HEALTH INFRASTRUCTURE

Review of Environmental Factors – Gloucester House Bridge Alterations and Associated Works – RPA Hospital

Prepared by Architectus Australia Pty Ltd

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NSW GOVERNMENT Health Infrastructure

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Version	Date	Author	Description	Reviewed by	Approved by
1	28 June 2022	Genevieve Hastwell Amy Wilkins Terri Slater	First Draft	Jane Fielding	Jane Fielding
2	05 July 2022	Genevieve Hastwell Amy Wilkins Terri Slater	Final	Jane Fielding	Jane Fielding

Declaration

This Review of Environmental Factors (REF) has been prepared for Health Infrastructure (HI) and assesses the potential environmental impacts which could arise from alterations and additions to Gloucester House Bridge and associated road works at Royal Prince Alfred Hospital (RPA Hospital) at 12 Missenden Road, Camperdown NSW 2050.

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 & Infrastructure) 2021* (T&I SEPP).

This REF provides a true and fair review of the activity in relation to its likely impact on the environment. It addresses to the fullest extent possible, all the factors listed in Section 171 of the EP&A Regulation and the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act).

On the basis of the information presented in this REF it is concluded that by 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.

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Contents

Tables

Figures

Appendices

Appendix	Description	Author	Rev/Ref/Date
A	Mitigation measures	Architectus	28 June 2022
B	Notification Letters and Response from Council	Architectus and City of Sydney Council	25 May 2022
C	Section 10.7(2)&(5) Planning Certificates for Lot 1000 in DP 1159799	City of Sydney Council	21 July 2021
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V	BCA Assessment Report	Blackett Maguire + Goldsmith	14 June 2022
W	Targeted Soil Investigation Report	Cardno	22 June 2022

Abbreviations

Abbreviation	Description
ACM	Asbestos Containing Materials
ADDA	Aboriginal Due Diligence Assessment
AEC	Area of Environmental Concern
AHD	Australian Height Datum
AHIP	Aboriginal Heritage Impact Permit
AHIMs	Aboriginal Heritage Information Management System BC Regulation
AIA	Arboricultural Impact Assessment Report
AMG	Australian Map Grid
ANSTO	Australia's Nuclear Science and Technology Organisation
ASS	Acid Sulphate Soils
BC Act 2016	Biodiversity Conservation Act 2016
BC Act 2017	Biodiversity Conservation Act 2017
BC Regulation	Biodiversity Conservation Regulation 2017
BAM	Biodiversity Assessment Method
CA	Certifying Authority
CE	Chief Executive
CM Act	Coastal Management Act 2016
CMP	Construction Management Plan
CNVMP	Construction Noise Vibration Management Plan
Council	City of Sydney Council
CRA	Conservation Risk Assessment
CTMP	Construction Traffic Management Plan
DA	Development Application
DPC	Department of Premier and Cabinet
DPE	Department of Planning and Environment
ED	Emergency Department
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EES	Environment, Energy and Science
EPA	Environment Protection Authority
EP&A Act	Environmental Planning and Assessment Act 1979

Abbreviation	Description
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
EPBC Act (Cwth)	Environment Protection and Biodiversity Conservation Act 1999
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
FM Act	Fisheries Management Act 1994
Ha	Hectares
HHIMS	Historic Heritage Information Management System
HI	NSW Health Infrastructure
HRV	Heavy Rigid Vehicles
HVAC	Heating, Ventilation and Air Conditioning
ICU	Intensive Care Unit
LCD	Lead Containing Dust
LCP	Lead Containing Paint
LEP	Local Environmental Plan
LGA	Local Government Area
MPS	Multipurpose Service
MNES	Matters of National Environmental Significance
NPW Act	National Parks and Wildlife Act 1974
NPW Regulation	National Parks and Wildlife Regulation 2009
NPWS	National Parks and Wildlife Service (part of EES)
NT Act (Cth)	Commonwealth Native Title Act 1993
ODS	Ozone Depleting Substances
OEH	(Former) Office of Environment and Heritage
OOHW	Out of Hours Work
PASS	Potential Acid Sulphate Soils
PCMP	Preliminary Construction Management Plan
Planning Systems SEPP	State Environmental Planning Policy (Planning Systems) 2021
POEO Act	Protection of the Environment Operations Act 1997
Proponent	NSW Health Infrastructure
RAIA	Royal Australian Institute of Architects
REF	Review of Environmental Factors

Abbreviation	Description
Resilience SEPP	State Environmental Planning Policy (Resilience and Hazards) 2021
RF Act	Rural Fires Act 1997
RFS	Rural Fire Service
RPA Hospital	Royal Prince Alfred Hospital
SEPP	State Environmental Planning Policy
SIS	Species Impact Statement
SLEP	Sydney Local Environmental Plan 2012
SMF	Synthetic Mineral Fibres
T&I SEPP	State Environmental Planning Policy (Transport & Infrastructure) 2021
TIS	Traffic Impact Statement
TPZ	Tree Protection Zone
USYD	University of Sydney Campus
WARR	Waste Avoidance and Resource Recovery Act 2001
WM Act	Water Management Act 2000

Executive Summary

The Proposal

This REF has been prepared for HI and assesses the potential environmental impacts which could arise from the proposed activity at RPA Hospital at 12 Missenden Road, Camperdown NSW 2050, being alterations and additions to Gloucester House Bridge and associated road and other works.

Specifically, the proposed activity comprises:

- Installation of a turning bay adjacent to the main loading dock and adjustment to footpath alignments to improve truck manoeuvrability at this location;
- The raising of an enclosed overhead pedestrian walkway connecting Gloucester House to the main hospital, to allow Heavy Rigid Vehicles (HRV's) underneath;
- Gloucester House Plaza (Plaza) and road and road related area works including:
  - Adjustment to the patient drop off traffic island and resurfacing of the roadway in the Plaza area;
  - Associated removal of four (4) Kentia Palm trees located on the traffic island;
  - Replacement tree planting (4 trees) via a mitigation measure; and
  - Minor adjustments to a speed hump on Gloucester House Drive to accommodate HRVs.

Note: Tree pruning is required of one (1) existing tree, a Hills Fig Tree, located on the St Andrew's College site, for only that portion that overhangs the subject site to provide the necessary clearance to allow large vehicles to move between Gloucester House Drive and Missenden Road. The subject tree currently has significant overhang into the road carriage and RPA campus site. This is to be undertaken as Exempt Development following the carrying out of construction works under the REF in accordance with Section 2.63(1)(g) of State Environmental Planning Policy (Transport and Infrastructure) 2021.

Note: a Lilly Pilly shrub / hedge is to be removed associated with the works in Gloucester House Plaza. Due to its size and it not being listed on a Register of Significant Trees, it does not meet the threshold for requiring a permit or approval under the Tree Management Controls listed in the Sydney Development Control Plan 2012.

Need for the Proposal

Need for the raising of the pedestrian bridge in Gloucester House

The raising of a pedestrian bridge within Gloucester House is required to allow for larger vehicles to access the hospital site (fire appliances to the Fire Control Room and delivery vehicles to the loading dock) directly from Missenden Road and then via Gloucester House Drive. HRVs are currently unable to access the loading dock from the south side of the hospital (Gloucester House Drive) and are required to enter and exit via John Hopkins Drive (to the north). This is due to the Gloucester House building clearance being too low to allow larger HRVs to pass. Raising the pedestrian bridge will allow long-term access for larger vehicles.

Need for works to Gloucester House Drive and Gloucester House Plaza

The works to Gloucester House Drive and Gloucester House Plaza are to accommodate the manoeuvring of HRVs at this location.

The existing location of the traffic island constrains access for larger vehicle. Adjustments to its size and location will allow uninhibited truck movement through the Gloucester House Plaza.

The four palm trees and shrubs to be removed are located within the traffic island in the Plaza. Their removal is therefore required to facilitate these works.

Finally, a speed hump located on Gloucester House Drive is being lowered to allow HRVs to pass over.

Need for Lambie Dew Drive turning bay

The proposed expansion of the loading dock manoeuvring area is to improve the ability for freight vehicles to turn around, particularly HRVs. The expanded footprint is based on swept paths analysis that will allow HRVs to enter and exit with a maximum of a 3-point turn manoeuvre which is a significant improvement to existing conditions.

Proposal Objectives

The core objective of the proposed activity is to improve site accessibility by making adjustments that will permit larger vehicles (such as HRVs) to access the main loading docks via Gloucester House Drive.

Options Considered

The following options were considered for the proposed activity including:

- Option 1: Reconfiguration of Lambie Dew Drive Turning Bay, Reconfiguration of Gloucester House Bridge and associated roadworks, Gloucester House Drive Hump Adjustment, and removal of four (4) existing trees.
- To not redevelop the site (i.e. do nothing).

Option 1 (the proposed activity) was selected as the preferred option.

Currently vehicles using the loading dock are required to enter from Missenden Road via John Hopkins Drive and then Lambie Dew Drive and exit from the same place where they entered. This is due to the low clearance of the Gloucester House Bridge and limited room for maneuvering both at the loading dock and on Gloucester House Drive. The proposed activity improves access for large vehicles to access the loading dock and for fire appliances to access the fire control room.

In summary, Option 1 (the proposed activity) was selected as there are no other options available to provide this level of access for large vehicles and hence the requirement to raise the Gloucester House Bridge and make adjustments to Gloucester House Drive and loading dock.

In addition to Gloucester House Bridge and associated road works, tree removal within the site is also required as part of Option 1. These works are required to provide fire and delivery vehicles access from Gloucester House Drive to the Fire Control Room and loading dock.

Site Details

The site forms part of the RPA Hospital at 12 Missenden Road, Camperdown NSW 2050 within the City of Sydney Local Government Area (LGA). The proposed activity is located within the eastern campus of the hospital.

The land subject to the proposed activity is formally known as Lot 1000 in DP 1159799.

Refer to location plans of the proposed activity at **Figure 2** and **Figure 3** below.

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 out the development in accordance with the EPI, on land to which the provision applies. However, the environmental assessment of the development is required under Part 5 of the EP&A Act.

The site is zoned SP2 Infrastructure for the purpose of Health Services Facility under the Sydney Local Environmental Plan 2012 (SLEP 2012).

The proposed activity involves the raising of an enclosed overhead pedestrian walkway within the Gloucester House building, as well as civil works within the Gloucester House car park and Lambie Dew Drive, and tree removal, at the RPA Hospital at 12 Missenden Road, Camperdown NSW 2050.

The alterations and additions to Gloucester House building is considered ‘development without consent’ under Division 10 under Part 3 of the *State Environmental Planning Policy (Transport and Infrastructure)* 2021 (T&I SEPP). **Division**

10 outlines the approval requirements for "**health services facilities"**. A "hospital" is defined as a health service facility under this division.

"The erection or alteration of, or addition to, a building that is a health services facility" is permitted without consent under Section 2.61 (1) (a) of T&I SEPP subject to requirements around the scale and nature of the development, to which the proposed activity conforms. The proposed activity will not result in an increase in the overall height of existing buildings being altered, and therefore is consistent with DPE's interpretation of Section 2.61(2) of the T&I SEPP.

The alterations to Gloucester House Drive and Lambie Dew Drive are considered 'development without consent' under Division 17 of Part 2 of the T&I SEPP. Development for the purpose of a road or road infrastructure facilities may be carried out by or on behalf of a public authority without consent on any land under Section 2.108(1) of the T&I SEPP.

Section 2.3(2) of the T&I SEPP defines 'consent' as "when used in relation to the carrying out of development without consent, means development consent and any other type of consent, licence, permission, approval or authorisation that is required by or under an environmental planning instrument". This encompasses an approval to remove a tree that is subject to a tree preservation order.

Section 2.108(3) provides that, "a reference to development for the purpose of ***road infrastructure facilities*** includes a reference to development for any of the following purposes if the development is in connection with a road or road infrastructure facilities –

(a) construction works (whether or not in a heritage conservation area)

(b) emergency works or routine maintenance works."

Section 2.3(3) provides that if development for a particular purpose that may be carried out without consent includes ***construction works***, then this encompasses, "*clearing of vegetation (including any necessary cutting, pruning, ringbarking or removal of trees) and associated rectification and landscaping"*.

The project, however, becomes an 'activity' for the purposes of Part 5 of EP&A Act and is subject to an environmental assessment (Review of Environmental Factors). The proposal is considered an 'activity' in accordance with Part 5, Division 5.1 of the EP&A Act because it refers to the demolition of a building or work, the erection of a building, the use of land, and the carrying out of a work.

Statutory Consultation

Notification of the proposed activity under Section 2.11 and 2.62 of T&I SEPP was given to the City of Sydney (Council) and adjoining occupiers of land. Notification letters were sent out to Council on 25 May 2022 and the adjoining occupiers of land on 25 May 2022.

No responses were received within the 21 days of issuing the notification letters except for confirmation of receipt of notice from Council. The notification letters and confirmation of receipt from Council are appended at **Appendix B**.

Environmental Impacts

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

- The extent and nature of potential impacts are negligible to minor, 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 and community; and
- Given the above, it is determined that an EIS is not required for the proposed activity.

Justification and Conclusion

The REF has examined and fully considered possible all matters affecting or likely to affect the environment by reason of the proposed activity.

As discussed in detail in **Section 6** of this report, the proposed activity will not result in any significant nor long-term environmental 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.

The environmental impacts of the proposed activity are not likely to be significant and therefore it is not necessary for an environmental impact statement to be prepared.

On this basis, it is recommended that Health Administration Corporation approve the proposed activity in accordance with Part 5 of the EP&A Act and subject to adoption and implementation of matters outlined in **Section 6** of this report and the mitigation measures.

1. Introduction

1.1 Proposal Identification

The location of the proposed activity is within the East Campus of the RPA Hospital, Camperdown.

The proposed activity comprises:

- Installation of a turning bay adjacent to the main loading dock and adjustment to footpath alignments to improve truck manoeuvrability at this location;
- The raising of an enclosed overhead pedestrian walkway connecting Gloucester House to the main hospital, to allow Heavy Rigid Vehicles (HRV's) underneath;
- Gloucester House Plaza (Plaza) and road and road related area works including:
  - Adjustment to the patient drop off traffic island and resurfacing of the roadway in the Plaza area;
  - Associated removal of four (4) Kentia Palm trees located on the traffic island;
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Note: Tree pruning is required of one (1) existing tree, a Hills Fig Tree, located on the St Andrew's College site, for only that portion that overhangs the subject site to provide the necessary clearance to allow large vehicles to move between Gloucester House Drive and Missenden Road. The subject tree currently has significant overhang into the road carriage and RPA campus site. This is to be undertaken as Exempt Development following the carrying out of construction works under the REF in accordance with Section 2.63(1)(g) of State Environmental Planning Policy (Transport and Infrastructure) 2021.

Note: a Lilly Pilly shrub / hedge is to be removed associated with the works in Gloucester House Plaza. Due to its size and it not being listed on a Register of Significant Trees, it does not meet the threshold for requiring a permit or approval under the Tree Management Controls listed in the Sydney Development Control Plan 2012.

Refer to **Figure 1** below for extract of the proposed activity.

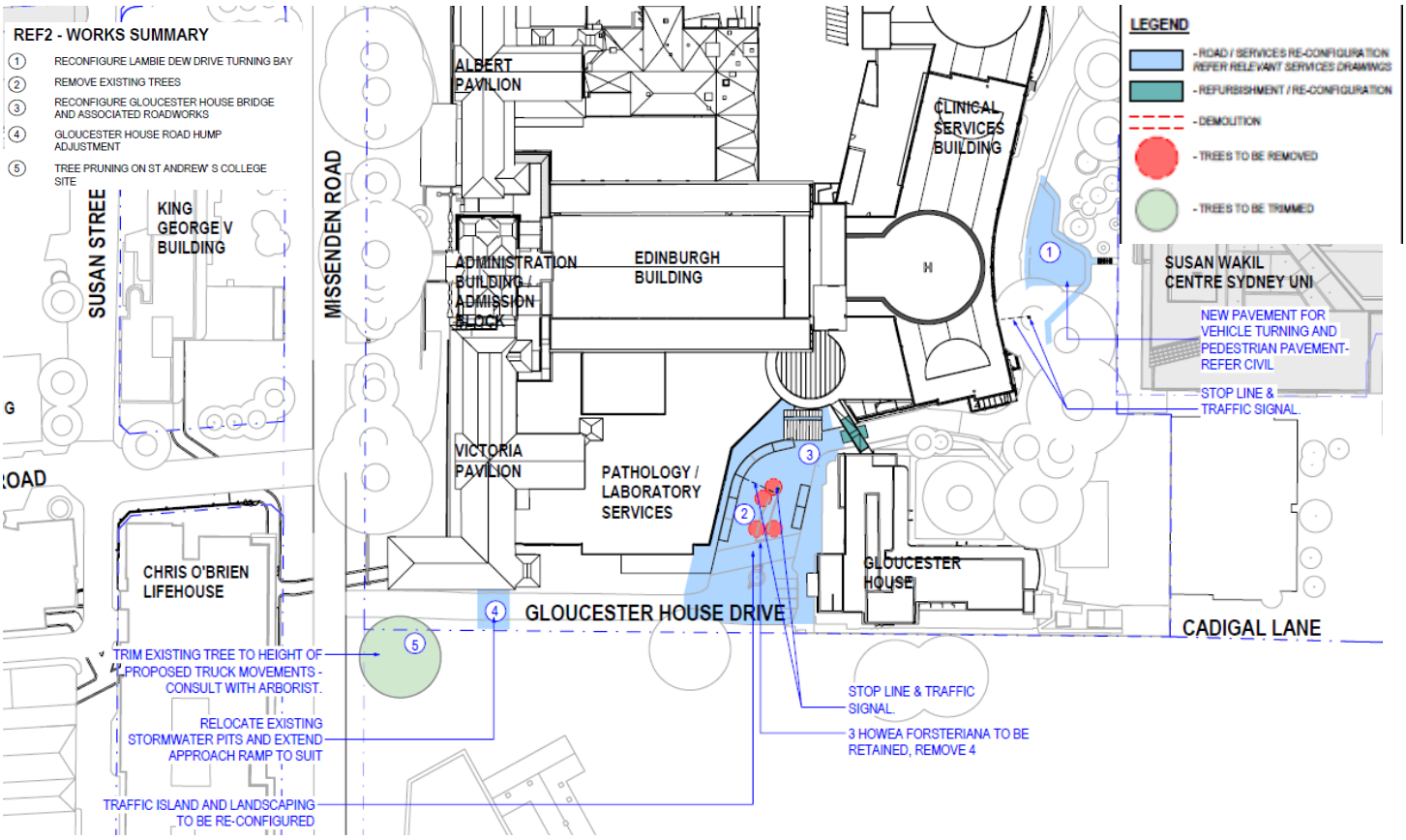

Figure 1 Proposed Site Plan

A detailed description of the proposed activity is provided at **Section 3.5** of this report.

1.2 Site Location

The subject site, RPA Hospital, is located at 12 Missenden Road, Camperdown 2050. The site is legally known as Lot 1000 in DP 1159799. The east campus has a total site coverage of approximately 43,360 m^2. The site is located within the City of Sydney Local Government Area (LGA). The site is 4km southwest of Sydney's CBD and approximately a 13-minute walk from Central train station.

RPA Hospital is one of Australia's leading hospitals, providing an extensive range of treatment services and is recognised as a worldwide leader in healthcare excellence and innovation. RPA Hospital adjoins the University of Sydney to the east, forming part of a larger specialised centre within Sydney for education, research and health.

Figure 2 below outlines RPA Hospital's broader regional context. Additionally, further detail of the specific site area subject to the proposed activity under the REF is provided at **Section 2.2** of this report.

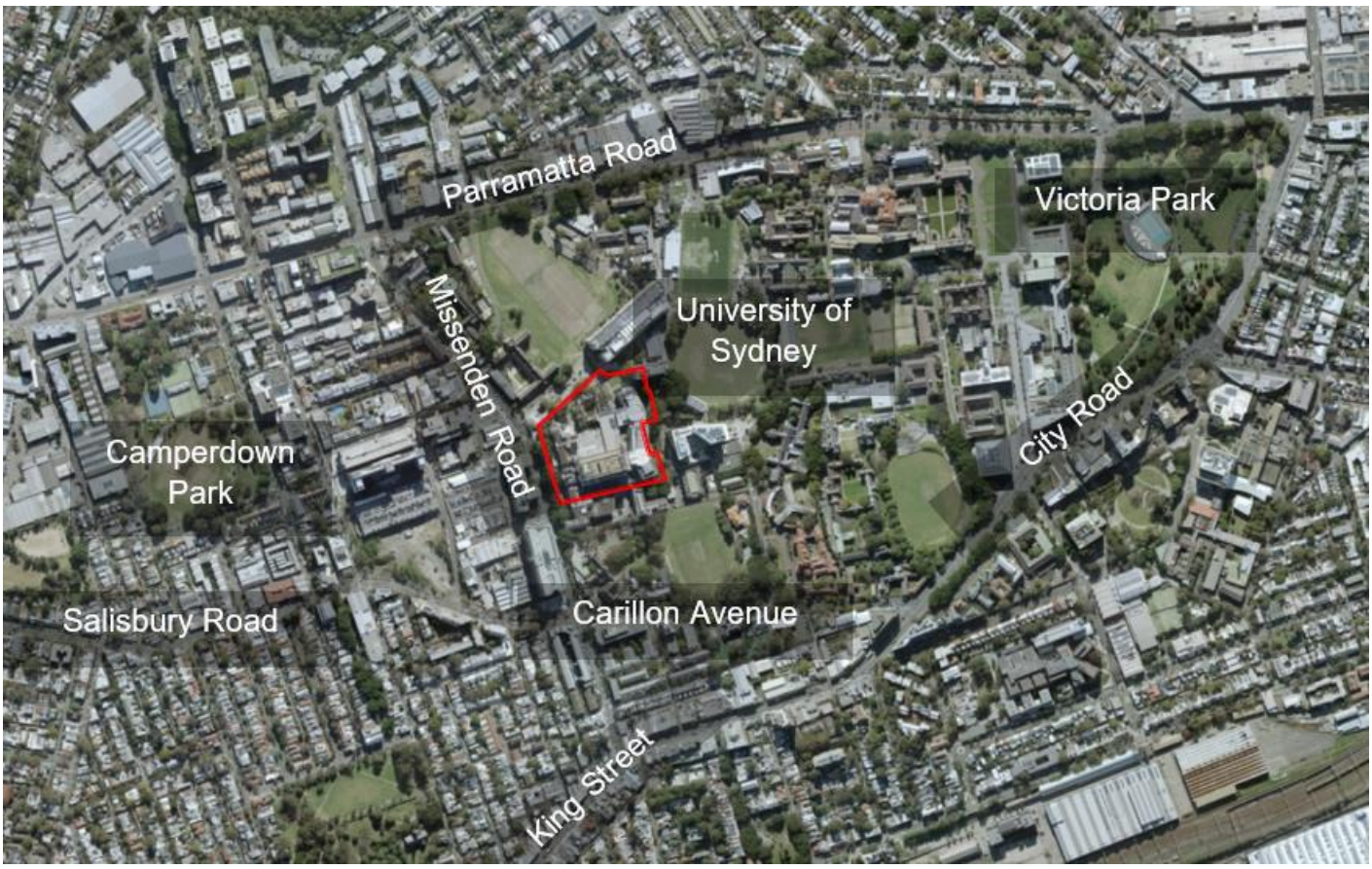

Figure 2 Aerial View of Site and Surrounds

1.3 Purpose of the Report

This REF has been prepared by Architectus on behalf of HI to determine the environmental impacts of the proposed reconfiguration to Gloucester House Bridge, associated roadworks along Gloucester House Drive and Lambie Dew Drive, and tree removal. For the purposes of these works, HI is the proponent and the determining authority under Part 5 of the EP&A Act.

The purpose of the REF is to describe the proposal, to document the likely impacts of the proposal on the environment and to detail protective measures to be implemented to mitigate impacts.

The description of the proposed activity and associated environmental impacts have been undertaken in the context of Section 171 of the EP&A Regulation 2021 and the 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 under Part 5.1 of the EP&A Act; and
- 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.

1.4 Report Structure and Scope

Table 1 outlines the report structure.

Table 1 Report Structure

Section	Description
Section 1	Introduction
Section 2	Site Analysis and Site Description
Section 3	Proposed Activity, Need and Justification
Section 4	Statutory Planning Framework
Section 5	Consultation
Section 6	Environmental Impact Assessment
Section 7	Environmental Factors Considered
Section 8	Justification and Conclusion

1.5 Reports and Technical Information

Table 2 provides a list of reports and technical information relied upon in the preparation of the REF.

Table 2 Reports and Technical Information

Appendix	Description	Author	Rev/Ref/Date
A	Mitigation Measures	Architectus	28 June 2022
B	Notification Letters and Response from Council	Architectus and City of Sydney Council	25 May 2022
C	Section 10.7(2)&(5) Planning Certificates for Lot 1000 in DP 1159799	City of Sydney Council	21 July 2021
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V	BCA Assessment Report	Blackett Maguire + Goldsmith	14 June 2022
W	Targeted Soil Investigation Report	Cardno	22 June 2022

2. Site Analysis and Description

2.1 The Site and Locality

The subject site forms part of RPA Hospital on Missenden Road, Camperdown NSW 2050. The proposed activity will be undertaken within the south-eastern portion of the East Campus.

RPA Hospital is one of Australia's premier tertiary referral hospitals and is recognised as a worldwide leader in healthcare excellence and innovation. RPA Hospital is part of a network of hospitals within the Sydney Local Health District.

The site is well connected to public transport options, being a 12-minute walk and 14-minute walk from Macdonaldtown and Newtown Train Stations respectively. Additionally, the start of the Great Western Highway, also known as Parramatta Road, is a 2-minute walk north of the site, providing a key arterial connection to the city and out to Western Sydney.

The site is surrounded by a variety of land uses including:

- To the north of the proposed activity, is the eastern campus of RPA Hospital. Beyond lies St John's College and the Charles Perkins Centre, within the University of Sydney;
- To the east, the Bosch building and glasshouse within the University of Sydney Campus;
- To the south, St Andrew's College within the University of Sydney; and
- To the west, the site is adjoined by Missenden Road and the western campus of RPA Hospital.

The site's local context is illustrated in **Figure 2** and **Figure 3**. The site of the proposed activity is shown with red dots below.

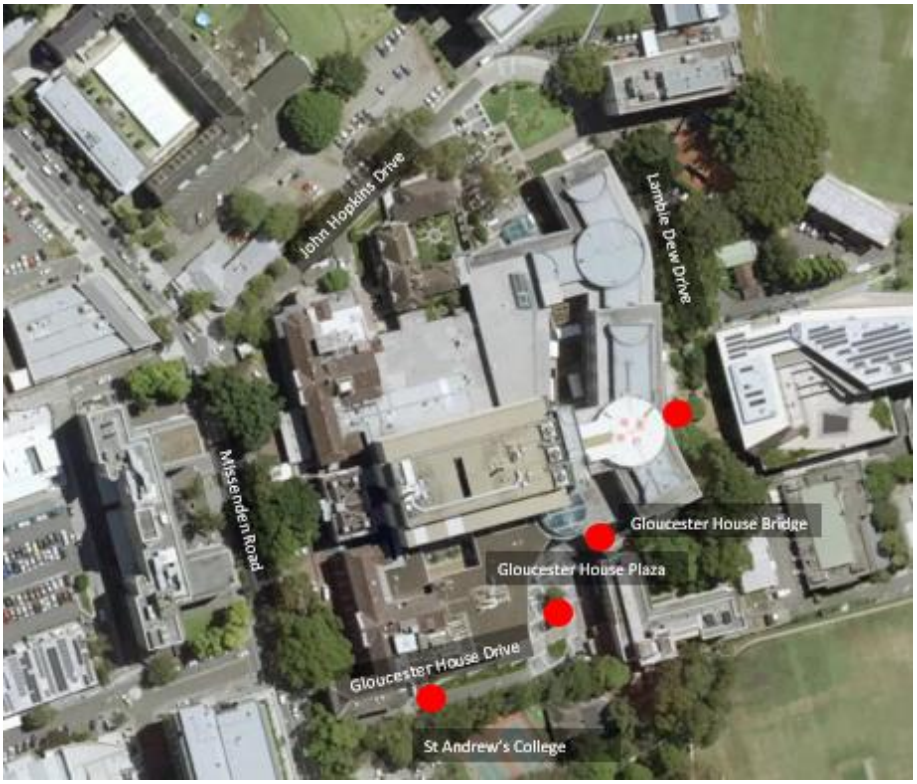

Figure 3 East Campus Locality

The red circles indicate where the proposed activity will be taking place.

2.2 The Site

The subject site forms part of RPA Hospital and is located at 12 Missenden Road, Camperdown NSW 2050. The subject site is legally known as Lot 1000 in DP 1159799 (refer to **Figure 11** below).

The site is divided by Missenden Road and is known as the East and West campuses. The proposed activity will be undertaken within the southern portion of the East campus.

The Eastern campus comprises of the main hospital services and is already highly developed.

The Western campus includes the hospital's main car parks and additional hospital facilities such as administrative buildings, renal dialysis, and radiation oncology.

A 3D view looking north to the site, including a view of Gloucester House Drive, Gloucester House Plaza and Bridge, can be found at **Figure 4** below.

In addition to the 3D view, refer to the photographs taken on 18 May 2022 of the subject site from **Figure 5** to **Figure 10** below.

Figure 4 3D View looking north to the existing site

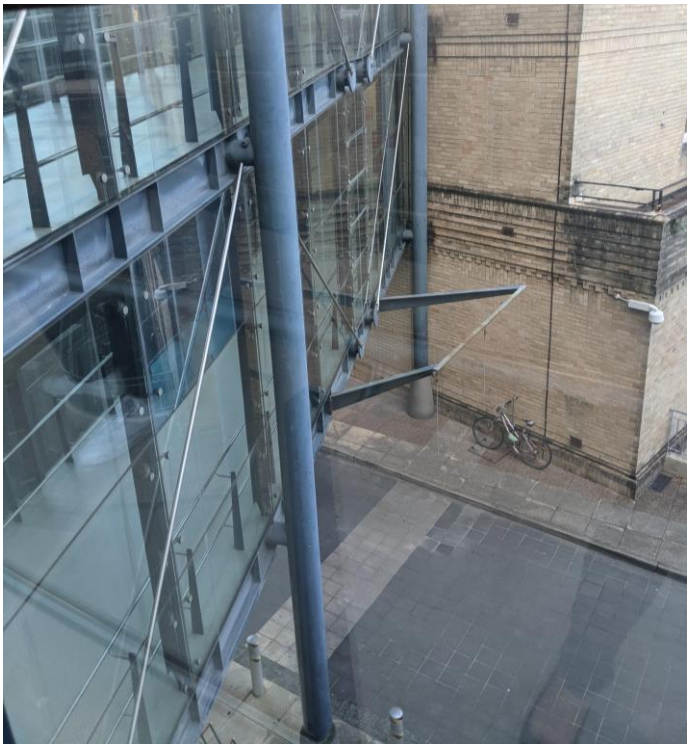

Figure 5 View of the pedestrian walkway from inside Gloucester House

Figure 6 A pedestrian walkway, within Gloucester House Bridge

Figure 7 View of palm trees and traffic island, Gloucester House Plaza

Figure 8 View of palm trees and traffic island, Gloucester House Plaza.

Figure 9 View of the eastern portion of Lambie Dew Drive, near the loading dock

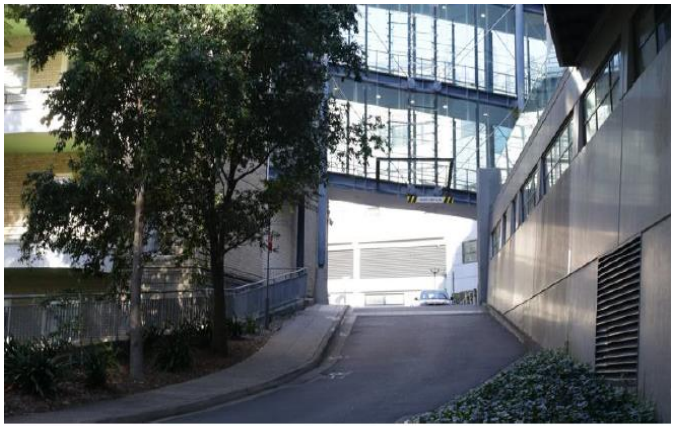

Figure 10 View of Gloucester House Drive pedestrian bridge from Lambie Dew Drive

2.3 Ownership and Proponent

The subject site comprises one lot (Lot 1000 in Deposited Plan 1159799) that is under the ownership of the Health Administration Corporation. **Figure 11** illustrates the spatial extent of the subject site and the red circles indicate where the proposed activity is taking place.

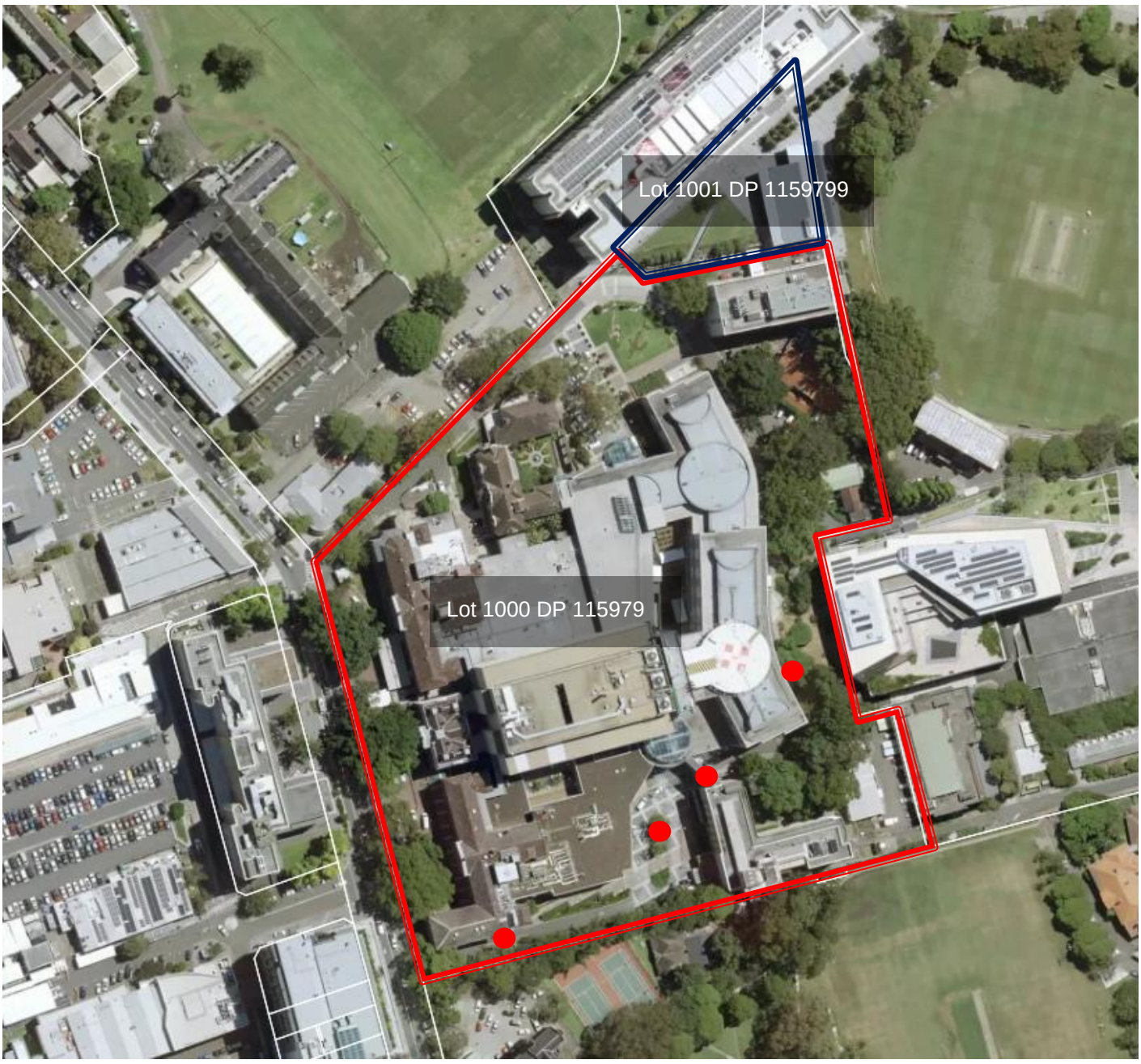

Figure 11 Lot Boundary of the East Campus

The red circles indicate where the proposed activity will be taking place.

2.4 Zoning

The site is zoned SP2 – Infrastructure for the purpose of 'Health Services Facilities', pursuant to SLEP 2012.

Refer to an extract of SLEP 2012 at **Figure 12** below - the site is outlined in red. The red circles indicate the location of the proposed activity.

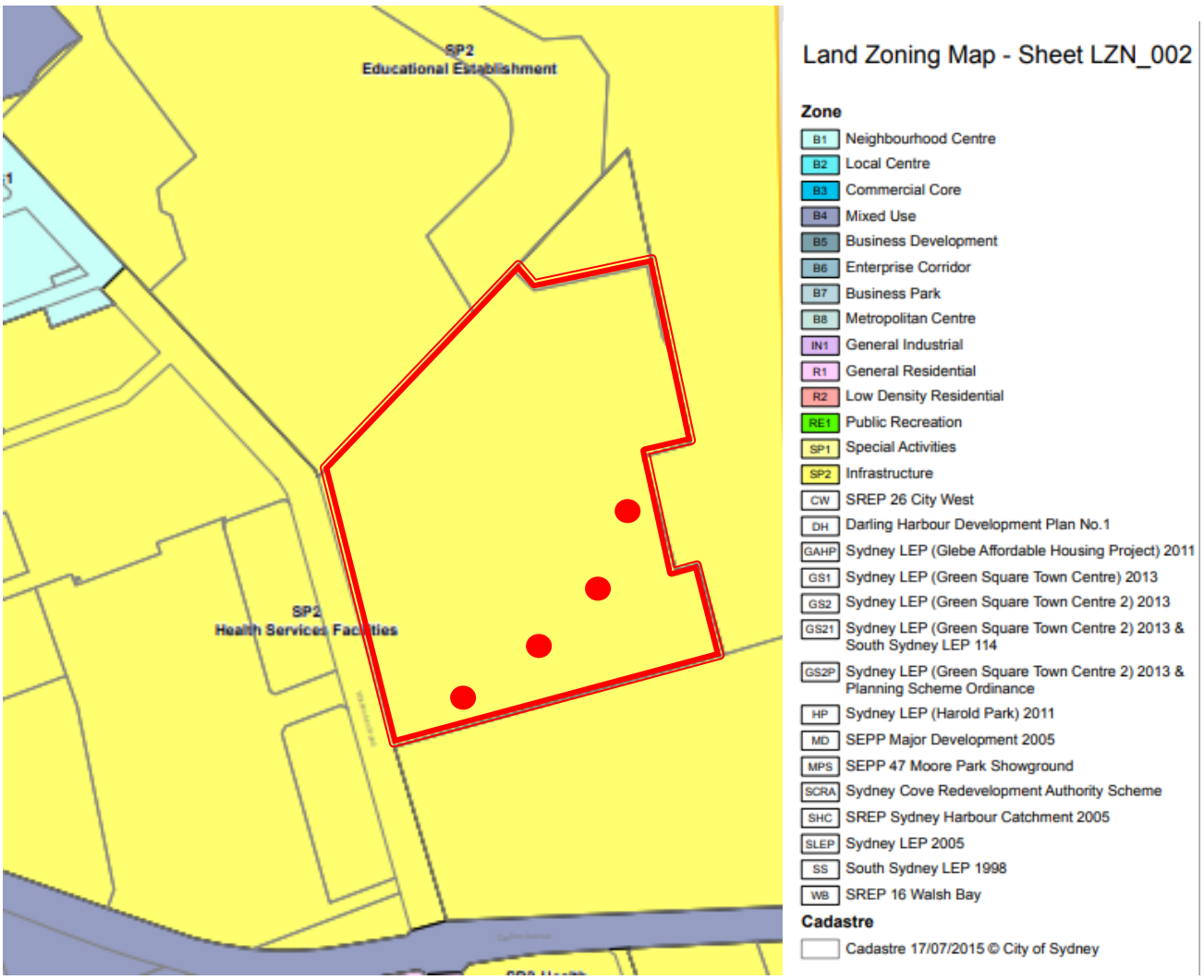

Figure 12 Land Zoning Map

The red circles indicate where the proposed activity will be taking place.

2.5 Height of Buildings

The site is not subject to a maximum building height development standard under the SLEP 2012.

2.6 Floor Space Ratio

The site is not subject to a floor space ratio development standard under the SLEP 2012.

2.7 Heritage

RPA Hospital is identified as having local and state heritage significance. The site's heritage items and surrounding heritage items are summarised in **Table 3** and **Table 4**, and illustrated in **Figure 13** below.

Table 3 Heritage Items located within the site

Item Name	Item Number	Address	Significance
Royal Prince Alfred Hospital group including buildings and their interiors, trees and grounds *Note: Item 68 is split across Missenden Road, as shown in **Figure 13** below.*	I68	Missenden Road	Local
University of Sydney Conservation Area	C5	Camperdown	Local
Royal Prince Alfred Hospital – Victoria and Albert Pavilions	00829	Metropolitan	State Heritage Inventory
Royal Prince Alfred Hospital – Admission Block	00830	Metropolitan	State Heritage Inventory

Table 4 Heritage Items near the site

Item Name	Item Number	Address	Significance
St Andrew's College, University of Sydney including main building and interior, quadrangle and grounds	I46	19 Carillon Avenue	Local
St John's College, University of Sydney including main building and interior, quadrangle, gate lodge and interior, fence and gate and grounds	I67	8A Missenden Road	State
Shop and residence including interiors	I69	49 and 49A Missenden Road	Local
Alfred Hotel including interior	I70	51-55 Missenden Road	Local
JD Stewart Building, University of Sydney including interior	I73	Paramatta Road	Local
Former Newtown Public School group including buildings and their interiors, fencing and grounds	I968	50 Carillon Avenue	Local
Bligh and Camperdown Terrace	C38	Newtown	Local
O'Connell Town Estate	C43	Newtown	Local

Refer to an extract of SLEP 2012 at **Figure 13** below. The red circles indicate where the proposed activity will be taking place. Brown indicates local heritage listings, while the red hatched area indicates the University of Sydney Heritage Conservation Area.

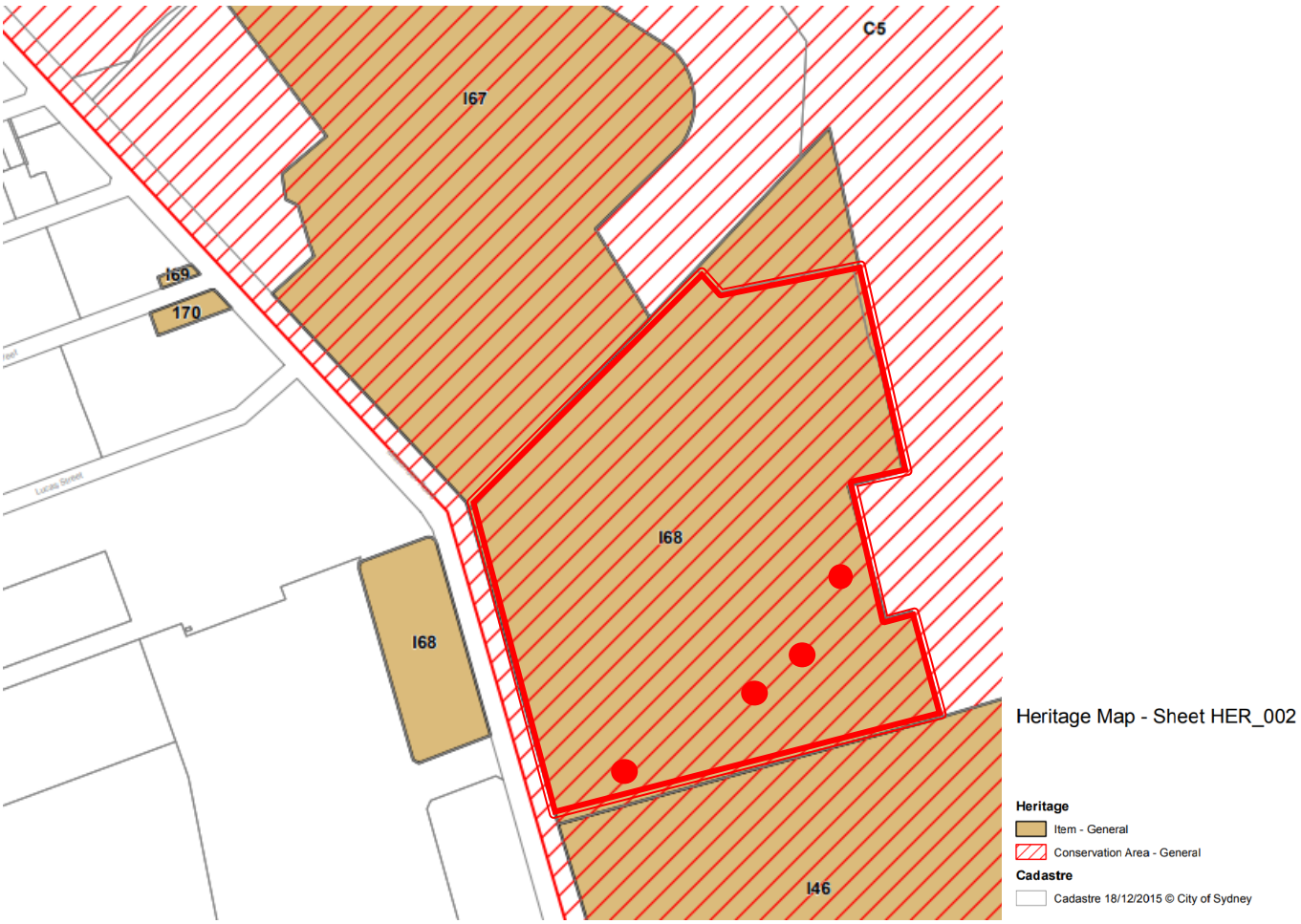

Figure 13 Heritage Map

The red circles indicate where the proposed activity will be taking place. Brown indicates local heritage listings, while the red hatched area indicates the University of Sydney Heritage Conservation Area.

2.8 Built Form Context

RPA Hospital is largely developed with numerous buildings spread across the hospital campus. Missenden Road is the central access spine of the RPA Hospital campus which consists of a mix of low to medium scale older buildings and larger scale modern buildings that create a mixed streetscape character.

There is a distinct shift in the character of the east campus (from Missenden Road) which presents as a heritage street frontage that has a consistent street wall / setback compared to the west campus on the other side of Missenden Road which has a more modern character of varied setbacks interspersed with open space areas and large parking lots, including the Australia's Nuclear Science and Technology Organisation (ANSTO) building carpark and RPA Hospital carpark.

The West Campus contains the prominent King George V Memorial Hospital which is located to the southwest of the proposed site and is registered on the Royal Australian Institute of Architects (RAIA) Register of Significant Architecture in NSW. The building was opened in 1941 and was designed in the Inter-War International Art Moderne style by distinguished architects Stephenson and Turner.

A campus map is provided at **Figure 14** below.

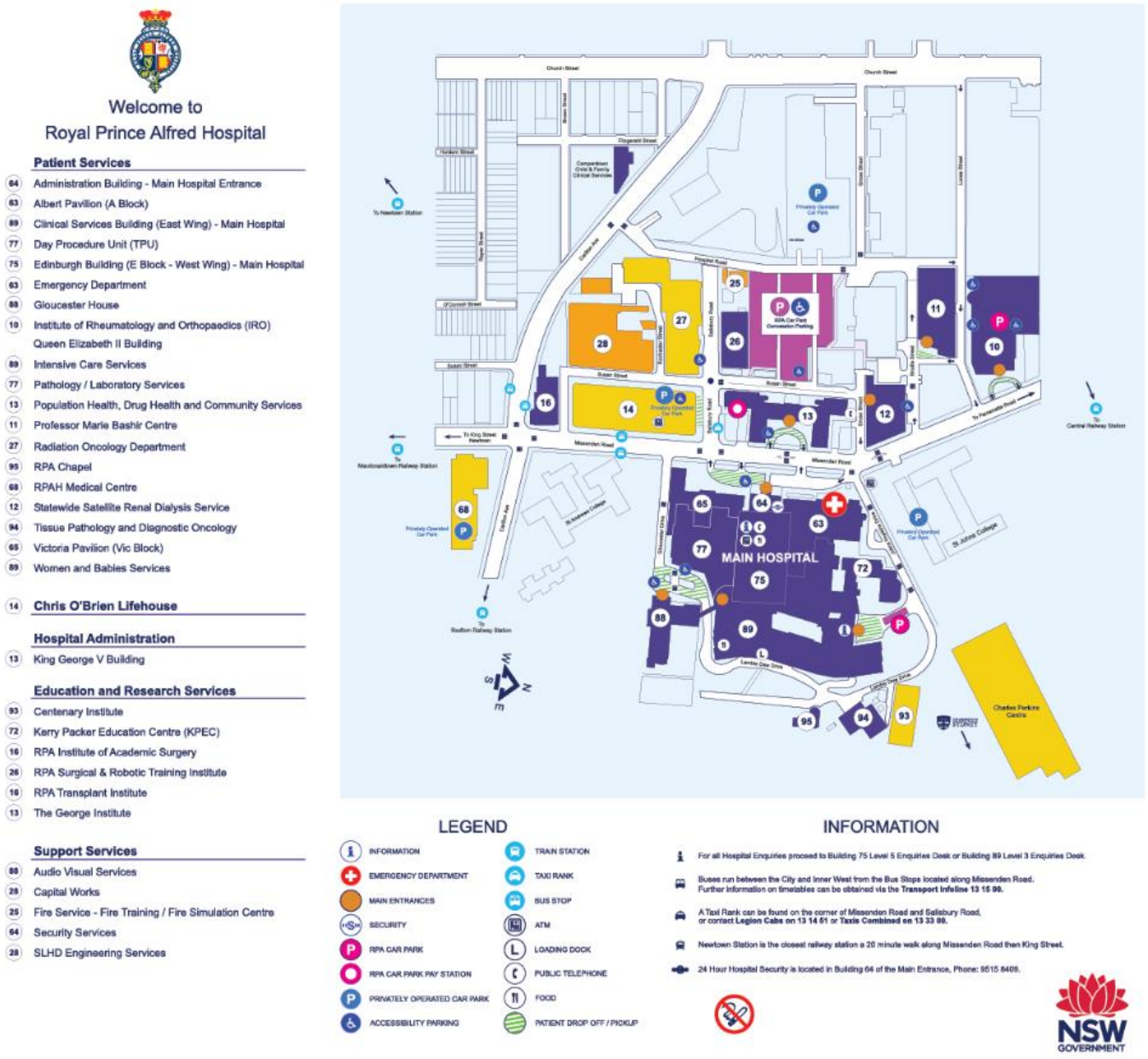

Figure 14 RPA Hospital Campus Map

2.9 Transport and Access

A Traffic Impact Statement (TIS) has been prepared by SCT Consulting and can be found at **Appendix N**. The TIS provided details on the existing traffic conditions, transport and parking impact assessment and a preliminary overview plan of the Construction Traffic Management Plan (CTMP). Further details on the transport and parking arrangements of the proposed activity can also be found at **Section 6.1.6** of this report.

The hospital is serviced primarily by Missenden Road, which provides the hospital access to Parramatta Road and Carillon Avenue. This is supplemented by access on Church Street which runs along the western border of the hospital campus. Other arterial roads surrounding the site, include Parramatta Road to the north and City Road to the south.

Further detail on the main servicing roads is outlined below and illustrated in **Figure 15** below.

2.9.1 Missenden Road

Missenden Road provides the primary north-south link through the east and west campuses of RPA Hospital. The road presents traffic calming treatments such as single lanes and on-street parking in both directions, wide pedestrian footpaths and multiple zebra crossings which make it a positive pedestrian environment. Missenden Road has a relatively constant flow of pedestrian and vehicular traffic during weekdays (approximately 700 to 800 vehicles an hour in both directions between 7am and 6pm).

2.9.2 Internal loop road (John Hopkins Drive / Lambie Dew Drive / Gloucester House Drive)

The internal loop road around the main hospital building is known as John Hopkins Drive to the north. The portion to the rear of the main hospital building, near the main loading dock, is known as Lambie Dew Drive. In the southeast corner of the hospital building (where Gloucester House is located) Lambie Dew Drive becomes Gloucester House Drive. The loop road feeds into Missenden Road at both its extents, i.e. Missenden Road adjoins John Hopkins Road at the north, and Gloucester House Drive at the south. However, in spite of the three separate names, from an aerial perspective it reads as a singular loop road servicing the main hospital building.

2.9.2.1 John Hopkins Drive

John Hopkins Drive services the north of the main hospital building including mothers and babies, Kerry Packer Education Centre, the ambulance bay, and provides access to Lambie Dew Drive to the east. The road is located at the northern boundary of hospital land and cannot be widened due to St Johns College land to the north, and the main hospital building and Kerry Packer Education Centre to the south. John Hopkins Drive is critical as it is currently the only route to the loading dock for large servicing vehicles as well as fire and rescue vehicles (due to clearance limits on Gloucester House Drive).

In addition to this, John Hopkins Drive also forms a key east-west pedestrian route into University of Sydney Campus (USYD). This route is part of a strategy to strengthen east-west pedestrian connections from Camperdown Park to Victoria Park through the creation of a green spine.

2.9.2.2 Lambie Dew Drive

Lambie Dew Drive is the eastern portion of the loop road to the rear of the main hospital building.

Lambie Dew Drive is relatively narrow despite serving freight vehicles up to the size of HRVs. Due to bends in the road, traffic is sometimes restricted to one way movement when larger freight vehicles pass through, such as the bend outside Building 94 where Lambie Dew Drive turns into John Hopkins Drive. This is often exacerbated by delivery vehicles parking along Lambie Dew Drive during peak delivery hours resulting in vehicles exiting needing to wait for parked vehicles to complete their delivery before further movement is possible.

Due to clearance limits on Gloucester House Drive, freight vehicles entering via John Hopkins Drive need to turn around on Lambie Dew Drive and exit via John Hopkins Drive. No turn around bays or turning heads are currently provided, with most freight vehicles using the delivery bays to complete the turnaround manoeuvre. The manoeuvre is particularly difficult for HRVs due to the length of these vehicles, especially if they are parked in Dock 2 which faces southward. Smaller rigid vehicles such as MRVs often drive to the southern end of Lambie Dew Drive where they can complete the turnaround away from the loading dock.

2.9.2.3 Gloucester House Drive

Gloucester House Drive services Gloucester House and the south side of the main hospital building and joins Missenden Road to Lambie Dew Drive. It includes a plaza area that provides patient pick-up / drop-off, and some accessible parking spaces.

A triple level pedestrian bridge joins the main hospital building to Gloucester House on the east side of Gloucester House Drive, marking the beginning of Lambie Dew Drive. At this location, the road width is 5.7m with a clearance limit of 3.3m.

Figure 15 Main Arterial Roads

2.9.3 Train

Rail infrastructure in the vicinity of the site includes:

- Newtown Station, approximately a 12-minute walk from the site;
- Macdonaldtown Station, approximately a 14-minute walk from the site; and
- Central Station, approximately 32-minute walk from the site.

2.9.4 Bus

Bus infrastructure in the vicinity of the site includes:

- Both bus routes 412 and 422 service the site along Missenden Road, each connecting the Sydney CBD to RPA Hospital; and
- Additionally, there are several bus routes that travel along Parramatta Road, including, 413, 442, 438N, 440, 461N, 480, 483, connecting the site to numerous locations including Bondi Junction, Sydney CBD and Central Station.

2.9.5 Cycleways

There are cycleways throughout and surrounding the site, connecting the RPA Hospital campus and the University of Sydney campus to the rest of the Sydney.

2.9.6 Pedestrian Access

Pedestrian infrastructure is available but not complete around the hospital campus. Footpaths are provided on both sides along Missenden Road. The eastern campus loop has less pedestrian infrastructure, with footpaths on a single side only along John Hopkins Drive and Gloucester House Drive, and no connected footpaths on Lambie Dew Drive. Lambie Dew Drive is signposted as a shared zone that allows pedestrians to walk to and from the eastern exits of the main hospital building.

2.9.7 Car Parking

There are a number of available parking locations across the RPA Hospital campus, including on-street parking, King George V car park, staff car park off Church Street, Wilson Parking on Missenden Road and Secure Parking carpark on Carillon Avenue.

2.10 Topography

The site is generally flat and has an elevation of approximately 25m above sea level. It is located on the western side of the Sydney CBD and offers local views of Missenden Road and the CBD.

A site survey plan is appended at **Appendix E**.

2.11 Vegetation and Ecology

The RPA Hospital campus is largely developed with buildings and hardstand and has minimal vegetation throughout the campus. It is noted there are a number of established trees along Missenden Road that have been identified on the Council's Heritage Tree List.

The proposed activity includes removal of four palm trees, also identified as part Tree Group 59.

An Arboricultural Impact Assessment (AIA) Report was prepared by Martin Peacock Tree Care and is appended **at Appendix J**.

2.12 Acid Sulphate Soils

The site is in a Class 5 Acid Sulphate Soils area as identified in SLEP 2012 at **Figure 16** below. Acid Sulfate Soils are not typically found in Class 5 areas. Areas classified as Class 5 denotes land within 500 metres of Class 1,2, 3 or 4 areas – where the presence of acid sulphate soils is considered to occur.

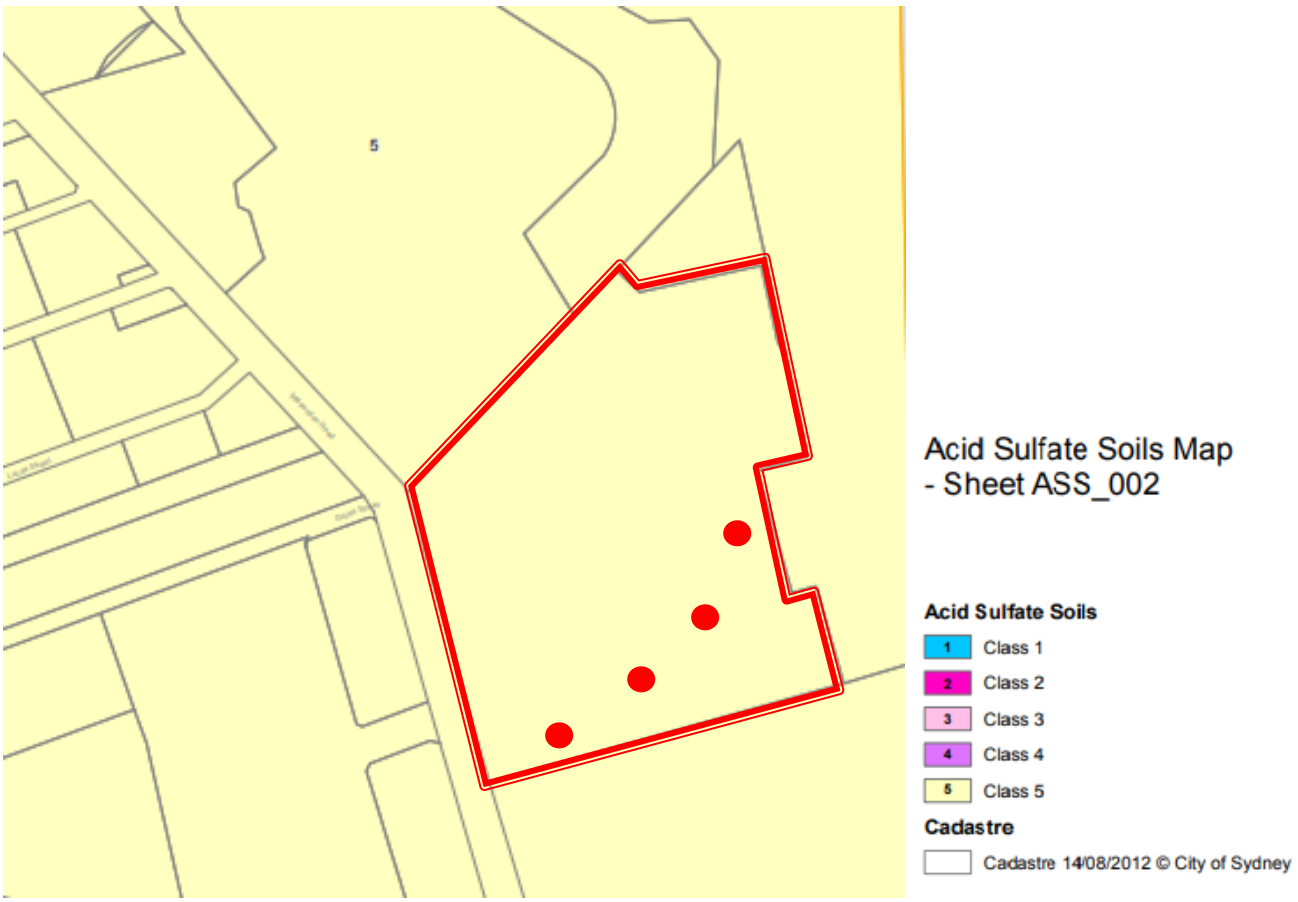

Figure 16 Acid Sulphate Soils Map

The red circles indicate where the proposed activity will be taking place.

2.13 Flood Prone Land

As indicated by the Section 10.7 (2) & (5) Planning Certificate for the site (refer to **Appendix C**), the site is flood prone.

Furthermore, the location of the proposed activity is outside of the areas affected by the probable maximum flood, and the 100-year flood zone (1% AEP mapped area).

2.14 Existing Development

2.14.1 RPA Hospital Campus

RPA Hospital is the largest of five hospitals within the Sydney Local Health District. RPA Hospital is a specialist referral hospital providing an extensive range of services to more people in New South Wales than any other hospital and is considered a worldwide leader in healthcare excellence and innovation.

The hospital campus includes multiple buildings across both the eastern and western campuses, varying in height from three (3) to twelve (12) storeys. The hospital provides a range of services including palliative care, gynaecology oncology, endocrinology and diabetes, neuropathology and ambulatory care. RPA Hospital set up NSW's first Neuro-Autonomic Service with highly specialised services in neuro-otology, neuro-immunology and neuromuscular disorders and epilepsy.

The campus was initially established in 1882 and has played a key role in healthcare innovation and research in NSW. The existing main hospital building is 12-storeys in height.

No major work has been conducted on the campus in recent years. In March 2019, the NSW Government announced a significant expansion of RPA Hospital with the Stage 1 RPA Hospital Redevelopment Project, valued at $750 million.

The redevelopment will be for clinical and non-clinical services infrastructure to expand, integrate, transform and optimise current capacity at RPA Hospital to provide contemporary patient-centred care that is evidence based including expanded and enhanced facilities and services for:

- Emergency Department (ED);
- Intensive Care Unit (ICU);
- Operating Theatres (OT);
- Interventional Cardiology;
- Adult Acute Inpatient accommodation;
- Medical imaging services (including intervention); and
- Clinical and non-clinical support services.

The proposed activity under this REF is required to provide access for fire appliances to the Fire Control Room and HRVs to the main loading dock via Gloucester House Drive. The proposed activity will improve the overall accessibility of the main hospital building for servicing and loading.

2.14.2 Gloucester House

Gloucester House forms part of the southern portion of the eastern campus of the RPA Hospital. The building is four storeys in height.

Gloucester House is rich in historic context and was opened on 25th August 1936 by the Governor of NSW. Gloucester House was built to provide accommodation for private fee-paying patients, and was one of the first private hospital ward buildings in Australia and one of Schlink's major initiatives. Level 4 of the Gloucester House Bridge links the main hospital public atrium with the Breast Cancer Clinic in Gloucester House, as illustrated in **Figure 17** below.

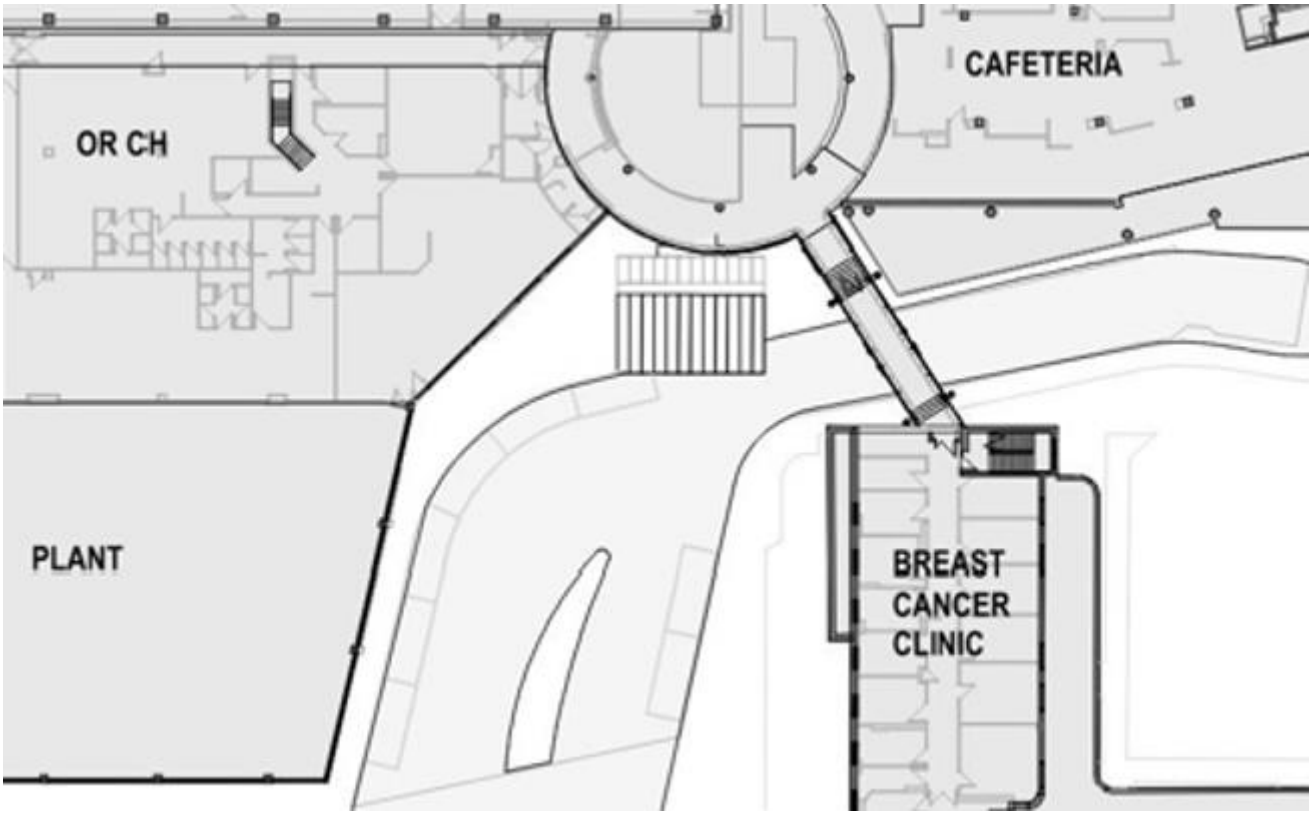

Figure 17 Existing Level 4 Plan of Gloucester House

2.15 Site Considerations and Constraints

The Section 10.7(2) and (5) Planning Certificate (Certificate No. 2021333011) for the site at **Appendix C**, dated 21 July 2021 identifies that Lot 1000 is located within SP2 – Infrastructure zone under SLEP 2012. **Table 5** below outlines the site's considerations and constraints.

Table 5 Site Considerations and Constraints

Affectation	Yes	No
Critical habitat		✓
Conservation area	✓	
Item of environmental heritage	✓	
Affected by section 38 or 39 of the Coastal Management Act 2016 (CM Act)		✓
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 landslip		✓
Affected by bushfire, tidal inundation, subsidence, acid sulphate or any other risk	✓ (Note 1)	
Affected by any acquisition of land provision		✓
Biodiversity certified land or subject to any bio-banking agreement or property vegetation plan		✓
Significantly contaminated		✓
Subject to flood related development controls	✓ (Note 2)	

Note 1: The lot is identified as being affected by Class 5 Acid Sulphate Soils.

Note 2: The lot is identified as flood prone land and is therefore subject to flood related development controls. It has been confirmed however that the works will not affect the flood behaviours of the site and nor are the works situated in flood affected parts of the site.

2.16 Surrounding Development

The RPA Hospital campus is surrounded by a variety of uses (as illustrated in **Figure 2** above), including:

- To the immediate north, the residential colleges of USYD campus including St John's College, St John's Oval and Sancta Sophia College. Beyond that, Parramatta Road runs east to west, connecting the Sydney CBD to Greater Western Sydney. The suburbs of Forest Lodge and Annandale are across Parramatta Road;
- To the immediate east lies the USYD campus, including residential colleges, the University Oval and educational facilities. Beyond USYD, there is a recreational open space called Victoria Park and Pool as well as Broadway Shopping Centre;
- Beyond Carillon Avenue to the south, land uses mostly comprise low to medium density housing in the form of terraces. Further south, there are a variety of shops, restaurants and entertainment spaces that run along King Street; and to the immediate west of the site, is the extension of the RPA Hospital campus; and
- Further west is Camperdown Park and more low to medium density housing, mainly in the form of terraces interspersed with apartment buildings.

2.17 Existing DA Approvals on the Site

The construction of the original building pre-dates the digitation of local DAs, in 2004. Refer to below for existing DA approvals on the site. Note, development sought through other planning approval pathways, like REF's, are listed below the following table.

Table 6 Existing DA Approvals on the Site

DA number	Description	Day Lodged	Determination Date	Decision
N/A	New Tutorial Room & New First Stage Room	N/A	N/A	N/A
D/1989/886	Renovations to Albert Pavilion (Level 6 & 7)- Nuclear Medicine	N/A	10/11/1989-26/09/1990	Approved with Conditions
D/1990/99	To demolish the existing building on site and erect thereon a two storey building involving a minor basement area and eight off-street car parking spaces to be used for medical research, all at an estimated cost of $3.5 million and in accordance with drawing no.838/DA 1-9 dated February 2, 1990	N/A	09/02/1990-26/09/1990	Approved with Conditions
D/1990/328	To carry out a two storey extension to the existing Victoria building at an estimated cost of $2.6 million and in accordance with the plans submitted with the application.	N/A	14/05/1990-26/09/1990	Approved with Conditions
S/XSK/1990/970	Alterations and Additions to Radiology & Haematology Departments	N/A	6/11/1990	Approved
D/1994/575	Alterations And Additions to Existing Hospital- Relocation of the ED to Level 5 in the Albert Pavillion and Additions to the North East of the Albert Pavillion and the Edinburgh block. Upgrading of the entry forecourt to allow separate entries to the ED and the main Hospital. Rebuilding Elevated Bridge linking Edinburgh block, new ED and Schlink Building.	N/A	18/07/1994-01/12/1994	Approved with Conditions Approved with Conditions
D/1998/71	Redevelopment of RPA Hospital	N/A	30/01/1998-29/07/1998	Approved with Conditions
D/1998/71	Redevelopment of RPA Hospital: Staged masterplan proposal for major building works (demolition, new buildings, traffic, parking, etc) and preliminary works	N/A	01/04/1998-29/07/1998	Approved
D/1998/1103	Redevelopment of RPA Hospital: Erection of a new 9 storey building, carrying out of refurbishment works to a number of other buildings within the RPA precinct and carrying out of associated landscaping, parking and traffic management works.	N/A	30/10/1998-22/11/1999	Approved with Conditions
D/2016/1853	Alterations and additions to cafe tenancy on level 4 including internal demolition, new cafe fit out and provisions for a 33sqm convenience store. Proposed hours of operation are from 6.00am to 5.00pm Mondays to Sundays. Proposed patron capacity is for 108 patrons.	29/12/16	01/05/17	Approved
D/2016/1852	Alterations and additions to existing cafe tenancy on level 5 and creation of new tenancy for a convenience store.	29/12/16	01/05/17	Approved
D/2016/1852/A	Section 96 (2) application for changes to layout of approved development for existing deli/cafe on level 5. Total area of deli will be reduced to 70sqm with 16 seats.	07/08/17	01/11/17	Approved
D/2017/1246	Use and fit-out of premises on level 5 as a pharmacy and convenience store. Hours of operation are between 8am and 8pm, 7 days per week.	08/09/17	15/01/18	Approved

Works are separately proposed to occur on the site under an REF, within the east campus of the RPA hospital campus. REF works already approved include:

- Construction of a new Mortuary pick up location within existing Building 89 Level 1, including a new lift between Levels 1 and 2; and
- Relocation of an existing roller shutter door on the eastern side of clinical services building to enable improved access control for hearse movements.

In addition, another REF package has been lodged for the western campus and is still under assessment. The proposed REF package includes:

- New internal fit out for the relocated Anatomical Pathology department on Level 5 of Building 12;
- New external additions to the western elevation of Building 12 including storage of dangerous goods;
- Minor works to the external façade and roof including new external egress stairs, new entry door, new roller door, infill of an existing door and removal of existing brickwork to two blocked in windows to reinstate to former condition; and
- Installation of Photovoltaic cells on the roof of Building 12.

Further, the scope of future REF/s is anticipated to be:

- Civil works in Lambie Dew Drive;
- Internal works to Building 63 and expansion of Building 89 for the Molecular Imaging department;
- The installation of solar panels on the roof of Building 89; and
- A new lift servicing Levels 5-7 of Building 89.

This is further described in **Section 6.1.17** below and illustrated in **Figure 26** below.

3. Proposed Development, Need and Alternative

3.1 The Proposed Activity

The proposed activity is located within the East Campus of RPA Hospital.

The proposed activity comprises:

- Installation of a turning bay adjacent to the main loading dock and adjustment to footpath alignments to improve truck manoeuvrability at this location;
- The raising of an enclosed overhead pedestrian walkway within Gloucester House; and
- Gloucester House Plaza and Drive roadworks including:
  - Adjustment to the patient drop off traffic island and resurfacing of the roadway in the Plaza area;
  - Associated removal of four (4) palm trees (Part Tree Group 59) located on the traffic island;
  - Replacement tree planting (4 trees) via a mitigation measure; and
  - Minor adjustments to a speed hump on Gloucester House Drive to accommodate HRVs.
- Note: Tree pruning is required of one (1) existing tree, a Hills Fig Tree, located on the St Andrew's College site, for only that portion that overhangs the subject site to provide the necessary clearance to allow large vehicles to move between Gloucester House Drive and Missenden Road. The subject tree currently has significant overhang into the road carriage and RPA campus site. This is to be undertaken as Exempt Development following the carrying out of construction works under the REF in accordance with Section 2.63(1)(g) of State Environmental Planning Policy (Transport and Infrastructure) 2021.

Refer to **Figure 18** for the location of each aspect of the proposed activity.

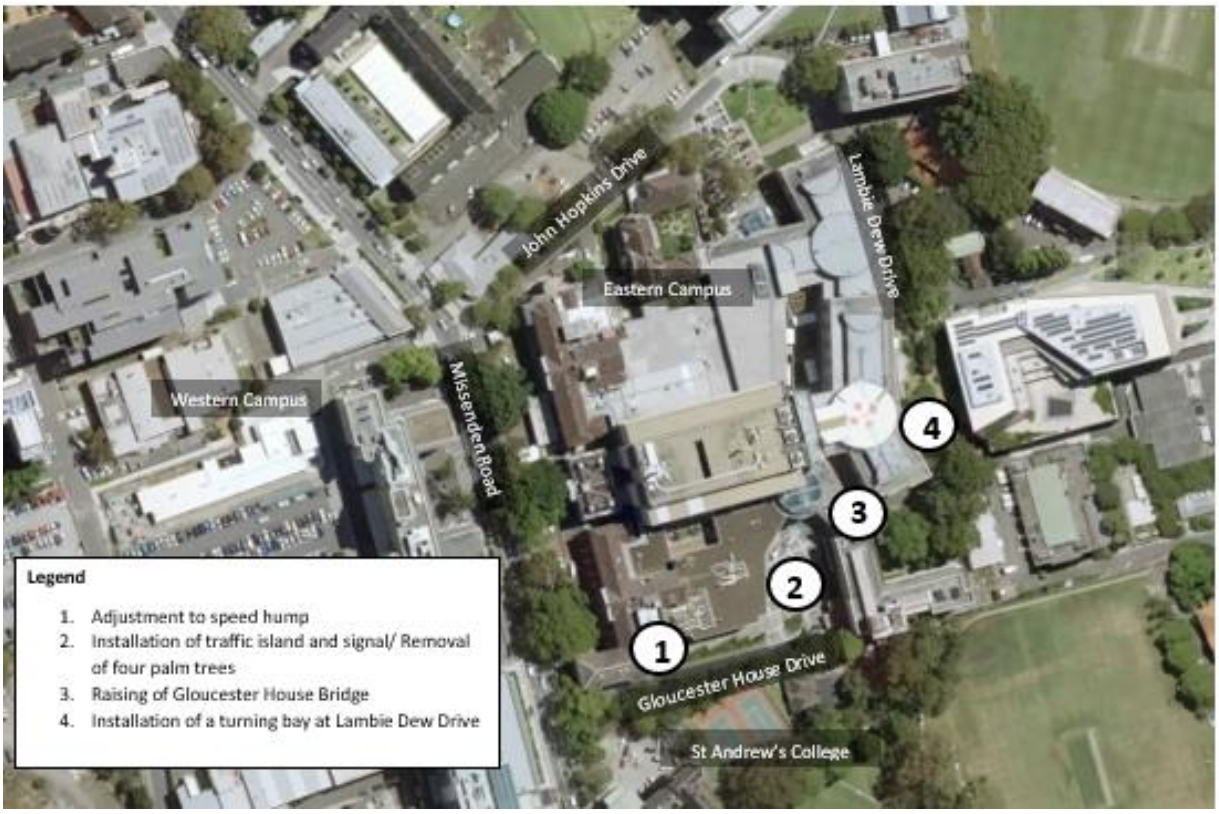

Figure 18 Proposed Activity

1. Lambie Dew Drive turning bay / manoeuvring area

The proposed expansion of the loading dock manoeuvring area is to improve the ability for freight vehicles to turn around, particularly HRVs. The expanded footprint is based on swept paths analysis that will allow HRVs to enter and exit with a maximum of a 3-point turn manoeuvre which is a significant improvement to existing conditions.

These works will be supported by the installation of traffic signals. A stop line and traffic signal will be added to the south of the loading dock which will work in conjunction with a stop line and traffic signal in Gloucester House Plaza. This will regulate movement between the main loading docks and Gloucester House Plaza. The traffic signals are not within the scope of the proposed activity as they are exempt development.

The proposed activity is illustrated in **Figure 19** below.

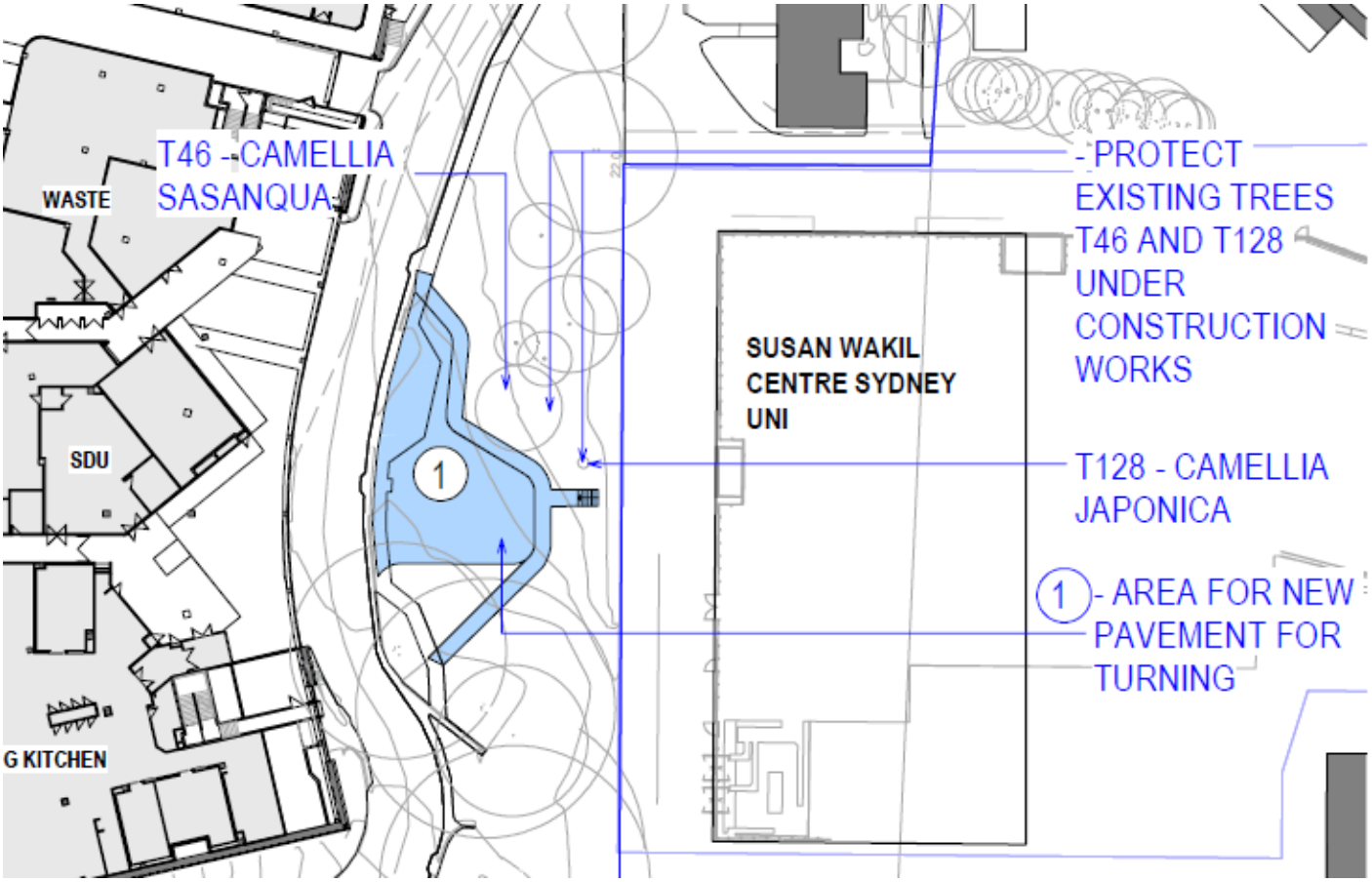

Figure 19 Lambie Dew Drive Turning Bay

2. Raising of an enclosed overhead pedestrian walkway connecting Gloucester House to the main hospital

This involves the raising of the overhead pedestrian bridge located in Gloucester House. The pedestrian bridge is currently located above the carriageway of Gloucester House Drive and limits the clearance to 3.3 metres meaning that HRVs are unable to travel south from the loading dock and go onto Missenden Road via Gloucester House Drive. This will be possible with the raising of the bridge which will increase the clearance to 4.5 metres. Currently, HRVs going to the loading dock are required to turn around on Lambie Dew Drive and exit the site from where they entered – onto Missenden Road via John Hopkins Drive.

As can be seen in **Figure 20**, the overall height of the Gloucester House building is not increasing as a result of the proposed activity. Section 2.61 does not permit the erection of any building that exceeds 15 metres. It is noted however that this Section has been interpreted by DPE as being for the erection of a building not exceeding 15 metres, or alternatively development that does not otherwise increase the overall existing height of a health services facility. In this instance, the resulting building is greater than 15 metres however this is because the existing building is greater than 15 metres, and the proposed activity will not increase the existing height of the building. Therefore, this aspect of the works is considered development permissible without consent.

The proposed activity is illustrated in **Figure 20** and **Figure 21** below.

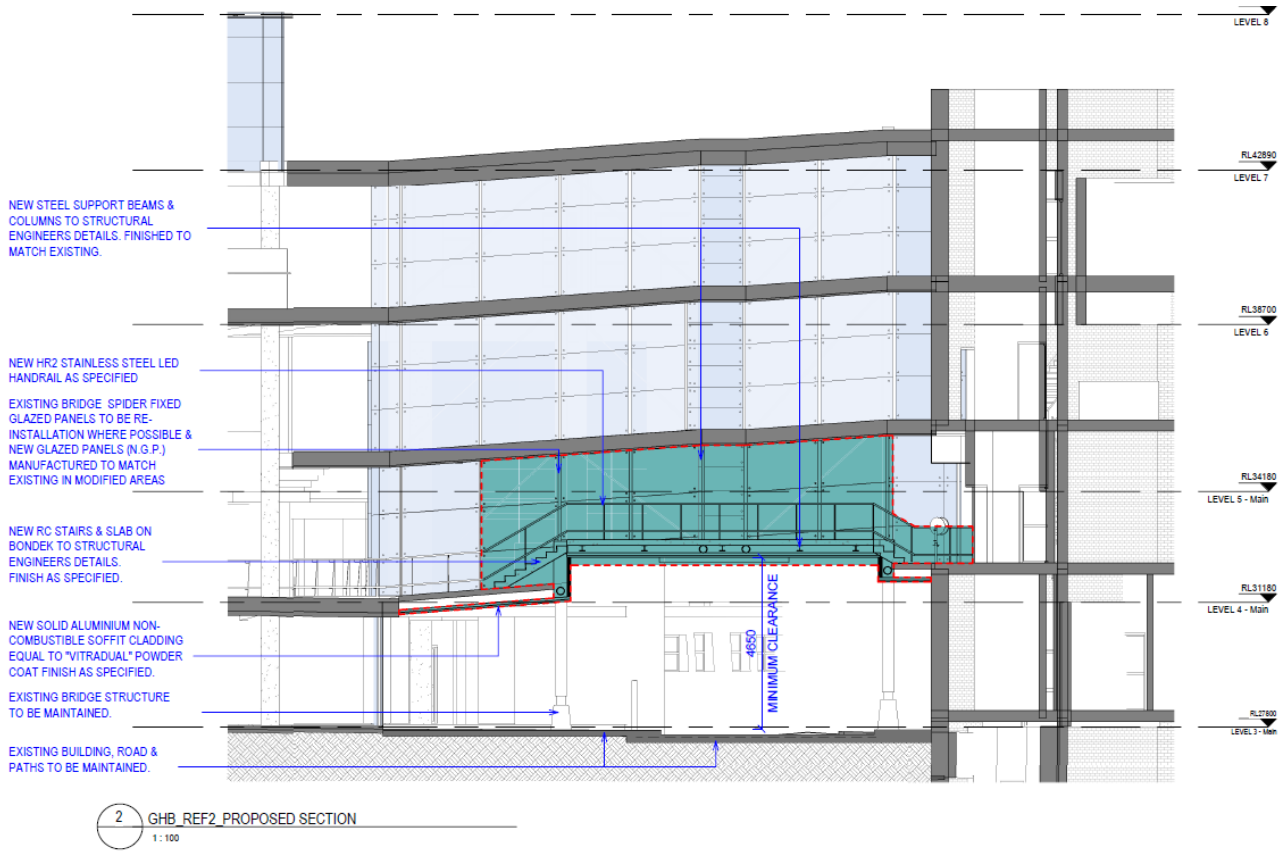

Figure 20 Gloucester House Bridge Section

Figure 21 Gloucester House Bridge Architectural Illustration

3. Gloucester House Drive and Gloucester House Plaza works

To retain the functionality of the pick-up/drop-off area while facilitating the passageway of HRVs, the central traffic island needs to be reduced, and the pavement replaced with material that is suitable for heavy vehicles.

There are four palm trees located on the traffic island which are required to be removed to allow for these works to occur.

Additionally, a speed bump located on Gloucester House Drive needs to be adjusted to accommodate HRVs passing over.

Due to the narrow roadway width and the bends in the road, the connection between Gloucester House Plaza and the main Loading Docks cannot support two-way traffic for any vehicle larger than an SRV. Traffic signals will be installed to prevent any head-to-head conflicts that may result in large freight vehicles reversing through a narrow roadway.

Signals will be installed at the southern point of the main loading docks, and the northbound roadway in Gloucester House Plaza.

The proposed activity is illustrated in **Figure 22** and the existing Gloucester House Drive Speed Hump in **Figure 23** below.

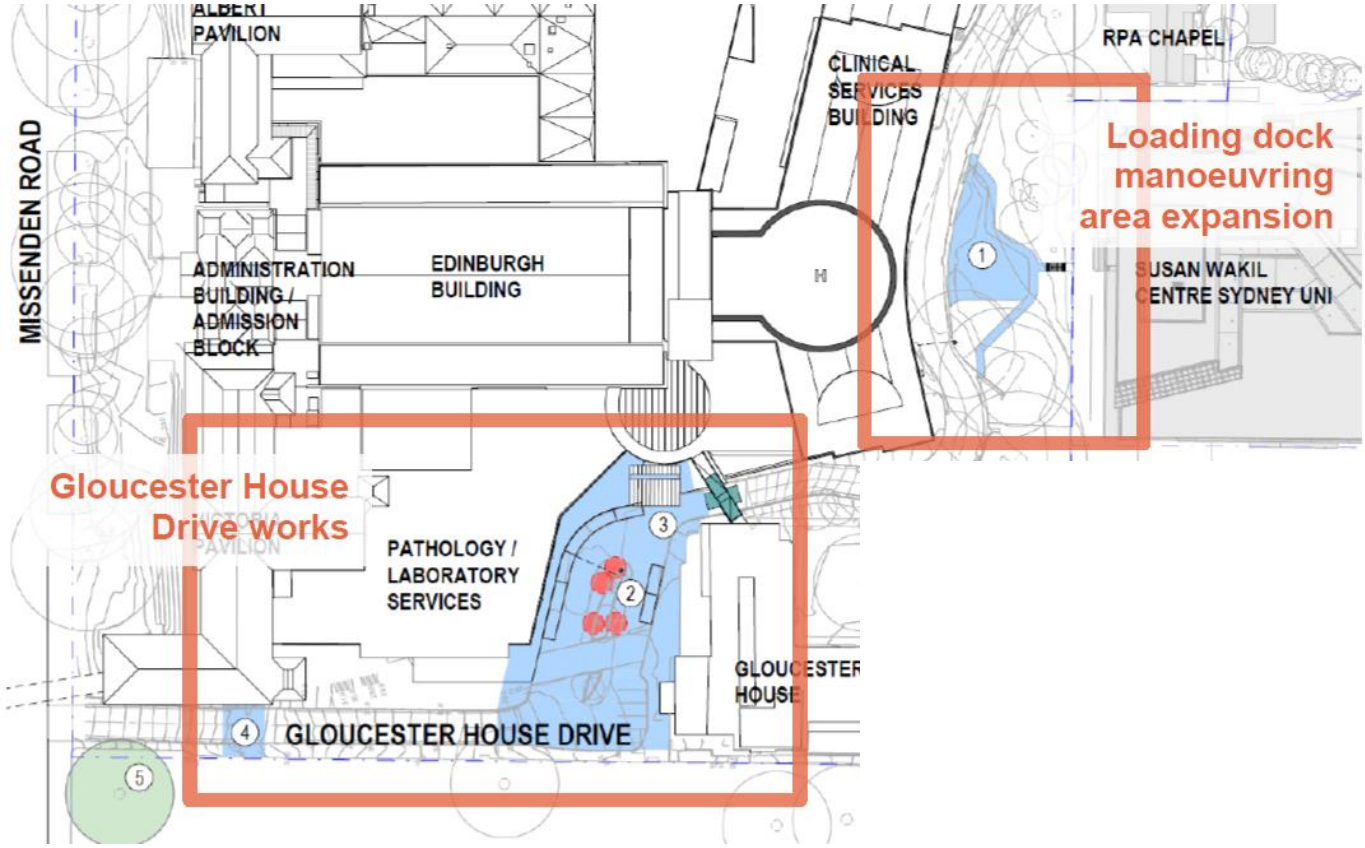

Figure 22 Gloucester House Plaza and Drive Works

Figure 23 Existing Gloucester House Drive Speed Hump

4. Part Removal of Tree Group 59

As mentioned above, An Arboricultural Impact Assessment (AIA) Report was prepared by Martin Peacock Tree Care and is appended at **Appendix J**.

The plans show part of tree group 59 (Howea forsteriana – Kentia Palm) is to be removed as part of the reconfiguration of Gloucester House Drive. The loss of amenity and canopy cover at the site resultant from tree removal can be offset with the planting of advanced size, new trees in an appropriate location(s) within the Hospital campus. The two (2) retained palms within tree group 59 will be subject to encroachment within their Tree Protection Zone (TPZ) areas (as per AS4970) from the reconfiguration of Gloucester House Plaza. A combination of TPZ fencing and trunk and ground protection will be installed during works to protect these trees.

The proposed activity and photographs of the affected trees are illustrated in **Figure 24** below.

Figure 24 Part Removal of Tree Group 59

3.1.1 Options Considered

The following options were considered:

- Option 1: Reconfiguration of Lambie Dew Drive Turning Bay, Reconfiguration of Gloucester House Bridge and associated roadworks, Gloucester House Drive Hump Adjustment, and removal of four (4) existing trees.
- To not redevelop the site (i.e. do nothing).

Option 1 (the proposed activity) was selected as the preferred option.

3.1.2 Preferred Option Justification

Currently vehicles using the loading dock are required to enter from Missenden Road via John Hopkins Drive and then Lambie Dew Drive and exit from the same place where they entered. This is due to the low clearance of the Gloucester House Bridge and limited room for maneuvering both at the loading dock and on Gloucester House Drive. The proposed activity improves access for large vehicles to the loading dock and for fire appliances to access the fire control room.

In summary, Option 1 (the proposed activity) was selected as there are no other options available to provide this level of access for large vehicles and hence the requirement to raise the Gloucester House Bridge and make adjustments to Gloucester House Drive and loading dock.

In addition to Gloucester House Bridge alterations and additions and associated road and other works, and tree removal is also required as part of Option 1. These works are required to provide fire and delivery vehicles access from Gloucester House Drive to the Fire Control Room and loading dock. Currently the tree on St Andrews College site overhangs into Gloucester House Drive.

3.2 Construction Activities

The works are considered short term. **Table 7** provides a summary of construction activities for the proposed activity.

Table 7 Project Timeframes and Construction Activities

Commencement Date	August 2022
Work Duration/Methodology	24 weeks (August 2022- February 2023)
Work Hours and Duration/Construction	The following construction hours are proposed: **Monday to Friday** – 8am to 6pm; **Saturday** – 8am to 1pm; + **Saturday** – 7am to 8am – for low noise works only including site preparation works. **Monday to Sunday (7 days)** 24 hours/day, where necessary to reduce the impact on staff and patients at the hospital caused by the temporary closure of Gloucester House Drive and Gloucester House Plaza. As per the Acoustic Report, at **Appendix H**, it was recommended that approval for extended construction hours and out of hours work (OOHW) be sought. The rationale for OOHW is that extended hours are required to shorten the construction duration for an essential service site. In particular, to patients and staff accessing Gloucester House and Plaza, and Gloucester House Drive. Further information on OOHW, refer to **Section 6.1.7**.
Plant Equipment	Plant equipment will be confirmed when the Principal Contractor is appointed to ensure alignment with the proposed methodologies and construction staging.
Earthworks	The estimated volume of proposed earthworks is 46m^2.
Source and Quantity of Materials	**Gloucester House Bridge** • Concrete Floor – 4m^3 • Mesh – 21m^2 • Bondek Floor Decking – 21m^2 • Structural Steel – 3t • Balustrade/Handrail- 25m • Glazing (new) – 23m^2 • Soffit Lining – 35m^2 • Floor Vinyl –38m^2 • Electrical – LED's – 31 **Gloucester House Drive and Lambie Dew Drive** • Bulk Excavation – 46m^3 • Backfilling – Imported Material – 72m^3 • Backfilling – Cut Material – 46m^3 • Concrete Kerbs – 197m • 150mm compacted sub-base – 1,140m^2 • 100mm compacted sub-base – 502m^2 • 200mm thk concrete pavement – 1,140m^2 • 125mm thk concrete pavement – 502m^2 • Brick pavers – 1,329m^2 • Metal balustrade – 9m • Tactile indicators – 72m^2 • Landscaping turfing – 44m^2
Affected by a planning agreement	N/A
Traffic Management and Access	Prior to the construction works commencing, the Principal Contractor will develop a Construction Pedestrian and Traffic Management Plan which will detail how traffic, pedestrian and cyclist access will be managed during the construction works.

3.3 Ancillary Facilities

Not applicable. The proposed activity does not involve the construction of any ancillary facilities.

4. Statutory Framework

4.1 Planning Approval Pathway

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

4.2 Environmental Planning and Assessment Act 1979

Section 5.5 of the EP&A Act requires determining authorities, when assessing under Part 5, to examine and take into account to the fullest extent possible all matters affecting, or likely to affect the environment by reason of that activity.

Section 7 of this REF includes an assessment of the proposed activity against the requirements of section 5.5 of the EP&A Act.

The site is zoned SP2 Infrastructure for the purpose of Health Services Facility under the Sydney Local Environmental Plan 2012 (SLEP 2012).

The proposed activity involves the raising of an enclosed overhead pedestrian walkway within the Gloucester House building, as well as civil works within the Gloucester House car park and Lambie Dew Drive, and tree removal, at the RPA Hospital at 12 Missenden Road, Camperdown NSW 2050.

The alterations and additions to Gloucester House building is considered 'development without consent' under Division 10 under Part 3 of the *State Environmental Planning Policy (Transport and Infrastructure)* 2021 (T&I SEPP). **Division 10** outlines the approval requirements for "**health services facilities"**. A "hospital" is defined as a health service facility under this division.

"The erection or alteration of, or addition to, a building that is a health services facility" is permitted without consent under Section 2.61 (1) (a) of T&I SEPP subject to requirements around the scale and nature of the development, to which the proposed activity conforms.

The alterations to Gloucester House Drive and Lambie Dew Drive are considered 'development without consent' under Division 17 of Part 2 of the T&I SEPP. Development for the purpose of a road or road infrastructure facilities may be carried out by or on behalf of a public authority without consent on any land under Section 2.108(1) of the T&I SEPP.

Section 2.3(2) of the T&I SEPP defines 'consent' as "when used in relation to the carrying out of development without consent, means development consent and any other type of consent, licence, permission, approval or authorisation that is required by or under an environmental planning instrument". This encompasses an approval to remove a tree that is subject to a tree preservation order.

Section 2.108(3) provides that, "a reference to development for the purpose of ***road infrastructure facilities*** includes a reference to development for any of the following purposes if the development is in connection with a road or road infrastructure facilities –

(a) construction works (whether or not in a heritage conservation area)

(b) emergency works or routine maintenance works."

Section 2.3(3) provides that if development for a particular purpose that may be carried out without consent includes ***construction works***, then this encompasses, "*clearing of vegetation (including any necessary cutting, pruning, ringbarking or removal of trees) and associated rectification and landscaping"*.

4.3 Environmental Planning and Assessment Regulation 2021

Part 8, Section 171 of the EP&A Regulation provides a list of factors that must be taken into account for an environmental assessment under Part 5 of the EP&A Act. These requirements are considered at section 7 of this REF report.

4.4 State Environmental Planning Policies

4.4.1 State Environmental Planning Policy (Transport and Infrastructure) 2021

The T&I SEPP commenced on 1 March 2022 and applies to land across the State. As noted in **Section 4.1** of this report, the proposed activity is being undertaken in accordance with the T&I SEPP and therefore it is a matter of consideration in preparing this REF. Refer to an overview of the proposed activity against the relevant provisions of the T&I SEPP in **Table 8** below.

Table 8 Response to relevant provisions of the T&I SEPP

Relevant T&I SEPP Sections	Compliance	Comment
Part 2.1 Preliminary **2.3 Interpretation – General**		
(2) consent— (a) when used in relation to the carrying out of development without consent, means development consent and any other type of consent, licence, permission, approval or authorisation that is required by or under an environmental planning instrument, and (b) when used in any other context, means development consent.	Refer response to s2.108below	-
(3) If this Chapter provides that development for a particular purpose that may be carried out without consent includes ***construction works***, the following works or activities are (subject to and without limiting that provision) taken to be construction works if they are carried out for that purpose— (f) clearing of vegetation (including any necessary cutting, pruning, ringbarking or removal of trees) and associated rectification and landscaping,	Refer response to s2.108below	-
Division 10 – Health services facility **Section 2.61**		
(1) Any of the following development 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 (a) the erection or alteration of, or addition to, a building that is a health services facility (e) development for the purposes of car parks to service patients or staff of, or visitors to, the health services facility (or to service staff of, or visitors to, other premises within the boundaries of the facility). (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).	Yes	The proposed activity includes alterations and additions to an existing health services facility building (Gloucester House Bridge) for that purpose and will carried out by or on behalf of a public authority (HI), within the boundaries of an existing health services facility. The proposed activity is not increasing the overall existing building height and is considered acceptable.
Division 17 – Roads and traffic **Section 2.112 Exempt development**		
(1) Development for any of the following purposes is exempt development if it is carried out by or on behalf of a public authority or the Minister responsible for Crown roads (within the meaning of the Roads Act 1993) in connection with a road or road infrastructure facilities and complies with section 2.20— (a) erection, installation, maintenance, reconstruction or replacement of any of the following, and any associated landscaping works—	N/A	Traffic signalling is exempt development and is therefore not within the scope of the proposed activity.

(iii) directional, safety or other advisory signs relating to road works or the use of existing road infrastructure facilities,		
Division 17 – Roads and traffic **Section 2.108**		
2.108 Development permitted without consent—general (1) Development for the purpose of a road or road infrastructure facilities may be carried out by or on behalf of a public authority without consent on any land. However, such development may be carried out without consent on land reserved under the National Parks and Wildlife Act 1974 only if the development— (a) is authorised by or under the National Parks and Wildlife Act 1974, or (b) is, or is the subject of, an existing interest within the meaning of section 39 of that Act, or (c) is on land to which that Act applies over which an easement has been granted and is not contrary to the terms or nature of the easement. (2) Development for any of the following purposes may be carried out by or on behalf of a public authority without consent on land in a prescribed zone— (a) bus depots, (b) permanent road maintenance depots and associated infrastructure (such as garages, sheds, tool houses, storage yards, training facilities and workers' amenities). (3) In this section and section 2.111, a reference to development for the purpose of road infrastructure facilities includes a reference to development for any of the following purposes if the development is in connection with a road or road infrastructure facilities— (a) construction works (whether or not in a heritage conservation area), including— (i) temporary buildings or facilities for the management of construction, if they are in or adjacent to a road corridor, and (ii) creation of embankments, and (iii) extraction of extractive materials and stockpiling of those materials, if— (A) the extraction and stockpiling are ancillary to road construction, or (B) the materials are used solely for road construction and the extraction and stockpiling take place in or adjacent to a road corridor, and (iv) temporary crushing or concrete batching plants, if they are used solely for road construction and are on or adjacent to a road corridor, and (v) temporary roads that are used solely during road construction, (b) emergency works or routine maintenance works, Note— See section 2.7(4) regarding emergency works and routine maintenance works on land to which clauses 10 and 11 of State Environmental Planning Policy (Coastal Management) 2018 apply. (c) alterations or additions to an existing road (such as widening, narrowing, duplication or reconstruction of lanes, changing the alignment or strengthening of the road), (d) environmental management works, if the works are in or adjacent to a road corridor.	Yes	Alterations and road realignment works to Gloucester House Drive and Lambie Dew Drive constitute development for the purpose of road or road infrastructure facilities. The associated tree removal can be justified under sub-section (3) as it is to a "road related area" as referenced under s2.108(3)(a) of the SEPP. Section 5 of the Road Transport Act 1993 provides, "References to "road" generally include "road related area". Sub-section (3) permits construction works which in turn is defined under s.2.3(3) of the SEPP, and permits clearing of vegetation (removal and pruning) and routine maintenance works which similarly allows for clearing of vegetation. A separate tree permit or development consent is not required for the tree removal owing to the definition of consent under 2.3(2) of the SEPP.

Division 17 Roads and Traffic **Section 2.136 Development permitted without consent**		
(1) Development for the purpose of stormwater management systems may be carried out by or on behalf of a public authority without consent on any land. (2) A reference in this section to development for the purpose of stormwater management systems includes a reference to development for any of the following purposes if the development is in connection with a stormwater management system— (a) construction works, (b) routine maintenance works, including maintenance dredging to remove sediment build-up in a stormwater canal or at exit points into natural waterways that affects the efficiency of the stormwater management system,	Yes	Minor stormwater drainage alterations will occur in Gloucester House Plaza and the loading dock turning area to suit the proposed levels. These works are permissible without consent under this Section.

4.4.2 State Environmental Planning Policy (Resilience and Hazards) 2021

4.4.2.1 Hazards

State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience SEPP) requires the consideration of any hazardous chemical issues that could arise as a result of a proposed development, including any proposed transport, generation or storage of hazardous substances. The proposed activity does not propose any changes to current arrangements for the storage, use or transport of hazardous substances.

4.4.2.2 Contaminated Lands

Section 4.6 of Chapter 4 of the Resilience SEPP also requires the consideration of any contamination that could arise as a result of proposed development. If land is found to be contaminated, the consent authority must be satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out. Furthermore, if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, the consent authority must be satisfied that the land will be remediated before the land is used for that purpose. While Section 4.6 of the Resilience SEPP does not strictly apply to “development without consent” (Part 5) pathways, it is a matter for consideration in REFs.

As the proposed activity requires land disturbance, an assessment of contamination and remediation is required for this REF. Refer to the contamination assessment within **Section 6** of this report and the Targeted Soil Investigation Report at **Appendix W**.

It should be noted there is no change of use proposed in relation to the proposed activity. The land is zoned SP2 for the purpose of ‘health services facilities’ and currently the land is already used for the purpose of a Health services facility (hospital).

Consistent with Section 4.6 of the Resilience SEPP, site investigations will be conducted to identify any contaminants present on the site and whether remediation is required to occur before the undertaking of the proposed activity. The site will have to be made suitable for its intended use before the undertaking of the proposed activity. The requirement for the site investigations and the site to be made suitable for the proposed use, are reflected in the mitigation measures approval at **Appendix A**.

4.4.3 State Environmental Planning Policy (Biodiversity and Conservation) 2021

The site is zoned SP2 Infrastructure under SLEP 2012, which is a prescribed zone to which State Environmental Planning Policy (Biodiversity and Conservation) 2021 (B&C SEPP) applies. The Policy aims to protect and preserve bushland within urban areas.

The RPA Hospital is largely developed, however there are a number of mature trees along Missenden Road and areas of landscaping throughout the campus.

No threatened flora or fauna species were found to occur within the site during the site assessment. Although hollow-bearing trees were identified within the RPA Hospital campus, none occur within the boundary of the proposed activity.

The proposed activity involves the removal of 4 Howea forsteriana (Kentia Palm) trees.

Tree group 59 comprises of six (6) Howea forsteriana (Kentia Palm). Tree group 59 are growing in separate, island garden beds at the eastern end of Gloucester House Drive. All of these trees have low landscape value and have been allocated a Retention Value of “Consider for Removal”. These trees are relatively recent plantings and have no heritage significance. Four of the Kentia Palms are proposed to be removed, while two can be retained. A combination of TPZ fencing and trunk and ground protection shall be installed for the two trees in the group that are proposed to be retained.

4.5 Local Environmental Plans

The relevant provisions of the SLEP 2012 are addressed in **Table 9** below.

Table 9 Response to relevant provisions of the SLEP 2012

SLEP 2012 Clause	Compliance	Comment
Clause 2.2 – Zoning of land to which Plan applies – SP1 Special Activities	Yes	The proposed activity is related to the use of the site for the purposes of a health services facility, consistent with the objectives of the SP2 Infrastructure zone.
Clause 4.3 – Height of Buildings	N/A	The site is not subject to a maximum building height standard.
Clause 4.4 – Floor Space Ratio	N/A	The site is not subject to a maximum floor space ratio standard.
Clause 5.10 – Heritage Conservation	Yes	The site of proposed activity is identified as a local heritage item and is within a heritage conservation area under SLEP 2012. Refer to the Heritage Advice Letter, appended at **Appendix G**. The letter concludes that, the proposal "engenders a neutral impact to the heritage significance of the subject site".
Clause 5.12 – Infrastructure development and use of existing buildings of the Crown	N/A	As per Section 4.1 of this report, the alterations and additions to a building within an existing health services facility may be carried out by the proponent without consent pursuant to Section 2.61 of the T&I SEPP. As at Section 5.12 (1), the SLEP 2015 does not restrict or prohibit, or enable the restriction or prohibition of, the carrying out of any development by or on behalf of a public authority, that is permitted to be carried out with or without development consent, or that is exempt development under the T&I SEPP.
Clause 7.14 – Acid Sulphate Soils	Yes	The site is in a Class 5 Acid Sulphate Soils area under the SLEP 2012. Should any Potential Acid Sulphate Soils (PASS) occur, soils will be treated in accordance with ASSMAC 1998 guidelines and disposed of at an appropriate waste facility. Refer, mitigation measures at **Appendix A.**

5. Consultation

5.1 Government Agency and Other Stakeholder Consultation

Notification of the proposed activity to City of Sydney (Council) and adjoining occupiers of land is required under Section 2.11 and 2.62 of the T&I SEPP. Notification letters were sent out to Council and adjoining occupiers on 25 May 2022. Refer to Notification scope and letters at **Appendix B**.

A response was received from Council within the 21 days of issuing the notification letters. They raised no objection to the proposed activity and their response is attached at **Appendix B**. No response was received from adjoining occupiers within the 21 days of issuing the notification letters.

Figure 25 below illustrated the location of occupiers of adjoining land that were notified.

Table 10 T&I SEPP Clauses 2.10 – 2.17 Consultation

Consultation with Council – cl 2.10(1) Council related infrastructure or services	**Yes**	**No**
Will the activity:		
a. Potentially have a substantial impact on stormwater management services provided by the Council?		✓
b. Be likely to generate traffic that will strain the capacity of the road system in the LGA?		✓
c. Involve connection to, and have a substantial impact on, the capacity of any part of a sewerage system owned by Council?		✓
d. Involve connection to and use a substantial volume of water from any part of a water supply system owned by Council?		✓
e. Involve the installation of a temporary structure on, or enclosing of, a public place that is under the Council's management or control that is likely to cause a disruption to pedestrian or vehicular traffic that is not minor or inconsequential?		✓
f. Involve the excavation that is not minor or inconsequential of the surface of, or a footpath adjacent to, a road for which the Council is the roads authority under the *Roads Act 1993* (if the public authority that is carrying out the development, or on whose behalf it is being carried out, is not responsible for the maintenance of the road or footpath).		✓
Consultation with Council – cl 2.11(1) local heritage	**Yes**	**No**
Is it likely that the activity will have an impact, that is not minor or inconsequential, on a local heritage item (other than a local heritage item that is also a State heritage item) or a heritage conservation area?		✓
Consultation with Council – cl 2.11(2)(b) local heritage	**Yes**	**No**
If yes to cl 2.11(1) above, has a copy of the Heritage Impact Statement and a scope of works been provided to the Council?	✓ (Note 1)	
Consultation with Council – cl 2.12 flood liable land	**Yes**	**No**
Will the works be located on flood liable land and will they alter flooding patterns more than to a minor extent?		✓
Consultation with State Emergency Service— cl 2.13 development with impacts on flood liable land	**Yes**	**No**
Is the activity located on flood liable land and greater than minor alterations or additions to, or the demolition of, a building, emergency works or routine maintenance?		✓
Consultation with councils—cl 2.14 development with impacts on certain land within the coastal zone	**Yes**	**No**
Is the activity on land that is within a coastal vulnerability area and is inconsistent with a certified coastal management program that applies to that land?		✓

Consultation with public authorities other than councils – cl 2.15	Yes	No
Will the activity be located:		
g. on or adjacent to land reserved under the *National Parks and Wildlife Act 1974*?		✓
h. adjacent to a marine park declared under the *Marine Parks Act 1997*?		✓
i. adjacent to an aquatic reserve declared under the *Marine Estate Management Act 2014*?		✓
j. in the foreshore area within the meaning of the *Sydney Harbour Foreshore Authority Act 1998*?		✓
k. In association with development comprising a fixed or floating structure in or over navigable waters?		✓
l. In association with development for the purposes of a health services facility – in an area that is bush fire prone land (as defined by the Act)?		✓
m. In association with development that may increase the amount of artificial light in the night sky and that is on land within the dark sky region as identified on the dark sky region map—the Director of the Observatory, Note. The dark sky region is land within 200 kilometres of the Siding Spring Observatory.		✓
n. development on defence communications facility buffer land within the meaning of clause 5.15 of the Standard Instrument—the Secretary of the Commonwealth Department of Defence, Note. Defence communications facility buffer land is located around the defence communications facility near Morundah. See the Defence Communications Facility Buffer Map referred to in clause 5.15 of *Lockhart Local Environmental Plan 2012*, *Narrandera Local Environmental Plan 2013* and *Urana Local Environmental Plan 2011*.		✓
o. development on land in a mine subsidence district within the meaning of the *Mine Subsidence Compensation Act 1961—the Mine Subsidence Board.*		✓
Consideration of Planning for Bush Fire Protection – cl 2.16	**Yes**	**No**
Has Planning for Bush Fire Protection been considered before carrying out the development in an area that is bush fire prone land?		✓

Note 1: A Statement of Heritage Impact was prepared by Heritage 21 in order to determine whether there would be a heritage impact arising from the proposed activity. The letter determined that the heritage impact of the proposed activity was neutral. Refer to the Statement of Heritage Impact at **Appendix G.**

Table 11 Notification of carrying out certain development without consent (T&I SEPP clause 2.62)

Notification of carrying out certain development without consent (cl 2.62)	Yes	No
Is the proposed activity [if yes to any of the activities below, go to requirements under cl 2.62(2]:		
cl 2.61 (1)(a) the alteration of, or addition to, a building that is a health services facility	✓	
cl 2.61 (1)(d) development for the purposes of patient transport facilities, including helipads and ambulance facilities		✓
cl 2.61 (1)(e) development for the purposes of car parks to service patients or staff of, or visitors to, the health services facility (or to service staff of, or visitors to, other premises within the boundaries of the facility).		✓
cl 2.62 (2) (a) Has written notice of the intention to carry out the development to each of the following been issued? (i) the council for the area in which the relevant land is located (unless the public authority is the council) (ii) the occupiers of any adjoining land	✓ (Note 1)	
cl 2.62 (2)(b) Has any response to the notice at cl 58A(2)(a) been taken into consideration under this REF assessment?	✓ (Note 2)	

Note 1: Notification letters were sent out to Council and adjoining occupiers on 25 May 2022. Refer to **Figure 25** below and **Appendix B** for the location of occupiers of adjoining land that were notified.

Note 2: Given no comments were received during notification, no response to notification is provided.

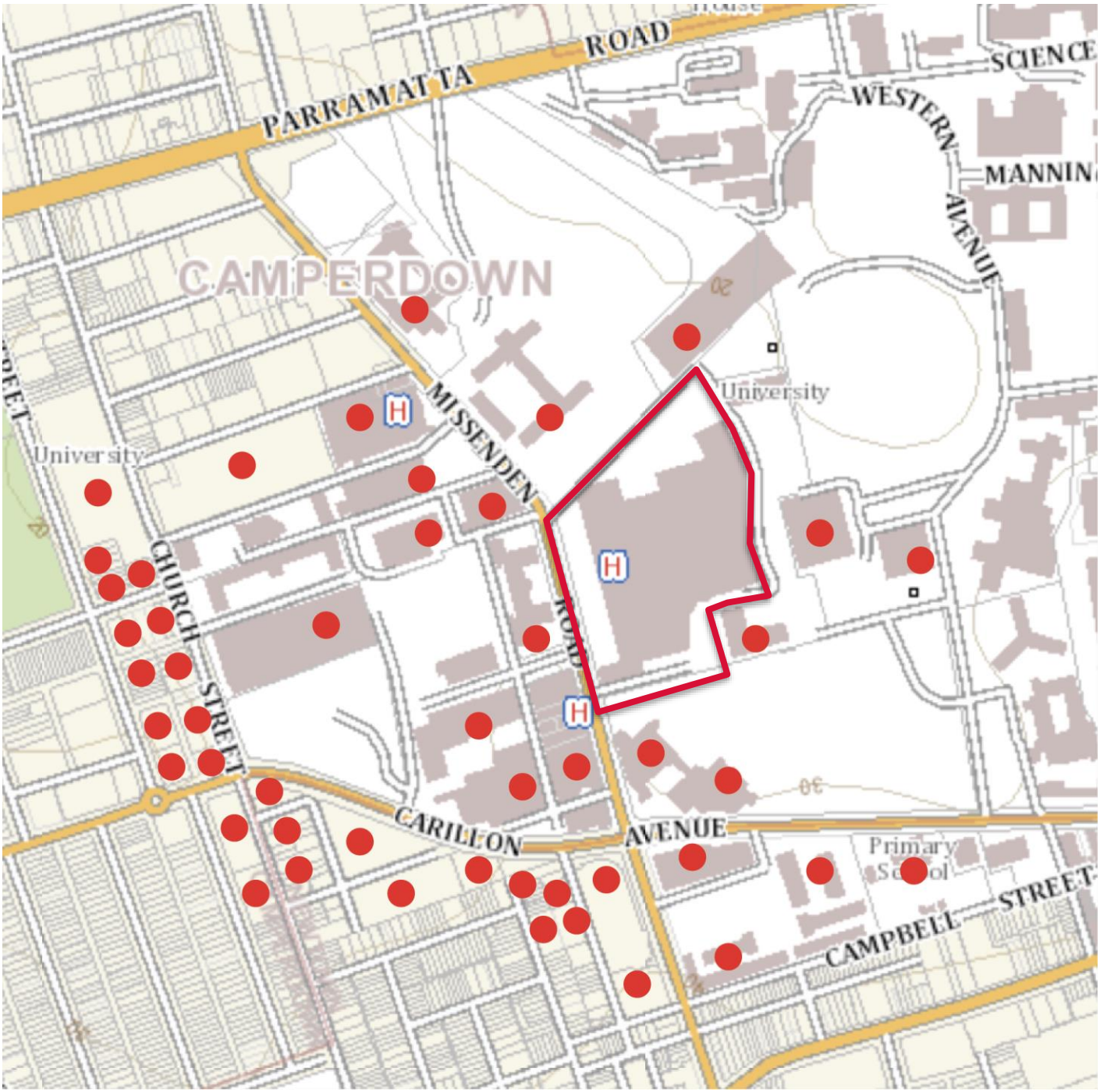

Figure 25 Notification of Occupiers

6. Environmental Impact Assessment

6.1 Identification of Issue

6.1.1 Soils and Geology

Questions to consider	Yes	No
Will the works require land disturbance?	✓ (Note 2)	
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 sulphate soils within or immediately adjacent to the boundaries of the work area? And could the works result in the disturbance of acid sulphate soils?		✓ (Note 3)
Are the works within an area affected by salinity?		✓
Is there potential for the works to encounter any contaminated material?	✓ (Note 3)	

Note 1: A Geotechnical Investigation report (**Appendix S**) of the site has been prepared by Cardno, which provides indications of the geological character/ condition of the area that includes the area of the proposed activity. Based on the findings of the Geotechnical Investigation report, Cardno recommend that the placement of all structural fill and footing excavations be inspected, tested and certified where necessary, by a suitably qualified geotechnical engineer.

The recommendations of the Geotechnical Investigation are to be adopted during construction. Implementation of an Erosion and Sediment Control Plan will also be required during construction. Refer to the mitigation measures at **Appendix A**.

Note 2: The proposed activity will require earthworks for the lift pit for the bridge as well as the proposed civil and road works.

Note 3: Refer to Note 3 in **Section 6.1.2** below on contamination findings, taken from the Targeted Soil Investigation Report prepared by Cardno at **Appendix W**.

6.1.2 Hazardous Materials and Contamination

Questions to consider	Yes	No
Is there potential for the works to encounter any contaminated material?	✓ (Note 1)	
Will the works involve the disturbance or removal of asbestos?		✓ (Note 2)
Is the work site located on land that is known to be or is potentially contaminated?	✓ (Note 1)	
Is a Remediation Action Plan required?		(Note 1)
Is the work category 2 works under Former SEPP 55 (Resilience & Hazards SEPP 2021)?	✓	

Note 1: The site has the potential to be contaminated. Site investigations will be conducted to identify any contaminants present on the site and whether remediation is required. The site will be made suitable for its intended use before the undertaking of the proposed activity. This requirement is reflected in the mitigation measures. Refer to the mitigation measures (at **Appendix A**).

Note 2: A Hazardous Building Materials Survey Report was prepared to accompany the report, by Sydney Environmental Group and is appended at **Appendix R**.

The survey was conducted in Building 89; Gloucester House Pedestrian Walkway and Tie ins, Level 4 and 5 (situated between Building 89 and Gloucester House).

The report concluded that:

- No Asbestos Containing Materials (ACM), Lead Containing Dust (LCD) or Lead Containing Paint (LCP) was identified, presumed, or suspected to be present within the site. However, given the age of the building, ACM may be encountered in areas not fully accessible during the survey;
- All air-conditioning, ducting, and insulation material is presumed to contain Synthetic Mineral Fibres (SMF); and
- As a conservative measure to eliminate the risk of unintended Ozone Depleting Substances (ODS) release to the environment, removal of refrigerant gases for all Heating, Ventilation and Air Conditioning (HVAC) equipment is to be undertaken by a qualified HVAC technician prior to the removal of HVAC equipment.

Sydney Environmental Group recommended that the “Code of Practice for the Safe Use of Synthetic Mineral Fibres NOHSC:2006 (1990)” be closely adhered to when handling such materials.

Note 3: A Targeted Soil Investigation Report has been prepared by Cardno (**Appendix W**) in accordance with Section 4.6 of the Resilience SEPP for the proposed activity. The investigation occurred for the landscaped area east of RPA Hospital loading dock and Gloucester House Plaza.

Contaminants were found during the site investigations, including:

Landscape and Loading Dock

- A limited number of three soil samples at two locations contained contaminant concentrations above the applicable ecological Tier 1 guideline values for copper and benzo(a)pyrene; the exceedances were considered localised and not widespread;
- Traces of OCPs (DDE and DDT) were detected in fill sample BH320_0.0-0.2 (0.08 mg/kg and 0.06 mg/kg respectively), but concentrations were below the adopted NEPC 2013 Tier 1 human health screening criteria. These detections indicate historic use of pesticides at the site;
- All soil samples were below the adopted NEPC 2013 Tier 1 human health screening criteria for the analytes tested. Asbestos was not detected in any soil samples submitted for laboratory testing. Soil analytical results were representative of conditions at the specific locations where samples were collected.

Gloucester House Plaza

- Exceedances of the adopted human health criteria were limited to one fill sample collected from borehole BH325, which contained a benzo(α)pyrene TEQ concentration marginally above the HIL-B and HIL-C criteria. Based on all the soil analysis this is not considered to be widespread;
- No other exceedances of the adopted NEPC 2013 Tier 1 human health screening criteria were observed and asbestos was not detected in any soil samples submitted for laboratory testing. However, Cardno note that asbestos has been previously found within the undercroft area located to the west of Area C (Cardno, 2022a);
- One soil sample contained contaminant concentrations above the applicable ecological Tier 1 guideline value for benzo(α)pyrene. The exceedance of the ecological criteria was found to be localised and not a cause for environmental concern;
- Soils encountered across Area C generally consisted of:

- Asphaltic concrete / concrete paver and roadbase gravel, between 0.00 m and 0.45 m;
- Fill consisting of Silty Sand, between 0.0 m and 0.7 m.

Based on the findings of the Targeted Soil Investigation, numerous recommendations were provided by Cardno for the proposed activity. All of these recommendations are provided within the mitigation measures at **Appendix A** and within the mitigation measures:

Landscape and Loading Dock

- It is recommended that excavation works are conducted in accordance with a CEMP and Unexpected Finds Protocol;
- Soils located within the vicinity of boreholes BH318 and BH320, which exceeded the ecological criteria; are used beneath hardstand areas; and
- Any material being removed from site (including virgin excavated natural materials or VENM) must be classified for off-site disposal in accordance the EPA (2014) Waste Classification Guidelines.

Gloucester House Plaza

- The vertical and lateral extent of the benzo(α)pyrene TEQ and benzo(α)pyrene human health and ecological contamination detected at BH325 (Area C) should be further assessed to confirm the volume of contaminated soil and determine the management strategy for the soil. Additional testing could also be used to apply statistical analysis to confirm the contamination;
- It is recommended that excavation works are conducted in accordance with a CEMP and an Unexpected Finds Protocol; and
- Any material being removed from site (including virgin excavated natural materials or VENM) must be classified for off-site disposal in accordance the EPA (2014) Waste Classification Guidelines.

As above, further assessment of the vertical and lateral extent of the benzo(α)pyrene TEQ and benzo(α)pyrene human health and ecological contamination detected at BH325 (Area C). This will be subject to a Detailed Site Investigation (DSI) that is required to be prepared as a mitigation measure (refer **Appendix A**), Subject to findings of the DSI assessment, the preparation of a Remediation Action Plan (RAP) may be required. Should a RAP be required, the relevant land must be remediated prior to further relevant construction work and commencement of use/occupation.

6.1.3 Hydrology, Flooding and Water Quality

Questions to consider	Yes	No
Are the works located near a natural watercourse?		✓
Are the works located within a floodplain?		✓ (Note 1)
Will the works intercept groundwater?		✓ (Note 1)
Will a licence under the Water Act 1912 or the Water Management Act 2000 be required?		✓

Note 1: The proposed activity requires limited earthworks and so will not intercept groundwater or the floodplain. As concluded in the Geotechnical Report (**Appendix S**), groundwater seepage was encountered at 4.50m and 6.00m BSL within BH306 during investigatory borehole drilling. A groundwater monitoring well was also installed at the BH03 location. There were two monitoring wells previously installed by DP at BH201 and BH202. It should be noted that groundwater levels may fluctuate depending on the time of year and following periods of wet weather.

In addition, as noted by TTW in their civil report (**Appendix V**), the works are minor in nature and will maintain the existing stormwater flow conveyance.

6.1.4 Ecology

Questions to consider	Yes	No
Could the works affect any Environmental Protection and Biodiversity Conservation Act 1999 (Cth) listed threatened species, ecological community or migratory species?		✓
Is it likely that the activity will have a significant impact in accordance with the Biodiversity Conservation Act (2016)? In order to determine if there is a significant impact REF report must address relevant requirements of clause 7.2 of the BC Act: • Clause 7.2 (a) - Test for significant impact in accordance with clause section 7.3 of the BC Act. • Clause 7.2 (c) it is carried out in a declared area of outstanding biodiversity value.		✓ (Note 1)
Could the works affect a National Park or reserve administered by EES?		✓
Is there any important vegetation or habitat (i.e. Biodiversity & Conservation SEPP 2021 (Former SEPP 9 Urban Bushland, SEPP 14 Wetlands, SEPP 26 Littoral Rainforest) 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?	✓ (Note 2)	
Will clearing of native vegetation be required?	✓ (Note 3)	

Note 1: An Ecological Assessment has been prepared by Narla Environmental and is provided at **Appendix K**.

Narla Environmental states in their assessment that the vegetation within the site is predominantly a mix of exotic and native species and does not confirm to any locally occurring native vegetation community. No areas of outstanding biodiversity values occur within the site. It was therefore determined by Narla Environmental that a further impact assessment (i.e. a Test of Significance – 5-Part Test in accordance with clause 7.3 of the BC Act) is not required for any locally occurring threatened species.

Note 2: There are mature Camphor laurel trees established on site which are considered weeds. However, these trees are also listed on the City of Sydney's Significant Tree Register and referenced in the Conservation Management Plan for the site.

Note 3: The four Howea forsteriana (Kentia Palm) trees that are to be removed are considered exotic vegetation. There is no impact to native vegetation or native fauna habitat from their removal.

6.1.5 Bushfire Prone Land

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 ***Rural Fires Act 1997*** **(RF Act)** that applies to the area or locality in which the activity is proposed to be carried out?		✓

6.1.6 Traffic, Access and Parking

Questions to consider	Yes	No
Will the works affect traffic or access on any local or regional roads?	✓ (Note 1)	
Will the works disrupt access to private properties?		✓
Are there likely to be any difficulties associated with site access?	✓	

	(Note 2)	
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?	✓ (Note 2)	
Will the proposal result in a loss of onsite car parking?	✓ (Note 2)	
Is there onsite parking for construction workers	✓ (Note 4)	

Note 1: A Traffic Impact Statement (TIS) was prepared by SCT Consulting and is appended at **Appendix N.** The TIS provides detailed on the existing traffic conditions, transport and parking impact assessment and a preliminary overview plan of the Construction Traffic Management Plan (CTMP).

The works will not directly affect the operation of any local or regional roads. The works predominantly impact the internal loop road being Lambie Dew Drive, Gloucester House Drive and John Hopkins Drive.

Note 2: The extent of closures and access difficulties will be dependent on the volume and types of construction vehicles used during the works. The staging of road closures (where required) and access difficulties will be confirmed as part of the CTMP.

Traffic impacts during construction are:

Lambie Dew Drive works impact – loading dock manoeuvring area expansion

Associated with the expansion of the loading dock manoeuvring, there are limited impacts given the loading dock must continue to operate during the construction period. Construction activities will be managed to ensure there is no impediment to freight vehicles using the loading dock and to ensure there is enough room for manoeuvring in and out of the bays.

Gloucester House Drive works impact – Bridge raising, hump adjustment and Plaza works

Gloucester House Drive's primary purpose is to provide vehicle access to the Gloucester House Plaza patient pickup/ drop-off area and to Gloucester House itself. It also provides an alternate access to Lambie Dew Drive for vehicles shorter than 3.3m in height. The planned works on Gloucester House Drive will disrupt access for these users.

Gloucester House patient pick-up/ drop off area is a key access location into the main hospital building, as well as for the Gloucester House building itself. Therefore, a functioning pick-up/drop-off area needs to be maintained in this location, even if it is reduced in size compared to the existing provision. Gloucester House Plaza (under Gloucester House Bridge) can be closed off to through traffic to alleviate pressure on pickup/drop-off circulation during construction. Vehicles bound for the loading dock, or the east side of the main hospital building can be redirected via John Hopkins Drive.

There are approximately 10 long term accessible parking spaces in the Gloucester House Plaza area, of which approximately 5-10 are expected to be displaced during the construction work, but with no impact to permanent parking supply.. In the instance where all long-term accessible parking is displaced by the construction work, additional accessible parking is available in the main hospital car park on Hospital Road. If possible, a portion of the accessible parking will be maintained in the Plaza area, as the distance from the main hospital car parks to this location is significant.

In summary, SCT Consulting has reviewed the traffic and parking changes and within the TIS. The assessment has confirmed that the proposed activity:

- Will have minimal impact on the public and active transport networks in the vicinity of the project;
- Will have no impact on parking availability;
- Will improve network performance in the vicinity of the main loading docks; and

- Will have minimal impact on pick up/drop-off at Gloucester House Plaza.

Note 3: There are minimal operational impacts from the proposed activity; this includes:

- **Road network impacts:** The proposed activity will improve the performance of Lambie Dew Drive and add redundancy to the eastern loop. Adding an access option for large vehicles via Gloucester House Drive, creating a dedicated turn around bay for HRV's outside the loading dock and allowing for more logistics vehicles to park away form the through lanes will improve congestion that is currently experienced in the area;
- **Public and transport impacts**: Nil impact;
- **Parking impacts**: Nil impact; and
- **Pick up/ drop of impacts:** The inclusion of a traffic signal in Gloucester House Plaza may increase wait time for patients being dropped off at the southern drop off point. This is dependent on loading dock activity as delays would be a result of opposing logistics vehicle traffic.

Note 4: The existing secure car parks on Hospital Road and at St John's College are expected to be able to service construction workers who drive. Impact to on-street parking will be minimal as it is already near maximum capacity and the time restrictions would not be suitable for most construction workers.

6.1.7 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)?	✓ (Note 1)	
Will any receivers be affected by noise for greater than three weeks?	✓ (Note 1)	
Are there sensitive land uses or areas that may be affected by noise from the proposal during operation?		✓ (Note 2)
Will the works be undertaken outside of standard working hours? Monday – Friday: 7am to 6pm Saturday: 8am to 1pm Sunday and public holidays: no work	✓ (Note 1)	
Will the works result in vibration being experienced by any surrounding properties or infrastructure?	✓	

Note 1: An Acoustic Assessment Report was prepared by Arup and is appended at **Appendix P**. The Acoustic Assessment provides commentary on operational and construction noise and vibration.

Construction Noise

Construction noise is anticipated, associated with machinery. Predicted noise levels are provided based on the anticipated intensity, location and types of equipment used during the construction period. Based on these factors, the predicted construction noise levels are generally conservative and do not represent a constant noise emission that would be experienced by the community on a daily basis throughout the project construction period.

Operational Noise

No operational noise is associated with the proposed activity. Vehicular movements are not expected to change compared to existing, and there are no sources of building services noise associated with the proposed activity.

Out of Hours Work (OOHW)

Arup recommends that OOHW be granted:

- For any low noise works only, from 7am - 8am on Saturdays; and

- Any works for extended hours (permitted 24 hours work, 7 days/week), during the temporary closure of Gloucester House Drive and Gloucester House Plaza.

The rationale for the extended Saturday hours is to shorten the construction duration for an essential service site and minimize impacts to patients and staff of the hospital, which must continue to operate uninterrupted.

During a portion of the works Gloucester House Road and Gloucester Plaza will have to be closed off. This will be disruptive to the existing operation of the hospital. As a result, it is requested that during the period of works where Gloucester House Road and Gloucester Plaza need to be closed off, that OOHW works be permitted to allow for these areas to be closed off for a shorter period. This is considered the best way to minimize disruption caused to hospital operations caused by the closure of these areas.

Arup concluded that a detailed Construction Noise Vibration Management Plan (CNVMP) is to be prepared, with specific attention to mitigating and managing potential impacts upon staff and patients and minimizing risk to patients. The CNVMP is required to be prepared when a contractor is appointed, prior to the commencement of works.

However, Arup also proposed general mitigation practices, including:

- Adherence to the standard working hours as outlined in the Project Approval, i.e., only approved out-of-hours activities should occur outside standard working hours;
- Manage noise from construction work that might be undertaken outside the recommended standard hours;
- The location of stationary plant (concrete pumps, air-compressors, generators, etc.) as far away as possible from sensitive receivers;
- Using site sheds and other temporary structures or screens/hoarding to limit noise exposure where possible;
- Sealing of openings in the building (temporary or permanent prior to commencement of internal works to limit noise emission;
- The appropriate choice of low-noise construction equipment and/ or methods;
- Modifications to construction equipment or the construction methodology or programme. This may entail programming activities to occur concurrently where a noisy activity will mask a less noisy activity, or, at different times where more than one noisy activity will significantly increase the noise. The programming should also consider the location of the activities due to occur concurrently; and
- Carry out consultation with the community during construction including, but not limited to; advance notification of planned activities and expected disruption/effects, construction noise complaints handling procedures. Note that while community consultation may be included in the Contractor’s CNVMP; it is not required.

Arup concluded that subject to the recommended mitigations being implemented, and permission being granted for OOHW, that noise impacts to sensitive receivers can be minimized.

Regarding vibration, it is expected that the proposed activity will involve the use of vibration-intensive equipment.

The most affected receivers are those within Gloucester House and adjoining main hospital (particularly the Women’s and Baby Services Department that is located beside the Gloucester House Bridge) who will be affected by internal construction works associated with the pedestrian bridge raising. Additionally, it is expected that St Andrew’s College, the Susan Wakil building and the Chris O’Brien Lifehouse will be affected given their close proximity to the works zone. Additionally, is it expected that the Radiation Oncology Department, Surgical and Robotic Training Institute and the King George V Building could be affected from a human comfort perspective, depending on the plant equipment being used. Minimum working distances will be retained wherever practicable to minimize vibration impacts. Arup recommended that where vibration generating equipment is proposed to be used within the minimum distances, a review of equipment selection and/or method of construction will be conducted, and as required, vibration monitoring will be conducted.

Note 2: No sources of operational noise have been identified for the proposed activity. The volume of vehicular movements (and associated noise) will be unchanged.

An Acoustic Assessment Report was prepared by Arup and is appended at **Appendix P**. The Acoustic Assessment provides commentary on operational and construction noise and vibration.

6.1.8 Air Quality and Energy

Questions to consider	Yes	No
Could the works result in dust generation?	✓ (Note 1)	
Could the works generate odours (during construction or operation)		✓ (Note 1)
Will the works involve the use of fuel-driven heavy machinery or equipment?		✓ (Note 2)
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?	✓ (Note 1)	
Have energy use considerations been included in the project design?		✓ (Note 3)

Note 1: A Construction Management Plan (CMP) has been prepared by TSA Management and is appended at **Appendix M**. It is noted that the CMP provided is a high-level overview for the delivery of the works. The CMP will be further developed when the Principal Contractor is appointed and will respond to detailed site planning prior to commencing works.

Any potential odours, fumes/ smoke associated with demolition and construction for the site will be assessed and minimised. In addition, the detailed CMP will assess the impact of odour, dust and emissions prior to commencing works, and any potential odours, fumes/smoke associated with demolition and construction for the site will be assessed and minimised. Standard conditions for odour, dust and emissions have been included in the Draft mitigation measures at **Appendix A**.

Note 2: As detailed in CMP and Section 3.4 above, plant equipment will be confirmed when the Principal Contractor is appointed to ensure alignment with the proposed methodologies and construction staging.

Note 3: This is not considered relevant to the works scope, which are minor and do not affect current electrical, mechanical or hydraulic arrangements on the site.

6.1.9 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? NSW heritage database (includes section 170 and local items) Commonwealth EPBC heritage list?	✓ (Note 1)	
Will works occur in areas that may have archaeological remains?		✓ (Note 2)

Note 1: A Statement of Heritage Impact has been prepared by Heritage 21 and is appended at **Appendix G**. The hospital campus several heritage items and heritage conservation areas listed under Schedule 5 of the SLEP 2012. RPA Hospital also contains several items listed on the NSW State Heritage Register, the NSW Health s.170 Register, the National Trust Register, the Royal Australian Institute of Architects Register of Significant Architect in NSW and the Former Register of the National Estate. These heritage items are detailed in Section 2.1 of this report.

Within the Statement of Heritage Impact, Heritage 21 noted that the following aspects of the proposal would respect the heritage significance of the subject site, the University of Sydney heritage conservation area and heritage item in the vicinity.

- The Proposal involves minor civil works to allow for increased accessibility to the rear of the site, without impacting on any significant fabric;
- The proposal would facilitate the ongoing historic use of the site as a hospital while allowing for the conversion of significant fabric; and
- The proposal would involve the modification of a later, addition contemporary walkway which is deemed to be of little heritage significance.

The Statement of Heritage Impact concluded that the proposed activity engenders a neutral impact to the heritage significance of the subject site.

Note 2: It is beyond the Statement of Heritage Impact's scope to locate or assess potential or known archaeological sub-surface deposits on the subject site or elsewhere. An archaeologist should be consulted, as required, for the excavation activities. This would involve periodically examining the area by hand during excavation work in order to test for features such as footings, artefact scatters and postholes. Note that in event that significant deposits are identified the plan for the proposed activity would likely require modification.

6.1.10 Aboriginal Heritage

Questions to consider	Yes	No
Will the works disturb 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)?		✓ (Notes 1 and 2)
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)?		✓ (Notes 1 and 2)
Will the works occur in the location of one or more of these landscape features and is on land not previously disturbed? • Within 200m of waters. • Located within a sand dune system. • Located on a ridge top, ridge line or headland. • Located within 200m below, or above a cliff face. • Within 20m of, or in a cave, rock shelter or a cave mouth		✓

Note 1: An Aboriginal Due Diligence Assessment (ADDA) was prepared by Biosis and is appended at **Appendix H**.

The ADDA stated that that during field investigation no new Aboriginal sites or objects were identified. The field investigation suggested that the study area as a whole has been subject to disturbance and has low potential to contain intact or substantial archaeological deposits. There are no culturally modified trees located in the study area, therefore no culturally modified trees will be disturbed by the proposed activity. As the works are confined to areas of existing disturbance, it is assessed that there is low potential for Aboriginal archaeological sites to occur within these areas.

Note 2: A search of Heritage NSW AHIMS (Aboriginal Heritage Information Management System) Web Services (**Appendix I**) showed that no Aboriginal sites are recorded in or near the above location and Aboriginal places have been declared in or near the above location.

6.1.11 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?	✓ (Note 1)	
Will the works be visible from the public domain?	✓ (Note 1)	
Are the works located in areas of high scenic value?		✓
Will the works involve night work requiring lighting?	✓ (Note 2)	

Note 1: the works are minor and are not expected to have a significant visual impact. The raising of the pedestrian bridge represents a minor change to the visual appearance of Gloucester House, as viewed from Gloucester House Plaza and Lambie Dew Drive and Gloucester House Drive. The removal of the palm trees and changes to the traffic island in Gloucester House Plaza represent the most significant visual change. However, this area of the RPA campus is fairly enclosed and so the change will only be perceptible from the Plaza itself, and from the St Andrew's College site.

Note 2: Permission is sought for out of hour work (OOHW) including at night-time and the works are likely to require the use of lighting. OOHW will only be conducted where necessary to minimize impacts to staff and patients at the hospital caused by the temporary closure of Gloucester House Drive and Gloucester House Plaza. External lighting will be used in compliance with AS 4282-2019 Control of the obtrusive effects so as to minimize adverse effects of outdoor on nearby residents, notably at St Andrew's College.

6.1.12 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?	✓ (Note 1)	

Note 1: As per the Utilities Services Report – Hydraulics, prepared by Warren Smith Consulting Engineers, at **Appendix T**, the report notes, that the proposed activity will be within the vicinity of other existing private and utility services within the realigned roadway and will be subject to coordination with available survey information and other disciplines.

In addition to the Utilities Services Report – Hydraulics, an Electrical, ICT and Mechanical Utilities Report was prepared by Arup and can be found at **Appendix U**. The report concluded:

- There are no adjustments to the Electrical utility infrastructure required as part of the work under this REF;
- There are no adjustments to the ICT utility infrastructure required as part of the work under this REF; and
- There are no adjustments to the Mechanical utility infrastructure required as part of the work under this REF.

6.1.13 Waste Generation

Questions to consider	Yes	No
Will the works result in the generation of non-hazardous waste?	✓ (Note 1)	
Will the works result in the generation of hazardous waste?	✓ (Note 2)	
Will the works result in the generation of wastewater requiring off-site disposal?	✓ (Note 3)	

Note 1: A Waste Management Plan (WMP) was prepared by TSA Management (**Appendix O**). During construction and operation, there are five (5) likely avenues of waste generation activities, including green waste, hazardous waste, construction waste, site office and worksite and plant maintenance and chemical management.

Summarised below are the possible waste streams and their management.

Activity	Waste Stream	Management
Green Waste	Trees, shrubs, groundcover and weeds	• Reuse suitable material for mulch if it is weed free and complies with the EPA mulch exemption • Potential for offsite reuse or disposal to a green waste facility
Hazardous Waste	Clinical wastes, flammable liquids/ solids, toxic materials, infectious substances	• Hazardous Building Materials Management Plan • Hazardous Building Materials Survey to locate suspected hazardous materials (appended at **Appendix Q**) • Removal of identified hazardous building materials prior to demolition or construction works, guided by a Remedial Action Plan (if required).
Construction Waste	Concrete, metal, steel, timber, fittings, plastic, electrical and plumbing	• Segregation of recyclable wastes and storage onsite (within construction compounds) • Collection and transport to appropriate recycling facility
Site Office and Worksites	General Office Waste – paper, printer cartridges	• Segregation of recyclable wastes and storage on-site • Collection and transport to a recycler
	Domestic Wastes – food scraps, glass bottles, cans, packaging.	• Segregation of recyclable wastes and storage onsite
	Septic and Sanitary systems waste	• Sewerage treatment plant
Plant Maintenance and Chemicals Management	Drums and Containers	• Segregation of recyclable wastes and storage onsite (within construction compounds) • Collection and transport to a recycling facility
	Waste Oil, great, lubricants, oily rags and filters	• Segregation of recyclable wastes and storage onsite (within construction compounds)

- Collection and transport to a recycling facility

All waste will be assessed, classified, managed and disposed of in accordance with the waste hierarchy established by the Waste Avoidance and Resource Recovery Act 2001 (WARR Act) to reduce, reuse, recycle, treat and dispose. The major components of the waste management system will include:

- Avoidance and reduction of waste;
- Recycling and Reuse;
- Segregation at the source;
- Waste Streams;
- Handling and storage;
- Waste treatment; and
- Waste disposal.

However, in accordance with NSW Health requirements for health care facilities, a detailed WMP will be developed by the Principal Contractor providing detailed information regarding the nature and volume of waste generated by the proposed activity and the means of storage and disposal of waste from the site.

Note 2: As mentioned above, a Hazardous Building Materials Survey was prepared by Sydney Environmental Group and is appended at **Appendix R**. The Survey found that:

- No ACM, LCD, LCP, or PCBs was identified, presumed, or suspected to be present within the site. However, given the age of the building, ACM may be encountered in areas not fully accessible during the survey (i.e. void spaces behind walls, lift shafts, internal componentry of equipment).
- All air conditioning, ducting, and insulation material is presumed to contain SMF. Caution is required when handling SMF products in order to minimise airborne SMF fibre levels.

As a result, it is possible but unlikely, that any hazardous waste will be generated. Where encountered, it will be disposed of by a suitably qualified professional.

Refer to the mitigation measures at **Appendix A**.

Note 3: Treatment of construction waste and general waste will be performed by a licensed contractor after proper removal of waste off the project site. This includes wastewater requiring off-site disposal. The procedure of the off site disposal for wastewater will be later confirmed with the detailed CMP.

6.1.14 Cumulative Impact

Questions to consider	Yes	No
Has there been any other development approved within 500m of the site?	✓ (Note 1)	
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?		✓

Note 1: Two previous REF packages have already been prepared for the RPA Hospital site, within 500 metres of the proposed site. A summary of both REF packages is detailed in **Table 12** below.

Construction of the proposed activity is intended to commence in August 2022. This will result in an overlap in the works program of REF 4 (Refer **Table 13**) and the proposed activity. There is an overlap in the works program for REF 1 and the proposed activity of 2.5 months. As can be seen in **Figure 26**, the works zones are fairly separated from one another, and so cumulative impact will be minimal.

Table 12 Summary of previous REF packages

REF Package	Summary of Proposed Scope	Works program	Determination
REF Package 1	• Construction of a new mortuary pick up location within existing Building 89 Level 1, including a new lift between Levels 1 and 2; and • The relocation of an existing roller shutter door on the eastern side of the clinical services building to enable improved access control for hearse movement.	Commencement: April 2022 Duration: 6.5 months	Approved on the 11th of May 2022
REF Package 4	• New internal fit out for the relocated Anatomical Pathology department on Level 5 of Building 12; • New external additions to the western elevation of Building 12 including storage of dangerous goods; • Minor works to the external façade and roof including new external egress stairs, new entry door, new roller door, infill of an existing door and removal of existing brickwork to two blocked in windows to reinstate to former condition; and • Installation of Photovoltaic cells on the roof of Building 12.	Commencement: August 2022 Duration: 7 months	Still under assessment

Note, the location of the proposed activity in relation to the previous two REF packages is illustrated in **Figure 26** below.

Figure 26 Proposed activity in relation to previous REF packages

In addition, a search has been undertaken on the following databases to identify any projects surrounding the site, including:

- Department of Planning and Environment – Major Project Register;
- Sydney and Regional Planning Panels Development and Planning Register; and
- City of Sydney Council Development Application (DA) register.

The search found no DAs or SSDAs have been approved in recent years within 500m of the site.

6.1.15 Impact on Coastal Processes and Coastal Hazards

Questions to consider	Yes	No
Is the site mapped under the Biodiversity & Conservation SEPP (former SEPP (Coastal Management) 2018)?		✓
If the site is mapped, will the activity likely to cause an increased risk of coastal hazards on that land or other land?		✓

6.1.16 Applicable Local Strategic Planning Statements, Regional Strategic Plans or District Plans

Questions to consider	Yes	No
What are the key local and State Planning policies and strategies relevant to the activity?	✓ (refer to **Table 13** below)	
How does the activity align with the key local and State Planning policies and strategies applicable to the activity?	✓ (refer to **Table 13** below)	

Table 13 Applicable Strategic Policies

Policy/ strategy	Overview	How the proposed activity aligns?
NSW State Priorities	The NSW State Priorities are fourteen priorities unveiled by the NSW Premier, in a commitment to making a significant difference to enhance the quality of life. The relevant priorities are: • Improving service levels in hospitals; and • Improving outpatient and community care.	The proposed activity will help support the hospital while undergoing the campus wide redevelopment project. The proposed development aligns with the NSW State Priorities, seeking to enhance the quality of life through quality health care and services in NSW.
State Infrastructure Strategy 2018-2038 – Building the Momentum	The State Infrastructure Strategy 2018-2038, released in February 2018 by Infrastructure NSW, is a 20-year strategy that outlines the NSW Government's major long term infrastructure plans across all key sectors – transport, energy, water, health, education, justice, social housing, culture, sport and tourism.	The Strategy notes the demand for healthcare will grow by over 50 per cent by 2036, highlighting that there is a need to expand and deliver more health infrastructure and services to support the State's medical needs. A strategic objective for health is included in the Strategy to 'Plan and deliver world-class health infrastructure that supports a 21st century health system and improved health outcomes for the people of NSW'. The proposed activity aligns with the strategic objectives of the Strategy as the proposed scope of works will support the State's medical needs by improving access arrangements on the RPA Hospital site.
The Greater Sydney Region Plan – A Metropolis of Three Cities	The Greater Sydney Region Plan – A Metropolis of Three Cities, was released by the Greater Sydney Commission in March 2018 and is the NSW Government's 40-year plan for the Sydney metropolitan area.	The proposed activity aims to assist in meeting Sydney's growing health needs. The proposed activity is consistent with the objectives and directions of the Metropolis of Three Cities Plan, including: • Objective 1: Infrastructure supports the three cities;

		• Objective 2: Infrastructure aligns with forecast growth – growth infrastructure compact; • Objective 3: Infrastructure adapts to meet future need; • Objective 5: Benefits of growth realised by collaboration of governments, community and business; • Objective 6: Services and infrastructure meet communities changing needs; and • Objective 21: Internationally competitive health, education, research and innovation precincts. The RPA Hospital redevelopment will facilitate growth of health facilities in the Sydney Local Health District and provide more jobs in the health and education sector, ultimately contributing to the economic productivity of the area. Overall, the project aligns with Greater Sydney Region Plan as it will redevelop and provide additional and improved health facilities to meet the growing needs of the Sydney Local Health District.
Eastern City District Plan	The Eastern City District Plan was released by the Greater Sydney Commission in March 2018. The Plan identifies that the Eastern District has an anticipated population growth of 325,000 people. This population increase can only occur with associated infrastructure such as Hospitals.	The proposed activity aligns with the following planning priorities: • Planning Priority E1: Planning for a city supported by infrastructure; • Planning Priority E3: Providing services and social infrastructure to meet people's changing needs; and • Planning Priority E8: Growing and investing in health and education precincts and the Innovation Corridor. The proposed activity aims to support the RPA Hospital redevelopment, which will assist in providing health care to the Eastern City District's population for years to come.
City Plan 2036: Local Strategic Planning Statement	City of Sydney's Local Strategic Planning Statement (LSPS), known as City Plan 2036, sets out the 20-year vision for land use planning in the city and provides planning priorities and actions needed to achieve the vision.	The LSPS sets 13 priorities. In particular the proposed activity aligns with the following priorities: • Align development and growth with supporting infrastructure; • Growing a stronger, more competitive Central Sydney; and • Developing innovative and diverse business clusters in the city fringe. The alterations and additions to the RPA Hospital are consistent with the above principles.

6.1.17 Any other relevant environmental factors

Questions to consider	Yes	No
Are there any other relevant environmental factors that have been identified that have been taken into consideration in determining the impacts of the activity?	✓ (Note 1)	

Note 1: Accessibility – Noting that the works include changes to an existing pedestrian bridge, the impact of the proposed activity on accessibility has been considered.

By virtue of the proposed activity to the Link Bridge on Level 4, access for a person with a disability will not be able to be provided between the existing Main Hospital and Gloucester House via the link bridge on Level 4 and thus an occupant who is wheelchair bound will be required to be directed via way finding signage installed throughout Level 4 (directing them to the passenger lift and then to Level 5) and Level 5 of Gloucester House (directing them to the link bridge from the passenger lift).

Wayfinding signage will be installed within the atrium of the Main Hospital on Level 4 directing occupants to use the passenger lift to Level 5 to access the link bridge on Level 5 leading to Gloucester House. This was the recommendation of the BCA consultant in their report (**Appendix V**) and is reflected in the mitigation measures at **Appendix A**.

The BCA consultant, Blackett Maguire + Goldsmith, confirmed the proposed works can satisfy the requirements of the BCA2019 and the Access to Premises Standards 2010. Refer the BCA report at **Appendix V**.

6.2 Impact Assessment

6.2.1 Physical and Chemical Impacts During Construction and Operation

		Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or N/A)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1.	Is the proposal likely to impact on soil quality or land stability?	☐	N/A	N/A	N/A
2.	Is the activity likely to affect a waterbody, watercourse, wetland or natural drainage system?	☐	N/A	N/A	N/A
3.	Is the activity likely to change flood or tidal regimes, or be affected by flooding?	☐	N/A	N/A	N/A
4.	Is the activity likely to affect coastal processes and coastal hazards, including those projected by climate change (e.g. sea level rise)?	☐	N/A	N/A	N/A
5.	Does the activity involve the use, storage, or transport of hazardous substances or the use or generation of chemicals, which may build up residues in the environment?	☐	N/A	N/A	N/A
6.	Does the activity involve the generation or disposal of gaseous, liquid or solid wastes or emissions?	☐	N/A	N/A	N/A

		Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or N/A)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
7.	Will the activity involve the emission of dust, odours, noise, vibration or radiation in the proximity of residential or urban areas or other sensitive locations?	☒	Low-Medium	It is anticipated that the works will generate dust, and that some properties in proximity to the works site will experience noise and vibration.	Any potential odours, fumes/ smoke associated with demolition and construction for the site will be assessed and minimised. In addition, the detailed CMP will assess the impact of odour, dust and emissions prior to commencing works. Standard conditions for odour, dust and emissions have been included in the Draft mitigation measures at **Appendix A**. Where vibration generating equipment is proposed to be used within the recommended minimum working distances, a review of equipment selection and/or method of construction will be conducted, and as required, vibration monitoring will be conducted. The most affected recipient of noise is Gloucester House, which will be affected by construction works occurring internal to the building. To minimize impacts to users of the building, OOHW is proposed so that works can occur at times that will cause less disruption.
8.	Is the activity likely to change flood or tidal regimes, or be affected by flooding?	☐	N/A	N/A	N/A
9.	Is the activity likely to affect coastal processes and coastal hazards, including those projected by climate change (e.g. sea level rise)?	☐	N/A	N/A	N/A

6.2.2 Biological Impacts During Construction and Operation

		Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1.	Is any vegetation to be cleared or modified? (includes vegetation of conservation significance or cultural landscape value)	☒	Low	Four palm trees are required to be cleared however they have been identified as an exotic planted species and therefore not impacting on any native flora or fauna.	• Tree Protections: Australian Standard 4970 (2009) Protection of Trees on Development Sites (AS-4970) outlines that a Tree Protection Zone (TPZ) is the principal means of protecting trees on construction sites. It is an area isolated from construction disturbance so that the tree remains viable. All works should be avoided within the TPZ; • Erosion and Sedimentation: Adequate erosion and sediment measures must be in place at all times during construction activity. Always follow best practice guidelines (Landcom 2004); and • Storage and Stockpiling (Soil and Materials): All storage, stockpile and laydown sites must be positioned away from trees that are to be retained. Appropriate erosion and sediment control should be erected around soil stockpiles to avoid incurring indirect impacts on biodiversity values. Mitigation measures outlined in the Ecological Assessment (Appendix K) will ensure no direct or indirect impact ecologically sensitive features surrounding the Subject Site.
2.	Is the activity likely to have a significant effect on threatened flora species, populations, or their habitats, or critical habitat (refer to threatened species assessment of significance under the BC Act?)	☐			
3.	Does the activity have the potential to endanger, displace or disturb fauna (including fauna of conservation significance) or create a barrier to their movement?	☐			
N/A		N/A	N/A		

	Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
N/A	N/A	N/A	N/A	N/A
N/A	N/A	N/A	N/A	N/A
4. Is the activity likely to cause a threat to the biological diversity or ecological integrity of an ecological community?	☐	N/A	N/A	N/A
5. Is the activity likely to introduce noxious weeds, vermin, feral species or genetically modified organisms into an area?	☐	N/A	N/A	N/A
6. Is the activity likely to affect critical habitat?	☐	N/A	N/A	N/A
7. Is the activity consistent with any applicable recovery plans or threat abatement plans?	☐	N/A	N/A	N/A
8. Is the activity likely to affect any joint management agreement entered into under the BC Act?	☐	N/A	N/A	N/A

6.2.3 Community Impacts During Construction and Operation

		Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1.	Is the activity likely to affect community services or infrastructure?	☐	N/A	N/A	N/A
2.	Does the activity affect sites of importance to local or the broader community for their recreational or other values or access to these sites?	☐	N/A	N/A	N/A
3.	Is the activity likely to affect economic factors, including employment numbers or industry value?	☐	N/A	There is no change to the expected operational employment numbers as a result of the works.	N/A
4.	Is the activity likely to have an impact on the safety of the community?	☐	N/A	N/A	N/A
5.	Is the activity likely to cause a bushfire risk?	☐	N/A	N/A	N/A
6.	Will the activity affect the visual or scenic landscape? This should include consideration of any permanent or temporary signage.	☐	N/A	N/A	N/A
7.	Is the activity likely to cause noise, pollution, visual impact, loss of privacy, glare or overshadowing to members of the community, particularly adjoining landowners?	☒	Low-medium	As noted above, some properties in proximity to the works site will experience noise and vibration during construction. There are however no operational noise or vibration sources associated with the proposed activity. Operational noise is limited to vehicular movements and these are not expected to increase compared to current conditions.	Regarding construction, the proposed works are predicted to result in exceedance of the relevant noise management levels at most off-site assessment locations and accordingly mitigation and management procedures will be implemented for the works. However, the predicted exceedances are only expected during periods of intense activity subject to the type of equipment used.

					Where vibration generating equipment is proposed to be used within the recommended minimum working distances, a review of equipment selection and/or method of construction will be conducted, and as required, vibration monitoring will be conducted.

6.2.4 Natural Resource Impacts During Construction and Operation

		Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1.	Is the activity likely to result in the degradation of a park or any other area reserved for conservation purposes?	☐	NA	NA	NA
2.	Is the activity likely to affect the use of, or the community's ability to use, natural resources?	☐	NA	NA	NA
3.	Is the activity likely to involve the use, wastage, destruction or depletion of natural resources including water, fuels, timber or extractive materials? This should include opportunities to utilise recycled or alternative products.	☒	Low	In relation to natural resources, timber accounts for 24% of the waste generated by the works. In relation to general waste, the construction contractor will be required to recycle and reuse materials where possible. The contractor will be required to arrange for the sorting and recycling of waste materials and packaging to ensure maximum recycling is achieved. The contractor will be committed to achieving compliance with the EPA guidelines.	As noted, recycle and reuse of material will occur where possible. Suitable green waste material will be reused for mulch.
4.	Does the activity provide for the sustainable and efficient use of water and energy? Where relevant to the proposal, this should include consideration of high efficiency fittings, appliances, insulation, lighting, rainwater tanks, hot water and electricity supply.	☐	Negligible	The overall water and energy use of Gloucester House and the main hospital building are not affected by the works.	NA

6.2.5 Aboriginal Cultural Heritage Impacts During Construction and Operation

Addressing matters 1–5 will assist in meeting requirements set out in OEH's **Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW**.

	Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1. Will the activity disturb the ground surface or any culturally modified trees?	☒	Low	The Aboriginal Due Diligence Assessment concluded that there is low potential for Aboriginal sites to be located within the study area. The field investigation conducted by Biosis did not identify any new Aboriginal sites or areas of potential. As the proposed development is contained to areas of existing disturbance, it is assessed that there is low potential for Aboriginal archaeological sites to occur within the study area.	As per the Aboriginal Due Diligence Assessment, no Aboriginal objects or landscape features are present. However, the standard conditions for Aboriginal Heritage be imposed, including unexpected finds will be implemented prior and during the construction works as a safeguard.
2. Does the activity affect known Aboriginal objects or Aboriginal places? Include all known sources of information on the likely presence of Aboriginal objects or places, including AHIMS search results.	☐	N/A	N/A	
• Is the activity located within, or will it affect, areas: within 200m of waters* within a sand dune system* on a ridge top, ridge line or headland within 200m below or above a cliff face within 20m of or in a cave, rock shelter or a cave mouth?	☐	N/A	N/A	
3. If Aboriginal objects or landscape features are present, can impacts be avoided?	☐	N/A	N/A	
4. If the above steps indicate that there remains a risk of harm or disturbance, has a desktop	☐	N/A	N/A	

		Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
	assessment and visual inspection been undertaken?				
5.	Is the activity likely to affect wild resources or access to these resources, which are used or valued by the Aboriginal community?	☐	N/A	N/A	

6.2.6 Other Cultural Heritage Impacts During Construction or Operation

		Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1.	What is the impact on places, buildings, landscapes or moveable heritage items? Attach relevant supporting information where required, such as a HIS	☐	N/A	N/A	N/A
2.	Is any vegetation of cultural landscape value likely to be affected (e.g. gardens and settings, introduced exotic species, or evidence of broader remnant land uses)?	☐	N/A	N/A	N/A

6.3 Summary of Mitigation Measures

Based on the impact assessment, the following mitigation measures are proposed as outlined in **Table 14** below. The mitigation measures were grouped, in order of timing, "Prior to the commencement of works", "During construction/ undertaking of work", "Prior to commencement of operation" and "During operation".

Table 14 Summary of Mitigation Measures

Aspect	Mitigation measure	Timing
Hazardous Materials	Should any previously unidentified suspected hazardous building materials be identified during demolition, works should cease, and the materials should be inspected by any experienced occupational hygienist prior to the recommencement of works.	During construction/ undertaking of work
Waste Management	Preparation of a detailed Construction Waste Management Plan is required.	Prior to the commencement of work
	Waste disposal is required in accordance with the Construction Waste Management Plan.	During construction/ undertaking of work
Traffic and parking	Preparation of a detailed Construction Traffic Management Plan is required.	Prior to the commencement of work
Traffic and parking	Accessible parking spaces are to be retained in Gloucester Plaza where possible at all times during construction.	During construction/ undertaking of work
Noise and Vibration	Noise and vibration management strategies will be implemented, including those recommended by the Acoustic Assessment Report (**Appendix H)** prepared by Arup.	During construction/ undertaking of work
	Where vibration generating equipment is proposed to be used within the minimum working distances, a review of equipment selection and/or method of construction will be conducted, and as required, vibration monitoring will be conducted.	
	Preparation of a CNVMP is required.	
Access and Wayfinding	By virtue of the proposed activity to the Link Bridge on Level 4, access for a person with a disability will not be able to be provided between the existing Main Hospital and Gloucester House via the link bridge on Level 4 and thus an occupant who is wheelchair bound will be required to be directed via way finding signage installed throughout Level 4 (directing them to the passenger lift and then to Level 5) and Level 5 of Gloucester House (directing them to the link bridge from the passenger lift).	During construction/ undertaking of work
	Way finding signage will also be required to be installed within the atrium of the Main Hospital on Level 4 directing occupants to use the passenger lift to Level 5 to access the link bridge on Level 5 leading to Gloucester House.	
Contamination	Further assessment is required of the vertical and lateral extent of the benzo(α)pyrene TEQ and benzo(α)pyrene human health and ecological contamination detected at BH325 (Area C).	Prior to the commencement of relevant works
	A mitigation measure has been included at **Appendix A** to require preparation of a DSI.	
	Subject to findings of further assessment, the preparation of a RAP may be required. Should a RAP be required, the relevant land must be	Prior to commencement of use/occupation.

	remediated prior to further relevant construction work and commencement of use/occupation.	
Tree protection	The following measures will be adopted to protect trees during the works: • A combination of TPZ fencing and trunk and ground protection shall be installed for tree 43-50, 53, 56, 57, 59. • Fencing/ground protection shall remain in place for the duration of the project and shall not be modified unless approved by the Project Arborist. • Demolition of existing pavements, kerbs and pits within the TPZ areas of trees 47, 59 (the two retained trees in Tree group 59 and Tree A (which is being pruned) shall be supervised by the Project Arborist and avoid disturbance of the surrounding soil profile. • Excavation for the turning bay within the TPZ area of tree 47 shall avoid over excavation beyond the turning bay footprint. Excavation shall be supervised by the Project Arborist and root pruning undertaken as required along the line of excavation within the TPZ. • The proposed footpath within the TPZ areas of trees 46-49 shall be installed above existing grade (including subbase layers). Alternatively, the footpath footprint can be excavated by hand and finished levels determined by the depth of significant roots which must be retained (as determined by the Project Arborist). • Where required, subbase layers below pavements in TPZ areas shall be thinned to allow for the retention of significant roots. Compaction of the sub grade and subbase below the footpath shall be undertaken using a pedestrian operated plate compactor, with hand tools to be used for compaction around roots. • Trenching for underground services and relocation of pits within TPZ areas shall be undertaken using tree sensitive methods (hand/hydrovac excavation/compact excavator guided by a spotter) and be supervised by the Project Arborist. • Replacement tree planting (4 new trees) are to be planted on site.	During undertaking of works
European Heritage	The standard conditions for European Heritage be imposed, including unexpected finds.	During construction/ undertaking of work
Aboriginal Heritage	The standard conditions for Aboriginal Heritage be imposed, including unexpected finds.	During construction/ undertaking of work
Construction Management	A detailed CMP is to be prepared prior to the commencement of works and implemented during the undertaking of works. The CMP is to include, but not be limited to: • Construction noise and vibration management measures, to feasibly and reasonably mitigate noise and if relevant, vibration, to affected receivers, including those within other hospital facilities	Prior to the commencement of work

• Sediment and erosion control measures in a sediment and erosion control plan • Construction waste management • Construction environmental management measures • Construction traffic management measures • Construction site management measures • Restrictions on hours of work for construction Air quality and dust management measures.	
Preparation of a Dilapidation Report. The report needs to consider: • Infrastructure and services within reasonable proximity to the works; and • Property, Buildings or Structures within reasonable proximity to the works including site sheds. This includes but it is not limited to existing taxi rank, existing grass area adjacent ambulance bay and hospital street corridor adjacent work zones.	Prior to the commencement of work
Erosion and sediment control to be undertaken in accordance with the Blue Book – Managing Urban Stormwater: Soils and Construction	During Construction / Undertaking of Work
Appropriate hoarding/fencing will be installed to prevent public and staff access and to maintain security for the various areas of the works.	During Construction / Undertaking of Work
Implementation of a Disruption Notice process	During Construction / Undertaking of Work
Site Access and Accommodation – Site access will be controlled by the Principal Contractor at all times. The site accommodation will be temporarily positioned in an unobstructed area and will avoid causing damage to existing trees. It is proposed that the contractor can position site accommodation in a landscaped area to the east of the Lambie Dew Drive loading dock.	During Construction / Undertaking of Work
Key issues for traffic, pedestrian and cyclist management during construction to be considered in the Construction Pedestrian and Traffic and Management Plan (CPTMP) include, but is not limited to: • Provide safe and uninterrupted access for pedestrians and vehicles accessing the construction site, hospital site; • Ensure maximum safety of site personnel, pedestrians, cyclists, commuters, and drivers; • Minimise environmental nuisance and impact as a result of construction traffic; • Ensure construction traffic does not unduly interrupt existing traffic flows on the local road network; • Safe operation of buses and other transport services during construction in adjacent roads; • Have no vehicles arrive at the site, without prior arrangement, outside the approved working hours; • Encourage site workers to utilise local public transport system and car sharing wherever possible;	Prior to the commencement of work / during construction

	• Timely and effective implementation of traffic management measures; • Maintain access at all times for hospital and stakeholder's deliveries. The CPTMP will be prepared and implemented within the proposed activity.

6.4 Summary Impacts

Based on the identification of potential issues, and an assessment of the nature and extent of the impacts of the proposed activity, 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; and
- Given the above, it is determined that an EIS is not required for the proposed development activity.

7. Environmental Factors Considered

7.1 Section 171(2) EP&A Regulations 2021 Environmental Factors Checklist

As part of its obligations under section 5.5 of the EP&A Act, HI is required to take into account, to the fullest extent possible, all matters likely to affect the environment. The determining authority is required by Section 171(2) of the EP&A Regulation 2021 to give consideration to a number of factors, as listed in the table below.

Table 15 Section 171(2) Checklist (NSW Legislation)

Has the REF considered the following points?	Relevant Details
the environmental impact on a community	Yes, negligible impact. *Refer to Sections 6.1.6, 6.1.7, 6.1.8, 6.1.13 and 6.2.3 of this REF fur further details.*
the transformation of locality	Yes, negligible impact. *Refer to Section 6.2.1*
the environmental impact on the ecosystems of the locality	Yes, negligible impact. *Refer to Sections 6.1.4, 6.2.1, 6.2.2 and 6.2.4*
reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality	Yes, negligible impact. *Refer to Sections 6.1.4, 6.2.1, 6.2.2 and 6.2.4*
the effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance, or other special value for present or future generations	Yes, negligible impact. *Refer to Sections 6.1.9, 6.1.10, 6.2.5 and 6.2.6*
the impact on the habitat of protected animals, within the meaning of the *Biodiversity Conservation Act 2016*	Yes, no impact to ecosystems, flora or fauna. *Refer to Sections 6.1.4 and 6.2.2*
the endangering of any species of animal, plant or other form of life, whether living on land, in water, or in the air	Yes, no impact to ecosystems, flora or fauna. *Refer to Section 6.1.4 and 6.2.2*
long-term effects on the environment	Yes, no long-term impact. *Refer to Sections 6.2.1, 6.2.2 and 6.2.4*
degradation of the quality of the environment	Yes, negligible impact. *Refer to Sections 6.1.3, 6.1.4, 6.2.1, 6.2.2 and 6.2.4*
risk to the safety of the environment	*Refer to Section 6.2.3*
reduction in the range of beneficial uses of the environment	Yes, no impacts. *Refer to Sections 6.1.12 and 6.2.4*
pollution of the environment	Yes, no pollution arising from the works. *Refer to Sections 6.1.8, 6.1.13, 6.2.1*
environmental problems associated with the disposal of waste	Yes, negligible impact. Waste disposal will be managed via the Waste Management Plan. Hazardous waste will be disposed of off-site. *Refer to Sections 6.1.13 and 6.2.1*
increased demands on natural or other resources that are, or are likely to become, in short supply	*Refer to Section 6.2.4*
the cumulative environmental effect with other existing or likely future activities	*Refer to Section 6.1.14*
the impact on coastal processes and coastal hazards, including those under projected climate change conditions.	Yes, no impacts. *Refer to Section 6.1.15*

applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1	Yes, the relevant strategic plans have been considered. *Refer to Section 6.1.16*
other relevant environmental factors	Yes, negligible impact. *Refer to Section 6.1.17*

7.2 Matters of National Environmental Significance Checklist

Matters of National Environment Significance are matters protected under national environmental law (*Environment Protection and Biodiversity Conservation Act 1999*).

The following checklist provides guidance on whether an action is likely to have an impact on one of these matters, and whether further assessment of significance is required. This checklist or similar should be included in the REF to demonstrate that all matters have been considered.

Table 16 EPBC Act 1999 (Commonwealth Legislation)

Significance Matter	Yes/ No	Relevant Details
Listed threatened species and communities	No	The site does not contain any listed threatened species or communities.
Listed migratory species	No	The site does contain any listed migratory species.
RAMSAR wetlands of international importance	No	The site does not contain any RAMSAR wetland or international importance.
Commonwealth marine environment	No	The site is not identified as, not within proximity to, any Commonwealth marine environment.
World heritage properties	No	The site is not identified as a World Heritage listed property.
National heritage places	No	The site is not identified as, nor within proximity to, any places of national heritage significance.
The Great Barrier Reef Marine Park	No	The site is not within proximity to the Great Barrier Reef Marine Park.
Nuclear actions	No	The site is not within proximity to any nuclear actions.
A water resource, in relation to coal seam gas development and large coal mining development	No	The proposal does not include any mining component.

8. Justification and Conclusion

The proposed alterations and additions to Gloucester House Bridge, and associated roadworks along Gloucester House Drive and Lambie Dew Drive, and tree removal at RPA 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 proposed activity 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;
- It generally complies with, or is consistent with all relevant legislation, plans and policies;
- It has minimal environmental impacts; and
- Adequate mitigation measures have been proposed to address these impacts.

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 5.1 of the EP&A Act. On this basis, it is recommended that HI approve the proposed activity in accordance with Part 5 of the EP&A Act and subject to the adoption and implementation of matters outlined in this report.

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