HEALTH INFRASTRUCTURE

Review of Environmental Factors

Alterations and Additions to the Medical Gas Compound in the Royal Prince Alfred Hospital – West Campus

13/03/2024

Version 6

NSW GOVERNMENT

Version Control

Version	Date	Author	Description	Reviewed by	Approved by
1	24/02/2023	Terri Slater	First Draft	Jane Fielding	Jane Fielding
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6	13/03/2024	Piers Hemphill	Final (Amended Proposal)	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 proposed works to the existing medical gas compound in the West Campus of the Royal Prince Alfred Hospital (RPA Hospital), located at 22-33 Carillon Avenue, 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 and Infrastructure) 2021* (TISEPP).

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(1) of the EP&A Regulation (which reflects those matters under section 171(2) of the EP&A Regulation) and the *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act).*

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

Declaration				
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Abbreviations

Abbreviation	Description
ADDA	Aboriginal Due Diligence Assessment
AHIMs	Aboriginal Heritage Information Management System
Acid Sulphate Soils	ASS
ACM	Asbestos Containing Materials
B28	Building 28- Boiler House
BTEX	Benzene, Toluene, Ethylbenzene and Xylene
CBD	Central Business District
CEMP	Construction and Environmental Management Plan
CI & E Building	Capital Infrastructure & Engineering Building
CM Act	Coastal Management Act 2016
CMP	Construction Management Plan
CNVMP	Construction Noise Vibration Management Plan
CPTMP	Construction Pedestrian and Traffic and Management Plan
CWC	Connecting with Country
DN	Disruption Notice
DSI	Detailed Site Investigation
EIS	Environmental Impact Statement
EP&A Act	Environmental Planning and Assessment Act 1979
EP&A Regulation	Environmental Planning and Assessment Regulation 2021
EPBC Act (Cwth)	Environment Protection and Biodiversity Conservation Act 1999
EPI	Environmental Planning Instrument
HAC	Health Administration Corporation
HI	Health Infrastructure
LEP	Local Environmental Plan
LGA	Local Government Area
LSPS	Local Strategic Planning Statement
MGLBA	Medical Gas Loading Bay Area
MNES	Matters of National Environmental Significance
MGC	Medical Gas Compound
OOHW	Out of Hours Work
Proponent	NSW Health Infrastructure
RAP	Remediation Action Plan
REF	Review of Environmental Factors
RF Act	Rural Fires Act 1997

Resilience and Hazards SEPP	State Environmental Planning Policy (Resilience and Hazards) 2021
RPA Hospital	Royal Prince Alfred Hospital
SEPP	State Environmental Planning Policy
SLEP 2012	Sydney Local Environmental Plan 2012
SLHD	Sydney Local Health District
TIS	Transport Impact Statement
TISEPP	State Environmental Planning Policy (Transport and Infrastructure) 2021
VENM	Virgin excavated natural materials
WMP	Waste Management Plan

Executive Summary

The Proposal

This REF has been prepared for Health Infrastructure (HI) and assesses the potential environmental impacts which could arise from the proposed works at Royal Prince Alfred (RPA) Hospital in Camperdown NSW 2050.

The proposed activity comprises alterations and additions to the Capital Infrastructure and Engineering (CI & E) building loading dock located off Rochester Street in the RPA Hospital West Campus. Specifically, the works are to establish a reconfigured and expanded Medical Gas Compound (MGC) comprising the following works:

- Demolish/removal of nine (9) trees, fencing, walls and door, a diesel tank, railings and landscaping and site preparation works; and
- Construction/installation of a 30kL oxygen tank, vaporisers, new slab, fire rated enclosure, new pedestrian/trolley ramp, security fencing and access gate, new flammable gas cylinder storage bays and planting of nine (9) replacement trees.

Need for the Proposal

The MGC upgrade and expansion is required to provide compliance upgrades to the RPA Hospital Campus. The existing cylinder stores within the Sydney Local Health District (SLHD) service yard are not compliant and require to be reconfigured to comply with the current requirements.

Proposal Objectives

The key objectives of the proposed activity are:

- Increase the capacity for medical gas storage at RPA Hospital; and
- Improve existing hospital infrastructure to achieve compliance with current Australian Standards and support growth.

Options Considered

The following options were considered for the proposed activity including:

- **Option 1:** Reconfiguration of the existing medical gas storage area located at the CI & E loading dock for a new 30kL primary oxygen tank and supporting infrastructure;
- **Option 2**: To not redevelop the site (i.e., do nothing). This option was rejected as an increase in medical gas storage capacity is required to and achieve compliance with current requirements and support hospital growth. Option 1 is the preferred option as it represents the scope of this REF.

As noted above, there are limited options for gas storage reconfiguration as the infrastructure was pre-existing and the functionality of the site relies upon existing delivery protocols, pipework and supporting infrastructure.

Site Details

The site forms part of the RPA Hospital located at 22-33 Carillon Avenue, Camperdown NSW 2050 within the City of Sydney Local Government Area (LGA). The proposed activity is located within the western campus of the hospital.

The land subject to the proposed activity is formally known as Lot 4 in DP 880430.

Refer to location plans of the proposed activity at **Figure 1** below.

Planning Approval Pathway

Section 4.1 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) states that if an Environmental Planning Instrument (EPI) provides that where 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 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 alterations and additions to the existing MGC on the RPA Hospital West Campus at 22-33 Carillon Avenue, Camperdown NSW 2050. These works are considered 'development without consent' under Division 10 under Part 3 of the TISEPP. **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 of TISEPP subject to requirements around the scale and nature of the development, to which the proposed activity conforms.

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

Statutory Consultation

Notification of the proposed activity under Sections 2.62 of TISEPP was given to the City of Sydney (Council) and adjoining occupiers of land. Notification letters were sent out to Council on 12 February 2024 and the adjoining occupiers of land on the same day. These notification letters are appended at **Appendix B1** and **B2** respectively.

One response was received from an adjoining resident during the notification period which is detailed in **Section 5** of this REF.

Council notification under Section 2.11 of the TISEPP is not required as the site is not a listed local heritage item and is not located within a heritage conservation area.

Environmental Impacts

Based on the identification of potential issues, and an assessment of the nature and extent of the impact of the proposed development, 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 development activity.

Justification and Conclusion

The REF has examined and fully considered all possible 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 works 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 proposal are not likely to be significant and therefore it is not necessary for an EIS to be prepared.

On this basis, it is recommended that the Health Administration Corporation (HAC) 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 at **Appendix A**.

1. Introduction

Health Infrastructure (HI) propose to reconfigure and expand the existing MGC in the West Campus of RPA Hospital at 22-33 Carillon Avenue, Camperdown (the site) as part of their delivery of infrastructure solutions and services to support the healthcare needs of the NSW communities.

This REF has been prepared by Architectus Australia Pty Ltd on behalf of HI to determine the environmental impacts of the proposed works to the MGC at RPA Hospital. 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 this 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 works and associated environmental impacts have been undertaken in the context of the *Guidelines for Division 5.1 Assessments* (DPE June 2022), the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation), and the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

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

- whether the proposed activity is likely to have a significant impact on the environment and therefore the necessity for an EIS to be prepared and approval to be sought from the Minister for Planning and Public Spaces under Part 5.1 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.

1.1 Proposal Need and Alternatives

Proposed upgrades to the existing medical gas storage area are required as part of the delivery of infrastructure solutions and services to support the growth of RPA Hospital. The proposed activity is required to deliver compliance upgrades to the RPA Hospital Campus. The existing cylinder stores within the LHD service yard are not compliant and require to be reconfigured to comply with the current requirements. Further justification on the need for the proposed activity and alternative options is outlined in the **Executive Summary** and **Section 3.2** of this report.

2. Site Analysis and Description

2.1 The Site and Locality

The subject site is located at 22-33 Carillon Avenue, Camperdown NSW 2050 and is legally known as Lot 4 in DP 880430. The proposed activity will take place on the western side of the RPA Hospital campus within the City of Sydney LGA and is approximately 3 kilometres southwest of the Sydney Central Business District (CBD).

Refer to an aerial view of the site at **Figure 1** and 3D view at **Figure 2** below.

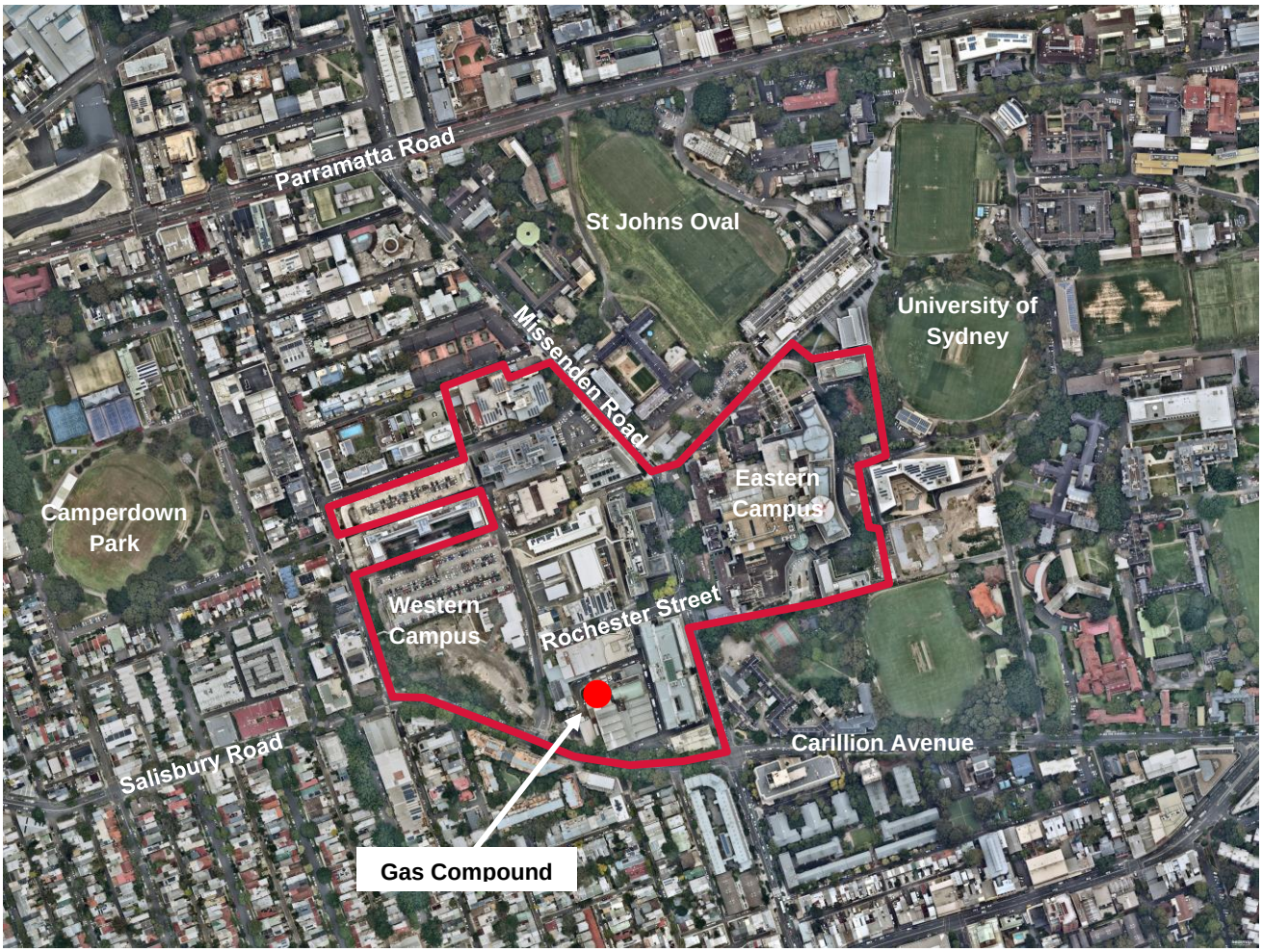


Figure 1 Aerial View of the RPA Hospital

The red dot indicates where the proposed activity will be taking place.
The red outline identifies the boundaries of RPA hospital.

Figure 2 3D View showing the site of proposed works from the south west of the campus

The location of the proposed activity is indicated by the red frame.

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 (SLHD).

The subject site is under the ownership of the HAC. **Figure 3** illustrates the spatial extent of the subject site.

Figure 3 Legal Description of Affected Lot

The red dot indicates where the proposed activity will be taking place
The red outline identifies the subject land parcel (Lot 4 DP 880430)

2.1.1 Existing Development

2.1.1.1 RPA Hospital Campus

RPA Hospital is the largest of five hospitals within the SLHD. 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.

A campus map is provided at **Figure 4** below.

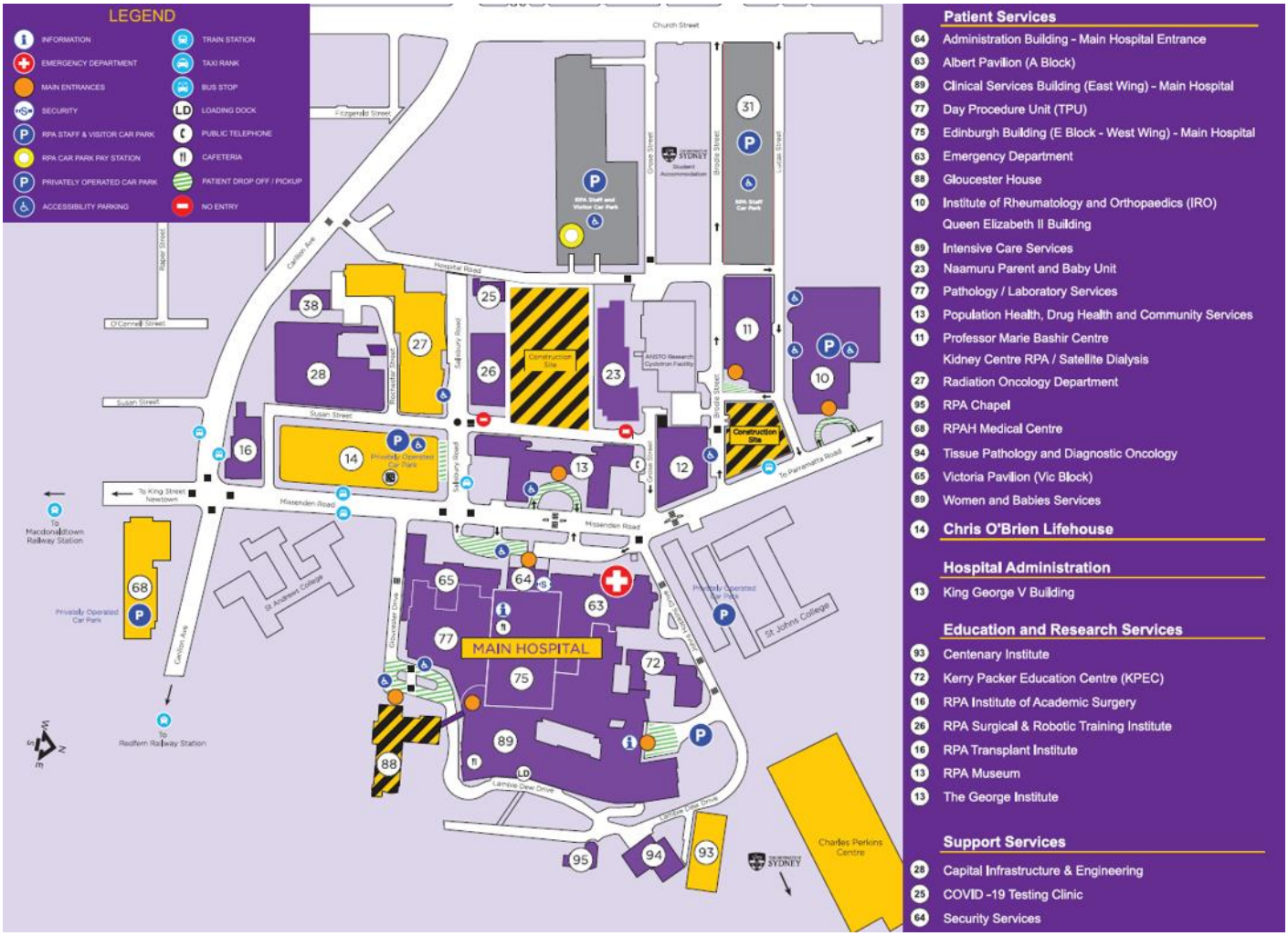


Figure 4 RPA Hospital Campus Map

The CI & E Building is noted as item "28" on the figure and notated as "SLHD Engineering Services".

2.1.1.2 Building 28

Building 28 (B28), known as the CI & E building, is located between Susan Street, Brown Street and Rochester Street on the west campus. The building does not form part of the local or state statutory heritage listings for RPA Hospital, however it is listed under the s.170 Health Register under 'Boiler House'.

The proposed activity under this REF will reconfigure the existing MGC located at the rear of B28 facing Rochester Street, to increase capacity for medical gas storage at RPA Hospital.

B28 is used for SLHD capital infrastructure and engineering purposes as well as for maintenance. The building includes offices, workshops, space for incoming deliveries and storage.

Refer to **Figure 5** and **Figure 6** for site images of from Susan and Rochester Streets.

Figure 5 External view to Building 28 from Susan Street

Figure 6 External view to the rear of Building 28 from Rochester Street

Medical Gas Compound (West Campus)

The existing MGC consists of a 30kL primary and secondary tank and a service yard incorporating several medical gas cylinder storage bays or stores. The existing cylinder stores within the LHD service yard are not compliant and require to be reconfigured to comply with the current requirements. The cylinder stores are currently open to the air and are naturally ventilated.

2.1.2 Other Site Elements

2.1.2.1 Heritage

There are several local and State heritage items as well as a heritage conservation area affecting the RPA Hospital campus. The nearest heritage item to the area affected by the proposed activity, is the local heritage item, "*Royal Prince Alfred Hospital group including buildings and their interiors, trees and grounds"* (Item ID: I68 in SLEP 2012), which includes the main hospital building (on the east campus) as well as the King George V (KGV) building located south of B12, across Grose Street. The area of the proposed works does not contain any heritage items nor is it within a heritage conservation area.

The heritage items within and surrounding the site are summarised in **Table 1** below.

Table 1 Heritage Items on or near the RPA Hospital site under SLEP 2012

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 7** *below) and includes the KGV Memorial Hospital and the RPA main hospital building.*	I68	Missenden Road	Local
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
Royal Prince Alfred Hospital – Victoria and Albert Pavilions	00829	Metropolitan	State Heritage Inventory
Royal Prince Alfred Hospital – Admission Block	00830	Metropolitan	State Heritage Inventory
University of Sydney Conservation Area	C5	Camperdown	Local
Bligh and Camperdown Terrace	C38	Newtown	Local
O'Connell Town Estate	C43	Newtown	Local

The site's surrounding heritage items under SLEP 2012 are illustrated in **Figure 7** below.

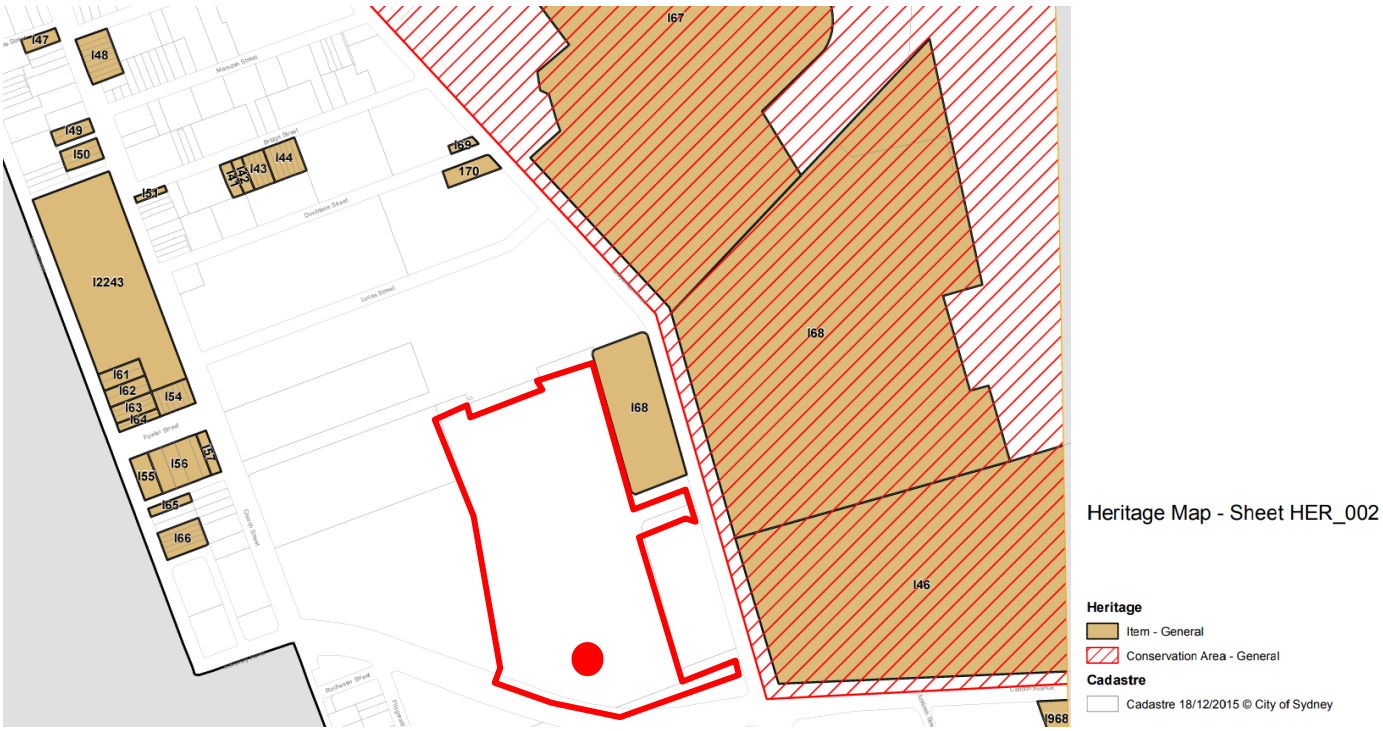


Figure 7 Extract of SLEP 2012 Heritage Map

The red dot indicates where the proposed activity will be taking place.
The red outline indicates the subject land parcel (Lot 4 DP 880430).
*Brown indicates local and State heritage listings (see **Table 1**).*
The red hatched area indicates the University of Sydney Heritage Conservation Area.

A Heritage Impact Assessment Letter has been prepared for the proposed activity by Heritage 21 (provided at **Appendix I**). This provides Building 28, the CI & E building, is listed under the s.170 Health Register under 'Boiler House'.

The following Statement of Significance has been extracted from the Conservation Management Plan 1997 for the subject site, under Building 28:

The Boiler House is of moderate significance for the following values:

- *It is one of the last "old type" hospital boiler houses left intact in the Sydney Metropolitan area.*
- *It incorporates large scale steam technology, i.e. coal-fired boilers and associated equipment and steam-operated machinery.*
- *The Boiler House is an exceptional representative example of boilers houses and equipment that served the hospital system of NSW.*
- *The steam system is intact and capable of demonstrating the operation of coal fired steam generation.*
- *The Boiler House was and continues to be an integral part of the hospitals development and operation indicating the on site provision of essential services.*
- *With the modern boilers, it demonstrates the development of steam technology.*
- *The building is an example, and one of the first, "Modern" style buildings by Stephenson, Meldrum and Turner on the site.*

The rear of the building, being the loading dock where the MGC is located, does not form part of the physical description or statement of significance under the listing.

2.1.2.2 Transport and Access

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.

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).

Salisbury Road and Susan Street

Salisbury Road connects Missenden Road to Susan Street, a key service lane providing the only vehicle access to the KGV loading docks, the Chris O'Brien Lifehouse carpark and loading docks, engineering services, and the main MGC amongst other hospital facilities. A roundabout at the intersection Salisbury Road and Susan Street allows patients and visitors to turn back to Missenden Road without using Susan Street, which is mostly one way.

Rochester Street

Rochester Street is a no through road located between Engineering Services and Radiation Oncology. It is a private roadway and forms the access and site frontage for the Western Medical Gas Compound loading area. Rochester Street is a service lane which also provides access to the Joinery Shop (Building 38), the MGC, and an informal drop off/collection area and parking for fleet and contractor vehicles. This is also an access point for the tunnels connecting to Lifehouse, KGV and the main clinical services building. Given these "back of house" support functions, vehicle access to this location is important for hospital operations, and the street is often occupied by parked vehicles throughout the day.

In addition to the main servicing roads, there are various public and active transport options to the subject site also, including:

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.

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.

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.

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.

Car Parking

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

2.1.2.3 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.**

2.1.2.4 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.

An Arboricultural Impact Assessment Report has been prepared for the proposed activity by Martin Peacock Tree Care which confirms the location of existing trees on site (provided at **Appendix N**).

There are two (2) stands of trees adjoining the proposed development works. Trees 1-7 to the west and Trees 8-9 within the MGC compound. Refer to **Figure 8** below.

Trees T1-T9 are small specimens with low arboricultural and landscape value. All of the trees have been allocated a Retention Category of Consider for Removal.

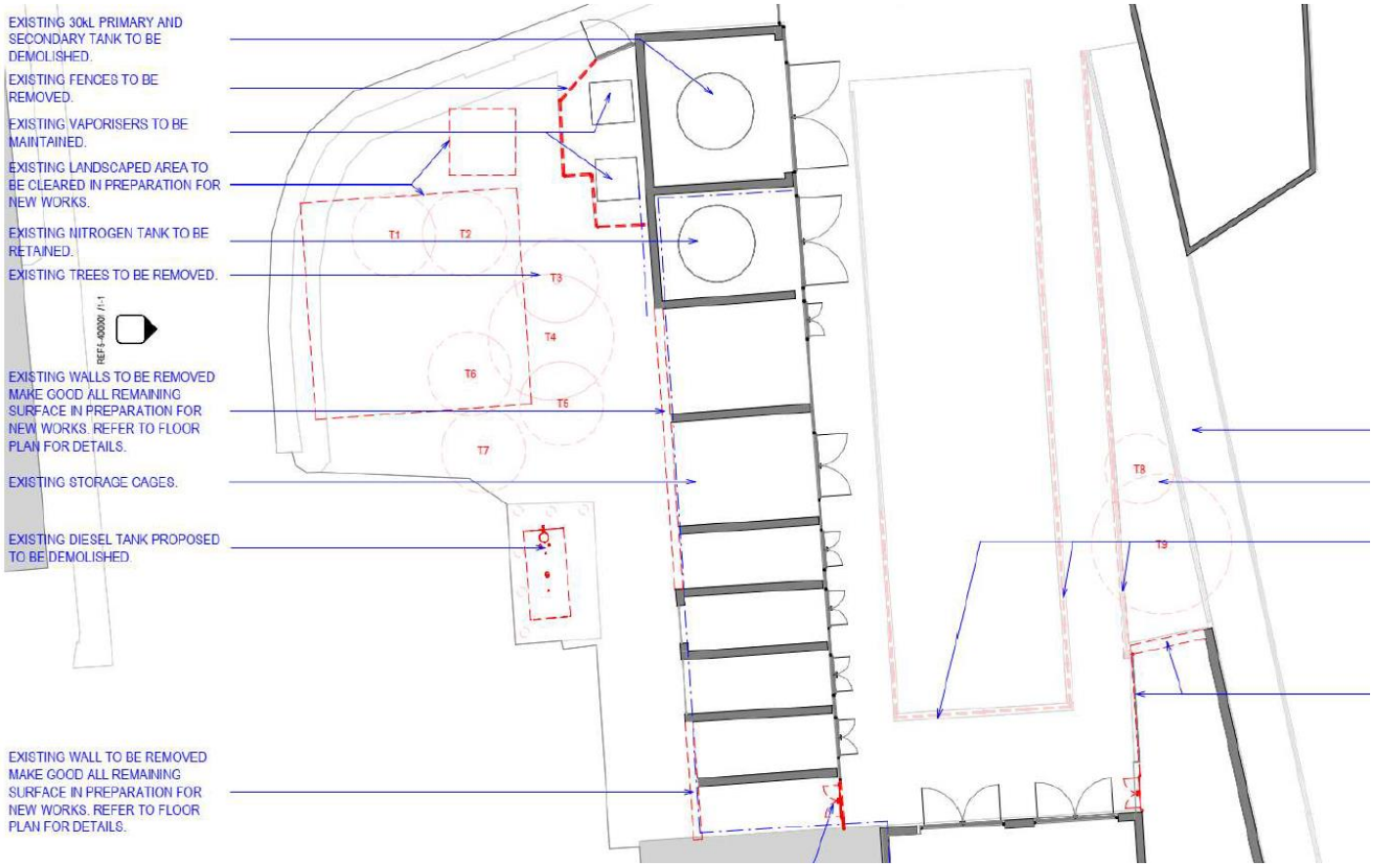


Figure 8 Tree Location Plan

Source: Arboricultural Impact Assessment Report (Martin Peacock Tree Care)

2.1.2.5 Acid Sulphate Soils

The site is in a Class 5 Acid Sulphate Soils (ASS) area as identified in SLEP 2012. Areas classified as Class 5 denotes land within 500 metres of Class 1, 2, 3 or 4 areas – where the presence of ASS is considered to occur. However, Geotechnical investigations undertaken by Cardno have found no presence of acid sulfate soils or salinity on site. Refer to **Section 6.2.4** of this report.

2.1.3 Site Considerations and Constraints

The Section 10.7(2) and (5) Planning Certificate (Certificate No. 2022305853) dated 10 August 2022 identifies that the site (Lot 4 DP 880430) is located within the SP2 Zone under SLEP 2012, and is provided at **Appendix C**.

Table 2 Section 10.7 (2) & (5) Planning Certificate Considerations

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		✓

Affectation	Yes	No
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 ASS. It is noted that ASS 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 ASS is considered to occur.

Note 2: Refer Section 2.1.3.1 below.

2.1.3.1 Flood Prone Land

As indicated by the Section 10.7 (2) & (5) Planning Certificate for the site (refer to **Appendix C**), the site is identified as flood prone land and is therefore subject to flood related development controls.

A Civil Report was prepared for the proposed works by TTW at **Appendix Q**. The report found that the works fall outside of the flood affected parts of the wider hospital site and will not impact existing flood behaviour. Civil works are minor in nature and will not involve modification to any stormwater layouts.

2.2 Surrounding Development

The MGC located on the west campus of RPA Hospital is surrounded by a variety of land uses, including:

- To the north of the site, Rochester Street and Radiation Oncology (Building 27), Building 26 and ground level car parking further north. 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 Building 28 (Boiler House), Susan Street and the Chris O'Brien Lifehouse building (Building 14). Beyond this lies Missenden Road, the Eastern Hospital Campus and the University of Sydney campus, including residential colleges, the University Oval and educational facilities. Beyond the University of Sydney, 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 west of the site is the Radiation Oncology Building (Building 27), Hospital Road and a vacant lot undergoing re-development. Further west lies the Queen Mary Building, Camperdown Park, car parking stations and more low to medium density housing, mainly in the form of terraces interspersed with apartment buildings.

2.3 Existing DA Approvals on the Site

The construction of the original building pre-dates the digitation of local DAs, in 2004. Refer to **Table 2** below for existing DA approvals on the site.

Note, development sought through other planning approval pathways, such as REFs, are listed below the following table.

Table 3 Existing DA Approvals on the Site

DA number	Description	Date 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 Pavilion and Additions to the Northeast of the Albert Pavilion 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
SSD-47662959	Redevelopment of the hospital including: a new 15 storey hospital building; 3 storey extension to the east of the existing clinical services building; 2 storey vertical expansion of RPA Building 89; refurbishment works; demolition; temporary helipad.	23/01/23	26/09/23	Approved

Works are separately approved on the site under REF packages. REF works are summarised in **Table 4**. The proposed activity is known as REF #5.

Table 4 Approved works under separate REF packages

REF #	Description of works	Campus	Date Approved	Determined by	Decision
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 • Relocation of an existing roller shutter door on the eastern side of clinical services building to enable improved access control for hearse movement.	East campus	11 May 2022	Health Administration Corporation	Approved
2	• Reconfiguration of Lambie Dew Drive Turning Bay; • Reconfiguration of Gloucester House Bridge and associated roadworks; • Gloucester House Road Hump Adjustment; • Removal of four (4) existing trees; and • Tree pruning of one (1) existing tree on St Andrew's College Site.	East campus	25 July 2022	Health Administration Corporation	Approved
3	• Installation of an external glass lift and lift lobby within a void between Building 63 (B63) and Building 64 (B64) providing lift access within B63; • MI Department: Two-level vertical expansion of Building 89 (B89) attaching to the rear of B63 at L6 and L7; • MI Department: Internal refurbishment / new fit out of existing office space on L6 and L7 of B63; and • Installation of PV Panels on the roof of Building 72 (B72).	East campus	18 November 2022	Health Administration Corporation	Approved
4	• New internal fit out for the relocated Anatomical Pathology department on Level 5 of Building 12; • New external addition to Building 12; • Minor works to the external façade and roof including: new external egress stairs, downpipe, new entry door, new roller door, infill of an existing door and removal of some existing brickwork from to reinstate two windows to previous state (as they are currently blocked in); and • Installation of Photovoltaic (PV) cells on the roof of Building 12.	West campus	8 July 2022	Health Administration Corporation	Approved

3. Proposed Activity

3.1 Proposal Overview

The proposed activity comprises alterations and additions to the CI & E building loading dock located off Rochester Street in the RPA Hospital West Campus.

The proposed activity comprises of two (2) main components, including:

1. Demolish/removal of nine (9) trees, fencing, walls and door, a diesel tank, railings and landscaping and site preparation works; and
2. Construction/installation of a 30kL oxygen tank, vaporisers, new slab, fire rated enclosure, new pedestrian/trolley ramp, security fencing and access gate, new flammable gas cylinder storage bays and planting of nine (9) replacement trees.

Refer to **Figure 9** for the location of the proposed activity. Further information on the proposed activity is in **Section 3.1.2** below and in the accompanying architectural plans (**Appendix F**) and Architectural Statement (**Appendix G**).

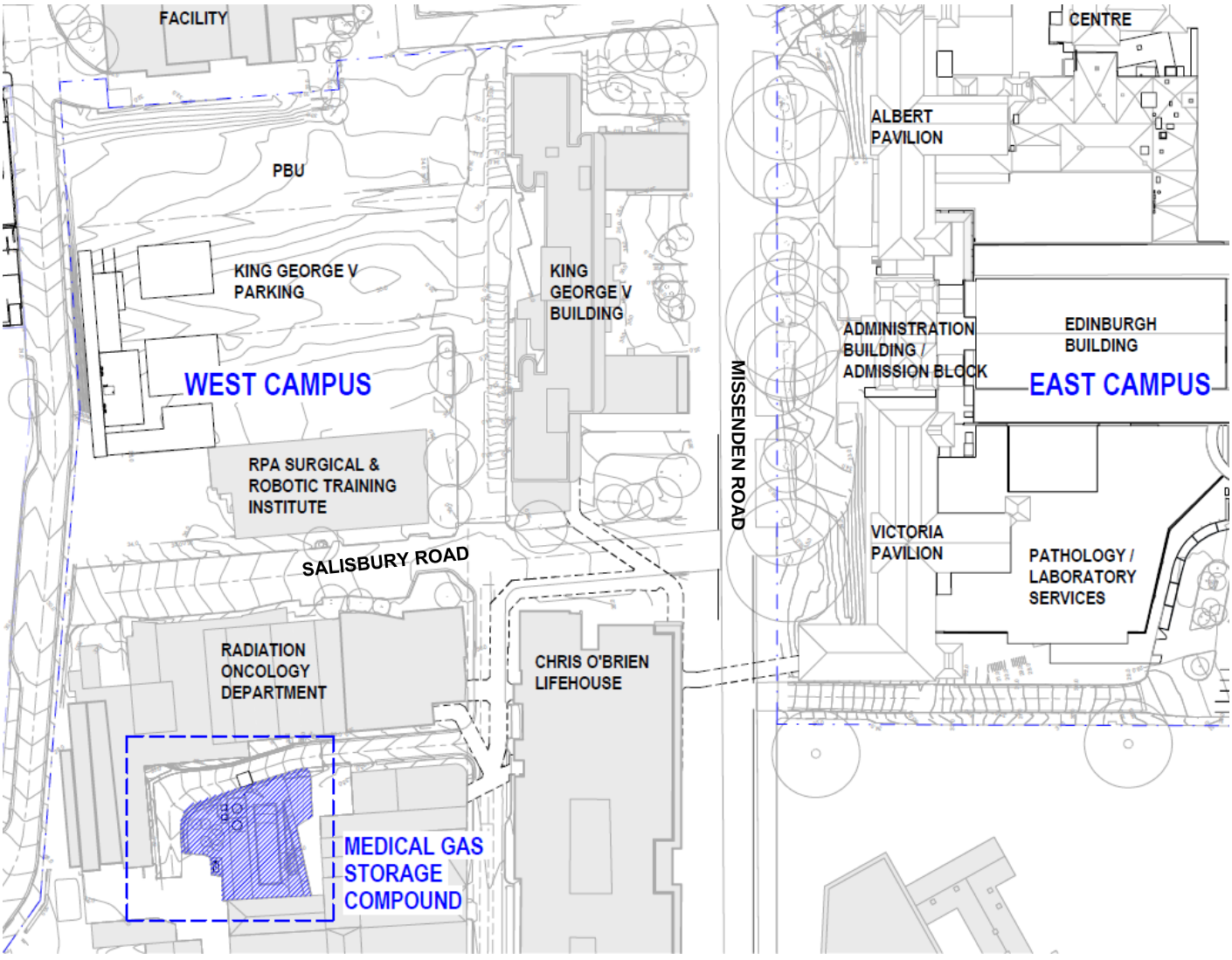


Figure 9 Location of the proposed activity

Area of proposed activity shown within blue hashed boundary

3.1.1 Design Approach

Connecting with Country/ Engagement

The project aligns with the NSW Government Connecting with Country (CWC) Framework and will integrate the design approach to reflect Aboriginal storytelling, histories, and identities in physical and visual forms. The CWC approach to the project is documented in the Architectural Statement provided at **Appendix G**.

A Communications and Engagement Report has been prepared for the proposed works by HI at **Appendix T**. The report notes that a collaborative engagement approach will be undertaken with Aboriginal Groups through authentic, thorough and ongoing consultation.

Sustainability

NSW Health Resource Efficiency Strategy 2016 to 2023 states that NSW Health is the largest general Government energy consumer in NSW. The NSW health system faces many challenges, including those related to the current climate crisis. As demand for health services continues to grow, responding to these challenges will require changes in the way health services are delivered.

An Ecologically Sustainable Development (ESD) assessment has been undertaken by LCI Consultants to consider the proposed works in the context of ESD targets (provided at **Appendix P**). LCI advise that the proposed works, being mainly infrastructure-based and relating to critical medical gas services, would not be relevant to the RPA Hospital Main Works overall design compliance target of minimum 60 points as nominated within the NSW Health Infrastructure Design Guidance Note No. 058 Revision B (ESD Evaluation Tool).

3.1.2 Proposed Activity

The proposed activity comprises of two (2) main components as detailed below.

3.1.2.1 Demolition work

As part of the reconfiguration of the MGC, the following demolition works are proposed:

- Removal of nine (9) existing trees.
- Existing landscape area to be demolished to 300mm below existing ground level in preparation for new works.
- Existing fences and door to be removed.
- Existing diesel tank proposed to be removed.
- Existing railings to be removed to extent required for new works.

Refer to **Figure 10** and **Figure 11** below for demolition plans.

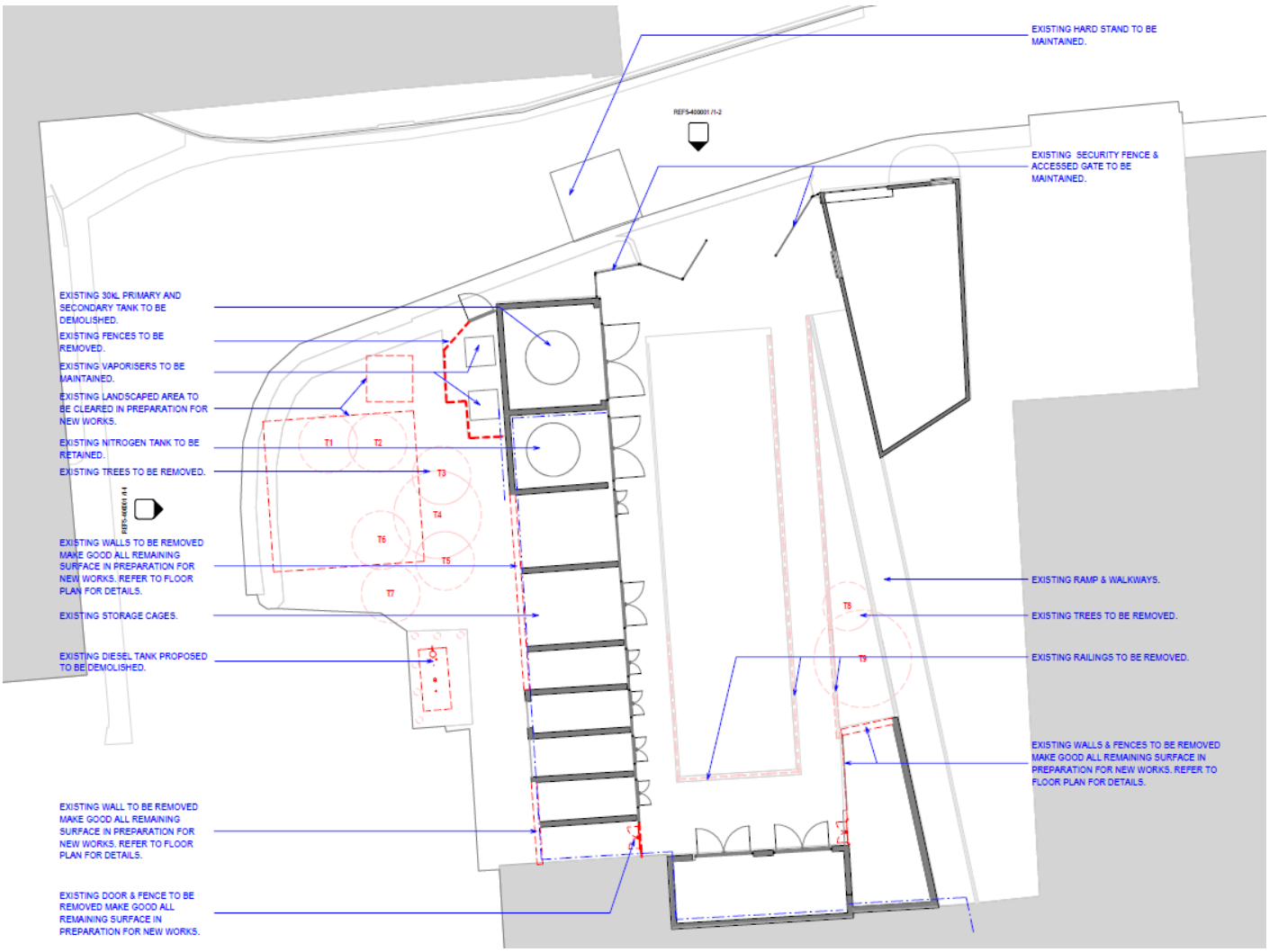


Figure 10 Demolition Plan

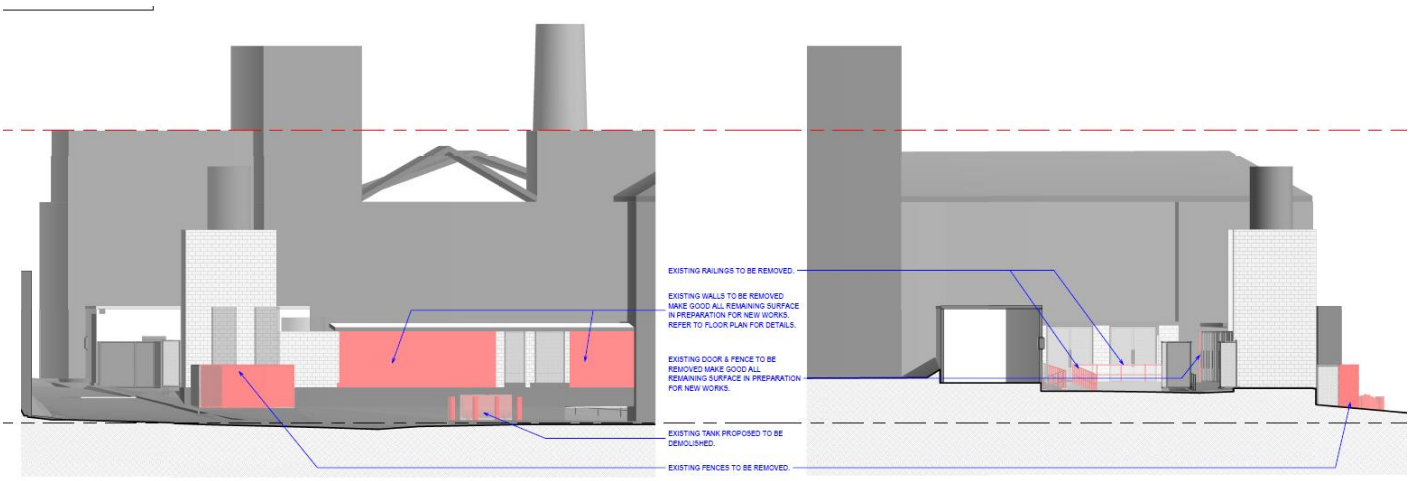


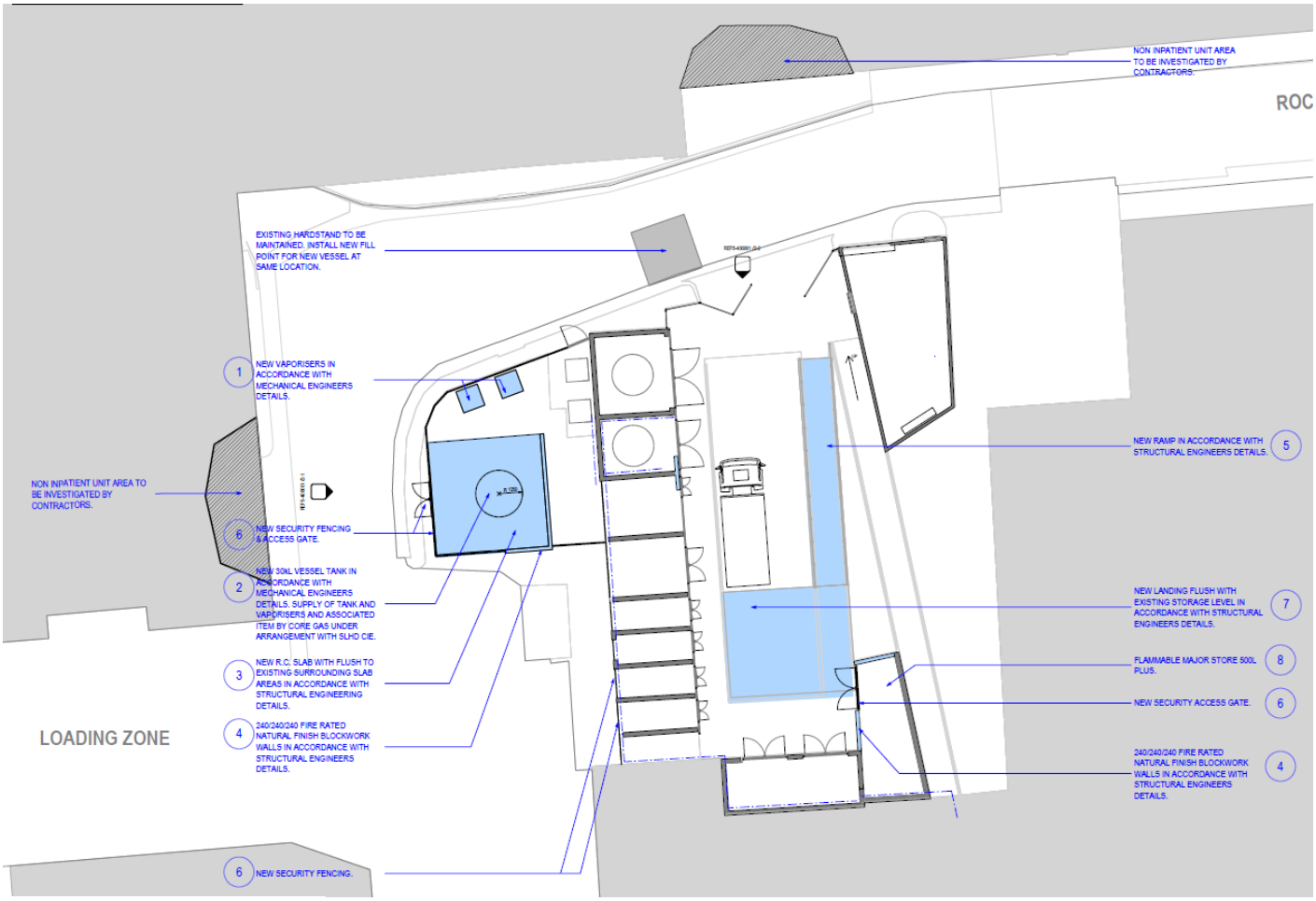
Figure 11 Demolition Elevations

3.1.2.2 Proposed New Works

As part of the reconfiguration of the MGC, the following construction works are proposed:

- Installation of two (2) new vaporisers.
- Installation of new 30kL primary oxygen tank.
- New natural finish reinforced concrete slab.
- Provision of fire rated enclosure to be provided for compliance with fire rating requirements.
- Installation of new pedestrian/trolley ramp.
- Installation of new security fencing and access gate to new store area.
- Installation of new flammable gas cylinder storage bay.
- New landing at top of ramp flush with existing storage level for loading/unloading trucks.
- Planting of nine (9) replacement trees in alternative locations within the Hospital campus.

Refer to **Figure 12** and **Figure 13** below for plans showing the proposed alterations and additions to the subject site.



REF5 - WORKS SUMMARY

1. NEW VAPORISERS.
2. NEW 30kL PRIMARY TANK.
3. NEW NATURAL FINISH RC SLAB.
4. FIRE RATED WALLS TO BE PROVIDED FOR FIRE RATED REQUIREMENT.
5. NEW RAMP.
6. NEW SECURITY FENCING & ACCESS GATE TO NEW STORE AREA.
7. NEW LANDING FLUSH WITH EXISTING STORAGE LEVEL.
8. NEW FLAMMABLE GAS CYLINDER STORAGE BAYS.

Figure 12 Proposed Level 1 Plan

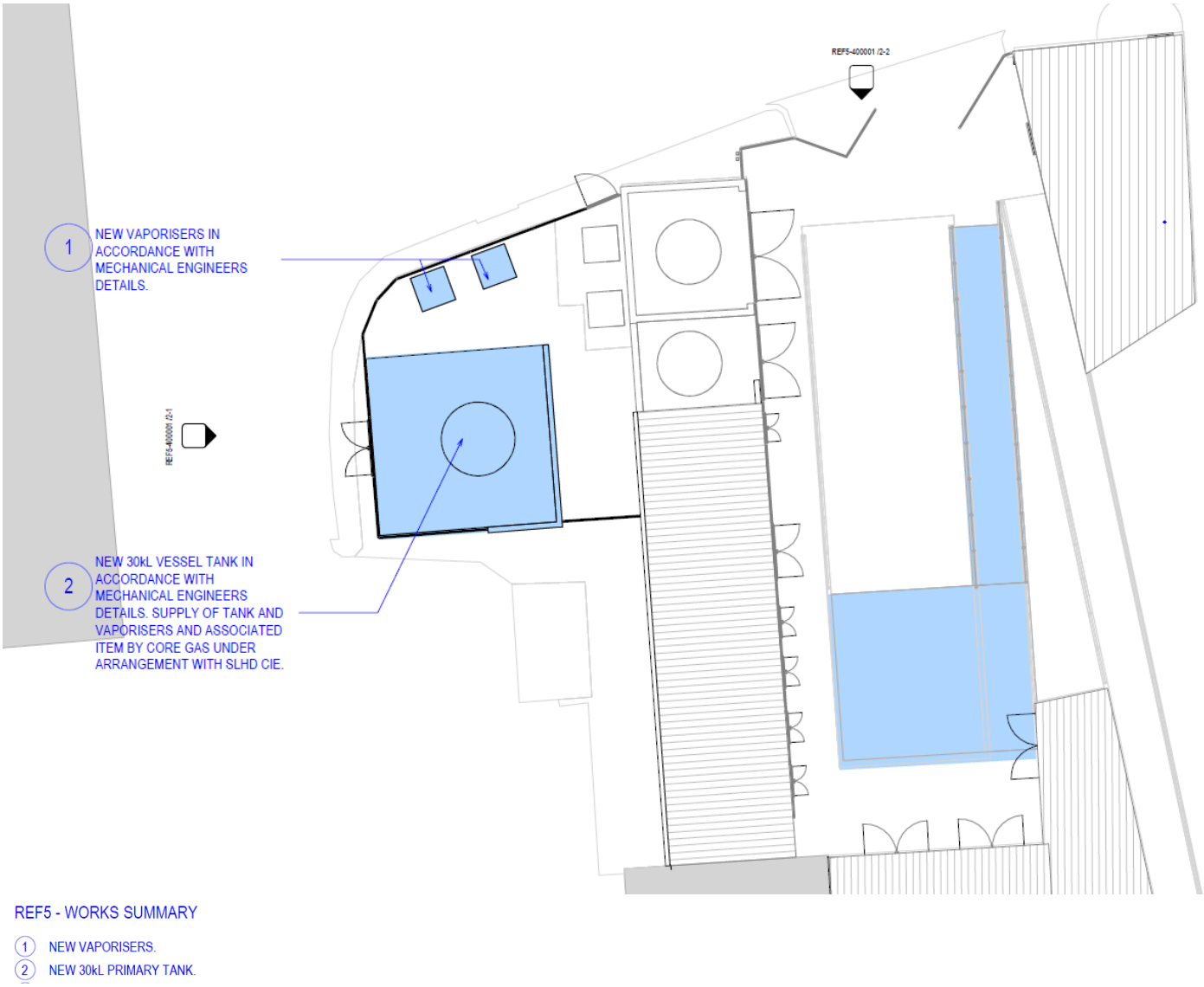


Figure 13 Proposed Roof Plan

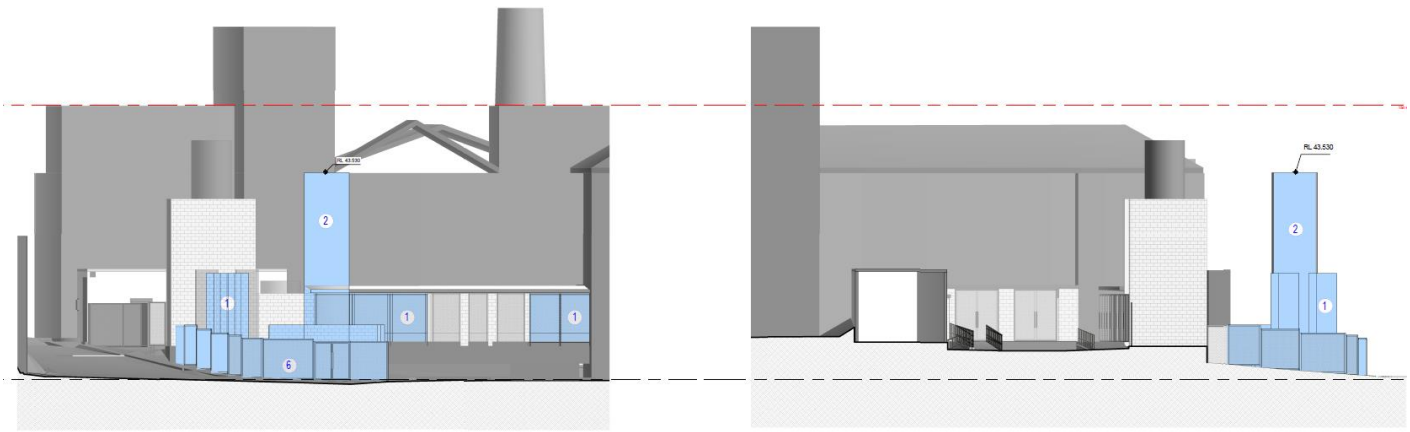


Figure 14 Proposed Elevation Plan

3.1.2.3 Tree Removal

A total of nine (9) trees are required to be removed as a direct consequence of the works, because they fall within the required exclusion zone for the gas storage tanks, for site access requirements, or for soil remediation requirements.

3.1.2.4 Materials and Finishes

The following materials and finishes are proposed as part of the works, including:

- Concrete Slab plinth and hardstand.
- Face blockwork walls (unpainted).
- Steel security palisade fencing and gates with Powdercoat paint finish.

3.1.2.5 Tree Planting

Nine (9) trees are proposed to be planted elsewhere in the RPA Campus as compensatory tree planting.

3.2 Proposal Need, Options and Alternatives

3.2.1 Strategic Justification

The proposed activity aligns with key Local and State planning policies and strategies. Refer to **Table 5** below.

Table 5 Policies and Strategies

Policy/ strategy	Overview	How the proposed activity aligns?
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 activity will support the State's medical needs by improving vital service infrastructure at RPA Hospital.
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 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 proposed activity will provide utility infrastructure to support meeting Sydney's growing health needs. Overall, the project aligns with the Greater Sydney Region Plan as it will support health facilities of the SLHD.
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	The proposed activity aligns with the following planning priorities:

	population growth of 325,000 people. This population increase can only occur with associated infrastructure such as Hospitals.	• 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 will provide utility infrastructure improvements to support health infrastructure for the Eastern City District.
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 proposed activity will provide utility infrastructure improvements to support health infrastructure for the City of Sydney LGA.

3.2.2 Alternatives and Options

An overview of the alternatives, and an identification of the preferred alternative for the proposed activity are provided within **Table 6**.

Table 6 Alternatives considered for the proposal

Alternative description	Preferred Option/ Advantages and disadvantages
Reconfiguration of the existing gas storage compound **Option A:** Reconfigure the existing gas storage compound located in the CI & E building loading dock, demolishing the existing x3 oxygen storage tanks and installing replacement tanks with greater capacity. **Option B:** Do not reconfigure the gas storage compound	**Option A** is the preferred option, which utilises the existing compound infrastructure, delivery protocols and pipework. **Option B** was rejected as increased medical gas storage is required to support hospital growth and demand and achieve compliance with required standards.

3.3 Construction Activities

The works are considered short term. Refer to anticipated timeframes in **Table 7** below. A preliminary construction management plan (CMP) prepared by CPB Contractors is provided at **Appendix J**.

The proposed activity will take place in one (1) distinct zone, being the existing medical gas storage compound located in the CI & E building loading dock located off Rochester Street in the RPA Hospital West Campus.

There will be a coordinated shutdown and changeover to commission the new oxygen cylinder. Any services shutdowns and other works that may have an impact on hospital operations will be coordinated closely with the SLHD through the Disruption Notice process to ensure that the impact on the hospital is minimised.

A construction zone will be established in Rochester Street and the adjacent loading dock driveway. Deliveries will be managed to ensure minimal impact on hospital vehicle and pedestrian traffic. Cranage to the site will operate from this zone.

Table 7 Project Timeframes and Construction Activities

Construction activity	Description
Commencement Date	May 2024
Work Duration/Methodology	20 Weeks (May 2024 – September 2024)
• Work Hours and Duration/Construction* **(Some works such as connecting and disconnecting services and works that are considered disruptive to hospital operations may need to be completed during certain hours, beyond those detailed in this table. These works are to be planned in consultation with stakeholders and subject to Disruption Notice applications to ensure all aspects of the works are clearly understood by all parties to minimise disruption)*	Due to the nature of the scope, the work is proposed to be completed with extended working hours as below: • Monday to Friday – 7am to 6pm; • Saturday – 7am to 1pm; and • Sunday and Public Holliday – No work.
Workforce/Employment	It is anticipated that the proposed activity will generate jobs for up to 15 construction workers during its peak construction period.
Ancillary Facilities	Not applicable. The proposed activity does not involve the construction of any ancillary facilities.
Plant Equipment	Details of plant equipment will be further detailed at the time of contract award for the works to ensure alignment with the proposed methodologies and construction staging of the contractor.
Earthworks	30m^3 of earthworks are proposed. Earthworks will be conducted to removal of slab to 300mm below existing ground level in preparation for the new works.
Construction Waste	• Hard material – 1.8 cubic metres (2.2 tonnes). • Timber – 1.2 cubic metres (0.4 tonnes). • Plastics – 0.8 cubic metres (0.1 tonnes). • Cement sheet – 0.5 cubic metres (0.3 tonnes). • Gypsum material – 0.3 cubic metres (0.1 tonnes). • Metals – 0.3 cubic metres (0.3 tonnes). • Paper/card – 0.2 cubic metres (0.02 tonnes). • Soil – 0.05 cubic metres (0.1 tonnes). • Other – 0.05 cubic metres (0.1 tonnes).
Traffic Management and Access	Access for construction vehicles will be via Susan Street. All vehicles accessing the work site shall be limited to a suitable size for the road geometry. Given the constrained road conditions and pedestrian activity in the area, Traffic Control personnel shall be in place to assist construction vehicle access and egress, and manage any potential conflicts that may arise. Existing pedestrian movements and access shall be retained throughout the hospital site. Construction vehicle activity shall be monitored by the principal contractor to ensure no interruptions to the ongoing operation of surrounding roads. It is expected that construction vehicles shall typically travel to and from the work site outside of the peak morning and afternoon commuter hours to reduce impact and minimise risk to pedestrians and vehicles.

3.4 Operational Activities

Use

The proposed activity does not aim to alter or change the land use. The proposed activity is all health/ hospital related.

Operation Hours

No changes to the existing operational hours are proposed.

Staff / Patients

There will be no impact to hospital staff or patients as a result of the works.

Traffic and Parking

The expected impact of the proposed work is an increase in the frequency of refills at the MGC, from a few times per month to one-two times per week. This however will have a negligible impact on overall traffic volumes within the hospital. There is no impact on parking or active transport as a result of the proposed works.

Refer to **Section 6.2.1** of this report for more detail on Traffic, Access and Parking. In addition, refer to the Traffic Impact Statement (TIS) at **Appendix K**.

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 EP&A Act.

4.2 Environmental Planning and Assessment Act 1979

Duty to Consider Environmental Impact

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

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

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

Table 8 below demonstrates the effect of the proposed development activity on the matters listed for consideration in Subsection 3 of Section 5.5 of the EP&A Act.

Table 8 Matters for consideration under Subsection 3, Section 5.5 of the EP&A Act

Matter for Consideration	Impacts of Activity
Subsection 3: Without limiting subsection 1, a determining authority shall consider the effect of any activity on any wilderness area (within the meaning of the *Wilderness Act 1987*) in the locality in which the activity is intended to be carried on.	Not applicable as the site is not located within nor is it in proximity to any wilderness area.
Note: If a biobanking statement has been issued in respect of a development under Part 7A of the *Threatened Species Conservation Act 1995*, the determining authority is not required to consider the impact of the activity on biodiversity values.	

4.3 Environmental Planning and Assessment Regulation 2021

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

The *Guidelines for Division 5.1 Assessments* (DPE June 2022) provides a list of environmental factors that must be taken into account for an environmental assessment of the activity under Part 5 of the EP&A Act. These factors are considered at **Section 6** of this REF.

In addition, Section 171A of the EP&A Regulation requires the consideration of the impact an activity in a defined catchment. This is considered further below under **Table 11** of this REF.

4.4 Environment Protection and Biodiversity Conservation Act 1999

The provisions of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) do not affect the proposal as it is not development that takes place on or affects Commonwealth land or waters. Further, it is not development carried out by a Commonwealth agency, nor does the proposed activity affect any matters of national significance. An assessment against the EPBC Act checklist is provided at Table 9 below.

Table 9 EPBC Act Checklist

Consideration	Yes	No
The activity will not have any significant impact on a declared World Heritage Property?		✓
The activity will not have any significant impact on a National Heritage place?		✓
The activity will not have any significant impact on a declared Ramsar wetland?		✓
The activity will not have any significant impact on Commonwealth listed threatened species or endangered community?		✓
The activity will not have any significant impact on listed migratory species?		✓
The activity does not involve nuclear actions?		✓
The activity will not have any significant impact on Commonwealth marine areas?		✓
The activity will not have any significant impact on Commonwealth land?		✓
The activity does not relate to a water resource, a coal seam gas development or large coal mining development?		✓

4.5 State Environmental Planning Policies

4.5.1 State Environmental Planning Policy (Transport and Infrastructure) 2021

The TISEPP 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 TISEPP and therefore it is a matter for consideration in preparing this REF. Refer to an overview of the proposed activity against the relevant provisions of the TISEPP in Table 10 below.

Table 10 Response to relevant provisions of the TISEPP

Relevant TISEPP Sections	Compliance	Comment
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; (c) demolition of buildings carried out for the purposes of a health services 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 utility infrastructure works are for the purpose of supporting health infrastructure, specifically to provide the oxygen infrastructure needs of hospital operation. The proposed activity (comprising demolition and new build) will be carried out by or on behalf of a public authority (Heath Infrastructure) within the boundaries of an existing health services facility: The land on which the proposed activity is being carried out: – Is located in the west campus of RPA Hospital: – Is owned by HAC; – Is zoned SP2 Infrastructure for the purpose of Health Services Facility; – Is associated with a building (the CI & E Building) that is used by the SLHD; and – The MGC directly provides utility infrastructure to support the hospital.

The proposed tallest building components, comprising new oxygen tanks, are less than 15m in height (14.78m) above existing ground level. The proposed activity is also more than 5m to the nearest property boundary.

The proposed tree removal is a direct consequence of the proposed building works and as such, can be facilitated under Section 2.61 of the TISEPP. AS 1894 specifies the minimum separation distances for liquid oxygen from protected places and sensitive receptors, including removal of combustible materials within the separation distance such as trees. As such, the adjoining nine (9) in the vicinity of the proposed tanks are required to be removed.

4.5.2 State Environmental Planning Policy (Resilience and Hazards) 2021

4.5.2.1 Hazards

State Environmental Planning Policy (Resilience and Hazards) 2021 (Resilience & Hazards 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.

Part 3 of Chapter 3 of the Resilience & Hazards SEPP applies to development that is for the purposes of a potentially hazardous industry. Section 3.11 of the SEPP requires that, "*A person who proposes to make a development application to carry out development for the purposes of a potentially hazardous industry must prepare (or cause to be prepared) a preliminary hazard analysis in accordance with the current circulars or guidelines published by the Department of Planning and submit the analysis with the development application.*"

Given the proposed activity includes the storage of bulk oxygen, a Dangerous Goods Design Report (refer **Appendix U**) has been prepared. This is notwithstanding the provision of the SEPP strictly does not apply to REFs as it refers it applies to a development application. However, it represents best practice approach for the State and therefore its requirements and associated Guidelines have been considered in this REF.

The Dangerous Goods Design Report has assessed the risks associated with the additional 30,000 litres of liquid oxygen proposed on site in addition to undertaking a review of the existing storage arrangements of dangerous good in the gas compound. The report outlines design requirements and recommendation to comply with AS 1894-1997 and compliance with the Work Health and Safety Regulation 2017 including foundations, vehicle impact barriers, separation distance requirements, ventilation and fire protection details. These requirements are included in the Draft Mitigation Measures provided at **Appendix A**.

Strictly speaking, an assessment of whether the proposed activity exceeds established thresholds for dangerous chemicals/goods has not been undertaken as required under the SEPP, which would trigger preparation of a Preliminary Hazard Analysis (PHA). Rather, the design has been made to comply from the outset with AS 1894-1997 and the Work Health and Safety Regulation 2017, as set out in the Dangerous Goods Design Report. As Section 3.11 of the SEPP does not strictly apply to REFs, and the proposed activity has otherwise been designed to meet relevant standards and legislative requirements, this is considered sufficient.

Given demolition works are proposed, a Hazardous Materials Survey has also been prepared for the proposed activity (refer to **Appendix W**). The Survey investigates the presence of hazardous building materials within accessible areas of the gas compound, undertakes a qualitative risk assessment of any found materials, provides recommendations to control and/or remove these materials, and prepares a Hazardous Materials Register for the site in accordance with legislative requirements.

The Hazardous Materials Survey concludes that no asbestos containing materials, or lead containing paint or dust is present on site. It is presumed that fluorescent light fittings contain Polychlorinated Biphenyls which will be removed by appropriate contractors to a licenced handling facility. The findings of the Hazardous Materials Survey are further detailed in **Section 6.2.13** of this REF.

4.5.2.2 Contaminated Lands

Section 4.6 of Chapter 4 of the Resilience & Hazards SEPP 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 & Hazards SEPP does not strictly apply to "development without consent" (Part 5) pathways, it is a matter for consideration in REFs.

A Detailed Site Investigation (DSI) which covers the site was undertaken by Cardno in 2023. The proposed activity includes the demolition of an existing concrete slab to 300mm below ground level. The area of investigation covered the entire Medical Gas Loading Bay Area (MGLBA) footprint, although the proposed development will only be completed within a small portion of the north east corner of the site. Ground conditions were assessed in areas within the MGLBA where construction activities are proposed. A Detailed Site Investigation and Remediation Action Plan Statement (refer **Appendix S2** and **S3**) have been prepared owing to groundworks to confirm the 2023 documentation is applicable to the subject works.

Soil

Detailed Site Investigations determined that overall, widespread soil contamination was not found within or in the direct vicinity of the MGLBA, however, the asbestos detected within the landscape area (HA510, HA518 and HA521) requires remediation to reduce the risk exposure. Asbestos in the form of bonded Asbestos Containing Material (ACM) and/or Friable Asbestos (AF/FA) was detected at sample locations HA506, HA508 and HA510 at concentrations exceeding the human health criteria.

The locations of asbestos impacted samples from HA506 and HA508 are within a hardstand area (concrete slab (approximately 0.25m thick), where no demolition or excavation works are proposed (Ref. Section 1.2 of DSI). As such, it is considered that the current risk of exposure is low and remediation at these locations is not warranted. However, an Asbestos Management Plan is recommended to be implemented for this area to mitigate the risk for any future development that may require excavation or disturbance within the hardstand area.

The preliminary waste classification of in-situ soils indicated that the majority of the material across the investigation area is preliminarily classified as General Solid Waste (non-putrescible) and Special Waste (Asbestos) ‑ General Solid Waste. Multiple exceedances of the CT1 guideline values were reported, however, leachability testing indicated leachability of the samples were below leachability criteria.

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).

Groundwater

Exceedances for dissolved copper and zinc were reported but are considered that the results are representative of background groundwater concentration.

Overall, based on the absence of significant ecological receptors on site, the location of the site and its distance to the inferred receiving surface water body (Johnstons Creek, 900m west), it is considered that groundwater underlying the site is not directly connected with the aquatic environment of Johnstons Creek or adversely impacting environmental receptors situated within the site.

Soil Vapour

Overall, Benzene, Toluene, Ethylbenzene and Xylene (BTEX) were variously detected at concentrations above the laboratory reporting limits but well below the HSL B and HSL C assessment criteria in the soil vapour samples analysed.

The soil vapour and groundwater results were used to complete a preliminary risk assessment for a scenario where workers are in an open pit for an assumed period of time. The assessment indicated the risk to intrusive maintenance workers on the site from the identified analytes at the measured concentrations in groundwater is low and acceptable.

Conceptual Site Model

Cardno find in the DSI that pending implementation of the recommendations under Section 12 of their report (and extracted below) are completed, the proposed development footprint can likely be made suitable for the proposed redevelopment. The pending works relating to the development footprint, specifically an assessment of soils sub-slab, are required to be completed post demolition of the shed and removal of existing hardstand.

Recommendations

JBS&G Australia prepared a Detailed Site Investigation and Remediation Action Plan Statement for this proposal (refer **Appendix S1**). JBS&G reviewed the DSI and associated Remediation Action Plan (RAP) prepared by Cardno in 2023 to confirm currency and adequacy of the proposal. JBS&G concluded that the DSI and RAP are still applicable to the current proposal.

The recommendations of Cardno as contained in the DSI (refer **Appendix S2**) and RAP (refer **Appendix S3**) are listed below:

- Given that asbestos (bonded and friable) was identified at five locations across the MGLBA, further soil sampling for asbestos is to be completed within the proposed development footprint. At the time of reporting this area was not accessible for testing; and as such the additional testing is to be completed once demolition of the existing building and concrete slab is finalised. Upon completion of the supplementary investigation, the suitability of the material is to be re-considered and appropriate actions taken, as necessary, to render the site suitable.
- Areas identified as containing asbestos must be made-safe by a suitably qualified expert by implementation of management measures consistent with the SafeWork NSW Asbestos Code of Practice; and
- A Remediation Action Plan (RAP) is to be prepared for the landscaped area where there is tree removal proposed, which will:
  - Outline the requirements for management of human health exceedance of asbestos contamination fill within the landscaped area;
  - Include an Unexpected Finds Protocol to manage any risks of unidentified or undocumented contaminated materials such as hazardous materials or waste in fill material; and
  - Include a Construction and Environmental Management Plan (CEMP) to minimise potential risks to human health and the environment during implementation of the RAP.
- Construction activities associated with the development footprint must not interact with areas identified as containing asbestos. This includes establishment of laydown areas, storage of materials or vehicle / worker access.
- Due to detections of asbestos in soil beneath paved areas (not proposed for disturbance under current design), an Asbestos Register and Asbestos Management Plan are required to manage health risks in the event of future disturbance. The Asbestos Register and Asbestos Management Plan should apply to the MGBLA. Any material being removed from site (including virgin excavated natural materials or virgin excavated natural materials (VENM)) will be classified for off-site disposal in accordance the EPA (2014) Waste Classification Guidelines.

Remediation Action Plan (RAP)

A RAP has been prepared for the landscaped area, where tree removal is proposed, at **Appendix S3**.

The current land use for the overall MGLBA comprises of landscaping, access roadways, a loading bay and medical gas storage area.

The purpose of the proposed remedial works is to mitigate the human health risk presented by the bonded and friable asbestos contaminated soils that currently exist within the landscaped area.

The remedial options that are considered to be suitable for the proposed ongoing land use as a landscaped area are Option 7 (excavation and offsite disposal) and Option 9 (In-situ encapsulation).

JBS&G will undertake validation in accordance with the requirements of the RAP and consideration to the DSI findings. This will include undertaking Data Gap investigations outlined in the RAP including building footprint sampling, validation of the remediation works, and development of a Long-Term Environmental Management Plan.

Once all remediation works have been undertaken and the validation works have been completed successfully in accordance with this RAP, the site would be considered suitable for the ongoing land use.

4.5.3 State Environmental Planning Policy (Biodiversity and Conservation) 2021

Chapter 2 'Vegetation in non-rural areas' of SEPP Biodiversity and Conservation applies to the City of Sydney and land zoned Zone SP2 Infrastructure, and therefore applies to the site.

SEPP Biodiversity and Conservation requires that a permit from Council is required for the removal of certain trees.

While trees are proposed to be removed as part of the proposed activity, a separate tree permit or development consent is not required for their removal as the definition of "consent" under Section 2.3(2) of the TISEPP is taken to include "development without consent" works, and encompass all other approvals under an EPI, and therefore a tree permit is not required:

> *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.*
>
> *Note—*
>
> *As a result of paragraph (a) of the definition of consent, development that this Chapter provides may be carried out without development consent may also be carried out without any other consent, licence, permission, approval or authorisation that would otherwise be required by another environmental planning instrument (such as an approval to remove a tree that is subject to a tree preservation order).*
>
> *Development that does not require consent under Part 4 of the Act and is not a project to which Part 3A of the Act applies or exempt development will be subject to the environmental assessment and approval requirements of Part 5 of the Act.*

A Council permit is therefore not required for the removal of trees as proposed in this instance.

4.6 Other NSW Legislation

Table 11 lists any additional legislation that is required to be considered if it is applicable to the proposed activity.

Table 11 Other Possible Legislative Requirements

Legislation	Comment	Relevant? Yes/No
Commonwealth Legislation		
Environmental Protection and Biodiversity Conservation Act 1999	Due to the minor area of impact and low value of the vegetation to native biodiversity, the proposed activity is not expected to impact on any EPBC Act listed species.	×
State Legislation		
Rural Fires Act 1997	The site is not identified on the Bushfire Land Map.	×

Legislation	Comment	Relevant? Yes/No
Biodiversity Conservation Act 2016	BC Act listed threatened species have the potential to occur within the Subject Site. No BC Act listed threatened species or communities were observed with the Subject Site during the site assessment under the Flora and Fauna Report. Refer to **Appendix O**. Due to the minor area of impact and low value of the vegetation to native biodiversity, the proposed activity is not expected to impact on any BC Act or EPBC Act listed species.	×
Water Management Act 2000	The site is not within 40 metres of a watercourse.	×
Contaminated Land Management Act 1997	The site is not listed on the register of contaminated sites.	×
Heritage Act 1977	The Boiler House is subject to a s170 listing. Refer to **Sections 2.1.2.1** and **6.2.8**.	✓
Roads Act 1993	The proposed activity will not negatively affect a public road or involve the connection of a road to a classified road.	×
Local Government Act 1993	There are no water or sewer supply head works that require contribution payment, per Section 64 of the Act.	×
Other acts as required	-	×
Section 171A of the Environmental Planning and Assessment Regulation 2021	There are no impacts to catchments, as defined for consideration under Section 171A of the EP&A Regulation.	×
State Planning Policies		
State Environmental Planning Policy (Transport and Infrastructure) 2021	Refer to **Section 4.5.1** of this report for assessment.	✓
State Environmental Planning Policy (Resilience and Hazards) 2021	Refer to **Section 4.5.2** of this report for assessment.	✓
State Environmental Planning Policy (Biodiversity and Conservation) 2021	Refer to **Section 4.5.3** of this report for assessment.	✓
Sydney Local Environmental Plan 2012		
Clause 2.2 – Zoning of land to which Plan applies – SP2 Infrastructure	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	The site is not subject to a maximum building height standard.	N/A
Clause 4.4 – Floor Space Ratio	The site is not subject to a maximum floor space ratio standard.	N/A
Clause 5.10 – Heritage Conservation	The site of the proposed activity is not identified as a heritage item and is not within a heritage conservation area, however the subject building is listed under the s.170 Health Register under 'Boiler House' and is considered to be of moderate significance within the greater context of the RPA Hospital Precinct. Refer to the Heritage Impact Assessment Letter, appended at **Appendix I**. The letter concludes that, "the works would not engender a negative impact upon the Boiler House structure or its heritage significance in the context of the RPA Hospital Precinct".	×
Clause 5.12 – Infrastructure development and use of existing buildings of the Crown	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 TISEPP. As at Section 5.12 (1), the SLEP 2012 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 TISEPP.	N/A

Legislation	Comment	Relevant? Yes/No
Clause 5.21 Flood Planning	A Civil Report was prepared for the proposed works by TTW at **Appendix Q.** The report found that the works fall outside of the flood affected parts of the wider hospital site and will not impact existing flood behaviour.	×
Clause 7.14 Acid Sulfate Soils	The site is in a Class 5 Acid Sulphate Soils (ASS) area as identified in SLEP 2012. Areas classified as Class 5 denotes land within 500 metres of Class 1, 2, 3 or 4 areas – where the presence of ASS is considered to occur. A DSI was prepared for the site and is found to adequately cover the proposed works (see **Appendix S2**). The DSI found indicators of ASS were not observed within excavated soils.	×
Clause 7.16 Airspace Operations	The proposed activity will not penetrate the Limitation or Operations Surface.	N/A

5. Consultation

5.1 Government Agency and Other Stakeholder Consultation

Notification of the proposed activity to Council and adjoining occupiers of land is required under Section 2.62 and Section 3.9 of the TISEPP. Notification letters were sent out to adjoining occupiers on 10 February 2024 and to Council on 12 February 2024. Refer to notification letters at **Appendix B1** and **B2**.

Notification to the Council is not required under Section 2.11 of the TISEPP as the site is not a listed local heritage item or located in a heritage conservation zone.

Stakeholders required to be notified of the proposed activity are outlined in **Table 12** below.

Table 12 Stakeholders required to be notified

Stakeholder	Relevant Section of TISEPP
119-143 Missenden Road, Camperdown (Chris O'Brien Lifehouse)	Section 2.62
19 Carillon Avenue, Camperdown (St Andrews College)	Section 2.62
10 Missenden Road, Camperdown (St Johns College)	Section 2.62
GPO Box 191 Sydney NSW 2001 (City of Sydney Council)	Sections 2.62 and 3.9
Shop 3/8B Missenden Road, Camperdown(Missenden Road Post Office)	Section 2.62
90-92 Church Street, Camperdown(Buddhist Library)	Section 2.62
59 Missenden Road, Camperdown (Institute of Rheumatology & Orthopaedics)	Section 2.62
130 Carillon Avenue, Camperdown	Section 2.62
10 Missenden Road, Camperdown(7-Eleven)	Section 2.62
8 Missenden Road, Camperdown (Sancta Sophia College)	Section 2.62
22-33 Carillon Avenue, Camperdown (Residential)	Section 2.62
3 Parramatta Road, Camperdown (Sydney University Post Office)	Section 2.62
3010 Parramatta Road, Camperdown (Charles Perkins Centre)	Section 2.62
114 Church Street, Camperdown (RPA Staff and Visitor Car Park)	Section 2.62

One response was received from an adjoining resident during the notification period. The submission identified that the works were located approximately 70 metres from residential properties on Carillon Avenue and that the proposed works would result in general truck and road noise associated with deliveries. Assessment of traffic and noise impacts are contained in this REF at **Sections 6.2.1 and 6.2.2** and in the associated consultant reports at **Appendix K, M1 and M2**.

The Traffic Impact Statement prepared by PTC (**Appendix K**) finds that the works will result in only a negligible increase in the frequency of service vehicle volumes.

The Acoustic Assessment prepared by Arup (**Appendix M2**) concludes that building services noise emissions, vehicular movements and traffic noise levels will not increase as a result of the proposed works.

6. Environmental Impact Assessment

6.1 Environmental Planning and Assessment Regulation 2021 – Assessment Considerations

The relevant assessment considerations under Section 171(2) of the EP&A Regulation are provided below.

Table 13: Summary of Environmental Factors Reviewed in Relation to the Activity

Relevant Consideration	Response/Assessment	Impact	
a) Any environmental impact on a community	Refer to **Chapter 6** of this report.	-ve	
		Nil	✓
		+ve	
(b) Transformation of a locality	Refer to the proposed activity in **Chapter 3** of this report. The proposed activity is concentrated in the west campus and will not disrupt surrounding hospital activities or impact the surrounding locality. The proposed activity will help improve utility service infrastructure for RPA Hospital.	-ve	
		Nil	✓
		+ve	
(c) Any environmental impact on the ecosystem of the locality	Refer to **Sections 6.2.4, 6.2.5** and **6.2.9** of this report. Tree removal is required as part of the proposed activity. A Flora and Fauna report has been prepared (refer **Appendix O**) which finds there will be no adverse impact on the ecosystem of the locality.	-ve	
		Nil	✓
		+ve	
d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality.	The proposed activity is considered to have nil impact on the recreational, scientific or other environmental quality of the locality. While there may be aesthetic (visual) impact from tree removal and a taller oxygen tank, the tank should be predominantly screened by existing buildings from most surrounding vantage points, and there are existing tall utility structures in the vicinity such as a smokestack and hospital buildings.	-ve	✓
		Nil	
		+ve	
e) Any effect on locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific, or social significance or other special value for present or future generations.	Refer to **Sections 6.2.6** and **6.2.8** of this report. Subject to recommended mitigation measures being implemented, the proposed activity will not impact the value of the site for present or future generations. In terms of historical/ heritage impact, the subject site is not a heritage item or within a heritage conservation area, and therefore will not have adverse impacts to any heritage items in the vicinity.	-ve	
		Nil	✓
		+ve	
(f) the impact on the habitat of protected animals, within the meaning of the Biodiversity Conservation Act 2016,	Refer to **Section 6.2.9** of this report. The Flora and Fauna report (**Appendix O**) finds the proposed activity will not impact fauna under the Biodiversity Conservation Act 2016.	-ve	
		Nil	✓
		+ve	
(g) Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air	Refer to **Section 6.2.9** of this report. The Flora and Fauna report (**Appendix O**) finds the proposed activity will not have the effect of endangering any species.	-ve	
		Nil	✓
		+ve	
(h) Any long-term effects on the environment	Refer to **Section 6.2.9** of this report. The proposed activity will not adversely impact the environment, neither in the immediate or long term.	-ve	
		Nil	✓
		+ve	
(i) Any degradation of the quality of the environment	Refer to **Section 6.2.9** of this report. The proposed activity will not degrade the surrounding environment.	-ve	
		Nil	✓

Relevant Consideration	Response/Assessment	Impact	
		+ve	
j) Any risk to the safety of the environment	Refer to **Section 6.2.9** of this report. The proposed activity will not provide risk to safety of the environment.	-ve	
		Nil	✓
		+ve	
(k) Any reduction in the range of beneficial uses of the environment	Refer to **Section 6.2.9** of this report. The proposed activity will not reduce the range of beneficial uses of the environment.	-ve	
		Nil	✓
		+ve	
(l) Any pollution of the environment	Refer to **Section 6.2.9** of this report. The proposed activity will not result in pollution of the the environment with application of mitigation measures.	-ve	
		Nil	✓
		+ve	
(m) Any environmental problems associated with the disposal of waste	Refer to **Section 6.2.12** of this report. Waste generated by the proposed during construction and operation will be either recycled or appropriately disposed of. Refer to the Waste Management Plan at **Appendix L**.	-ve	
		Nil	✓
		+ve	
n) Any increased demands on natural or other resources that are, or are likely to become, in short supply	N/A	-ve	
		Nil	✓
		+ve	
(o) Any cumulative environmental effects with other existing or likely future activities.	Refer to **Section 6.2.14** of this report.	-ve	
		Nil	✓
		+ve	
(p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions.	N/A	-ve	
		Nil	✓
		+ve	
q) Applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1	Refer to **Section 3.2.1** of this report. The proposed activity aligns with the strategic vision and direction provided in local and state strategic plans.	-ve	
		Nil	✓
		+ve	
(r) Other relevant environmental factors	Refer to **Section 6.2** of this report.	-ve	
		Nil	✓
		+ve	

6.2 Identification of Issues

6.2.1 Traffic, Access and Parking

Questions to consider	Yes	No
Will the works affect traffic or access on any local or regional roads?	✓ (Note 1)	
Will the works disrupt access to private properties?		✓ (Note 2)

Questions to consider	Yes	No
Are there likely to be any difficulties associated with site access?		✓ (Note 3)
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)?	✓ (Note 3)	
Will full or partial road closures be required?		✓ (Note 3)
Will the proposal result in a loss of onsite car parking?		✓ (Note 4)
Is there onsite parking for construction workers?		✓ (Note 4)

A TIS was prepared by PTC and is appended at **Appendix K**. The TIS provides details on the existing traffic conditions, and transport and parking impact assessment.

Note 1: There are no proposed changes to the existing vehicular access or driveway from Rochester Street. As such, the proposed development will continue to operate as existing and be serviced by heavy rigid vehicles up to 12.5m in length.

The scale of the proposed activity is limited to Rochester Street and does not impact adjacent roadways such as Missenden Road. The proposed activity will have minimal construction and operational impact on traffic.

The increase in medical gas refill trucks is small and the impact on the road network is negligible.

Note 2: No disruption to private property access is expected from the proposed activity.

Note 3: The existing vehicles that currently service the site shall continue to do so, noting no impact to vehicular access has been found as a result of the proposed loading dock.

Access for construction vehicles will be via Susan Street. All vehicles accessing the work site shall be limited to a suitable size for the road geometry.

Given the constrained road conditions and pedestrian activity in the area, Traffic Control personnel shall be in place to assist construction vehicle access and egress, and manage any potential conflicts that may arise.

Existing pedestrian movements and access shall be retained throughout the hospital site.

Note 4: Construction vehicle activity shall be monitored by the principal contractor to ensure no interruptions to the ongoing operation of surrounding roads.

It is expected that construction vehicles shall typically travel to and from the work site outside of the peak morning and afternoon commuter hours to reduce impact and minimise risk to pedestrians and vehicles.

6.2.2 Noise and Vibration

Questions to consider	Yes	No
Are there residential properties or other sensitive land uses or areas that may be affected by noise from the proposal during construction? (i.e. schools, nursing homes, residential areas or native fauna populations)?	✓ (Note 1)	
Will any receivers be affected by noise for greater than three weeks?	✓ (Note 2)	
Are there sensitive land uses or areas that may be affected by noise from the proposal during operation?		✓ (Note 3)

Questions to consider	Yes	No
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 4)	
Will the works result in vibration being experienced by any surrounding properties or infrastructure?	✓ (Note 5)	

Note 1: A Noise and Vibration Impact Statement has been prepared by Acoustic Logic and is appended at **Appendix M1**. The statement cross-references an Acoustic Assessment Report prepared by Arup (dated 7 February 2023) (**Appendix M2**). The Arup report details surrounding noise sensitive receivers, baseline noise monitoring results, and assessment criteria for construction and operational noise and vibration sources. Acoustic Logic confirm that the Arup report remains applicable to the project works despite the proposed activity having been amended.

The works are located within proximity to multiple sensitive uses, the nearest being St Andrew's College (residential) and two RPA Hospital buildings, being the Chris O'Brien Lifehouse and the Radiation Oncology Department.

Construction Noise Impact

Regarding construction, the proposed works are predicted to result in exceedance of the relevant noise management levels at most off-site assessment locations (including residential receiver R1 – St Andrew's College) and accordingly mitigation and management procedures will need to be considered for the works. However, the predicted exceedances are only expected during periods of intense activity subject to the type of equipment used.

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 the surrounding receiver locations and the occupants within the buildings on the subject site. During development of the detailed CNVMP an investigation of vibration impact upon the following should take place:

- the subject site;
- nearby sensitive receivers; and
- vibration sensitive equipment.

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;
- Managing 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 minimised.

Note 2: The proposed activity is proposed to have a construction timespan of 20 weeks. Mitigation measures are proposed to be implemented, to reduce noise emissions throughout the RPA Hospital campus and surrounding receivers.

Note 3: The Acoustic Assessment Report provides assessment regarding the operational noise of the proposed activity, as outlined below:

Operational Noise Impact

Regarding operations, the assessment concludes that building services noise emissions, vehicular movements and traffic noise levels will not increase as a result of the proposed works.

Note 4: The table below outlines the OOHW that Arup recommends be granted.

Table 14 Proposed construction hours

Day	Standard Construction Hours	Proposed Construction Hours
Monday to Friday	7am to 6pm	7am to 6pm
Saturday	8am to 1pm	7am to 1pm
Sunday and Public Holiday	No work	No work other than Out of Hours Works (OOHW) as required
OOHW - low impact	-	Only low impact works may be undertaken Saturdays 7.00am to 8.00am for low noise activities (such as site preparation works).
OOHW - essential work	-	OOHW may be permitted for essential work. For example, cylinders may need to be changed over. Or work may be required to avoid certain hospital hours (e.g. during connection of tanks).
OOHW - emergency access	-	Activities may be undertaken outside of hours if required: – By the police or a public authority for the delivery of vehicles, plant or materials; or – In an emergency to avoid the loss of life, damage to property or to prevent environmental harm.

OOHW are recommended from 7am-8am on Saturdays and as required. The rationale for the extended Saturday hours is to shorten the construction duration for an essential service site and minimise impacts to patients and staff of the hospital, which must continue to operate uninterrupted. Arup recommends that approval be granted for the

extension to operating hours on Saturdays on the condition that the works being undertaken are low noise activities only (such as site preparation works). Demolition works are excluded.

Note 5: It is expected that the surrounding land uses may be affected by vibration-intensive works on the subject site. The Acoustic and Vibration Report recommends during development of the detailed CNVMP an investigation of vibration impact upon the following should take place:

- the subject site;
- nearby sensitive receivers;
- vibration sensitive equipment.

6.2.3 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 3)	

A Preliminary Construction Management Plan (CMP) has been prepared by CPB (refer **Appendix J**)). The CMP outlines preliminary parameters for site management practices during construction to a sufficient detail to support the REF, prior to design finalisation and engagement of specialised subcontractors. It is the responsibility of the Contractor to prepare detailed Environmental and Site Management Plans in accordance with the REF, for approval and implementation during construction.

Note 1: Prior to commencing the works on site, the contractor will undertake an Air Quality Assessment to analyse the cumulative impact on air quality to adjacent buildings (primarily the hospital and St John's College) from construction activities. The Air Quality Assessment will consider dust generation, odours, exhaust from heavy equipment and any other emissions that may impact on the adjacent buildings and occupants.

Note 2: Details of plant equipment and machinery will be provided at the time of contract award for the works to ensure alignment with the proposed methodologies and construction staging of the Contractor. Equipment is to be appropriately selected and operated based on noise and vibration requirements.

Note 3: As noted previously in the report, the proposed activity is in close proximity to St Andrew's College which is situated 140m to the east.

6.2.4 Soils and Geology

Questions to consider	Yes	No
Will the works require land disturbance?	✓ (Note 1)	
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 2)	

Are the works within an area affected by salinity?		✓ (Note 2)
Is there potential for the works to encounter any contaminated material?	✓ (Note 3)	

Note 1: A Geotechnical Assessment has been prepared for the proposed activity by Cardno and is appended at **Appendix V.** This finds the ground condition as comprising pavement overlying residual clay and weathered siltstone bedrock. Bulk earthworks are required for the project. The works will require land disturbance for the demolition of the existing slab to 300mm below existing ground level. The existing road surface is also proposed to be saw cut and removed to extent required for new works. Recommendations on earthworks and foundation options are discussed in Section 7 of the Geotechnical Assessment.

Note 2: The site is mapped as a Class 5 Acid Sulphate Soils (ASS) area under SLEP 2012. However, Cardno state in their Geotechnical Assessment (**Appendix V**) that the site is not mapped as being situated within or near an ASS risk area under the NSW Government online mapping tool, eSPADE Version 2.1. The nearest mapped ASS risk area on eSPADE is approximately 600m northwest in the vicinity of Johnstons Creek. Cardno also state that previous contamination investigation carried out for the main works also suggested that there are no indicators of ASS and salinity within the sampled soils.

Note 3: Refer to **Section 6.2.13** below on contamination findings, taken from the DSI Report prepared by Cardno and associated review by JBS&G at **Appendix S1**.

6.2.5 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?		✓
Will the works intercept groundwater?		✓
Will a licence under the *Water Act 1912* or the *Water Management Act 2000* be required?		✓

6.2.6 Visual Amenity

Questions to consider	Yes	No
Are the works visible from residential properties, or other land uses that may be sensitive to visual impacts?	✓ (Note 1)	
Will the works be visible from the public domain?	✓ (Note 2)	
Are the works located in areas of high scenic value?		✓
Will the works involve night work requiring lighting?	✓ (Note 3)	

Note 1: The site is screened by three (3) storey buildings/ high walls to Carillon Road and Hospital Road. Therefore, it is not expected the works will be visible from residential properties or heritage items in the vicinity, except for the upper part of the proposed tallest oxygen tank. However, the tallest tank may be visible from upper levels of the Chris O'Brien Lifehouse located on Missenden Road. Given oxygen tanks already exist on the site, and there is an existing tall smokestack in the vicinity, the proposal is therefore in character with the utilitarian infrastructure of this sub-precinct.

Note 2: Refer response to Note 1 above. In terms of heritage visual impact, as noted in the Heritage Impact Statement at **Appendix I**, whilst the 30kL tank would be of considerable scale, the structure will not impact the presentation of the Boiler House building (B28) from the Susan Street or Carillon Street streetscapes due to being positioned at the rear of the building.

Note 3: Permission is sought for 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. External lighting will be used in compliance with relevant standards so as to minimise adverse effects of outdoor on nearby residents.

6.2.7 Aboriginal Heritage

Questions to consider	Yes	No
Will the activity disturb the ground surface or any culturally modified trees?	✓ (Note 1)	
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		✓
If Aboriginal objects or landscape features are present, can impacts be avoided?	N/A (Note 3)	
If the above steps indicate that there remains a risk of harm or disturbance, has a desktop assessment and visual inspection been undertaken?		✓
Is the activity likely to affect wild resources or access to these resources, which are used or valued by the Aboriginal community?		✓
Is the activity likely to affect the cultural value or significance of the site?		✓

Note 1: An Aboriginal Due Diligence Assessment (ADDA) and associated Addendum letter has been prepared by Biosis Consulting and is appended at **Appendix R1** and **R2**.

The ADDA concluded that during the 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 works. As the proposed activity is 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 Aboriginal Heritage Information Management System (AHIMS) Web Services (**Appendix R1**) 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.

Note 3: There are no known Aboriginal objects or landscape features present. Mitigation measures will be implemented as Conditions of Approval (refer to **Appendix A**) in case any Aboriginal objects or landscape features are encountered during works.

6.2.8 Non-Aboriginal Heritage

Questions to consider	Yes	No
Are there any heritage items listed on the following registers within or in the vicinity of the work area? 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)
Is the demolition of any heritage occurring?		✓ (Note 3)

Note 1: A Heritage Impact Assessment Letter has been prepared by Heritage 21 and is provided at **Appendix I**. The hospital campus contains several heritage items and is within a heritage conservation area (HCA) 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.

The proposed works pertain to the loading dock of Building 28 - Capital Infrastructure and Engineering (previously referred to as the Boiler House, Engineering and Medical Records Asset) located within the RPA Hospital Precinct. The subject building does not form part of the local or statutory heritage listings for the subject site. The subject building is not located within the University of Sydney HCA and is not located within the visual catchment of any heritage items in the vicinity. However, the subject building is listed under the s.170 Health Register under 'Boiler House' and is considered to be of moderate significance within the greater context of the RPA Hospital Precinct.

No services or structures within the gas compound are considered to possess heritage value.

The proposal includes removal of some existing structures and installation of new additions to the existing fabric. It is also noted that the proposed new 30kL primary tank would be of considerable scale compared to the existing infrastructure. However, as the structure is sited at the rear of the site, it would not have any notable visual impact. Also refer to **Section 6.2.6** above for discussion of visual heritage impacts of the proposed activity.

Note 2- While the works include minor excavation activities, it is not expected there are historical archaeology remains at the location of the proposed activity. Notwithstanding an unexpected finds protocol will be implemented as a condition of approval (refer **Appendix A**).

Note 3- The subject site (Building 28) is not a heritage item, and the proposed works will not impact the Boiler House structure or its heritage significance in the context of the RPA Hospital Precinct.

Heritage 21 conclude that the proposal would engender a neutral impact on the heritage significance of Building 28 and the wider RPA hospital precinct.

6.2.9 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?		✓ (Note 1)
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, the REF report must address the relevant requirements of Section 7.2 of the BC Act: • Section 7.2 (a) – Test for significant impact in accordance with section 7.3 of the BC Act. • Section7.2 (c) – it is carried out in a declared area of outstanding biodiversity value.		✓ (Note 2)
Could the works affect a National Park or reserve administered by EES?		✓

Questions to consider	Yes	No
Is there any important vegetation or habitat (i.e. Biodiversity and Conservation SEPP) within or adjacent to the work area?		✓
Could the works impact on any aquatic flora or habitat (i.e. seagrasses, mangroves)?		✓
Are there any noxious or environmental weeds present within the work area?		✓
Will clearing of native vegetation be required?		✓ (Note 3)

Note 1: A Flora and Fauna Assessment report was prepared for the proposed activity by Narla Environmental (**Appendix O**). This found that the proposed activity is not expected to impact on any BC Act or EPBC Act listed species.

Note 2: The Flora and Fauna Assessment report found no vegetation communities have been mapped on site. The nearest mapped vegetation type is Urban Exotic/Native. The field survey conducted by Narla Ecologist identified Urban Exotic/Native vegetation on site. Due to the minor area of impact and low value of the vegetation to native biodiversity, the proposed activity is not expected to impact on any BC Act listed species.

Note 3: An Arboricultural Impact Assessment was undertaken for the proposed works at **Appendix N**. Nine (9) trees growing within the site were assessed as being small specimens with low landscape value. Trees T1- T9 are non-native species and are proposed to be removed as they fall within the required exclusion zone for the gas storage tanks.

6.2.10 Bushfire

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

6.2.11 Land Uses and Services

Questions to consider	Yes	No
Will the works result in a loss of, or permanent disruption of an existing land use?		✓
Will the works involve the installation of structures or services that may be perceived as objectionable or nuisance?		✓
Will the works impact on, or be in the vicinity of other services?	✓ (Note 1)	

Note 1: The proposed activity only upgrades oxygen services infrastructure in the MCG. The Civil report prepared by TTW (**Appendix Q**) finds that the proposed activity will not adversely impact the existing pavement, levels or stormwater drains. TTW find that the works are minor in nature and will not involve modification to the stormwater layout.

6.2.12 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)	

Questions to consider	Yes	No
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 CPB Contractors and is appended at **Appendix L**. The WMP adopts a hierarchical approach of waste avoidance and reduction, and recycling and reuse where possible. For unavoidable waste the WMP outlines a strategy for waste segregation into separate streams as summarised below.

Activity	Waste Streams	Management
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, grease, lubricants, oily rags and filters	

The storage of waste created by the site through demolition, excavation and general construction works will be specified within the site establishment zones in the Contractor's detailed Construction Management Plan.

SLHD have a Waste Management Policy in place for existing SLHD facilities, including RPA Hospital. The existing SLHD Waste Management Policy for RPA Hospital will be updated to ensure ongoing improvements and compliance with policy and legislation in all aspects of waste management, including generation, handling, storage and disposal of all forms of waste.

Note 2: Dangerous goods are to be managed in accordance with relevant codes of practice and standards. Material safety data sheets on all of these flammable and potentially harmful liquids will be provided by the Contractor undertaking the Works. Any hazardous materials discovered during execution of the Works should be dealt with by the Contractor in accordance with the requirements set out in the Contract.

A Dangerous Goods Design Report has been prepared by Riskcon Engineering and is appended at **Appendix U**. The management of hazardous materials is discussed in **Section 6.2.13** of this report.

Note 3: Under the WMP, no waste is treated on-site. Treatment of construction and general waste including wastewater will be performed by a licensed contractor after proper removal of waste off the project site.

6.2.13 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 1 & 3)	
Is the work site located on land that is known to be or is potentially contaminated?	✓ (Note 1)	

Will the works require a Hazardous Materials Assessment?	✓ (Note 2)
Is a Remediation Action Plan required?	✓ (Note 3)
Is the work category 2 works under Resilience and Hazards SEPP?	✓

Note 1: As noted in the DSI (**Appendix S2**), widespread soil contamination was not found within or in the direct vicinity of the Medical Gas Bay area, however, the asbestos detected within the landscape area (HA510, HA518 and HA521) requires remediation to reduce the risk exposure.

Due to the presence of asbestos in soil (outside of the development footprint), the following is recommended:

- Areas identified as containing asbestos must be made-safe by a suitably qualified expert by implementation of management measures consistent with the SafeWork NSW Asbestos Code of Practice; and
- Construction activities associated with the development footprint must not interact with areas identified as containing asbestos. This includes establishment of laydown areas, storage of materials or vehicle/worker access.

It should be noted that 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).

Note 2: A Hazardous Materials Assessment (**Appendix W**) has been prepared by Sydney Environmental Group for the proposed activity. It found that the following materials were not suspected, identified or presumed to be present within the site:

- Asbestos Containing Materials
- Lead Containing Paint
- Lead Containing Dust
- Synthetic Mineral Fibres
- Ozone Depleting Substances

Polychlorinated Biphenyls is presumed to be present in the capacitors of fluorescent light fittings. As an appropriate mitigation measure, contractors will remove fluorescent light fittings and disposal of Polychlorinated Biphenyls containing capacitors to a licensed receiving facility.

Further mitigation measures have also been recommended by Sydney Environmental Group to ensure the highest level of precaution is exercised to mitigate any risks associated with unexpected encounters with hazardous materials and to keep appropriate records. These mitigation measures have been included in **Appendix A**.

Note 3: A DSI was prepared for similar activities on site by Cardno in 2023 and has been confirmed as fit for purpose in a review by JBS&G (**Appendix S1**). The DSI concluded that Asbestos (bonded and friable) was identified at five (5) locations across the Medical Gas Loading Bay Area. The DSI recommends that further soil sampling for asbestos is to be completed within the proposed development footprint once demolition of the existing building and concrete slab is finalised, as the area was not accessible for testing at the time of reporting.

It is noted that asbestos was not identified in areas requiring demolition or excavation, however an Asbestos Management Plan should be implemented for the development footprint of the subject site.

A RAP was also prepared for the site which includes an Unexpected Finds Protocol and a CEMP to manage any risks of unidentified or undocumented contaminated materials and minimise potential risks to human health and the environment during implementation of the RAP.

6.2.14 Community Impact/ Social Impact

Questions to consider	Yes	No
Is the activity likely to affect community services or infrastructure?	✓ (Note 1)	
Does the activity affect sites of importance to local or the broader community for their recreational or other values or access to these sites?	✓	
Is the activity likely to affect economic factors, including employment numbers or industry value?	✓ (Note 2)	
Is the activity likely to have an impact on the safety of the community?	✓ (Note 3)	
Will the activity affect the visual or scenic landscape? This should include consideration of any permanent or temporary signage.		✓
Is the activity likely to cause noise, pollution, visual impact, loss of privacy, glare or overshadowing to members of the community, particularly adjoining landowners?	✓	

Note 1: The proposed activity will affect infrastructure to the hospital with the proposed upgrade and increase in capacity of oxygen tanks and supporting infrastructure.

Note 2: The proposed activity will increase service capacity, support hospital growth and expansion and generate additional jobs, thereby creating a positive impact on the economy.

Note 3: Without mitigation the proposed infrastructure such as oxygen tanks and vaporisers, could have an adverse safety effect on the community. The design of the proposed activity, such as fire rated walls, and proposed tree removal, in accordance with required Australian Standards, will ensure safety of the community. Refer to the Dangerous Goods Design Report at **Appendix U** for details.

6.2.15 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: Four (4) previous REF packages have already been prepared for the RPA Hospital site, within 500 metres of the proposed site. A summary of all these REF packages is detailed in **Table 15** below. Similarly, a summary of proposed works under existing SSDA approval, and associated construction timeframes, are provided in **Table 16**.

Construction of the proposed activity is intended to commence in May 2024, subject to a detailed programme provided by the Contractor. The works for REF packages 1, 2 and 4 have been completed so will not result in any cumulative impacts. REF package 3 is currently under development. The nature and location of proposed works relative to the west gas compound would not result in any notable cumulative impacts.

Table 15 Work Program for 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 B89 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: June 2022 Completed: December 2023	Approved on the 11th of May 2022
REF Package 2	• 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 a traffic island; - Replacement tree planting (4 trees) via a condition of approval; and • Minor adjustments to a speed hump on Gloucester House Drive to accommodate HRVs.	Commencement: August 2022 Completed: November 2023	Approved on the 25th of July 2022
REF Package 3	• Installation of an external glass lift and lift lobby within a void between Building 63 (B63) and Building 64 (B64) providing lift access within B63; • MI Department: Two-level vertical expansion of Building 89 (B89) attaching to the rear of B63 at L6 and L7; • MI Department: Internal refurbishment / new fit out of existing office space on L6 and L7 of B63; and • Installation of PV Panels on the roof of Building 72 (B72).	Commencement: January 2023 Proposed works are currently under development pending REF Addendum for Molecular Imaging	Approved on the 18th November 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 Completed: October 203	Approved on the 8th of July 2022

Note, the location of the proposed activity in relation to the previous four REF packages is illustrated below.

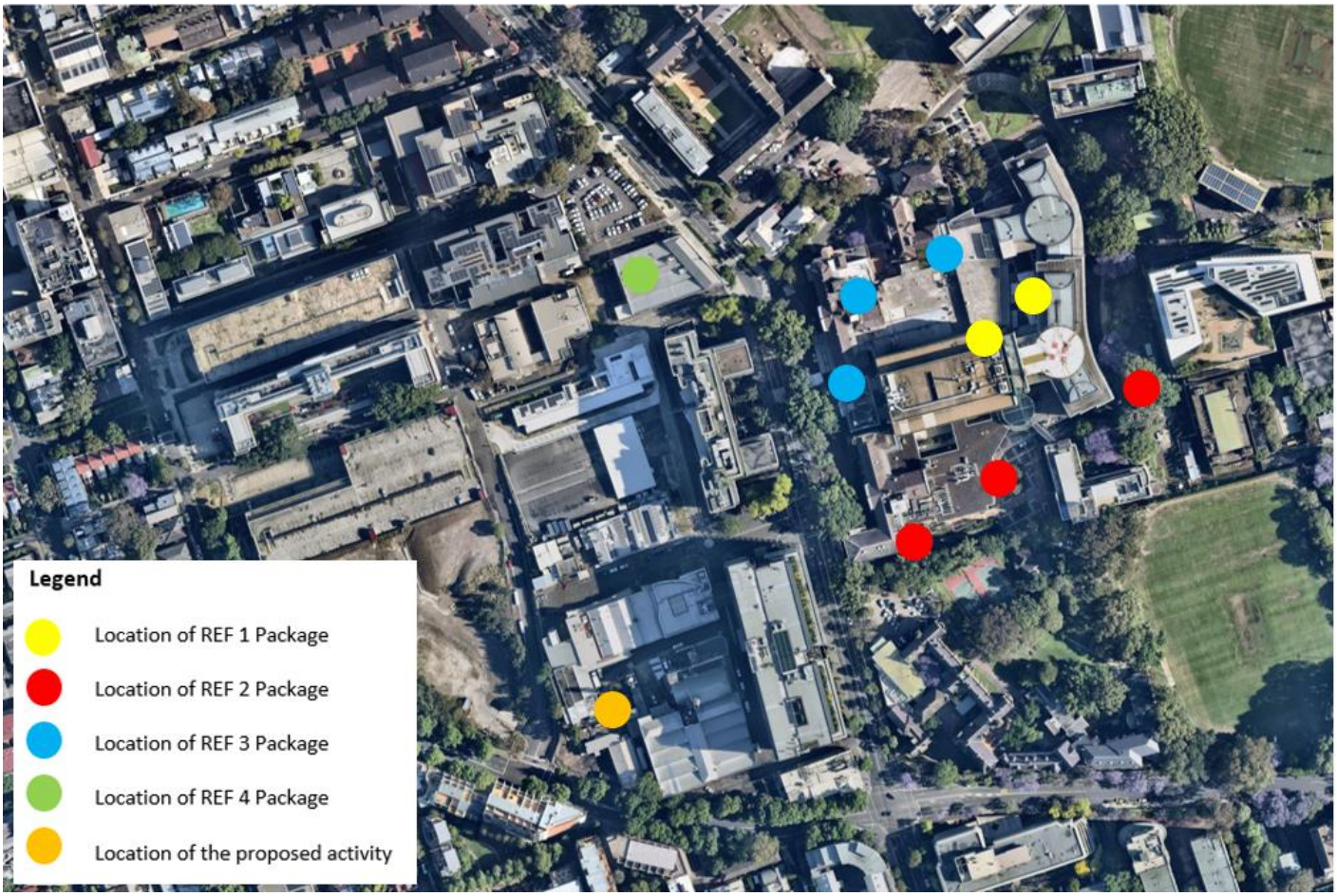


Figure 15 Approximate Locations of REF packages 1-5

Table 16 Program of approved SSDAs

SSD approval	Summary of Proposed Scope	Works program	Determination
SSD-47662959	Redevelopment of the hospital including: a new 15 storey hospital building; 3 storey extension to the east of the existing clinical services building; 2 storey vertical expansion of RPA Building 89; refurbishment works; demolition; temporary helipad.	Stage 1: October 2023 – October 2026 (3 years) Stage 2: November 2023 – February 2026 (2 years 4 months) Stage 3: November 2026 – July 2028 (1 year 9 months)	Approved on the 26th of September 2023

7. Mitigation Measures

Mitigation measures are to be implemented for the proposed activity to reduce impacts on the environment. The mitigation measures are provided at **Appendix A**.

8. Summary of Impacts

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

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

9. Justification and Conclusion

The proposed upgrade and reconfiguration of the existing medical gas compound for an additional bulk storage tank at the west campus of 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 proposal will not result in any significant or long-term impact. The potential impacts identified can be reasonably mitigated and where necessary managed through the adoption of suitable site practices and adherence to accepted industry standards.

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

- It responds to an existing need within the community;
- 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 and Public Spaces under Part 5.1 of the EP&A Act. On this basis, it is recommended that HI determine the proposed activity in accordance with Part 5 of the EP&A Act and subject to the adoption and implementation of mitigation measures identified within this report.