Health Infrastructure

Review of Environmental Factors

Mount Druitt Hospital – Additional Beds Project

Version 2 – Updated Final Draft

11 November 2025

Contents

REF Template Version: November 2024.

Declaration

This Review of Environmental Factors (REF) has been prepared for NSW Health Infrastructure (HI) and assesses the potential environmental impacts which could arise from alterations and additions to the existing main hospital building, and its ancillary and associated works, to provide for an additional 30 hospital beds at Mount Druitt Hospital at 75 Railway Street, Mount Druitt.

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

This REF provides a true and fair review of the activity in relation to its likely impact on the environment and the information it contains is neither false nor misleading. It addresses to the fullest extent possible all the factors listed in Section 3 of the *Guidelines for Division 5.1 Assessments* (DPE June 2022), the *Guidelines for Division 5.1 Assessments – Consideration of environmental factors for health services facilities and schools* (DPHI, October 2024), 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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Document Management, Tracking and Revision History

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Final Draft	31/10/2025	Oliver Klein	Review of Environmental Factors	Monica Zandi (MostynCopper)	Scott McKnight (HI)
Updated Final Draft	11/11/2025	Oliver Klein	Review of Environmental Factors	Monica Zandi (MostynCopper)	Scott McKnight (HI)
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Abbreviations

Abbreviation	Description
AEC	Area of Environmental Concern
AHD	Australian Height Datum
AHIP	Aboriginal Heritage Impact Permit
AHIMS	Aboriginal Heritage Information Management System BC Regulation
AMG	Australian Map Grid
BC Act 2016	*Biodiversity Conservation Act 2016*
BC Regulation	Biodiversity Conservation Regulation 2017
BAM	Biodiversity Assessment Method
CA	Certifying Authority
CE	Chief Executive
CM Act	*Coastal Management Act 2016*
CMP	Construction Management Plan
CWC	Connecting with Country
CRA	Conservation Risk Assessment
DPC	Department of Premier and Cabinet
DPE	Department of Planning and Environment
DPHI	Department of Planning, Housing & Infrastructure
EIS	Environmental Impact Statement
EMP	Environmental Management Plan
EES	Environment, Energy and Science
EPA	Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2021*
EPBC Act (Cwth)	*Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental Planning Instrument

Abbreviation	Description
EPL	Environment Protection License
FM Act	*Fisheries Management Act 1994*
Ha	Hectares
HHIMS	Historic Heritage Information Management System
HI	Health Infrastructure
LEP	Local Environmental Plan
LGA	Local Government Area
MPS	Multipurpose Service
MNES	Matters of National Environmental Significance
NCC	National Construction Code
NorBE	Neutral or Beneficial Effect on Water Quality Assessment Guideline (2022)
NPW Act	*National Parks and Wildlife Act 1974*
NPW Regulation	*National Parks and Wildlife Regulation 2009*
NPWS	National Parks and Wildlife Service (part of EES)
NT Act (Cth)	*Native Title Act 1993* (Cth)
OEH	(Former) Office of Environment and Heritage
PCMP	Preliminary Construction Management Plan
Planning Systems SEPP	*State Environmental Planning Policy (Planning Systems) 2021*
POEO Act	*Protection of the Environment Operations Act 1997*
Proponent	NSW Health Infrastructure
REF	Review of Environmental Factors
RF Act	*Rural Fires Act 1997*
RFS	Rural Fire Service
Resilience and Hazards SEPP	*State Environmental Planning Policy (Resilience and Hazards) 2021*
SEPP	State Environmental Planning Policy

Abbreviation	Description
SIS	Species Impact Statement
TI SEPP	*State Environmental Planning Policy (Transport and Infrastructure) 2021*
WM Act	*Water Management Act 2000*

Executive Summary

The Proposal

NSW Health Infrastructure (HI) proposes to provide 30 additional beds at Mount Druitt Hospital at 75 Railway Street, Mount Druitt as part of their delivery of infrastructure solutions and services to support the healthcare needs of the NSW communities.

To facilitate the provision of the additional beds the following works are proposed:

- Extension of the existing main hospital building across two levels at its southern-most extent:

  Level 1 – extension to existing building

  - Relocation and Expansion of Outpatient Department (OPD) accommodating 23 separate rooms or points of care as well as ancillary rooms and spaces of about 833m^2.
  - New enclosed lobby of about 75m^2.
  - Future expansion zone (assumed as cold shell for future clinical or non-clinical purposes) of about 235m^2.

  Level 2 – extension to existing building

  - New in-patient unit (IPU) and support spaces of about 1,085m^2 in area with external fire / access stairs to Level 1 / ground.

The works will also involve the following ancillary or supplementary works:

- Selected tree removal to accommodate the proposed development and its ancillary works, as further set out below.
- Demolition of the existing decommissioned helipad and make-good works.
- Civil and flood mitigation works to manage overland flow paths in the vicinity of the proposed extension and car park.
- Extension of the existing at-grade car park P1.
- New oxygen compound adjacent to the existing oxygen compound.
- Augmentation of the existing fire hydrant ring main adjacent to the western edge of the main hospital building and relocation and partial upgrade of the existing hydrant booster.
- Offset planting and new landscaping.

Need for the Proposal

Mount Druitt Hospital was expanded as part of the Blacktown and Mount Druitt Hospital Expansion Stage 1 and 2 to meet the growing needs of the local community and the wider western Sydney area. Since the completion of Stage 2 in 2019, an additional $120 million capital funding was announced as a 2023 State election commitment for a combined 60 additional beds at Blacktown and Mount Druitt hospitals.

Development of a comprehensive services plan for Mount Druitt Hospital from 2024/25 – 2035/36 is in progress. The outcomes and findings from the service plan development process to date have identified the need for expansion by 30 beds for acute medical and acute surgical short stay services. The Draft Service Plan identifies, amongst other things, that the number of adult acute beds projected for Mount Druitt Hospital (including the 30-bed enhancement) is 114 beds to 2035/36. The additional beds will improve Emergency Department (ED) flow by being accessible to that department.

The benefits of the project include:

- Providing expanded and contemporary acute medical and surgery bed capacity for Blacktown and Mount Druitt hospitals.

The overall project includes:

- 60 additional beds across Blacktown and Mount Druitt hospitals.
- 30 beds at Mount Druitt.
- 30 beds at Blacktown.
- Expanded clinical and non-clinical support service spaces.

Proposal Objectives

In general, the proposal objectives are to expand existing hospital services to:

- Provide medical care for patients who present to the Emergency Department (ED) and are differentiated as requiring a low complexity medical intervention.
- Improve patient experience and outcomes by facilitating efficient access to care close to home and reducing the waiting time in the ED.
- Support Blacktown Hospital by reducing transfers to its ED, improving its ED waiting times, and reducing admissions to its medical wards.
- Support the existing efficient surgical short stay care model, support elective, high volume activity for a range of services including breast surgery, general surgery and orthopedics.
- Increase capacity for patients undergoing elective procedures.
- Reduce waiting times for surgery and help reduce ED presentations from patients who develop complications while waiting for surgery.

In summary the project will deliver:

- Benefits to the community.
- Upgrades of existing facility.
- Improved access to, and experiences of, healthcare.
- Improved delivery of services to the community.
- Increased workforce.
- Commencement of implementation of a well-considered future proofed growth strategy.

Options Considered

The proposed scope of works is identified by Option J arising from the Master Plan phase of the project. This preferred option proposes the scope of works across two levels as a lateral extension to the southern-most part of the main hospital building. Option J was found to best align with the short and mid-term Mount Druitt Zonal Masterplan (ZMP) developed in conjunction with the HI Assurance Group.

Prior long-listed options (including a ‘do nothing’ Option 0) included:

- Option 1 - East Extension on Level 1.
- Option 2 – East Extension on Level 2.
- Option 3 – South Extension on Level 2.
- Option J – Proposed option under this REF.

Site Details

Mount Druitt Hospital is located at 75 Railway Street, Mount Druitt. Its real property description is Lot 11 in DP 1268736. The site is approximately 12.85 ha in area.

The site sits within Blacktown City Council LGA. Health services uses commenced on the site in 1975 with the existing hospital opened in 1982. Mount Druitt Hospital forms part of the combined Blacktown and Mount Druitt Hospitals (BMDH) which operates across two campuses within the Blacktown LGA and is part of the Western Sydney Local Health District (WSLHD).

The site is understood to be under the ownership of the WSLHD rather than the Health Administration Corporation (HAC). The NSW Government Gazette No.73 of 12 July 2019 identifies a significant number of NSW hospital sites acquired by HAC for the purposes of the *Health Administration Act 1982* as at that date. This however does not include any reference to Mount Druitt Hospital. Accordingly, it appears highly likely that the WSLHD is the relevant landowner.

The hospital site is generally bounded by Railway Street and the Mount Druitt Fire + Rescue Station to the east and north-east; educational uses (Aengus Kavanagh Centre and Mount Druitt TAFE) and shopping centres to the south and south-west; and Luxford Road to the north and north-west with low- to medium-density residential development over Luxford Road to the north-east and north. The Mount Druitt Town Centre including the Westfield Shopping Centre is set further to the west along Luxford Road, with higher density residential development presently under construction there.

The main hospital building is set parallel to Railway Street, with a small cluster of health services buildings fronting each of the Railway Street entrance to the campus and otherwise addressing the Luxford Road frontage of the campus. The Aboriginal Health Services cluster of buildings addressing Luxford Road includes 'Malmo' (a former house now part of the hospital), the campus' only heritage item which pre-dates the current use.

Mount Druitt Hospital offers 24-hour emergency care, and a district-wide role in the provision of planned surgery, with a high proportion of general, orthopaedic and breast surgery, paediatric and palliative care services.

Planning Approval Pathway

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

State Environmental Planning Policy (Transport and Infrastructure) 2021 (TI SEPP) aims, amongst other things, to facilitate the effective delivery of infrastructure across the State. Chapter 2 Division 10 of the TI SEPP outlines the approval requirements for health service facilities. A "hospital" is defined as a health service facility under this division.

The site is zoned 'SP1 – Health Services Facility' under *Blacktown Local Environmental Plan 2015*. The SP1 zone is a prescribed zone under the TI SEPP.

The proposal involves the alterations of, or additions to, a building that is a health services facility (and ancillary and associated works), which is classified as development without consent as the proposed activity is consistent with section 2.61(1)(a), as well as section 2.61(2) of TI SEPP. The ancillary and associated works are able to be carried out in the same manner through section 2.3(3) of the TI SEPP.

Therefore, the proposal is considered an 'activity' for the purposes of Part 5 of the EP&A Act and is subject to an environmental assessment via the REF process.

Consultation and Engagement

The proposed activity will be notified in accordance with requirements to the stakeholders identified through this process, including Council, adjoining occupiers of land / neighbours of the hospital, and the State Emergency Service . In accordance with HI's Community Participation Plan (October 2024) (CPP), the REF will be publicly exhibited for a period of 28 days. Any submissions received during the notification and exhibition period will be addressed in the final REF.

Further, extensive non-statutory community and stakeholder engagement has occurred with respect to this project since its inception with a range internal and external stakeholders, including Aboriginal community representatives.

Environmental Impacts

The environmental impacts of the works are limited given the relatively isolated location from nearby sensitive receivers and the relatively modestly-scaled nature of the works. The most significant impacts identified to arise relate to tree removal, civil works for flood mitigation, and to construction noise and vibration, and other general construction-related impacts, largely upon the hospital itself, but to some adjacent sensitive receivers, including residences and educational uses.

Management and mitigation will be applied to limit any significant impacts. Construction vibration will be localised to within the subject hospital building and management and mitigation will again need to be applied to reduce adverse impacts upon sensitive activities and patients within the hospital. Operational noise from new plant is to be designed to meet relevant guidelines and thresholds.

The loss of some 125 trees arises from the scope of these works and this will be offset with the planting at a rate of 2:1 with an addition of at least 250 new trees throughout the hospital.

Impacts upon heritage, Aboriginal cultural heritage, significant vegetation with biodiversity value, and protected fauna have generally been identified as negligible, low, or neutral. Additional on-site parking is proposed to supplement current parking supply. Traffic impacts arising from the project (whether construction-related or operational) are identified as negligible.

Justification and Conclusion

The proposed alterations and additions to provide for 30 additional hospital beds within a new two-level extension to the existing main hospital building, along with its ancillary and associated works, at Mount Druitt 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 activity is not likely to significantly affect threatened species, populations, ecological communities or their habitats, and therefore it is not necessary for a Species Impact Statement (SIS) and/or a Biodiversity Development Assessment Report (BDAR), nor BDAR Waiver, to be prepared. The environmental impacts of the proposal are not likely to be significant and therefore it is not necessary for an EIS to be prepared and approval to be sought for the proposal from the Minister for Planning under

Part 5 of the EP&A Act. On this basis, it is recommended that HI determine the proposed activity in accordance with Part 5 of the EP&A Act and subject to the adoption and implementation of mitigation measures identified within this report.

1 Introduction

NSW Health Infrastructure (HI) proposes to provide 30 additional beds as alterations and additions (and its ancillary and associated works) to the existing Mount Druitt Hospital (the proposal) at the site at 75 Railway Street, Mount Druitt (the site) as part of their delivery of infrastructure solutions and services to support the healthcare needs of the NSW communities.

This Review of Environmental Factors (REF) has been prepared by _planning Pty Ltd on behalf of HI to determine the environmental impacts of the proposed alterations and additions to the existing main hospital building at Mount Druitt 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, in order to examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the proposal.

The description of the proposed works and associated environmental impacts have been undertaken in the context of the EPBC Act, the EP&A Regulation, the *Guidelines for Division 5.1 Assessments* (DPE June 2022) and the *Guidelines for Division 5.1 Assessments: Consideration of environmental factors for health services facilities and schools (DPHI, October 2024).*

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

- Whether the proposed activity is likely to significantly affect the environment and therefore the necessity for an EIS to be prepared and State Significant Infrastructure approval to be sought from the Minister for Planning and Public Spaces under Part 5 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 is required under the EP&A Regulation, and is prepared 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

Mount Druitt Hospital was expanded as part of the Blacktown and Mount Druitt Hospital Expansion Stage 1 and 2 to meet the growing needs of the local community and the wider western Sydney area. Since the completion of Stage 2 in 2019, an additional $120 million capital funding was announced as a 2023 State election commitment for a combined 60 additional beds at Blacktown and Mount Druitt hospitals.

Development of a comprehensive services plan for Mount Druitt Hospital from 2024/25 – 2035/36 is in progress. The outcomes and findings from the service plan development process to date have identified the need for expansion by 30 beds for acute medical and acute surgical short stay services. The Draft Service Plan identifies, amongst other things, that the number of adult acute beds projected for Mount Druitt Hospital (including the 30-bed enhancement) is 114 beds to 2035/36. The additional beds will improve Emergency Department (ED) flow by being accessible to that department.

The benefits of the project include:

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The proposed scope of works is identified by Option J arising from the Master Plan phase of the project. This preferred option proposes the scope of works across two levels as a lateral extension to the southern-most part of the main hospital building. Option J was found to best align with the short and mid-term Mount Druitt Zonal Masterplan (ZMP) developed in conjunction with the HI Assurance Group.

Prior long-listed options (including a ‘do nothing’ Option 0) included:

- Option 1 - East Extension on Level 1.
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- Option 3 – South Extension on Level 2.
- Option J – Proposed option under this REF.

2 Site Analysis and Description

2.1 The Site and Locality

2.1.1 Existing Development

Mount Druitt Hospital is located at 75 Railway Street, Mount Druitt. Its real property description is Lot 11 in DP 1268736. The site is approximately 12.85 ha in area.

The site sits within Blacktown City Council LGA and is within the boundaries of the Western Sydney Local Health District (WSLHD).

Health services uses commenced on the site in 1975 with the existing hospital opened in 1982. A locality plan and aerial photograph form **Figures 1** and **2**, respectively. **Figure 3** shows the site's lot boundaries with the real property description.

The site is understood to be under the ownership of the WSLHD rather than the Health Administration Corporation (HAC). The NSW Government Gazette No.73 of 12 July 2019 identifies a significant number of NSW hospital sites acquired by HAC for the purposes of the *Health Administration Act 1982* as at that date. This however does not include any reference to Mount Druitt Hospital. Accordingly, it appears highly likely that the WSLHD is the relevant landowner.

The hospital site to be generally bounded by Railway Street and the Mount Druitt Fire + Rescue Station to the east and north-east; educational uses (Aengus Kavanagh Centre and Mount Druitt TAFE) and shopping centres to the south and south-west; and Luxford Road to the north and north-west with low- to medium-density residential development over Luxford Road to the north-east and north. The Mount Druitt Town Centre including the Westfield Shopping Centre is set further to the west along Luxford Road, with higher density residential development presently under construction there.

The location of the proposed new works is relatively isolated from adjacent land uses and is focussed upon the hospital campus itself towards its southern extent and in part along the main hospital building's western alignment.

The hospital is a relatively green and well vegetated managed area. The thickest vegetation is found to the north towards the intersection of Railway Street and Luxford Road and to the south of the Mount Druitt Fire + Rescue Station. These are areas of more recent native vegetation regrowth and revegetation. Otherwise sparser areas of vegetation are located throughout the campus, including to the south and south-east in particular. A circulation / access road skirts the campus allowing direct through access from Railway Street to Luxford Road and vice versa. This access road connects to the campus' three (3) main at-grade car parks, P1, P2 and P3.

The main hospital building is set parallel to Railway Street, with a small cluster of health services buildings fronting each of the Railway Street entrance to the campus and otherwise addressing the Luxford Road frontage of the campus. The Aboriginal Health Services cluster of buildings addressing Luxford Road includes 'Malmo' (a former house now part of the hospital), the campus' only heritage item which pre-dates the current use.

Mount Druitt Hospital forms part of the combined Blacktown and Mount Druitt Hospitals (BMDH) which operates across two campuses within the Blacktown LGA, each part of the WSLHD.

Mount Druitt Hospital offers 24-hour emergency care, and a district-wide role in the provision of planned surgery, with a high proportion of general, orthopaedic and breast surgery, paediatric and palliative care services.

Before Mount Druitt Hospital came into existence, a Polyclinic Centre operated for the population of the Mount Druitt area from this site and was opened in September 1975.

The current hospital was designed by Lawrence Nield in 1980 and was officially opened by Queen Elizabeth II on October 11, 1982. The hospital won the 1983 RAIA NSW Chapter Merit Award for the cohesive architectural expression and park like environment.

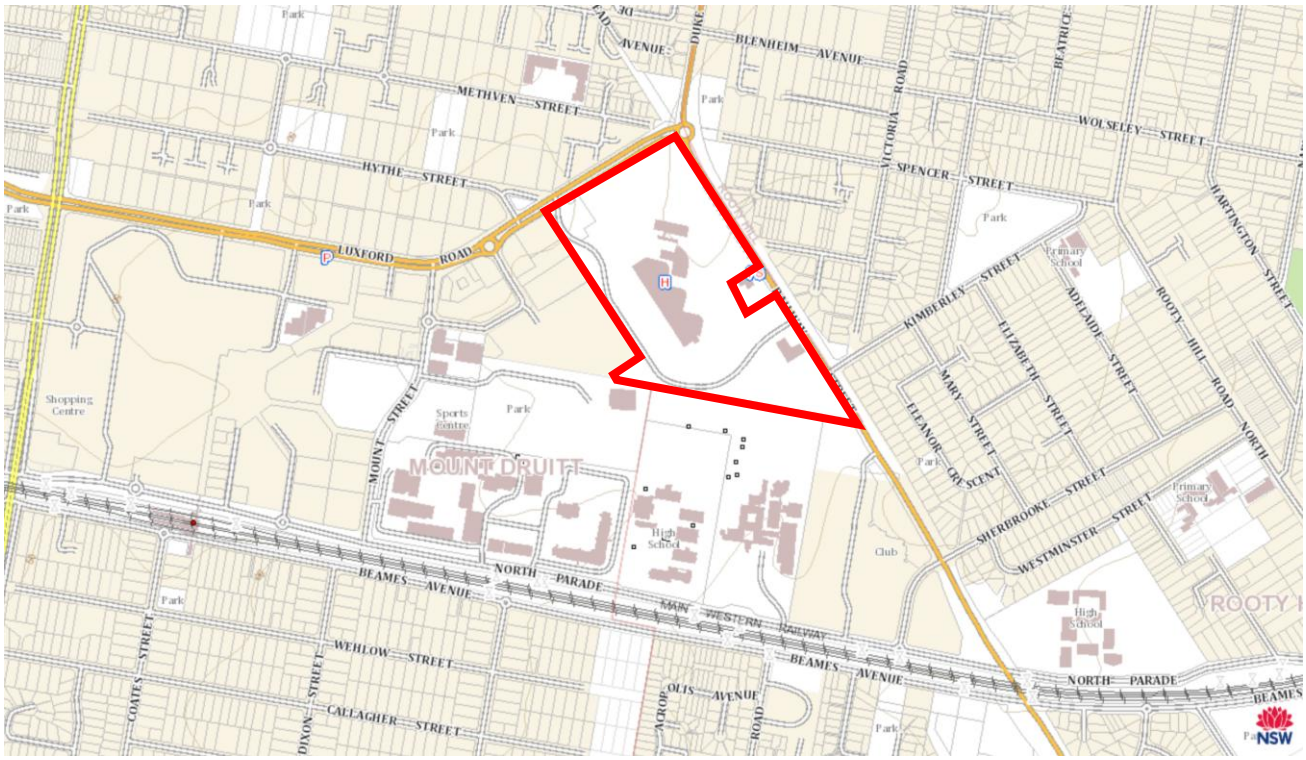

Figure 1 – Location Plan with the hospital campus generally outlined in red (Sixmaps)

Figure 2 – Aerial photograph of the hospital campus and its environs (SixMaps)

The hospital presently accommodates some 57 beds and has some 14 to 16 buildings – see **Figure 4**.

These include the main hospital building as the fulcrum of the operations at the campus, Aboriginal Health buildings; a dialysis centre, Dental Health, Mental Health, and Drug Rehabilitation accommodation. Photographs that follow from **Figure 5** onwards show existing locations that are subject of the proposed scope of works.

Figure 3 – Mount Druitt Hospital - Lot 11 in DP 1268736 shown in yellow (SixMaps)

2.1.2 Other Site Elements

Topography

The site is generally flat with a slight undulating topography towards the vegetated areas fronting Railway Street. The main hospital building is also generally set into a rise running parallel with the building and through the middle of the site as seen in part in the figures that follow.

Most of the Mount Druitt Hospital campus sits at RL60. The lowest elevation (RL57.5 - RL60) and highest elevation (RL62.5) are located around the boundaries of the site. There are no waterbodies or creeks on site. Surveys of the hospital campus and the localised areas of the substantive new works at the site and helipad are found at **Appendix A**.

Vegetation

As noted, the site is generally characterised as being well vegetated and green, particularly with denser pockets of vegetation towards the Railway Street and Luxford Road intersection. Sparser pockets of vegetation exist around the site where areas are not paved with roadways or at-grade car parking. This includes the subject site of the proposed works.

The site has been subject to major vegetation clearance works in past decades. This includes up to the mid-1960s, as well as in the early 1980s as part of the development of the current hospital.

The current vegetation and landscape features has been described by the project's ecological consultant as exotic maintained lawns with interspersed large native trees. On the eastern side of the site, there is a

densely vegetated zone (dominated by *Acacia, Dodonaea, Ozothamnus*) which was revegetated in 2022.

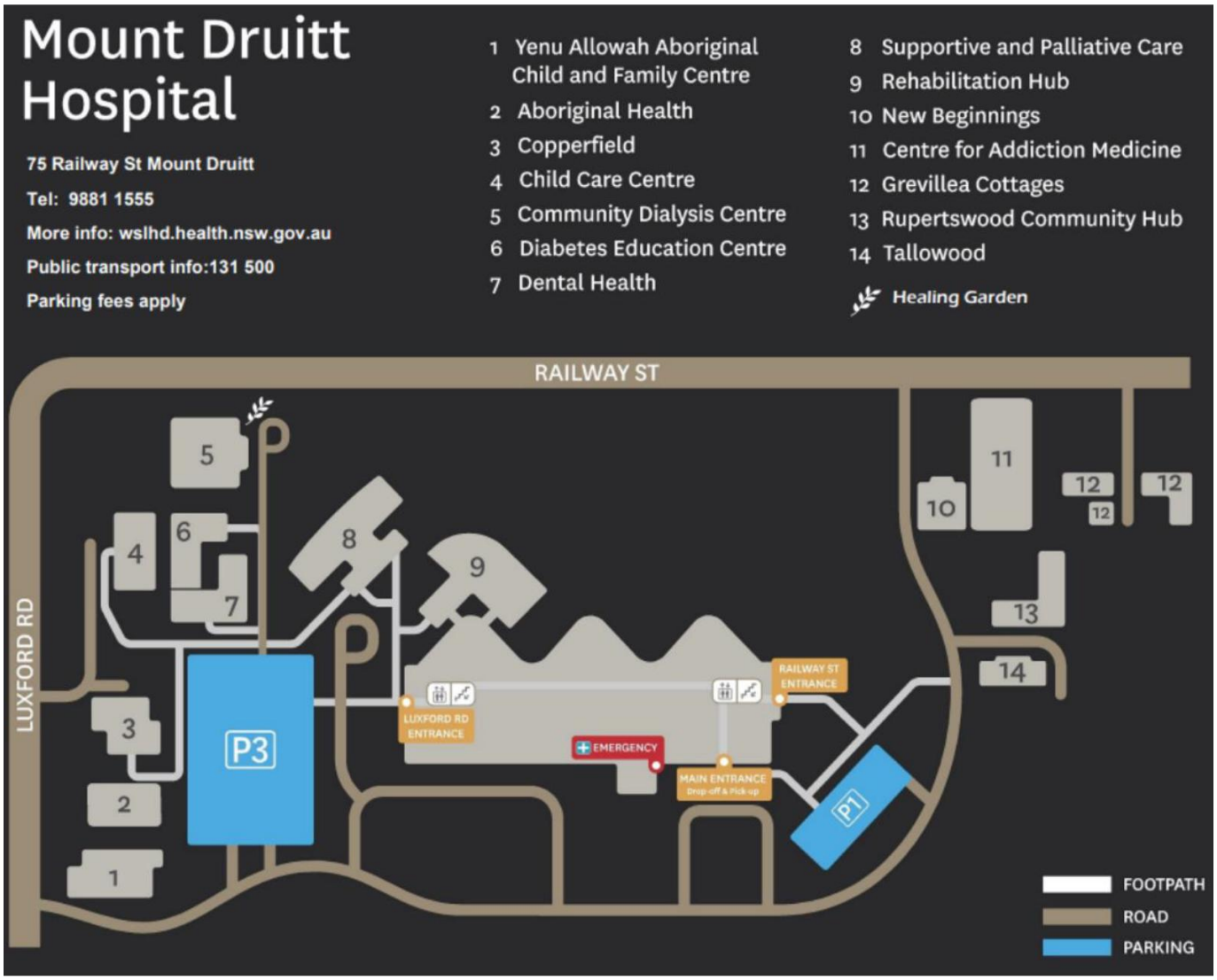

Figure 4 – Mount Druitt Hospital map (WSLHD)

Figure 5 – Main Hospital Building to the left and the location of the proposed works / extension to the right.

Figure 6 – Main Hospital Building to the left and the location of the proposed works / extension to the right.

Figure 7 – Main Hospital Building and the location of the proposed works / extension to the foreground.

Figure 8 – Main Hospital Building and the location of the proposed works / extension to the foreground.

Figure 9 – Main Hospital Building and location of the proposed works / extension to the foreground and area subject to overland flows

Figure 10 – View from Level 2 of the Main Hospital Building towards the location of the proposed works / extension.

Figure 11 – Existing decommissioned helipad proposed for demolition with the location of proposed works / extension to the left

Figure 12 - Recently revegetated land to the east of the proposed works and decommissioned helipad

Figure 13 – Location of existing and new bulk oxygen plant and part of new fire hydrant ring main

Figure 14 – Back of house and loading dock area and location for part of new fire hydrant ring main

Figure 15 - Back of house and loading dock area and location for part of new fire hydrant ring main

Figure 16 – Staff car park (P2) and loading dock area and location for part of new fire hydrant ring main

Figure 17 - Location for part of new fire hydrant ring main

Access and transport

A circulation / access road skirts the campus allowing direct through access from Railway Street to Luxford Road and vice versa. This access road connects to the campus' three (3) main at-grade car parks – see **Figure 18**. The total parking supply at the hospital is some 400 spaces, including short-term drop-off parking, and parking dedicated to staff and other authorised users, including the Mental Health Unit. There are a number of on-street parking locations within a 10-minute walking distance from the hospital site within the surrounding local streets. These are mainly unrestricted parking spaces within residential streets.

The site has good connectivity with the existing public transport network, with a number of bus routes providing direct access to the site. The site is located near several bus stops with the closest bus stop located approximately 260 metres west of the Luxford Road entrance on Luxford Road. The bus stop is serviced by the 747 and 754 route with services every 30-60 minutes.

Mount Druitt Hospital is located approximately 1.5 kilometres (21-minute walk) from Mount Druitt Train Station. The train station is accessible from the sites via a number of bus routes that utilise the bus stop mentioned above. A significant number of public transport routes are available from the Mount Druitt train station which provides good connectivity to surrounding areas. Public transport routes include bus services and train services.

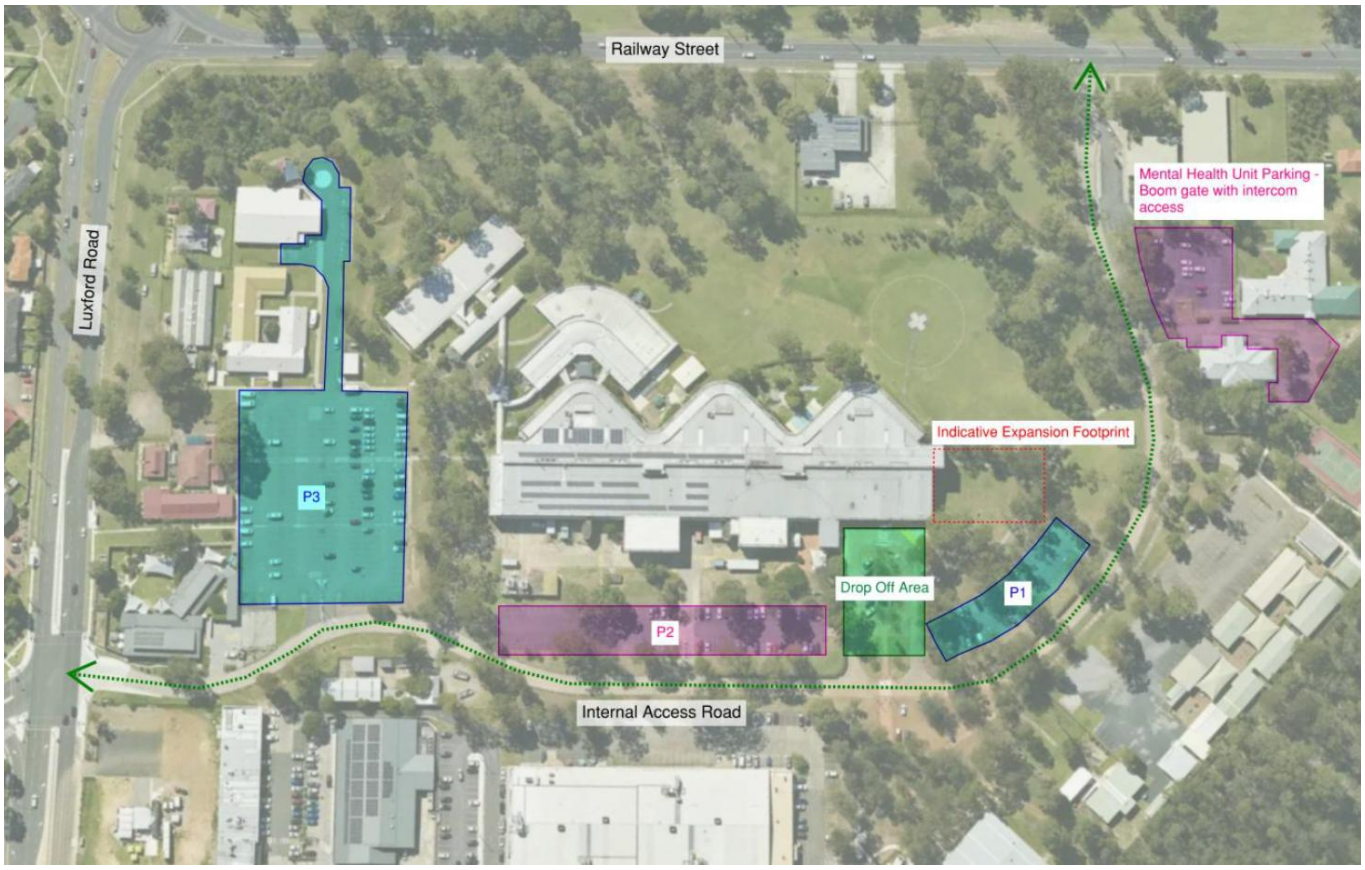

Figure 18 – Existing access and parking arrangements (Stantec)

Flooding

The site is subject to overland flow derived from the local upstream catchment. The upstream catchment is relatively small and extends approximately 250m south of the hospital into the existing adjacent educational establishments. Overland flow derived from the upstream catchment travels in a northerly direction across the hospital access road along the southern boundary of the site, continues around the southern portion of the existing building (in the vicinity of the proposed development) and continues around the eastern side of the hospital, across the decommissioned helipad before connecting onto Railway Street in the north-eastern corner of the site. The depth of this localised flooding is approximately up to 30cm (0.3m) in the vicinity of the proposed development at the 1 in 100 year rainfall event (1% AEP).

The upstream catchment consists of an early learning centre, school, carparking, open space areas, trees, and roads with surrounding urban development. An area of industrial / commercial land use is also located to the west of the hospital which contributes overland flows, downstream of the proposed development.

Due to the relatively small upstream catchment, flood water is expected to rise and fall relatively quickly at the subject site with potentially limited warning time. Notwithstanding, the flood hazard categorisation is deemed to be predominantly ‘H1’ across the area, signifying ‘generally safe for people, vehicles, and buildings’.

Geology and Contamination

The site soils are mapped as ‘Blacktown 9030bt’. The site’s geological characteristics include it being underlain by ‘Wianamatta Group—Ashfield Shale’ consisting of laminite and dark grey siltstone, Bringelly Shale which consists of shale with occasional calcareous claystone, laminite and infrequent coal, and Minchinbury Sandstone consisting of fine to medium-grained quartz lithic sandstone.

Previously completed Preliminary Site Investigations (PSIs) at the site identified typical potential contamination sources commonly associated with areas of Western Sydney, including historical agricultural use, historical filling, potential use of pesticides and potential soil impacts from demolition of buildings containing hazardous building materials.

The PSIs included soil sampling from six locations in the south-eastern area of the site and analysis of soil samples for the identified contaminants of potential concern (CoPC). All soil contaminant concentrations were low and were below the applicable Site Assessment Criteria (SAC). Notwithstanding, the investigations confirmed the site had been filled and a Detailed Site Investigation (DSI) was recommended to meet the minimum sampling density specified by the NSW EPA. Soil samples are currently at the laboratory undergoing chemical analysis for the CoPC. Whilst it has been identified via the desktop assessment process that there is a potential for site contamination, the intrusive investigations have not identified any in-ground contamination and the findings to date have not identified a need for remediation of the site. Additional/detailed investigation is still underway and results are due to be reported in November 2025.

Figure 19 – Local heritage item (I42) 'Malmo' which addresses the Luxford Road frontage of the site

2.1.3 Site Considerations and Constraints

Section 10.7 Planning Certificate No. PL2025/12607 dated 14 October 2025 identifies that the site is located within the 'SP1 Special Activities' zone under Blacktown Local Environmental Plan 2015, and is provided at **Appendix B**.

Table 1: Section 10.7 Planning Certificate

Affection	Yes	No
Critical habitat		✓
Conservation area		✓

Affection	Yes	No
Item of environmental heritage	✓ House—Malmo 1–3 Luxford Road Part of Lot 1, DP 1208657 Local I42 – see **Figure 19**	
Affected by coastal hazards		✓
Proclaimed to be in a mine subsidence district		✓
Affected by a road widening or road realignment		✓
Affected by a planning agreement		✓
Affected by a policy that restricts development of land due to the likelihood of landslip		✓
Affected by bushfire, tidal inundation, subsidence, acid sulfate or any other risk		✓
Affected by any acquisition of land provision		✓
Biodiversity certified land or subject to any biobanking agreement or property vegetation plan		✓
Significantly contaminated		✓
Subject to flood related development controls	✓	
List other relevant constraints		✓

2.2 Surrounding Development

The hospital campus is set into a neighbourhood of a range of land uses. Residential development of a mix of heights and densities is located to the north-east, north, north-west and west of the site. Generally, lower scale and lower density residential development is set to the east and north-east and denser, taller residential development to the north and north-west towards the Mount Druitt Town Centre in particular. No residential development directly abuts the site.

The hospital is otherwise bordered by educational uses (Aengus Kavanagh Centre, Mount Druitt TAFE) to the south and retail / commercial uses (Mount Druitt Central shopping centre and Westfields Mount Druitt) to the south-west and west.

A series of photographs over show the surrounding development.

Figure 20 – The Aengus Kavanagh Centre to the south of the hospital

Figure 21 – Existing development to the south of the hospital

Figure 22 – Loading docks and parking of adjacent retailing to the west of the hospital

Figure 23 – Parking of adjacent retailing, and new high density high rise residential development to the west of the hospital

Figure 24 – Existing low rise low density residential development to the north of the hospital across Luxford Road

Figure 25 – The Mount Druitt Fire + Rescue Station to the east of the hospital on Railway Street

2.3 Concurrent Projects

There are no other concurrent projects of any scale to generate conflicting or cumulative impacts.

As part of the same project, a range of minor refurbishment works in other parts of the main hospital building are proposed to be carried out as Exempt Development utilising the same contractor team. These works are as set out the Section 3 of this REF for context.

Note, a recent DA (SPP-22-00010) for the construction of two indoor basketball courts with associated amenities, a lobby connection to the existing Kevin Betts Stadium, hardstand carpark area and associated landscaping at the nearby Mount Druitt Town Centre Reserve 10 Ralph Place, Mount Druitt was approved by the Regional Planning Panel in 2023.

The development secured its Occupation Certificate on 23 September 2025 for the works and it is reasonable to conclude that this nearby development of some scale will no longer pose potential concerns related to concurrent or cumulative construction impacts given it completion and occupancy.

3 Proposed Activity

3.1 Proposal Overview

The following summarises the proposed scope of works:

- Lateral extension to the southern-most part of the main hospital building across two levels at its southern-most extent:

  Level 1 – extension to existing building

  - Relocation and Expansion of Outpatient Department (OPD) accommodating 23 separate rooms or points of care as well as ancillary rooms and spaces of about 833m^2.
  - New enclosed lobby of about 75m^2.
  - Future expansion zone (assumed as cold shell for future clinical or non-clinical purposes) of about 235m^2.

  Level 2 – extension to existing building

  - New in-patient unit (IPU) and support spaces of about 1,085m^2 in area with external fire / access stairs to Level 1 / ground.

The works will also involve the following ancillary or supplementary works:

- Selected tree removal to accommodate the proposed development and its ancillary works, as further set out below.
- Demolition of the existing decommissioned helipad and make-good works.
- Civil and flood mitigation works to manage overland flow paths in the vicinity of the proposed extension and car park.
- Extension of the existing at-grade car park P1.
- New oxygen compound adjacent to the existing oxygen compound.
- Augmentation of the existing fire hydrant ring main adjacent to the western edge of the main hospital building and relocation and partial upgrade of the existing hydrant booster.
- Offset planting and new landscaping.

Figure 26 over provides an indicative overview of the locations of the proposed works.

Each of these components is described in additional detail further below in Section 3.1.2 of this REF.

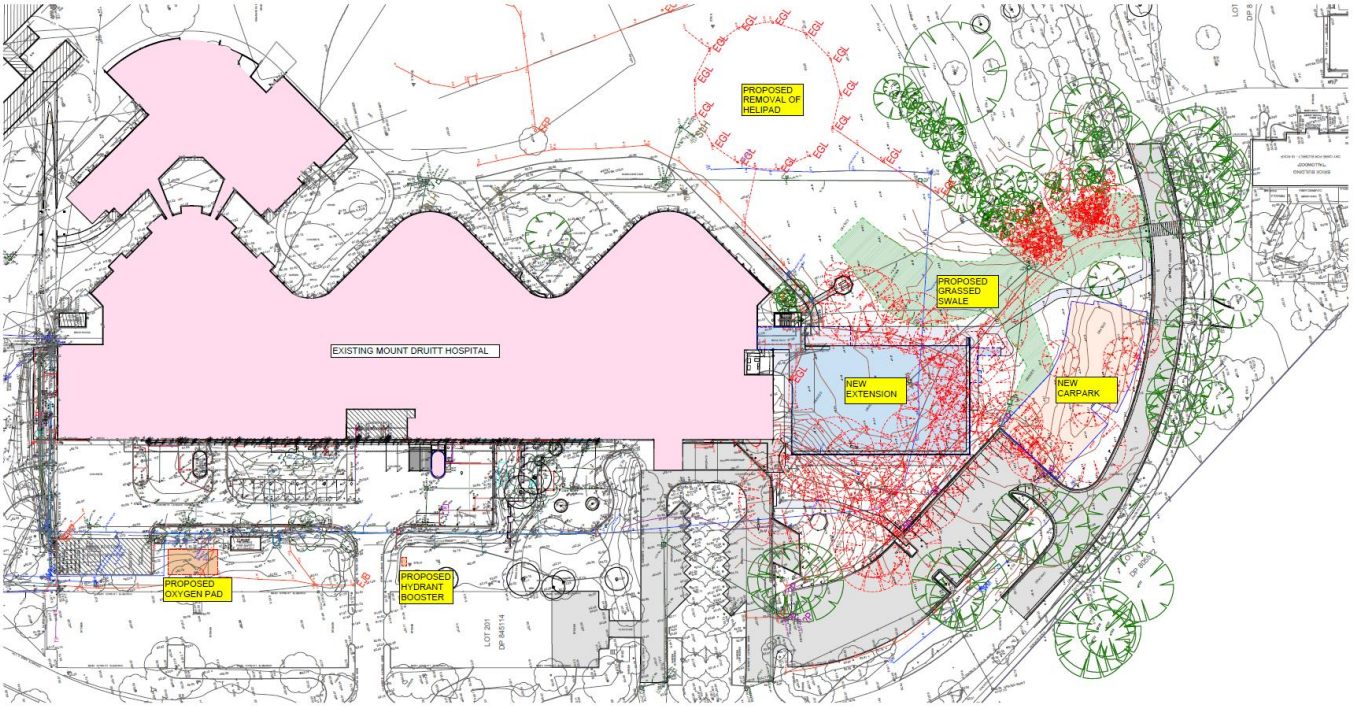

Figure 26 – Locations of proposed works labelled in yellow with proposed tree removal shown in red (Jacobs)

3.1.1 Design Approach

Placemaking and Design

HI's Design Principles applicable to all NSW projects have been applied. These generally set out the objectives of the development along with the specific need to provide additional hospital beds in a growing population catchment or otherwise address existing shortfalls in provision.

The HI Design Principles are:

- Design for dignity.
- Design for wellbeing.
- Design of efficient and flexible delivery of care.
- Design for longevity and resilience.
- Safety and security.
- Design with Country.
- Design for the neighbourhood and surrounding environment.
- Design for connection.
- Design for sustainability.

These principles were tailored by Jacobs to suit the needs and function of the respective spaces. The Design Statement prepared by Jacobs has also addressed the follow:

- The Design Guide for Health: Spaces, Places & Precincts;
- HI Policies, Guides or Frameworks relating to Design, Placemaking and Sustainability;
- Crime Prevention Through Environmental Design Principles; and
- HI's Design Assurance process.

Connecting with Country/Engagement

The traditional land owners of the land where the site is located is the Dharug people. The Dharug people have been engaged as part of the design process in addressing and meeting the requirements and objectives of the GANSW *Connecting with Country* (CWC) *Framework* (2023). This includes a Dharug cultural advisory panel.

The key CWC design principles adopted have included:

- Protecting Aboriginal cultural heritage.
- Environmental conservation.
- Healing and wellbeing through design.
- Inclusive and culturally safe design.
- Storytelling, wayfinding and public art.

The design of the building extension seeks to unite the strong tradition of service with hospital's history and to Country, acknowledging the Dharug people as traditional landholders.

The art strategy and indigenous component alignment for Mount Druitt Hospital will follow the same approach what was adopted for the recently completed Blacktown Hospital works.

The opportunities identified to date are indicative and will need to be further refined to align with the architectural direction and project budget, as follows:

- Art themes.
- Colour palette – the Dharug Country's six seasons.
- Materials selections.
- Paving design.
- Privacy screening to clinical spaces.
- Northern wall adjacent to the entry (Brick/Tile).
- Landscaping and planting.
- Public area art.
- Signage and wayfinding.
- Aboriginal family room finishes

Sustainability and Climate Resilience

The project's design has incorporated sustainability principles consistent with the requirements of DGN 58 and HI's Sustainability Strategy. A suite of ESD-related documents comprises **Appendix C**, including a Sustainability Plan, ESD Evaluation Tool, Climate Adaptation Plan and Net Zero Plan.

According to the principles outlined within the NSW HI Engineering Service Guidelines (DGN 058), the project is to demonstrate the following outcomes:

- A minimum of 60 points (+5 point buffer) to be achieved by the design in accordance with HI's ESD Evaluation Tool; and
- A mandatory requirement of demonstrating a 10% improvement in energy performance on NCC Section J.

The project will implement several sustainable design principles which include initiatives designed to mitigate the development's environmental impact across the following areas:

- The development is currently targeting **65.5 points** in accordance with HI's ESD Evaluation Tool.

- The development will demonstrate a 10% improvement in energy performance on NCC Section J.
- Building Management – including reviews of commissioning and tuning, building information and other operational processes.
- Indoor Environment Quality – including high air quality, acoustic/lighting comfort and reduction of indoor pollutants.
- Energy & Carbon – including improved energy efficiency of the building operations through design and technology and consideration to Embodied Carbon.
- Water Efficiency – reduce potable water demand and utilising the use of rainwater.
- Materiality & Waste – Considering the whole of life of materials and their selection to minimise harm to the environment, including efficiency and construction while minimising resources sent to landfill from construction and demolition works.

Additionally, the EP&A Regulation lists four principles of ESD required to be considered in assessing a project:

- The Precautionary Principle
- Intergenerational equity
- Conservation of biological biodiversity and ecological integrity
- Improved valuation and pricing of environmental resources

The precautionary principle is utilised when uncertainty exists about potential environmental impacts. It provides that if there are threats of serious or irreversible environmental damage, lack of scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. The precautionary principle requires careful consideration and evaluation of potential environmental impacts in order to avoid, wherever practicable, serious or irreversible damage to the environment.

This REF has not identified any serious threat or irreversible damage to the environment and flora and fauna. The proposed facility will be located as an extension to an existing building envelope and on previously cleared and developed land within an established urban area. The risk of creating environmental damage to aspects such as waterways, water table, native habitat, and other biological features is considered low.

Intergenerational equity is concerned with ensuring the health, diversity and productivity of the environment can be maintained or enhanced for the benefit of future generations. The proposal satisfies this by providing a means to providing enhanced and much needed health services for generations to come. The proposed development approaches inter-generational equity with respect to ecological sustainability by minimising the consumption of resources whilst upholding the health and well-being of its occupants into the future. The project has objectives that place lower demand on resources (energy, water, materials) in construction and operation, when compared to standard practice, by introducing Australian best-practice energy, water and materials conservation measures. These objectives and corresponding initiatives set out to use today's resources in a manner that enables future generations to meet their own needs using equivalent resources.

The principle of biological diversity upholds that the conservation of biological diversity and ecological integrity should be a fundamental consideration for any development. The proposal will have no significant detrimental effect upon this, given the isolation of the works from key ecological features at the site. The sustainability targets set for the project will aim to improve conservation of resources. As such, the proposed development is likely to have a smaller gross biological and ecological footprint than equivalent projects in standard practice.

The principles of improved valuation and pricing of environmental resources requires consideration of all environmental resources that may be affected by a proposal, including air, water, land and living things.

Mitigation measures are included in this REF for avoiding waste and ensuring where possible reuse, recycling and managing waste occurs, as relevant to this relatively minor scope of works. This project will integrate several initiatives which aim to internalise pollution and other undesirable environmental outcomes. Contractors will be requested to provide and abide by an Environmental Management Plan and Environmental Management System which are in accordance with NSW Environmental Management Systems Guidelines or a similar standard. This places a value on environmentally responsible building practices and places a form of "polluter pays" onto the contractors to ensure they are held responsible for the environmental management of the building site as they complete their work.

3.1.2 Proposed Activity

Extension to Main Hospital Building

Lateral extension to the southern-most part of the main hospital building across two levels at its southern-most extent:

Level 1 – extension to existing building

- Relocation and Expansion of Outpatient Department (OPD) accommodating 23 separate rooms or points of care as well as ancillary rooms and spaces of about 833m^2.
- New enclosed lobby of about 75m^2.
- Future expansion zone (assumed as cold shell for future clinical or non-clinical purposes) of about 235m^2.

Level 2 – extension to existing building

- New in-patient unit (IPU) and support spaces of about 1,085m^2 in area with external fire / access stairs to Level 1 / ground.

The scope also includes photovoltaic (PV) cells on the roof of the new addition / extension.

The new extension / addition to the main hospital building will be two-storeys in rise and to a maximum building height of approximately 12m.

Figure 27 shows the location of the proposed extension and a layout plan. The Level 1 and Level 2 general arrangement plans are shown at **Figures 28** and **29**, respectively. Indicative renders and axonometric diagrams follow.

See the architectural drawing set at **Appendix D** and the architectural design statement at **Appendix E**.

Further, a number of ancillary spaces also subject of the new works (also as Exempt Development) include:

- New Aboriginal Family Room located within the current RMO Lounge on Level 1 of the existing hospital.
- Pharmacy (FFE Only).
- Relocation of the existing gift shop to the area between Ward 2A and 2B of the existing hospital behind the stairway.
- Refurbishment of CSSD (Loan Set Room) within the antenatal outpatient consultation room on Level 2 of the existing hospital.
- RMO Lounge relocated to the existing WSLHD Counter Disaster Unit on Level 2 of the existing hospital. With the access to overnight stay satisfied through the Overnight Room and adjoining shower / toilet on Level 1.

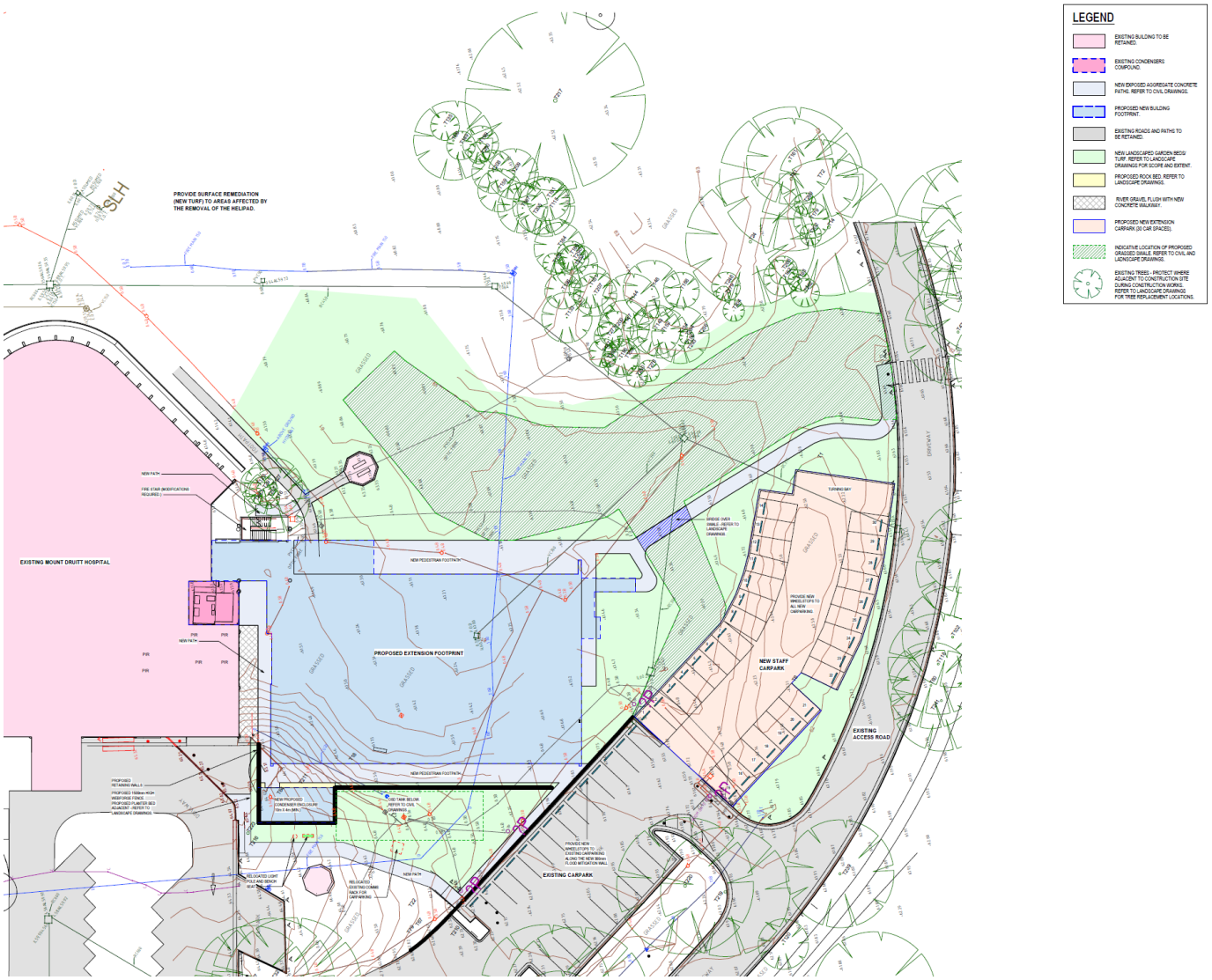

Figure 27 – Site Layout Plan (Jacobs)

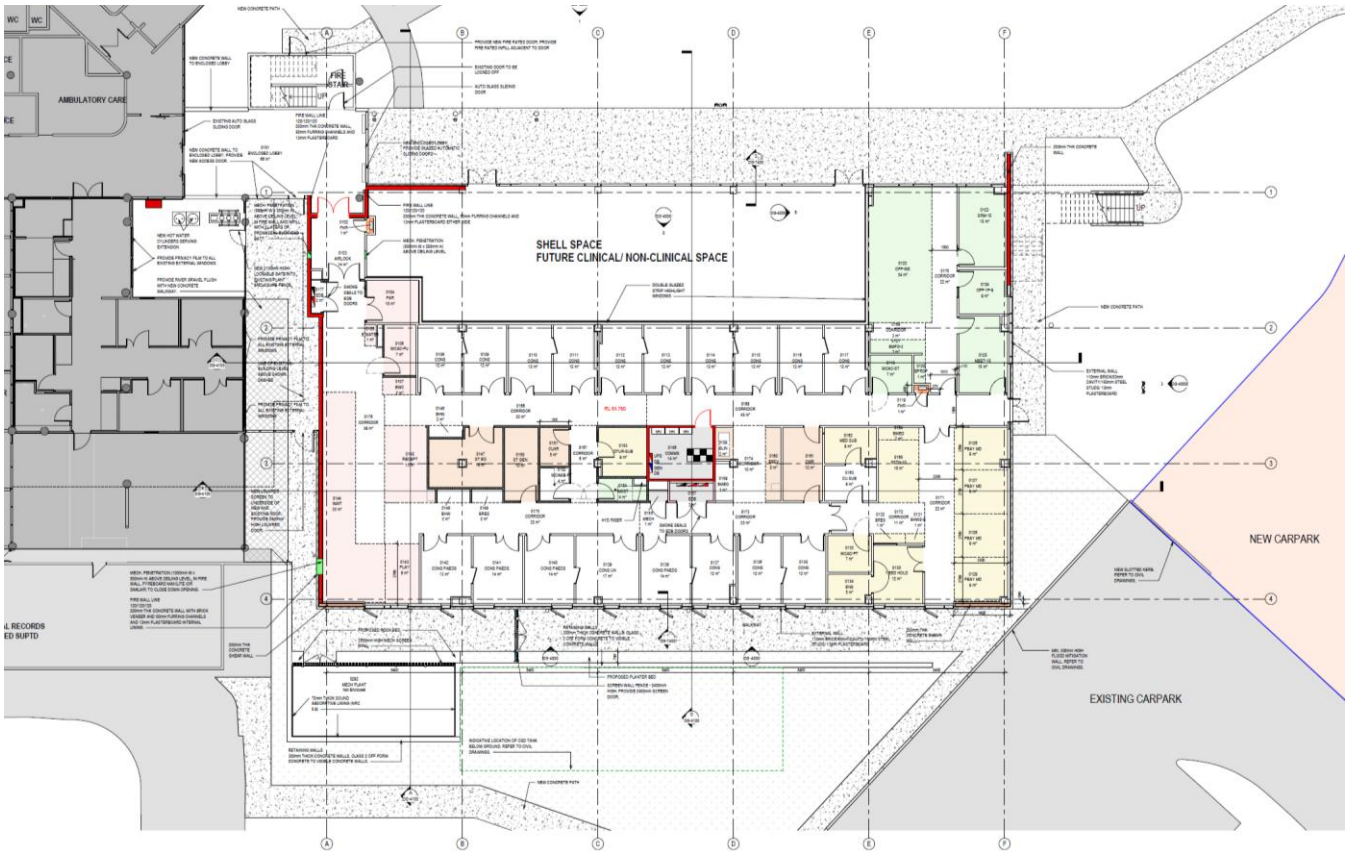

Figure 28 – Level 1 General Arrangement Plan (Jacobs)

Figure 29 – Level 2 General Arrangement Plan (Jacobs)

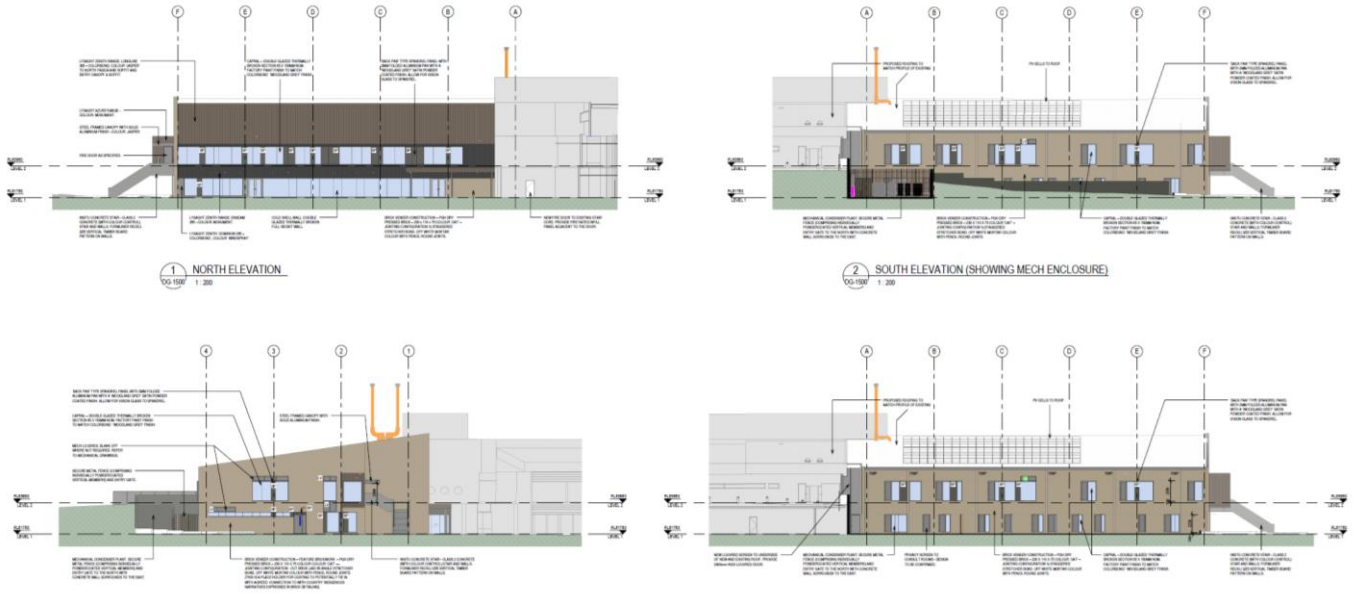

Figure 30 – Elevations (Jacobs)

Figure 31 – Indicative render of the extension as seen from the south-east (Jacobs)

Figure 32 – Indicative render of the extension as seen from the south-west (Jacobs)

Figure 33 – Eastern and Northern Entry Perspectives (Jacobs)

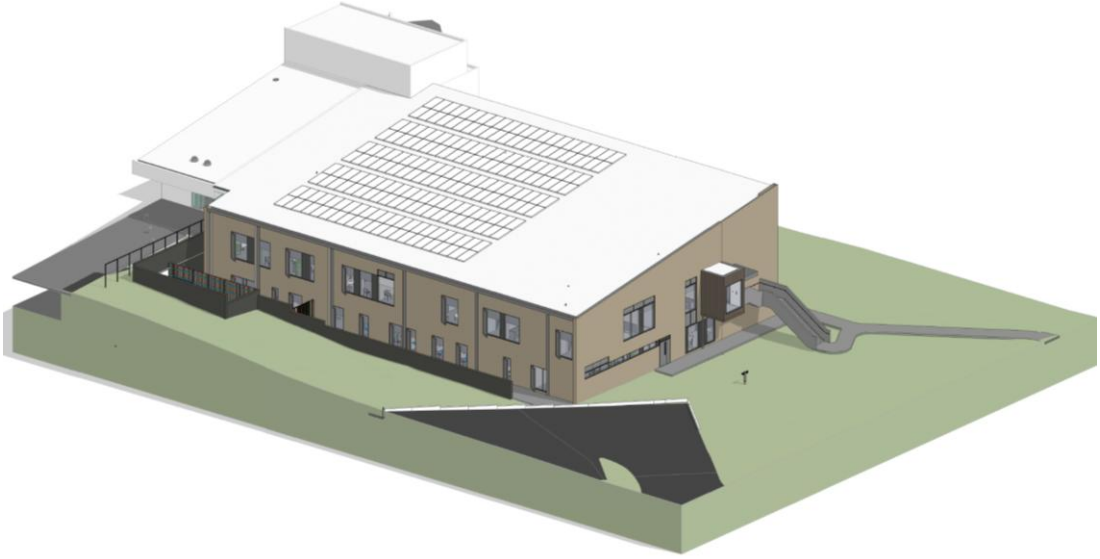

Figure 34 – Axonometric View from the south-west (Jacobs)

Tree Removal and Landscaping

The proposal necessitates removal, or otherwise impacts upon, some 125 native trees (being 67 trees plus 58 trees and shrubs within two tree groups). These are impacted by either the footprint of the proposed extension, the extended at-grade car park, the proposed civil engineering works to mitigate overflow flow and flooding impacts, and the fire hydrant ring main augmentation works. None of the trees proposed for removal sit within the nearby areas of revegetation. It is understood that all trees are planted specimens given the periodic and relative comprehensive clearing of the site (such as in the mid-1960s and again in the early 1980s to allow for the development of the existing hospital). It is also possible some of the existing trees may be self-seeded from the soil seed bank.

New landscaping is proposed at the perimeter of the extension and offset tree planting is also proposed at a rate of 2:1 (greater than the standard rate applied on HI projects). This will result in at least 250 new trees across the hospital site to compensate for the loss arising from the subject works. The proposed offset planting will be native species endemic to the locality and consistent with, and representative of, the vegetation community present in the nearby revegetated patch (PCT 3320 Cumberland Plain Woodland in the Sydney Basin Bioregion).

Figure 35 indicates the extent of tree removal, whilst **Figures 36** and **37** show the proposed landscaping and the locations for the proposed offset tree planting. See further discussion and assessment in Section 6 on ecological / biodiversity impacts. See the Arboricultural Statement at **Appendix F**, and the landscape drawings and landscape design statement at **Appendices G** and **H**, respectively.

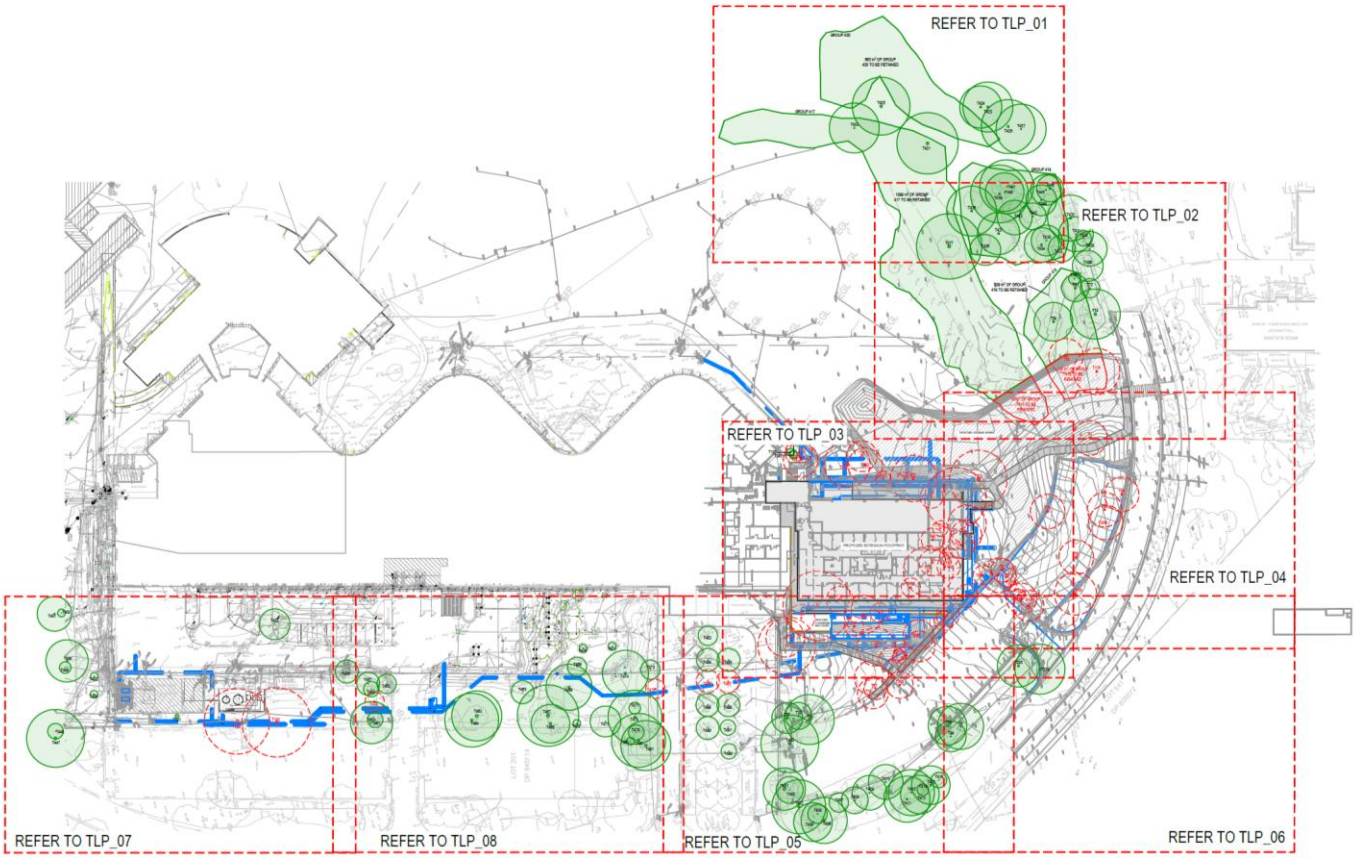

Figure 35 – Extent of tree removal as shown with red circles (CPS)

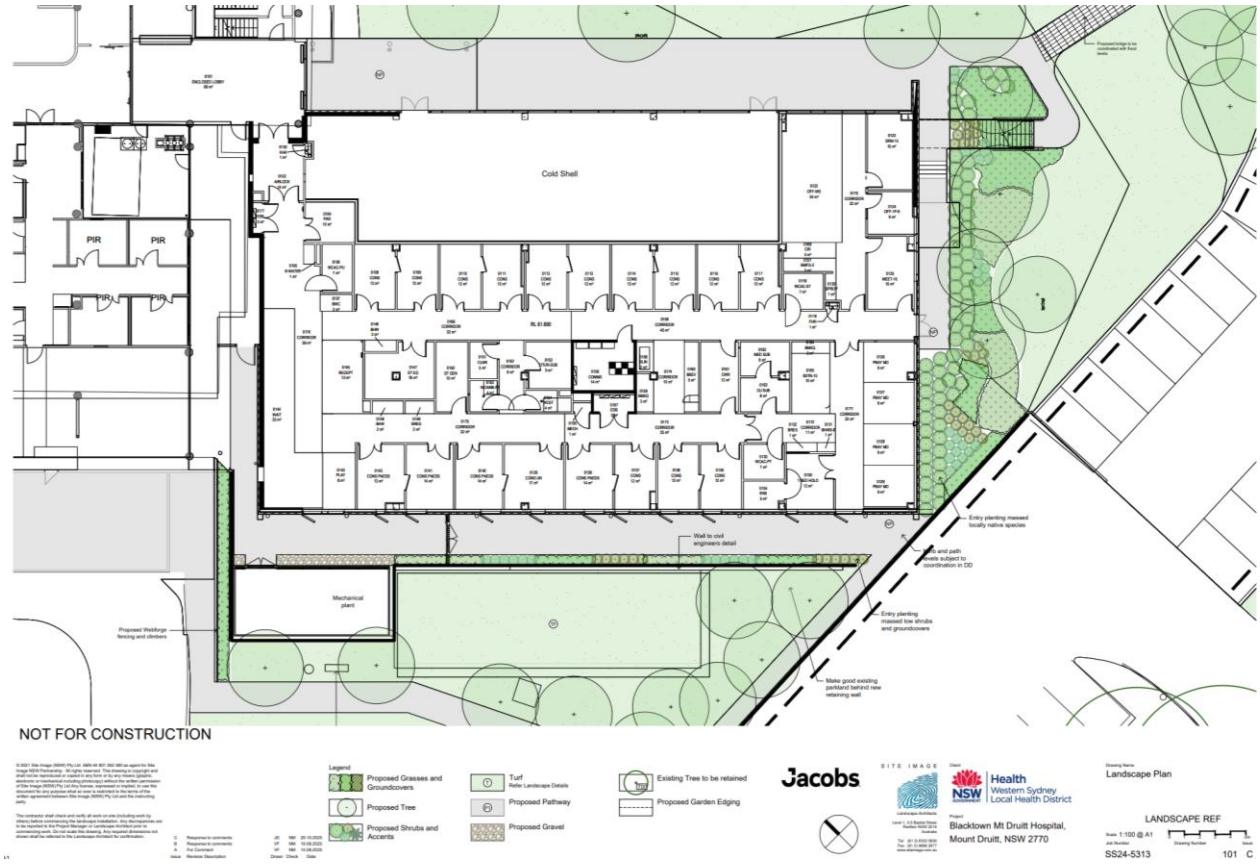

Figure 36 – Proposed landscape plan (Site Image)

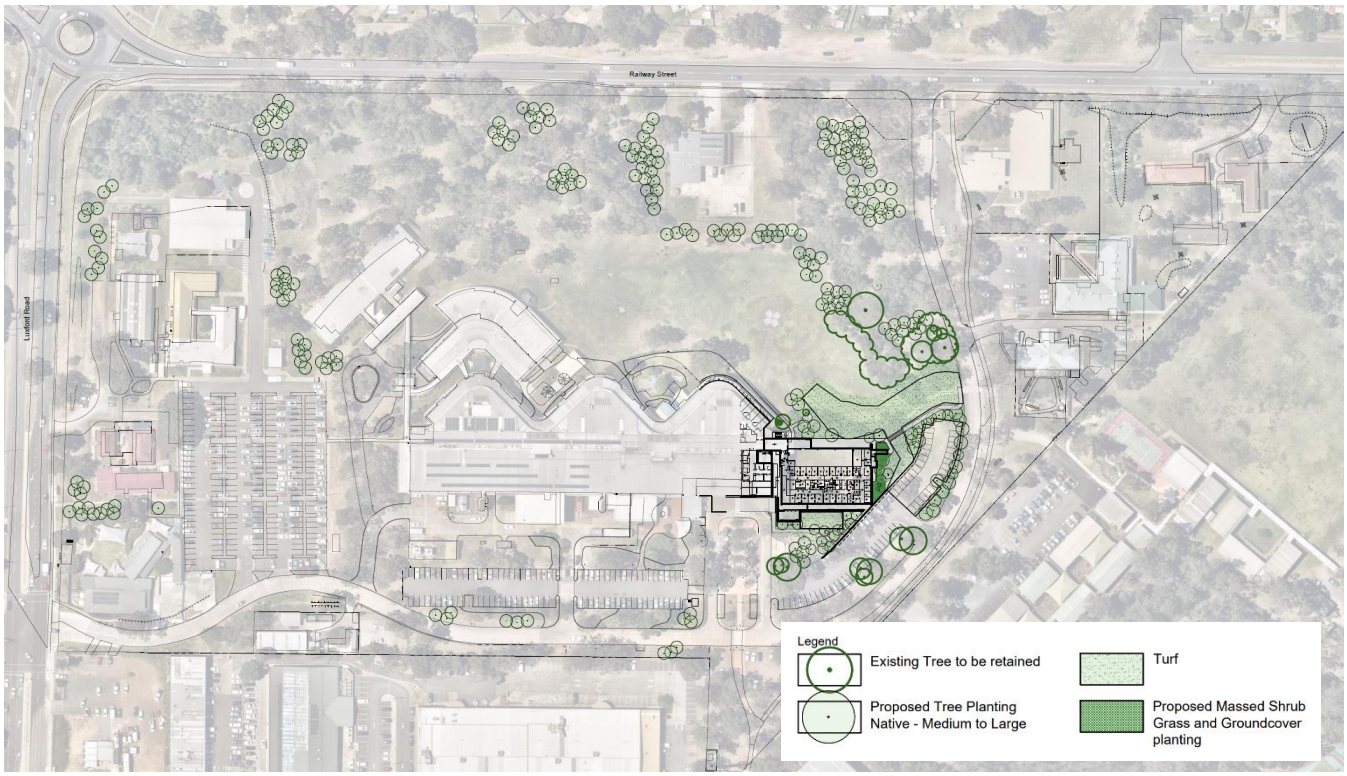

Figure 37 – Locations of proposed offset tree planting (Site Image)

Demolition of Decommissioned Helipad

The existing helipad at the site is currently formally decommissioned with the facility no longer appearing on maps, charts, publications and databases. The helipad has an “Out of Service” cross on it – see **Figure 38**. Accordingly, the helipad is proposed to be removed and made-good with landscaping to match the existing adjacent turfed areas.

The scope of works include demolition of the slab, removal of ground lighting and cabling back to a connection point; removal of electrical cabling; protection of adjacent in-ground services pipework and electrical cabling; landscape works to make good the impacted area.

Figure 38 – Existing decommissioned helipad to be demolished

Civil Engineering Works

The proposed civil engineering works include:

- Bulk earthworks to provide for stormwater management works to mitigate and manage existing overland flow and flooding of the site in the location of the proposed extension to the main hospital building. This includes cutting to depths of up to 1.4m to provide for the new on-site detention (OSD) tank and some fill up to 1.0m to provide for appropriate levels at the site. The cut/fill balance is -2,207m^3 (being -2,306m^3 cut and 99m^3 of fill) – see **Figure 39**.
- Stormwater management system to cater for the abovementioned mitigation works and the proposed scope of works, including water quantity and water quality measures during both construction and operation, and a new 96m^3 OSD tank – see **Figure 40**.
- Extension to existing at-grade car park P1 to provide for 30 additional car parking spaces – see further below.
- New paving, kerbs and gutters, and pavements.

See the civil engineering report and drawings at **Appendix I**.

Figure 39 – Bulk earthworks and cut/fill drawing (ACOR)

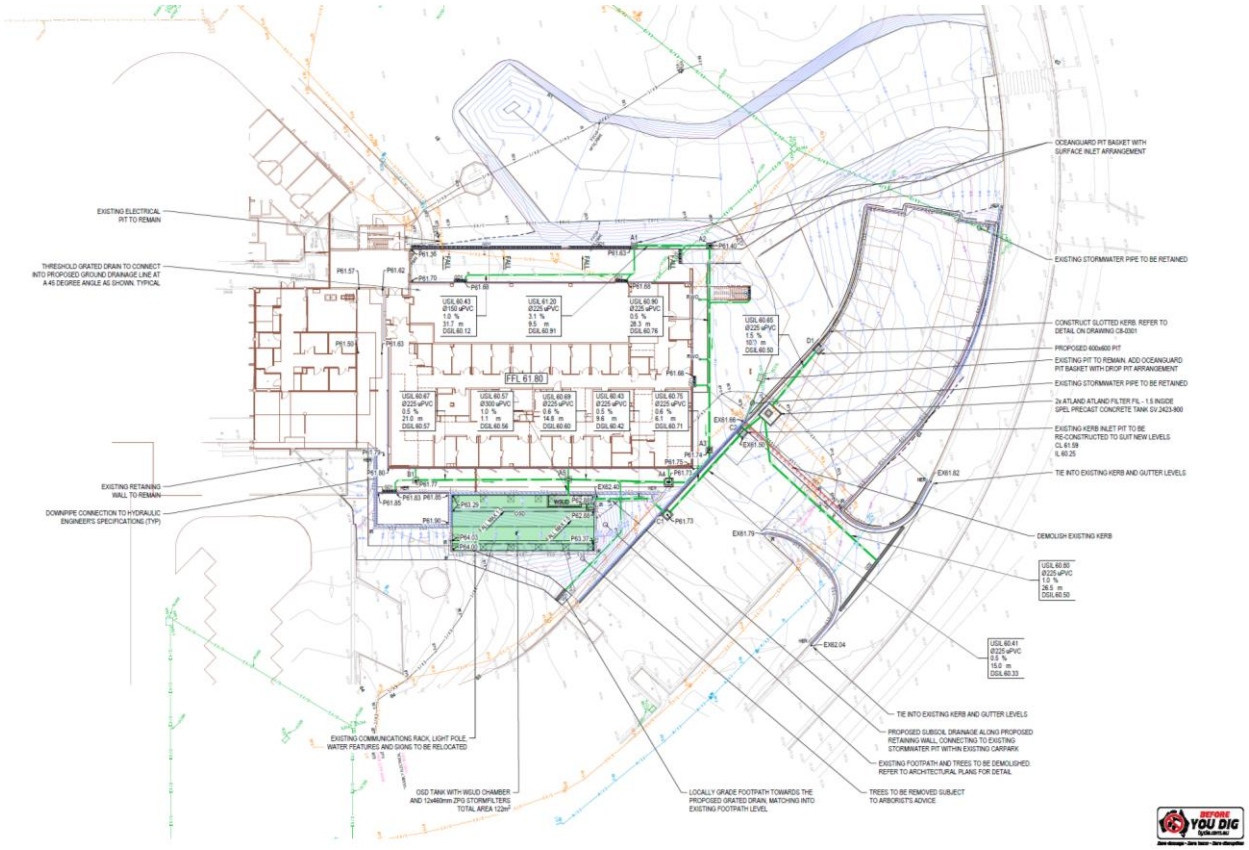

Figure 40 – Site works and stormwater management plan (ACOR)

Parking – extension of existing P1 Carpark

To cater for additional parking demand at the site an additional 30 at-grade spaces are proposed as an extension to existing car park P1 – see **Figure 41**.

This serves as a direct extension of the existing paved areas of the car park without loss of existing spaces nor any change to existing access to / from the car park. The additional parking is intended to primarily cater for staff of the hospital.

The car park will also accommodate a turning space to enable all vehicles to enter and leave in a forward direction. Otherwise, all existing entry points, aisles, parking spaces and access controls operate as existing.

No change is proposed, nor necessitated for any internal roadways or other existing car parks within the hospital site. Pick-up and drop-off areas, temporary or short-term parking areas, loading docks, and delineation of parking areas are otherwise unchanged and continue to function as existing.

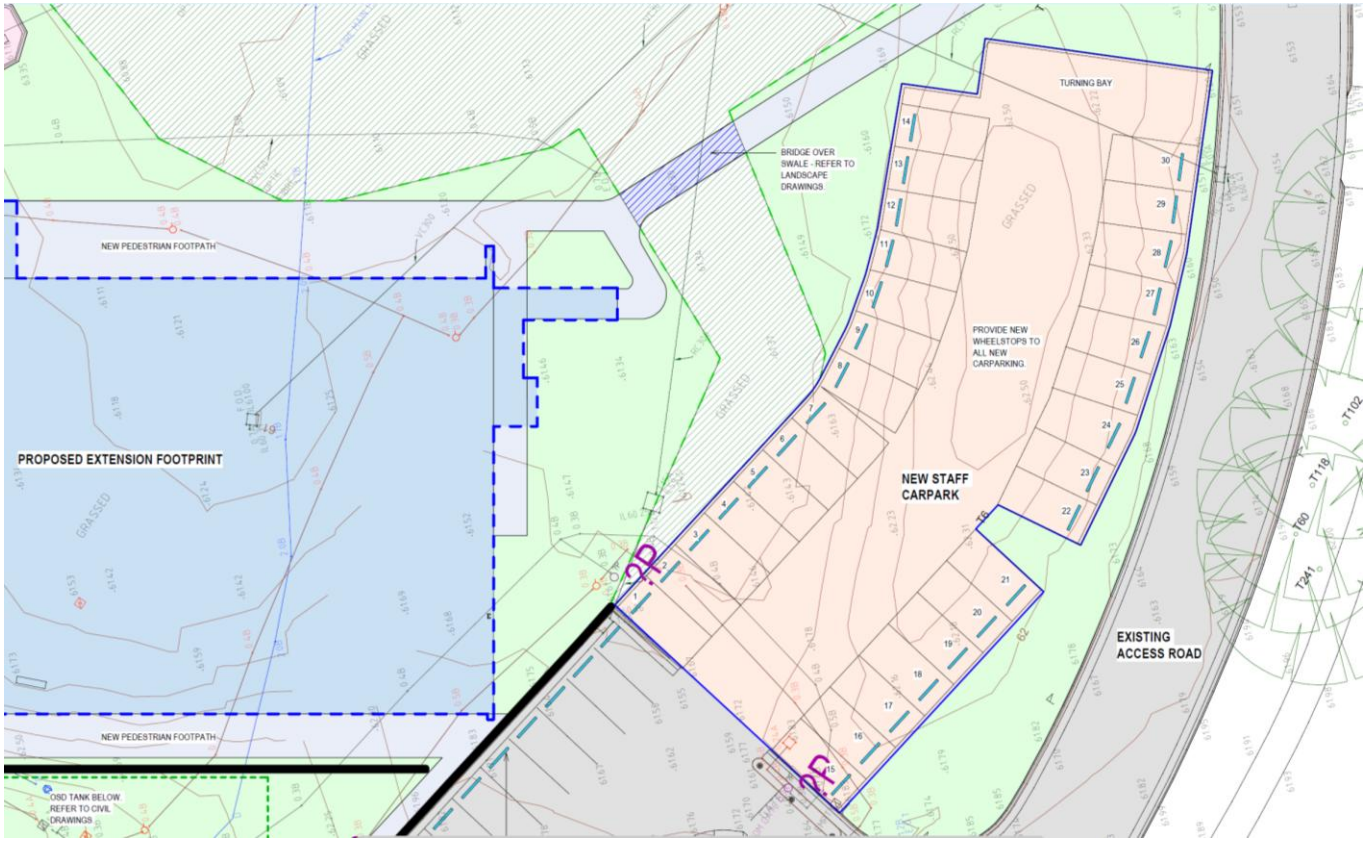

Figure 41 – Proposed extension to existing at-grade car park P1 (Jacobs)

New oxygen compound

A new oxygen compound is proposed immediately adjacent to the existing oxygen compound to provide to the required additional oxygen supply of the hospital. See the location of this compound at **Figure 42**.

The scope involves the removal of an existing oxygen tank and the replacement of the tank with two new oxygen tanks; a main tank of 20,000 L water capacity of liquid oxygen and a 3,000 L water capacity of liquid oxygen as a back-up tank. To establish the new compound a cut/fill balance of -47m^3 (cut) is required along with removal of a tree (being one of the site-wide 125 trees to be removed).

Utilities and fire hydrant ring main augmentation

No new water-based potable, sewer, or fire water utility connections are proposed as a result of these works. Existing water-based utilities connections to the site are proposed to be utilised to serve the new development. Existing capacity is sufficient to cater for any new demand generated.

Similarly, no new electricity supply infrastructure is required to serve the proposed scope of works. There is existing capacity within the electricity supply network.

The only required works relate to fire services at the site which will include:

- A new fire fighting pumpset
- A new fire brigade booster assembly and demolition of the existing.
- Augmentation of the existing hydrant ring main with a new hydrant ring main running in proximity to the existing ring main. This will cater for the new extension whilst the existing ring main will continue to serve the existing hospital building.
- Relocation of the existing ring main in the location of the proposed extension to outside of its proposed footprint.

The existing fire brigade booster assembly requires upgrading and relocation to comply with current AS 2419.1:2021 requirements and improve accessibility for Fire and Rescue NSW. The current booster is part of an older OS70 system and does not meet the latest standards or optimal response requirements. The new location provides improved visibility and access for emergency vehicles while avoiding operational conflicts with the hospital's ambulance drop-off area. These works form part of the broader upgrade to the site's fire hydrant infrastructure.

The proposed alignment of the new ring main is the preferred option as it has least impact from an environmental perspective and from an operational disruption perspective. It also provides for the shortest and most cost-effective run - see **Figure 43**.

See **Appendices J** and **K** with respect to the electrical and hydraulic services statements.

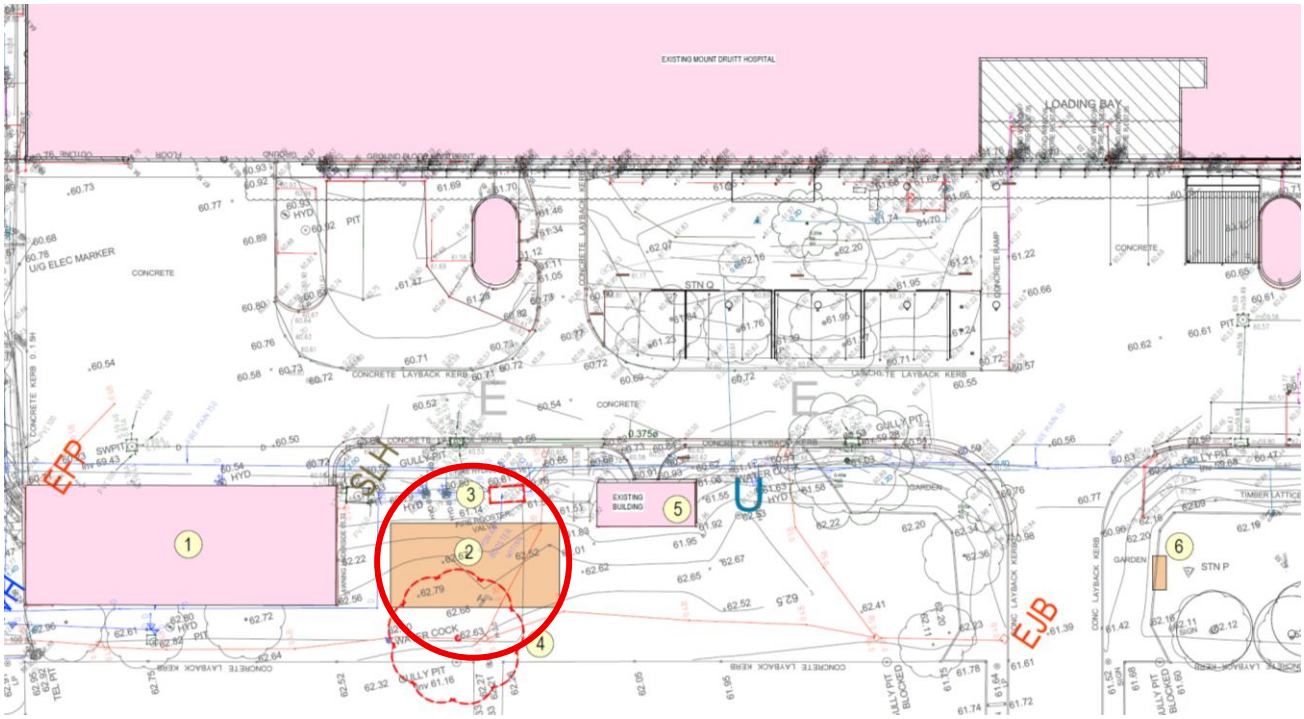

Figure 42 – Location plan of proposed new oxygen compound - circled (Jacobs)

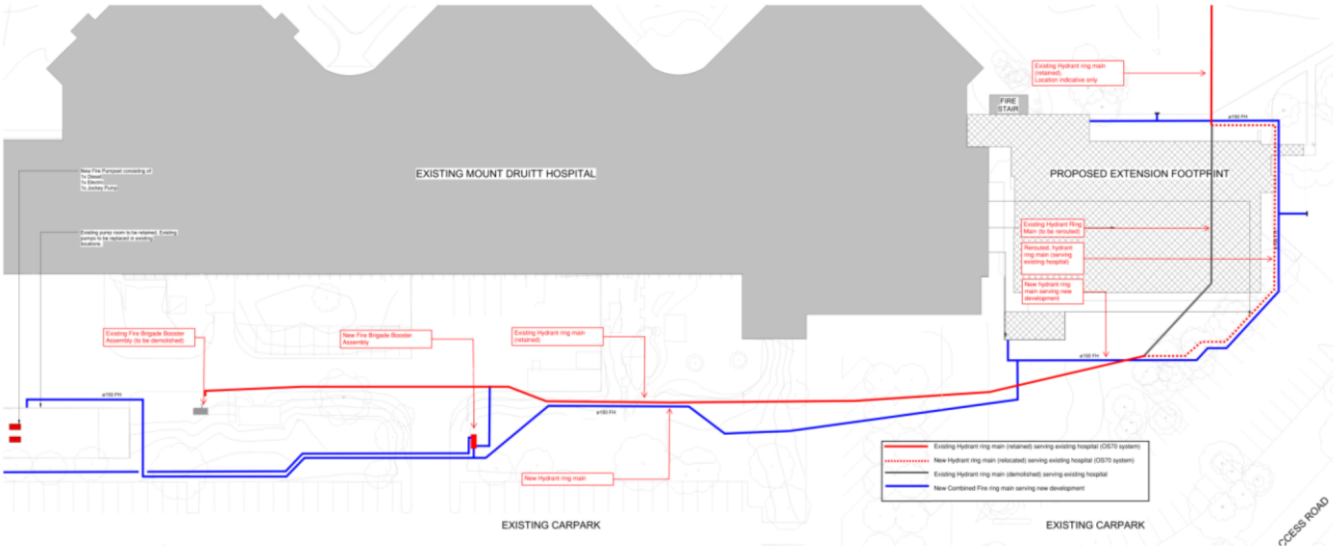

Figure 43 – Fire Hydrant Ring Main works (Arup)

3.2 Proposal Need, Options and Alternatives

3.2.1 Strategic Justification

Mount Druitt Hospital was expanded as part of the Blacktown and Mount Druitt Hospital Expansion Stage 1 and 2 to meet the growing needs of the local community and the wider western Sydney area. Since the completion of Stage 2 in 2019, an additional $120 million capital funding was announced as a 2023 State election commitment for a combined 60 additional beds at Blacktown and Mount Druitt hospitals.

Development of a comprehensive services plan for Mount Druitt Hospital from 2024/25 – 2035/36 is in progress. The outcomes and findings from the service plan development process to date have identified the need for expansion by 30 beds for acute medical and acute surgical short stay services. The Draft Service Plan identifies, amongst other things, that the number of adult acute beds projected for Mount Druitt Hospital (including the 30-bed enhancement) is 114 beds to 2035/36. The additional beds will improve Emergency Department (ED) flow by being accessible to that department.

The benefits of the project include:

- Providing expanded and contemporary acute medical and surgery bed capacity for Blacktown and Mount Druitt hospitals.

The overall project includes:

- 60 additional beds across Blacktown and Mount Druitt hospitals.
- 30 beds at Mount Druitt.
- 30 beds at Blacktown.
- Expanded clinical and non-clinical support service spaces.

3.2.2 Alternatives and Options

The proposed scope of works is identified by Option J arising from the Master Plan phase of the project. This proposes the following scope of works across two levels as a lateral extension to the southern-most part of the main hospital building.

In developing the Masterplan for the site, the key site considerations included:

- **Clinical** - Does it deliver the clinical service priorities to 2026.
- **Functionality** - Is it clinically functional and efficient to deliver health services in consideration of clinical adjacencies, travel distances, patient movements, and operational efficiencies.
- **Flexibility** - Is it adaptable to accommodate short to mid-term future changes in service delivery.
- **Future proofing** - Is it consistent with the long-term zonal master plan vision in consideration of vertical and horizontal expansion and whole infrastructure replacement.
- **Identity and access** - Does it enhance hospital identity and is it welcoming and accessible for all users in consideration of entrances, wayfinding and image.
- **Value for money** - Does it effectively utilise existing infrastructure assets in consideration of functional planning and effective re-use.
- **Site utilisation** - Does it promote a best use strategy in consideration of expansion zones, clinical adjacencies, and efficiencies.
- **Business continuity** - Does it maintain hospital services during construction in consideration of decanting and temporary accommodation, staging, and disruption.

Site and environmental considerations included:

- Existing built form and urban design.
- Topography and localised flooding and overland flow impacts.
- Access and accessibility.
- Bushfire risk.
- ESD.
- Existing services and utilities.

The preferred **Option J** delivers the following key benefits:

- Delivers clinical service priorities
- Achieves good clinical adjacencies and flow on operational efficiencies.
- New purpose-built facilities can be designed to deliver optimal configurations.
- Maintains potential for expansion and redevelopment.
- Maintains zones on the site for future development.
- Incorporates capacity for a rooftop plant area.

The Masterplanning options considered are set out over.

	Pathway	Pros	Cons
Option 0	**Do Nothing**	Nil cost option	Fails to meet clinical requirements
Option 1	**East Extension on Level 1**	Minimal disruption during construction and achieves good site utilisation.	Requires development of eastern entry. Level 2 roof would require structural provisions for future expansion zone. Disconnection between new beds and Operating Theatres and Emergency. Lift transfer required.
Option 2	**East Extension on Level 2**	Level access to Operating Theatres and Emergency. Minimal disruption during construction and achieves good site utilisation. This option provides for the future development for the relocation of the Main Entry to Level 1. (Expansion Zone 4)	Initial development creates a clinical crossflow with public accessing the Main Entry.
Option 3	**South Extension on Level 2**		Discounted due to inappropriate adjacencies and patient flows.
Option J	**East Extension on Level 2 (Expansion Zone 4)** 	Achieves improved clinical capacity requirements including OPD Unit and a Level1 Entry Lobby. Level access to Operating Theatres and Emergency. Minimal disruption during construction and achieves good site utilisation. This option provides for the future development for the relocation of the Main Entry to Level 1 (Expansion Zone 4) Aligned with budget **WSLHD preferred option**	Initial development creates a clinical crossflow with public accessing the Main Entry.

3.3 Construction Activities

The works are long term (up to 15 months). The majority of the works are external to existing hospital operations and as such, the hospital can continue to operate as normal. See a preliminary Construction Management Plan at **Appendix L**.

Table 2: Project Timeframes and Construction Activities

Construction activity	Description
Commencement Date	March 2026 – June 2027
Work Duration/Methodology	15 months The extension to the main hospital building is anticipated to be delivered in a single stage. No early works or decanting works are likely as no significant displacement of existing accommodation is required. Based on the procurement model, it is likely a single contractor will be able to concurrently deliver the main works for the proposed extension as well as the ancillary works.
Work Hours and Duration/Construction	The following hours of construction are proposed for the works: • Monday to Friday ..... 7:00AM to 6:00PM • Saturdays ..... 8:00AM to 1:00PM • Sundays and Public Holidays..... No works Any after-hours works must be approved through the DWN process in coordination with hospital management, as well as relevant HI approval in accordance with this REF's mitigation measures.
Workforce/Employment	It is anticipated that there will be up to a maximum of approximately 20 workers on-site at any given time during the main construction activities.
Ancillary Facilities	A designated area within the project boundary will be made available for the Contractor to establish a temporary site compound to accommodate construction facilities such as site offices, worker amenities, material laydown, and equipment storage. The exact location and configuration of the compound will be confirmed by the Contractor as part of their detailed Construction Management Plan. Establishment of the compound will be undertaken in a manner that avoids any impact on protected vegetation zones and minimises disturbance to existing ground conditions or surrounding areas not subject to earthworks.
Plant Equipment	The specific construction plant and equipment requirements will be determined by the appointed Contractor; however, it is anticipated that typical construction machinery appropriate to the scale of the works—such as excavators, trucks, piling rigs, and related ancillary equipment—will be utilised as necessary throughout the construction phase.

Construction activity	Description
Earthworks	All earthworks, including excavation, filling, and stockpile management, will be undertaken in accordance with relevant legislative requirements, best-practice environmental management procedures, and the specific mitigation measures detailed within this REF. The works will also be carried out in accordance with the approved Construction Management Plan (CMP) and Environmental Management Plan (EMP), consistent with recognised industry best practice, hospital operational requirements, and applicable REF conditions. The appointed Contractor will be responsible for implementing and maintaining all necessary environmental controls—including erosion and sediment control measures—from the commencement of ground disturbance through to final site stabilisation.
Source and Quantity of Materials	Materials will be expected to be sourced from within the Sydney Metropolitan Area to limit traffic impacts and delays. The quantity will be commensurate with the extent of the works.
Traffic Management and Access	A single existing access point connects the site to the local road network via Railway Street. Vehicle movements during construction will generally occur within the site boundary, with loading and unloading undertaken in designated areas and all vehicle access managed to maintain safety and operational efficiency. A draft Construction Traffic Management Plan (CTMP) has been prepared by Stantec as part of the traffic assessment to outline indicative access arrangements and management principles. A detailed CTMP will subsequently be developed by the appointed Contractor, tailored to their proposed construction methodology, staging, and sequencing of works. The Contractor's CTMP will specify delivery schedules, access controls, worker parking arrangements, and mitigation measures to minimise disruption to surrounding roads and maintain safe movement for pedestrians and cyclists. Appropriate hoardings and/or barriers will be established to separate construction activities from public areas, in accordance with relevant safety standards, hospital operational requirements, and the environmental mitigation measures outlined in this REF.

3.4 Operational Activities

Use

The proposed addition of 30 new beds enhances the existing operation of the hospital and the land use. In essence no change in use is proposed to occur, nor results from the proposal.

Operation Hours

The proposed use will continue to be 24 hours per and 7 days per week. The proposed addition to the hospital is consistent with other hospital activities carried out within the hospital presently.

Staff/Patients

The proposal involves 30 new beds (with a commensurate increase in FTE staff), noting however that IPU beds exist within the hospital.

Traffic and Parking

The proposed works affect car parking supply at the hospital by increasing the existing supply of some 400 to 430 car parking spaces. The additional on-site parking is proposed to supplement current parking supply and to address new parking demand at the site. See further discussion in Section 6.

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 activity constituting the development is required under Part 5 of the Act.

TI SEPP aims to facilitate the effective delivery of infrastructure across the State. Division 10 of Part 2.3 of the TI SEPP outlines the approval requirements for health service facilities. A hospital is defined as a health service facility under this division.

The site is zoned 'SP1 – Health Services Facility' under the *Blacktown Local Environmental Plan 2015*. The SP1 zone is a prescribed zone under the TI SEPP. The site is within the boundaries of an existing health services facility within which the development is permissible without consent under s 2.61 of the TI SEPP.

Therefore, the proposal is considered an 'activity' for the purposes of Part 5 of the EP&A Act and is subject to an environmental assessment (REF). The proposal is considered an 'activity' in accordance with Section 5.1 of the EP&A Act because it involves the carrying out of a work, the demolition of a building or a work, and the use of land, that is not Exempt Development or prohibited under an environmental planning instrument.

TI SEPP consultation is discussed within Section 5 of this REF.

Table 3: Description of proposed activities

Division and Section within TI SEPP	Description of Works
Part 2.3 Division 10 – Health Services Facilities Section 2.61(1)(a), (c) and (e) and Section 2.61(2)	The development is being carried out by a public authority within the boundaries of an existing health services facility for the alteration of, or addition to, a building that is a health services facility, and includes demolition works (such as the helipad), and additional at-grade car parking as addressed by the relevant subsections of Division 10. Further, the public authority is satisfied that appropriate consultation has been undertaken having regard to— (i) the SCPP—new health services facilities and schools, and (ii) the community participation plan. The public authority has also considered the design guide. Lastly, the development will not involve more than 30,000m^2 of gross floor area on the site being created or affected. The total new / affected GFA of the REF scope of works is some 2,228m^2.

Division and Section within TI SEPP	Description of Works
Part 2.1 Preliminary Section 2.3(3)	Civil engineering works and services relocation or augmentation and other works ancillary works to the proposal's construction works.

4.2 Environment Protection and Biodiversity Conservation Act 1999

The provisions of the 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 or development on Commonwealth land, nor does the proposed development affect any matters of national significance. An assessment against the EPBC Act checklist is provided at Table 5.

Table 4: EPBC Checklist

Consideration	Yes/No
Will the activity have, or likely to have, a significant impact on a declared World Heritage Property?	No
Will the activity have, or likely to have, a significant impact on a National Heritage place?	No
Will the activity have, or likely to have, a significant impact on a declared Ramsar wetland?	No
Will the activity have, or likely to have, a significant impact on Commonwealth listed threatened species or endangered community?	No
Will the activity have, or likely to have, a significant impact on listed migratory species?	No
Will the activity involve any nuclear actions?	No
Will the activity have, or likely to have, a significant impact on Commonwealth marine areas?	No
Will the activity have any significant impact on Commonwealth land?	No
Would the activity affect a water resource, with respect to a coal seam gas development or large coal mining development?	No

4.3 Environmental Planning and Assessment Act 1979

The proposed activity is consistent with the objectives of the EP&A Act as outlined in the table below.

Table 5: Consideration of the Objects of the EP&A Act

Object	Comment
a. to promote the social and economic welfare of the community and a better environment by the proper management, development and	The works support the efficient and effective operation of Mount Druitt Hospital with new and

Object	Comment
conservation of the State's natural and other resources,	enhanced facilities. This in turn supports and promotes the general welfare of the community.
b. to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	The development's ESD credentials have been considered as part of the design and ongoing operation of the development. See further detailed ESD considerations within this REF.
c. to promote the orderly and economic use and development of land,	The proposal promotes an orderly and economic use of the site by expanding existing uses within available and less sensitive areas of land into a much-needed contemporary health service use, without significant environmental impacts.
d. to promote the delivery and maintenance of affordable housing,	N/A
e. to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	The development / activity does not affect the environment, including threatened and other species of native animals and plants, ecological communities and their habitats in any significant way. Offset tree planting at a rate of 2:1 is proposed. An addition of at least 250 new trees is proposed throughout the hospital.
f. to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	N/A – the hospital does not contain any Aboriginal cultural heritage that may be affected by these works. The works are within and immediately adjacent to an existing building footprint and extend into already disturbed land where assessment of such impacts has been carried out and found acceptable. The extension of existing built form for new use will not impact any of the local and State heritage items either on or near the site as the location is remote and shielded from areas of heritage value.
g. to promote good design and amenity of the built environment,	The design of the new space is one limited by the scope of the project. In essence the proposed works operate to maintain and in part extend the existing bulk and scale of the building at ground and first floor levels. The primary focus of the design seeks to promote good and contemporary design internally with the highest amenity for the proposed use of the facility. Its interfaces externally are relatively secondary in this context, and do not seek to compete or detract from the existing design aesthetic, and instead seek to complement and blend with the existing building.

Object	Comment
h. to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	The project is in itself concerned with the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants.
i. to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	N/A.
j. to provide increased opportunity for community participation in environmental planning and assessment.	The proposed activity will be notified in accordance with requirements to the stakeholders identified through this REF process – see Section 5 of this REF. In accordance with HI's Community Participation Plan (October 2024) (CPP), the REF will be publicly exhibited for a period of 28 days. Any submissions received during the notification and exhibition period will be addressed in the final REF. Aboriginal community representative engagement was also carried out throughout 2025 which generated high levels of interest and engagement with the project and garnered valuable insights into community aspirations for the spaces. By any measure, ample opportunity for community participation in the environmental planning and assessment process has occurred.

Duty to Consider Environmental Impact

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

The EP&A Act requires a determining authority, in its consideration of an activity and 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, to examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of that activity (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 5 over 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 5: 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.	No effect, as there is no wilderness area (within the meaning of the Wilderness Act 1987) in the locality in which the activity is intended to be carried out on.
Note: If a biobanking statement has been issued in respect of a development under Part 7A of the *Threatened Species Conservation Act 1995*, the determining authority is not required to consider the impact of the activity on biodiversity values.	

4.4 Environmental Planning and Assessment Regulation 2021

Section 171(1) of the EP&A Regulation requires 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) and *Guidelines for Division 5.1 Assessments - Consideration of environmental factors for health services facilities and schools* (DPHI, October 2024), provide 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 Environmental Planning and Assessment Regulation (2021) requires the consideration of the impact an activity in a defined catchment. This is considered further below under Section 4.5 of this REF.

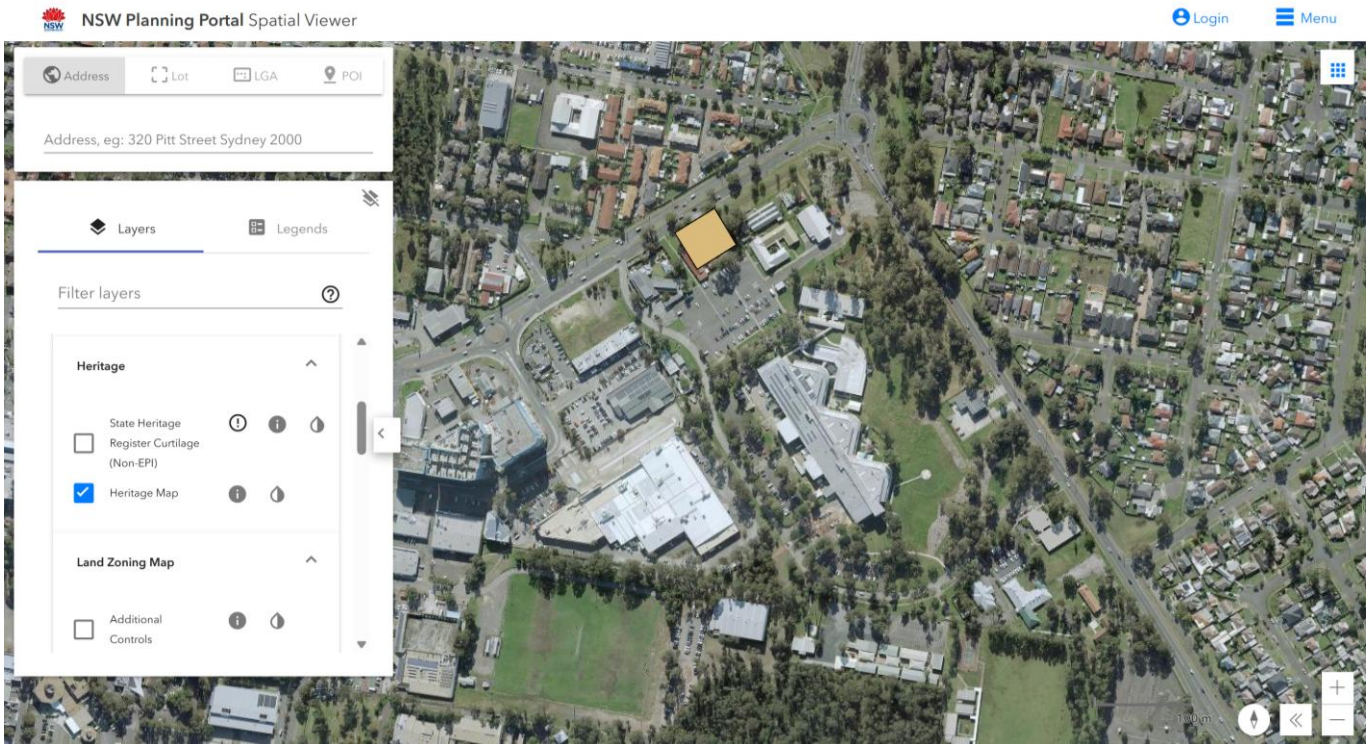

Figure 44 – Blacktown LEP heritage mapping showing Item I42 "Malmo" (NSW Planning Portal Spatial Viewer)

Figure 45 – Biodiversity Values Map (NSW Government)

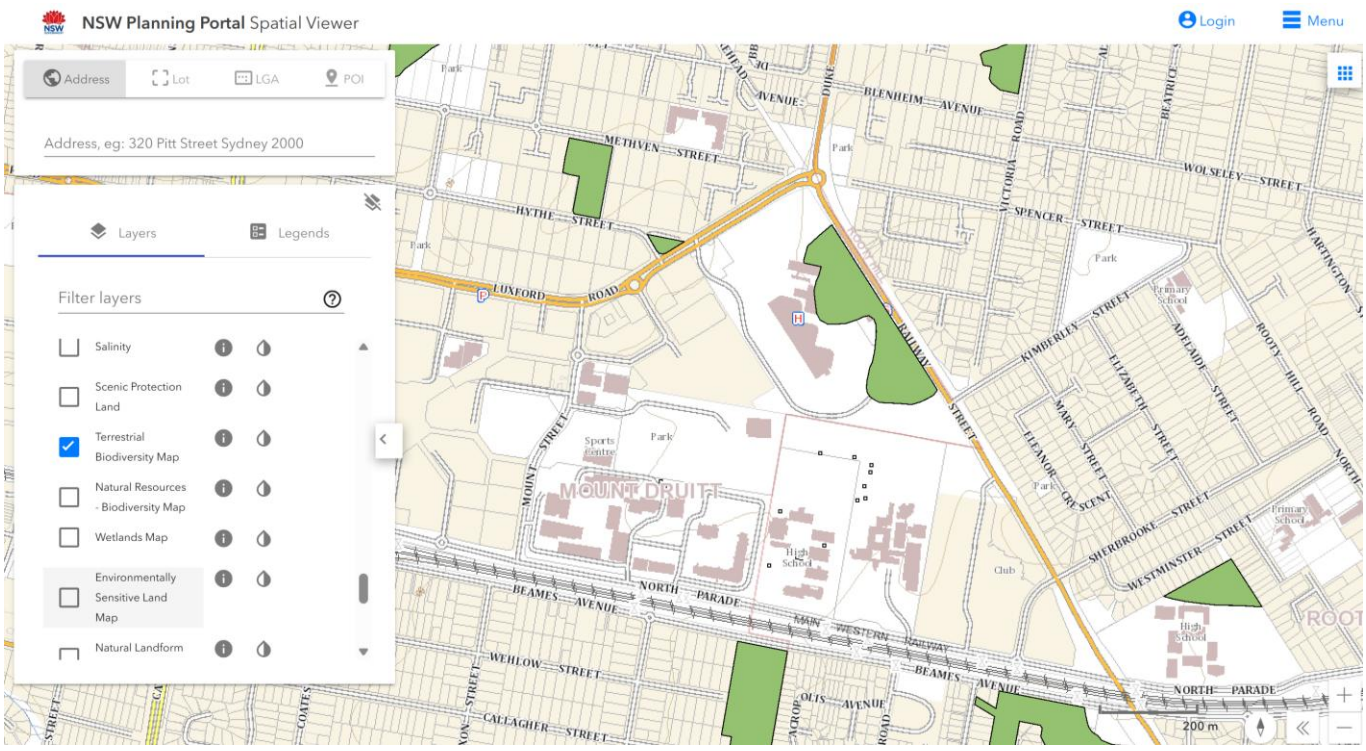

Figure 46 – Blacktown LEP terrestrial biodiversity mapping (NSW Planning Portal Spatial Viewer)

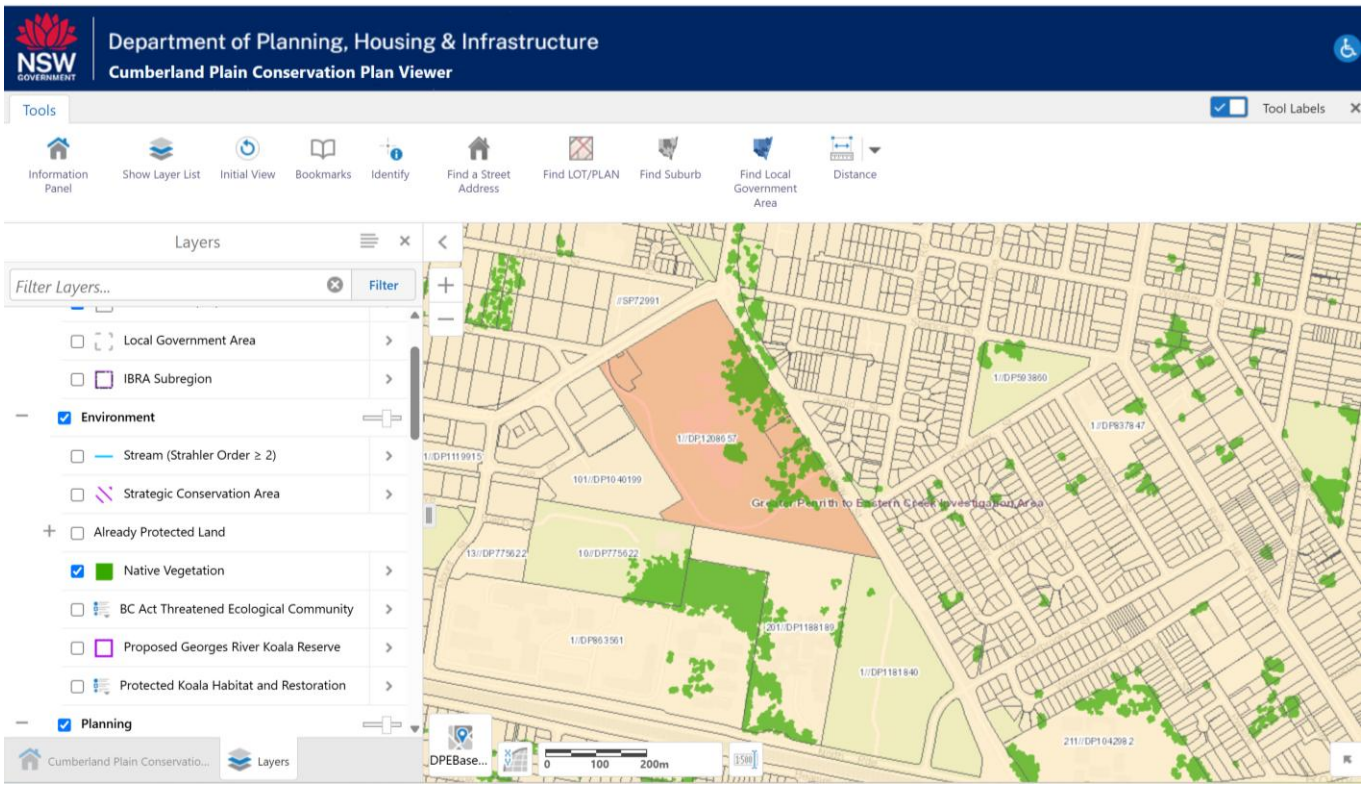

Figure 47 – Cumberland Plain Conservation Plan Viewer – Native Vegetation mapping (NSW Government)

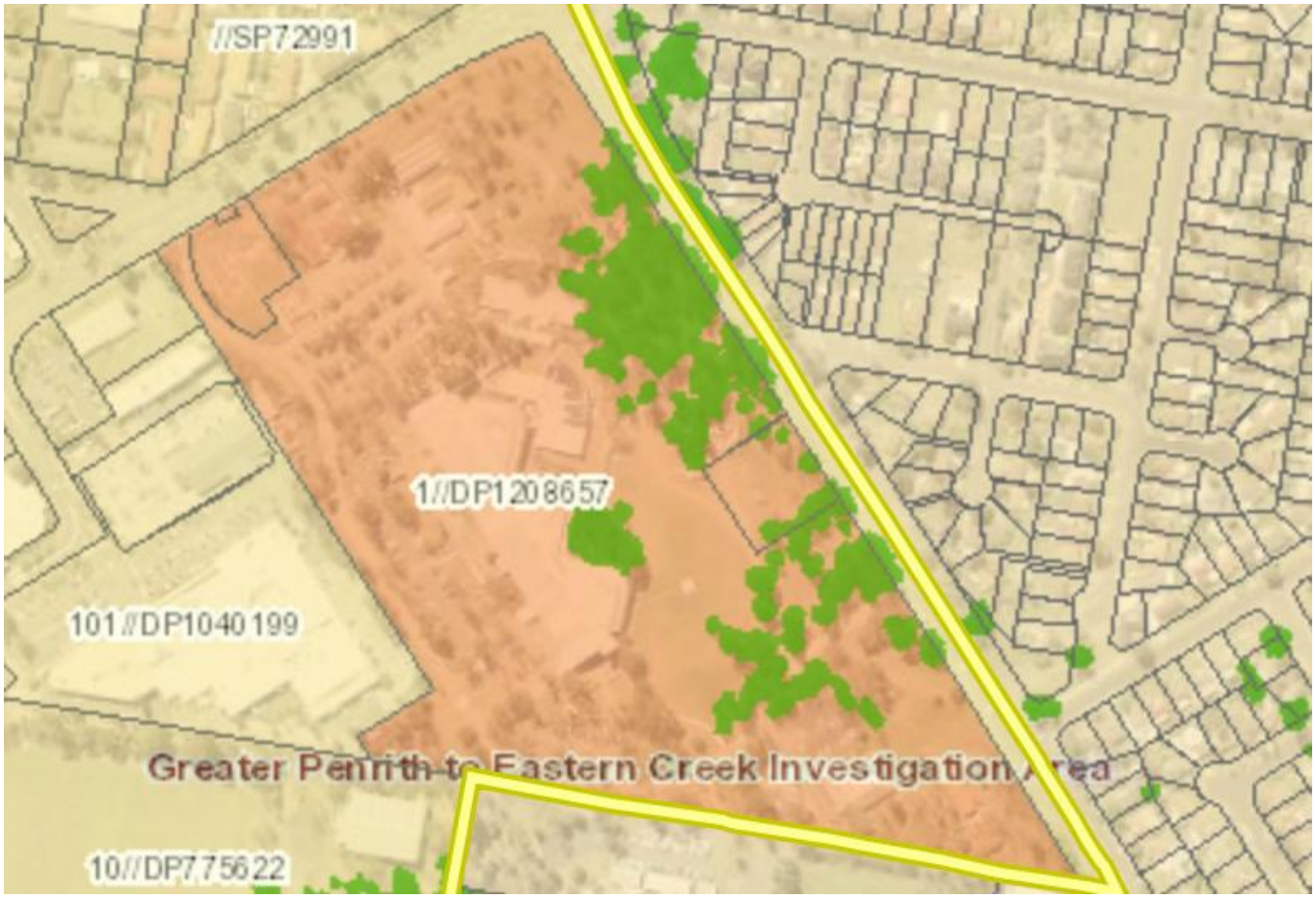

Figure 48 – Cumberland Plain Conservation Plan Viewer – Native Vegetation mapping inset with aerial photo (NSW Government)

4.5 Other NSW Legislation

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

Table 6: Other Possible Legislative Requirements

Legislation	Comment	Relevant? Yes/No
State Legislation		
Rural Fires Act 1997	The site is not identified on the Council's Bushfire Prone Land Map.	No
Biodiversity Conservation Act 2016	The site contains mapped vegetation that has the potential to be critical habitat, threatened species or an ecological population or community – see **Figures 45, 47 and 48**.	Yes
Water Management Act 2000	The works are not within 40 metres of a watercourse	No
Contaminated Land Management Act 1997	The site is not listed on the EPA register of contaminated sites and is not significantly contaminated.	No
Heritage Act 1977	There are no impacts on Local, State, s170 register, or National heritage. Whilst 'Malmo' house is on the hospital's lot and DP it is separately mapped and is remote from the location of any works associated with this REF – see **Figure 44**.	No
Roads Act 1993	There are no works to a public road, or pumping of water onto a public road, or involve the connection of a road to a classified road.	No
Local Government Act 1993	There are no water or sewer supply head works that require contribution payment, per Section 64 of the Act.	No
National Parks and Wildlife Act 1974	No Aboriginal objects or Places as defined by the *National Parks and Wildlife Act 1974* are located within the study area. Therefore, an Aboriginal Heritage Impact approval is not currently required for the proposed works. There are no AHIMS sites recorded within the proposed works area, and study area does not contain any landscape features which are likely to indicate the presence of Aboriginal objects. Further, the proposed works are located within an area of 'disturbed land' as defined in the *Due Diligence Code of Practice.*	No
Protection of the Environment Operations Act 1997	An environment protection licence is unlikely to be triggered or required due to the relative scope and duration of the works. These licences are rare in the development of HI projects.	No.

Legislation	Comment	Relevant? Yes/No
NSW Reconstruction Authority Act 2022	The works respond to the broad requirements of the State Disaster Mitigation Plan (SDMP) under section 38 of the NSW Reconstruction Authority Act, in that the development is designed in response to any disaster event that may occur at the site including flooding, earthquake and the like, noting that the subject hospital campus is not on or near bushfire prone land and is (based on current information) unlikely to be flooded to any extent that prevents evacuation.	No.
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.	No
State Legislation Planning Policies		
State Environmental Planning Policy (Biodiversity and Conservation) 2021	Chapter 2 relates, in part, to the clearing of native vegetation, which stipulates notification with Council in relation to this action. Note, the native vegetation on the site is considered to not be remnant, rather planted given the clearing of the site in the mid-1960s and further clearing to develop the hospital in the 1980s. Chapter 13 also relates to the land and this seeks to, amongst other things, to identify and protect areas with high biodiversity value or regionally significant biodiversity that can support ecological functions, including threatened ecological communities, species and areas with important connectivity or ecological restoration potential and to avoid or minimise impacts from future development on biodiversity values in areas with high biodiversity value. Note Chapters 4 and 6 do not apply to this site.	Yes
State Environmental Planning Policy (Planning Systems) 2021	This SEPP will only be applicable in the event a DA approval pathway is triggered and a REF pathway cannot be used.	No
State Environmental Planning Policy (Sustainable Buildings) 2022	As above, Chapter 3 of this SEPP will only apply in the event a DA is required for the proposed redevelopment. As a REF results as the applicable pathway, this SEPP will not be relevant.	No
State Environmental Planning Policy (Resilience and Hazards) 2021	Chapter 3 in relation to Hazardous and Offensive Development is applicable in relation to handling, storage and transportation of threshold level quantities of dangerous goods at the hospital. This arises from the expanded bulk liquid oxygen plant. A Preliminary Hazard Analysis has been prepared in relation to this part of the scope of works.	Yes

Legislation	Comment	Relevant? Yes/No
	Chapter 4 relates to Remediation of Land. A Detailed Site Investigation will determine whether (and what type of) contamination is present at the site requiring some or any form of remediation. This will assist in determining the categorisation of Remediation Works (should they be required).	
State Environmental Planning Policy (Transport and Infrastructure) 2021	This SEPP relates to a number of aspects of these proposed works. It determines if a DA of any type may be avoided and whether the Development without consent planning pathway is able to apply. See earlier discussion on the REF pathway. Otherwise, this SEPP includes a range of notification triggers and requirements for REFs or more generally in relation to proximity to rail and road infrastructure and for traffic-generating development. Note, the site is not near rail and road infrastructure to warrant notification with respect to impacts of that infrastructure upon the scope of works, and the quantum of additional beds does not trigger referral to TfNSW as traffic-generating development. Consultation and Community Engagement requirements under Chapter 2 have been satisfied.	Yes
State Environmental Planning Policy (Industry and Employment) 2021	Chapter 3 of this SEPP relates to any Advertising and Signage that is not Exempt Development.	No, as no new building identification signage is proposed.
Blacktown Local Environmental Plan 2015		
Zone	SP1 – Health Services Facility The proposed land uses (*health services facility* and *hospital*) are permissible within the zone. The works are consistent with the relevant zone objectives which are to provide for infrastructure and related uses and to prevent development that is not compatible with or that may detract from the provision of infrastructure.	No, as the zoning is not directly relevant to the ability to carry out the works as development permitted without consent.
Height of Buildings	N/A	No
Floor Space Ratio	N/A	No
Heritage	No, despite being located within the same lot – see **Figure 44**.	No

Legislation	Comment	Relevant? Yes/No
	House—Malmo *1–3 Luxford Road* *Part of Lot 1, DP 1208657* *Local* *I42*	
Flood Planning	N/A – not mapped however the Planning Certificate identifies the land as subject to flood related development controls. Accordingly, clause 5.21 of the LEP is taken into consideration.	Yes
Coastal Planning	N/A	No
Acid Sulphate Soils	N/A	No
Terrestrial Biodiversity	Yes, but not directly upon the locations of the works – see **Figure 46**.	No
Riparian Lands and Watercourses	N/A	No
Design Excellence	Whilst the objective of clause 7.7 of the LEP is to ensure that development exhibits design excellence that contributes to the natural, cultural, visual and built character values of Blacktown, this however only applies to DAs.	No

4.6 Strategic Plans

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

Table 7: Consideration of the Objects of the EP&A Act

Strategic Plan	Assessment	Relevant? Yes/No

Central City District Plan	• The Central City District Plan is a 20-year plan that implements the directions contained in the Greater Sydney Region Plan.
	• Some key actions related to Mount Druitt or Mount Druitt Hospital include:
	  ○ An increase in jobs within the Mount Druitt strategic centre.
	  ○ (Action 44) Strengthen Mount Druitt through approaches that:
		No

Strategic Plan	Assessment	Relevant? Yes/No
	a. improve connectivity to employment opportunities in the Western Sydney Employment Area, the Western Sydney Airport and Marsden Park b. improve accessibility to and within the centre, including connections and wayfinding between Mount Druitt Hospital, railway station and bus interchange c. reinforce the important role of the centre in providing social support services to communities in the broader Mount Druitt area. d. reinforce the important role of the centre in providing social support services to the disadvantage communities in the broader Mount Druitt area. The proposed development would not be at odds with the general achievement of these actions, where they have any direct relationship to the hospital and this project.	
Future Transport Strategy	The proposed development is not of a scale and type to be inconsistent with any of the objectives and actions associated with the Future Transport Strategy.	No
Movement & Place	Movement and Place is a cross-government framework for planning and managing roads and streets across NSW. The framework delivers on NSW policy and strategy directions to create successful streets and roads by balancing the movement of people and goods with the amenity and quality of places. The level of impact (positive or adverse) of the development upon the Movement & Place framework is unlikely to be contrary to its objectives.	No
Blacktown Local Strategic Planning Statement 2020	• The Blacktown Local Strategic Planning Statement 2020 (LSPS) sets out a 20-year vision for the future of Blacktown City as it grows and changes.	No

Strategic Plan	Assessment	Relevant? Yes/No
	• Of relevance to Mount Druitt and/or Mount Druitt Hospital as a key strategic centre or one of the LGA's four (4) precincts: ○ Infrastructure and Collaboration - Improved connectivity between Western Sydney Employment Area and the Mount Druitt Precinct. ○ Liveability - Higher density housing focused on Mount Druitt Strategic Centre and urban renewal at Rooty Hill. ○ Productivity - Economic activity at Mount Druitt Strategic Centre, including government jobs, and jobs at Mount Druitt Hospital, TAFE, Western Sydney Employment Area and Glendenning, Minchinbury and Mount Druitt industrial areas ○ Government investment in medical research and development at Mount Druitt Hospital. ○ Sustainability - Sustainable development in Urban Renewal Precincts at Mount Druitt and Rooty Hill and at new Sydney Metro stations. ○ Opportunities for growth in employment, education and high density residential. Opportunities for medical research associated with Mount Druitt Hospital. Whilst relatively modest in scale, the project nonetheless supports the broader vision and objectives of the LSPS in providing opportunities for jobs, growth, and economic stimulus.	

5 Consultation

5.1 Statutory Consultation / Public Exhibition

The REF will be notified / exhibited under the provisions of the TI SEPP and having regard to HI's Community Participation Plan (October 2024) and DPHI's Stakeholder Community Participation Plan (2024) for 28 calendar days to the stakeholders outlined in the table below.

Table 8: Stakeholders required to be notified

Stakeholder	Relevant Section
Blacktown City Council	Section 2.62(2)(a)(i) and Section 2.12
Owners / occupiers of adjoining land	Section 2.62(2)(a)(ii)
State Emergency Service (SES)	Section 2.13

This includes:

- Sending notices to surrounding neighbours, owners and occupiers inviting comments within 28 days;
- Sending notices to the local council and the SES inviting comments within 28 days; and
- Making the REF publicly available on the Planning Portal throughout the consultation period.

Comments received will be carefully considered and responded to and will be addressed in the final version of this REF.

The HI communications and engagement plan with respect to non-statutory consultation and engagement is included at **Appendix M**. This sets out the extensive stakeholder engagement carried out so far, and proposed for the remainder of the planning approval process.

6 Environmental Impact Assessment

6.1 Environmental Planning and Assessment Regulation 2021 – Assessment Considerations

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

The Guidelines for Division 5.1 Assessments (June 2022) apply to the activity and the Guidelines for Division 5.1 assessments—Consideration of environmental factors for health services facilities and schools (October 2024) apply to the activity. The relevant assessment considerations under Section 3 of these Guidelines are provided below:

Table 9: Summary of Environmental Factors Reviewed in Relation to the Activity

Relevant Consideration	Response/Assessment	Impact
The environmental impact on a community	The environmental impact of the proposal's construction is largely related to the removal of 125 native trees and earthworks to manage and mitigate against existing overland flow and flooding impacts to this part of the hospital. The loss of trees will be compensated by the planting of at least 250 new trees throughout the hospital site. The new trees will be endemic to the locality and consistent with, and representative of, the vegetation community present in the nearby revegetated patch (PCT 3320 Cumberland Plain Woodland in the Sydney Basin Bioregion), noting also that the existing trees are likely planted or otherwise self-seeded from the soil's seed bank. The flood mitigation works proposed seek to protect the building from inundation and redirect flows whilst protecting other property both up- and downstream from the hospital. Temporary construction impacts will arise and are inevitable. This is largely likely to be related to air and noise pollution, however these are able to be managed across the various phases of works, particularly to sensitive land uses, like the hospital itself, and educational establishments and residences near the hospital. Operational impacts are likely to be neutral or minor only with respect to noise and traffic. The design of the building has adopted HI's ESD measures. The addition of the new beds contributes a positive social impact.	Nil / Neutral

Relevant Consideration	Response/Assessment	Impact
The transformation of a locality	The proposal will not result in a transformation of the locality, either visually or from a land use perspective. The development is low-rise, well set back from its boundaries, and maintains the existing character of the locality as a mixed use and civic precinct. The well vegetated nature of the hospital site and its environs is broadly maintained in the short-term and reinforced and extended by the offset planting of at least 250 native and endemic trees to replace the 125 trees removed to cater for the development.	Nil / Neutral
The environmental impact on the ecosystems of the locality	The proposal would result in clearing of 1,806m^2 of native vegetation which consists of scattered native trees (e.g. *Eucalyptus tereticornis* and *Eucalyptus moluccana*), a maintained exotic lawn and a small area of regenerated bushland. This vegetation may provide foraging habitat for threatened and nonthreatened species. However, the site is within an urban matrix and is already highly developed. The impact of removing vegetation would be mitigated by preferencing species from PCT 3320 Cumberland Shale Plains Woodland for any future landscaping.	Nil / Neutral
Reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality	There will be no reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality.	Nil / Neutral
The effect on any locality, place or building that has aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations	There will be no impact on any locality, place or building that has aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations. No local, State or National heritage items are impacted, and it is highly unlikely any Aboriginal cultural impacts arise. Whilst the original hospital building was designed by eminent architect, Lawrence Neild, the new extension seeks to respect the design ethic and aesthetic with a suitably low-rise and well-considered built form.	Nil / Neutral

Relevant Consideration	Response/Assessment	Impact
The impact on the habitat of protected animals (within the meaning of the *Biodiversity Conservation Act 2016)*	The proposal involves removal of a small amount of vegetation which may provide foraging habitat for protected animals listed in Schedule 5 of the *Biodiversity Conservation Act 2016*. The proposal involves the removal of 36 Koala use tree species as per Schedule 3 of SEPP (Biodiversity and Conservation) 2021. However, Koalas are not known from the site or the local area. The proposal is not Core Koala Habitat. Therefore there is not a significant impact on the habitat of Koalas The proposal is not expected to cause significant impacts on any protected animal species. The impact of removing vegetation would be mitigated by preferencing species from PCT 3320 Cumberland Shale Plains Woodland for any future landscaping.	Nil / Neutral
The endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air	The 5-part tests found that the proposal is not likely to significantly affect threatened species or ecological communities, or their habitats. The impact of removing vegetation would be mitigated by preferencing species from PCT 3320 Cumberland Shale Plains Woodland for any future landscaping, as well as a significant offsetting strategy of doubling the number of trees removed with new trees.	Nil / Neutral
Long-term effects on the environment	There will be no long term impacts upon the environment. The aforementioned tree offsetting strategy will enhance the tree canopy and the hospital while ESD measures adopted by the building / works seek to improve the hospital's response to climate change and climate resilience. Waste management strategies seek to reduce waste sent to landfill and maximise reuse and recycling of construction and operational wastes.	Nil to positive
Degradation of the quality of the environment	The quality of the existing highly urbanised and disturbed environment will be no further reduced. In fact, improved management of flooding impacts and improved tree canopy arises. The proposed tree species to offset tree loss will seek to revegetate the site to pre-1750 conditions with species from PCT 3320 Cumberland Shale Plains Woodland for any future landscaping.	Positive
Risk to the safety of the environment	There is no risk to the safety of the environment, noting the flood mitigation works seek to reduce flood hazard at and off the site.	Nil

Relevant Consideration	Response/Assessment	Impact
Reduction in the range of beneficial uses of the environment	There will be no reduction in the range of beneficial uses of the environment.	Nil
Pollution of the environment	There will be temporary pollution to the environmental as a result of the construction works. This will primarily result in construction noise and air pollution (dust / odours). These impacts however will be able to be managed and mitigated to reduce and limit their impacts. The ESD credentials of the project seek to minimise long-term pollution arising from the development. Waste management strategies seek to reduce waste sent to landfill and maximise reuse and recycling of construction and operational wastes.	Negative to Nil/Neutral
Environmental problems associated with the disposal of waste	There will be no environmental problems associated with the disposal of waste associated with the development, whether at the construction stage (through building materials, contamination, earthworks and the like) or at the operational stage through additional hospital waste. Legislated and licensed handling and disposal processes and procedures will (continue) to apply to any / all waste.	Nil
Increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply	There will be no increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply.	Nil
The cumulative environmental effects with other existing or likely future activities	As noted, elsewhere in this REF, there will be no cumulative environmental effects with other existing or likely future activities, particularly adjacent or nearby construction activities.	Nil
The impact on coastal processes and coastal hazards, including those under projected climate change conditions	No impact arises as the site is not in the coastal zone. The site is remote from the coast and therefore has no impact on coastal processes and coastal hazards, including those under projected climate change conditions.	Nil
Applicable local strategic planning statement, regional strategic plan or district strategic plan made under Division 3.1 of the Act	As set out in this REF, the works (at their modest scale) will be consistent with the relevant issues, objectives, policies and actions identified in local, district and regional plans. As far as may be relevant, the works result in compliance and consistency with	-ve Nil +ve

Relevant Consideration	Response/Assessment	Impact
	policies and community priorities as set out in State and Local Government strategic plans. Relevant legislation, including environmental planning instruments (drafts, policies and guidelines) are all satisfied and complied with in the undertaking and operation of these works.	
Other relevant environmental factors	There will be no new or different health or safety risk to children, visitors, patients or staff of the development.	Nil

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?		X
Will the works disrupt access to private properties?		X
Are there likely to be any difficulties associated with site access?		X
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)?	X	
Will full or partial road closures be required?		X
Will the proposal result in a change to onsite car parking?	X Increase in supply	
Is there onsite parking for construction workers?		X

Stantec has prepared Transport and Parking Assessment for the scope of works - see **Appendix N**.

This has considered and addressed:

- Existing traffic and parking conditions surrounding the site
- Suitability of the proposed parking in terms of supply (quantum) and layout
- Emergency and service vehicle requirements
- Pedestrian and bicycle requirements
- The traffic generating characteristics of the proposed development
- The transport impact of the development proposal on the surrounding road network.

Key assessment issues are set out and addressed over.

Parking demand / supply

The existing parking supply at the site (400 at-grade spaces) will be augmented with a further 30 at-grade spaces.

The existing car parks at the hospital presently operate with limited spare capacity, dependent upon the time of day.

The development will generate an uplift in staff and visitors commensurate with the additional clinical capacity and operational requirements. Based on Stantec's assessment, to understand the uplift in staff that could be accommodated, several factors were considered — namely, the current journey-to-work data (93 % of staff travel by car with an average occupancy of 1.11 persons per vehicle), existing spare capacity across the three main hospital car parks, and the proposed 30 new spaces. Based on these assumptions, the 30 new spaces could theoretically accommodate approximately 55 additional Full-Time-Equivalent (FTE) staff, equating to about 36 staff during a typical day shift.

This estimate applies only to new staff associated with the proposed expansion and does not double-count existing personnel already utilising the on-site parking. The uplift reflects an indicative correlation between available parking supply and potential staff growth, using the observed car-mode share and occupancy data rather than fixed staffing ratios.

When combined with limited existing spare capacity observed across the P1, P2 and P3 car parks, the additional 30 spaces are expected to sufficiently address staff-related parking demand generated by the expansion.

To estimate visitor parking demand associated with the proposed expansion, mode-share data and visitation patterns from comparable Greater Sydney hospitals were reviewed by Stantec. These indicate that a high proportion of visitors to in-patients arrive by private vehicle, particularly where hospitals are located beyond the comfortable 1 km walking distance from the nearest train station. A 91% mode share assumption was applied in relation to car usage to visit the hospital. Based on a 95% bed occupancy rate, two visitors per patient, an average occupancy rate of 1.8 persons per car, and the 91% mode share assumption, a total of 29 visitor spaces would be required to cater for the additional patient capacity at the hospital.

This provides a contextual estimate rather than a fixed design requirement. Visitor parking utilisation will fluctuate during the day and can be absorbed across existing spare capacity within the P1 and P3 public car parks, and supplemented by nearby on-street parking.

Accordingly, while the proposed 30 new spaces primarily address staff demand, the combined on-site capacity (existing + new + on-street availability) is considered adequate to accommodate both staff and visitor needs associated with the expansion. See the detailed assumptions, calculations, and assessment in the Traffic and Parking Assessment at **Appendix N**.

Access arrangements

As noted, no change is proposed, nor necessitated, for any internal roadways or other existing car parks within the hospital site. Pick-up and drop-off areas, temporary or short-term parking areas, loading docks, and delineation of parking areas are otherwise unchanged and continue to function as existing.

All existing entry points, aisles, parking spaces and access controls in the existing P1 car park will operate as existing. The existing access point will enable passage through the new car park extension. The car park will also accommodate a turning space to enable all vehicles to enter and leave in a forward direction.

Traffic Impacts

Stantec has calculated the likely operational traffic impacts and traffic generation related to the development. See detailed calculations in **Appendix N**. The 30 additional beds and assumed 36 peak shift (FTE) staff will generate 33 additional AM peak trips and 23 additional PM peak trips to and from the hospital. The impact of these additional trips as traffic generation are considered to be relatively minor and could not be expected to compromise the safety or function of the surrounding road network.

On this basis, the impacts of the additional traffic generated by the hospital expansion are expected to be accommodated within the daily variations of the volumes within the surrounding road network and is deemed acceptable.

Construction Traffic Impacts

Similarly, the construction traffic impacts during standard work hours are also assumed to be relatively minor and manageable. Stantec indicates traffic generated by the construction works include light vehicles (vans, utes etc.) associated with construction workers and smaller deliveries, together with heavy vehicles for the periodic delivery and removal of materials, including plant and equipment. Light vehicle traffic generation will vary with worker numbers and the transport strategy implemented by the contractor. It is anticipated that there will be up to a maximum of approximately 20 workers on-site at any given time during the main construction activities.

It is noted that there will be limited on-site car parking provision for construction workers, and the contractor would be responsible for informing workers. Notwithstanding, given the site's location in relation to available public transport services, workers will be encouraged to use public transport to access the site, as far as practicable. The contractor would be responsible for encouraging public transport use, car-pooling and any shuttle bus opportunities to reduce the number of workers travelling to the site by private vehicles. Appropriate arrangements would be made for on-site equipment/ tool storage. Any tool drop-off activity would occur outside road network peak hours.

Construction (heavy) vehicles generated by the site would generally include vehicles up to 12.5m Heavy Rigid Vehicles (HRVs). There is expected to be up to approximately 50 truck movements (in and out) per day or 8 truck movements (in and out) per hour accessing the site during peak activities. The peak hourly volumes are anticipated to be associated with the excavation works. All construction vehicles will be contained wholly within the site and vehicles will enter the work site before stopping. Construction vehicle movements will be minimised / avoided during road network peak hours wherever possible.

The Railway Street access into the hospital is proposed to be used and a work compound established close and adjacent to the works zone within the hospital. No on-street works zones are expected to be required during the works.

Mitigation measures apply to ensure the detailed design of the car park extension will meet Australian Standards (AS 2890 series), as well as ensuring a detail Construction Traffic Management Plan is prepared to manage traffic during works. This includes the need to notify neighbouring properties of the construction traffic arrangements. Further, relevant approvals will be required for any out-of-hours construction vehicle movements.

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)?	X	
Will any receivers be affected by noise for greater than three weeks?	X	
Are there sensitive land uses or areas that may be affected by noise from the proposal during operation?		X
Will the works be undertaken outside of standard working hours? That is: • Monday - Friday: 7am to 6pm; • Saturday: 8am to 1pm;		X

Questions to consider	Yes	No
• Sunday and public holidays: no work.		
Will the works result in vibration being experienced by any surrounding properties or infrastructure?		X
Are there any impacts to the operation of helipads on the activity site?		X

Acoustic Studio has prepared a Noise and Vibration Impact Assessment in relation to the construction and operation of the proposed development - see **Appendix O**.

Construction Noise and Vibration

Construction will be carried out during recommended standard constructions hours outlined in the EPA's Interim Construction Noise Guideline, as follows:

- Monday to Friday - 7:00am to 6:00pm
- Saturday - 8:00am to 1:00pm
- Sunday and Public Holidays – No works.

The Acoustic Studio assessment has determined that construction stage impacts are a medium risk that requires management and planning to minimise noise impact:

- Construction noise impacts will have the highest noise level impact at existing hospital buildings on the campus.
- Construction noise at residential and other sensitive receivers can at times be above Noise Management Levels (NMLs) but below "Highly Noise Affected" noise levels. These noise impacts are not considered loud in an absolute sense and is similar (or below) existing traffic noise impacts at residential receivers along Railway Street.

A Construction Noise and Vibration Management Plan (CNVMP) shall be prepared by the contractor. Implementation of all reasonable and feasible mitigation measures for all works (as set out in the Acoustic Studio assessment) will ensure that any adverse noise impacts to surrounding residential, educational, commercial, and recreational receivers are minimised.

Project specific mitigation measures shall include:

- Communication and scheduling (duration and respite periods) coordinated.
- Alternative construction methodology or equipment such as electric tower cranes.
- Noise Barriers or Screening.
- For construction traffic - planning of access routes, staging and management of arrivals.
- An allowance for attended monitoring (half day) at the commencement of the first round of noise intensive works, including Excavation / Earthworks and Substructure. This will be used to quantify predictions, inform improvements and updates to the management plan and determine if further or longer-term monitoring is required.

Detailed project specific mitigation measures which consider the various project stages and respective affected receivers are provided in Section 6.5.5 of the Acoustic Studio assessment and are applied by this REF's mitigation measures..

Vibration will predominantly impact the hospital itself and the immediately adjacent uses and departments of the hospital. The impact of vibration will need to be confirmed and quantified further as part of the CNVMP prepared by the engaged Contractor. Consultation should be carried out with each adjacent department to confirm vibration sensitivity requirements and operational hours and avoid vibration-intensive activities during those hours if practicable.

Acoustic Studio recommends that, prior to the commencement of the works, vibration surveys be carried out of each key vibration-generating activity / equipment to determine whether the existence of significant vibration levels justifies a more detailed investigation.

Operational Noise and Vibration

Operational noise from the activity can meet the relevant noise criteria provided noise mitigation measures are implemented as part of the final design (or alternative solutions to achieve the Project Noise Trigger Levels (PNTLs) for the project).

With respect to new external plant and equipment related to the extension to the main hospital building, as a mitigation measure, during the detailed design phase, further assessment and advice will be provided to the architect and services engineers to ensure that noise emissions from plant and equipment are effectively controlled to meet the relevant criteria at the nearest receiver boundaries.

The plant room will require acoustic screening plus internal sound absorptive lining and In-duct attenuation will be allowed for equipment terminating at the façade.

Upgrades are proposed to the existing oxygen compound and fire pump and fire brigade booster. There is expected to be negligible change in noise impact associated with these upgrades as operations (including testing and delivery procedures) are expected to remain the same (or reduce in frequency). No additional mitigation measures are required.

Noise from the proposed car park and additional traffic generation on surrounding roads has been determined to have a negligible impact and therefore no additional mitigation measures are required.

No operational vibration impacts are expected or anticipated.

Overall, Acoustic Studio consider the activity to not be a significant noise or vibration impact.

6.2.3 Air Quality and Energy

Questions to consider	Yes	No
Could the works result in dust generation?	X	
Could the works generate odours (during construction or operation)?	X	
Will the works involve the use of fuel-driven heavy machinery or equipment?	X	
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?	X	

There are likely to be air quality impacts during construction works. Accordingly, an Air Quality Assessment has been prepared - see **Appendix P**.

With reference to baseline assessment of air quality (considering dust particles; Carbon Monoxide (CO); Carbon Dioxide (CO_2); Nitric Oxide (NO); and Nitrogen Oxide (NO_2)), the existing site is well below or at levels within adopted guidelines for air quality.

In consideration of the proposed scope of works, likely seasonal climatological / meteorological conditions, the types of vehicle and machinery emission sources, dust generation, and sensitive receivers at and around the site, the Air Quality Assessment has concluded that dust will be the most likely impact to air quality. However, with appropriate mitigation measures desirable air quality commensurate with the adopted guidelines for air quality can be achieved.

Accordingly, the recommended air quality mitigation measures are included in the REF.

6.2.4 Soils and Geology

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

JK Geotechnics has prepared a Preliminary Geotechnical Investigation to assist informing the design phase of the development and with information on ground and sub-surface conditions – see **Appendix Q**.

In investigations undertaken, including involving borehole testing, it was observed or determined that some existing erosion, likely due to surface water movement, was visible where the batter sloped down from the retaining wall in the north-west of the site. No other soil stability or erosion issues were observed during the site investigation. Evidence of filling was observed in the north-west of the site where a steep batter slope extended from the concrete retaining wall and cut, down into the site, and to the north beneath the main building. The surficial fill material contained visible inclusions of igneous gravels, and some brick, concrete and plastic fragments. The remainder of site was also observed to have been cut/filled to achieve the existing levels and to install footpaths and services.

It is noted that the soils at the site do not contain acid sulfate soils and no Acid Sulfate Soils Management Plan for the proposed earthworks would be warranted. The site is also not within an identified Mine Subsidence District and therefore does not require approval from Subsidence Advisory NSW.

The abovementioned boreholes encountered a profile generally comprising of fill and residual clay, with weathered siltstone (shale) bedrock at depth. Groundwater was also encountered at depth (generally at or below 5.0m) in three of five boreholes. Based on the relatively shallow earthworks proposed, the site is unlikely to require any significant dewatering.

JK Geotechnics advises that some groundwater seepage flows will be expected to occur through the soils, particularly during and after periods of heavy rain. If fill is present behind the existing retaining wall, then there may be trapped or perched groundwater within the fill that would readily drain if excavated into. Regardless, seepage, if any, is expected to be satisfactorily controlled by a sump and pump system that discharges groundwater inflows to the Council stormwater system. Groundwater seepage is not anticipated to be great and is expected to occur mainly in the periods during and following rainfall.

No detailed mitigation measures arise with respect to soil and geological conditions.

See also further discussion below with respect the potential for contamination at the site. Additionally, discussion on sediment and erosion control is addressed further within Section 6.2.5.

6.2.4 Coastal risks

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

The site is not within the coastal zone and will not affect or impact upon coastal process or be affected by coastal hazards. No mitigation measures are required.

6.2.5 Hydrology, Flooding and Water Quality

Questions to consider	Yes	No
Are the works located near a natural watercourse?		X
Are the works within a Sydney Drinking Water Catchment?		X
Are the works located within or near a floodplain?		X
Will the works intercept groundwater?		X
Will a licence under the *Water Act 1912* or the *Water Management Act 2000* be required?		X
Has stormwater management been adequately addressed?	X	

Given the existing flood risk at the site, Northrop Consulting Engineers and ACOR Consultants have assessed flooding impacts and designed flood-related civil engineering outcomes to mitigate and manage flooding at the site and to protect property both up- and downstream from the hospital.

The following sets out the flooding scenario, the proposed civil engineering design to achieve the above, and other measures to maintain or improve water quality at (or leaving) the site once operational. Construction-related sediment and erosion controls are also discussed.

Variously see **Appendix I** (in relation to the civil engineering report and drawings) and **Appendix R** (Flood Impact and Risk Assessment (FIRA)).

Flooding

Northrop Consulting Engineers has prepared a FIRA in relation to the proposed works with the purpose to review the existing flooding behaviour at the site, the potential impact of the development on the existing flood behaviour and identify potential flood risks and potential mitigation measures for the proposed development.

As noted earlier in this REF, the site is subject to overland flow derived from the local upstream catchment. The upstream catchment is relatively small and extends approximately 250m south of the hospital into the existing adjacent educational establishments. Overland flow derived from the upstream catchment travels in a northerly direction across the hospital access road along the southern boundary of the site, continues around the southern portion of the existing building (in the vicinity of the proposed development) and continues around the eastern side of the hospital, across the decommissioned helipad before connecting onto Railway Street in the north-eastern corner of the site. The depth of this localised flooding is approximately up to 30cm (0.3m) in the vicinity of the proposed development at the 1 in 100 year rainfall event (1% AEP).

The upstream catchment consists of an early learning centre, school, carparking, open space areas, trees, and roads with surrounding urban development. An area of industrial / commercial land use is also located to the west of the hospital which contributes overland flows, downstream of the proposed development.

Due to the relatively small upstream catchment, flood water is expected to rise and fall relatively quickly at the subject site with potentially limited warning time. Notwithstanding, the flood hazard categorisation is deemed to be predominantly 'H1' across the area, signifying 'generally safe for people, vehicles, and buildings'.

To address flood impacts and address the purpose of the FIRA, options were considered to:

- Eliminate the potential for local catchment overland flow across the proposed building location.
- Avoid adverse flood impacts associated with changes in flood levels (afflux).
- Achieve an acceptable level of freeboard to the proposed building.

A series of options were considered (see **Appendix R**) and following detailed modelling (comparing the existing and developed case results for the 1 in 100 year flood (1% AEP) and the Probable Maximum Flood (PMF)), the preferred option and flood mitigation strategy was to provide for:

- A raised threshold at the carpark entrance with crest level at approximately 62.15m AHD. Representing an increase of approximately 0.4-0.5m when compared to existing levels.
- A 15m wide overland flow path running south to north from the existing driveway, passing along the eastern edge of the extension and discharging just upstream of the existing helipad. An approximate average longitudinal grade of 0.017m/m was adopted.
- A 6m wide overland flow path running west to east along the southern boundary of the proposed extension. An approximate average longitudinal grade of 0.013m/m was adopted.
- At the downstream of the proposed overland flows paths was a headwall and pipe that connects to existing underground drainage on the subject site.
- A high kerb is also proposed around the existing carpark located to the south of the proposed extension as well as along the western edge of the proposed building.
- The proposed Oxygen Storage Pad is to be sited with a minimum FFL of the 1% AEP + 500mm or the PMF (whichever is greater).

The developed case (based on the above option) includes measures to avoid the proposed development from being inundated with floodwater during events up to and including the PMF. The modelling presented in the FIRA suggests that the proposed building extension will have a freeboard of approximately 150mm on the southern side in the PMF. On the eastern side of the building a freeboard of approximately 400-500mm is achieved during the worst case PMF event. Similarly, the proposed Oxygen Storage Pad is proposed to be raised with a minimum Finished Floor Level of the 1% AEP + 500mm or the PMF (whichever is higher).

This however will require careful placement of landscaping and in particular new trees to ensure results can be achieved as trees have the potential of increasing modelled flood levels by up to 23mm. As such, the location of the proposed trees will continue to be reviewed during future project phases to ensure they do not adversely impact existing and proposed flood behaviour on the subject site or in adjacent properties.

Furthermore, the existing flood emergency response strategy at the site is recommended to be updated to include the proposed development. Through the introduction of hard engineered flood mitigation measures flood risk on the subject site is considered to be managed appropriately for the proposed development.

Stormwater Management

ACOR has responded to the flooding mitigation option with a civil engineering design and stormwater management strategy as shown in drawings as part of **Appendix I**.

The FIRA confirms the required protective levels, freeboards, and drainage strategies necessary to ensure compliance and mitigate flood-related risks across the site. The flooding items have been adopted within the civil design.

Additionally, new or additional stormwater management at the site has been quantified based on the addition of areas of new impervious and paved surfaces and new roofing. The result is the need for storage of water in an OSD tank with a capacity of 96m^3 to complement other typical stormwater management measures at the site. The OSD is located to the west of the extension at a below-ground level. This is intended to satisfy Council's standards. As noted by ACOR, the proposed site stormwater system incorporates a 96m^3 OSD with a 117.5mm 1% AEP Orifice to restrict the post-development flowrate back to a PSD of 37.62L/s.

Water Quality

Water quality measures will be provided to treat the site stormwater in accordance with Blacktown City Council Part J Water Sensitive Urban Design and Integrated Water Cycle Management. The required pollutant reduction targets set by the Blacktown City Council are outlined as follows:

- Gross Pollutants (GP): 90%
- Total Suspended Solids (TSS): 85%
- Total Phosphorus (TP): 65%
- Total Nitrogen (TN): 45%

Treatment removal loads were analysed for the proposed development using MUSIC (Model for Urban Stormwater Improvement Conceptualisation) Version 6.3 Software. MUSIC is a water quality modelling tool which is utilised to simulate urban stormwater systems operating at a range of temporal and spatial scales.

Based on ACOR's MUSIC modelling, the results indicate that the nominated treatment train has achieved Council's pollutant reduction targets.

Pollutant	Percentage Reduction Target	Percentage Reduction Achieved
Gross Pollutants	90.00%	98.70%
Total Suspended Solids (TSS)	85.00%	85.50%
Total Phosphorus (TP)	65.00%	70.50%
Total Nitrogen (TN)	45.00%	55.50%

Sediment and erosion control

During construction a range of sediment and erosion control devices and measures are to be employed as set out in the ACOR drawing at **Appendix I**. These include (with exact locations to be determined by the contractor):

- Wrapping all grates and pit openings geotextile fabric until completion of works.
- Establishing a temporary stockpile with sediment fence surround.
- Installation of hessian bag sediment traps.
- Construction of a temporary sediment basin.
- Installation of temporary sediment control fences until after completion of works.
- Construction of a temporary stabilised construction entry / exit within the works zone.

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?		X
Will the works be visible from the public domain?	Partially only	
Are the works located in areas of high scenic value?		X
Will the works involve night work requiring lighting?		X

The proposed extension to the main hospital building is designed to be generally recessive and proportionate in scale to the main hospital building. At a maximum height of approximately 12m it will generally sit below the existing building's roofline and parapet heights.

Part of the design philosophy adopted by Jacobs has been to be 'respectful of the existing'. The proposed architectural design approach to the new addition is one of respect for the original hospital design by:

- Form and scale: The skillion form of the extension is an extrusion of the existing rear roof line to integrate the new and old together respectfully.
- Demarcation: Although the new extension form sits comfortably with existing the alternative materiality of brickwork, contrasts with the light-weight palette of the original. The brickwork sets a new design precedent to future stages of the hospital redevelopment.
- Detailing: The proposed new addition using simple detailing of the proposed material to express the clear design intent which is liken to the design expression of the original hospital.

To that end it seeks to avoid being visually jarring or detract from the existing bulk, scale or visual aesthetic of the built form.

In general, the hospital is screened by pockets and patches of vegetation of various densities, with its buildings setback at relatively significant distances, particularly in the location of these works. Views into the hospital from public places are not direct and with the predominant built form as low-rise, visual impacts and visual amenity is highly unlikely be to be greatly impacted. No mitigation measures are required or proposed in this regard.

6.2.7 Aboriginal Heritage

Questions to consider	Yes	No
Will the activity disturb the ground surface or any culturally modified trees?		X
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)?		X
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)?		X

Questions to consider	Yes	No
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.		X
If Aboriginal objects or landscape features are present, can impacts be avoided?		N/A
If the above steps indicate that there remains a risk of harm or disturbance, has a desktop assessment and visual inspection been undertaken?	X	
Is the activity likely to affect wild resources or access to these resources, which are used or valued by the Aboriginal community?		X
Is the activity likely to affect the cultural value or significance of the site?		X

An Aboriginal Heritage Due Diligence Assessment has been prepared by Extent (see **Appendix S**) to assess and/or identify:

- Whether or not there are any current Aboriginal heritage compliance requirements or permit approvals required under the NSW *National Parks and Wildlife Act 1974* and related Heritage NSW regulations, codes and guidelines;
- Any known approvals required under the federal *Environmental Protection & Biodiversity Conservation Act 1999* or the *Aboriginal & Torres Strait Islander Heritage Protection Act 1984*; and
- Any other Aboriginal heritage risks we have identified with respect to the study area and the proposed development works.

The assessment found that there are no Aboriginal objects or Places as defined by the *National Parks and Wildlife Act 1974* located within the study area. Therefore, an Aboriginal Heritage Impact approval is not currently required for the proposed works.

The study area encompasses the proposed extension to the existing main hospital building which will result in high levels of ground disturbance. Based on a review of previous archaeological assessments and the environmental context, Extent advises that the likely archaeological material and Aboriginal objects to be found in the wider Blacktown LGA area are both surface and subsurface artefact deposits. For the specific study area within the hospital, an examination of aerial imagery, previous investigations, and AHIMS site cards indicates that much of the area has been subject to ground disturbance due to the hospital infrastructure construction. This was confirmed by Extent with a visual inspection of the site.

With reference to the risk management process set out in the Due Diligence Code of Practice (DECCW, 2010), Extent noted:

- There are no AHIMS sites recorded within the proposed works area.
- The study area does not contain any landscape features which are likely to indicate the presence of Aboriginal objects.

- The proposed works are located within an area of 'disturbed land' as defined in the Due Diligence Code of Practice (DECCW, 2010).
- No further Aboriginal archaeological assessment, such as an ACHAR, is currently required for the proposed development, per the Due Diligence Code of Practice (DECCW, 2010).

For areas of works within existing infrastructure and in previously disturbed zones, the likelihood of harming any remaining Aboriginal objects is low, as these areas have already experienced significant disturbance. Therefore, the Due Diligence Code of Practice indicates that works can 'proceed with caution'.

Notwithstanding, a series of recommendations have been made which are included as mitigation measures as part of this REF. This includes an unexpected finds protocol.

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.		X
Will works occur in areas that may have archaeological remains?		X
Is the demolition of any heritage occurring?		X

As noted, the hospital site includes a mapped and listed local heritage item "House—Malmo, 1–3 Luxford Road - Part of Lot 1, DP 1208657 – Local - I42". This item however is separately mapped from the balance of the hospital campus and sits at the opposite end of the site from that of the substantive works the subject of this REF. The heritage item is some 330m from the proposed extension to the main hospital building, with a number of buildings and an at-grade car park located between.

The Historical Archaeological Assessment prepared by Extent (see **Appendix T**) has concluded that 'Malmo' will not be impacted by the proposed development. Further, from a historical and archaeological perspective, the assessment has found the study area to have Nil to Low archaeological potential for nineteenth and early twentieth century archaeology. There is no evidence for occupation or use of the site beyond pastoral activities. The archaeological remains that may be present would be unlikely to meet the threshold for local or State significance under the NSW *Heritage Act 1977*. As such, the proposed works will not impact significant historical archaeology.

Notwithstanding, an Unexpected Heritage Finds Procedure should still be put in place prior to the commencement of works in the event that potential relics not identified within this report are exposed during the construction program. This is included as a mitigation measure to this REF.

6.2.9 Ecology

Questions to consider	Yes	No
Could the works affect any EPBC Act listed threatened species, ecological community or migratory species?		X
Is it likely that the activity will have a significant impact in accordance with the *Biodiversity Conservation Act 2016* (BC Act)? In order to determine if there is a		X

Questions to consider	Yes	No
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; • Section 7.2(c) – It is carried out in a declared area of outstanding biodiversity value.		
Could the works affect a National Park or reserve administered by EES?		X
Is there any important vegetation or habitat (i.e. Biodiversity and Conservation SEPP) within or adjacent to the work area?	X	
Could the works impact on any aquatic flora or habitat (i.e. seagrasses, mangroves)?		X
Are there any noxious or environmental weeds present within the work area?	X	
Will clearing of native vegetation be required?	X Planted or self-seeded	

Abel Ecology has completed a Prescribed Ecological Actions Report in relation to the potential ecological impacts of the development upon flora and fauna at the site, and whether the proposal is likely to significantly affect any threatened species or Endangered or Critically Endangered Species - see **Appendix U**.

Whilst 125 trees are proposed to be removed, and a small part of the revegetated area is also impacted by the works, Abel Ecology concluded that the tests of significance found that the proposal is not likely to significantly affect threatened species, ecological communities, or their habitats, in accordance with section 7.3 of the Biodiversity Conservation Act. Therefore, no further assessment is required under section 7.8 of that Act. Accordingly, a Species Impact Statement (SIS) or Biodiversity Development Assessment Report (BDAR) is not recommended or required.

There is unlikely to be a significant impact on relevant matters of MNES or the environment of Commonwealth land. Consequentially, the proposal is not recommended to be referred to the Australian Government under the EPBC Act.

Notwithstanding, mitigation measures are proposed as follows:

- Any future amendments to the proposal minimise, and where possible, avoid impacts to Cumberland Shale Plains Woodland (Zone 3). If any future impact is unavoidable, the proposed design is to be referred to an Ecologist for a detailed assessment, and appropriate mitigation measures are to be implemented.
- Where possible, future landscaping be representative of the vegetation community present (PCT 3320 Cumberland Plain Woodland in the Sydney Basin Bioregion).
- A qualified arborist be engaged prior to any demolition or construction works to erect Australian Standard tree protection fencing to ensure protection and retention of native trees which are not proposed to be removed.

- Where possible, retain removed trees as logs on site. Cut logs lengthwise and retain as fauna habitat in the remaining regenerated zone; maximal log retention is highly recommended (minimise chipping).
- Weeds of National Significance (WONS) and Priority Weeds for the Greater Sydney are to be maintained below 10% cover.

6.2.10 Bushfire

Questions to consider	Yes	No
Are the works located on bushfire prone land?		X
Do the works include bushfire hazard reduction work?		X
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

The hospital site is not subject to any mapped bushfire prone land. No mitigation measures are required.

6.2.5 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?		X
Will the works involve the installation of structures or services that may be perceived as objectionable or nuisance?		X
Will the works impact on or be in the vicinity of other services?		X

The existing helipad at the site is currently formally decommissioned with the facility no longer appearing on maps, charts, publications and databases. The helipad has an “Out of Service” cross on it. Accordingly, the helipad is proposed to be removed and made-good with landscaping to match the existing adjacent turfed areas. No specific mitigation measures are required and no impacts arise.

6.2.11 Waste Generation

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

Separate waste management plans have been prepared by JBS&G to address waste generation, disposal, and management during the demolition and construction works, as well as during the operation

of the development. See the Operational Waste Management Plan at **Appendix V** and the Construction Demolition Waste Management Plan at **Appendix W**.

Fundamental to each of these plans is the objective of waste minimisation and seeking to reuse and recycle materials, and avoid sending waste materials to land fill. The waste hierarchy can be described as follows:

- Reduce or avoid waste through selection of items and design.
- Reuse materials without further processing.
- Recycle and process waste for reuse as a new product.
- Recover energy through combustion of materials where acceptable and in accordance EPA Regulations.
- Treat waste to stabilise the waste product for disposal or reuse.
- Dispose of waste when no other management options are appropriate.

The WSLHD's waste strategy is currently still in development and will be incorporated into the hospital's waste management strategy once published. The following selected waste reduction targets are currently in place by the NSW government, and the hospital is working at developing implementation strategies to meet these targets:

- Phase out problematic plastics by 2025.
- 30% reduction in plastic litter by 2025.
- 10% reduction in per capita waste by 2030.
- 80% recovery rate across all waste streams by 2030.
- Triple plastics recycling rate by 2030.
- Halve organic waste to landfill by 2030.
- Net zero emissions from organics to landfill by 2030.

Construction Waste Management

Based on the scope of works JBS&G has estimated that the volume of waste to be generated during construction at the site is estimated to be 485.9 m^3 or 613.4 tonnes. This volume will be reduced by the Principal Contractor implementing the aspects proposed in the management plan as well as using additional detailed investigations which will provide a more accurate assessment of waste volumes. Further, the site will have approximately 2,207 m^3 of excess cut from earthworks and wood from the removal of 125 trees. This will likely require offsite disposal during construction, therefore will be subject to testing by a qualified environmental consultant prior to offsite disposal at a suitably licensed facility. Some future reuse of fill and wood is assumed.

To support a circular economy, the WSLHD's waste strategy (based on the current NSW guidelines) aims to have an 80% average recovery rate of waste from all waste streams. JBS&G has estimated that the total diversion of waste from landfill during demolition and construction (involving reuse, recycling and the like) can achieve 81%, thereby satisfying this target.

Operational Waste Management

In a similar approach for Operational Waste, JBS&G has estimated the weekly waste generation quantities for general waste, comingled recycling, cytotoxic waste, pharmaceutical waste, sanitary waste and eWaste recycling to be about 2,332.3 litres. With an 80% diversion rate target (and 15% reduction target in waste) ongoing avoidance and reduction in waste practices and management, as well as reuse and recycling practices and management for appropriate classes of waste. Success in attaining targets will be founded on ongoing management and clear roles and responsibilities regarding waste, training and awareness, and monitoring and reporting

Mitigation measures are applied with respect to waste management regimes for both demolition and construction works, as well as the operation of the development.

6.2.12 Hazardous Materials and Contamination

Questions to consider	Yes	No
Is there potential for the works to encounter any contaminated material?	X Low potential	
Is there potential for the works to disturb or require removal of asbestos?	X Minor extent	
Is the work site located on land that is known to be or is potentially contaminated?	X	
Will the works require a Hazardous Materials Assessment?	X	
Is a Remediation Action Plan (RAP) required to establish the proposed activity?		X TBD
If the project includes ancillary remediation works, has the ancillary remediation been considered in accordance with the Resilience and Hazards SEPP?	X TBD	

Contamination

As noted earlier in this REF, a previously completed PSIs identified typical potential contamination sources commonly associated with areas of Western Sydney, including historical agricultural use, historical filling, potential use of pesticides and potential soil impacts from demolition of buildings containing hazardous building materials.

The PSIs included soil sampling from six locations in the south-eastern area of the site and analysis of soil samples for the identified contaminants of potential concern (CoPC). All soil contaminant concentrations were low and were below the applicable Site Assessment Criteria (SAC). Notwithstanding, the PSIs confirmed the site had been filled and a Detailed Site Investigation (DSI) was recommended to meet the minimum sampling density specified by the NSW EPA. Soil samples are currently at the laboratory undergoing chemical analysis for the CoPC. Whilst it has been identified via the desktop assessment process that there is a potential for site contamination, the intrusive investigations have not identified any in-ground contamination and the findings to date have not identified a need for remediation of the site. Additional/detailed investigation is still underway and results are due to be reported in November 2025.

Hazardous Building Materials

The existing main hospital building was constructed in the early 1980s and periodically refurbished since. There remains the potential for the building (including in the isolated / localised areas of demolition for the proposed extension to the building) to contain hazardous building materials such as:

- Asbestos containing materials (ACMs);
- Asbestos containing dust (ACD);
- Lead based paints (LP);

- Lead containing Dust (LCD)
- Polychlorinated biphenyls (PCB); and
- Synthetic mineral fibres (SMF).

The survey, as undertaken by JBS&G, discovered and concluded that there was friable ACM assumed to be present within the fire door to the level 1 fire stairs and non-friable ACM was identified to the infill panel on the north-east wall within the level 1 stairwell storeroom. No other areas were subject to, or assumed to be subject to, ACMs. Suspected asbestos containing dust samples were analysed at an accredited NATA laboratory for the presence of asbestos. Following analysis, no asbestos was detected. Similarly, all collected samples of dust indicated concentrations of lead (safely) below the adopted site criteria.

One (1) isolated and minor area contained lead-based paint. If the identified Lead based paints are to be disturbed during the proposed demolition/refurbishment works, the identified lead based paints should be removed under controlled conditions by an experienced contractor. Stable lead based paints adhered to building fabric can be disposed as general solid waste in accordance with NSW EPA 2014 provided care is taken to minimise any potential for paint flakes to be dispersed onto ground surfaces and building and demolition waste is not proposed to be recycled. Where building and demolition wastes are proposed to be recycled that are impacted by lead paints, the lead paints must be stripped prior to off-site disposal. The removed lead paint waste must be disposed of as hazardous waste in accordance with NSW EPA 2014.

No PCB containing materials were identified at the time of JBS&G's inspection.

The synthetic mineral fibres encountered during the inspection were generally contained and deemed to be low risk. These SMF materials can be removed with the building and demolition waste with care taken not to generate fibres. Appropriate PPE is recommended including the use of P2 respirator as minimum and appropriate removal methodology as outlined in [NOHSC: 1004(1990)] and [NOHSC: 2006(1990)].

See **Appendix X** for the project's PSIs and a contamination statement**,** and also **Appendix Y** for the hazardous building materials survey.

Mitigation measures apply with respect to the completion of the DSI to determine if any contaminants are located within the soils at the site, and whether remediation is necessitated, and that the site is or can be made suitable for the ongoing hospital activities.

Further mitigation measures apply with respect to the handling and removal of the identified hazardous building materials, including a further safeguard of an unexpected finds protocol.

6.2.13 Sustainability and Climate Resilience

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

The project's design has incorporated sustainability principles consistent with the requirements of DGN 58 and HI's Sustainability Strategy. A suite of ESD-related documents comprises **Appendix C**, including a Sustainability Plan, ESD Evaluation Tool, Climate Adaptation Plan and Net Zero Plan.

According to the principles outlined within the NSW HI Engineering Service Guidelines (DGN 058), the project is to demonstrate the following outcomes:

- A minimum of 60 points (+5 point buffer) to be achieved by the design in accordance with HI's ESD Evaluation Tool; and
- A mandatory requirement of demonstrating a 10% improvement in energy performance on NCC Section J.

The project will implement several sustainable design principles which include initiatives designed to mitigate the development's environmental impact across the following areas:

- The development is currently targeting **65.5 points** in accordance with HI's ESD Evaluation Tool.
- The development will demonstrate a 10% improvement in energy performance on NCC Section J.
- Building Management – including reviews of commissioning and tuning, building information and other operational processes.
- Indoor Environment Quality – including high air quality, acoustic/lighting comfort and reduction of indoor pollutants.
- Energy & Carbon – including improved energy efficiency of the building operations through design and technology and consideration to Embodied Carbon.
- Water Efficiency – reduce potable water demand and utilising the use of rainwater.
- Materiality & Waste – Considering the whole of life of materials and their selection to minimise harm to the environment, including efficiency and construction while minimising resources sent to landfill from construction and demolition works.

No specific mitigation measures are warranted beyond standard ESD-related mitigation measures.

6.2.14 Community Impact/Social Impact

Questions to consider	Yes	No
Is the activity likely to affect community services or infrastructure?		X
Does the activity affect sites of importance to local or the broader community for their recreational or other values or access to these sites?		X
Is the activity likely to affect economic factors, including employment numbers or industry value?		X
Is the activity likely to have an impact on the safety of the community?		X
Will the activity affect the visual or scenic landscape?		X
Is the activity likely to cause noise, pollution, visual impact, loss of privacy, glare or overshadowing to members of the community, particularly adjoining landowners?		X not permanently (noise)

Whilst a separate Social Impact Statement has not been prepared in support of this REF, the obvious and palpable social benefits arising from the proposed works are as expressed in its vision, objectives, benefits, as well as the scope of the project in supporting the comprehensive services plan for the hospital, and in converting its budget allocation more generally.

There are not likely to be any adverse impacts of the works from a social impacts perspective given the general location of the works and its scale. The overall use of the hospital will largely be the same, albeit with supplementary contemporary accommodation and services as identified as being in need to support the increased population and demographic changes of the hospital's catchment. Construction-related impacts are otherwise addressed elsewhere within this section of the REF.

The visual impacts of the redevelopment are as described above and are considered to the suitable in the context of the relatively modest scope of works, and the built form context within which it sits, in providing appropriate accommodation and levels of care.

Notwithstanding, predicted social impacts of the works and operation of the new and extended OPD and IPU in the two-level extension and its ancillary and associated works, and relevant mitigation measures are generally considered below.

Social impacts may be classified as follows, based on the Department of Planning and Environment's 'Social Impact Assessment Guideline' (2021):

- **Way of life**: how people live, get around, work, play and interact with one another on a day-to-day basis
- **Community**: its composition, cohesion, character, how it functions, and sense of place
- **Accessibility**: how people access and use infrastructure, services and facilities
- **Culture**: people's shared beliefs, customs, values and stories, and connections to Country, land, water, places and buildings
- **Health and wellbeing**: people's physical, mental, social and spiritual wellbeing
- **Surroundings**: access to and use of natural and built environment, including ecosystem services, public safety and security, as well as aesthetic value and amenity
- **Livelihoods**: including impacts on employment or business, experience of personal breach or disadvantage, and the distributive equity of impacts and benefits
- **Decision-making systems**: the extent to which people are able to participate in decisions that affect their lives, procedural fairness, and the resources provided for this purpose.

Each of these is addressed in turn further below.

The **affected communities** with respect to social impacts are likely to be:

- Hospital communities (staff, volunteers, suppliers etc).
- Patients attending the health facilities within the hospital precinct, their carers and visitors.
- Neighbouring residents.
- Neighbouring businesses.
- Neighbouring educational establishment parents and students.
- Local area workers.
- Visitors to other institutions and businesses within walking distance of the area.

The **magnitude and likelihood of impacts** to arise are fundamental to determining individual and aggregated impacts over time. This includes impacts during construction and those arising from the operational phase of the development.

A Social Impacts significance matrix is applied to assist in determining impacts – see over as derived from the Department's guideline's Technical Supplement (Table 7).

		Magnitude level				
		1	2	3	4	5
Likelihood level		Minimal	Minor	Moderate	Major	Transformational
A	Almost certain	Low	Medium	High	Very High	Very High
B	Likely	Low	Medium	High	High	Very High
C	Possible	Low	Medium	Medium	High	High
D	Unlikely	Low	Low	Medium	Medium	High
E	Very unlikely	Low	Low	Low	Medium	Medium

Way of life: how people live, get around, work, play and interact with one another on a day-to-day basis

Construction

Disruptions to the way of life related to the construction works are likely to be focussed on amenity impacts, whether noise, air quality, accessibility and the like. The works are temporary and so the impacts themselves are not life-changing or transformational.

Impacts are almost certain in the context and are moderate in magnitude due to the relatively short timeframes, limited impact upon residential and other sensitive receivers outside of the hospital grounds, and the ability to mitigate and manage impacts. The adverse impacts may accordingly be considered High.

Operation

The impacts of the operation of the project upon the way of life are likely to be positive and profound based on the project's objectives and need. These impacts are likely to be long-standing commensurate with the future-proofing embedded within the hospital's comprehensive services plan and the project need.

Impacts are almost certain and moderate in nature given the relative scale of the works. These positive impacts may accordingly be considered High.

Community: its composition, cohesion, character, how it functions, and sense of place

Construction

The impacts of construction upon 'community' can be considered unlikely and minor, giving this a rating of Low. Construction works across an estimated 15 months of 2026-2027 are unlikely to be adversely impactful in this regard. In fact there is the potential for the construction works to contribute localised economic multipliers within this part of the Mount Druitt and Blacktown areas within the services industries through additional construction workers in the area, and their day-to-day needs.

Operation

As above, once operational, the new project's impacts are almost certain to be moderate in nature given the relative scale of the works and its appearance and function as an extension of the existing hospital. These positive impacts may accordingly be considered High in the context.

Accessibility: how people access and use infrastructure, services and facilities

Construction

During construction, accessibility within this relatively peripheral part of the hospital is likely to be affected. Notwithstanding, this will be able to be managed within the site and at its interface with the existing hospital and its internal access roads and other uses. The level of impact in this regard are likely to be moderate. The impacts upon accessibility during construction would be High.

Operation

Following construction, accessibility and car parking will generally be unaffected with an important addition of 30 new parking spaces to support an additional supply for new demand generated.

The likelihood of improved accessibility within and to the hospital and its services is almost certain and of a moderate magnitude, making the project's impact upon accessibility positively High.

Culture: people's shared beliefs, customs, values and stories, and connections to Country, land, water, places and buildings

Construction

Generally, the project's construction will have no impact upon culture, other than the overall process of inclusion under the Connecting with Country Framework in the design and execution of the project. An Unexpected Finds Protocol will be in place for any cultural heritage finds (Aboriginal or otherwise). An existing wall with memorial plaques will require relocation.

The impacts of this may be considered possible with a magnitude of moderate, making this impact Medium in the context.

Operation

As above, the project's design has sought to employ and embody the Connecting with Country Framework. This will be ongoing into the detailed design and execution of the project. The design measures with respect to Connecting with Country will be available to the community at large. In this respect the operational impacts may be considered to be likely and moderate in nature, presenting as a positive impact rated as High.

Health and wellbeing: people's physical, mental, social and spiritual wellbeing

Construction

The construction impacts related to health and wellbeing are likely to mirror those of 'way of life', particularly in how the community may react to impacts from noise, dust, traffic and like during the works. To that end, impacts are almost certain in the context and are moderate in magnitude due to the mid to longer terms 15 month duration and ability to mitigate and manage impacts. The adverse impacts may accordingly be considered High.

Operation

Again, as per 'way of life', the impacts of the operation of the new extension upon the health and wellbeing of the community are likely to be positive and profound based on the project's objectives and need. These impacts are likely to be long-standing commensurate with the future-proofing embedded within the hospital's comprehensive services plan and the project need.

Impacts are almost certain and moderate in nature given the relative scale of the works. These positive impacts may accordingly be considered High.

Surroundings: access to and use of natural and built environment, including ecosystem services, public safety and security, as well as aesthetic value and amenity

Construction

The construction of the project involves both the removal and replacement of trees, albeit the replacement at a significantly greater rate than the removal at 2:1 (greater than the typical rate of offsetting usually applied to HI projects). Over time, as the trees grow, the benefits will be enhanced over the existing environment, particularly through the delivery of the improved health services and through the additional biodiversity capability at the site through removal of weeds and introduction of appropriate local / endemic tree specimens. Construction will temporarily change the face of the hospital at this interface. The impacts are almost certain but moderate in magnitude, leading to a High impact.

Operation

Once operational, improved safety and security and legibility and ownership arises within this part of the hospital along with concurrent improvements to functionality and amenity. Impacts in relation to the operation of the development and its surroundings is almost certain with a proportionately major magnitude over time. Accordingly, a positive impact of Very High is likely to arise.

Livelihoods: including impacts on employment or business, experience of personal breach or disadvantage, and the distributive equity of impacts and benefits

Construction

It is unlikely adjacent businesses will be significantly adversely affected by the works. In fact, nearby retailing and businesses may benefit from additional patronage and income for the duration of the works due to additional construction workers from outside of the area.

Accordingly, the positive economic multipliers are possible or likely to arise and have a moderate magnitude, realising a positively Medium to High social impact.

Operation

Once construction is complete, the growth in beds and staff will likely mean a net neutral social impact from livelihoods perspective. Accordingly, it is unlikely any significant adverse or positive impacts arise and the magnitude is minimal. The social impact arising may be considered to be Low.

Decision-making systems: the extent to which people are able to participate in decisions that affect their lives, procedural fairness, and the resources provided for this purpose.

Construction / Operation

Decision-making around the project need, its design, and in part its execution has involved primarily internal and some external stakeholders to the hospital (see the Communications and Engagement Report for the breadth of this including Connecting with Country actions). This engagement has resulted in a development meeting a range of community expectations.

Statutory engagement in the decision-making process of this REF has sought wider neighbour inputs, generally from those perceived to be directly impacted by aspects of the construction and the operation. Submissions received from those parties and Council during the notification / exhibition process were considered in the finalisation of this REF. As noted in Section 5 of this REF, the notification / exhibition process was carried out in accordance with requirements to the stakeholders identified through this process. In accordance with HI's Community Participation Plan (October 2024) (CPP), the REF was publicly exhibited for a period of 28 days.

In this sense the inclusivity of the decision-making process has been 'major' and with an 'almost certain' likelihood, to generate a positive social impact of Very High.

Summary

In summary, construction activities are more likely to have adverse social impacts than operational impacts. These impacts range from low to high, dependent upon the type of impact. These are temporary in nature and are generally manageable and can be classed as expected outcomes from the construction process. The greatest likely impacts will be from noise and air quality (dust / odour), however mitigation measures embedded within supporting reports under the REF, and as replicated in **Appendix BB**, seek to reduce those impacts to appropriate levels.

Operational impacts conversely (due to the obvious positive nature of the project compared to the 'Do-Nothing' option), are more likely to arise in positive social impacts. These are likely to be longer-term, profound, and to a minor degree transformative to limited sections of the community. To the wider community they are collectively a range of positive impacts of varying degrees, that above all improve the community's health and wellbeing, way of life, and livelihoods. The works also have the positive impact of improvement to the Mount Druitt Hospital site through investment in improved functionality, surroundings and general amenity.

To seek to avoid the manageable temporary construction impacts would be to forego the opportunity to provide myriad positive social impacts arising from the operational development.

See **Appendix BB** for the suite of mitigation measures to address, principally, construction-related impacts.

6.2.15 Cumulative Impact

Questions to consider	Yes	No
Has there been any other development approved within 500m of the site?	X See below	
Is there any transformation planned within 500m of the site?		X
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?		X
Is the activity likely to result in further significant impacts together with other development planned, approved or under construction within 500m of the site?		X
Has a cumulative impact statement, proportionate to the activity, been included in REF documentation? If no – why not?		X

A search of the following databases to identify any projects which might result in a cumulative impact with the proposal has been undertaken:

- Department of Planning, Housing and Infrastructure's – major project register;
- Sydney and Regional Planning Panels Development and Planning Register;
- Relevant LGA Council development application (DA) register; and
- Relevant LGA Council Land Use Planning Frameworks.

As noted earlier in this REF, there are no other concurrent projects of any scale to generate conflicting or cumulative impacts.

As part of the same project, a range of minor refurbishment works in other parts of the main hospital building are proposed to be carried out as Exempt Development utilising the same contractor team. These are as set out the Section 3 of this REF for context.

Note, a recent DA (SPP-22-00010) for the construction of two indoor basketball courts with associated amenities, a lobby connection to the existing Kevin Betts Stadium, hardstand carpark area and associated landscaping at the nearby Mount Druitt Town Centre Reserve 10 Ralph Place, Mount Druitt was approved by the Regional Planning Panel in 2023.

The development secured its Occupation Certificate on 23 September 2025 for the works and it is reasonable to conclude that this nearby development of some scale will no longer pose potential concerns related to concurrent or cumulative construction impacts given its completion and occupancy.

No further mitigation measures arise or are required.

BCA and Access-related considerations

BM+G (the project's BCA consultant) has undertaken a review of the architectural plans for the project against the deemed-to-satisfy provisions of the Building Code of Australia 2022 Amendment 2 and the Disability (Access to Premises – Buildings) Standards 2010.

Compliance matters raised in the BM+G report are not uncommon for a development of this nature and can be readily addressed at the Crown Certificate stage. In this instance, BM+G is of the opinion that any amendments required to the design documentation in order to comply with the BCA can be addressed in the preparation of the detailed documentation for Crown Certificate without giving rise to significant changes to the proposal as submitted for this REF.

Arising from the BM+G review, it is considered that the proposed development can readily achieve compliance with the relevant provisions of the BCA. The BM+G BCA & DDA Compliance Statement is attached at **Appendix Z**.

Structural considerations

ACOR has provided a structural engineering statement indicating the proposed new building will follow a standardised 8.4m grid in accordance with Health Infrastructures Design Guidelines. The vertical structural components will involve concrete columns and concrete shear walls. The suspended structure will be constructed with a post-tensioned flat floor plate. The foundations of the new building are anticipated to consist of suspended foundation raft slab, supported by reinforced concrete piles bearing on the underlying high strength bedrock. The roof structures are steel-framed structures with façade truss on the Northern side. The external façade system is proposed to be constructed from a combination of masonry veneer and lightweight cladding. Fire separation between the new building and the existing will be provided by a reinforced concrete wall or a similar construction type.

The proposed building location and external plant room locations will require the construction of a new retaining wall to the west of the building, adjacent to the emergency department drop-off.

The design will be able to satisfy relevant design guides and standards, which include the following:

- DGN 001 - Structural Design Criteria Guidelines
- DGN 006 - General Design Principles
- DGN 024 - Building Importance Levels for NSW Health Projects
- DGN 030 - Site Investigations
- DGN 058 - Environmentally Sustainable Development
- AS/NZS 1170.0 - Structural Design Actions
- AS/NZS 1170.1 - Structural Design Actions – Permanent, Imposed and Other Action

- AS 1170.2 - Structural Design Actions – Wind Loading
- AS 1170.4 - Structural Design Actions – Earthquake actions in Australia
- AS 3600 – Concrete Structures
- AS 3700 – Masonry Structures
- AS 4100 – Steel Structures
- AS 4600 - Cold-formed Steel Structures
- AS 4678 - Earth-retaining Structures

See the Structural Engineering Statement at **Appendix AA**.

Hazardous Goods

RiskCon has prepared a Preliminary Hazard Analysis (PHA) to address potential risks arising from the storage, handling, use, and deliveries of bulk liquid oxygen to the hospital. The PHA is included at **Appendix BB**.

As the project proposes, amongst other things to upgrade the hospital to provide the replacement of the current cryogenic oxygen storage vessel (Dangerous Goods Class 2.2 sub risk 5.1) with a new larger oxygen vessel and back up oxygen vessel, in accordance with Chapter 3 of the Resilience and Hazards State Environment Planning Policy and “Applying SEPP 33 – Hazardous and Offensive Developments”, where the assessment finds that the threshold levels for the storage of Dangerous Goods exceeds the maximum permissible quantities in Applying SEPP33, a PHA is required.

A hazard identification table was developed by RiskCon as part of the PHA for the hospital’s liquid oxygen storage facility to identify potential hazards that may be present at the site as a result of the storage of liquid oxygen. Based on the identified hazards, scenarios were postulated that may result in an incident with a potential for off-site impacts. Postulated scenarios were discussed qualitatively and any scenarios that would not impact offsite were eliminated from further assessment by RiskCon. The scenarios considered a potential cause of hazard, the consequences, safeguards in place, and the potential for off-site impacts. No scenarios triggered the need for further analysis.

Additionally, a review of the location of gas pipeline corridors in the vicinity of the Mt Druitt Hospital was also conducted. No pipeline corridors were identified within the Mt Druitt Hospital precinct or in the surrounding land uses. Hence, it is concluded that there is no requirement to assess the impacts from high pressure gas pipelines on the proposed development.

Based on the hazard identification no incidents were identified to be carried forward for consequential analysis beyond the PHA. Therefore, RiskCon concluded that the risks at the site boundary and surrounding land uses would be below the acceptable criteria and the proposed development would be suitable for the land use.

Notwithstanding, RiskCon included a range of recommendations which have been included in this REF’s mitigation measures.

7 Summary of Mitigation Measures

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

7.1 Summary of Impacts

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

- The extent and nature of potential impacts are likely to be low to moderate, 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.

8 Justification and Conclusion

The proposed alterations and additions to provide for 30 additional hospital beds within a new two-level extension to the existing main hospital building, along with its ancillary and associated works, at Mount Druitt 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 activity is not likely to significantly affect threatened species, populations, ecological communities or their habitats, and therefore it is not necessary for a Species Impact Statement (SIS) and/or a Biodiversity Development Assessment Report (BDAR), nor BDAR Waiver, to be prepared. The environmental impacts of the proposal are not likely to be significant and therefore it is not necessary for an EIS to be prepared and approval to be sought for the proposal from the Minister for Planning under Part 5 of the EP&A Act. On this basis, it is recommended that HI determine the proposed activity in accordance with Part 5 of the EP&A Act and subject to the adoption and implementation of mitigation measures identified within this report.

Appendices

Appendix A – Surveys

Appendices

Appendix B – Planning Certificate

Appendices

Appendix C – Sustainability Plan / ESD Evaluation Tool / Climate Adaptation Plan / Net Zero Plan

Appendices

Appendix D – Architectural Drawings

Appendices

Appendix E – Architectural Design Statement

Appendices

Appendix F – Arboricultural Impact Assessment

Appendices

Appendix G – Landscape Drawings

Appendices

Appendix H – Landscape Design Statement

Appendices

Appendix I – Civil Engineering Report and Drawings

Appendices

Appendix J – Electrical Services Utility Statement

Appendices

Appendix K - Utility Services Report – Hydraulics and Fire Services

Appendices

Appendix L – Preliminary Construction Management Plan

Appendices

Appendix M – HI Communications and Engagement Report

Appendices

Appendix N – Transport and Parking Assessment

Appendices

Appendix O - Noise and Vibration Impact Assessment

Appendices

Appendix P – Air Quality Assessment

Appendices

Appendix Q – Preliminary Geotechnical Assessment

Appendices

Appendix R – Flood Impact and Risk Assessment

Appendices

Appendix S – Aboriginal Heritage Due Diligence Assessment

Appendices

Appendix T - Historical Archaeological Assessment

Appendices

Appendix U – Prescribed Ecological Actions Report

Appendices

Appendix V - Operational Waste Management Plan

Appendices

Appendix W - Construction Demolition Waste Management Plan

Appendices

Appendix X - Preliminary Desktop Site Investigation / Preliminary Site Investigation / Contamination Statement

Appendices

Appendix Y - Targeted Hazardous Building Material Survey

Appendices

Appendix Z - BCA & DDA Compliance Statement

Appendices

Appendix AA – Structural Engineering Report

Appendices

Appendix BB - Preliminary Hazard Analysis

Appendices

Appendix CC – Mitigation Measures

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NSW GOVERNMENT