith Police Station, former (NSW Police Service s.170 Register)
- Griffith Railway Precinct (Country Regional Network s.170 Register)

The SoHI has determined that these other listed s.170 heritage items are not located in direct proximity to the site and will not be adversely impacted by the proposal.

The former Matron's House and Nurses' Quarters were located at the Griffith Base Hospital site and are listed as local heritage item I2 in the *Griffith Local Environmental Plan 2014*. However, the Former Matron's House and Nurses' Quarters have already been demolished under separate planning approvals. It is noted

that the shading of the hospital on the LEP heritage map is only referring to item I2. It does not indicate that the whole of the hospital is listed on the LEP.

Two heritage items listed in the Griffith LEP are in direct proximity to the site:

- I12: St. Alban's Anglican Cathedral and Hall, and
- I19: Sacred Heart Catholic Church, Presbytery, Convent and Hall.

Figure 18 LEP Listed Heritage Items



Source: Comber Consultants

Although St. Alban's Anglican Cathedral and the Sacred Heart Catholic Church are within the visual catchment of the hospital, the proposed redevelopment will not adversely impact upon these items. The current visual impact will not change and there will be no physical encroachment on to the site's of either Church.

Comber Consultants conclude that Griffith Base Hospital's significance lies in its historical and social significance as the site of a primary healthcare facility since 1931. However, it is no longer fit for purpose and cannot meet the current and future demands of a modern health care facility. Implementation of the mitigation measures below will ensure that significant information from the site is maintained.

### Archaeology

The Former Matron's House and Nurses' Quarters were demolished under separate planning approvals. Comber Consultants conclude that a review of original plans has shown that each of these buildings had floor coverings and the likelihood of under floor deposits is low. It is also not expected that significant under floor deposits will exist under any other structures which are to be demolished. Therefore, the report concludes that there is no need for a historical archaeological assessment and no specific mitigation measures are required.

### Mitigation Measures

The following mitigation measures are proposed to respond to the potential built heritage impacts:

- An archival recording should be undertaken of the original buildings constructed in the 1930s proposed to be demolished (Buildings 17, 19, 20 and 28).

- Original joinery circa 1931-36 (multi-paned windows, French doors, architrave and trims) should be salvaged and used in the new hospital building as an interpretative feature, reused in historic Council buildings or sold for reuse in local restoration projects.
- An interpretation strategy and plan should be developed and implemented to ensure that all historic information about the establishment and use of the hospital is maintained and presented to the public.
- There are a number of moveable heritage items which should be retained and used in an interpretive display or reinstated in an appropriate place within the new hospital. These items are the foundation stone and plaque dated 1931 and any other plaques, statues, artefacts or similar.

Comber Consultants support the demolition of the existing buildings and redevelopment of the site to ensure the ongoing use of the site as a hospital. The site can be made suitable for the proposed development subject to adoption and implementation of the above mitigation measures.

## 6.7. ABORIGINAL CULTURAL HERITAGE

An Aboriginal Cultural Heritage Assessment Report (**ACHAR**) has been prepared by Comber Consultants to assess the Aboriginal cultural heritage values across the site (refer to **Appendix Q**). A summary of the assessment and recommended mitigation measures is provided below.

### Assessment

To ensure that the Aboriginal archaeological significance of the site is not adversely impacted upon by the proposal, Comber Consultants were commissioned to undertake an Aboriginal archaeological assessment. That report was prepared in accordance with the *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW*. That report assessed the site to contain subsurface Aboriginal archaeological potential and recommended Aboriginal consultation and archaeological test excavation be undertaken (refer Appendix B of the ACHAR).

Accordingly, consultation was undertaken in accordance with the *Aboriginal Cultural Heritage Consultation Guidelines for Proponents 2010* and Aboriginal archaeological test excavations were undertaken in association with the Registered Aboriginal Party, the Griffith Local Aboriginal Land Council. The excavations were undertaken from 5/5/2020 to 14/5/2020 in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* and the Research Design prepared by Jillian Comber dated 16 April 2020 Version A. The ACHAR details the results of the consultation, assessment and test excavations.

The testing uncovered Aboriginal objects across the Griffith Base Hospital site with higher density of artefacts located within the southern portion of the hospital grounds. Subsequently, an Aboriginal Heritage Impact Permit (**AHIP**) was obtained on 12 November 2020 (AHIMS Permit ID: 4667), attached at **Appendix BB**. The AHIP permits the salvage excavations, harm to certain Aboriginal objects through the proposed works and other action causing harm. The artefacts retrieved from the hospital provide evidence of Aboriginal occupation within the Griffith region, representing their past, providing a direct link to their ancestors, and a continued connection to country and culture.

As a result of the testing, it was determined that within the SSDA site area, no further assessment, monitoring, testing or salvage is required. Sufficient information has been obtained from the program of testing to provide information about the Aboriginal archaeology and cultural heritage within the site.

Comber Consultants recommend the implementation of the following mitigation measures to reduce potential impacts to Aboriginal cultural heritage.

### Mitigation Measures

- No further archaeological assessment, monitoring, testing or salvage is required within the boundaries of the State Significant Development area. Sufficient information has been gained from the program of testing.
- Consultation with the Griffith Local Aboriginal Land Council should continue.
- Interpretation of the archaeology and Aboriginal history of Griffith and the site of the Griffith Base Hospital should be included in the redevelopment of the hospital site. This could include story boards, installations and artwork. An interpretation strategy and plan should be developed to guide this interpretation.

- If any previously unexpected or undetected Aboriginal objects are uncovered during the proposed hospital redevelopment, all works should cease in the vicinity of that object and further advice should be sought from the consultant.

## 6.8. NOISE AND VIBRATION

A Noise and Vibration Impact Assessment has been prepared by EMM Consulting and is included at **Appendix R**. The report addresses the proposed operational and construction noise impacts associated with the proposed development.

### Assessment – Construction

An assessment of construction noise and vibration has been undertaken. Noise predictions indicate some exceedance of the project noise management levels. This is not atypical for a project of this size which is being constructed in proximity to sensitive land uses. Vibration generated by heavy construction works are expected to generally comply with cosmetic damage limits excepting select pieces of machinery which may need to be carefully reviewed for implementation on the site. A detailed construction noise and vibration management plan should be prepared as part of the main works contract to ensure that proposed construction methodologies are managed such that noise and vibration impacts from the site are minimised as much as practicable.

### Assessment – Operation

Noise from on-site vehicle movements will comply with the noise emission requirements of the Noise Policy for Industry (2017) (NPfI). It is noted that on-site vehicle movements exist as part of the current Griffith Base Hospital arrangement and potential increases due to the proposal would result in a generally imperceptible change in existing noise levels.

The potential for sleep awakenings will be due to cars starting within the new main and western car parks during the night-time period. Predicted noise levels indicate noise from these events are unlikely to exceed the sleep awakening screening criteria of the NPfI at off-site residences.

The project is expected to result in marginal increases to traffic volumes on surrounding roads. The subsequent increase in road traffic noise level will be generally imperceptible.

A preliminary review of noise impacts associated with mechanical plant operation has been undertaken. It is expected that mechanical plant noise can be suitably treated using relatively standard acoustic treatments such as lined ductwork, acoustic attenuators and the like such that the acoustic requirements of the NPfI are achieved. However, a detailed review of mechanical plant cannot be undertaken at the SSDA stage given that the mechanical design is yet to be determined. A detailed review will be conducted during the detailed design and construction phases of the project.

### Mitigation Measures

The following measures are to be addressed within the future Construction Noise and Vibration Management Plan which will be finalised during the detailed design phase and implemented during the demolition, excavation and construction of the proposed development:

- A system for community liaison including complaints handling is to be implemented.
- Acoustically rated hoardings are to be erected around the site.
- Installation of temporary noise barriers around particularly noisy static equipment.
- Scheduling of noisy works to times which are mutually agreeable to surrounding noise receptors.
- Where possible, choose quieter plant and equipment; operate plant and equipment in the quietest and most efficient manner; and regularly inspect and maintain plant and equipment to minimise noise and vibration level increases.
- Focus on improved work practice methods to minimise construction noise.

The following mitigation measure is proposed in relation to mechanical plant:

- A detailed review of mechanical plant is to be undertaken as part of the detailed design phase to ensure that cumulative noise emissions comply with the project-specific noise trigger levels provided in Table 4.10 and Table 4.11 of the Noise and Vibration Impact Assessment prepared by EMM Consulting.

EMM conclude that noise and vibration generated by the construction and operation of the proposal can be suitably managed to comply with the requirements of the relevant noise policies. Noise intrusion into the proposed development has been assessed against the NSW government's interim guideline. In the absence of any significant external noise source, no additional acoustic treatments are warranted in this instance.

## 6.9. CONTAMINATION AND REMEDIATION

JK Environments have previously undertaken a Preliminary Environmental Site Assessment (PESA) and a Phase 2 Environmental Site Assessment, the findings of which are included in the Additional Environmental Site Assessment prepared by JK Environments, provided at **Appendix J**.

### Assessment

Based on the assessment undertaken, JK Environments advise that potential risks associated with widespread subsurface contamination at the site is low, however there are localised risks associated with the underground storage tanks (USTs).

It is concluded in the Additional Environmental Site Assessment that the site can be made suitable for the proposed development provided that the following recommendations are implemented to address the data gaps and to better characterise the risks:

1. Development and implementation of a Remediation Action Plan (**RAP**); and
2. Preparation of a Validation Assessment (VA) report on completion of remediation.

A Remediation Action Plan (**RAP**) has been prepared by JK Environments (refer **Appendix I**) to provide an over-arching RAP for the development and includes the methodology to address the identified USTs and potential asbestos impacts.

### Mitigation Measures

JK Environments recommend the following strategies to render the site suitable for the proposed development:

- Implementation of the RAP prepared by JK Environments.
- Submission of Validation Assessment report to the consent authority on completion of remediation to demonstrate that the site is suitable for its intended use.

JK Environments conclude that the site can be made suitable for the proposed development subject to the implementation of the RAP.

## 6.10. SEPP 33 ASSESSMENT

A SEPP 33 Assessment Report has been prepared by Arup and is provided at **Appendix K**. SEPP 33 requires an assessment of hazardous materials, involving a screening method based on the quantities of dangerous goods on a site, to assist in determining if a development is likely to be a potentially hazardous industry.

### Assessment

Arup assessed the Dangerous Goods (DGs) storage at Griffith Base Hospital, including DGs of Class 2.1, 2.2, 3, 4.1, 5.1, 5.2, 6.1, 8 and 9, against the SEPP 33 thresholds. The assessment outlines that a Preliminary Hazard Analysis (**PHA**) is not required as none of the threshold quantities of Dangerous Goods has been exceeded.

### Mitigation Measures

Arup recommends that the design layout of the DGs storage follows the relevant Australian Standards including:

- AS 1940-2017: The storage and handling of flammable and combustible liquids;
- AS 3780-2008: The storage and handling of corrosive substances;
- AS/NZS 3833-2007: The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers;

- AS 4326-2008: The storage and handling of oxidising agents; and
- AS 4332-2004: The storage and handling of gases in cylinders.

Arup concluded that the proposal, subject to the implementation of the mitigation measures, will not result in development that is considered to be potentially hazardous or offensive.

## 6.11. HAZARDOUS MATERIALS

Two hazardous materials reports have been prepared for the site, including the Hazardous Building Materials Assessment, prepared by GHD, dated December 2018, and the Asbestos and Hazardous Materials Assessment, prepared by Coffey, dated 15 September 2020. These two reports have assessed all of the existing buildings on the site. Refer **Appendix L**.

### Assessment

The reports have found hazardous materials contained within the existing buildings on the site, including asbestos containing materials, lead paint, synthetic mineral fibres (SMF), polychlorinated biphenyls and ozone depleting substances.

Some areas were inaccessible during the hazardous building materials assessment.

### Mitigation Measures

#### **Inaccessible areas -**

- Inaccessible areas identified during the hazardous building materials assessment should be investigated prior to demolition works commencing to confirm the presence or otherwise of hazardous building materials, following vacation of the buildings and isolation of services. Any additional materials identified should be removed prior to demolition in accordance with relevant Codes of Practice and Legislation.

#### **Asbestos containing materials -**

- All identified asbestos containing material must be removed prior to demolition in accordance with the *Code of Practice for Safe Removal of Asbestos* (SafeWork NSW 2016).
- Should demolition or refurbishment works be delayed, the following interim mitigation measures are recommended:
  - Install labelling to identified asbestos containing materials in accordance with relevant Codes of Practice;
  - identified asbestos cement debris associated with various assets should be removed in accordance with relevant Codes of Practice;
  - access should be restricted to the southern storeroom of the Distribution Kitchen #14 and signage installed in accordance with relevant Codes of Practice;
  - further investigation is recommended into possible millboard lining within an electrical duct heater (EDH) at the Mortuary #10; and
  - stored asbestos containing panel to Old Kitchen and Staff Dining Room #18, North western storage hut should be removed in accordance with relevant Codes of Practice.

#### **Synthetic mineral fibres -**

- All SMF should be removed in accordance with National Occupational Health and Safety Commission (1990) *Synthetic Mineral Fibres; National Standard for Synthetic Mineral Fibres*; and the *National Code of Practice for the Safe Use of Synthetic Mineral Fibres*.

#### **Polychlorinated biphenyls -**

- Fluorescent light fittings throughout the site should be inspected by an electrician prior to demolition to confirm the presence (or otherwise) of capacitors containing PCB. If capacitors are identified as potentially containing PCB, the capacitors must be removed and disposed in accordance with ANZECC

(1997) *Identification of PCB-containing Capacitors: An Information Booklet for Electricians and Electrical Contractors*.

#### **Lead based paints -**

- Prior to demolition works, lead based paints may be disposed of attached to the substrates as long as they are in good condition. If the lead based paints are chalking or delaminating, the paint residues should be removed from the substrates in accordance with AS4361.2 (2017) *Guide to Lead Paint Management. Part 2: Residential and Commercial Buildings* and the waste must be disposed of as a lead containing material in accordance with EPA requirements.
- Should demolition or refurbishment works be delayed, any chalking or delaminating paints should be subject to interim mitigation measures including removing and/or sealing.

#### **Ozone depleting substances -**

- Prior to proposed demolition works that may disturb refrigerants, the equipment must be handled by licensed contractors holding a permit under *The Ozone Protection and Synthetic Greenhouse Gas Management Act 1989*.

#### **Suspect materials or further advice -**

- Should suspect materials be identified that are not identified within the HBM Registers or supporting systems, then the material should be sampled and analysed for the suspected hazard. If applicable, any associated works with potential to disturb the material are to cease and the area made safe. If the suspect material has already been disturbed, then the overarching provisions of the Hazardous Building Materials Management Plan or similar, is to be followed, including advice sought from a suitably qualified and experienced professional.
- If in doubt or unsure of any issue involving known, presumed or suspect hazardous building materials then works should cease and advice be sought.

#### **Additional precautionary testing -**

- If suspected asbestos building materials are encountered during, maintenance, refurbishment or demolition of the nominated assets (but are not listed in the asset register) it is recommended that additional precautionary testing be undertaken.

#### **Planning of maintenance, refurbishment or demolition works -**

- With respect to any known or potential asbestos building material or hazardous building materials, the planning of maintenance, refurbishment or demolition works associated with any asset needs to be undertaken carefully. It should include consideration of the following:
  - Requirements of the overarching Asbestos Management Plan or similar.
  - Recognition that any identified asbestos building material or HBM is the minimum amount of material present.
  - Subsequent recognition that the scope and limitations of prior asbestos assessment(s) may result in additional unidentified asbestos containing materials or HBM being present. This may require works to:
    - Address known information gaps, such as assessing any previously inaccessible rooms and assuming that asbestos building material may be present in other areas not generally accessed by previous assessment(s), such as wall and ceiling cavities.
    - Project team undertaking an asbestos building material risk analysis and incorporating suitable provisions into contract/specifications.
    - Consider directing the works Contractor to undertake their own independent asbestos building material assessment of the work area (may use existing information) that then adds an additional layer of assurance as well as minimising potential Contractor time and cost variations as works progress.

- Prior to demolition, refurbishment or similar activity, all asbestos building materials likely to be disturbed by those works must be removed.

***Maintenance of the hazardous building materials register -***

- Maintenance of the hazardous building materials register is required so that it remains current and HI and its tenants/workers/contractors can rely upon it as an accurate representation of HBMs present at the relevant assets.

***Suspect materials or further advice -***

- Should suspect materials be identified that are not identified within the hazardous building materials register or supporting systems, then the material should be sampled and analysed for the suspected hazard.
- If applicable, any associated works with potential to disturb the material are to cease and the area made safe.
- If the suspect material has already been disturbed, then the overarching provisions of the Asbestos Management Plan or similar, is to be followed, including advice sought from a suitably qualified and experienced professional.
- If in doubt or unsure of any issue involving known, presumed or suspect asbestos building materials then works should cease and advice be sought.

## **6.12. GEOTECHNICAL**

JK Geotechnics have prepared an Geotechnical Investigation Report (**Appendix S**) which details the existing geotechnical conditions and provides mitigation measures to reduce impacts.

### **Assessment**

The investigation involved drilling of 16 combined geotechnical and contamination investigation boreholes as well as 14 large diameter boreholes to enable an assessment of the subgrade conditions to inform pavement design of the proposed car park footprint extensions. Excavation of two test pits was undertaken to investigate the existing building footing configurations and founding conditions at those locations. An additional borehole was drilled in proximity to the former fuel underground storage tanks, as a combined groundwater/gas monitoring well.

The laboratory test results indicate that the soil samples tested are 'non-aggressive' to concrete in accordance with Table 6.4.2(c) AS2159-2009. However, based on the resistivity laboratory results, the soils exhibit a 'moderate to mild' exposure classification to steel in accordance with Table 6.5.2(c) AS2159-2009.

No groundwater was encountered in the boreholes during or on completion of auger drilling. Relatively dry weather had occurred for some months prior to the investigation. Groundwater conditions may vary depending on other factors.

The results indicate that all but one soil sample is classed as 'non-saline'. Therefore, generally the site soils are considered 'non-saline'.

Based on laboratory testing results, the clay soils encountered beneath the topsoil/fill are of mainly low or low to medium plasticity. Such materials are expected to exhibit a low degree of shrink-swell movements.

### **Mitigation Measures**

The proposed development is to be undertaken in accordance with the findings of the Geotechnical Investigation Report.

## 6.13. BCA AND ACCESSIBILITY

Blackett Maguire + Goldsmith has undertaken an assessment of the proposed development against the Deemed-to-Satisfy (DTS) provisions of the relevant sections of the BCA and applicable Building Regulations (**Appendix T**) and the findings are summarised below.

### Assessment

The assessment identifies the matters which deviate from the deemed-to-satisfy provisions of the BCA, including:

- Structure
- Fire resistance
- Access and egress
- Services and equipment
- Energy efficiency.

Further assessment of the design will be undertaken as the design develops to ensure compliance is achieved prior to approval being issued. Once the design has developed to a stage where specific non-compliances have been identified within the design, preliminary consultation will be undertaken with Fire and Rescue NSW to ensure that the proposed design meets the operational requirements of the Brigades.

Overall, the proposal can comply with the relevant requirements through a combination of deemed-to-satisfy provisions and performance-based solutions, subject to implementation of the recommendations and further reviews during the design development. These matters do not preclude issuing of a Construction Certificate as they will be resolved prior to construction.

### Mitigation Measures

Implementation of the recommendations of the BCA Report and further reviews during the design development phase.

## 6.14. UTILITIES

### 6.14.1. Hydraulic and Fire Services

A Utilities Services Report, relating to Hydraulic and Fire Protection Services has been prepared by Stantec (**Appendix U**). The report identifies the existing services and infrastructure within the vicinity of the site, establishes the impact on existing utility assets of the proposed development and the proposed augmentation connection required to service the proposal.

### Assessment

#### **Water connection -**

The site is supplied by a cold water ring main which has been formed in the early stages of the project. The ring main has one 100mm metered connection to Warrambool Street, near St Vincent's Private Hospital. This existing connection will be upgraded to 150mm and have its own dedicated meter and backflow prevention assembly.

#### **Sewer connection -**

There are two council sewer mains which are located around the site. One main is located at the top of the site and drains along Animoo Ave. Council has advised that this sewer main is connected to the G3 catchment, which has very limited capacity.

The other sewer main is located to the south of the site on Noorebar Avenue. This sewer main is connected to the Council G1 catchment and is understood to have more capacity and is council's preferred connection point for sewer discharges for the site.

### ***Gas connection -***

The site is supplied by a 35kPa gas service in Warrambool street. A gas meter will be located on the line to the Non-Clinical Services building and the Clinical Services Building. Both lines will need to be regulated prior to use at the building connection.

### ***Fire hydrant system connection -***

The existing hydrant system is extended from the town main water supply in Noorebar Avenue. The existing system was extended in 2018 to provide coverage for the temporary Renal unit and ambulatory care hub. Provision for further extension of the main was incorporated at that time.

### **Mitigation Measures**

Subject to the design being implemented in accordance with the proposed plans, no further mitigation measures are proposed.

## **6.14.2. Mechanical and Electrical**

A Mechanical and Electrical Services Report has been prepared by Steensen Varming (**Appendix V**).

### **Assessment**

#### ***Electrical -***

No upgrades are required to the surrounding Essential Energy infrastructure and there is sufficient capacity in the existing network to service the additional load introduced by the project. The new high voltage cable within the hospital site is to be at existing Essential Energy pole 96-5177.

#### ***Telecommunications -***

New incoming telecommunications services will be arranged for the site by the MLHD and will link into the main communications room on the lower ground floor of the new Clinical Services Building. Following the construction of this new communications room, all new and existing telecommunications requirements for the site will be serviced by this room.

#### ***Mechanical –***

The new Clinical Services Building will be provided with a new 2MW chilled water system to provide critical and comfort cooling for the spaces within the new building. The system will consist of both air and water cooled chillers and associated cooling towers. To provide the heating, a new 1600kW gas fired heating hot water system is being proposed.

Air conditioning, ventilation, indoor air quality and infection control - Traditional Variable Air Volume (VAV) systems typically provide the best balance between capital cost and running cost when assessing the various options for non-critical clinical floors. Fan coil units will provide the best solution for high heat load spaces such as imaging rooms and selected non-clinical areas or transient spaces such as meeting rooms.

Localised constant air volume (CAV) systems will serve the critical areas such as theatres and isolation rooms.

Local exhaust systems to meet best practice indoor air quality standards will be required in such areas as birthing suits, triage, dirty utilities and theatres.

Refer **Appendix V** for further details.

### **Mitigation Measures**

Subject to the design being implemented in accordance with the proposed plans, no further mitigation measures are proposed.

### 6.14.3. Road Works and Utility Relocations

#### Assessment

The Civil Report at **Appendix Z** identifies that the existing access road from Noorebar Avenue will require minor reconstruction to connect to the proposed new car park. Existing services and associated infrastructure will not have to be relocated as part of the road reconstruction works.

#### Mitigation Measures

Subject to the design being implemented in accordance with the proposed plans, no further mitigation measures are proposed.

## 6.15. WASTE MANAGEMENT

A Construction Waste Management Plan (**CWMP**) and Operational Waste Management Plan (**OWMP**) have been prepared by Encycle Consulting (**Appendix W** and **Appendix X**).

The waste management plans identify the estimated waste and management, minimisation and storage requirements which reflect best-practice and promote strong sustainability initiatives.

The waste management plans include a waste hierarchy of guiding principles, including:

- **Avoid/Reduce** – minimise the production of waste materials in the construction process and purchase materials during site operations which have minimal packaging.
- **Reuse** – ensure, wherever possible, that materials are reused either on site or offsite during the construction and operational phases of the development.
- **Recycle/Recover** – identify all recyclable waste products to be produced on site with clear signage to ensure separation of recyclable waste and process for on-site or off-site recycling.
- **Disposal** – waste products which cannot be reused or recycled will be removed and disposed of at appropriate licensed facilities in accordance with legislative requirements.

### 6.15.1. Construction Waste Management

#### Assessment

The types, quantities and management systems for the anticipated demolition and construction waste materials generated for the entire site are identified in Tables 1 and 2 of the CWMP. It is estimated that the total demolition waste will equate to 31,240m<sup>3</sup> of materials. It is estimated an additional 5,310m<sup>3</sup> of waste will be generated during the construction phase.

Semi-trailers, bins, skips and other site receptacles will be planned and located around the site according to the phase of the demolition and construction and the materials types and quantities being generated.

The appropriate types of receptacles will be leased to the site contractor by the waste service provider as needed. Bins will be coloured and fitted with signage so that site staff are easily able to use the correct bins.

Education/training materials will be developed to communicate the correct processes for disposal of waste and recyclable materials on site. The educational material will be used and will include specific details such as signage and who to contact to resolve issues that may arise.

All staff working on site will be required to understand the relevant aspects of correct waste management on site and the site targets for waste minimisation and recycling.

Some materials may not yet have been identified (e.g. asbestos, acid sulfate soils) and may be discovered during the demolition or excavation process. If hazardous or special wastes are discovered, these will be classified and treated as required by State government in accordance with *Protection of the Environment Operations Act 1997* and *Protection of the Environment Operations (Waste) Regulation 2014*.

If asbestos is found to be present in any of the buildings to be demolished, the demolition contractor will arrange to dispose of the material at an appropriate waste management facility and comply with all relevant requirements for the handling, transport and disposal of asbestos.

Encycle Consulting conclude that waste generated through the demolition, construction and operational phases of the development can be suitably managed to comply with the requirements of the standards and policies.

### **Mitigation Measures**

Management of waste is to be undertaken in accordance with the CWMP, including the following mitigation measures:

- If hazardous or special wastes are discovered during demolition or construction, these are to be classified and treated in accordance with the *Protection of the Environment Operations Act 1997* and *Protection of the Environment Operations (Waste) Regulation 2014*.
- If asbestos is found to be present in any of the buildings to be demolished, the demolition contractor will arrange to dispose of the material at an appropriate waste management facility and comply with all relevant requirements for the handling, transport and disposal of asbestos.

## **6.15.2. Operational Waste Management**

### **Assessment**

The Operational WMP identifies the expected resource streams based on the proposed activities, including:

- General waste
- Clinical waste
- Anatomical waste
- Cytotoxic waste
- Sharps
- Cardboard recycling
- Commingled recycling
- Confidential documents

The estimated waste streams and quantities during operation are included in Table 1 of the OWMP (**Appendix X**). It is estimated that the hospital will generate a total of approximately 6.3m<sup>3</sup> of waste and recyclables per day, a total of approximately 45m<sup>3</sup> per week.

Table 2 in the OWMP summaries the estimated types of equipment and receptacle numbers and storage location for the various waste/ recycling streams. Table 3 in the OWMP summarises the servicing frequency for the various waste and recycling streams.

Guidance for determining “best practice” waste management was taken from the Australian Standard (AS3816:2018 *Management of clinical and related wastes*, *Waste Management Association of Australia, Biohazardous Waste Industry Group, Manual for the Management of Biohazardous Waste, 7th edition, 20143*, *NSW Health Policy Directive (Clinical and Related Waste Management for Health Services, 14 August 2017)*, and NSW EPA.

Waste and recycling bins will be located in dirty utility rooms and disposal rooms at ward/department level, office spaces, cleaner’s rooms and patient areas as required for the activities conducted in each specific department/area. Reviews of the location, type and size of waste/recycling containers will be undertaken on a regular basis. Similarly, waste and recycling bins will be provided for the retail premises and managed by Hospital staff. The waste storage and collection area will be located within the NCS building. The waste areas will be accessed by hospital staff only and locked.

### **Mitigation Measures**

Management of waste is to be undertaken in accordance with the OWMP, including the following mitigation measures:

- All waste areas and waste and recycling bins/equipment will be clearly differentiated through appropriate signage and colour coding to Australian Standards (AS/NZS 4123:2006) to reflect the materials contained.

- All staff and contractors shall attend a waste management training session. This is to be conducted during all induction programs in the first instance.
- All waste receptacles will be appropriately signed and additional room signage is usually provided from most waste contractors during implementation of the waste services contract.

## 6.16. BIODIVERSITY

A Biodiversity Development Assessment Report (**BDAR**) has been prepared by Abel Ecology (**Appendix H**). The report addresses the likely impacts of the proposal on species and ecological communities present on the site. Abel Ecology have identified opportunities to minimise impacts and to assess the credit requirement within the Biodiversity Offsets Scheme identified in Section 7.4 of the *Biodiversity Conservation Act 2016*.

### Assessment

The proposed development footprint includes 666.48m<sup>2</sup> of planted NSW vegetation and 385.107m<sup>2</sup> of remnant native vegetation which will be required to be cleared. The total of these two amounts is 1051.587m<sup>2</sup>. The proposed clearing does not include activities or clearing on land displayed on the NSW Biodiversity Values Map.

The proposal will require the removal of approximately 0.1ha of Plant Community Type ID (PCTID) 82 *Western Grey Box – Poplar Box- White Cypress Pine woodland* which has an associated Endangered Ecological Community (EEC) *Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Penplain, Nandewar and Brigalow Belt South Bioregions*.

The threshold for potential Serious and Irreversible Impacts (SAIL) for PCTID 82 is not breached by this proposal. Neither the PCTID nor the above EEC are listed threatened entities at risk of serious and irreversible impact.

The clearing of 0.1ha of PCTID 82 is not considered a SAIL, however the clearance of this amount of PCTID 82 requires one ecosystem credit.

No offsets for species credits are required as part of the proposal. None of the threatened species possible in the proposal area for this project are listed threatened entities requiring assessment of serious and irreversible impacts.

Three hollow bearing trees have been identified on site.

### Mitigation Measures

Abel Ecology have recommended the following mitigation measures:

- All trees outside of the development footprint are to be retained.
- An arborist is to be engaged to implement tree protection measures for the hollow bearing trees and other native trees to be retained on site prior to commencement of building works.
- Project materials are to be stacked in areas already cleared e.g. the car park.
- One ecosystem credit is required for the EEC. Any of the following PCTs can be purchased to meet the like-for-like option: PCTs 76, 80, 81, 82, 101, 110, 237 or 248. They must be from one of the following two Interim Biogeographic Regionalisation for Australia (IBRA) regions:
  1. Lower Slopes, Bogan-Macquarie, Inland Slopes, Lachlan Plains, Murray Fans, Murrumbidgee and Nymagee; or
  2. Any IBRA subregion that is within 100 kilometres of the outer edge of the impacted site.

## 6.17. ARBORICULTURAL

An Arboricultural Impact Assessment has been prepared by Creative Planning Solutions (**Appendix Y**) to assess the impact of the proposed development on the existing trees. The report assesses 186 trees located on and adjoining the site. Of the 186 trees assessed, 60 have already been approved for removal under a separate planning process. Accordingly, these trees have been shown/noted as removed within the following Arboricultural Impact Assessment, however have not been counted in the total trees to be removed under the subject SSDA.

### Assessment

Creative Planning Solutions recommend the removal of 26 trees, including:

- Five (5) trees of 'Medium' retention value and seven (7) trees of 'Low' retention value due to falling directly within the footprint of proposed buildings, car parks, driveways, footpaths or hard stand areas;
- One (1) tree of 'High' retention value, eight (8) trees of 'Medium' retention value and four (4) trees of 'Low' retention value due to suffering unsustainable levels of incursion to the TPZ/SRZ as a result of the proposed works; and
- One (1) tree which observed as dead which has a retention value of 'Consider Removal'.

The retention and protection of 100 trees, including:

- Eleven (11) trees of 'Low', 'Medium' and 'High' retention value which are subject to minor (<10%) and sustainable levels of incursion to the TPZ – subject to implementation of detailed protection measures, the long-term health and viability of these trees will not be affected; and
- Eighty-nine (89) trees of 'Low', 'Medium', 'High' and 'Consider Removal' retention value which are located away from the proposed works and are unlikely to be to subject any additional incursion to the TPZ.

To compensate the loss of amenity resulting from the removal of 26 trees, replacement planting is to be provided at a ratio of 1:1. This will ensure there is no incremental loss of canopy cover within the developed area and the value of the landscaped setting is maintained in the long-term.

### Mitigation Measures

- All tree removal work is to be carried out by an experienced arborist with minimum AQF Level 3 qualifications in accordance with AS4373-2007 *Pruning of Amenity Trees*, *Safe Work Australia Guide for Managing Risks of Tree Trimming and Removal Work (2016)* and other applicable legislation.
- Trees proposed for retention are to be protected in accordance with AS497-2009 *Protection of trees on development sites*.
- A Project Arborist experienced in tree protection on construction sites is to be engaged prior to the commencement of any demolition or construction on site. The Project Arborist shall monitor and report regularly to the Crown Certifier and the Applicant on the condition and protection of the retained trees during construction works. The Project Arborist is to supervise and monitor any excavation, machine trenching or compacted fill placement within the TPZs throughout construction.
- Twenty-six (26) locally endemic compensatory canopy tree plantings are to be provided within the open space areas associated with the development. The following species should be considered for replacement planting:
  - *Brachychiton populneus* (Kurrajong)
  - *Callitris glaucophylla* (White Cypress Pine)
  - *Eucalyptus melliodora* (Yellow Box)
  - *Eucalyptus microcarpa* (Western Grey Box)
  - *Eucalyptus populnea* (Poplar Box)
- The Landscape Plan prepared by Site Image Landscape Architects (**Appendix M**) details the supplementary tree planting and onsite landscaping to enhance the appearance and amenity of the site.

## 6.18. DRAINAGE AND FLOODING

A Civil Report has been prepared by Bonacci Group (**Appendix Z**). The report describes the civil works including the stormwater strategy and water management plan required for the proposal.

This report addresses the redirected, upgraded and proposed new stormwater drainage networks related to the redevelopment works. This design report also incorporates the Water Sensitive Urban Design measures which have been incorporated into the design to address the quality of stormwater discharge.

### Assessment

#### *Drainage -*

A soil and water management plan will evolve with the project to ensure rainwater is adequately conveyed from the site during construction. The plan will include installation of sediment fences, construction of a sediment basin or basins, catch drains, temporary site exit, setting up areas for the construction materials stockpiles. The contractor is to ensure that all water draining offsite meets the strict water quality measures instituted by authorities.

The proposed stormwater strategy has been designed in compliance with the *Griffith City Council Engineering Guidelines for Subdivisions and Development Standards, Griffith City Council Onsite Detention Policy* by limiting stormwater discharge to pre-development conditions for all storm events, including 100 year ARI storm events.

Griffith City Council has a requirement that on-site detention is to be provided for all developments that drain to Council's stormwater infrastructure where peak flows are increased in relation to the predevelopment conditions. The aim of this requirement is to ensure that new developments and redevelopments do not increase peak stormwater flows in downstream areas during major storm events of up to and including the 100year ARI (1% Annual Exceedance Probability) storm event.

It has been estimated that the overall impervious areas, within the site (roofs, carparks, paved areas) will be reduced as a result of the development, by approximately 15%, and this will result in the reduction of stormwater flows. The proposed new stormwater drainage system includes construction of open drains/swales and infiltration areas, which will result in further reduction of stormwater flows from the site. Estimated peak stormwater flows, from the site, will be less than the predevelopment flows, and on-site detention of stormwater will not be required.

The proposed Water Sensitive Urban Design measures include grassed swales, bio-retention swales and basins, and infiltration trenches and areas. Swales, basins and infiltration areas within the main car park allow for stormwater infiltration and removal of pollutants as presented in the computer modelling of the proposed works.

The contractor commissioned for construction works will be required to prepare a temporary stormwater diversion plan, for each stage of construction works. The plan will include the location of existing stormwater drainage within or adjacent to the construction site and proposed location of temporary stormwater drainage. Based on the assessment of the proposed staging of construction works, there will be no increase in stormwater flows from the site.

#### *Flooding -*

The site is not identified as flood affected in Griffith City Council's flood mapping. However, areas downstream of the site to the south are flood affected. The proposed site drainage system has been designed to ensure there is no increase in stormwater flows after the completion of the redevelopment works so that there is no increase in flood levels downstream of the site as a result of the proposed development.

Current climate change modelling indicates that the rainfall intensity will change approximately -5% to +10% in 2030, and approximately -6% to +14 % in 2070. The modelling shows that changes in rainfall intensity will be negligible and managed through the site drainage system.

Bonacci Group have found that the proposed stormwater management strategy for the SSDA improves the existing stormwater drainage system by reducing flow rates and stormwater pollution and improving the overall water quality for the site.

## Mitigation Measures

A soil and water management plan is to evolve with the project to ensure rainwater is adequately conveyed from the site during construction.

The contractor commissioned for construction works will be required to prepare a temporary stormwater diversion plan, for each stage of construction works.

## 6.19. SOILS, SEDIMENT, EROSION AND DUST CONTROL

A Civil Report has been prepared by Bonacci Group (**Appendix Z**) and this contains a Sediment and Erosion Control Plan. The Bulk Earthworks Plan is within the Remediation Action Plan (**Appendix I**).

### Assessment

#### *Earthworks –*

High strength rock exists at sometimes very shallow depth across the site. The Geotechnical Investigation Report at **Appendix S** states that this high strength rock will be able to support vertical cut faces in trenches. Vertically cut trench faces will reduce the amount of spoil material removed during trench installation, vastly reducing the footprint and impact of trenches for stormwater drainage pipes.

The total cut volume is 15,000m<sup>3</sup> and the total fill volume is 18,000m<sup>3</sup>.

#### *Sediment, Erosion and Dust Control -*

During construction activities, stormwater quality control will be achieved by deposition and trapping of silts and clays which often have nutrients attached to their surfaces during the construction process.

The Sediment and Erosion Control Plan has been prepared in accordance with Landcom's *Managing Urban Stormwater: Soils and Construction Volume 1* (the "Blue Book"). The following detailed measures have been proposed during the construction stage to minimise and manage the generation and off-site transmission of sediment, dust, and fine particles:

- Geotextile filter fabric drop inlet sediment traps have been incorporated at each stormwater pit inlet around the construction area. The sediment traps capture a concentrated sediment laden flow and store it under still conditions enabling the silt to deposit at the bottom of the trap.
- Sediment fences have been incorporated according to the fall of the site. The location is able to be altered as construction progresses and the site's drainage patterns change. This will allow for the sediments in the water to settle under gravity and filtering sediment from water as water flows through the fabric.
- Temporary sedimentation basin has been designed in the area located south of the main car park, to intercept sediment laden run-off and to trap and retain sediment. The basin should be monitored daily and maintained throughout the construction stage and shall not be removed until the 'uphill' disturbed areas are stabilised.
- Catch drains have been designed throughout the site to divert sediment laden run-off to sedimentation basins and prevent clean water from getting turbid by diverting run-off from undisturbed up-slope areas away from disturbed areas. Diversion works have been designed in a manner that will not erode or cause erosion.
- Sandbag kerb inlet sediment traps have been incorporated around stormwater inlet pits at Council roads to keep sediment out of the public stormwater network and receiving environment.

## Mitigation Measures

The Sediment and Erosion Control Plan is to be implemented during demolition and construction.

## 6.20. CONTRIBUTIONS

### Assessment

The relevant contributions plan is the *Griffith City Council Section 94A Development Contributions Plan 2010 (Amendment 2013)*. However, the following planning policies support the best practice of exempting community infrastructure from paying contributions:

### Circular D6 – Crown Development Application and Conditions of Consent

Exemption from contributions is supported by Planning Circular (Circular D6) relating to Crown Development Applications issued by the then Department of Urban Affairs and Planning. Circular D6 sets out the circumstances in which it is appropriate for a consent authority to seek the approval of the applicant or the Minister to impose conditions of consent.

Circular D6 notes that where a consent authority intends to levy contributions on Crown Development, they must be justified, and consideration should be given to the Crown's role in providing a community service, the cost of which is accountable to all taxpayers in the State.

The currency of Circular D6 is confirmed in the Draft Development Contributions Practice Note – July 2005, which states *“the current limitation on imposition of levies on Crown Developments as outlined in Circulate D6...remain in force”*.

Health Infrastructure is a Government agency which relies on government grants to provide new facilities for the local community. The enforcement of the development contribution would remove a portion of these public funds that have been provided to fund the proposed redevelopment. The nature of this public development means that the infrastructure which Council is seeking to levy will be provided through the redevelopment of the Griffith Base Hospital.

## 7. MITIGATION MEASURES

The measures identified to mitigate the potential environmental impacts of the proposed development are described in detail within **Section 6** of the EIS and summarised in the table below.

Table 7 Proposed Mitigation Measures

<b>Impact</b>	<b>Potential Impact</b>	<b>Approach</b>	<b>Residual Impact</b>
<b>Light spill</b>	Potential impacts of light spill on adjacent properties.	Consideration of a range of measures to minimise light spill.	No identified residual impacts
<b>Art Strategy</b>	Develop a strategy that will include a variety of art types representing a wide range of communities and local artists.	Provision of an art strategy for the redeveloped hospital incorporating a variety of art types representing a wide range of communities and local artists.	No identified residual impacts
<b>Traffic and Transport</b>	Potential traffic impacts from additional hospital facilities.  Potential construction traffic impacts on car parking and local streets.	Detailed Construction Management Plan to be finalised prior to the commencement of construction activities.  Green Travel Plan to be implemented during the operational phase and monitored.	No identified residual impacts
<b>Ecologically Sustainable Development</b>	Potential increase in energy consumption associated with demolition, construction and operational phases.	ESD measures to be implemented through each stage of the project to achieve sustainability targets.	No identified residual impacts
<b>Social Impacts</b>	Potential positive and negative social impacts associated with the hospital redevelopment.	Consider community feedback for mental health services to also be provided at the Griffith Base Hospital.  Provide specific programs and/or activities that address prevention of diabetes and obesity.  Implement health and wellbeing programs that can be delivered virtually or through outreach programs to rural communities.  Develop partnerships with local tertiary institutions to provide on-site clinical teaching and student placement opportunities.  Engage with the local Aboriginal community to discuss potential opportunities to use Aboriginal	No identified residual impacts

<b>Impact</b>	<b>Potential Impact</b>	<b>Approach</b>	<b>Residual Impact</b>
		names for rooms within the hospital and in the final stages of design for the cultural courtyard.	
<b>European Heritage</b>	The proposal includes demolition of buildings constructed in the 1930s.	<p>An archival recording should be undertaken of Buildings 17, 19, 20 and 28.</p> <p>Original joinery circa 1931-36 should be salvaged and reused.</p> <p>An interpretation strategy and plan should be developed.</p> <p>Moveable heritage items should be used in an interpretive display.</p>	No identified residual impacts
<b>Aboriginal Cultural Heritage</b>	Archaeological testing uncovered Aboriginal objects across the site.	<p>Consultation with the Griffith Local Aboriginal Land Council should continue.</p> <p>Interpretation of the archaeology and Aboriginal history of Griffith and the site of the Griffith Base Hospital should be included in the redevelopment of the hospital site.</p> <p>If any previously unexpected or undetected Aboriginal objects are uncovered during the proposed hospital redevelopment, all works should cease in the vicinity of that object and further advice should be sought from the consultant.</p>	No identified residual impacts
<b>Noise and Vibration</b>	Potential noise impacts upon sensitive receivers during construction and operation of the hospital.	<p>Development and implementation of a Construction Noise and Vibration Management Plan.</p> <p>A review of mechanical plant is to be undertaken to ensure that cumulative noise emissions comply with the relevant policies.</p>	No identified residual impacts
<b>Contamination and Remediation</b>	Potential risks associated with subsurface contamination.	<p>Implementation of the RAP.</p> <p>Submission of Validation Assessment report to the consent authority on completion of remediation.</p>	No identified residual impacts

<b>Impact</b>	<b>Potential Impact</b>	<b>Approach</b>	<b>Residual Impact</b>
<b>SEPP 33 Requirements</b>	Potential for hazardous goods on site.	Design layout of dangerous goods storage is to follow the relevant Australian Standards.	No identified residual impacts
<b>Hazardous Materials</b>	Hazardous materials have been found to be contained within the existing buildings on the site.	Detailed mitigation measures are included in the Hazmat Surveys.	No identified residual impacts
<b>Geotechnical</b>	Potential impacts on site development as a result of geotechnical conditions on site.	The proposed development is to be undertaken in accordance with the findings of the Geotechnical Investigation Report.	No identified residual impacts
<b>BCA and Accessibility</b>	Implications of BCA requirements on proposed development.	Implementation of the recommendations of the BCA Report and further reviews during the design development phase.	No identified residual impacts
<b>Waste Management</b>	Potential impacts from waste generated by demolition and construction phases. Medical and clinical waste during the operation.	All waste is to be managed in accordance with the Construction and Operational Waste Management Plans.  If hazardous or special wastes are discovered during demolition or construction, these are to be classified and treated in accordance with legislative requirements.  If asbestos is found during demolition, the demolition contractor will arrange to dispose of the material at an appropriate waste management facility.	No identified residual impacts
<b>Biodiversity</b>	Proposal will require the removal of approximately 0.1ha of Plant Community Type ID (PCTID) 82 which has an associated Endangered Ecological Community.	All trees outside of the development footprint are to be retained.  An arborist is to be engaged to implement tree protection measures.  Project materials are to be stacked in areas already cleared.  One ecosystem credit is required for the EEC.	
<b>Arboricultural</b>	The proposal requires the removal of 26 trees.	All tree removal work is to be carried out by an experienced arborist with	

Impact	Potential Impact	Approach	Residual Impact
		<p>minimum AQF Level 3 qualifications.</p> <p>Trees proposed for retention are to be protected in accordance with AS497-2009 Protection of trees on development sites.</p> <p>Project Arborist experienced in tree protection on construction sites to be engaged prior to the commencement of any demolition or construction on site.</p> <p>Twenty-six (26) locally endemic compensatory canopy tree plantings are to be provided.</p>	
<p><b>Drainage and Flooding</b></p>	<p>Potential impacts from stormwater on the site.</p> <p>Areas downstream of the site to the south are flood affected.</p>	<p>A soil and water management plan is to evolve with the project to ensure rainwater is adequately conveyed from the site during construction.</p> <p>The contractor commissioned for construction works will be required to prepare a temporary stormwater diversion plan, for each stage of construction works.</p>	<p>No identified residual impacts</p>
<p><b>Soil, Sediment, Erosion and Dust Control</b></p>	<p>Demolition and construction activities have potential to impact on stormwater system.</p>	<p>The Sediment and Erosion Control Plan is to be implemented during demolition and construction.</p>	<p>No identified residual impacts</p>

## 8. SECTION 4.15 ASSESSMENT

The proposed development has been assessed in accordance with the relevant matters for consideration listed in Section 4.15 of the EP&A Act.

### 8.1. ENVIRONMENTAL PLANNING INSTRUMENTS

The proposed development has been assessed in accordance with the relevant State and local environmental planning instruments in **Section 4**.

The assessment concludes that the proposal complies with the relevant provisions within the relevant instruments.

### 8.2. DRAFT ENVIRONMENTAL PLANNING INSTRUMENTS

No draft environmental planning instruments are relevant to this proposal.

### 8.3. DEVELOPMENT CONTROL PLAN

The provisions of a DCP do not apply to State Significant Development in accordance with Clause 11 of the SRD SEPP.

### 8.4. PLANNING AGREEMENT

No planning agreements are relevant to this proposal.

### 8.5. REGULATIONS

This application has been prepared in accordance with the relevant provisions of the EP&A Regulation.

### 8.6. LIKELY IMPACTS OF THE PROPOSAL

The proposed development has been assessed considering the potential environmental, economic and social impacts as outlined below:

- **Natural Environment:** The proposed development has been designed to comply with the relevant State and local planning requirements and Australian standards and guidelines. The impacts to the natural environment can be mitigated, minimised or managed as summarised in **Section 7** and outlined in detail within the specialist reports appended to the EIS.
- **Built Environment:** The proposal complies with the land use and built form controls for the site. The proposed design responds to the existing parkland setting and promotes high quality design. The new hospital will improve the built environment and layout from the current situation by consolidating services in one building to enhance operational efficiencies and connections between units and with St Vincent's Private Community Hospital.
- **Social:** The new contemporary building and health precinct will provide the local Griffith community, and the wider Murrumbidgee district community with a transformative and significant public asset that delivers on key State and local strategic planning visions. It is considered that delivery of a new and improved regional hospital will have a very high positive impact on the community. The inclusion of Indigenous spaces within the new hospital, including an Aboriginal lounge and courtyard, and greater connection of the new hospital to the natural environment, will assist in creating a welcoming and inclusive environment for patients, staff and visitors.
- **Economic:** Additional jobs that will be created with the expansion of the hospital, as well as the delivery of a new, contemporary hospital is likely to encourage health professionals within and outside the Griffith community to work at the hospital. Greater awareness of the health sector may also encourage the younger population of Griffith to enrol in health-related tertiary education opportunities.

The potential impacts can be mitigated, minimised or managed through the measures identified in **Section 7** of this EIS.

## 8.7. SUITABILITY OF THE SITE

The site is considered highly suitable for the proposed development for the following reasons:

- The project is consistent with the NSW Government and Griffith City Council policies for the site and surrounding area including the NSW State Priorities, the State Infrastructure Strategy 2018, the Riverina Murray Regional Plan, and the Griffith Local Strategic Planning Statement.
- The site is currently used as a hospital and provides a prime opportunity to take advantage of the existing use of the site to expand and improve existing facilities.
- The proposal is permissible in the R1 General Residential zone pursuant to the Griffith Local Environmental Plan 2014 and is consistent with the objectives of the zone as it will deliver significant investment in and the construction of critical infrastructure, add to the creation of construction related and long-term operational jobs and will improve health facilities and services for the community of the Riverina-Murray region.
- The parkland setting and landscape solutions of the proposed development will reduce the impact of the scale of the building when viewed from surrounding streets.
- The proposed façade and exterior colour scheme of the new building have been designed to be sympathetic to the surrounding residential context and the site's parkland setting.

The proposal is considered suitable for the site as it delivers world class health services and facilities which align with relevant strategic and statutory planning policies and significant NSW Government investment in public infrastructure.

## 8.8. PUBLIC INTEREST

The proposed development is considered in the public interest for the following reasons:

- The proposal is consistent with relevant State and local strategic plans and complies with the relevant State and local planning controls.
- The project will provide expanded inpatient, surgical, ambulatory care and critical care services to Griffith Base Hospital. It will also enable the consolidation of several ageing and dislocated buildings into an integrated and contemporary healthcare facility.
- No adverse environmental, social or economic impacts will result from the proposal.
- The issues identified during the stakeholder consultation have been incorporated into the final design and detailed works and can be implemented in the construction and operation of the proposed development.
- The design incorporates the achievement of CPTED principles to ensure minimised anti-social and criminal behaviour within the locality.
- The principles of ecologically sustainable development were an integral consideration in the design of the proposed development. The sustainability targets for the development will be achieved and the equivalent of a 4 star Green Star rating achieved.
- The proposal will result in the delivery of 172 jobs during the construction phase and a total of 441 operational jobs (86 additional FTE jobs).

## 9. CONCLUSION AND JUSTIFICATION

This Environmental Impact Statement (EIS) has been prepared on behalf of Health Infrastructure in support of a State Significant Development Application (SSDA) for the construction of the Griffith Base Hospital at 5-39 Animoo Avenue, Griffith. The EIS has addressed the issues identified in the SEARs and has been prepared in accordance with Schedule 2 of the EP&A Regulation.

Having regard to the biophysical, economic and social considerations, including the principles of ecologically sustainable development, the proposed development is justified for the following reasons:

- The proposal satisfies the applicable state planning policies, and relevant environmental planning instruments that apply to the site:
  - The proposed uses are permitted with consent and meet the relevant objectives of the R1 General Residential zone pursuant to the *Griffith Local Environmental Plan 2014*.
- The Project is consistent with relevant strategic planning documents as it will deliver significant investment in and the construction of critical infrastructure, add to the creation of construction related and long-term operational jobs and will improve health facilities and services for the community of the Riverina-Murray region.
- The specialist plans and reports detail the way in which the building has been sited and design to optimise its potential benefits and minimise its potential impacts on the locality.
- The design of the new Clinical Services Building has been through a process with the GANSW with three meetings held since November 2019. The GANSW supports the design response.
- Design measures have been incorporated into the proposal to respond to the topography of the site as well as take advantage of views out to the landscape; to provide a considered landscape strategy that takes advantage of the hospital's parkland setting; to enhance internal amenity through access to natural light in the building, amongst other measures.
- The proposal will have an acceptable level of environmental impact for the following reasons:
  - The proposal has no unacceptable traffic impacts and will facilitate increased use of walking, cycling and public transport as a means of travel.
  - There are minimal impacts to the surrounding properties.
  - The bulk, scale and urban design of the development is appropriate to the site and surrounding context.
  - There will be very high positive benefits resulting from the proposed development.
  - There will be no adverse impacts upon Aboriginal or European heritage.
  - There will be no adverse impacts on biodiversity and the trees to be removed will be replaced by suitable replacement trees.
- Estimated peak stormwater flows from the site will be less than the pre-development flows and there will be no increase in flood levels downstream of the site. The development can be adequately serviced by essential infrastructure without unreasonable demands on existing networks.
- The issues identified during the stakeholder consultation have been incorporated into the final design and detailed works and can be implemented in the construction and operation of the proposed development.

Having considered all relevant matters, we conclude that the proposed development is appropriate for the site and approval is recommended, subject to appropriate conditions of consent.



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This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

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