

HEALTH INFRASTRUCTURE

# Review of Environmental Factors

Ryde Hospital Temporary Works

Version Number 5



REF Template Version: March 2023.

Declaration

This Review of Environmental Factors (REF) has been prepared for NSW Health Infrastructure (HI) and assesses the potential environmental impacts which could arise from the proposed temporary works at Ryde Hospital.

This REF has been prepared in accordance with the relevant provisions of the *Environmental Planning and Assessment Act 1979* (EP&A Act), the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) and *State Environmental Planning Policy (Transport and Infrastructure) 2021* (TI SEPP).

This REF provides a true and fair review of the activity in relation to its likely impact on the environment and the information it contains is neither false nor misleading. It addresses to the fullest extent possible all the factors listed in Section 3 of the *Guidelines for Division 5.1 Assessments* (DPE June 2022), the *Environmental Planning and Assessment Regulation 2021* and the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Based upon the information presented in this REF, it is concluded that, subject to adopting the recommended mitigation measures, it is unlikely there would be any significant environmental impacts associated with the activity. Consequently, an Environmental Impact Statement (EIS) is not required.

Declaration	
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<b>D</b>	Architectural Plans	STH and Pinto Tuncer	20/03/2024
<b>E</b>	Architectural Design Statement	STH	07/03/2024
<b>F</b>	Service Design Statement – Dry and Wet Fire	LCI	03/04/2024
<b>G</b>	Service Design Statement – Electrical	LCI	03/04/2024
<b>H</b>	Service Design Statement – Fire Safety Statement	ARUP	20/03/2024
<b>I</b>	Service Design Statement – Hydraulic	LCI	03/04/2024
<b>J</b>	Service Design Statement – Mechanical	LCI	03/04/2024
<b>K</b>	Construction Management Plan	AW Edwards	27/03/2024
<b>L</b>	Mitigation Measures	Ethos Urban	04/04/2024
<b>M</b>	Civil and Stormwater Statement	Acor Consultants	08/03/2024
<b>N</b>	Traffic and Parking Assessment	Stantec	27/03/2024
<b>O</b>	Biodiversity Statement	Eco Logical	27/02/2024
<b>P</b>	Contamination Statement	EDP	19/03/2024
<b>Q</b>	Sustainability Letter	Climatewise Design	12/03/2024
<b>R</b>	Heritage Statement	Urbis	04/04/2024
<b>S</b>	Notification Letter to Council	Health Infrastructure	08/02/2024
<b>T</b>	Notification Letter to Neighbours	Health Infrastructure	08/02/2024
<b>U</b>	Acoustic Report	Acoustic Studio	21/03/2024
<b>V</b>	Geotechnical Statement	Douglas Partners	14/03/2024
<b>W</b>	Aboriginal and Historical Archaeology Statement	Urbis	04/04/2024
<b>X</b>	Operational Waste Management Plan	Waste Audit	March 2024
<b>Y</b>	BCA and Accessibility Statement	BM Plus G	03/04/2024

## Abbreviations

Abbreviation	Description
AEC	Area of Environmental Concern
AHD	Australian Height Datum
AHIP	Aboriginal Heritage Impact Permit
AHIMS	Aboriginal Heritage Information Management System BC Regulation
AMG	Australian Map Grid
BC Act 2016	<i>Biodiversity Conservation Act 2016</i>
BC Act 2017	<i>Biodiversity Conservation Act 2017</i>
BC Regulation	Biodiversity Conservation Regulation 2017
BAM	Biodiversity Assessment Method
CA	Certifying Authority
CE	Chief Executive
CM Act	<i>Coastal Management Act 2016</i>
CMP	Construction Management Plan
CWC	Connecting with Country
CRA	Conservation Risk Assessment
DPC	Department of Premier and Cabinet
DPHI	Department of Planning, Housing and Industry
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EES	Environment, Energy and Science
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
EPBC Act (Cwth)	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Environmental Planning Instrument
EPL	Environment Protection License
FM Act	<i>Fisheries Management Act 1994</i>
Ha	Hectares
HHIMS	Historic Heritage Information Management System
HI	Health Infrastructure
LEP	Local Environmental Plan
LGA	Local Government Area
MPS	Multipurpose Service
MNES	Matters of National Environmental Significance



Abbreviation	Description
NorBE	Neutral or Beneficial Effect on Water Quality Assessment Guideline (2022)
NPW Act	<i>National Parks and Wildlife Act 1974</i>
NPW Regulation	National Parks and Wildlife Regulation 2009
NPWS	National Parks and Wildlife Service (part of EES)
NT Act (Cth)	<i>Commonwealth Native Title Act 1993</i>
OEH	(Former) Office of Environment and Heritage
PCMP	Preliminary Construction Management Plan
Planning Systems SEPP	State Environmental Planning Policy (Planning Systems) 2021
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Proponent	NSW Health Infrastructure
REF	Review of Environmental Factors
RF Act	<i>Rural Fires Act 1997</i>
RFS	Rural Fire Service
Resilience and Hazards SEPP	State Environmental Planning Policy (Resilience and Hazards) 2021
SEPP	State Environmental Planning Policy
SIS	Species Impact Statement
TI SEPP	State Environmental Planning Policy (Transport and Infrastructure) 2021
WM Act	<i>Water Management Act 2000</i>

# Executive Summary

## The Proposal

This Review of Environmental Factors (REF) relates to a series of temporary works at Ryde Hospital. The proposal includes:

- Construction of temporary intensive and critical care building.
- Provisions of a temporary loading dock located off Denistone Road.
- Alterations to the Graythwaite Building rooftop and basement to facilitate new office space, food services, and storage areas.
- Establishment of two areas to accommodate office space, workshops and storage.
- Connection of a pedestrian ramp that connects between Trigg House and the Graythwaite Building.
- Connection and augmentation of in-ground services and utilities, as required.
- Temporary acoustic treatments to Trigg House windows.
- Decommissioning and removal of the temporary facilities by the end of 2027.

## Objective and Need for the Proposal

Ryde Hospital is currently undergoing major redevelopment to provide a new state-of-the-art health facility which will further support and strengthen the services and facilities provided at the hospital for the benefit of the North Sydney Local Health District (NSLHD). The proposed temporary works are required to be undertaken as a separate but related project, to ensure the ongoing operation of the hospital is not impacted during the construction of the Ryde Hospital Redevelopment project.

## Options Considered

A 'do nothing' scenario was considered for redevelopment on the site. However, this option would not facilitate ongoing hospital operations during construction (occurring as part of the Ryde Hospital Redevelopment project). Accordingly, it was determined that the most appropriate way forward would be to undertake a series of works that would temporarily support the ongoing operation of Ryde Hospital during the construction phase.

## Site Details

Ryde Hospital is located at 1 Denistone Road, Denistone within the City of Ryde Local Government Area (LGA) and is located within the NSLHD. It is approximately 8km east of the Parramatta CBD and 13km northwest of the Sydney CBD. The site is legally described as Lot 10 and Lot 11 in DP1183279 and Lot A and Lot B in DP323458. It has an area of approximately 7.69Ha and currently accommodates the existing Ryde Hospital Campus.

## Planning Approval Pathway

Ryde Hospital is zoned SP2 Infrastructure (Health Services Facility) under the *Ryde Local Environmental Plan 2014* (Ryde LEP). Permissible uses in the SP2 zone include *"the purpose shown on the Land Zoning Map, including any development that is ordinarily incidental or ancillary to development for that purpose"*. As the works are to support the ongoing operation of Ryde Hospital, the proposed works are permissible within the SP2 zone.

Section 2.61(1)(a) of *State Environmental Planning Policy (Transport and Infrastructure) 2021* (TI SEPP) states that the erection or alteration of, or addition to, a building that is a health services facility may be carried out by or on behalf of a public authority without consent on any land if the development is carried out within the boundaries of an existing health services facility. Accordingly, the proposed works can be undertaken by Health Infrastructure (HI) as a public authority, as 'Development Permitted without consent', in accordance with the following provisions of the TI SEPP.

We are however, required to undertake an assessment of the likely environmental impacts in accordance with Part 5 of the *Environmental Planning and Assessment Act 1979*. Therefore, the proposed works are subject to an environmental assessment (REF) as presented in this report.

### Consultation and Engagement

Under Section 2.10(2), 2.11(2)(b), and 2.62(2)(a)(i) of the TI SEPP, the REF was notified to the City of Ryde Council for 21 days, commencing on 8 February 2024 and closing on 29 February 2024. Council provided a response on 16 February 2024, which requested further information to enable a complete assessment of the proposed works. The proponent subsequently met with Council on 27 February 2024 to clarify the items raised in their response, and formally issued a response back to council via email on 1 of March 2024.

Under Section 2.62(2)(ii) of the TI SEPP, written notice of proposed works was provided to occupiers of adjoining land for a 21 day notification window, commencing 8 February 2024 and closing on 29 of February 2024. No responses were received within the notification window.

### Environmental Impacts

This REF considers the requirements of Part 5 of the EP&A Act, as well as Section 171 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulations). **Section 6.0** outlines the potential impacts of the works on the environment, including noise and vibration, geotechnical, contamination, biodiversity, waste management, and stormwater.

The environmental impacts from the proposed development are considered to be temporary and minimal. Mitigation measures, included in **Section 7.0**, outline the undertakings to manage and minimise potential impacts arising from the development.

### Justification and Conclusion

This REF describes the proposed temporary works and has examined to the fullest extent possible all matters affecting or likely to affect the environment by reason of the proposed activity. Potential impacts can be reasonably mitigated, and where necessary managed through the adoption of suitable site practices and adherence to accepted industry standards.

The proposed activity can be justified as it is required to ensure that the ongoing operation of the hospital is not impacted during construction for the Ryde Hospital Redevelopment project. The works are required to be undertaken as a separate but related project to the main hospital redevelopment to ensure that the temporary facilities are approved, constructed, and operational before the main redevelopment works are approved and commence. Any impacts that arise as a result of the proposal can be successfully mitigated and the proposal will not result in any unacceptable environmental impacts.

# 1. Introduction

This Review of Environmental Factors (REF) has been prepared by Ethos Urban on behalf of HI to determine the environmental impacts associated with the proposed temporary works at Ryde Hospital. Specifically, the works include:

- Construction of temporary intensive and critical care building.
- Provisions of a temporary loading dock located off Denistone Road.
- Alterations to the Graythwaite Building rooftop and basement to facilitate new office space, food services, and storage areas.
- Establishment of two areas to accommodate office space, workshops and storage.
- Connection of a pedestrian ramp that connects between Trigg House and the Graythwaite Building.
- Connection and augmentation of in-ground services and utilities, as required.
- Temporary acoustic treatments to Trigg House windows.
- Decommissioning and removal of the temporary facilities by the end of 2027.

The purpose of this REF is to describe the proposed works, to document the likely impacts of the proposal on the environment and to detail protective measures to be implemented to mitigate impacts. For the purpose of these works, HI is the proponent and the determining authority under Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

The description of the proposed works and associated environmental impacts have been undertaken in the context of the *Guidelines for Division 5.1 Assessments* (DPE June 2022), the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation), and the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The assessment contained within the REF has been prepared having regard to:

- Whether the proposed activity is likely to have a significant impact on the environment and therefore the necessity for an EIS to be prepared and approval to be sought from the Minister for Planning and Public Spaces under Part 5 of the EP&A Act.
- The potential for the proposal to significantly impact *Matters of National Environmental Significance* (MNES) on Commonwealth land and the need to make a referral to the Australian Government Department of Environment and Energy for a decision by the Commonwealth Minister for the Environment on whether assessment and approval is required under the EPBC Act.

The REF helps to fulfil the requirements of Section 5.5 of the EP&A Act, which requires that HI examine, and take into account to the fullest extent possible, all matters affecting, or likely to affect, the environment by reason of the proposed activity.

## 1.1 Proposal Need and Alternatives

Ryde Hospital is currently undergoing major redevelopment to provide a new state-of-the-art health facility which will further support and strengthen the services and facilities provided at the hospital for the benefit of the Northern Sydney Local Health District (NSLHD). The proposed temporary works are a separate but related project which is required to ensure the ongoing operation of key elements of the hospital during the construction of the Ryde Hospital Redevelopment project.

## 2. Site Analysis and Description

### 2.1 The Site and Locality

The Ryde Hospital site is legally described as Lot 10 and Lot 11 in DP1183279 and Lot A and Lot B in DP323458. It has an area of approximately 7.69Ha and currently accommodates the existing Ryde Hospital Campus. Ryde Hospital is located within the City of Ryde Local Government Area (LGA) and the NSLHD.

- Lot 10 DP 1183279 – The State of NSW.
- Lot 11 DP 11833279 – Health Administration Corporation.
- Lot A DP 323458 – Health Administration Corporation.
- Lot B DP 323458 – Health Administration Corporation.

The proposed works will be undertaken within Lot 10 and Lot 11 in DP1183279 only.

#### 2.1.1 Existing Development

The site currently accommodates the existing Ryde Hospital Campus, which is characterised by several one and two storey buildings, connected and built on the site in an ad-hoc manner. These buildings accommodate a range of health and medical uses, including an emergency department, cardiology unit, rehabilitation centre, nurses' residences and a several administrative uses.

A general arrangement plan of the existing campus is shown in **Figure 1**.



**Figure 1 Existing layout of Ryde Hospital**

Source: Northern Sydney Local Health District



## 2.1.2 Other Site Elements

### Topography

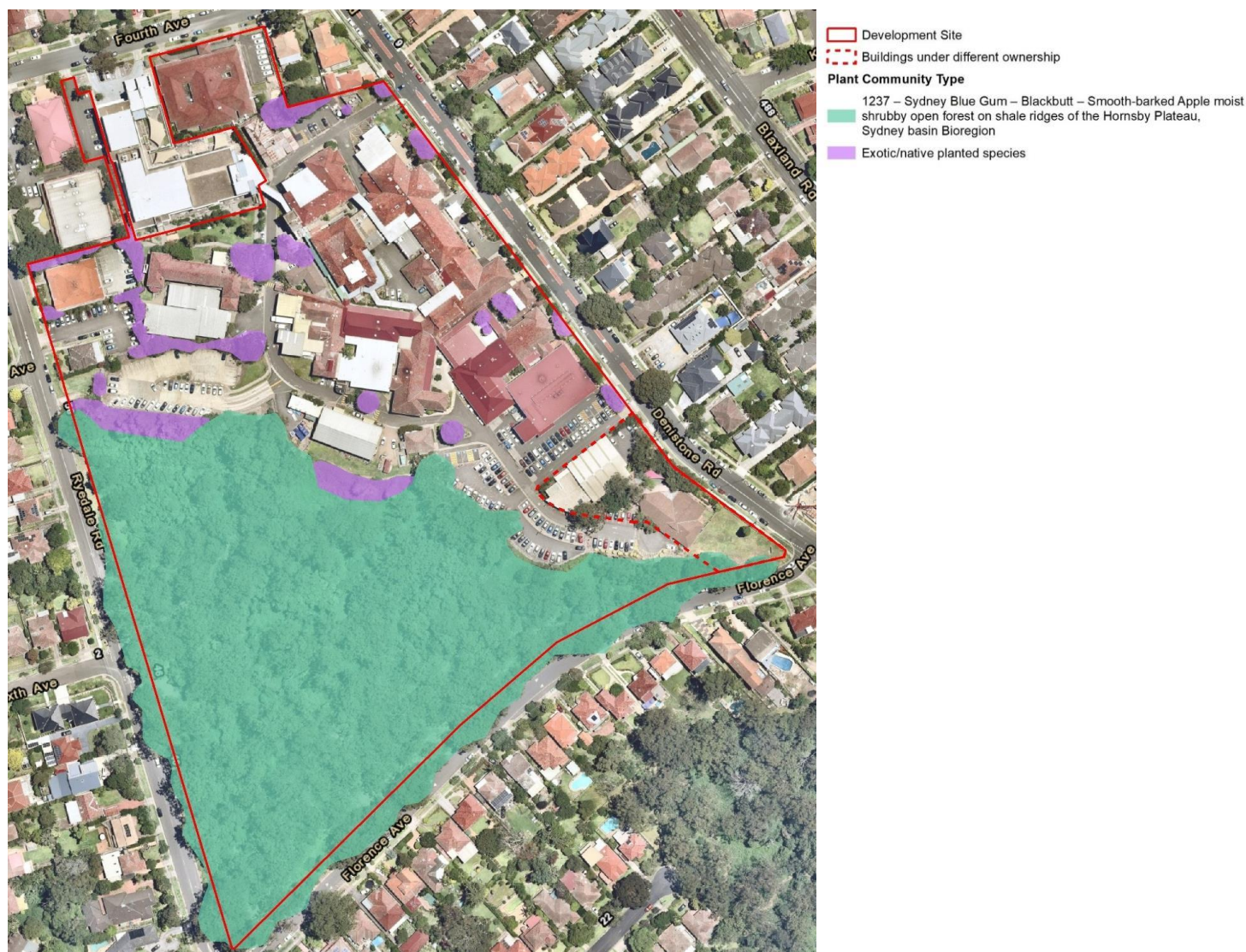
The current hospital campus is located over a relatively flat plateau, which is a part of a continuous ridge, running east west across the precinct. The site slopes significantly from north to south, with a drop of approximately 50m from the highest to the lowest point. A Survey Plan has been prepared by Monteath and Powys and is included in **Appendix A**.

### Vegetation

The southern half of the site is devoid of any built form. It contains vegetation that has been identified as plant community type (PCT) Blue Gum High Forest, also referred to as *PCT 1237 Sydney Blue Gum – Blackbutt – Smooth-barked Apple moist shrubby open forest on shale ridges of the Hornsby Plateau, Sydney basin Bioregion*. PCT 1237 is listed as a critically endangered ecological community under both the *Biodiversity Conservation Act 2016* (BC Act) and the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Under the EPBC Act, the Blue Gum High Forest is also identified as a Matter of National Environmental Significance.

The northern portion of the site also contains a number of exotic and native plant species. They range from 1.6 – 28m in height and generally comprise the following species – *Callistemon viminalis* (bottlebrush), *Cupressus sempervirens* (cypress pine) and *Pyrus calleryana* (callery pear).

The location of vegetation on the site is identified in **Figure 2** below.



**Figure 2 Location of Vegetation on Site**



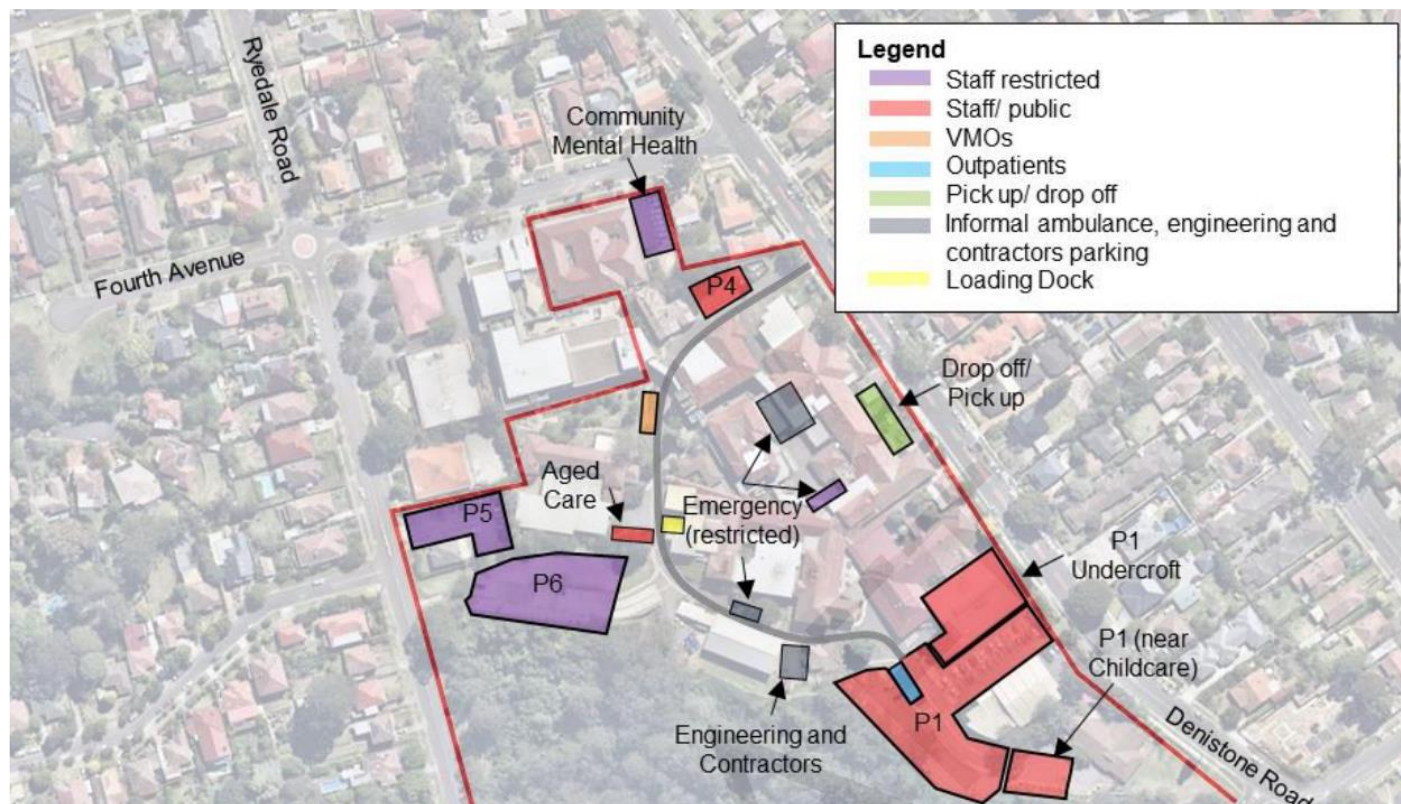
Source: Ecological

### Traffic/Transport

#### Vehicle Access and Internal Circulation

Entry to the site is provided off Denistone Road, which provides access to car parking areas, front-of-house and emergency department drop off areas, ambulance bays, and the loading dock and waste collection areas via the internal road network. Additional vehicle access is provided off Fourth Avenue and Ryedale Road.

The existing Ryde Hospital accommodates 271 parking spaces, which are spread throughout the site. This includes a total of 21 parking spaces which are allocated for fleet vehicles, service vehicles, ambulance parking, drop off and pick up activity (excluding accessible) and restricted parking. All other parking spaces are unallocated and can be used by either staff, patients or visitors. The existing parking provision is identified in **Figure 3** below.



**Figure 3 Parking Provision**

Source: Stantec

#### Active Transport

The site is supported by key pedestrian infrastructure, including footpaths and refuge islands, which are provided on the surrounding roads. The main pedestrian access point is located off Denistone Road and provided direct access to the main hospital facilities and the emergency department. Additional pedestrian entry is provided from the vehicle driveways on Denistone Road, Ryedale Road and Forth Avenue.

On road cycle routes are provided within the areas surrounding the site. These routes provide connection to the surrounding suburbs, as well as the nearby railway stations located in Eastwood, West Ryde and Denistone. Bicycle parking racks are located in the P1 and P4 parking areas, and staff shower facilities are provided in Denistone House.

#### Public Transport

Ryde Hospital is located 500m north-east of Denistone Railway Station, which provides access between the Sydney CBD and Hornsby via Strathfield, Epping, Chatswood and North Sydney. A bus stop located is along the Denistone Road frontage of the site, servicing the 515 route, which provides access to the Ryde and Eastwood Town Centres. Another bus stop exists on Fourth Avenue to the north-west of the site (but not along the site's frontage).



### Contamination

The site has historically been used as a residential estate in the early 1800's after which the site has been used as a hospital. A detailed site investigation and data gap analysis has confirmed that there are a number of contaminants located on site, including asbestos and heavy metals. Asbestos containing fill and material within the soil exceeding acceptable levels exist in two locations to the south of the existing hospital footprint, north of the Blue Gum High Forest. Other buildings that are being demolished as part of separate approvals may have asbestos containing fill under their footprint.

Remediation is not required within the areas of the proposed works under this Part 5 activity.

### Geotechnical Conditions

Based on the results of previous site investigations, the ground conditions on the majority of the site comprise fill overlaying residual silty clay. The fill comprises compacted clay, sand and gravel to a maximum depth of 4.5m and residual silty clays are of a low to medium plasticity. Bedrock levels vary throughout the site between 1.2m and 8.18m.

Groundwater was encountered during the borehole investigations, with observations made between 1.7m and 10.3m below surface level.

### Bushfire

The southern portion of the Ryde Hospital site is mapped as bushfire prone land, due to the Blue Gum High Forest vegetation and significantly sloping land. As shown at **Figure 4** below, over half of the site is mapped as category 2 vegetation in accordance with the City of Ryde's Bushfire Prone Land Map. The temporary works proposed as part of this REF will not be undertaken within the portion of the site that is mapped as bushfire prone land, further comments are included in the Bushfire Assessment of Temporary Structures in **Appendix B**.



**Figure 4 Bushfire Prone Land on Site and in the Vicinity of the Site**

Source: City of Ryde Council

### Heritage

Ryde Hospital comprises development from circa 1914, originally for use as a convalescent hospital for men, through the 1934 opening of the Ryde District Soldier's Memorial Hospital on the site, to the modern Ryde Hospital currently in operation. Under the Ryde Local Environmental Plan 2014 (RLEP 2014), the site is identified as a local heritage item, being Item no. 47 "Denistone House" and "Trigg House" (Ryde Hospital). The "Stables" building (building 8) is also of heritage significance. The buildings of heritage significance are described as follows:

- Denistone House is significant for being remnant of one of the large colonial estates of the district. It is a rare amalgam of a number of different Victorian period architectural styles and is located on a prominent elevated site. Denistone House was built in 1875 for Richard Rouse Terry who is one of the major landholders in the district.



- Trigg House is listed for its association with Richard Rouse Terry. It was constructed in 1934 in response to a desperate lack of accommodation within the hospital. The heritage significance of Trigg House has been compromised by substantial alterations and additions, which have rendered the original building form and facades unrecognisable. Trigg House has been assessed by Urbis as being of little heritage significance.
- The Stables (also known as the Lodge) is listed for its former use as the stables for Denistone House and the 1933 conversion of the building to accommodation for hospital staff. The Stables is a fine example of a Victorian Regency stables building, the original form of which remains legible with a sympathetic interwar rear wing addition.

The rest of the buildings on the site are not considered to be of heritage significance. The site is not identified as being located within a Heritage Conservation Area. There are a number of local heritage items within the vicinity of the site, including Item no. 125 “Open Space” at Denistone Park (100m south of the site) and Item no. 309 “House” at 36 Fourth Avenue, Eastwood (50m north of the site).

## 2.1.3 Site Considerations and Constraints

Section 10.7 Planning Certificate No. PLN2024/1713 dated 8 April 2024 identifies that the site is located within the SP2 Infrastructure – Health Services Facility zone under Ryde Local Environmental Plan 2014, and is provided at **Appendix C**.

**Table 1: Section 10.7 Planning Certificate**

Affectation	Yes	No
Critical habitat		✓
Conservation area		✓
Item of environmental heritage	✓	
Affected by coastal hazards		✓
Proclaimed to be in a mine subsidence district		✓
Affected by a road widening or road realignment		✓
Affected by a planning agreement		✓
Affected by a policy that restricts development of land due to the likelihood of landslide	✓	
Affected by bushfire, tidal inundation, subsidence, acid sulfate or any other risk	✓ (for bushfire risk only, however the proposed activity is located outside of the area mapped as bushfire prone within the lot)	
Affected by any acquisition of land provision		✓
Biodiversity certified land or subject to any biobanking agreement or property vegetation plan		✓
Significantly contaminated		✓
Subject to flood related development controls		✓

## 2.2 Surrounding Development

The area surrounding the site predominantly comprises low density residential development. Specifically:

- North: Directly to the north of the site is the low-density residential suburb of Denistone, which is characterised by one to two storey, detached residential dwellings. Beyond this is Blaxland Road, which is a main road connecting Ryde and Eastwood. Further north is the suburb of Eastwood and Eastwood Town Centre.
- East: The low-density residential suburbs of Denistone and Denistone East are located to the east of the site.
- South: To the south of the site is Denistone Park, a heritage listed park under the Ryde Local Environmental Plan 2014. Beyond this is the T9 Train Line and Denistone Train Station. West Ryde Town Centre is located to the south of Ryde Hospital.
- West: The site slopes significantly down towards the west, and backs onto low density residential and the T9 Train Line. Further west are the suburbs of Denistone West, Ermington and Rydalmere.

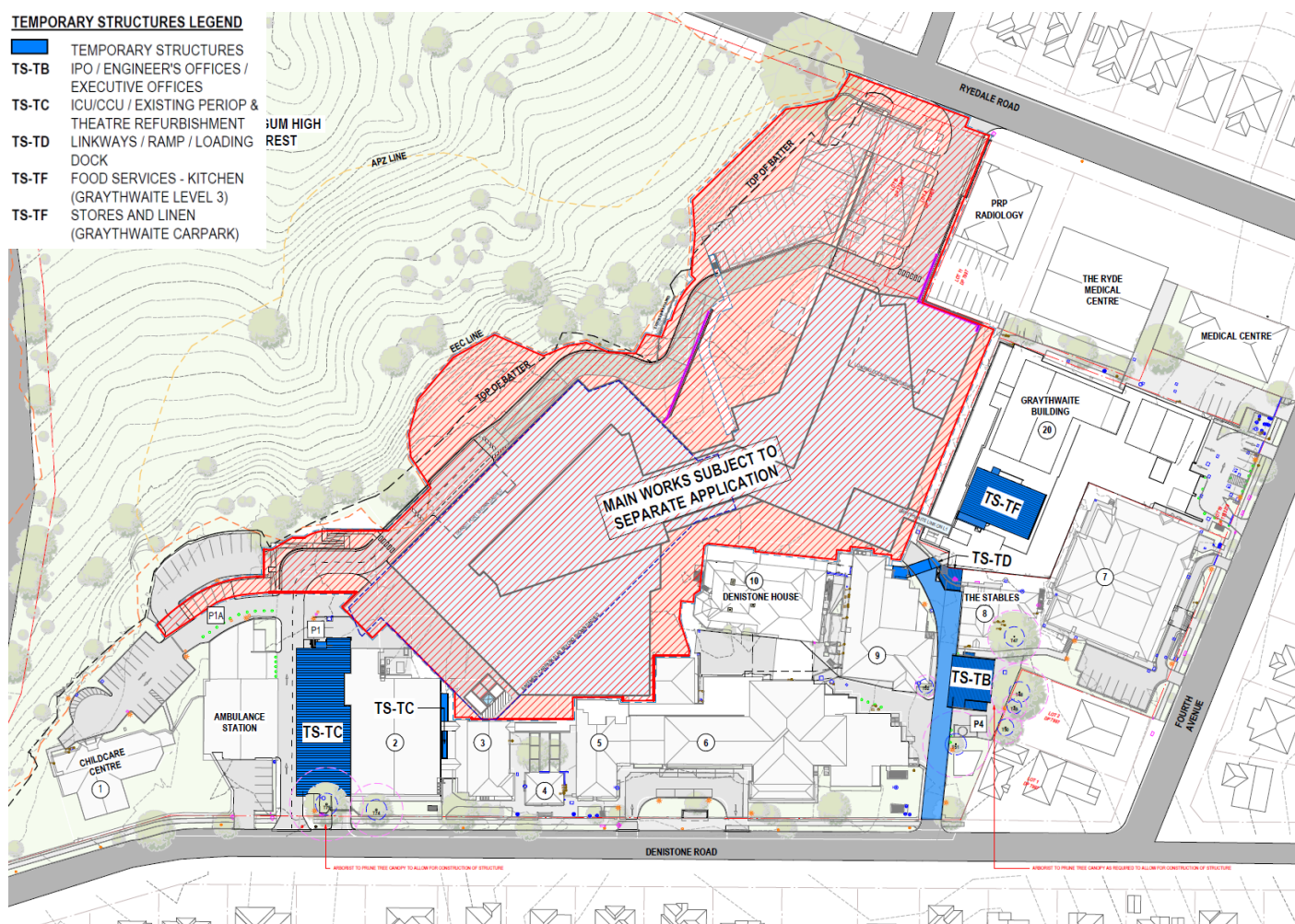
### 3. Proposed Activity

#### 3.1 Proposal Overview

A series of temporary works are proposed at Ryde Hospital to ensure the ongoing operation of the hospital is not impacted during the construction of the Ryde Hospital Redevelopment project. Specifically, the temporary works comprise:

- Construction of temporary intensive and critical care building.
- Provisions of a temporary loading dock located off Denistone Road.
- Alterations to the Graythwaite Building rooftop and basement to facilitate new office space, food services, and storage areas.
- Establishment of two areas to accommodate office space, workshops and storage.
- Connection of a pedestrian ramp that connects between Trigg House and the Graythwaite Building.
- Connection and augmentation of in-ground services and utilities, as required.
- Temporary acoustic treatments to Trigg House windows.
- Decommissioning and removal of temporary facilities by the end of 2027.

An overview of the temporary works, including their location in context to the wider Ryde Hospital, is provided at **Figure 5**. Further detail is included within the Architectural Plans at **Appendix D** and Architectural Design Statement at **Appendix E**.



**Figure 5 Architectural Plans of Proposed Temporary Works**

Source: STH and Pinto Tuncer

### 3.1.1 Site Preparation Works

No cut and fill earthworks are proposed as part of the temporary works. Proposed temporary structures will be constructed on-ground or suspended. Where ground disturbance works are necessary to facilitate the installation of footings for temporary structures, or trenching of proposed services, the works are to be undertaken in accordance with the relevant Australian Standards and Guidelines.

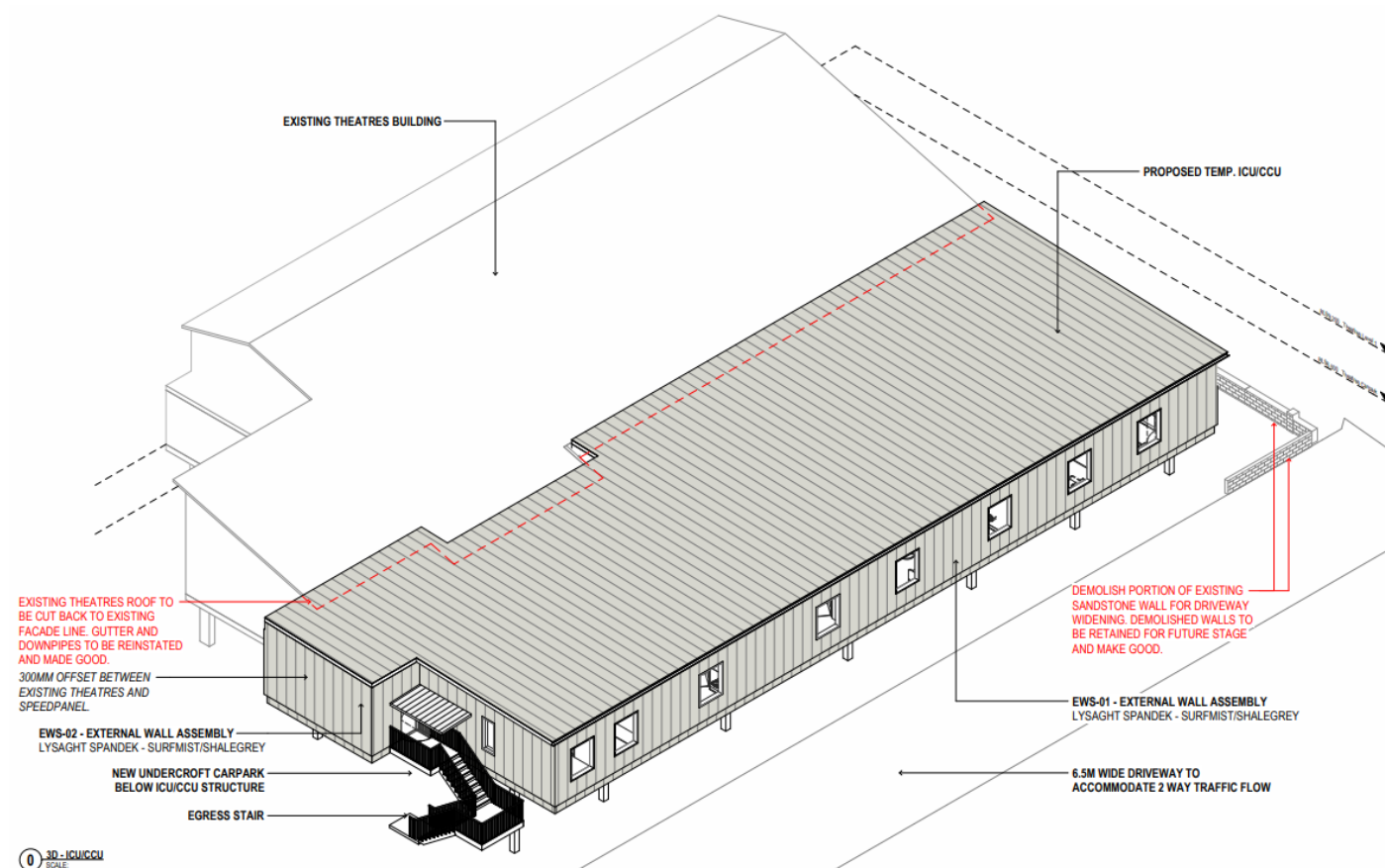
### 3.1.2 Intensive and Critical Care Building

The proposed works involve the construction of a temporary intensive and critical care building above the P1 carpark. The building will be one storey in height (RL 103.48m) and incorporate an undercroft carpark below. It will accommodate 2 x 4-bedrooms for critical care, 2 x 2-bedrooms for intensive care, as well as back of house areas for staff. The proposal is consistent with the relevant bushfire protected requirements, as detailed at **Appendix B**.

Pedestrian access will be provided via external stairs located at the southwest corner of the proposed building. Alternatively, direct access will be provided between the proposed building and the existing theatre building (which will sit flush with the proposed building). This will be achieved through demolishing a small portion of the wall and roof of the existing theatre building. Upon removal of the temporary building, the existing theatre building will be reinstated and made good.

Vehicle access to the undercroft carpark will be provided via the existing driveway off Denistone Road, which is proposed to be widened to allow for two-way traffic. It will accommodate approximately 30 car parking spaces.

The proposed temporary intensive and critical care building is shown at **Figure 6**.



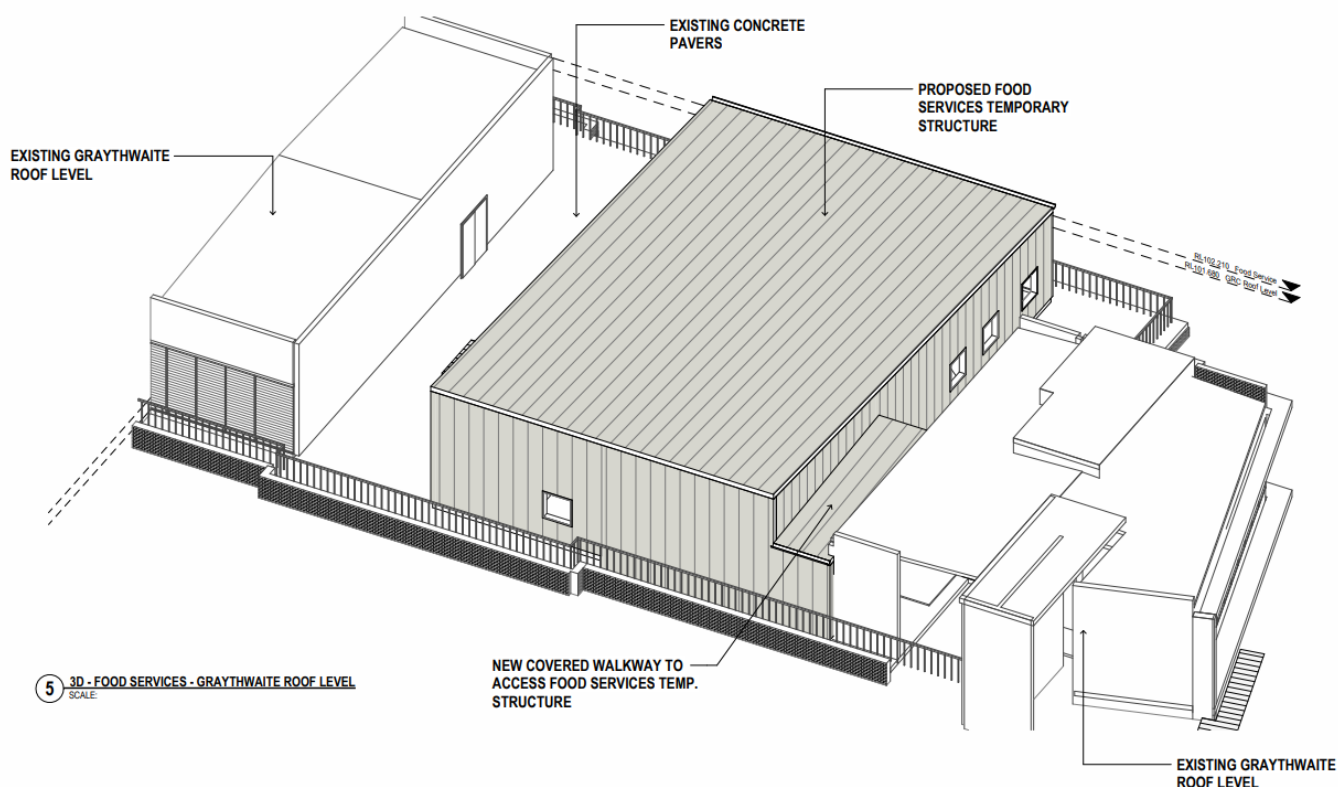
**Figure 6 Proposed Temporary Intensive and Critical Care Building**

Source: STH and Pinto Tuncer

### 3.1.3 Food Services Structure

The proposal seeks to provide a new temporary food services structure on the rooftop of the existing Graythwaite Building. It will be utilised for the preparation and serving of food and will not incorporate any commercial kitchen or cooking facilities. The new built form addition will be one storey (5.72m) in height and result in the Graythwaite Building being a maximum height of 14.78m. As shown in **Figure 7**, a new covered walkway will also be constructed to enable access between the Graythwaite Building rooftop and the temporary food services structure.

The proposed food services structure will incorporate food preparation rooms, cleaning and waste storage rooms and staff areas.



**Figure 7 Temporary Food Services Structure on the rooftop of the Graythwaite Building**

Source: STH and Pinto Tuncer

### 3.1.4 Basement Storage

Internal alterations will be undertaken within the Graythwaite Building basement (which currently accommodates a carpark) for the provision of new storage areas, linen stores, a grease arrestor and mortuary transport and holding facilities. This will necessitate the removal of 21 carparking spaces within the Graythwaite Building basement.

Secured pedestrian access between the proposed facilities in the basement will be provided through the addition of line markings and hoarding.

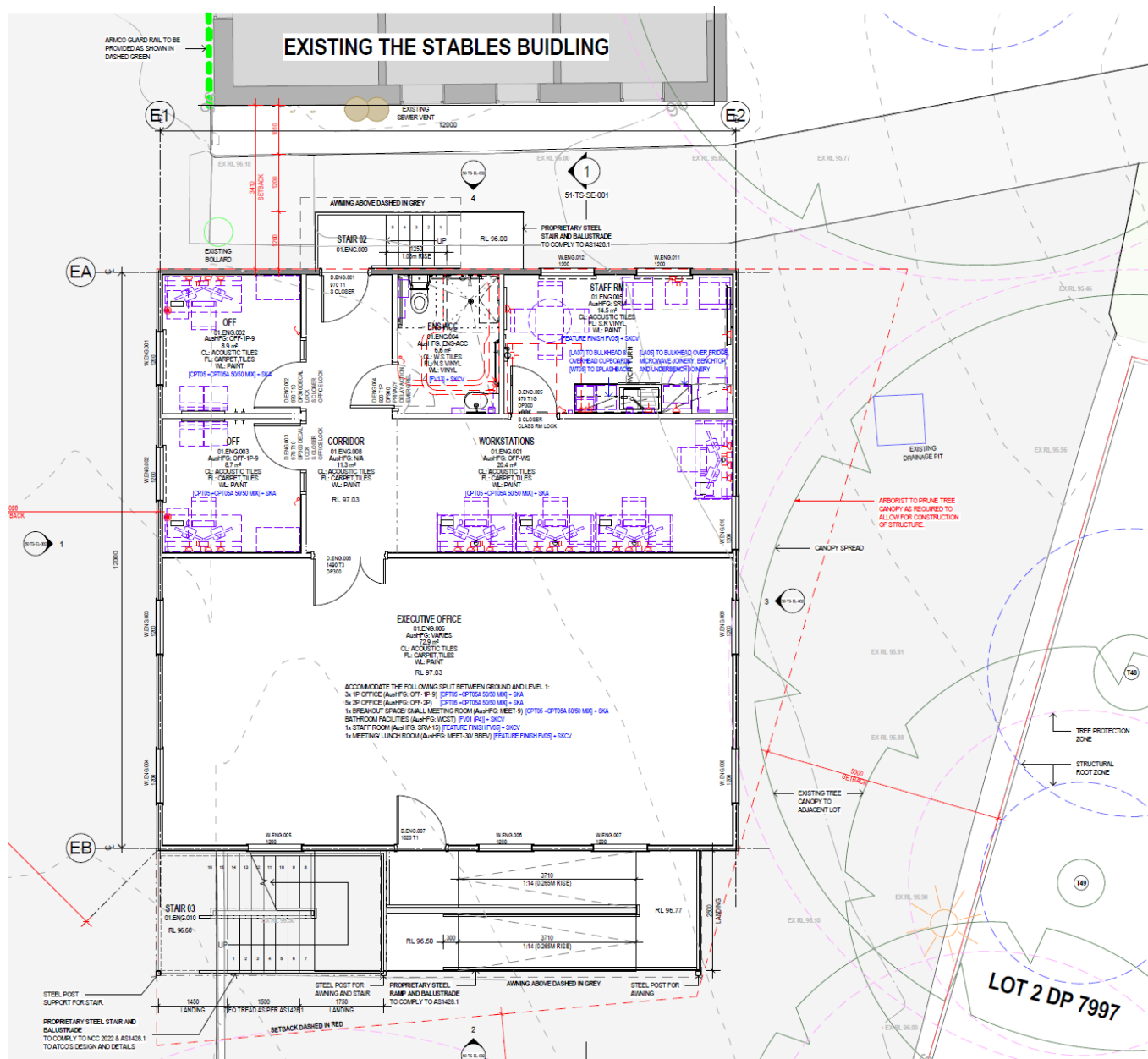


### 3.1.5 Office Building

The proposal includes the provision of a new temporary building that is three storeys in height (9.783m). The new building will be used as a project office space during ongoing construction that is occurring within Ryde Hospital. It will be located adjacent to The Stables and setback by 5m from the site boundary.

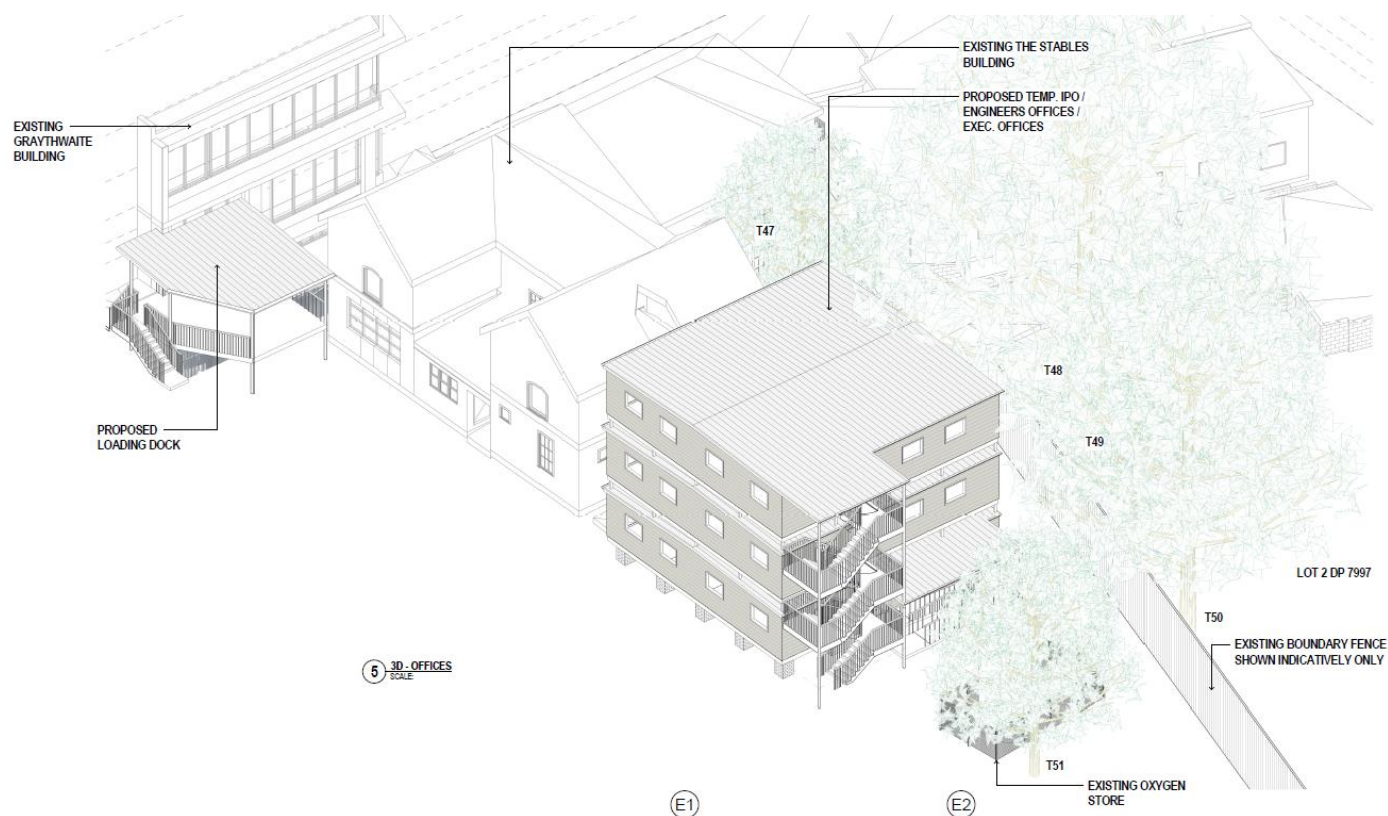
Pedestrian access to the building and between floors will be provided via an external staircase located at the north-east, and an external staircase and ramp located at the south-west of the building.

The proposed office building is shown at **Figure 8**.



**Figure 8 Proposed Office Building – Ground Level Plan**

Source: STH and Pinto Tuncer



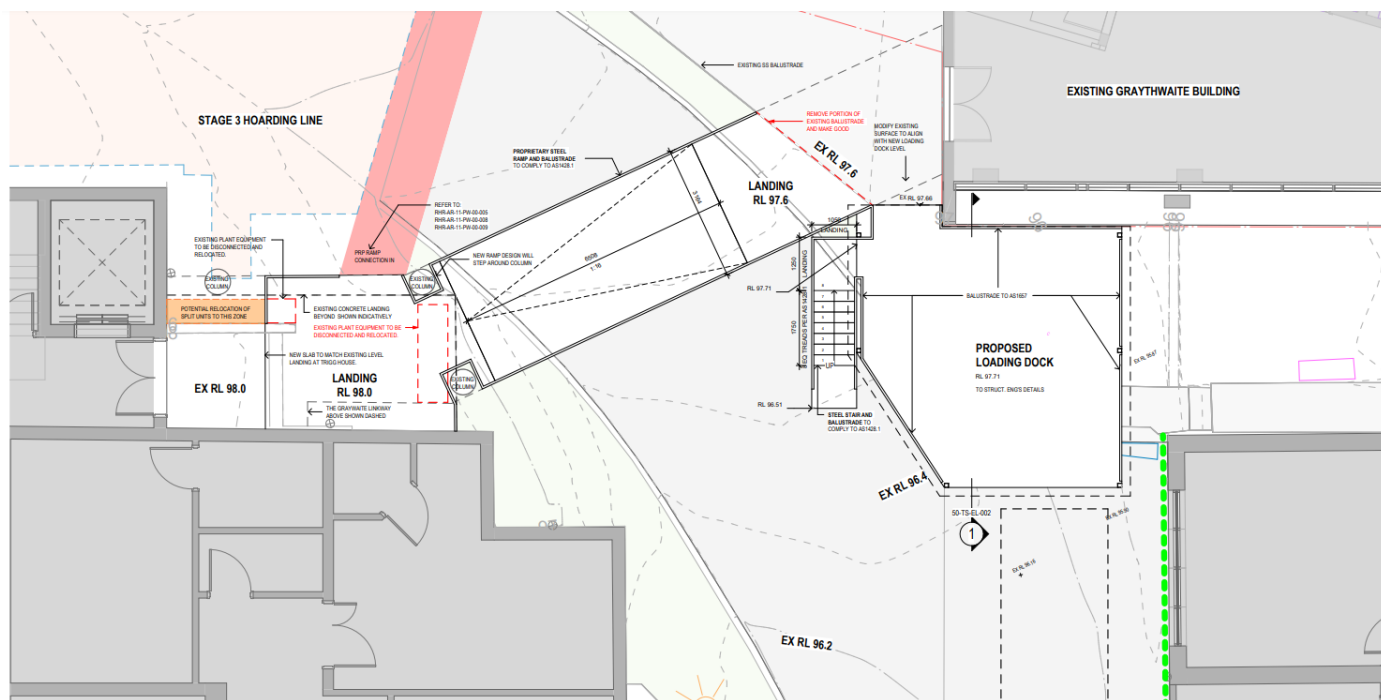
**Figure 9 Proposed Office Building – Indicative 3D Rendering**

Source: STH and Pinto Tuncer

### 3.1.6 Loading Dock and Pedestrian Access

The proposal includes the provision of a temporary loading dock located off Denistone Road. It has been designed to accommodate the mandatory volume of deliveries required by the existing hospital, as well as to ensure effective access to the adjacent ambulance parking area is maintained at all times.

In addition, a linkway and pedestrian ramp will be provided adjacent to the loading dock. They will enable access between Trigg House and the Graythwaite Building along with PRP pathway running adjacent to Graythwaite for Medical Imaging access. This will maintain connections for hospital staff, patients and visitors during construction.



**Figure 10 Proposed Loading Dock and Pedestrian Access**

Source: STH and Pinto Tuncer

## 3.1.7 Utilities

Once the temporary works have been completed, they will be connected to or augment essential services including electricity, gas, and water as required. This REF is accompanied by five Service Design Statements including Dry and Wet Fire, Electrical, Fire Safety, Hydraulic, and Mechanical respectively included at **Appendix F – Appendix J**.

## 3.1.8 Tree removal and pruning

No tree removal is proposed as part of this activity.

To allow the temporary structures to be installed, Tree 48 and Tree 75 as shown on the proposed site plan are to be pruned to an arborist's specification.



## 3.2 Construction Activities

A summary of the proposed construction activities is provided at **Table 2** below. Further detail is provided within the Construction Management Plan at **Appendix K**.

**Table 2: Project Timeframes and Construction Activities**

Construction activity	Description
<b>Commencement Date</b>	Construction for the proposed works is expected to commence in Q2 2024, with site prep activities scheduled, and will be completed in Q1 2025.
<b>Work Duration/Methodology</b>	The proposed works will be staged to minimise the impact of works on hospital staff, patients, visitors, and nearby sensitive receivers. The proposed staging will be determined prior to the commencement of construction, to ensure it will align with wider construction activities that are being undertaken at Ryde Hospital (as part of separate planning approvals). This will form a mitigation measures at <b>Appendix L</b> .
<b>Work Hours and Duration/Construction</b>	<p>The hours of construction, including the delivery of materials to and from the site, will be undertaken between the following hours:</p> <ul style="list-style-type: none"> <li>Monday to Friday: 7:00am to 6:00pm.</li> <li>Saturdays: 8:00am to 1:00pm.</li> <li>Sunday and Public Holidays: No work.</li> </ul> <p>Notwithstanding the above, some works will be permitted outside of the standard construction hours to minimise the impact on hospital staff, patients, visitors, and nearby sensitive receivers. Further detail is provided at <b>Section 6.2.2</b> of this report.</p>
<b>Workforce/Employment</b>	It is anticipated that there will be approximately 50 workers on site at any given time associated with the proposed works.
<b>Ancillary Facilities</b>	An initial site shed / accommodation complex will be established at the beginning of the project for worker amenities. Sheds including the changerooms and toilets will be placed on the southern side of the site. These will have a concrete footpath for accessibility along with a temporary roof over to provide dry access.
<b>Plant Equipment</b>	<p>The following equipment is anticipated for the works:</p> <ul style="list-style-type: none"> <li>Excavators</li> <li>Mobile Cranes</li> <li>Forklifts</li> <li>Delivery Trucks</li> <li>Compactors</li> <li>Jack Hammers</li> <li>Power Hand Tools</li> <li>Asphalt Machine</li> </ul>
<b>Earthworks</b>	No cut and fill earthworks are proposed as part of the temporary works. Refer to the Civil Engineering Statement at <b>Appendix M</b> .
<b>Source and Quantity of Materials</b>	<p>The exact quantity and source of materials will be refined prior to the commencement of any construction works. Notwithstanding, the following measures are adopted to encourage the management and reduction of waste to minimise the loss of natural resources and landfill space:</p> <ul style="list-style-type: none"> <li>Emphasise the importance of recycling and waste reduction.</li> <li>Encourage the use of recycled materials where it is reasonably practical.</li> <li>Minimise the use of packaging materials and recycle packaging materials where possible.</li> <li>Waste concrete to be sent to a concrete recycling plant where possible.</li> <li>Separate removed native vegetation from general construction waste, mulched and stockpiled for re-use.</li> <li>Non-recyclable general waste will be disposed at an approved waste disposal facility.</li> </ul>
<b>Traffic Management and Access</b>	Traffic management and access during construction is detailed in <b>Section 6.2.1</b> .

### 3.3 Operational Activities

#### Use

The proposed works will allow for the continuation of the existing use at the site, with no changes to the use of the site as a hospital.

#### Operation Hours

The proposed hours of operation are provided in **Table 3** below.

**Table 3: Proposed Daily Hours of Operation**

Temporary Works REF Component	Hours of Operation
Intensive and Critical Care Building	24/7
Food Services Structure	5am to 8pm
Basement Storage	7am to 3.30pm, noting that 24/7 access is provided for wards person / environmental services as required, with last collection of dirty linen before 11pm
Office Space	8am to 6pm
Loading Dock	5am to 10pm

#### Staff/Patients

There will be no changes to patient numbers as a result of the proposed works.

#### Traffic and Parking

The proposed works will result in the removal of approximately 56 car parking spaces, comprising:

- 21 spaces in the P1 carpark, associated with construction of the Intensive and Critical Care Building.
- 21 spaces in the basement of the Graythwaite Building, associated with the basement storage.
- 14 spaces in the P4 carpark, associated with the provision of the new office building.

The temporary loss of carparking will be appropriately offset by the provision of 60 carparking spaces located at the nearby Church of Latter Day Saints (approximately 550m from Ryde Hospital) to be utilised by hospital staff. Further detail is provided within the Traffic and Parking Statement at **Appendix N**.

### 3.4 Proposal Need, Options and Alternatives

#### 3.4.1 Strategic Justification

The proposed activities can be justified as they are consistent with the wider strategic priorities for Ryde Hospital. The proposal will ensure that the ongoing operation of the hospital is not impacted through the efficient sequencing of works during construction for the Ryde Hospital Redevelopment project. Any impacts that arise as a result of the proposal can be successfully mitigated and the proposal will not result in any unacceptable environmental impacts.

The activity is required to be undertaken as a “separate but related” project to the main hospital redevelopment project, since it needs to be approved, constructed and operational before the main redevelopment works commence. This will allow the hospital to continue providing crucial health services to the community while the redevelopment project is undertaken.

#### 3.4.2 Alternatives and Options

A ‘do nothing’ scenario was considered for redevelopment on the site. However, this option would not reduce the impact of construction (occurring as part of the Ryde Hospital Redevelopment project) on the existing hospital operations. Another option was considered whereby the temporary works are included as part of the main hospital redevelopment project via an SSDA, however this option would not meet the timing needs of the hospital and would result in a significantly prolonged construction period as well as a down-time where health services could not continue to be provided. Accordingly, it was determined that the most appropriate way forward would be to undertake a series of works that would temporarily support the ongoing operation of Ryde Hospital during the construction phase, as a separate but related project via Part 5 development without consent.

## 4. Statutory Framework

### 4.1 Planning Approval Pathway

Section 4.1 of the EP&A Act states that if an Environmental Planning Instrument (EPI) provides that development may be carried out without the need for development consent, a person may carry the development out, in accordance with that EPI, on land to which the provision applies. However, the environmental assessment of the development is required under Part 5 of the Act.

*State Environmental Planning Policy (Transport and Infrastructure) 2021* (TI SEPP) aims to facilitate the effective delivery of infrastructure across the State. Division 10 of the TI SEPP outlines the approval requirements for health service facilities. A hospital is defined as a health service facility under this division.

Ryde Hospital is zoned SP2 Infrastructure (Health Services Facility) under the *Ryde Local Environmental Plan 2014* (Ryde LEP). The SP2 Infrastructure (Health Services Facility) is a prescribed zone under the TI SEPP.

Therefore, the proposal is considered an 'activity' for the purposes of Part 5 of the EP&A Act and is subject to an environmental assessment (REF). The proposal is considered an 'activity' in accordance with Section 5.1 of the EP&A Act because the proposed works are for the purpose for the use of land, erection of a building and carrying out of a work.

TI SEPP consultation is discussed within **Section 5.0** of this REF.

**Table 4: Description of proposed activities**

Division and Section within TI SEPP	Description of Works
Section 2.61(1)(a) – 'the erection or alteration of, or addition to, a building that is a health services facility'	The proposed erection of a temporary intensive and critical care building and alterations to the Graythwaite Building and basement can be carried out by and on behalf of a public authority without consent on any land. The proposed works are being carried out by HI (a public authority) within the boundaries of the existing Ryde Hospital. The proposal is therefore consistent with Section 2.61(1)(a) of the TI SEPP.
Section 2.61(2) – 'This section does not permit the erection of any building that exceeds 15 metres in height or is located closer than 5 metres to any property boundary (or an addition to a building resulting in the building exceeding that height or being closer than that distance to any property boundary).'	The proposed development will not result in any building exceeding 15m in height or being closer than 5m to the site boundary. Specifically, the provision of the food services structure on the rooftop of the Graythwaite Building will result in a maximum height of 14.78m. The proposed office building will be setback by 5m from the adjoining site boundary.

### 4.2 Environmental Protection and Biodiversity Conservation Act 1999

The provisions of the EPBC Act affects the proposal as it has a potential to impact on Commonwealth listed threatened species or endangered communities, further detail is included in **Section 6.2.9**. An assessment against the EPBC Act checklist is provided at **Table 5**.

**Table 5: EPBC Checklist**

Consideration	Yes/No
Will the activity have, or likely to have, a significant impact on a declared World Heritage Property?	No
Will the activity have, or likely to have, a significant impact on a National Heritage place?	No
Will the activity have, or likely to have, a significant impact on a declared Ramsar wetland?	No
Will the activity have, or likely to have, a significant impact on Commonwealth listed threatened species or endangered community?	No
Will the activity have, or likely to have, a significant impact on listed migratory species?	No
Will the activity involve any nuclear actions?	No
Will the activity have, or likely to have, a significant impact on Commonwealth marine areas?	No

Consideration	Yes/No
Will the activity have any significant impact on Commonwealth land?	No
Would the activity affect a water resource, with respect to a coal seam gas development or large coal mining development?	No

4.3 Environmental Planning and Assessment Act 1979

Duty to Consider Environmental Impact

Part 5 of the EP&A Act applies to activities that are permissible without consent and are generally carried out by a public authority. Activities under Part 5 of the EP&A Act are assessed and determined by a public authority, referred to as the determining authority. HI is a public authority and is the proponent and determining authority for the proposed works.

For the purpose of satisfying the objects of the EP&A Act relating to the protection and enhancement of the environment, a determining authority, in its consideration of an activity shall, notwithstanding any other provisions of the Act or the provisions of any other Act or of any instrument made under the EP&A Act or any other Act, examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity (refer to Subsection 1 of Section 5.5 of the EP&A Act).

Section 4.38(4) of the EP&A Act requires that if part of a development that is state significant development can be carried out as development without consent, then it should be carried out with development consent as part of a State Significant Development Application. In accordance with DPHI’s SSD Guidelines, a “separate but related” project may be carried out as Part 5 development without consent. While there is a Detailed SSDA currently under assessment by DPHI for the redevelopment of the site (SSD-58210458), this proposed activity is considered a “separate but related” project to the main hospital redevelopment in accordance with Section 4.38(4) and the SSD Guidelines, since:

- The temporary works need to be constructed before the main redevelopment works commence, so that hospital services can decant before their facilities are demolished.
- A Concept Approval exists on the site (SSD-36778089) to enable a future redevelopment of the hospital. The proposed temporary works are not inconsistent with the Concept Approval and would allow a future development in accordance with the Concept Approval to be undertaken.
- The temporary works do not rely on any of the SSD-58210458 works being undertaken and they are physically separate from any of the future proposed development.

Section 171 of the EP&A Regulation defines the factors which must be considered when assessing the likely impact of an activity on the environment under Part 5 of the EP&A Act. Section 6 of this REF specifically responds to the factors for consideration for the activity.

**Table 6** below demonstrates the effect of the proposed development activity on the matters listed for consideration in Subsection 3 of Section 5.5 of the EP&A Act.

Table 6: Matters for consideration under Subsection 3, Section 5.5 of the EP&A Act

Matter for Consideration	Impacts of Activity
<p><b>Subsection 3:</b></p> <p>Without limiting subsection 1, a determining authority shall consider the effect of any activity on any wilderness area (within the meaning of the <i>Wilderness Act 1987</i>) in the locality in which the activity is intended to be carried on.</p>	No effect, as the site is not located within or in the vicinity of a wilderness area as defined under the <i>Wilderness Act 1987</i> .

Note: If a biobanking statement has been issued in respect of a development under Part 7A of the *Threatened Species Conservation Act 1995*, the determining authority is not required to consider the impact of the activity on biodiversity values.

## 4.4 Environmental Planning and Assessment Regulation 2021

Section 171(1) of the EP&A Regulation notes that when considering the likely impact of an activity on the environment, the determining authority must take into account the environmental factors specified in the guidelines that apply to the activity.

The *Guidelines for Division 5.1 Assessments* (DPE June 2022) provides a list of environmental factors that must be taken into account for an environmental assessment of the activity under Part 5 of the EP&A Act. These factors are considered at **Section 6.0** of this REF.

In addition, Section 171A of the EP&A Regulation requires the consideration of the impact an activity in a defined catchment. This is considered further below under **Section 4.5** of this REF.

## 4.5 Other NSW Legislation

The following table lists any additional legislation that is required to be considered if it is applicable to the proposed activity.

**Table 7: Other Possible Legislative Requirements**

Legislation	Comment	Relevant? Yes/No
<b>State Legislation</b>		
<i>Rural Fires Act 1997</i>	The portion of the Ryde Hospital site which relates to the proposed works is not identified as being located on bushfire prone land. A Bushfire Safety Authority under Section 100B of the Act is not required since the proposed activity is not located on bushfire prone land. Notwithstanding, appropriate bushfire protection features are included in the design of the temporary ICU building, to address the RFS Planning for Bushfire Protection guideline. Refer to <b>Appendix B</b> for further detail.	No
<i>Biodiversity Conservation Act 2016</i>	The Biodiversity Conservation Act 2016 (BC Act) aims to protect native vegetation, species of threatened flora and fauna, endangered populations and endangered ecological communities and their habitats in NSW.  Under Part 1 of the BC Act, the 'Blue Gum High Forest in the Sydney Basin Bioregion', as identified within the southern half of the subject site, is listed as a critically endangered ecological community.  The Biodiversity Statement prepared by Eco Logical ( <b>Appendix O</b> ) confirms that the proposed works will not result in any impact to the Blue Gum High Forest.	Yes
<i>Water Management Act 2000</i>	The proposed works will not be carried out within 40m of a watercourse.	No
<i>Contaminated Land Management Act 1997</i>	The site is not listed on the register of contaminated sites.	No
<i>Heritage Act 1977</i>	There are no state listed heritage items on the site.	No
<i>Roads Act 1993</i>	Approvals are not required under the Roads Act 1993.	No
<i>Local Government Act 1993</i>	No water or sewer supply head works are proposed.	No
Other Acts as required	No other acts are required to be addressed for the proposed works.	No
Section 171A of the Environmental Planning and Assessment Regulation 2021	There will be no impacts to catchments as defined for consideration under Section 171A of the EP&A Regulation.	No

Legislation	Comment	Relevant? Yes/No
<b>State Legislation Planning Policies</b>		
State Environmental Planning Policy (Resilience and Hazards) 2021	<p>The State Environmental Planning (Resilience and Hazards) 2021 (Resilience and Hazards SEPP) aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment.</p> <p>The Contamination Statement has been prepared by EDP (<b>Appendix P</b>) noted that previous environmental investigations at the site have identified various contaminants in two localised hotspots at the site. The portion of the site in which the proposed works will be undertaken is assessed as being free from any contamination (pending further investigation beneath existing building ground level slabs). Therefore, no remediation is required to be undertaken as part of the proposed works.</p> <p>An unexpected finds protocol will be implemented in accordance with the Contamination Statement at <b>Appendix P</b>, if any contamination is encountered.</p>	Yes
State Environmental Planning Policy (Sustainable Buildings) 2022	The SEPP does not apply to Part 5 Activities. Notwithstanding, a Sustainability Statement has been prepared by Climatewise Design at <b>Appendix Q</b> , which confirms that the proposed temporary works are capable of complying with the relevant sustainability requirements including the Health Infrastructure DGN58/Hi Sustainability Framework.	Yes
<b>Ryde Local Environmental Plan 2014</b>		
Zone	<p>The site is zoned SP2 Infrastructure – Health Services Facility. Development for the purpose of a hospital and ancillary services or works are permissible with development consent.</p> <p>The proposal is consistent with the SP2 objectives as:</p> <ul style="list-style-type: none"> <li>• It provides health infrastructure that is a specific use supported by the Zone.</li> <li>• The proposed development is compatible with Ryde Hospital, being a health services facility; and</li> <li>• Does not prevent the use of the land for provision of further infrastructure as required within the site.</li> </ul>	Yes
Height of Buildings	There is no mapped maximum building height under the RLEP 2014 for the site.	Yes
Floor Space Ratio	There is no mapped floor space ratio under the RLEP 2014 for the site.	Yes
Heritage	<p>Under the Ryde Local Environmental Plan 2014 (RLEP 2014), parts of the subject site are identified as local heritage items, being Item no. 47 “Denistone House” and “Trigg House”. The “Stables” building (building 8) is also of heritage significance. The proposed temporary works will not result in any impact to the heritage items on site. This is discussed further at <b>Section 6.2.8</b> and <b>Appendix R</b>.</p> <p>The site is not located within a heritage conservation area.</p>	Yes
Flood Planning	The site is not identified as being within a flood prone area.	No

## 5. Consultation

### 5.1 Statutory Consultation

The REF scope of works was notified for 21 calendar days to the stakeholders outlined in **Table 8**.

**Table 8: Stakeholders required to be notified**

Stakeholder	Relevant Section
City of Ryde Council	Notified under Section 2.62(2)(a)(i) and Section 2.11(2)(b) of the TI SEPP.
Neighbours (occupiers of any adjoining land)	Notified under Section 2.62(2)(ii) of the TI SEPP.

The notification commenced on 8 February 2024 and concluded on 29 February 2024. Further notification to occupiers of 45 Fourth Avenue was provided on 9 May 2024 and concluded on 30 May 2024 due to the site being under construction at the time of original notification, with no occupiers.

Copies of the notification letters, as well as responses received, are provided at **Appendix S** and **Appendix T**.

No submissions were received from neighbours during the notification period.

The City of Ryde requested additional information relating to the proposal upon notification, as per **Table 9** below. The proponent provided responses to the queries via email and also met with Council to discuss the issues raised on 27 February 2024. No further response was provided by Council after the meeting and the comments are incorporated into this REF documentation where appropriate. Responses to the initial queries raised by Council are provided in **Table 9**.

**Table 9: Issues raised and responses**

Issue raised	Date received	Response	Reference
<b>City of Ryde Council</b>			
Further detail regarding the location of the proposed activities within Ryde Hospital.	February 16 2024	Updated plans were provided to Council to clarify the location of each of the proposed activities.	Architectural Plans at <b>Appendix D</b>
Further detail regarding service connections and augmentation.	February 16 2024	The project team clarified that the extent of works relating to the connection and augmentation of in-ground services would be minor and not impact the capacity of Council's services.	Service Statements at <b>Appendix F</b> to <b>Appendix J</b>
Further detail regarding the impact to heritage.	February 16 2024	The Heritage Statement confirms that the impact of the proposed temporary works will be minor and inconsequential to heritage items on the site.	Heritage Statement at <b>Appendix R</b>
Further detail regarding any impact to the public domain.	February 16 2024	The proposed works will not result in any impact to the public domain.	Architectural Plans at <b>Appendix D</b>
Further detail regarding traffic management during the construction phase.	February 16 2024	A preliminary Construction Traffic and Pedestrian Management Plan has been developed by AW Edwards to detail how traffic, pedestrian and cyclist access will be managed during the construction phase. The Plan will be updated prior to the commencement of construction works. It is also noted that there will be no additional traffic generation associated with the proposed works during construction or operation.	Traffic and Parking Assessment at <b>Appendix N</b> Construction Management Plan at <b>Appendix K</b>



## 6. Environmental Impact Assessment

### 6.1 Environmental Planning and Assessment Regulation 2021 – Assessment Considerations

Section 171(1) of the EP&A Regulation notes that when considering the likely impact of an activity on the environment, the determining authority must take into account the environmental factors specified in the environmental factors guidelines that apply to the activity.

The *Guidelines for Division 5.1 Assessments* (DPE June 2022) apply to the activity. The relevant assessment considerations under Section 3 of these Guidelines are provided below:

**Table 10: Summary of Environmental Factors Reviewed in Relation to the Activity**

Relevant Consideration	Response/Assessment		
(a) Any environmental impact on the community	The works will be undertaken in a safe and coordinated manner. Environmental impact of the proposed development has been carefully considered under the REF and impacts, if any, are proposed to be appropriately ameliorated or managed by way of clear mitigation measures outlined under this REF. There will be temporary environmental impacts on the community during construction and operation of the activity, however these are temporary and not considered to be significant.	-ve	✓
		Nil	
		+ve	
(b) Any transformation of a locality	The proposed works is consistent with the scale and use of existing development at the Ryde Hospital. As such, it will not result in a transformation of the Ryde locality. There will be temporary impacts during operation in terms of built form and visual impact, however these are considered to be acceptable and will ultimately be reversed when the buildings are decommissioned and removed.	-ve	✓
		Nil	
		+ve	
(c) Any environmental impact on the ecosystems of the locality	The activity is minor and proposed within an urban context (operational campus) and is not of a scale or nature that can adversely impact the campus environment or ecosystem. It is located outside of the Blue Gum High Forest in the southern portion of the site and will therefore have no direct impacts on that ecosystem.	-ve	
		Nil	✓
		+ve	
(d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality	The works proposed on the site involves a series of temporary works which are reversible and will not impact the aesthetic, recreational, scientific or other environmental quality or value for the locality in the long-term. Visual impacts are temporary and considered acceptable.	-ve	✓
		Nil	
		+ve	
(e) Any effect on locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations	The activity will not significantly impact the significance of the site, in the sense that the site is already developed and accommodates an existing hospital campus. The proposed works have been assessed as having a minor and temporary impact on the heritage significance of the site.	-ve	✓
		Nil	
		+ve	
(f) Any impact on the habitat of protected animals (within the meaning of the <i>Biodiversity Conservation Act 2016</i> )	The activity will not impact on the habitat of protected animals.	-ve	
		Nil	✓
		+ve	
(g) Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air	The activity will not affect any endangered species of animal, plant or other living thing.	-ve	
		Nil	✓
		+ve	
(h) Any long-term effects on the environment	The activity will not have any long-term effects on the biophysical environment.	-ve	
		Nil	✓
		+ve	



## Review of Environmental Factors: Temporary Works, Ryde Hospital

Relevant Consideration	Response/Assessment		
(i) Any degradation of the quality of the environment	The activity will not degrade the quality of the environment. Mitigation measures will be put in place to reduce any temporary impacts.	-ve	
		Nil	✓
		+ve	
(j) Any risk to the safety of the environment	There will be minimal risk to the safety of the environment. Risk measures will be put in place to manage potential impacts.	-ve	
		Nil	✓
		+ve	
(k) Any reduction in the range of beneficial uses of the environment	There will be no reduction in the range of beneficial uses of the environment as a result of the proposed works.	-ve	
		Nil	✓
		+ve	
(l) Any pollution of the environment	Appropriate construction mitigation measures will be implemented to ensure that the environment will not be polluted during construction.	-ve	
		Nil	✓
		+ve	
(m) Any environmental problems associated with the disposal of waste	Only minor works are proposed, and so no issues will arise from the disposal of waste during construction. Operational waste will be managed in accordance with the existing strategies which already apply to Ryde Hospital. Further discussion is provided in <b>Section 6.2.12</b> .	-ve	
		Nil	✓
		+ve	
(n) Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply	The activity will maintain access to essential services and will not significantly impact demand for scarce resources.	-ve	
		Nil	✓
		+ve	
(o) Any cumulative environmental effects with other existing or likely future activities	The proposed works will deliver significant benefit to the community through enabling the ongoing operation of Ryde Hospital during major construction works (to be undertaken as part of the Ryde Hospital Redevelopment project). The proposed works are not expected to give rise to any unacceptable environmental impacts that cannot be appropriately managed. Notwithstanding this, mitigation measures will be incorporated into the construction phase to ensure the works do not result in any unacceptable impact with regards to traffic, noise, dust, waste.	-ve	
		Nil	
		+ve	✓
(p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions	The activity will not impact on any coastal process or hazards.	-ve	
		Nil	✓
		+ve	
(q) Applicable local strategic planning statement, regional strategic plan or district strategic plan made under Division 3.1 of the Act	The proposed activity directly aligns with the strategic planning context as outlined in the Greater Sydney Region Plan, Central City District Plan and the Ryde Local Strategic Planning Statement 2020. Namely by ensuring the ongoing operation of Ryde Hospital to support the needs of the community. It will also protect biodiversity on the site and provide employment opportunities close to homes during the construction phase.	-ve	
		Nil	
		+ve	✓
(r) Any other relevant environmental factors	As identified in the sections below, there are no other environmental factors that will result in any unacceptable impact to the environment.	-ve	
		Nil	✓
		+ve	

## 6.2 Identification of Issues

### 6.2.1 Traffic, Access and Parking

Questions to consider	Yes	No
Will the works affect traffic or access on any local or regional roads?		✓
Will the works disrupt access to private properties?		✓
Are there likely to be any difficulties associated with site access?		✓
Are the works located in an area that may be highly sensitive to movement of vehicles or machinery to and from the work site (i.e. schools, quiet streets)?		✓
Will full or partial road closures be required?		✓
Will the proposal result in a change to onsite car parking?	✓	
Is there onsite parking for construction workers?		✓

The proposed works will result in the removal of approximately 56 carparking spaces, comprising 21 spaces in the P1 carpark, 21 spaces in the basement of the Graythwaite Building, and 14 spaces in the P4 carpark. Accordingly, Stantec (**Appendix N**) have detailed the following offset strategy has been developed to offset the loss of carparking at the site:

*The Church of Latter Day Saints is located at 412-420 Blaxland Road, approximately 550 metres (seven minute walk) southeast of Ryde Hospital. It has a supply of 60 carparking spaces. The Church has agreed to allow hospital staff to use of the carpark during construction.*

*The carpark would be exclusively used by staff to ensure parking spaces on site are reserved for public use. There are appropriate at-grade pedestrian connections between the Church and hospital, including footpaths and alternate routes either through Denistone Park or along Blaxland Road as desired, with signalised crossing points at each major intersection along Blaxland Road. Staff could also catch the 515 bus service between the Church and hospital, noting a bus stop is available directly in front of the Church and connects staff to the main entrance along Denistone Road. The bus operates every 15 minutes during peak periods, and 30 minutes off peak, and the travel time between the carpark and hospital is approximately three minutes.*

*A communication plan will be developed by NSLHD during construction that directs staff to park at the off-site carpark. This plan would communicate the availability of a direct bus connection and therefore advertise the convenience of this parking solution for staff.*

Prior to the commencement of works, the Principal Contractor will prepare a Traffic and Pedestrian Management Plan which will detail how traffic, pedestrian and cyclist access will be managed during the construction works. Traffic control personnel will be appointed by the Principal Contractor during the operating hours to minimise impact on the surrounding street network. Contractors and sub-contractors will be encouraged to use public transport or car share options.

During operation, the proposed works are not expected to result in any change to traffic conditions around the site and could not be expected to compromise the safety or function of the surrounding road network.

### 6.2.2 Noise and Vibration

Questions to consider	Yes	No
Are there residential properties or other sensitive land uses or areas that may be affected by noise from the proposal during construction (i.e. schools, nursing homes, residential areas or native fauna populations)?	✓	
Will any receivers be affected by noise for greater than three weeks?	✓	
Are there sensitive land uses or areas that may be affected by noise from the proposal during operation?	✓	

Questions to consider	Yes	No
Will the works be undertaken outside of standard working hours? That is: <ul style="list-style-type: none"> <li>Monday - Friday: 7am to 6pm;</li> <li>Saturday: 8am to 1pm;</li> <li>Sunday and public holidays: no work.</li> </ul>		✓
Will the works result in vibration being experienced by any surrounding properties or infrastructure?		✓
Are there any impacts to the operation of helipads on the activity site?		✓

### Construction Noise

The Construction Management Plan at **Appendix K** details the impact of construction noise on surrounding sensitive receivers.

The hours of construction, including the delivery of materials to and from the site, will be restricted to the following:

- Monday to Friday: 7:00 AM to 6:00 PM.
- Saturday: 8:00 AM to 1:00 PM.
- No work or deliveries on Sunday or Public Holidays.

No works are proposed to occur outside of the standard construction identified above. Should out of hours works be proposed, approval will be required from the necessary stakeholders (including Health Infrastructure and the NSW Police) in accordance with the protocol identified at **Appendix K**.

The Construction Management Plan notes that the construction work noise impacts will be the greatest for on campus receivers, particularly those that directly surround the site. Noise from various plant and equipment operating individually are generally predicted to be above the recommended noise management level (NML) due to the proximity to the nearest affected receivers. In a worse-case scenario, the noise impacts associated with excavators will exceed the NMLs Highly Affected Noise Levels criteria (75dB(A)).

The exceedance of the NMLs is not unusual given the heavy plant and equipment that must be used, such as excavators and hammers, and the proximity to sensitive receivers on campus. Notwithstanding this, the implementation of all reasonable and feasible mitigation measures will ensure that any adverse noise impacts to surrounding health, residential, commercial and educational receivers are minimised when NMLs cannot be met due to safety or space constraints. Internal noise levels from construction are to be assessed on a case by case basis and managed internally by hospital procedures. Recommended noise mitigation is provided at in the Construction Management Plan at **Appendix K**.

Overall, no significant noise or vibration impacts are likely to occur as a result of the proposed works, provided all relevant mitigation measures are implemented during the construction stage.

### Operational Noise

An Acoustic Report has been prepared by Acoustic Studio and is included at **Appendix U**. The Acoustic Report outlines that operational noise impacts have been considered against the acoustic standards and guidelines in the NSW EPA Noise Policy for Industry 2017.

The findings of the assessment are summarised as follows:

- New Plant and Equipment** – Noise from proposed new plant and equipment can all be controlled with standard noise mitigation. This will typically allow for:
  - Internally lined duct to fans that terminate at the façade.
  - Acoustic screening to external condenser units.
- Loading Dock** – The noise impact from the proposed temporary loading dock has been assessed as follows:
  - Loading dock noise emissions are predicted to comply with the relevant noise criteria to surrounding off campus noise sensitive noise receivers. Traffic noise impact from vehicles accessing the loading dock from Denistone Road will remain unchanged from existing conditions. Therefore, no noise mitigation measures are required.

- As part of the temporary works, window treatment upgrades will be included to the Trigg House (which includes inpatient accommodation). This will reduce the noise impact from the temporary loading dock location to noise levels that target internal continuous and intermittent noise levels within the recommendations of the NSW Health Engineering Services Guide.
- **External Noise Intrusion** – Noise intrusion to the proposed temporary buildings has been considered and assessed with the following findings:
  - Appropriate internal noise levels from traffic noise intrusion can be achieved with standard façade constructions having the following performances.
  - Glazing systems with a minimum performance of Rw 30.
  - Façade systems with a minimum performance of Rw 40.
- **Construction noise intrusion** - The Ryde Hospital Redevelopment project will be in construction when the temporary buildings are in operation. It is expected that there will be extended periods where windows will need to be kept closed to mitigate construction noise such that it does not impact the users. The Ryde Hospital Redevelopment project will also implement noise and vibration control strategies to minimise impact on surrounding noise sensitive receivers including the existing hospital and temporary buildings.

### 6.2.3 Air Quality and Energy

Questions to consider	Yes	No
Could the works result in dust generation?	✓	
Could the works generate odours (during construction or operation)?		✓
Will the works involve the use of fuel-driven heavy machinery or equipment?	✓	
Are the works located in an area or adjacent to land uses (e.g. schools, nursing homes) that may be highly sensitive to dust, odours or emissions?	✓	

A Construction Management Plan has been prepared by AW Edwards and is available at **Appendix K**.

Prior to the commencement of works, the Principal Contractor will prepare and implement a dust prevention strategy, which may include precautions such as water spraying, the covering of all haulage truck loads with tarpaulins and monitoring of weather conditions (including wind). Management and contingency plans will be developed to prevent any foreseeable impacts from dust. Further, odour problems will be minimal on site. Appropriate mitigation measures are included at Section 6.3.

AW Edwards will develop a strategy for dust control, which will be included in the Environmental Management Plan. This strategy will include control measures and document how these measures are to be implemented and monitored.

### 6.2.4 Soils and Geology

Questions to consider	Yes	No
Will the works require land disturbance?	✓	
Are the works within a landslip area?	✓	
Are the works within an area of high erosion potential?		✓
Could the works disturb any natural cliff features, rock outcrops or rock shelves?		✓
Will the works result in permanent changes to surface slope or topography?		✓
Are there acid sulfate soils within or immediately adjacent to the boundaries of the work area? And could the works result in the disturbance of acid sulfate soils?		✓
Are the works within an area affected by salinity?		✓
Is there potential for the works to encounter any contaminated material?	✓	

### Contamination

A Contamination Statement has been prepared by EDP and is included at **Appendix P**. As discussed in **Section 6.2.13** below, EDP are of the opinion that the site is suitable for the proposed activity with no remediation required. An unexpected finds policy will be implemented if unexpected contamination is encountered on site.

### Erosion and Sediment

Within the Contamination Statement it is outlined that the area relating to the proposed loading dock and pedestrian access ramp will be the only element of the works likely to include minor ground works/regrading of the site surface and generation of some excess soil to align new and existing site levels. Notwithstanding this, the area of ground to be disturbed will not trigger the need for either an Erosion and Sediment Control Plan nor a Soil and Water Management Plan during construction under the Blue Book as the proposed land disturbance is not over 250 square meters.

### Geotechnical Statement

The comments and advice within the various geotechnical reports prepared for the site are considered to be generally adequate and applicable for the design and construction of the proposed temporary structures outlined above. Good engineering practice for design and construction is required to not adversely impact the existing structures and utilities, including geotechnical inspections during construction, particularly where ground works are involved. Landslip impacts have also previously been assessed at the site, and the risk was considered acceptable subject to the implementation of various recommendations. The proposed works will not result in any changes to the finding of these reports in relation to landslip risk.

Additionally, a Geotechnical Statement has been prepared by Douglas Partners and is included at **Appendix V**. The Statement requests that further review of the existing footings of the Graythwaite Building is undertaken to confirm that the additional loads from the proposed food services structure does not adversely impact the existing building. This is included as a mitigation measure at **Appendix L**.

### 6.2.4 Coastal risks

Questions to consider	Yes	No
Are the works affected by any coastal risk/hazard provisions?		✓
Is any coastal engineering advice required, proportionate to the proposed activity?		✓

The site is not located within the proximity of any coastal risks or hazards and subsequently no coastal engineering advice is required.

### 6.2.5 Hydrology, Flooding and Water Quality

Questions to consider	Yes	No
Are the works located near a natural watercourse?		✓
Are the works within a Sydney Drinking Water Catchment?		✓
Are the works located within a floodplain?		✓
Is the development activity located above Probable Maximum Flood Levels?		✓
Will the works intercept groundwater?		✓
Will a licence under the <i>Water Act 1912</i> or the <i>Water Management Act 2000</i> be required?		✓
Has stormwater management been adequately addressed?	✓	

A Civil Letter has been prepared by ACOR Consultants and is included at **Appendix M**. The Civil Letter details the stormwater management from the proposed roof structures. Stormwater will discharge to ground through downpipes and overland flow to existing in-ground stormwater infrastructure being retained for the duration of the temporary structures remaining on site. This will have negligible impacts to function of the existing site stormwater regime.

## 6.2.6 Visual Amenity

Questions to consider	Yes	No
Are the works visible from residential properties or other land uses that may be sensitive to visual impacts?	✓	
Will the works be visible from the public domain?	✓	
Are the works located in areas of high scenic value?		✓
Will the works involve night work requiring lighting?	✓	

### Visual Impact

The proposed works will be carried out within the boundaries of an existing hospital campus and will generally be screened by existing hospital buildings and landscaping. However, there is the potential for the works to be visible from nearby residential properties and the public domain. Notwithstanding this, it is emphasised that the works are temporary in nature and will be decommissioned, meaning they will have no permanent visual impacts.

The temporary ICU building is set back approximately 6.5m from the Denistone Road site boundary and aligns with the existing theatres building. The ICU building is a single-storey structure set above at-grade parking, therefore reading as a two-storey building. This is commensurate with, and lower than, the adjoining theatres building which is two-storeys with a large pitched roof (reading as a three-storey building). Therefore, the ICU building will have an acceptable level of visual impact and bulk when viewed from the public domain on Denistone Road, or from residents across the street.

The three-storey office building in the north of the site adjacent to The Stables is significantly set-back from public domain areas and will not have a notable visual impact when viewed from the surrounding streets and footpaths. There is, however, an interface with two recently constructed private dwellings at 45 Fourth Avenue, directly to the north of the proposed office building. The proposed office building will have an acceptable visual impact on these residences since:

- The building incorporates a setback of between 5m and 8.3m from the site boundary. Combined with the setback on the residential lots of approximate 8.5m, this results in a building separation of between 13.5m and 16.8m. For comparison, this exceeds the required building separation between habitable residential apartment rooms and balconies of 12m (for apartment buildings up to four-storeys in height) prescribed by Section 2F Building Separation of the NSW Apartment Design Guide.
- As shown at **Figure 11**, there are some tall, existing, canopy trees (evergreen) at the boundary between the hospital and the residences. These trees provide a beneficial screening effect and soften the visual impact of the office building when viewed from within the residences.
- At three-storeys in height, the building is no taller than several existing and surrounding hospital buildings at the site.
- The building is temporary in nature and will ultimately be removed. Therefore, there will be no permanent visual impacts.

### Visual Privacy

With the exception of the proposed office building, there are generally no notable visual privacy impacts arising from the proposed activity. In relation to the office building, there is potential for visual privacy impacts to and from the newly constructed residential dwellings at 45 Fourth Avenue. These impacts are considered to be acceptable and able to be mitigated, for the following reasons:

- The building incorporates a setback of between 5m and 8.3m from the site boundary. Combined with the setback on the residential lots of approximate 8.5m, this results in a building separation of between 13.5m and 16.8m. This exceeds the minimum separation requirements under Section 3F Visual Privacy of the NSW Apartment Design Guide between habitable residential apartment rooms and balconies of 12m (for apartment buildings up to four-storeys in height). Therefore, a residential apartment development of the same scale and separation would not require any additional screening to achieve acceptable visual privacy impacts.



- As shown at **Figure 11**, there are some tall, existing, canopy trees (evergreen) at the boundary between the hospital and the residences. These trees provide a beneficial screening effect and will obscure views to and from the residences.
- A mitigation measure is proposed which requires visual screening be included on the office building windows which face towards the residences. The screening can be in the form of either frosted windows or fixed external louvres. This will ensure there is no overlooking from the office to the dwellings.
- The building is temporary in nature and will ultimately be removed. Therefore, there will be no permanent visual privacy impacts.



**Figure 11 Photograph of existing site configuration adjoining 45 Fourth Avenue**

Source: HI NSW

### Lighting

Lighting will not impact surrounding sensitive receivers, if lighting is required for night work. The office building will generally not be used at night and therefore light spill from internal lights will be minimal.

### 6.2.7 Aboriginal Heritage

Questions to consider	Yes	No
Will the activity disturb the ground surface or any culturally modified trees?		✓
Are there any known items of Aboriginal heritage located in the works area or in the vicinity of the works area (e.g. previous studies or reports from related projects)?		✓
Are there any other sources of information that indicate Aboriginal objects are likely to be present in the area (e.g. previous studies or reports from related projects)?		✓
Will the works occur in the location of one or more of these landscape features and is on land not previously disturbed? <ul style="list-style-type: none"> <li>• Within 200m of waters;</li> <li>• Located within a sand dune system;</li> <li>• Located on a ridge top, ridge line or headland;</li> <li>• Located within 200m below or above a cliff face;</li> <li>• Within 20m of, or in a cave, rock shelter or a cave mouth.</li> </ul>		✓
If Aboriginal objects or landscape features are present, can impacts be avoided?	N/A	
If the above steps indicate that there remains a risk of harm or disturbance, has a desktop assessment and visual inspection been undertaken?	N/A	
Is the activity likely to affect wild resources or access to these resources, which are used or valued by the Aboriginal community?		✓
Is the activity likely to affect the cultural value or significance of the site?		✓

The Aboriginal and Historical Archaeology Statement prepared by Urbis (**Appendix W**) notes that previous Aboriginal Cultural Heritage Assessment Reports prepared as part of the Ryde Hospital Redevelopment project did not identify any known Aboriginal objects or declared Aboriginal places within the curtilage on site. Accordingly, it was determined that the northern portion of the site (being the area without any Blue Gum High Forest) was determined to have nil to low Aboriginal heritage significance. The proposed works will be undertaken within the northern portion of the site and therefore, are not expected to result in any harm to known or unknown Aboriginal objects on site.

Notwithstanding this, all practicable measures must be taken to avoid harm and conserve any significant Aboriginal objects and/or Aboriginal places, along with their cultural heritage values. These measures are detailed at **Appendix L**.

### 6.2.8 Non-Aboriginal Heritage

Questions to consider	Yes	No
Are there any heritage items listed on the following registers within or in the vicinity of the work area? <ul style="list-style-type: none"> <li>• NSW heritage database (includes Section 170 and local items);</li> <li>• Commonwealth EPBC heritage list.</li> </ul>	✓	
Will works occur in areas that may have archaeological remains?		✓
Is the demolition of any heritage occurring?		✓

A Heritage Statement has been prepared by Urbis and is included at **Appendix R**. It has been prepared to assess the potential heritage impact of the proposed works on heritage items located on site and within the vicinity of the site. Notably, the site is identified as a local heritage item, being Item no. 47 “Denistone House” and “Trigg House” (Ryde Hospital). The “Stables” building on site is also of heritage significance and there are a number of local heritage items within the vicinity of the site, including Item no. 125 “Open Space” at Denistone Park (100m south of the site).

The proposed works are considered to have no significant impact on the heritage significance of Denistone House and The Stables. The demolition of Trigg House has already been approved as part of the Ryde Hospital Redevelopment



project and does not form a consideration of the heritage assessment. Overall, it is considered that the proposed works are justified on the basis that they are temporary and will facilitate the redevelopment with no long-term or permanent impacts to the building. They will be removed following the completion of or in conjunction with the Ryde Hospital Redevelopment project which will enhance the heritage significance on the site.

Mitigation measures have been suggested by Urbis to ensure that the construction, general operation and later dismantling will not result in any impact to heritage.

### 6.2.9 Ecology

Questions to consider	Yes	No
Could the works affect any <i>Environmental Protection and Biodiversity Conservation Act 1999 (Cth)</i> listed threatened species, ecological community or migratory species?	✓	
Is it likely that the activity will have a significant impact in accordance with the <i>Biodiversity Conservation Act 2016 (BC Act)</i> ? In order to determine if there is a significant impact, the REF report must address the relevant requirements of Section 7.2 of the BC Act: <ul style="list-style-type: none"> <li>Section 7.2(a) – Test for significant impact in accordance with Section 7.3 of the BC Act;</li> <li>Section 7.2(c) – It is carried out in a declared area of outstanding biodiversity value.</li> </ul>		✓
Could the works affect a National Park or reserve administered by EES?		✓
Is there any important vegetation or habitat (i.e. Biodiversity and Conservation SEPP) within or adjacent to the work area?	✓	
Could the works impact on any aquatic flora or habitat (i.e. seagrasses, mangroves)?		✓
Are there any noxious or environmental weeds present within the work area?		✓
Will clearing of native vegetation be required?		✓

The Blue Gum High Forest, located in the southern portion of the Ryde Hospital site, is listed as a critically endangered ecological community (CEEC) under both the BC Act and the EPBC Act. The proposed works will be undertaken entirely outside of the CEEC area and will not result in the removal of Blue Gum High Forest or other vegetation on the site. Therefore, there would be no impact upon threatened species, endangered populations or endangered ecological communities as a result of the proposed works.

A Biodiversity Statement was prepared by Eco Logical and is included at **Appendix O**. It notes that all mitigation measures relating to biodiversity which have been implemented for the Ryde Hospital Redevelopment project should also apply to the proposed works.

No tree removal is proposed as part of this activity. Minor pruning of Tree 48 and Tree 75 is required to allow for the temporary buildings to be constructed. Pruning will be undertaken in accordance with the requirements prescribed by the project arborist, per the mitigation measures appended to this REF Report.

### 6.2.10 Bushfire

Questions to consider	Yes	No
Are the works located on bushfire prone land?		✓
Do the works include bushfire hazard reduction work?		✓
Is the work consistent with a bush fire risk management plan within the meaning of the <i>Rural Fires Act 1997 (RF Act)</i> that applies to the area or locality in which the activity is proposed to be carried out?		✓

The area to which the works are contained within the site is not identified as bushfire prone land. Notwithstanding, mitigation measures will continue to apply to Ryde Hospital to ensure people and structures in the event of a bushfire.

### 6.2.11 Land Uses and Services

Questions to consider	Yes	No
Will the works result in a loss of or permanent disruption of an existing land use?		✓
Will the works involve the installation of structures or services that may be perceived as objectionable or nuisance?		✓
Will the works impact on or be in the vicinity of other services?	✓	

The proposed works includes the connection and augmentation of in-ground services and utilities as required. Also proposed is the relocation of a single electricity pole fronting Denistone Road to accommodate the widened vehicle entry. The works will generally not be perceived as objectionable or nuisance and will not impact on, or be in the vicinity of, other services.

### 6.2.12 Waste Generation

Questions to consider	Yes	No
Will the works result in the generation of non-hazardous waste?	✓	
Will the works result in the generation of hazardous waste?	✓	
Will the works result in the generation of wastewater requiring off-site disposal?		✓
Will the works require augmentation to existing operational waste management measures?	✓	

#### Operational Waste

An Operational Waste Management Plan (OWMP) has been developed by Waste Audit & Management Consultancy Services included at **Appendix X**. Waste Management will generally be undertaken in accordance with the existing strategies which apply to the wider Ryde Hospital site, which is as follows:

- Waste will be transported from the wards/hospital building to waste storage areas by designated hospital staff, prior to removal off site by waste contractors. All staff and contractors that handle waste will wear appropriate PPE.
- Where possible, waste transport routes will avoid food preparation and heavily used areas.
- Procedures will be undertaken to appropriately minimise and recycle waste to promote sustainability.
- Waste storage areas will be cleaned regularly and will be inaccessible to the public. Waste storage areas will be separated from food and clean storage areas to avoid contamination.
- All staff will be educated on waste practices and Workplace Health and Safety.
- Waste audits will be undertaken annually to ensure optimal waste management is being undertaken. Any recommendations will be incorporated into the WMP.
- Spill management will be conducted in a safe and timely manner.

#### Construction Waste

The Construction Management Plan (**Appendix K**) details procedures for the handling and classification of waste during construction. A Principal Contractor will be required to ensure that EPA guidelines are achieved throughout construction and will implement measures for encouraging the management and reduction of waste as outlined in **Section 3.2**.

Appropriate mitigation measures are included at **Appendix L**.

### 6.2.13 Hazardous Materials and Contamination

Questions to consider	Yes	No
Is there potential for the works to encounter any contaminated material?	✓	
Is there potential for the works to disturb or require removal of asbestos?	✓	
Is the work site located on land that is known to be or is potentially contaminated?	✓	

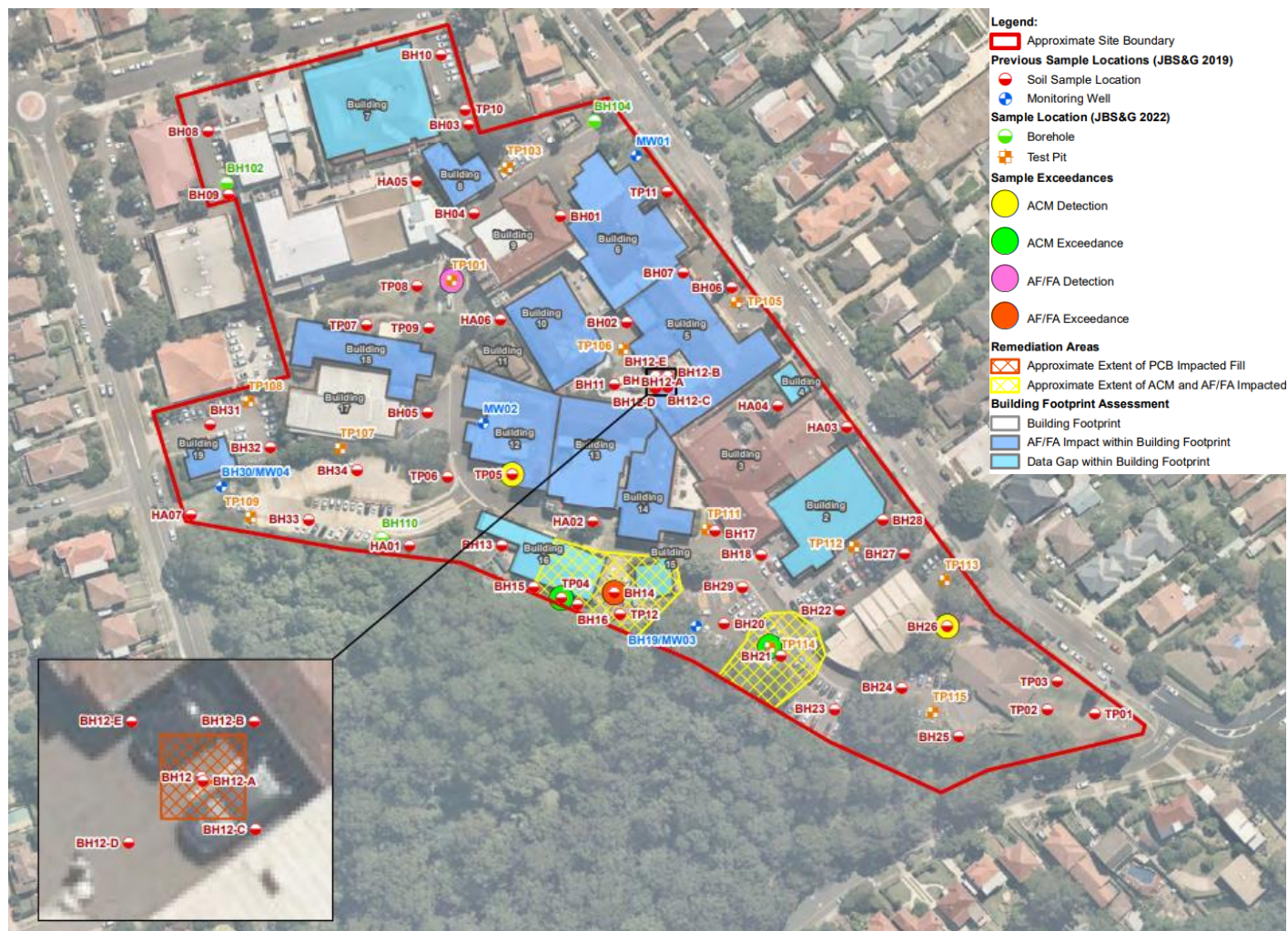
Will the works require a Hazardous Materials Assessment?		✓
Is a Remediation Action Plan (RAP) required to establish the proposed activity?		✓
Is the remediation work category 2 works under Resilience and Hazards SEPP?		✓

## Contamination

A Contamination Assessment has been prepared by EDP and is included at **Appendix P**. It builds on the previous environmental investigations prepared for the Ryde Hospital Redevelopment project, which identified a number of contaminants including fill material impacted with PCBs and TRH, PAHs identified in soil, elevated levels of heavy metals identified in fill, soil and groundwater, and asbestos in bonded and friable form. As such, remediation of the site is required to be undertaken in accordance with the approved Remediation Action Plan (RAP) which was prepared for the Ryde Hospital Redevelopment project. For completeness, the extent of remediation to be undertaken on site (in accordance with a separate approval) is shown at **Figure 10**.

Remediation is not required to be undertaken within the areas of the site to which the proposed temporary works relate. This is because contaminants have not been identified within these areas of the site. As such, the site is considered suitable for the proposed temporary works without the need for any remediation works.

Should hazards arise from unexpected sources or unexpected locations during the proposed temporary works, these are to be managed under an Unexpected Finds Protocol described in the Contamination Assessment at **Appendix P**.



**Figure 12 Remediation at the Site (shown in red and yellow hatching)**

Source: STH and Pinto Tuncer

### 6.2.14 Sustainability and Climate Resilience

Questions to consider	Yes	No
Does the activity ensure the effective and efficient use of resources (natural or other)?	✓	
Does the activity use any sustainable design measures?	✓	
Are climate resilient design measures to be incorporated in the activity?	✓	

A Sustainability Letter has been prepared by Climatewise Design and is available at **Appendix Q**. It is emphasised that due to the temporary nature of the works it is considered not necessary to achieve at least 60 points under the DGN58/HI Sustainability Framework. Notwithstanding this, all efforts to comply with the relevant requirements have been undertaken otherwise.

In addition, climate resilient design measures will be incorporated into the proposed works. Given the short-term nature of the works, potential direct climate risks are generally limited to user safety during heat events, and localised flood risk to the extent that it might already apply to the site. These risks are considered to be captured by present-day operational health and safety approaches.

### 6.2.15 Community Impact/Social Impact

Questions to consider	Yes	No
Is the activity likely to affect community services or infrastructure?		✓
Does the activity affect sites of importance to local or the broader community for their recreational or other values or access to these sites?		✓
Is the activity likely to affect economic factors, including employment numbers or industry value?	✓	
Is the activity likely to have an impact on the safety of the community?		✓
Will the activity affect the visual or scenic landscape?		✓
Is the activity likely to cause noise, pollution, visual impact, loss of privacy, glare or overshadowing to members of the community, particularly adjoining landowners?	✓	

Overall, the proposed works will have a positive impact on the hospital and the wider community. They will enable ensure the ongoing operation of the hospital is not disrupted during the construction phase for the wider Ryde Hospital Redevelopment project.

The strategy to mitigate temporary parking impacts includes offsite parking at the Church of Later Day Saints near the hospital site. An agreement between the Hospital and Church has been implemented to provide offsite parking for staff. The agreement is only for use on weekdays when there is low demand for parking at the church.

The works will have a positive impact on the economy through the provision of additional jobs during construction, and also during the operation of the temporary built structures. Any impacts associated with the proposed works can be successfully mitigated to minimise the impact to surrounding landowners.

### 6.2.16 Cumulative Impact

Questions to consider	Yes	No
Has there been any other development approved within 500m of the site?	✓	
Is there any transformation planned within 500m of the site?	✓	
Will there be significant impacts (for example, including but not limited to, construction traffic impacts) from other development approved or currently under construction within 500m of the site?	✓	
Is the activity likely to result in further significant impacts together with other development planned, approved or under construction within 500m of the site?		✓



Has a cumulative impact statement, proportionate to the activity, been included in REF documentation? If no – why not?	✓	
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Ryde Hospital is currently undergoing major redevelopment which involves the construction of a new clinical services building to accommodate future demand and improve hospital efficiency. The Ryde Hospital Redevelopment project is proposed to be undertaken in stages in accordance with the following State Significant Development Applications:

- Stage 1 – Concept Proposal and Early Works under SSD-36778089 (approved).
- Stage 2 – Detailed Design and Main Works under SSD-58210458 (pending approval).

The proposed temporary works at the site are complimentary to the Ryde Hospital Redevelopment project, and will enable the ongoing operation of Ryde Hospital with minimal disruption during the longer construction phase.

Notwithstanding this mitigation measures, as discussed at **Appendix L**, will be incorporated into the construction phase of the proposed temporary works to ensure the works do not result in any unacceptable impact with regard to noise and vibration, geotechnical, contamination, biodiversity, waste management, and stormwater. The works are not expected to give rise to any unacceptable environmental impacts that cannot be appropriately managed. The impacts to the existing hospital campus and the surrounding region are expected to be relatively minimal and short-lived due to the proposed works being temporary.

## 7. Summary of Mitigation Measures

Mitigation measures are to be implemented for the proposal to reduce impacts on the environment. The mitigation measures are provided at **Appendix L**.

### 7.1 Summary of Impacts

Based on the identification of potential issues, and an assessment of the nature and extent of the impacts of the proposed development, it is determined that:

- The extent and nature of potential impacts are low and will not have significant adverse effects on the locality, community and the environment.
- Potential impacts can be appropriately mitigated or managed to ensure that there is minimal effect on the locality, community.
- Given the above, it is determined that an EIS is not required for the proposed development activity.

## 8. Justification and Conclusion

The proposed temporary works at Ryde Hospital is subject to assessment under Part 5 of the EP&A Act. The REF has examined and taken into account to the fullest extent possible all matters affecting, or likely to affect, the environment by reason of the proposed activity.

As discussed in detail in this report, the proposal will not result in any significant or long-term impact. The potential impacts identified can be reasonably mitigated and where necessary managed through the adoption of suitable site practices and adherence to accepted industry standards.

As outlined in this REF, the proposed activity can be justified on the following grounds:

- It responds to an existing need within the community and will allow for the ongoing provision of essential health services while the main hospital redevelopment works occur.
- It generally complies with, or is consistent with all relevant legislation, plans and policies.
- It has minimal environmental impacts which are temporary and will have no permanent impacts on the site and surrounds.
- Adequate mitigation measures have been proposed to address these impacts.

The activity is not likely to significantly affect threatened species, populations, ecological communities or their habitats, and therefore it is not necessary for a Species Impact Statement and/or a BDAR to be prepared. The environmental impacts of the proposal are not likely to be significant and therefore it is not necessary for an EIS to be prepared and approval to be sought for the proposal from the Minister for Planning under Part 5 of the EP&A Act. On this basis, it is recommended that HI determine the proposed activity in accordance with Part 5 of the EP&A Act and subject to the adoption and implementation of mitigation measures identified within this report.