

HEALTH INFRASTRUCTURE

Review of Environmental Factors – The Children’s Hospital at Westmead Stage 2 and Viral Vector Manufacturing Facility – Refurbishment Works

Prepared by Keylan Consulting

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Version Control

Version	Date	Author	Description	Reviewed by	Approved by
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Declaration

This Review of Environmental Factors (**REF**) has been prepared for NSW Health Infrastructure (HI) and assesses the potential environmental impacts of the Stage 2 Refurbishment Works at The Children’s Hospital at Westmead (**CHW**) and the alterations and additions to the Westmead Innovation Centre and Kids Research buildings for the purposes of a Viral Vector Manufacturing Facility (**VVMF**).

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

This REF provides a true and fair review of the activity in relation to its likely impact on the environment. It addresses to the fullest extent possible, all the factors listed in the Guidelines approved under Section 170 of the EP&A Regulation (Guidelines for Division 5.1 Assessments (June 2022) and the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act).

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

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Appendices

Appendix	Description	Author	Rev/Ref/Date
A	Notification Letters	Keylan Consulting Pty Ltd c/o Health Infrastructure NSW	8 April 2022
B	Section 10.7 (2) and (5) Certificate	City of Parramatta Council	3 December 2021 Ref: 2021/9193
C	Architectural Drawings	Billard Leece Partnership Pty Ltd	25 March 2022 Revision F
D	Preliminary Construction Management Plan	PricewaterhouseCoopers	May 2022
E	Acoustic Assessment	Stantec Acoustics	9 March 2022
F	KR Design Development Report	HDR	March 2022 Revision 03
G	Innovation Centre Schematic Design Report Addendum	HDR	June 2022

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 Act 2017	Biodiversity Conservation Act 2017
BC Regulation	Biodiversity Conservation Regulation 2017
BAM	Biodiversity Assessment Method
CA	Certifying Authority
CASB	Central Acute Services Building
CE	Chief Executive
CHW	Children’s Hospital Westmead
CM Act	Coastal Management Act 2016
CMP	Construction Management Plan
CRA	Conservation Risk Assessment
DPE	Department of Planning and Environment
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
EPL	Environment Protection Licence
HI	NSW Health Infrastructure
IC	Innovation Centre
KR	Kids Research Building
LEP	Local Environmental Plan

Abbreviation	Description
LGA	Local Government Area
MPS	Multipurpose Service
MNES	Matters of National Environmental Significance
NPW Act	National Parks and Wildlife Act 1974
NPW Regulation	National Parks and Wildlife Regulation 2009
NPWS	National Parks and Wildlife Service (part of EES)
NT Act (Cth)	Commonwealth Native Title Act 1993
OEH	(Former) Office of Environment and Heritage
PCMP	Preliminary Construction Management Plan
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
WM Act	Water Management Act 2000
WMP	Westmead Health, Education and Innovation Precinct

Executive Summary

The Proposal

This Review of Environmental Factors (**REF**) has been prepared on behalf of NSW Health Infrastructure (**HI**) to support the following works:

- Internal refurbishment and fit-out works within the existing Children's Hospital building, including;
 - Kid's Pathology refurbishment and fit-out of a cold shell;
 - Gait Lab fit-out;
 - Clinical Research Centre fit-out; and
 - Galleria upgrade works
- Stage 2a and Stage 2b works comprising the extension of the existing Kids Research (**KR**) building by one storey to accommodate the construction of the new Viral Vector Manufacturing Facility (**VVMF**), and fit-out works of the extension.
- Internal refurbishment and fit-out works within the Central Acute Services Building (**CASB**) Innovation Centre (**IC**) to accommodate the new VVMF.
- Corridor Works including, widening the existing CHW corridors and connecting floors at the interface of the Paediatric Services Building (**PSB**), KR building and CASB to accommodate patient transfer, logistics movement, staff and pedestrian loads.

Need for the Proposal

The proposed works form a component of the more comprehensive upgrade and development program of the CHW. The Gait Lab and Clinical Research Centre, which are critical research facilities, replace existing departments that are impacted due to other works occurring on the Precinct.

The VVMF will facilitate the development of a globally competitive and commercially viable facility to address an immediate gap in the market, that not only serves the growing demand for viral vector manufacturing but also acts as a catalyst for further investment in the Westmead Health Precinct with the potential to attract a significant number of jobs, growth sectors and industries, and spur innovation.

Proposal Objectives

The following key objectives underpin the proposal:

- For the community and family togetherness - provide a positive environment that supports the needs of the whole family and is welcoming and open to the community
- Integrated research and education - enable the integration of research and education, by fostering and growing strategic partnerships, to achieve clinical excellence in paediatric care in Westmead
- Specialist role of CHW – to enable the hospital to fulfil its tertiary and quaternary role of delivering health care which is responsive to outcomes that matter to children and their families
- World leading - furthering CHW as a world leading facility to train and attract the best at Westmead
- Sustainability and future focused - sustainability and future focused providing infrastructure and services which are sustainable, agile and technology-enabled to support current and evolving models of care.

The proposed works meet the objectives of the project.

Options Considered

The following options were considered:

Option 1 – internal fit-out of the CHW and IC, and expansion of the KR building and fit-out of additional level.

Option 2 – do nothing.

The preferred option (being Option 1) would facilitate the ongoing operation and development of the Westmead Health Precinct. This option will allow upgrades to the outdated infrastructure and facilitate the development of a globally competitive and commercially viable VVMF to address an immediate gap in the market.

Site Details

The CHW is located at 178 Hawkesbury Rd, Westmead NSW 2145. The land subject to the proposed works is titled Lot 101 in Deposited Plan 1119583. The location of the proposed works will be within the existing CHW building, the KR building and the IC located on Level 1 of the CASB.

Part of the works are also proposed in the Innovation Centre (IC) located on Level 1 of the Central Acute Services Building (CASB) at Westmead Hospital which is located at 166-174 Hawkesbury Road, Westmead, legally described as Lot 1 in Deposited Plan (DP) 1194390.

The site is located within the Parramatta Local Government Area (**LGA**) and forms part of the Westmead Health, Education and Innovation Precinct.

Planning Approval Pathway

The proposed development relates to a “health services facility” in accordance with State Environment Planning Policy (Transport and Infrastructure) 2021.

The proposal involves the erection or alteration of, or addition to, a building that is a health services facility, which is classified as development without consent under Section 2.61 of the Transport and Infrastructure SEPP. The proposal is considered an ‘activity’ in accordance with clause 5.1 of the EP&A Act because it involves the *carrying out of work* as defined under Section 1.4 of the EP&A Act

Statutory Consultation

Part 2.2 Division 1 of the Transport and Infrastructure SEPP provides requirements for consultation with Council and other public authorities. The proposal does not trigger the consultation requirements under Section 2.10 – 2.15 of the Transport and Infrastructure SEPP.

The proposed alterations and additions are a type of development referred to in Section 2.61 and therefore trigger the requirement for consultation under Section 2.62.

Accordingly, notification letters were issued on 11 April 2022 (Appendix A) to Council and the following adjoining landowners:

- Parramatta City Council (Council)
- Westmead Child Care Centre
- Brain Injury Unit and Child Care Centre
- Children’s Medical Research Institute
- Westmead Hospital
- The Westmead Institute for Medical Research
- 30 Hainsworth Street, Westmead
- 31 Helen Street, Westmead
- 32 Jessie Street, Westmead
- 185 – 211 Hawkesbury Road, Westmead

The 21-day response period was allocated in accordance with Section 2.62(2)(b) of the Transport and Infrastructure SEPP. Nil responses were received.

In addition to the above, extensive consultation with key stakeholders, including those who will be directly affected by the proposed development has been undertaken as part of the broader works for the CHW Stage 2 Redevelopment.

Environmental Impacts

The assessment finds that the nature and extent of potential environmental impacts are negligible to low. As such, there will be no significant or adverse impacts on health, diversity or productivity of the surrounding environment.

Any potential impacts can be appropriately managed through the relevant mitigation measures, ensuring that there is minimal effect on the locality and environment.

Justification and Conclusion

The environmental risk assessment undertaken as part of this REF concludes that the proposal is consistent with the Strategic and Statutory planning objectives, the environmental characteristics of the Site, the surrounding context and the principles of Ecologically Sustainable Development (**ESD**).

In summary, the proposed activity is not considered to result in any significant adverse environmental impacts. The proposal will respond to the community need for upgraded health services in Western Sydney. The provision of these services will provide significant community benefit.

1. Introduction

1.1 Proposal Identification

This Review of Environmental Factors (**REF**) has been prepared on behalf of HI to support the CHW Stage 2 Refurbishment Works and Viral Vector Manufacturing Facility (**VVMF**).

The scope of the proposed activity includes:

- Internal refurbishment and fit-out works within the existing Children's Hospital building;
- Stage 2a and Stage 2b works comprising the extension of the existing Kid’s Research (**KR**) building by one storey to accommodate the construction of the new VVMF, and fit-out works of the extension; and
- Internal refurbishment and fit-out works within the Central Acute Services Building (**CASB**) Innovation Centre (**IC**) to accommodate the new VVMF.
- Corridor Works including, widening the existing CHW corridors and connecting floors at the interface of the Paediatric Services Building (**PSB**), KR building and CASB to accommodate patient transfer, logistics movement, staff and pedestrian loads.

A detailed description of the works is provided at Section 3 of this report.

The description of the proposed works and associated environmental impacts have been undertaken in the context of the Guidelines approved under section 170 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation) and the Australian Government’s *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

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

- whether the proposed activity is likely to have a significant impact on the environment and therefore the necessity for an EIS to be prepared and approval to be sought from the Minister for Planning and Homes under Part 5.1 of the EP&A Act;
- whether the activity is likely to significantly affect threatened species, populations, ecological communities or their habitats, in which case a SIS and/or BDAR is require; and
- the potential for the proposal to significantly impact *Matters of National Environmental Significance* (MNES) on Commonwealth land and the need to make a referral to the Australian Government Department of Environment and Energy for a decision by the Commonwealth Minister for the Environment on whether assessment and approval is required under the EPBC Act.

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

1.2 Site Location

The proposed works are located within the CHW at 178 Hawkesbury Rd, Westmead. The land subject to the proposed works is described as Lot 101 in Deposited Plan 1119583. The site is located within the Parramatta Local Government Area (LGA) and forms part of the Westmead Health, Education and Innovation Precinct.

Part of the works are also proposed in the Innovation Centre (IC) located on Level 1 of the Central Acute Services Building (CASB) at Westmead Hospital which is located at 166-174 Hawkesbury Road, Westmead, legally described as Lot 1 in Deposited Plan (DP) 1194390.

The CHW is located within the greater Westmead Health Precinct (WHP), which includes the Westmead Hospital, Westmead Private Hospital, Cumberland Hospital and the Western Sydney University Westmead Campus. The WHP is located approximately 1.5 kilometres (km) north-west of the Parramatta CBD, the primary metropolitan centre of Western Sydney, and approximately 26km west of the Sydney CBD (Figure 1).

The surrounding areas include Northmead, North Parramatta, Wentworthville and Constitution Hill. Figure 2 provides an indicative location of the CHW within the broader WHP. The proposed works are located within the existing Children’s Hospital, IC and KR buildings (Figure 3).



Figure 1: Regional Context (Source: Google Maps)



Figure 2: Subject Site - outlined in red (Source: Six Maps)

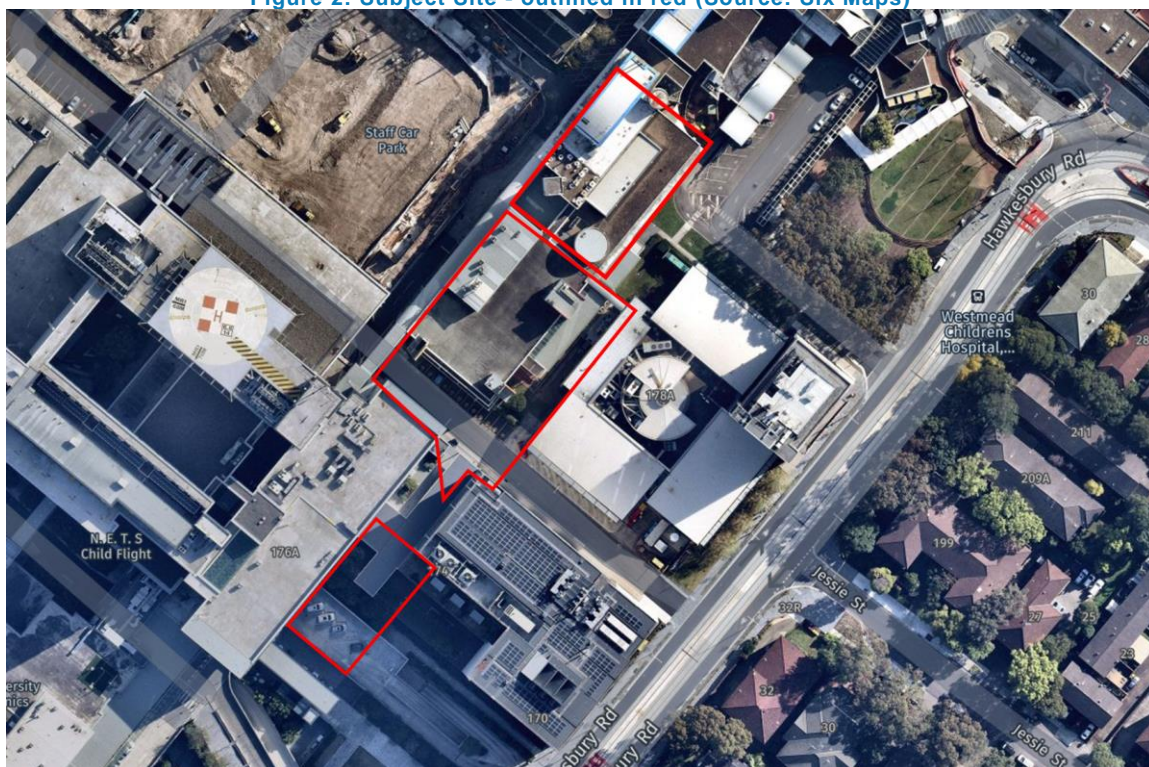


Figure 3: Subject Location - outlined in red (Source: Near Maps)

1.3 Purpose of the Report

This REF has been prepared by Keylan Consulting on behalf of HI to determine the environmental impacts of the proposed internal refurbishment works within the CHW as well as the CASB IC and extension of the KR building by one storey to accommodate the construction of the new VVMF. For the purposes of these works, HI is the proponent and the determining authority under Part 5 of the EP&A Act.

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

The description of the proposed works and associated environmental impacts have been undertaken in the context of the Guidelines approved under section 170 of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation) and the Australian Government’s Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). The assessment contained within the REF has been prepared having regard to:

- whether the proposed activity is likely to have a significant impact on the environment and therefore the necessity for an EIS to be prepared and approval to be sought from the Minister for Planning under Part 5.1 of the EP&A Act; and
- the potential for the proposal to significantly impact Matters of National Environmental Significance (MNES) on Commonwealth land and the need to make a referral to the Australian Government Department of Environment and Energy for a decision by the Commonwealth Minister for the Environment on whether assessment and approval is required under the EPBC Act.

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

2. Site Analysis and Description

2.1 The Site and Locality

The Site is located within the CHW, formally described as Lot 101 in Deposited Plan 1119583 (refer to Figure 2). The proposed works would take place within the existing Children’s Hospital building, KR building and IC, as shown in Figure 4.

Ownership and Proponent

The Site is owned by the NSW Health Administration Corporation, as described in Table 1, HI is the proponent of this REF.

Table 1: Land Ownership

Legal Description	Ownership
Lot 101 in Deposited Plan 1119583	NSW Health Administration Corporation

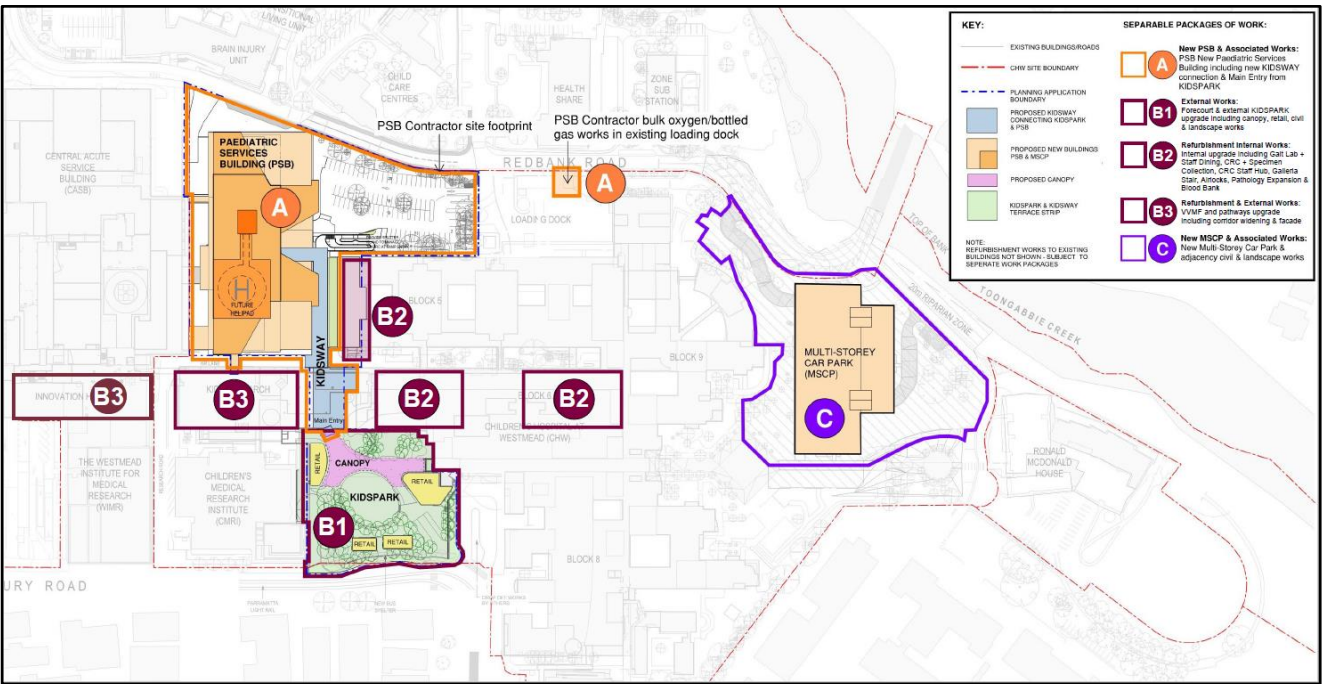


Figure 4: Existing Site (Source: BLP)

The Site generally slopes gently from the south (at Hawkesbury Road) to the north (Redbank Road). It is noted that part of the existing topography adjacent to Redbank Road (opposite the Child Care Centre) includes a 3m embankment below the future PSB site.

As indicated by the Section 10.7 (2) & (5) Planning Certificate for the site (Appendix A), Lot 101 DP 1119583 is affected by a 100-year Average Recurrence Interval (ARI) flood.

Figure 5 identifies areas subject to low-risk flooding in context of the site. However, the location of the proposed works are not on flood affected land. As the proposed works are limited to the extension of an existing building and internal works, the flooding characteristics of the site are not affected by the proposed activity.

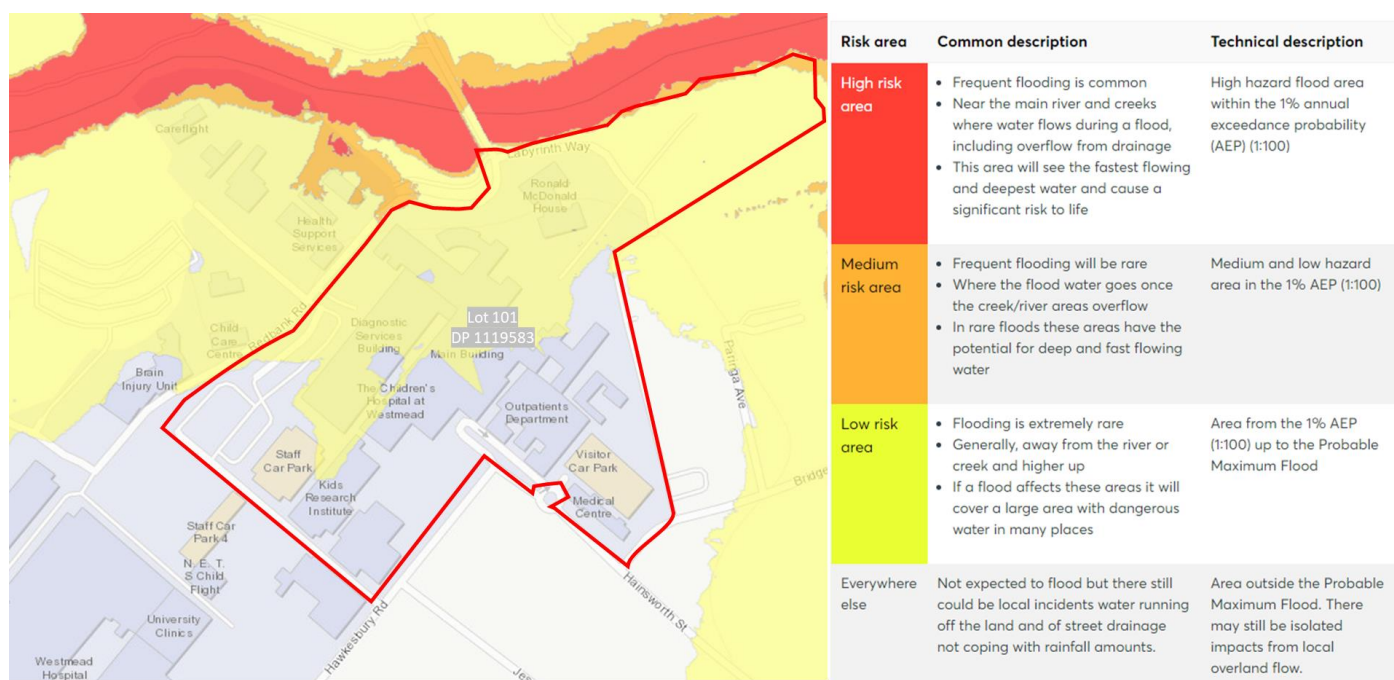


Figure 5: Flood Risk Map (Source: Council Flood Smart Interactive Map)

Locality

The WHP is largely developed with numerous buildings of varying heights and scales, including the complex of buildings that comprise Westmead Hospital and CHW. Numerous at-grade parking areas are located on the site, including along Redbank Road and Dragonfly Drive. The recently completed CASB (operations commenced in March 2021) is the tallest building in the precinct, with a height of 13 storeys or RL 86.495 m AHD.

The built form in the immediate vicinity of the campus infrastructure works includes:

- 7 storey Children’s Medical Research Institute (CMRI) building – completed 2014
- 4 storey KR building– completed 1995
- 3 storey Block 5 CHW (Diagnostics) – completed 1995
- 4 storey Block 6 CHW (Main Building) – completed 1995
- 3 storey Block 8 CHW (Outpatients) – completed 1995
- 1 storey childcare centre – completed 1995
- 13 storey CASB – completed March 2021

The WHP stretches from Westmead Railway Station in the south to Toongabbie Creek and Parramatta River in the north and north-east. The site and area of proposed works is approximately 850m north of the Westmead Railway Station. Major health and education facilities, including Westmead Hospital, CHW and the Westmead Campus of Western Sydney University, are all accessible from Hawkesbury Road, which acts as the main north south thoroughfare of the precinct.

The WHP is comprised of the following entities, as shown in Figure 6:

- Westmead Hospital
- The Children’s Hospital at Westmead
- Cumberland Hospital
- Pathology West - ICPMR Westmead
- The Westmead Institute for Medical Research
- Children's Medical Research Institute
- Westmead Research Hub
- Western Sydney University
- Ronald McDonald House at Westmead



Figure 6: CHW Locality (Source: Six Maps)

2.1.1 Existing Development

The Site is currently occupied by the CHW comprising multiple buildings (including buildings currently under construction), car parking, internal access roads, services and utilities, landscaping, and mature vegetation. The current Site context is shown in Figure 3.

2.1.2 Site Considerations and Constraints

Section 10.7 Planning Certificate No. 2021/9192 dated 3 December 2021 (Appendix B) identifies that the site is located within the SP2 Infrastructure zone under the PLEP 2011. Table 2 provides a summary of the key considerations in the section 10.7 Planning Certificate for the Site.

Table 2: Section 10.7 Planning Constraints

Affectation	Yes	No
Critical habitat	n/a	n/a
Conservation area		✓
Item of environmental heritage		✓
Affected by section 38 or 39 of the Coastal Management Act 2016 (CM Act)		✓
Proclaimed to be in a mine subsidence district		✓
Affected by a road widening or road realignment		✓
Affected by a planning agreement		✓
Affected by a policy that restricts development of land due to the likelihood of landslip	n/a	n/a
Affected by bushfire, tidal inundation, subsidence, acid sulphate or any other risk	✓ (note 1)	
Affected by any acquisition of land provision		✓
Biodiversity certified land or subject to any bio-banking agreement or property vegetation plan		✓
Significantly contaminated		✓
Subject to flood related development controls	✓ (note 2)	
List other relevant constraints	n/a	n/a

Note 1: The Planning Certificate notes that the lot is identified as Class 5 on the Acid Sulfate Soils Map.

Note 2: The lot is identified as being affected by a 100-year Average Recurrence Interval flood as indicated by Council’s current flooding information

2.2 Surrounding Development

The following uses surround the area of the proposed scope of works:

- North of the Site are existing childcare centres, the P14 car park and further north is Toongabbie Creek;
- East of the proposed works are existing hospital services buildings within the health precinct. Further east is medium density residential development across Hawkesbury Road, Parramatta River and across the river is Cumberland Hospital Campus;
- South of the proposed works are research facilities, the CASB and Westmead Hospital;
- West of the proposed works is the car park and other existing hospital services buildings.

Westmead Hospital is also undergoing refurbishment to several areas under the Refurbishment Stage 3 project including Operating Theatres, Ambulatory Care and Dermatology, Cystic Fibrosis, Solar Works and Change Rooms.

3. Proposed Development, Need and Alternative

3.1 The Proposal

The proposal is for the refurbishment of existing facilities within the CHW, which includes the extension and fit-out of the existing KR Building (Figure 11, Figure 13, Figure 14) and internal refurbishment of the CASB IC (Figure 15), as part of the CHW Stage 2 redevelopment.

The CHW Stage 2 proposal includes refurbishment of existing facilities with a focus on acute clinical services to complement the Stage 1 investment. The refurbishment scope is driven by departments requiring decant to enable breakthroughs in existing facilities to establish connection into the new Pediatric Services Building (PSB), or existing clinical departments that require expansion and uplift to meet the increase in clinical demand due to the Stage 2 development. The refurbishment works for CHW Stage 2 includes:

- Pathology fit-out
- Gait Lab fit-out
- Clinical Research Centre fit-out
- Central Specimen Reception Area and blood bank fit-out
- Galleria upgrade works
- Corridor widening works

The VVMF will provide new research and advanced manufacturing space and connect the KR Building with the CASB IC. The VVMF works support the overall upgrade of the CHW in accordance with the WHP Master Plan.

The proposed activity involves expanding the KR existing rooftop to accommodate 874m² of floor area, which is categorised as Stage 2A. Stage 2A will comprise a Quality Control (**QC**) Laboratory, Process Development (**PD**) Laboratory and workspace / staff areas:

- QC Laboratory - required to support the manufacturing process and undertake quality testing for Good Manufacturing Practice (**GMP**) products. It will host the in-process and release testing of products manufactured, monitor the utility quality, and release testing for incoming raw materials.
- PD Laboratory - will establish, implement, and improve manufacturing processes.
- Workspace - will support the laboratory spaces and accommodate collaboration areas for management, technical and support staff.

Stage 2B of the VVMF is an extension of workspaces and Laboratory spaces on Level 4 of the KR Building, utilising the clear and unobstructed area available on Block 3. This area is directly adjacent to Stage 2A on Block 4, with the larger facility able to meet the future growth in research and manufacturing activity. Stage 2B will require an expansion of the facade screening and construction of a cold shell to encompass the work spaces and laboratory spaces.

The proposed works also involve the internal refurbishment of the CASB IC. The existing space proposed for the VVMF is located on Level 1 of the IC, adjacent to the emergency department. It is currently a cold shell space, originally intended for the use of a Biobank, which has since been relocated to make way for the VVMF. The cold shell space will be fit out to produce viral vectors in accordance with ISO 8 clean standards for clean rooms within a physical containment level 2 laboratory.

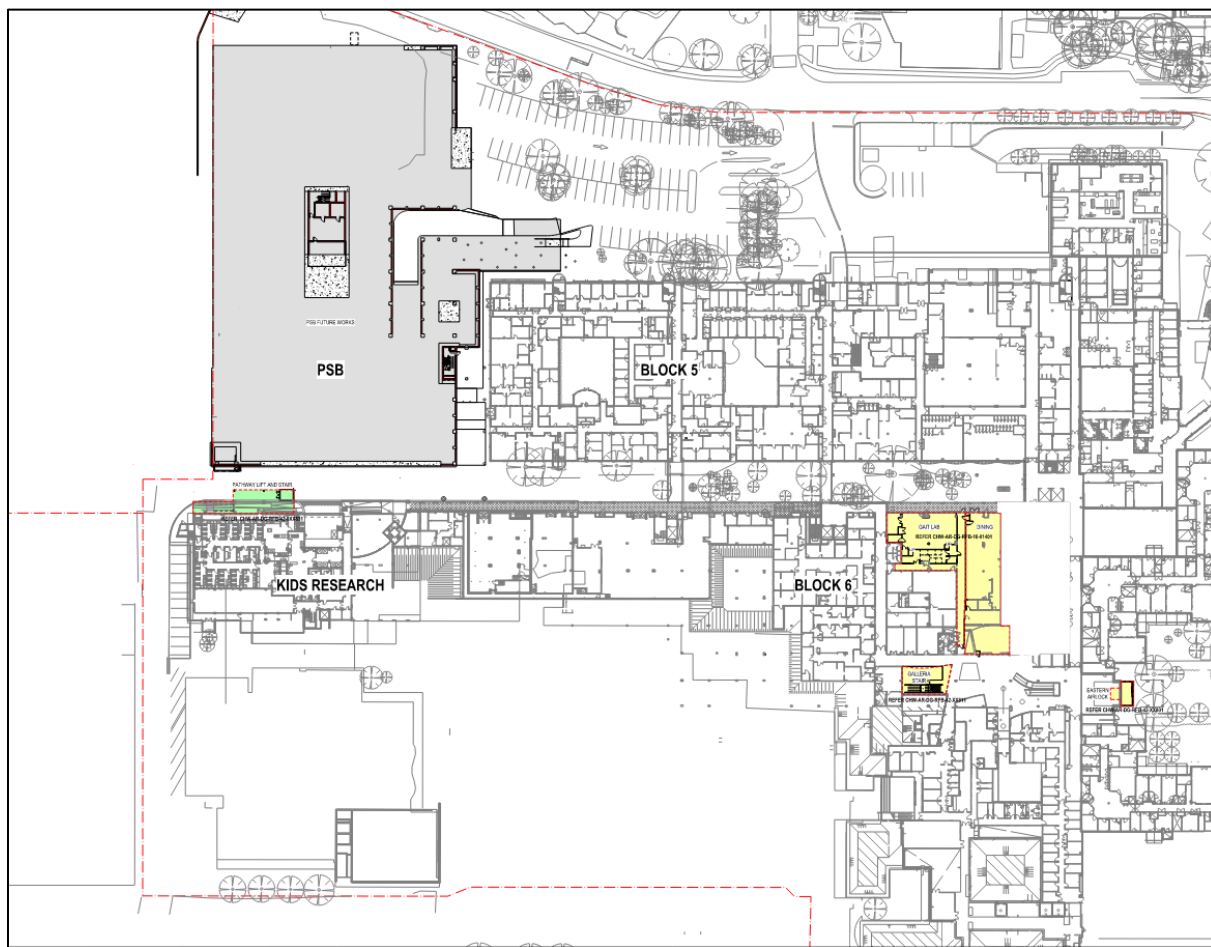


Figure 7: General Arrangement Level 1 including Gait Lab, Dining and Galleria stair. (Source: BLP)

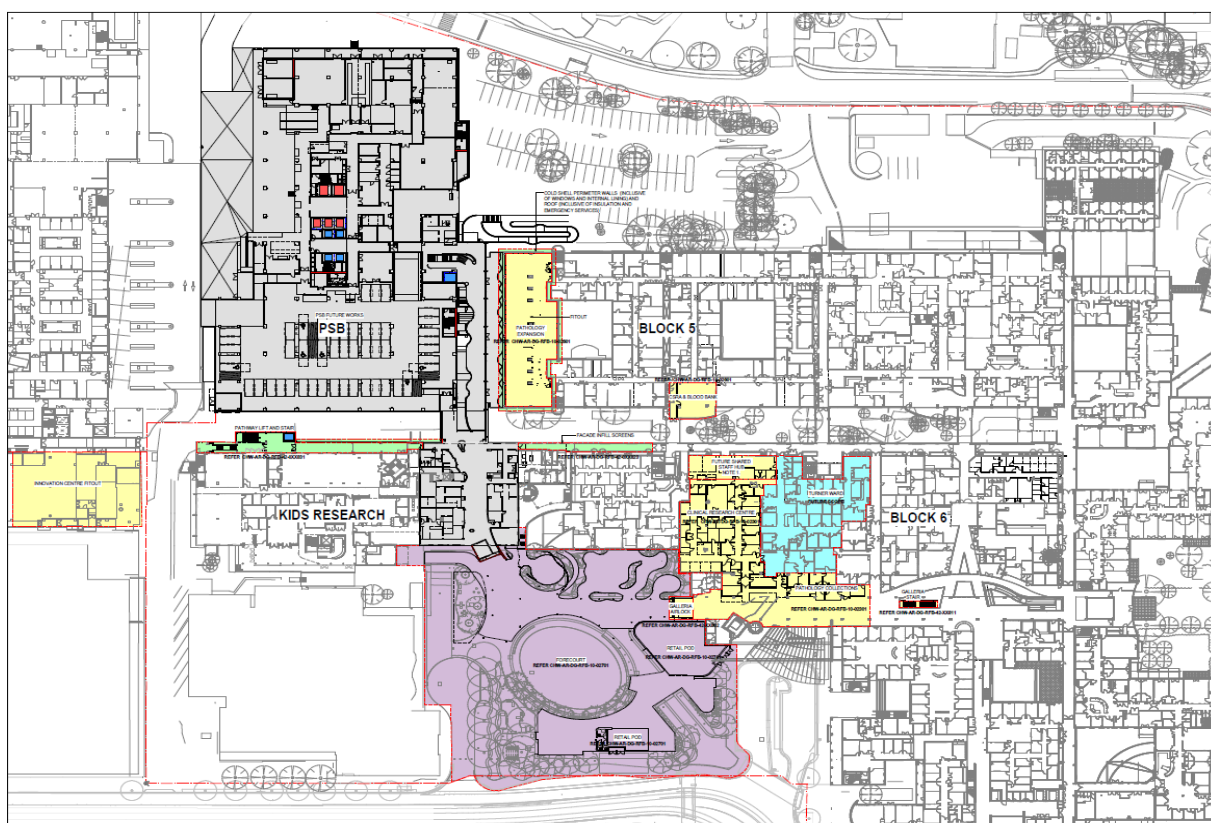


Figure 8: General Arrangement Level 2, including VVMF IC, Pathology, CRC, CSRA and Blood Bank fitout (Source BLP)

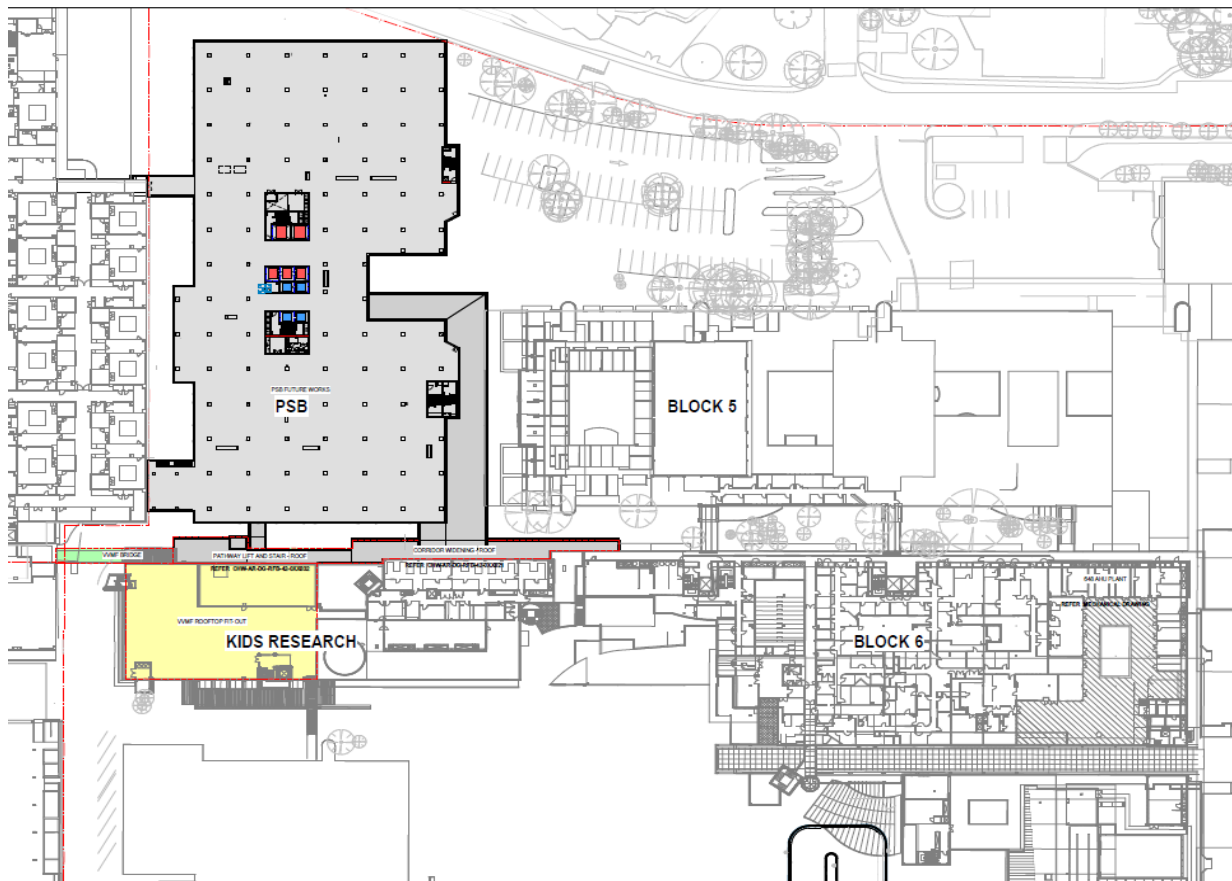


Figure 9: General Arrangement Level 4 including VVMF Stage 2a and 2b (Source: BLP)

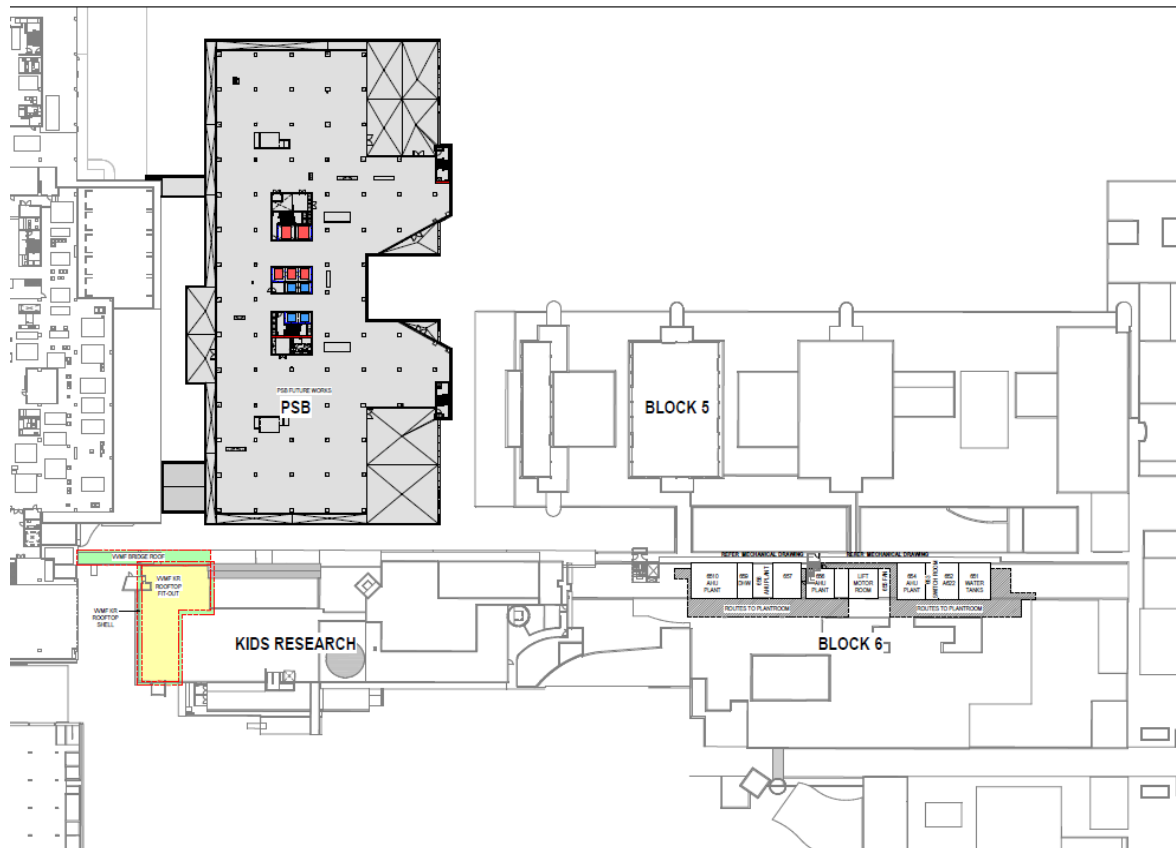


Figure 10: General Arrangement Level 5 including VVMF Stage 2a and 2b (Source: BLP)

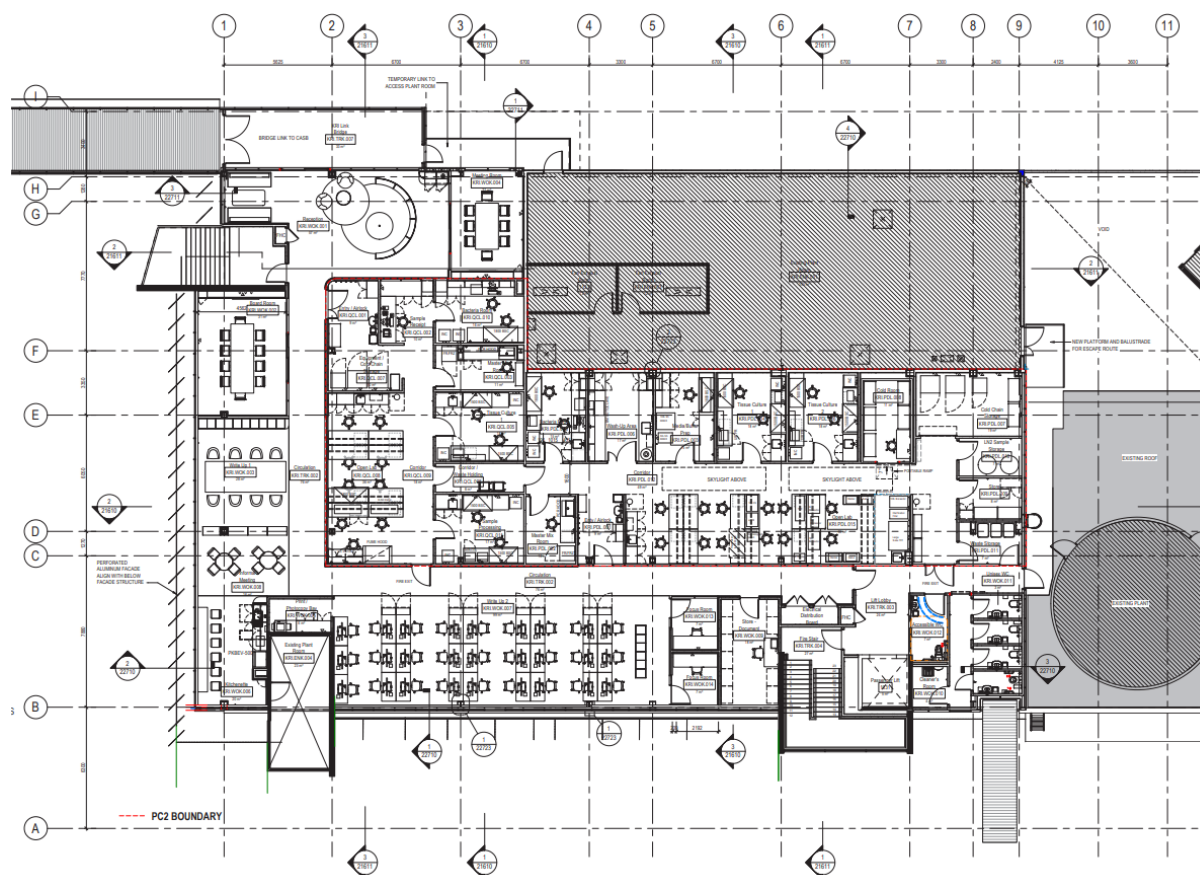


Figure 11: Proposed KR Level 4 Plan (VVMF 2a fit out) (Source: HDR)

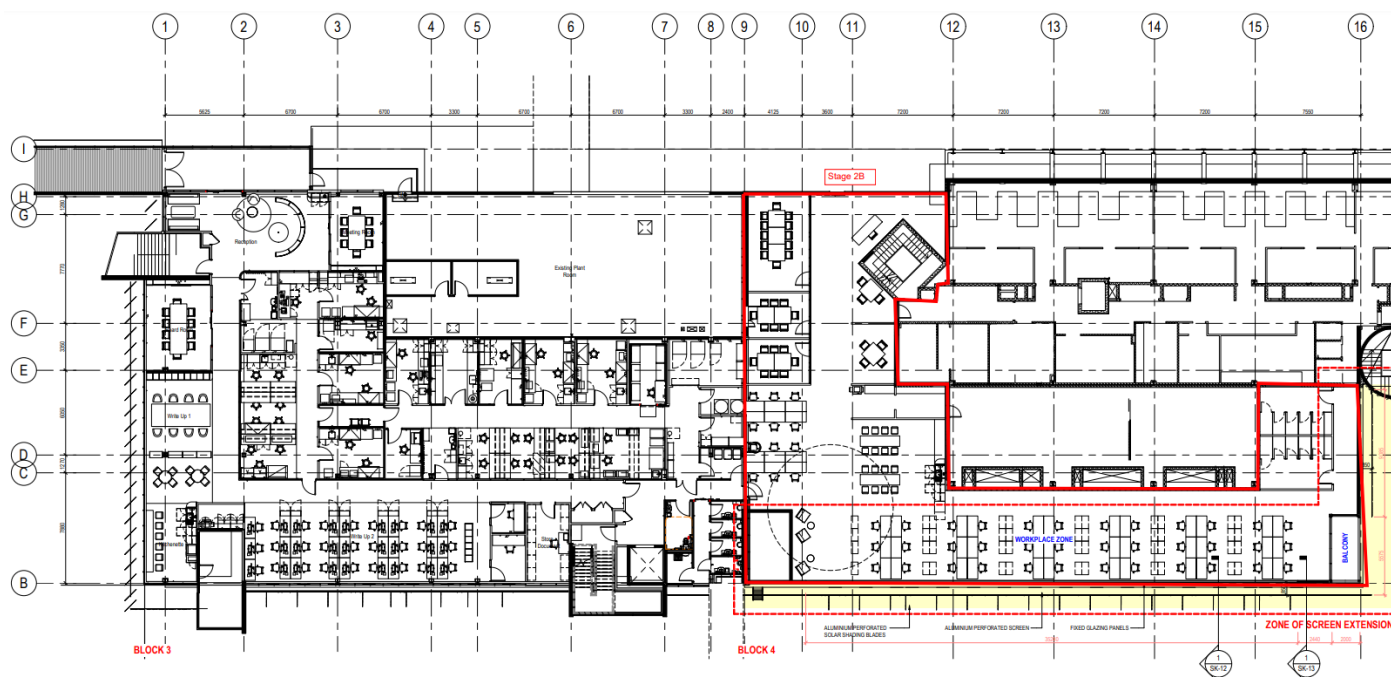


Figure 12: Proposed KR Level 4 Plan Stage 2B works (VVMF 2a/2b fit out) (Source: HDR)

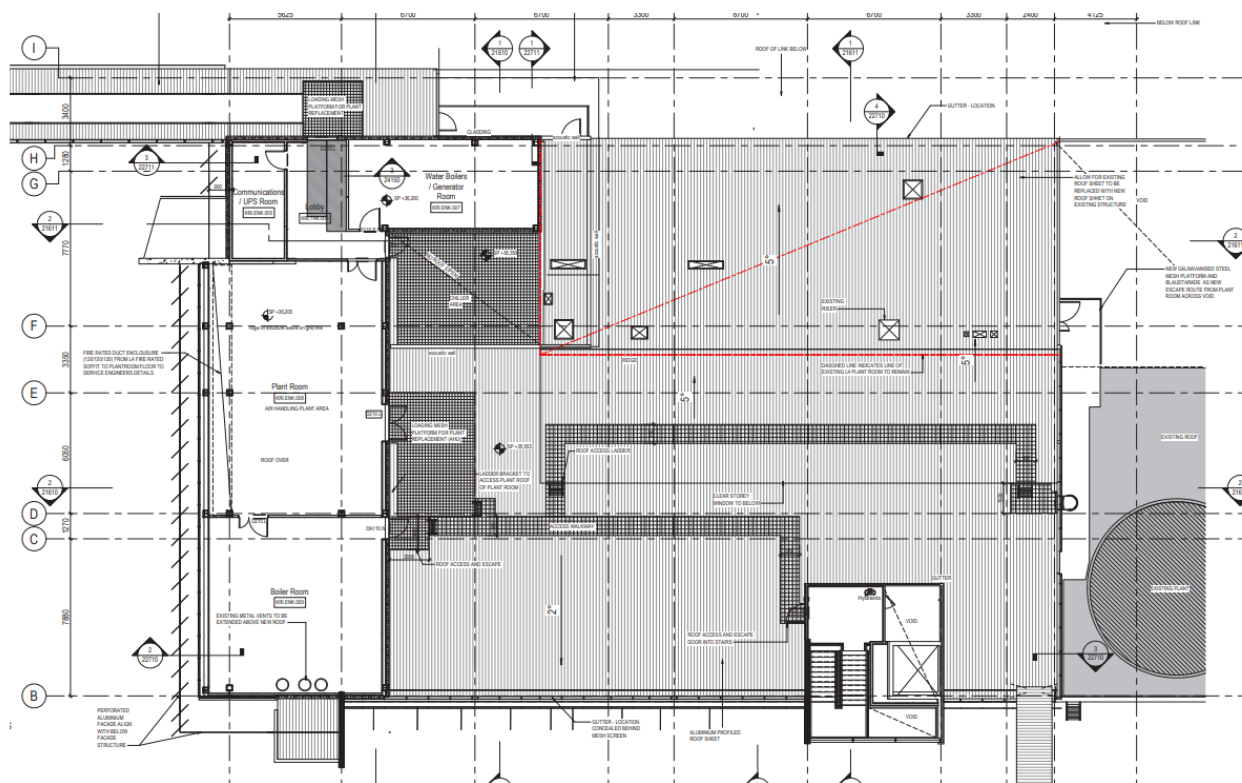


Figure 13: Proposed KR Level 5 Plan (Source: HDR)

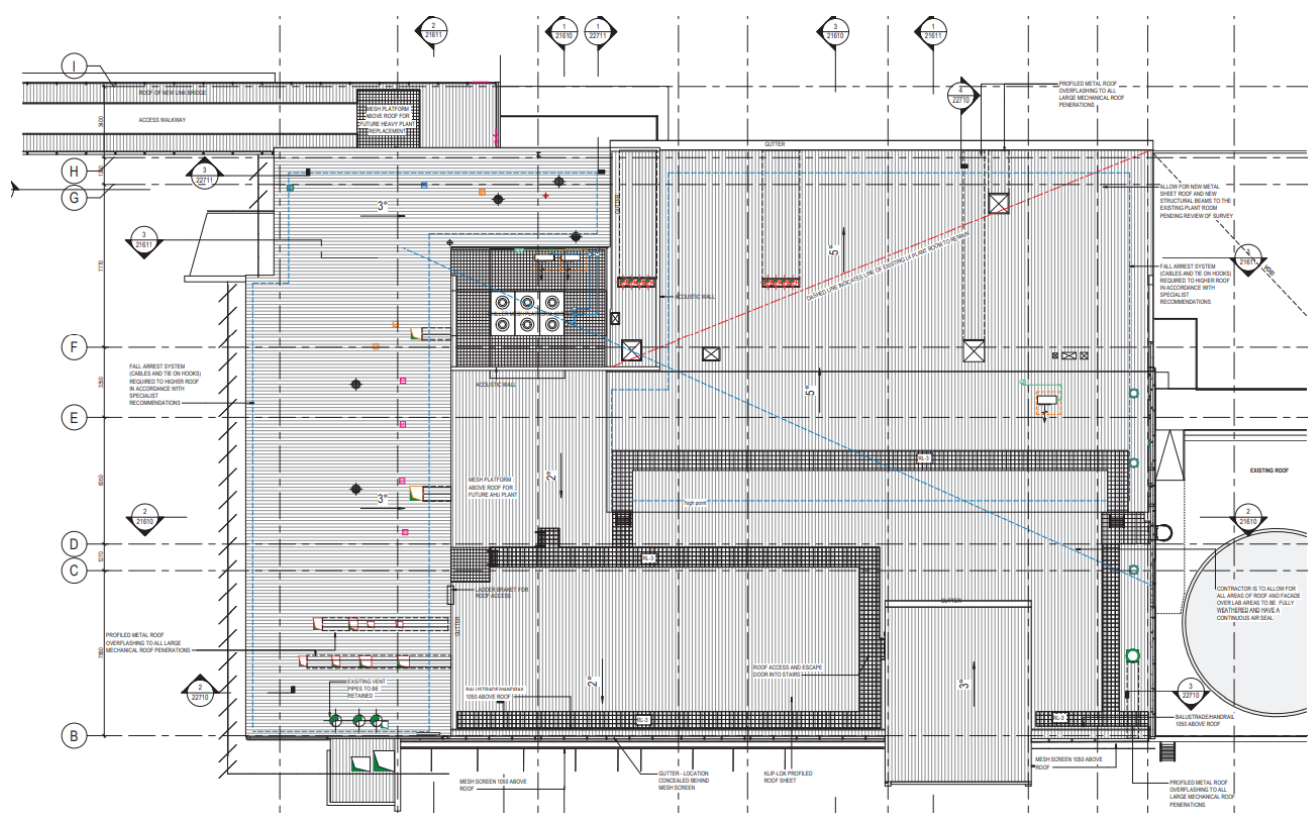


Figure 14: Proposed KR Roof Plan (Source: HDR)

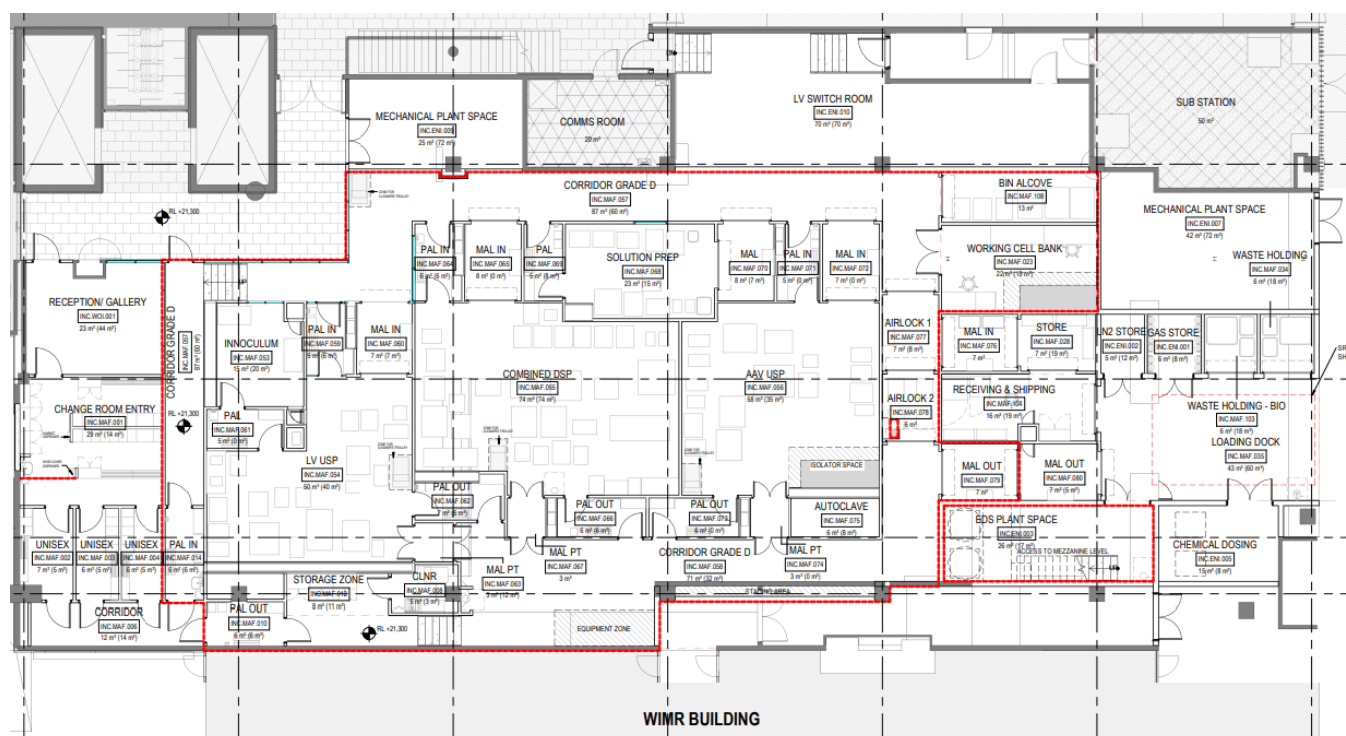


Figure 15: Proposed IC Level 1 Plan (Source: HDR)

The proposal is a component of the more comprehensive redevelopment program for the WHP. The proposed CHW Stage 2 refurbishment and VVMF works are located within the heart of the WHP. They are amongst the most connected facilities within the precinct, located in close proximity to both Adults and Children’s Hospital as well as the key research facilities of WIMR and CMRI.

The following key objectives underpin the proposal:

- *For the community and family togetherness - provide a positive environment that supports the needs of the whole family and is welcoming and open to the community*
- *Integrated research and education - enable the integration of research and education, by fostering and growing strategic partnerships, to achieve clinical excellence in paediatric care in Westmead*
- *Specialist role of CHW - enable the hospital to fulfil its tertiary and quaternary role of delivering health care which is responsive to outcomes that matter to children and their families*
- *World leading - furthering CHW as a world leading facility to train and attract the best at Westmead*
- *Sustainability and future focused - Sustainability and future focused providing infrastructure and services which are sustainable, agile and technology-enabled to support current and evolving models of care.*

Architectural Plans have been prepared by Billard Leece Partnership for the CHW Stage 2 refurbishment and by HDR for the VVMF works and a *Refurbishment Works Scope Overview* has been prepared by PwC, which are included at Appendix C.

Options Considered

The following options were considered:

Option 1 – internal fit-out of the CHW and IC, and expansion of the KR building and fit-out of additional level.

Option 2 – do nothing.

3.1.1 Preferred Option Justification

Following the consideration of the alternative options above, it was determined that delivery of the CHW Stage 2 and VVMF refurbishment works is preferable as it will facilitate the ongoing operation and sustainability of the CHW by providing upgraded clinical services facilities and facilitate the development of a globally competitive and commercially viable VVMF to address an immediate gap in the market, that not only serves the growing global market for viral vector manufacturing but also acts as a catalyst for further investment in the Westmead Precinct.

Do nothing is an unacceptable option as the works are required to meet the growing needs of CHW’s patient population and achieve safe working environments within the VVMF that can attain licences for the relevant research and manufacturing services. GMP certification is required by the Therapeutic Goods Administration (TGA) to obtain a manufacturing licence for the production of clinical grade viral vectors. The GMP certification process is a key milestone in the development of a biotech manufacturing facility and is critical to the VVMF.

3.2 Construction Activities

Table 3 provides a summary of the construction activities for the proposed works.

Table 3: Project Timeframes and Construction Activities

Commencement Date	Subject to approval, the works are forecasted to commence in Q4 2022.
Work Duration/Methodology	<p>The proposed development works are proposed to be undertaken over a 16-month period, commencing in Q4 2022 and reaching completion in 2024.</p> <p>The work methodology will be detailed in the Contractor’s Construction Management Plan to be prepared prior to the commencement of works.</p> <p>The CHW Stage 2 works include expansion and refurbishment packages within the existing CHW. The VVMF works include construction of a cold shell for the expansion of the KR rooftop and fit-out of the cold shell for both the KR rooftop and the IC building.</p>
Work Hours and Duration/Construction	<p>Monday to Friday: 7am to 6pm</p> <p>Saturday: 8am to 1pm</p> <p>No works undertaken on Sundays or public holidays</p>
Plant Equipment	Details of plant and equipment will be described in the Construction Environmental Management Plan to be prepared prior to the commencement of works.
Earthworks	There are no earthworks required under this REF.
Source and Quantity of Materials	Details of materials will be included within the Construction Management Plan to be prepared prior to the commencement of works.
Affected by a planning agreement	No.
Traffic Management and Access	Details of the traffic management and access will be included within the Traffic Management Plan to be prepared prior to the commencement of works.

3.3 Ongoing Operation

The proposed activities once completed will be utilised by two organisations. ‘NewCo’ (proposed new entity to be established) will operate the VVMF and the SCHN will operate the CHW activities.

All facilities will require 24/7 operation. However, the majority of operations are expected to occur during standard business hours.

3.4 Ancillary Facilities

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

4. Statutory Framework

4.1 Planning Approval Pathway

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

State Environment Planning Policy (Transport and Infrastructure) 2021 (Transport and Infrastructure SEPP) aims to facilitate the effective delivery of infrastructure across the State. Division 10 of the Transport and Infrastructure SEPP outlines the approval requirements for health service facilities. A health services facility is defined as:

a building or place used to provide medical or other services relating to the maintenance or improvement of the health, or the restoration to health, of persons or the prevention of disease in or treatment of injury to persons, and includes any of the following

- (a) a medical centre,*
- (b) community health service facilities,*
- (c) health consulting rooms,*
- (d) patient transport facilities, including helipads and ambulance facilities,*
- (e) hospital*

The Site is zoned SP2 Infrastructure under the Parramatta Local Environmental Plan 2011. The SP2 zone is a prescribed zone under the Transport and Infrastructure SEPP.

The proposal involves the erection or alteration of, or addition to, a building that is a health services facility, which is classified as development without consent under Section 2.61 of the Transport and Infrastructure SEPP.

Therefore, the project is an activity in accordance with clause 5.1 of the EP&A Act because it involves the *carrying out of work* as defined under Section 1.4 of the EP&A Act and therefore requires an environmental assessment.

4.2 Environmental Planning and Assessment Act 1979

Duty to Consider Environmental Impact

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

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

The Guidelines approved under Section 170 of the EP&A Regulation (Guidelines for Division 5.1 Assessments (June 2022)) define 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 7.1 specifically responds to the factors for consideration under the Section 170 Guidelines.

4.3 Environmental Planning and Assessment Regulation 2021

Section 171(2) of the EP&A Regulation provides a list of factors that must be taken into account for an environmental assessment under Part 5 of the EP&A Act. These requirements are considered at section 7 of this REF report.

4.4 State Environmental Planning Policies

As addressed in Section 4.1 of this report, the proposed activity is being undertaken in accordance with the Transport and Infrastructure SEPP and therefore that SEPP is a matter of consideration in preparing this report.

Table 4 provides an overview of the proposed works against the relevant provisions of the Transport and Infrastructure SEPP.

2.61 Development permitted without consent	Compliance	Comment
<p>(1) Any of the following development may be carried out by or on behalf of a public authority without consent on any land if the development is carried out within the boundaries of an existing health services facility—</p> <p>(a) the erection or alteration of, or addition to, a building that is a health services facility,</p> <p>(b) development for the purposes of restoring or replacing accommodation or administration facilities,</p> <p>(c) demolition of buildings carried out for the purposes of a health services facility,</p> <p>(d) development for the purposes of patient transport facilities, including helipads and ambulance facilities,</p> <p>(e) development for the purposes of car parks to service patients or staff of, or visitors to, the health services facility (or to service staff of, or visitors to, other premises within the boundaries of the facility).</p>	Yes	<p>The proposed works will be carried out by or on behalf of a public authority, Health Infrastructure.</p> <p>The proposed works include alterations and additions to an existing health services facility.</p> <p>Therefore, the proposed works can be carried out without development consent.</p>
<p>(2) This section does not permit the erection of any building that exceeds 15 metres in height or is located closer than 5 metres to any property boundary (or an addition to a building resulting in the building exceeding that height or being closer than that distance to any property boundary).</p>	Yes	<p>The proposed works involve an extension to the KR Building and internal works to an existing building which already exceed 15 metres in height.</p> <p>While the proposed extension adds a level to the top of the KR building, which is already higher than 15m, it will not increase the maximum height of the building. The highest point of the KR will not be changed as a result of this activity.</p> <p>The IC and KR building are not located within 5m of any property boundary.</p> <p>Therefore, the proposed works can be carried out without development consent.</p>

2.61 Development permitted without consent	Compliance	Comment
(3) Despite subsection (2), development may result in a building being located up to 1 metre from a property boundary if— (a) the building does not exceed 1 storey or 5 metres in height, and (b) the land on the other side of the property boundary is not in— (i) a residential zone or (ii) Zone E4 Environmental Living or a land use zone that is equivalent to Zone E4.	Not Applicable	The proposed works are not located near the property boundary.

4.5 Local Environmental Plan

4.5.1 Parramatta Local Environmental Plan 2011

The relevant provisions of the LEP are addressed in the Table 5.

Table 5: LEP Assessment

LEP Clause	Compliance	Comment
Clause 2.2 Land Zoning SP2 Infrastructure	Yes	<p>The proposed works relate to the continued use of the site for the purposes of a <i>health services facility</i>, consistent with the objectives of the SP2 Infrastructure zone, which includes to provide for infrastructure and related uses.</p> <p>The works are permissible without consent within the zone, as per Section 2.61 of the Transport and Infrastructure SEPP.</p>
Clause 4.1 Minimum Subdivision Lot Size	N/A	<p>No minimum lot size.</p> <p>Subdivision is not proposed as part of this REF.</p>
Clause 4.3 Height of Buildings	N/A	<p>No maximum building height prescribed for the Site.</p> <p>However, in accordance with Section 2.61(2) of the Transport and Infrastructure SEPP the height of the KR Building is 24.578m (RL 41.978).</p>
Clause 4.4 Floor Space Ratio	N/A	No Floor Space Ratio prescribed for the Site.
Clause 5.10 Heritage Conservation	N/A	<p>The Site of the proposed works is not identified as a local heritage item, nor is it within a heritage conservation area under PLEP 2011, listed on a S170 register or an Interim Heritage Item.</p> <p>There are several local heritage items listed under PLEP 2011 in the local area (Refer to Figure 16) including:</p> <ul style="list-style-type: none"> Item No. I00820 - Cumberland District Hospital (including Wisteria Gardens) Item No. I00596 - Parramatta Park and old Government House Item No. I360 - Heritage Brick Drain <p>The proposed works will not have any adverse impacts on the nearby heritage items.</p>
Clause 6.1 Acid Sulfate Soils Class 5	Yes	<p>The Site is identified as containing Class 5 Acid Sulfate Soils, pursuant to Clause 6.1 of the PLEP 2011. There are no works within 500m of adjacent Class 1, 2, 3 or 4 land.</p> <p>As the proposed works do not involve any excavation or earthworks, they will not disturb any Acid Sulfate Soils.</p>
Clause 6.2 Earthworks	N/A	There are no earthworks proposed as part of the development.
Clause 6.3 Flood Planning	Yes	<p>As indicated by the Section 10.7 (2) & (5) Planning Certificate for the Site (Appendix A), Lot 101 DP 1119583 is affected by a 100-year Average Recurrence Interval flood.</p> <p>Council has identified that parts of the Site are subject to low-risk flood impacts through their Flood Smart interactive map.</p> <p>Council defines ‘Low Risk’ land as “flooding is extremely rare but when this happens flooding will cover a large area with dangerous</p>

LEP Clause	Compliance	Comment
		water in many places” and is the area between 1% Annual Exceedance Probability (AEP) and the (PMF).
		The proposed works will be located within existing buildings and involve an extension to an existing building. Therefore, the proposed works will not impact the flow and flood of waters.
Clause 6.4 Biodiversity	N/A	The proposed works will have no adverse impact to threatened species, populations or ecological communities listed under the NSW Biodiversity Conservation Act 2016 or Commonwealth Environment Protection and Biodiversity Conservation Act 1999.
Clause 6.6 Development on Landslide Risk Land	N/A	The site is not affected by landslide risk.
Clause 6.7 Foreshore Building Line	N/A	The site is not affected by the foreshore building line.

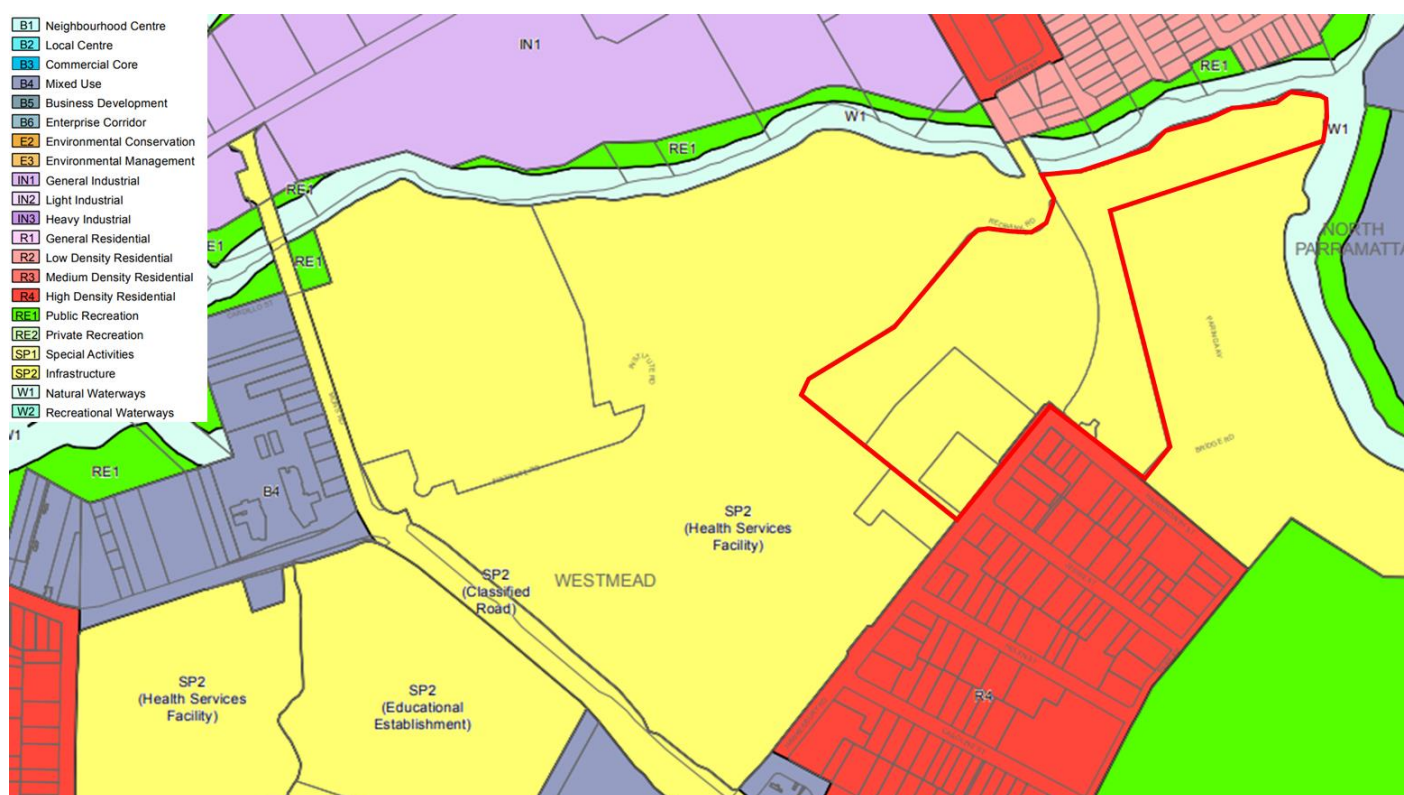


Figure 16: PLEP Land Zoning, with site outlined in red 9 (Source: PLEP 2011)



Figure 17: PLEP Heritage Map, with site outlined in red (Source: PLEP 2011)

4.6 Other Relevant Legislation

4.6.1 Roads Act 1993

The Roads Act 1993 (Roads Act), amongst other functions, regulates the carrying out of various activities on public roads. The proposal does not include any activities within the public road reserve, the opening of any public roads, changes to access impacting any public roads or any other impacts to public roads.

The 10.7 Certificate (Certificate No: 2021/9192) states the Site is not affected by road widening or realignment under Part 3 Division 2 of the Roads Act. As such, further consideration is not required.

4.6.2 Protection of the Environment Operations Act 1997

The Protection of the Environment Operations Act 1997 (POEO Act) seeks to protect, restore and enhance the quality of the environment in NSW. Pursuant to Section 48 of the POEO Act, the carrying out of scheduled activities, as set out in Schedule 1 of the Act, requires a license.

The proposed works do not constitute a scheduled activity under Schedule 1 of the POEO Act, and accordingly a licence is not required.

4.6.3 Contaminated Land Management Act 1997

The Contaminated Land Management Act 1997 (CLM Act) establishes a process for investigating and (where appropriate) remediating land that the NSW Environment Protection Agency (EPA) considers to be significantly contaminated.

The 10.7 Certificate (Certificate No: 2021/9192) states the site is not significantly contaminated land within the meaning of Clause 59(2)(a) of the CLM Act and is not subject to a management order, approved voluntary

management proposal, ongoing maintenance order or Site audit statement pursuant to Clause 59(2) of the CLM Act.

Further, the proposal is limited to internal refurbishment works and the extension of an existing building. Given the existing Hospital use, the site is suitable for the proposed development without the need for further contamination investigations.

4.6.4 Heritage Act 1997

The Heritage Act 1977 (Heritage Act) seeks to identify, conserve, protect and promote an understanding of the State’s heritage. Clause 57 of the Heritage Act requires approval to be granted for controlled activities affecting an item with an interim heritage order or listing on the State Heritage Register.

The Site is not identified on the Local or State Heritage Register and is not subject to an interim heritage order, and accordingly approval is not required under the Heritage Act.

4.6.5 Environmental Protection and Biodiversity Act 1999

Under the EPBC Act, any action (which includes a development, project or activity) that is considered likely to have a significant impact on MNES (including nationally threatened ecological communities and species and listed migratory species) must be referred to the Commonwealth Minister for the Environment.

The proposed activity involves the internal fitout and extension of an existing building and would not have any effect on vegetation, biodiversity or matters of environmental science. Thereby, the proposed development is not considered to have an impact on MNES.

Accordingly, further consideration of the EPBC Act is not required.

4.6.6 Biodiversity Conservation Act 2016

The purpose of the BC Act is to “maintain a healthy, productive and resilient environment, for the greatest wellbeing of the community, now and into the future, consistent with the principles of Ecologically Sustainable Development”.

As discussed, the proposed activity involves the internal fitout and extension of an existing building and would not have any effect on vegetation, biodiversity or matters of environmental science. Accordingly, no impact on matters under the BC Act would result.

5. Consultation

Part 2.2 Division 1 of the Transport and Infrastructure SEPP provides requirements for consultation with Council and other public authorities. The proposal does not trigger the consultation requirements under Section 2.10 – 2.15 of the Transport and Infrastructure SEPP.

However, Section 2.62 requires that Council and occupiers of adjoining land are notified of certain types of development that are permitted without consent pursuant to Section 2.61(1) (other than section 2.61(1)(b) or (c)). The proposed alterations and additions are development referred to in Section 2.61 and therefore trigger the requirement for consultation under Section 2.62. Accordingly, a notification letter was issued to Parramatta City Council and occupiers of adjoining land on 11 April 2022 and a 21-day response period was allocated in accordance with Section 2.62(2)(b) of the Transport and Infrastructure SEPP. Nil submissions were received during the notification period.

In addition to the above, extensive consultation has been undertaken as part of the broader works for The Children’s Hospital at Westmead (CHW) Stage 2 Redevelopment, as outlined below:

CHW Refurbishment:

Extensive consultation on the refurbishment scope of works were undertaken as part of the consultation for CHW Stage 2 redevelopment. The community and relevant stakeholders were provided the opportunity to have their input and feedback through various engagement activities including staff forums, exhibition, drop-in sessions, pop - up booths, fact sheets, consumer workshops and social media. As part of ongoing consultation, stakeholders and other interested parties are regularly informed and consulted through a number of channels such as staff forums, Consumer and Community Advisory Committee and various Project User Groups (PUGs) composed of clinicians, researchers and staff at CHW.

The project also continues to provide opportunity for feedback and updates through both digital and traditional channels including websites, social media, media releases, work notifications, regular newsletter updates and factsheets.

VVMF:

Consultation has taken place with key stakeholders, including those who will be directly affected by the proposed development, including Kids Research, and adjacent neighbours.

The project continues to provide regular updates and ongoing opportunities for stakeholder input around the facility through governance meetings, websites, media releases and newsletters.

5.1 Government Agency and Other Stakeholder Consultation

Table 6: Part 2.2 Division 1 of the Transport and Infrastructure SEPP Consultation

Consultation with Council – Section 2.10, Council related infrastructure or services		Yes	No
Will the activity:			
a.	Have a substantial impact on stormwater management services provided by the Council?		✓
b.	Be likely to generate traffic that will strain the capacity of the road system in the LGA?		✓

Consultation with Council – Section 2.10, Council related infrastructure or services	Yes	No
c. Involve connection to, and have a substantial impact on, the capacity of any part of a sewerage system owned by Council?		✓
d. Involve connection to and use a substantial volume of water from any part of a water supply system owned by Council?		✓
e. Involve the installation of a temporary structure on, or enclosing of, a public place that is under the Council’s management or control that is likely to cause a disruption to pedestrian or vehicular traffic that is not minor or inconsequential?		✓
f. Involve the excavation that is not minor or inconsequential of the surface of, or a footpath adjacent to, a road for which the Council is the roads authority under the <i>Roads Act 1993</i> (if the public authority that is carrying out the development, or on whose behalf it is being carried out, is not responsible for the maintenance of the road or footpath).		✓
Consultation with Council – Section 2.11, local heritage	Yes	No
Is it likely that the activity will have an impact, that is not minor or inconsequential, on a local heritage item (other than a local heritage item that is also a State heritage item) or a heritage conservation area?		✓
Consultation with Council – Section 2.12, flood liable land	Yes	No
Will the works be located on flood liable land and will they alter flooding patterns more than to a minor extent?		✓
Consultation with State Emergency Service— Section 2.13 development with impacts on flood liable land	Yes	No
Is the activity located on flood liable land and greater than minor alterations or additions to, or the demolition of, a building, emergency works or routine maintenance?		✓
Consultation with councils—Section 2.14 development with impacts on certain land within the coastal zone	Yes	No
Is the activity on land that is within a coastal vulnerability area and is inconsistent with a certified coastal management program that applies to that land?		✓
Consultation with public authorities other than councils –Section 2.15	Yes	No
Will the activity be located:		
a. on or adjacent to land reserved under the <i>National Parks and Wildlife Act 1974</i> ?		✓
b. adjacent to a marine park declared under the <i>Marine Parks Act 1997</i> ?		✓
c. adjacent to an aquatic reserve declared under the <i>Marine Estate Management Act 2014</i> ?		✓
d. in the foreshore area within the meaning of the <i>Sydney Harbour Foreshore Authority Act 1998</i> ?		✓
e. In association with development comprising a fixed or floating structure in or over navigable waters?		✓
f. In association with development for the purposes of a health services facility – in an area that is bush fire prone land (as defined by the Act)?		✓
g. In association with development that may increase the amount of artificial light in the night sky and that is on land within the dark sky region as identified on the dark sky region map—the Director of the Observatory, Note. The dark sky region is land within 200 kilometres of the Siding Spring Observatory.		✓
h. development on defence communications facility buffer land within the meaning of clause 5.15 of the Standard Instrument—the Secretary of the Commonwealth Department of Defence, Note. Defence communications facility buffer land is located around the defence communications facility near Morundah. See the Defence Communications Facility Buffer Map referred to in clause 5.15 of		✓

Consultation with Council – Section 2.10, Council related infrastructure or services		Yes	No
<i>Lockhart Local Environmental Plan 2012, Narrandera Local Environmental Plan 2013 and Urana Local Environmental Plan 2011.</i>			
i.	development on land in a mine subsidence district within the meaning of the <i>Mine Subsidence Compensation Act 1961—the Mine Subsidence Board</i> .		✓

Table 7: Notification of carrying out certain development without consent (Section 2.62 Transport and Infrastructure SEPP)

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

6. Environmental Impact Assessment

6.1 Identification of Issue

6.1.1 Soils and Geology

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

6.1.2 Hazardous Materials and Contamination

Questions to consider	Yes	No
Is there potential for the works to encounter any contaminated material?		✓
Will the works involve the disturbance or removal of asbestos?		✓
Is the work site located on land that is known to be or is potentially contaminated?		✓
Is a Remediation Action Plan required?		✓
Is the work category 2 works under Chapter 4 of the Resilience and Hazards SEPP?		✓

The CHW, KR and IC buildings were constructed after the use of asbestos building materials were discontinued. The CHW asbestos register confirms that the subject buildings were constructed from asbestos free materials. As such, a Hazardous Materials Plan and/or Asbestos Removal Control Plan are not proposed to be developed by the Contractor.

Further, the VVMF is not deemed a hazardous industry under the Resilience and Hazards SEPP as the operation of the facility does not generate any hazardous waste, nor does the facility produce hazardous materials. At no stage in the manufacturing process is live virus used and hence the outputs are replication defective and non-infectious.

6.1.3 Hydrology, Flooding and Water Quality

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

The proposed works involve internal refurbishment and an additional storey to an existing building. Therefore, the works will be wholly contained within the existing footprint and would not affect the flood characteristics of the site, or potential flooding impacts.

6.1.4 Ecology

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

6.1.5 Bushfire Prone Land

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

6.1.6 Traffic, Access and Parking

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

Are there likely to be any difficulties associated with site access?	✓
Are the works located in an area that may be highly sensitive to movement of vehicles or machinery to and from the work site (i.e. schools, quiet streets)?	✓
Will full or partial road closures be required?	✓
Will the proposal result in a loss of onsite car parking?	✓
Is there onsite parking for construction workers?	✓

No changes are proposed to access (pedestrian or vehicular), internal circulation roads, pedestrian paths, parking or servicing, as a result of the proposal. Pedestrian and vehicle passage to and around the site will therefore be maintained at all times.

All Contractor vehicles will be located within the existing Contractor parking area, which is located off Mons Road. Contractor site accommodation will be located within existing buildings off Dragonfly Drive. No parking will be made available on other areas of the hospital campus.

The proposed construction vehicle routes include (Figure 18):

- Inbound via Redbank Road or Dragonfly Drive with up to 10 construction vehicle movements per hour. The Contractor will be expected to eliminate / reduce the number of vehicles during peak hour times.
- Outbound only via Redbank Road for vehicles up to and including a 12.5m heavy rigid vehicle or Institute Road with up to 10 construction vehicle movements per hour. The number of vehicles should be eliminated/reduced during peak hour times.
- Research Road connecting to KR Lane – noting the following constraints:
 - This is a thoroughfare for emergency services and NETS Ambulances.
 - Access to hospital deliveries to IC loading dock, KR loading dock, Pathology Medical Gas Plantroom, Plantrooms, Emergency Generator.
 - Highly congested interface area with adjacent works.



Figure 18: Site Access (Source: PwC)

The management and coordination of the proposed works, including strategies to address site access, traffic and parking, will be described in the Construction Environmental Management Plan (**CEMP**) to be prepared for the works by the Contractor.

6.1.7 Noise and Vibration

Questions to consider	Yes	No
Are there residential properties or other sensitive land uses or areas that may be affected by noise from the proposal during construction? (i.e. schools, nursing homes, residential areas or native fauna populations)?		✓
Will any receivers be affected by noise for greater than three weeks?	✓	
Are there sensitive land uses or areas that may be affected by noise from the proposal during operation?	✓	
Will the works be undertaken outside of standard working hours? Monday – Friday: 7am to 6pm Saturday: 8am to 1pm Sunday and public holidays: no work		✓
Will the works result in vibration being experienced by any surrounding properties or infrastructure?	✓	

Noise and Vibration generating activities for the fitout of the CASB IC and KR and CHW will be restricted to internal works. As such noise generated during the CASB IC and KR works will be limited to internal receivers.

The noise and vibration from the use of any equipment and/or building services associated with the premises shall not give rise to an offensive noise as defined under the provisions of the Interim Construction Noise Guideline,

EPA and Australian Standards. Any vibration-sensitive equipment or processes that could be affected by vibration or noise will be identified.

A Construction Noise Management Plan will be prepared by the Contractor. No machine work will occur outside the normal working hours set unless approval has been given through a Disruption Notice process.

Internal coordination will take place with the adjoining units and services within the IC, KR and CHW to ensure minimal impact throughout the construction period will occur. The Contractor will implement a Disruption Notice Procedure to determine the required restrictions (if any) posed on types of activities that may occur throughout the duration of works. Noise management measures will be described in the CEMP for the proposed works.

6.1.8 Air Quality and Energy

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

The proposed development is considered unlikely to lead to any significant air quality or odour control impacts given the relatively minor scope of works limited to internal refurbishment that would be contained wholly within the existing building.

To control dust generation, appropriate sealing of any doors, windows and penetrations will be undertaken to prevent airborne dust particles migrating into the surrounding environment. Management of dust prevention and associated measures is to be developed by the Contractor and agreed by the Project stakeholders.

6.1.9 Non-Aboriginal Heritage

Questions to consider	Yes	No
Are there any heritage items listed on the following registers within or in the vicinity of the work area? NSW heritage database (includes section 170 and local items) Commonwealth EPBC heritage list? Note See section 4.5 of this REF		✓
Will works occur in areas that may have archaeological remains?		✓

6.1.10 Aboriginal Heritage

Questions to consider	Yes	No
Will the works disturb any culturally modified trees?		✓
Are there any known items of Aboriginal heritage located in the works area or in the vicinity of the works area (e.g. previous studies or reports from related projects)?		✓
Are there any other sources of information that indicate Aboriginal objects are likely to be present in the area (e.g. previous studies or reports from related projects)?		✓

Will the works occur in the location of one or more of these landscape features and is on land not previously disturbed?

- Within 200m of waters. **Note** the site is over 200m from Toongabie Creek.
 - 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
- ✓

6.1.11 Visual Amenity

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

The proposed works are being undertaken within the CHW. As discussed in Section 2 the CHW and wider precinct is undergoing a staged redevelopment. The site is located in a central position within the WHP. It is located in close proximity to a number of larger buildings and will have minimal outlook once the PSB has been constructed.

From the Children’s Forecourt, the building is hidden from view by the grove of trees to the West. The photomontage below indicates the view of the KR building from the Children’s Forecourt, which shows that the additional height of the building will not be prominently visible given the vegetation screening. The red shape outlines the extent of the proposed building height.



Figure 19: View of Proposed Site from Children’s Plaza (Source: PwC)

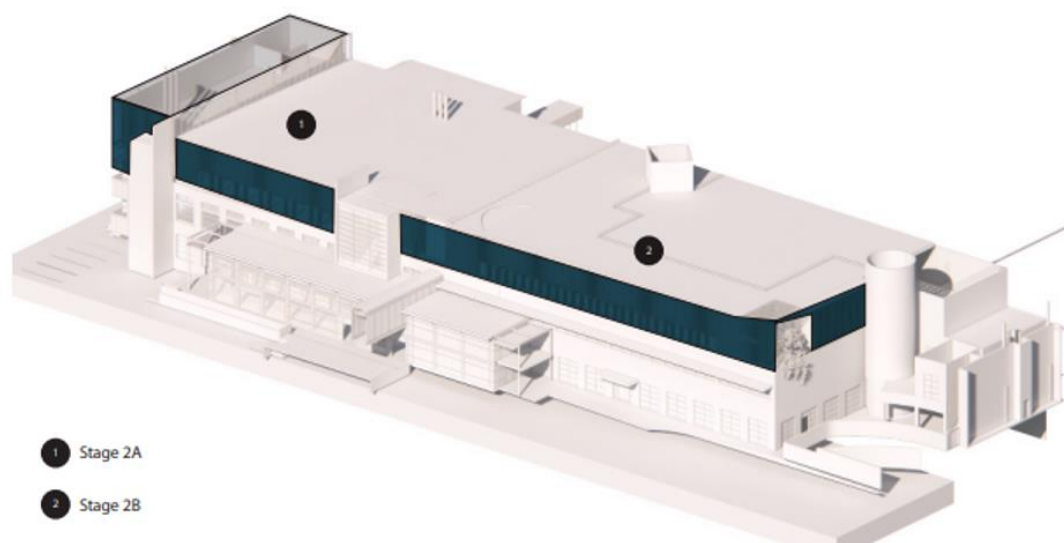


Figure 20: Indicative building - Stage 2a and 2b (Source: HDR)

The proposed works external to the KR are designed to extend the KR building seamlessly and coherently. Currently the building has roof-top plant and a number of risers that extend from the laboratories below. These elements, as well as the existing stairs, have been incorporated into the design.

On this basis, it is determined that the proposed building extension and works to the CHW will be visually screened by the existing CASB, WIMR, CMRI, new PSB and vegetation, limiting visual impacts from the KR. The proposed works will not detract from the aesthetic, or environmental or value of the locality.

6.1.12 Land Uses and Services

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

6.1.13 Waste Generation

Questions to consider	Yes	No
Will the works result in the generation of non-hazardous waste?	✓	
Will the works result in the generation of hazardous waste?		✓
Will the works result in the generation of wastewater requiring off-site disposal?		✓

Waste generated during the construction works would comprise a combination of building materials, packaging waste and general waste associated with construction workers. All waste products will be disposed of in accordance with the relevant waste classification guidelines and either recycled where possible or sent to a licensed facility to receive the materials.

Waste management measures will be described in the CEMP, which will be prepared prior to the commencement of works.

Waste generated during the ongoing operation of the spaces, will be managed in accordance with the hospital’s relevant Waste Management Policy. This policy will be reviewed and updated as required to suit the operation of the development.

6.1.14 Cumulative Impact

Questions to consider	Yes	No
Has there been any other development approved within 500m of the site?	✓	
Will there be significant impacts (for example, including but not limited to, construction traffic impacts) from other development approved or currently under construction within 500m of the site?	✓	

As discussed in Section 2.2, the WHP is undergoing comprehensive redevelopment, accordingly, works associated with other projects are, or will be undertaken within 500m of the site. Multiple development projects may also be observed throughout the wider precinct.

The proposed activity is considered minor in nature as the works are mainly internal refurbishment and works to an existing building. As such, the proposed activity would not give rise to any unacceptable cumulative impact on the WHP construction works.

Conditions of consent for developments in Westmead would consider the local and surrounding environment with regard to traffic, noise, vibration, air quality and waste, amongst other factors as relevant to particular projects.

The proposed Contractor will be aware of the varying construction activities within the WHP. The Contractor will be required to coordinate with other Contractors on site as the project progresses. It is noted that disruptions, construction activities and construction traffic must be coordinated by the Contractor across the WHP and will be subject to Contractor interface, with relevant key stakeholders on an agreed timeframe.

The Preliminary Construction Management Plan prepared by PwC (Appendix D) identifies the management strategies which are to be implemented for the construction interface by the future Contractor.

6.1.15 Impact on Coastal Processes and Coastal Hazards

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

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

Questions to consider	
What are the key local and State Planning policies and strategies relevant to the activity?	See below.
How does the activity align with the key local and State Planning policies and strategies applicable to the activity?	See below.

This section provides an assessment of the proposed activity against the relevant NSW strategic planning documents. The following strategic plans have been reviewed:

- NSW State Health Plan
- Greater Sydney Region Plan
- Central City District Plan
- City of Parramatta Local Strategic Planning Statement 2036
- Westmead Health Precinct Master Plan
- Draft Westmead 2036 Place Strategy

NSW State Health Plan

NSW Health have developed a state health plan which provides a framework for strategic directions and strategies to deliver over the next decade.

The proposed development is consistent with the directions of NSW state health plan as it supports the design and construction of future-focused infrastructure by providing improved facilities and equipment to facilitate the delivery of health care. The proposed works will contribute to the provision of world class clinical care within a growing healthcare precinct.

Greater Sydney Region Plan

The Greater Sydney Region Plan (Region Plan) outlines how Greater Sydney will manage growth and change in the context of social, economic and environmental matters. It sets the vision and strategy for Greater Sydney, to be implemented at a local level through District Plans. The overriding vision for Greater Sydney in the Region Plan is to rebalance Sydney into a metropolis of three unique but connected cities:

- the established Eastern Harbour City
- the developing Central River City
- the emerging Western Parkland City

Historically, Greater Sydney’s jobs and transport have been focused to the east, requiring many people to make long journeys to and from work and other services. The Three Cities vision allows opportunities and resources to be shared more equitably while enhancing the local character we value in our communities. By integrating land use, transport links and infrastructure across the three cities, more people will have access within 30 minutes to jobs, schools, hospitals, and services.

The Region Plan provides broad Priorities and Actions which focus on the following four key themes:

- Infrastructure and collaboration
- Liveability
- Productivity
- Sustainability

There are a number of Directions and Objectives that are of particular relevance to the Proposal which are addressed below:

- Objective 6: Services and infrastructure meet communities’ changing needs
- Objective 15: The Eastern, GOPP and Western Economic Corridors are better connected and more competitive
- Objective 21: Internationally competitive health, education, research and innovation precincts

Central City District Plan

The Central City District Plan (District Plan) was prepared by the Greater Sydney Commission (GSC) in March 2018. It seeks to manage growth in the context of economic, social and environmental matters in the Central City District. It provides the district level framework to implement the goals and directions outlined in the Region Plan for the Central City District.

The proposed development is consistent with the District Plan as it:

- strengthens the economic competitiveness of the Greater Parramatta area by enabling the development of an internationally competitive health and education precinct at Westmead
- assists in the growth and development of the Westmead health and education precinct as a world-class innovation district
- contributes to the creation of jobs within a health and education and advanced manufacturing sector.

The District Plan identifies the Westmead Redevelopment Project to be a major initiative of the NSW Government, led by NSW Health, the Western Sydney Local Health District and the Children’s Hospital at Westmead. The redevelopment aims to transform Westmead into a world-class health city.

City of Parramatta Local Strategic Planning Statement 2036

The Local Strategic Planning Statement City Plan 2036 (LSPS) sets out a 20-year land use planning vision for the Parramatta LGA. The LSPS was finalised and came into effect on 31 March 2020. The LSPS contains priorities and actions to help achieve this vision for Greater Parramatta at the core of the Central River City

The proposal is consistent with the LSPS, in particular the following actions:

Planning Priority 1 – Expand Parramatta’s economic role as the Central City of Greater Sydney

- The proposed works allows Parramatta Council to work with the State Government to support a new major tertiary education facility at Westmead/Parramatta North Precinct to deliver additional jobs.
- The proposal supports the growth of Westmead as a strategic centre

Planning Priority 11 - Build the capacity of the Parramatta CBD, Strategic Centres, Local Centres and Employment Lands to be strong, competitive and productive

- The proposed works will assist the State Government with precinct planning at Westmead, Parramatta North Precinct and Sydney Olympic Park and within the GOP corridor.

Westmead Health Precinct Masterplan

The Westmead Hospital Precinct Masterplan informs future planning activities for both the Westmead Health Precinct (WHP) and the Westmead Hospital. The CHW is located within the WHP and thereby the proposal embodies the following aspirations as set out in the Masterplan:

- Provide appropriate building density to achieve best use strategy for Government asset
- Continue existing connections for connectivity with existing and future infrastructure
- Provide significant development opportunity for the precinct and hospitals

Westmead 2036 Place Strategy

Westmead Place Strategy outlines the vision for Westmead to become a world-class health and innovation district over the next 20 years. The draft strategy acknowledges the Health and Innovation precinct and presents several key outcomes for the sub-precincts. The proposed works to the CHW align with the key outcomes in the draft strategy, as follows:

- Provides new, innovative models of healthcare
- Retains a vibrant and attractive built environment
- Retains and improves the pedestrian experience

Draft Connecting with Country Framework

The draft Connecting with Country framework outlines the Government Architect’s strategies to implement and assist projects to align with Aboriginal values and culture.

The works that are visible externally are limited to minor extensions of existing structure (KR Rooftop and CHW Pathology), and hence are required to conform to the existing design. Further, it is noted CHW Pathology cold shell (of which the internal fit out is covered in the REF) is covered under SSDA 10349252, which has a comprehensive response to the Connecting with Country framework in the Architectural Design Report (Appendix G of SSDA).

As the works are primarily internal refurbishment and fit out, and the spaces are clinical in nature, the opportunity for the design to respond to Connecting with Country principles will be in the areas such as the finishes (to be further developed), furthering the themes explored in the Connecting with Country framework developed for the wider redevelopment.

6.1.17 Any other relevant environmental factors

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

6.2 Impact Assessment

6.2.1 Physical and Chemical Impacts During Construction and Operation

	Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1. Is the proposal likely to impact on soil quality or land stability?	<input type="checkbox"/>	N/A	N/A	N/A
2. Is the activity likely to affect a waterbody, watercourse, wetland or natural drainage system?	<input type="checkbox"/>	N/A	N/A	N/A
3. Is the activity likely to change flood or tidal regimes, or be affected by flooding?	<input type="checkbox"/>	N/A	N/A	N/A
4. Is the activity likely to affect coastal processes and coastal hazards, including those projected by climate change (e.g. sea level rise)?	<input type="checkbox"/>	N/A	N/A	N/A
5. Does the activity involve the use, storage, or transport of hazardous substances or the use or generation of chemicals, which may build up residues in the environment?	<input type="checkbox"/>	N/A	N/A	N/A
6. Does the activity involve the generation or disposal of gaseous, liquid or solid wastes or emissions?	<input checked="" type="checkbox"/>	Low	Building waste, packaging, plastic, and general waste may be generated during the works and will be disposed of in accordance with the relevant hospital policies, legislative waste protocols and EPA guidelines	

	Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
7. Will the activity involve the emission of dust, odours, noise, vibration or radiation in the proximity of residential or urban areas or other sensitive locations?	<input checked="" type="checkbox"/>	Low	<p>Throughout the construction period, the proposed activity will generate dust and potential noise impacts within the CHW buildings.</p> <p>The location of the works, being central to the CHW and adequately separated from adjoining residences, ensures minimal potential for dust and noise impacts on sensitive receivers external to the building and the CHW.</p>	

6.2.2 Biological Impacts During Construction and Operation

	Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1. Is any vegetation to be cleared or modified? (includes vegetation of conservation significance or cultural landscape value)	<input type="checkbox"/>	N/A	N/A	N/A
2. Is the activity likely to have a significant effect on threatened flora species, populations, or their habitats, or critical habitat (refer to threatened species assessment of significance under the BC Act)?	<input type="checkbox"/>	N/A	N/A	N/A
3. Does the activity have the potential to endanger, displace or disturb fauna (including fauna of conservation significance) or create a barrier to their movement?	<input type="checkbox"/>	N/A	N/A	N/A
4. Is the activity likely to have a significant effect on threatened fauna species, populations, or their habitats, or critical habitat (refer to threatened species assessment of significance BC Act)?	<input type="checkbox"/>	N/A	N/A	N/A
5. Is the activity likely to impact on an ecological community of conservation significance?	<input type="checkbox"/>	N/A	N/A	N/A
6. Is the activity likely to have a significant effect on an EEC or its habitat (refer to threatened species assessment of significance (BC Act 2016)?	<input type="checkbox"/>	N/A	N/A	N/A

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

6.2.3 Community Impacts During Construction and Operation

	Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1. Is the activity likely to affect community services or infrastructure?	<input type="checkbox"/>	N/A	N/A	N/A
2. Does the activity affect sites of importance to local or the broader community for their recreational or other values or access to these sites?	<input type="checkbox"/>	N/A	N/A	N/A
3. Is the activity likely to affect economic factors, including employment numbers or industry value?	<input checked="" type="checkbox"/>	Positive	The proposed activity will provide additional construction and ongoing jobs. Therefore, it would have a positive impact on employment numbers and further economic values.	N/A
4. Is the activity likely to have an impact on the safety of the community?	<input type="checkbox"/>	N/A	N/A	N/A
5. Is the activity likely to cause a bushfire risk?	<input type="checkbox"/>	N/A	N/A	N/A
6. Will the activity affect the visual or scenic landscape? This should include consideration of any permanent or temporary signage.	<input checked="" type="checkbox"/>	Low	As discussed within this report, the proposed development will be visible within the CHW. However, the proposed extension to the building will be of a scale much smaller than the surrounding buildings. It is noted the position of the KR building is centrally located within the CHW and will not likely be visible from residences adjoining the CHW site.	<p>The following safeguards will be implemented in order to manage potential visual impacts:</p> <ul style="list-style-type: none"> Adequate landscaping and tree plantings to visually screen the building from the Central Plaza To address the streetscape and views points from Hawkesbury Road, the proposed facade has been aligned with the existing KR building. The main building mass aligns with the coloured curtain wall while the screen, providing shading to windows and screening to the plant, aligns with the existing shade structure.

7.	Is the activity likely to cause noise, pollution, visual impact, loss of privacy, glare or overshadowing to members of the community, particularly adjoining landowners?	<input checked="" type="checkbox"/>	Low	<p>The proposal is not anticipated to result in any loss of privacy, overshadowing or loss of amenity to adjoining buildings.</p> <p>The proposed activity is likely to cause acoustic and vibration impacts throughout the course of construction. There are no anticipated noise or vibration impacts once the building is complete.</p>	<p>Construction activities will be restricted to standard work hours in order to manage potential noise and vibration impacts.</p> <p>All construction works will be completed in accordance with the CHW Disruption Notice Procedure.</p>
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6.2.4 Natural Resource Impacts During Construction and Operation

	Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1. Is the activity likely to result in the degradation of a park or any other area reserved for conservation purposes?	<input type="checkbox"/>	N/A	N/A	N/A
2. Is the activity likely to affect the use of, or the community's ability to use, natural resources?	<input type="checkbox"/>	N/A	N/A	N/A
3. Is the activity likely to involve the use, wastage, destruction or depletion of natural resources including water, fuels, timber or extractive materials? This should include opportunities to utilise recycled or alternative products.	<input type="checkbox"/>	N/A	N/A	N/A
4. Does the activity provide for the sustainable and efficient use of water and energy? Where relevant to the proposal, this should include consideration of high efficiency fittings, appliances, insulation, lighting, rainwater tanks, hot water and electricity supply.	<input checked="" type="checkbox"/>	Positive	The proposal incorporates the sustainable and efficient use of water and energy.	Key elements in Passive design such as shading, thermal efficiency and access to natural light will assist the energy consumption and Health + Wellbeing of occupants. The selection of low impact materials will respond to Energy and Carbon requirements.

The Architect has considered the requirements for Section J in their design for the KR rooftop, inclusive of the environmental sustainability considerations. The facade, glazing and insulation have all been specified with Section J compliance, with the inclusion of the following materials/resources:

- Non-combustible wall insulation
- High performance glazing
- Thermally Broken Aluminium framing for windows
- Perforated metal screening, maintenance free, non-combustible

6.2.5 Aboriginal Cultural Heritage Impacts During Construction and Operation

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

	Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
1. Will the activity disturb the ground surface or any culturally modified trees?	<input type="checkbox"/>	N/A	N/A	N/A
2. Does the activity affect known Aboriginal objects or Aboriginal places? Include all known sources of information on the likely presence of Aboriginal objects or places, including AHIMS search results.	<input type="checkbox"/>	N/A	N/A	N/A
3. Is the activity located within, or will it affect, areas: within 200m of waters* within a sand dune system* on a ridge top, ridge line or headland within 200m below or above a cliff face within 20m of or in a cave, rock shelter or a cave mouth?	<input type="checkbox"/>	N/A	N/A	N/A
4. If Aboriginal objects or landscape features are present, can impacts be avoided?	<input type="checkbox"/>	N/A	N/A	N/A
5. If the above steps indicate that there remains a risk of harm or disturbance, has a desktop assessment and visual inspection been undertaken?	<input type="checkbox"/>	N/A	N/A	N/A
6. Is the activity likely to affect wild resources or access to these resources, which are used or	<input type="checkbox"/>	N/A	N/A	N/A

Applicable?*	Impact level (negligible, low, medium or high; negative or positive; or NA)	Reasons (describe the type, nature and extent of impact, taking into account the receiving environment and proposed safeguards which will limit the impact)	Safeguards/mitigation measures
valued by the Aboriginal community?			

6.2.6 Other Cultural Heritage Impacts During Construction or Operation

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

6.3 Summary of Mitigation Measures

Table 8: Summary of Mitigation Measures

Aspect	Mitigation measure	Timing
Construction Management	A Construction Environmental Management Plan (CEMP) is to be prepared prior to the commencement of works and implemented during the undertaking of works.	Prior to Commencement of Works and During Construction / Undertaking of Work
Construction Waste	<p>A Construction Waste Management Plan (CWMP) will be prepared by an appropriately qualified contractor prior to the commencement of works, as part of the CEMP.</p> <p>The following mitigation measures will be implemented in order to prevent adverse impacts in relation to waste generated by the proposed works:</p> <ul style="list-style-type: none"> Waste will be transported through the hospital in sealed bins to an external skip bin for transport to a licensed waste facility in accordance with DECCW's Waste Classification Guidelines (2008) and the POEO Act. No materials will be used in a manner that will pose a risk to public safety and waste generated from the proposed works will be recycled where possible. Unnecessary resource consumption will be avoided. 	During Construction / Undertaking of Work
Ongoing Waste	Once the spaces are complete and are operational, all waste produced will be managed in accordance with the hospitals relevant Waste Management Policy. This policy will be reviewed and updated as required to suit the operation of the development.	Prior to Commencement of Operation
Traffic, Access and Parking	<p>A Traffic Management Plan is to be provided as part of the CEMP.</p> <p>Dedicated construction vehicle routes and parking spaces will be developed with the aim to provide the shortest distances to/from the arterial road network, whilst minimising the impact of construction traffic on the local road network in the vicinity of the Site.</p> <p>No changes are proposed to access (pedestrian or vehicular), internal circulation roads, pedestrian paths, parking or servicing, as a result of the proposal. Pedestrian and vehicle passage to and around the site will therefore be maintained at all times</p>	During Construction / Undertaking of Work
Acoustic and Vibration Impacts	All works will be carried out in accordance with the Contractors DN process to inform the CHW and WSHLD. The protocol ensures all adjoining rooms and services will be notified, limiting the adverse impacts throughout the construction period. For such	During Construction / Undertaking of Work and Prior to Commencement of Operation

Aspect	Mitigation measure	Timing
	<p>stoppages, the DN will describe the applicable works, timetable, issues and contingency plans.</p> <p>The CEMP provides management and recommendations regarding potential noise emissions as part of the works. All reasonable, practicable steps are to be undertaken to reduce noise and vibration from the Site.</p>	
Air Quality, Dust, Pollution and Odour	<p>The CEMP will identify measures to address any potential air quality, dust, odour or pollution impacts during construction activities.</p> <p>The following mitigation measures will be implemented in order to prevent adverse impacts in relation to air quality and dust generated by the proposed works:</p> <ul style="list-style-type: none"> • Ensuring doors, windows and penetrations are appropriately sealed/closed • Ensuring regular cleaning of construction spaces to mitigate the accumulation of dust • Ensure the covering of all haulage trucks with tarpaulins • Monitoring of weather conditions (including wind). 	During Construction / Undertaking of Work

6.4 Summary Impacts

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

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

7. Environmental Factors Considered

7.1 Environmental Planning and Assessment Regulation 2021 – Assessment Considerations

The relevant assessment considerations under section 171 (2) of the EP&A Regulation 2021 are provided below..

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

Has the REF considered the following points?	Relevant Details
any environmental impact on a community	<p>The proposed works involve the internal fitout and a minor extension to an existing building and will not adversely impact the environment.</p> <p>The proposal will respond to the community’s need for upgraded health services in Western Sydney. The provision of these services will provide significant community benefit.</p>
any transformation of locality	<p>The proposed development will not cause any adverse transformation of the locality. The works retain the CHW and KR Facility. It is noted there are several other construction projects which form Stage 2 of the CHW refurbishment program. This proposed activity is part of this program.</p> <p>The proposal supports the continued role of the site and greater precinct in the provision of health services.</p>
any environmental impact on the ecosystems of the locality	<p>The proposed development involves internal works and an extension to an existing building. Thereby, the proposal will not affect any ecosystems.</p>
Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality	<p>The proposed works external to the KR are designed to extend the KR building seamlessly and coherently. Currently the building has roof-top plant and a number of risers that extend from the laboratories below. These elements, as well as the existing stairs, have been incorporated into the design.</p> <p>The proposed works will not detract from the aesthetic, recreational, scientific, or other environmental quality or value of a locality.</p>
any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance, or other special value for present or future generations	<p>The proposed extension and refurbishment works will be an extension to the existing building and would not affect any localities, places or buildings with aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific, social or other special value or significance.</p>
any impact on the habitat of protected animals, within the meaning of the <i>Biodiversity Conservation Act 2016</i>	<p>The proposed activity will not affect any habitats of protected animals.</p>
any endangering of any species of animal, plant or other form of life, whether living on land, in water, or in the air	<p>The proposed activity will not affect any vegetation, biodiversity or matters of environmental significance.</p>
any long-term effects on the environment	<p>The proposed works are considered to be minimal and involve the extension of an existing building. The activity will not affect any vegetation, biodiversity or matters of environmental significance.</p>
any degradation of the quality of the environment	<p>The proposed activity will not affect any vegetation, biodiversity or matters of environmental significance.</p>
any risk to the safety of the environment	<p>The proposed development is not considered to pose any unreasonable risk to the safety of the environment.</p>
any reduction in the range of beneficial uses of the environment	<p>The proposed development will not reduce the range of beneficial uses of the environment. Rather, as a component of the more comprehensive upgrade and redevelopment program for CHW, the</p>

Has the REF considered the following points?	Relevant Details
	proposal would contribute to the expanded and enhanced provision of health care services within Westmead.
any pollution of the environment	The pollution of the environment by the proposed development during construction works phases may be avoided by the employment of suitable mitigation measures, including a CEMP.
any environmental problems associated with the disposal of waste	The proposed development is not anticipated to result in any problems associated with the disposal of waste. It is recommended that the requirement for a Construction Waste Management Plan is included as a condition of REF approval, to be prepared prior to the commencement of works.
any increased demands on natural or other resources that are, or are likely to become, in short supply	The proposed development will not increase demand on resources that are, or are likely to become, in short supply.
any cumulative environmental effect with other existing or likely future activities	The specific works proposed under this REF would support the provision of enhanced health services by CHW, and in turn would positively contribute to the ultimate vision for Westmead. Conditions of consent for developments in Westmead would consider the local and surrounding environment with regard to traffic, noise, vibration, air quality and waste, amongst other factors as relevant to particular projects. Accordingly, the proposed works would not give rise to any unacceptable cumulative impacts
any impact on coastal processes and coastal hazards, including those under projected climate change conditions.	The site is not identified within a coastal zone. As such, the proposal would not impact on any coastal processes or coastal hazards.
any applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1	Section 6.1.16 of this REF has considered the strategic planning documentation relevant to this activity.
any other relevant environmental factors	Section 6.1.17 of this REF considers other relevant environmental factors related to this activity.

7.2 Matters of National Environmental Significance Checklist

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

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

Table 10: EPBC Act 1999 (Commonwealth Legislation)

Significance Matter	Yes/ No	Relevant Details
Listed threatened species and communities	No	N/A
Listed migratory species	No	N/A
RAMSAR wetlands of international importance	No	N/A
Commonwealth marine environment	No	N/A
World heritage properties	No	N/A The site is located approximately 280m west of the Old Government House and the Government Domain – Parramatta world heritage curtilage. However, it is not located within this curtilage.
National heritage places	No	N/A The site is located approximately 280m west of the Old Government House and the Government Domain – Parramatta national heritage curtilage. However, it is not located within this curtilage.
The Great Barrier Reef Marine Park	No	N/A
Nuclear actions	No	N/A
A water resource, in relation to coal seam gas development and large coal mining development	No	N/A

8. Justification and Conclusion

The proposed refurbishment and internal fit-out works within the existing Children’s Hospital and the refurbishment and extension of the Kids Research Building and Innovation Centre to facilitate a new Viral Vector Manufacturing Facility is subject to assessment under Part 5 of the EP&A Act. The REF has examined and taken into account to the fullest extent possible all matters affecting, or likely to affect, the environment by reason of the proposed activity.

As discussed in detail in this report, the proposed works will not result in any significant or long-term adverse impacts. 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 proposed activity will not be carried out in a declared area of outstanding biodiversity value and is not likely to significantly affect threatened species, populations or ecological communities, or their habitats or impact biodiversity values, meaning a SIS and BDAR is not required.

The environmental impacts of the proposal are not likely to be significant and therefore it is not necessary for an EIS to be prepared and approval to be sought for the proposal from the Minister for Planning under Part 5.1 of the EP&A Act. On this basis, it is recommended that HI approve the proposed activity in accordance with Part 5 of the EP&A Act and subject to the adoption and implementation of matters outlined in this report.

Appendix A: Notification Letters

Appendix B: Section 10.7(2) and (5) Planning Certificate

Appendix C: Architectural Plans

Appendix D: Preliminary Construction Management Plan

Appendix E: Acoustic Assessment

Appendix F: KR Design Development Report

Appendix G: Innovation Centre Schematic Design Report

Contact Details

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