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Environmental Impact Statement
State Significant Development Application (SSD)11099584)
The Sutherland Hospital Operating Theatre Upgrade Project

Prepared for
Health Infrastructure NSW

Date
13 April 2021

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Revision history

Issue Reference	Issue Date	Issue Status
A	2 February 2021	Draft for client review
B	19 February 2021	Draft Test of Adequacy
C	3 March 2021	Test of Adequacy
D	13 April 2021	Final

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AH	**Noise and Vibration Report** *Prepared by JHA Services*
AI	**External Lighting Strategy** *Prepared by JHA Services*

Statement of veracity

This Environmental Impact Statement (EIS) has been prepared in accordance with Schedule 2 of the Environmental Planning and Assessment Regulation 2000. This Environmental Impact Statement (EIS) has been prepared by:

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In respect of:

State Significant Development Application (SSD-11099584) for the proposed Sutherland Hospital Operating Theatre Upgrade, including alterations and additions to the existing South Wing building west towards the Ambulance Station, earthworks and associated landscaping works (as described in **Section 3** of this EIS).

Applicant:

Health Infrastructure NSW
C/– Architectus Australia Pty Ltd

Land to be developed:

Kingsway and Kareena Road, Caringbah NSW 2229. The site is described as Lot 1 DP119519; Lot 1 DP432283 and Lot 1 DP398975.

Declaration:

It is declared to the best of my knowledge that:

- This Environmental Impact Statement has been prepared in accordance with Schedule 2 of the *Environmental Planning and Assessment Regulation 2000*;
- This Environmental Impact Statement contains all available information that is relevant to the environmental assessment of the proposed development; and
- The information contained in this report is neither false nor misleading.

Jane Fielding
13 April 2021

Amy Wilkins
13 April 2021

Executive summary

Preliminary

This Environmental Impact Statement (EIS) has been prepared by Architectus Australia Pty Ltd (Architectus) on behalf of Health Infrastructure NSW (the applicant) in support of a State Significant Development (SSD) Application (SSD-11099584) for the expansion of the existing Operating Theatres at The Sutherland Hospital (as described in **Section 3** of this EIS).

This EIS should be read in conjunction with the Secretary's Environmental Assessment Requirements (SEARs) issued by the Department of Planning, Industry and Environment (DPIE) on 10 December 2020 and attached at **Appendix A**, and the supporting technical documents provided at **Appendix A – Appendix AI.**

Site

The site is located at Kingsway and Kareena Road, Caringbah NSW 2229 and is part of the Sutherland Shire Local Government Area.

The site is bounded by the Kingsway to the north and Kareena Road to the west, a railway corridor to the south and a residential area to adjacent to the east. The site has a total site area of 9.3 hectares and is made up of three (3) lots, legally referred to as Lot 1 DP119519, Lot 1 DP432283, and Lot 1 DP 398975.

The site is currently occupied by existing hospital buildings and a NSW Ambulance station occupies the third lot which adjoins Kareena Road to the west.

Proposed development

The proposal seeks to expand the existing surgical facilities of The Sutherland Hospital to cater for the growing needs of the immediate area and Greater Sydney. The new facility will increase theatre capacity, improve efficiencies and access to services and enable implementation of new models of care and surgical clinical pathways. The project will provide the Hospital with the opportunity to meet increased surgical demand due to numerous factors including population growth and ageing population as well as providing additional medical services and an upgrade to the existing infrastructure.

The scope of the proposed works the subject of this SSD application includes the following:

- Alterations and additions to the existing South Wing building west towards the Ambulance Station, including:
    - Additional operating theatres;
    - Additional endoscopy suites;
    - New Magnetic Resonance Imaging (MRI) suite;
    - New Central Sterilising Services Department (CSSD);
    - Surgical short stay unit;
    - Post-Anesthesia Care Unit (PACU), recovery and other perioperative clinical and supporting spaces;
    - Facilities for admission and discharge;
    - Associated Staff Amenities.
- Earthworks, in ground services installation and demolition;
- Tree removal and associated landscaping works; and

- Category 1 Remediation work.

Consultation

The proponent team has undertaken consultation with Departments, agencies and stakeholders, as required by the SEARs and consultation with the local community. The issues discussed and raised during these consultations have been addressed as part of the proposal. Consultation and outcomes have been addressed in detail at **Section 4** of the EIS.

Planning Framework and Assessment

The proposed development is classified as SSD on the basis that it falls within the requirements of Clause 14 of Schedule 1 of *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP), being development for the purpose of a hospital that has a Capital Investment Value (CIV) of over $30 million. Refer to the Quantity Surveyors Cost Assessment provided under separate cover.

The upgrade of the operating theatre at The Sutherland Hospital has been assessed against the SEARs issued for the project and the planning framework.

Statutory and strategic planning context

The proposal has been assessed against relevant strategic policies and planning controls and is found to be generally consistent with these, as detailed within **Section 5** of this EIS. Additionally, the proposal satisfies the SEARs as demonstrated in this EIS.

Local impacts

The proposed operating theatre upgrade will not cause unacceptable impacts on neighbouring residential properties or the public domain. Subject to the various mitigation measures recommended at **Section 8**, the proposal will not have unreasonable traffic, heritage, economic, social or other environmental impacts on adjoining or surrounding properties or the public domain.

Suitability of the site

The Sutherland Hospital is an existing operating hospital and the proposed upgrade to the operating theatres will ensure it can deliver high quality health care for the existing and forecast population growth.

There are no known site conditions which would prevent the development including geotechnical conditions, contamination, flooding, biodiversity, Aboriginal cultural heritage, or other. The site is well serviced by public transport.

The site is therefore suitable for the proposed development.

Public interest

The proposed Sutherland Hospital upgrade offers significant public benefits to the users of the hospital and broader community. Key benefits of the project are:

- It responds to local demand for health facilities and will deliver a world class operating facility in the heart of the South Eastern Sydney Local Health District;
- It will increase theatre capacity, improve efficiencies and access to services, and enable implementation of new models of care and surgical clinical pathways;
- It will provide the Hospital with the opportunity to meet increased surgical demand due to population growth and an ageing population;
- Improve overall work performance and productivity for its staff and patients;
- It will generate 377 full time construction jobs, and together with the value of the project to the economy, will stimulate the economy.

On balance, accounting for site suitability, environmental impacts, risk assessment and key benefits, the proposed development is in the public interest.

Given the above it is considered that the SSD Application has merit and can be supported by the Department of Planning, Industry and Environment and the Minister for Planning and Public Spaces.

Secretary's Environmental Assessment Requirements

SEARs for the project were issued under Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) by DPIE on 10 December 2020. Refer to the SEARs in full at **Appendix A** to this report.

Table 1 below provides a summary of the SEARs and identifies the section of the report where the relevant requirement is addressed and/or the appendix reference for the specialist consultant's report associated with that requirement.

Table 1 Secretary's Environmental Assessment Requirements

Item/ Description	Document Reference
General Requirements	
Clause 6 of Schedule 2 of EP&A Regulation	
An EIS must contain the following:	
6(a) EIS author	*Statement of veracity*
6(b) contact details of the responsible person	*Statement of veracity*
6(c) the address of the land	*Statement of veracity*
6(d) development description	*Section 3: Proposed development*
6(e) assessment of impact	*Section 6: Environmental Assessment*
6(f) author's declaration	*Statement of veracity*
Clause 7 of Schedule 2 of EP&A Regulation	
An EIS must also include:	
(1)(a) summary of EIS	*Executive Summary*
o (1)(b) EIS objectives	*Section 1: Introduction*
o (1)(c) analysis of feasible alternatives	*Section 3: Proposed development*
o (1)(d) analysis of development	*Section 3: Proposed development*
o (d)(i) full description	*Section 3: Project description*
o (d)(ii) general description of the environment likely to be affected	*Sections 1.2*

Item/ Description	Document Reference
	Section 2: Site analysis *Section 3: Proposed development* *Section 6: Environmental Assessment*
○ (d)(iii) likely impact on the environment	*Section 6: Environmental Assessment*
○ (d)(iv) mitigation measures	*Section 8: Recommendations and Mitigation measures*
○ (d)(v) approvals required	*Section 5: Statutory and strategic planning context*
In addition, the EIS must include:	
• An executive summary	*Executive summary*
• A complete description of the development including:	
○ the need for the development.	*Section 1: Introduction*
○ justification for the development.	*Section 6: Environmental Assessment*
○ suitability of the site.	*Section 6.24*
○ alternatives considered.	*Section 3.14-3.15*
○ likely interactions between the development and existing, approved and proposed operations in the vicinity of the site	*Section 3 and Section 6*
○ a description of any proposed building works.	*Section 3: The proposed development*
○ A description of existing proposed operations	
○ site survey plan, showing existing levels, location and height of existing and adjacent structures / buildings and site boundaries	*Appendix B*
○ a detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development	*Appendix F*
○ plans, elevations and sections of the proposed development	*Appendix E*
○ cladding, window and floor details, including materials.	*Appendix E*
○ a site plan showing all infrastructure and facilities (including any infrastructure that would be required for the development, but the subject of a separate approvals process).	*Appendix E*
○ plans and details of any advertising/business identification signs to be installed, including size, location and finishes	*N/A*
○ any staging of the development.	*Appendix Q*
○ details of construction and decommissioning including timing	

Item/ Description	Document Reference
○ an estimate of the jobs that would be created during the construction and operational phases of the development along with the details of the methodology to determine the figures provided.	*Section 7: Environmental Risk Assessment*
○ A detailed assessment of the key issues identified below, and any other significant issues identified in the risk assessment, including;	
▪ a description of the existing environment, using sufficient baseline data and methodology to establish baseline conditions.	*Section 2: Site Analysis*
▪ an assessment of the potential impacts of all stages of the development on all potentially impacted environments, sensitive receivers, stakeholders and future developments. The assessment must consider any relevant legislation, policies and guidelines.	*Section 6: Environmental Assessment*
▪ consideration of the cumulative impacts due to all other developments in the vicinity (completed, underway or proposed).	*Section 6.23*
▪ identification of all proposed monitoring or required changes to existing monitoring programs.	*Sections 7 and 8*
▪ measures to avoid, minimise and if necessary, offset predicted impacts, including detailed contingency plans for managing any significant risks to the environment and triggers for each action * details of alternative measures considered.	*Section 8: Recommendations and Mitigation Measures*
• a consolidated summary of all the proposed environmental management and monitoring measures, identifying all commitments included in the EIS.	*Sections 7 and 8* *Section 3.16*
• the reasons why the development should be approved and a detailed evaluation of the merits of the development, including consequences of not carrying out the development.	
The EIS must be accompanied by a report from a qualified quantity surveyor providing a detailed calculation of the capital investment value (CIV) (as defined in clause 3 of the Regulation) of the proposal, including details of all assumptions and components from which the CIV calculation is derived.	*Under separate cover*
Key Issues The EIS must address the following specific matters:	
1. Statutory and Strategic Context	

Item/ Description	Document Reference
Address the statutory provisions contained in all relevant environmental planning instruments, including but not limited to: • State Environmental Planning Policy (State and Regional Development) 2011 • State Environmental Planning Policy (Infrastructure) 2007 • State Environmental Planning Policy No. 33 - Hazardous and Offensive Development • State Environmental Planning Policy No 64 – Advertising and Signage • State Environmental Planning Policy No 55 – Remediation of Land • Draft State Environmental Planning Policy (Remediation of Land) • Draft State Environmental Planning Policy (Environment) • Sutherland Shire Local Environmental Plan 2011. Having regard to the relevant environmental planning instruments: • address the permissibility of the development, including the nature and extent of any prohibitions. • identify compliance with the development standards applying to the site and provide justification for any contravention of the development standards. • adequately demonstrate and document how each of the provisions in the listed instruments are addressed, including reference to necessary technical documents.	*Section 5: Statutory and Strategic Planning context*
2. Policies	
Address the relevant planning provisions, goals and strategic planning objectives in all relevant planning policies including but not limited to the following: • NSW State Priorities • State Infrastructure Strategy 2018 – 2038 Building the Momentum • Future Transport Strategy 2056 • Crime Prevention through Environmental Design (CPTED) Principles • Better Placed: An integrated design policy for the built environment of New South Wales (Government Architect NSW (GANSW), 2017) • Healthy Urban Development Checklist (NSW Health, 2009) • Draft Greener Places Design Guide (GANSW) • The Greater Sydney Region Plan - A Metropolis of Three Cities • South District Plan • Sutherland Local Strategic Planning Statement.	*Section 5: Statutory and strategic planning context*
3. Built Form and Urban Design	
Address: • the height, density, bulk and scale, setbacks and interface of the proposal in relation to the surrounding development, topography, streetscape and any public open spaces • design quality and built form, with specific consideration of the overall site layout, streetscape, open spaces, façade, rooftop, massing, setbacks, building articulation, materials and colours • how Crime Prevention through Environmental Design (CPTED) principles are to be integrated into development	*Appendix E and Appendix F* *Section 6.1*

Item/ Description	Document Reference
• how good environmental amenity would be provided, including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility • how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development Provide: • a detailed site and context analysis to justify the proposed site planning and design approach including massing options and preferred strategy for future development • a visual impact assessment that identifies any potential impacts on the surrounding built environment and landscape including views to and from the site and any adjoining heritage items.	
4. Tree Removal and Landscaping	
Provide: • an arboricultural impact assessment, prepared by a Level 5 (Australian Qualifications Framework) Arborist in accordance with the Australian Standard 4970 Protection of trees on development sites (AS 4970), which details the number, location and condition of trees to be removed and retained and existing canopy coverage on-site • a detailed site-wide landscape strategy, that: ○ details the proposed site planting, including location, number and species of plantings, heights of trees at maturity and proposed canopy coverage ○ considers equity and amenity of outdoor spaces, and integration with built form, security, shade, topography and existing vegetation o demonstrates how the proposed development would: ▪ Contributes to long term landscape setting in respect of the site and the streetscape ▪ Mitigate the urban heat island effect and ensure appropriate comfort levels on site ▪ Contribute to objectives to increase urban tree canopy cover. • a detailed landscape plan prepared by a suitably qualified person. <u>Relevant Policies and Guidelines:</u> • Draft Greener Places Design Guide (GANSW) • Objective 30 of The Greater Sydney Region Plan - A Metropolis of Three Cities • Technical Guidelines for Urban Green Cover in NSW (Office of Environment and Heritage (OEH), 2015).	*Appendix G and Appendix H* *Section 6.2 and Section 6.6*
5. Environmental Amenity	
• Assess amenity impacts on the surrounding locality, including solar access, visual privacy, visual amenity, overshadowing, wind impacts and acoustic impacts. A high level of environmental amenity for any surrounding residential land uses must be demonstrated. • Provide o shadow diagrams o a view analysis of the site from key vantage points and streetscape locations and public domain including	*Appendix E & F*

Item/ Description	Document Reference
photomontages or perspectives showing the proposed and likely future development o an analysis of proposed lighting that identifies measures to reduce spill into the surrounding sensitive receivers o details of the nature and extent of any intensification of use associated with the proposed development, particularly in relation to any increase in staff and inpatient bed numbers and detail measures to manage and mitigate any impacts.	
6. Transport and Accessibility	
• Include a transport and accessibility impact assessment, which includes, but is not limited to the following: • analysis of the existing transport network, including: o road hierarchy o pedestrian, cycle and public transport infrastructure o details of current daily and peak hour vehicle movements based on traffic surveys and / or existing traffic studies relevant to the locality o existing performance levels of nearby intersections utilising appropriate traffic modelling methods (such as SIDRA network modelling). • details of the proposed development, including: o a map of the proposed access which identifies public roads, bus routes, footpaths and cycleways o vehicular access arrangements, including for service and emergency vehicles and loading/unloading, including swept path analysis demonstrating the largest design vehicle entering and leaving the site and moving in each direction through intersections along the proposed transport routes o car parking, bicycle parking and end-of-trip facilities o drop-off / pick-up zone(s)/arrangements. o pedestrian or road infrastructure improvements or safety measures. • analysis of the impacts due to the operation of the proposed development, including: o proposed modal split for all users of the development including vehicle, pedestrian, cyclist, public transport and other sustainable travel modes o estimated total daily and peak hour vehicular trip generation o a clear explanation and justification of the: o assumed growth rate applied o volume and distribution of proposed trips to be generated o type and frequency of design vehicles accessing the site. o details of performance of nearby intersections with the additional traffic generated by the development both at the commencement of operation and in a 10-year time period (using SIDRA network modelling) o cumulative traffic impacts from any surrounding approved development(s). o adequacy of pedestrian, bicycle and public transport infrastructure to accommodate the development	*Appendix M - O* *Section 6.8*

Item/ Description	Document Reference
○ adequacy of car parking and bicycle parking provisions when assessed against the relevant car / bicycle parking codes and standards ○ adequacy of the drop-off / pick-up zone(s), including assessment of any related queuing during peak-hour access ○ adequacy of the existing / proposed pedestrian infrastructure to enable convenient and safe access to and from the site for all users. • measures to ameliorate any adverse traffic and transport impacts due to the development based on the above analysis, including: ○ travel demand management measures to encourage sustainable transport (such as a Green Travel Plan and / or specific Workplace Travel Plan) ○ infrastructure improvements, including details of timing and method of delivery. • a preliminary operational traffic and access management plan • analysis of the impacts of the traffic generated during construction of the proposed development, including: ○ construction vehicle routes, types and volumes ○ construction program (duration and milestones) ○ on-site car parking and access arrangements for construction, emergency and construction worker vehicles ○ cumulative impacts associated with other construction activities in the locality (if any) ○ road safety at identified intersections near the site due to conflicts between construction vehicles and existing traffic in the locality ○ measures to mitigate impacts, including to ensure the safety of pedestrian and cyclists during construction. • a preliminary Construction Traffic and Pedestrian Management Plan. *Note: Further guidance is provided in the TfNSW advice attached to the SEARs.* *Relevant Policies and Guidelines:* • Guide to Traffic Generating Developments (Roads and Maritime Services, 2002) • EIS Guidelines - Road and Related Facilities (Department of Urban Affairs and Planning (DUAP), 1996) • Cycling Aspects of Austroads Guides • NSW Planning Guidelines for Walking and Cycling (Department of Infrastructure, Planning and Natural Resources (DIPNR), 2004) • Guide to Traffic Management Part 12: Integrated Transport Assessments for Developments (Austroads, 2020) • Australian Standard 2890.3 Parking facilities, Part 3: Bicycle parking (AS 2890.3).	
7. Ecologically Sustainable Development	
• Detail: ○ how ESD principles (as defined in clause 7(4) of Schedule 2 of the Regulation) would be incorporated in the design and ongoing operation phases of the development ○ proposed measures to minimise consumption of resources, water (including water sensitive urban design) and energy	*Appendix AG* Section 6.9

Item/ Description	Document Reference
○ how the future development would be designed to consider and reflect national best practice sustainable building principles to improve environmental performance and reduce ecological impact. This should be based on a materiality assessment and include waste reduction design measures, future proofing, use of sustainable and low-carbon materials, energy and water efficient design (including water sensitive urban design) and technology and use of renewable energy. • Include: ○ an assessment against an accredited ESD rating system or an equivalent program of ESD performance. This should include a minimum rating scheme target level ○ a statement regarding how the design of the future development is responsive to the CSIRO projected impacts of climate change ○ an Integrated Water Management Plan detailing any proposed alternative water supplies, proposed end uses of potable and non-potable water, and water sensitive urban design. <u>*Relevant Policies and Guidelines:*</u> • NSW and ACT Government Regional Climate Modelling (NARCliM) climate change projections.	*Appendix AC*
8. Heritage	
• Address any archaeological potential and significance on the site and the impacts the development may have on this significance.	*Appendix J & K* *Section 6.3*
9. Aboriginal Cultural Heritage	
• Provide an Aboriginal Cultural Heritage Assessment Report (ACHAR) that: ○ identifies and describes the Aboriginal cultural heritage values that exist across the site ○ includes surface surveys and test excavations where necessary ○ has been prepared in accordance with the Guide to investigating, assessing and reporting on Aboriginal Cultural Heritage in NSW (OEH, 2011) and Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW (OEH, 2010) ○ incorporates consultation with Aboriginal people in accordance with Aboriginal Cultural Heritage Consultation Requirements for Proponents (Department of Environment, Climate Change and Water, 2010) ○ documents the significance of cultural heritage values of Aboriginal people who have a cultural association with the land ○ identifies, assesses and documents all impacts on the Aboriginal cultural heritage values ○ demonstrates attempts to avoid any impact upon cultural heritage values and identify any conservation outcomes. Where impacts are unavoidable, the ACHAR and EIS must outline measures proposed to mitigate impacts. Any objects recorded as part of the assessment must be documented and notified to the Environment, Energy and Science Group of the Department of Planning, Industry and Environment. • Any Aboriginal objects recorded as part of the Aboriginal Cultural Heritage Assessment must be documented and notified to the	*Appendix I* *Section 6.3*

Item/ Description	Document Reference
Aboriginal Heritage Information Management System (AHIMS) within Heritage NSW of the Department of Premier and Cabinet.	
10. Social Impacts	
• Provide a Social Impact Assessment prepared in accordance with the draft Social Impact Assessment Guideline 2020. <u>*Relevant Policies and Guidelines:*</u> • Draft Social Impact Assessment Guideline 2020 (Department of Planning, Industry and Environment)	*Appendix L* *Section 6.21*
11. Noise and Vibration	
• Provide a noise and vibration impact assessment that: o includes a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation and construction o details the proposed construction hours and provide details of, and justification for, instances where it is expected that works would be carried out outside standard construction hours o includes a quantitative assessment of the main sources of operational noise, including consideration of any mechanical services (e.g. air conditioning plant) o outlines measures to minimise and mitigate the potential noise impacts on nearby sensitive receivers o considers sources of external noise intrusion in proximity to the site (including, road rail and aviation operations) and identifies building performance requirements for the proposed development to achieve appropriate internal amenity standards o demonstrates that the assessment has been prepared in accordance with polices and guidelines relevant to the context of the site and the nature of the proposed development. <u>*Relevant Policies and Guidelines:*</u> • NSW Noise Policy for Industry 2017 (NSW Environment Protection Authority (EPA) • Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009) • Assessing Vibration: A Technical Guideline 2006 (Department of Environment and Conservation, 2006) • Australian Standard 2363 Acoustics - Measurement of noise from helicopter operations (AS 2363).	*Appendix AH* *Section 6.10*
12. Biodiversity	
• Provide a Biodiversity Development Assessment Report (BDAR) that assesses the biodiversity impacts of the proposed development in accordance with the requirements of the *Biodiversity Conservation Act 2016*, *Biodiversity Conservation Regulation 2017* and Biodiversity Assessment Method, except where a BDAR waiver has been issued in relation to the development or the development is located on biodiversity certified land. • Where a BDAR is not required because a BDAR waiver has been issued in relation to the development, provide: o a copy of the BDAR waiver and demonstrate that the proposed development is consistent with that covered in BDAR waiver	*Appendix AE and AF* *Section 6.16*

Item/ Description	Document Reference
○ an assessment of flora and fauna impacts where significant vegetation or flora and fauna values would be affected by the proposed development. *Note: Further guidance is provided in the Biodiversity and Conservation Division Standard Environmental Assessment Requirements attached to the SEARs.*	
13. Contributions	
• Identify: ○ any Section 7.11/7.12 Contribution Plans, Voluntary Planning Agreements or Special Infrastructure Contribution Plans that affect land to which the application relates or the proposed development type ○ any contributions applicable to the proposed development under the identified plans and/or agreements. Justification is to be provided where it is considered that the proposed development is exempt from making a contribution ○ any actions required by a Voluntary Planning Agreement or draft Voluntary Planning Agreement affecting the site or amendments required to a Voluntary Planning Agreement affected by the proposed development.	*Section 5.8*
14. Staging	
• Assess impacts of staging where it is proposed and detail how construction works and operations would be managed to ensure public safety and amenity on and surrounding the site.	*Appendix Q*
15. Utilities	
• In consultation with relevant service providers: ○ assess of the impacts of the development on existing utility infrastructure and service provider assets surrounding the site ○ identify any infrastructure upgrades required off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained ○ provide an infrastructure delivery and staging plan, including a description of how infrastructure requirements would be co-ordinated, funded and delivered to facilitate the development.	*Appendix Y and Appendix Z*
16. Stormwater Drainage	
• Provide: ○ a preliminary stormwater management plan for the development that: ▪ is prepared by a suitably qualified person in consultation with Council and any other relevant drainage authority ▪ details the proposed drainage design for the site including on-site detention facilities, water quality measures and the nominated discharge point ▪ demonstrates compliance with Council or other drainage authority requirements. ○ stormwater plans detailing the proposed methods of drainage without impacting on the downstream properties. • Where drainage infrastructure works are required that would be handed over to Council, provide full hydraulic details and detailed plans and specifications of proposed works that have been prepared	*Appendix Z*

Item/ Description	Document Reference
in consultation with Council and comply with Council's relevant standards. *Relevant Policies and Guidelines:* • Guidelines for developments adjoining land managed by the Office of Environment and Heritage (OEH, 2013).	
17. Flooding	
• Identify any flood risk on-site in consultation with Council and having regard to the most recent flood studies for the project area and the potential effects of climate change, sea level rise and an increase in rainfall intensity • Assess the impacts of the development, including any changes to flood risk on-site or off-site, and detail design solutions to mitigate flood risk where required. *Relevant Policies and Guidelines:* • NSW Floodplain Development Manual (DIPNR, 2005).	*Appendix C* *Section 2.2*
18. Soil and Water	
• Provide: o an assessment of potential impacts on surface and groundwater (quality and quantity), soil, related infrastructure and watercourse(s) where relevant o details of measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles o an assessment of salinity and acid sulphate soil impacts, including a Salinity Management Plan and/or Acid Sulphate Soils Management Plan, where relevant. *Relevant Policies and Guidelines:* • Managing Urban Stormwater - Soils and Construction Volume 1 (Landcom, 2004) • Guidelines for development adjoining land managed by the Office of Environment and Heritage (OEH, 2013).	*Appendix Z* *Section 6.18* *Appendix Z & Appendix R*
19. Waste	
• Identify, quantify and classify the likely waste streams to be generated during construction and operation • Describe the measures to be implemented to manage, reuse, recycle and safely dispose of this waste • Identify appropriate servicing arrangements (including but not limited to, waste management, loading zones, mechanical plant) for the site. • Provide a hazardous materials survey of existing aboveground buildings that are proposed to be demolished or altered. *Relevant Policies and Guidelines:* • Waste Classification Guidelines (EPA, 2014).	*Appendix AD*
20. Contamination	
• Assess and quantify any soil and groundwater contamination and demonstrate that the site is suitable for the proposed use in accordance with SEPP 55. This must include the following prepared by certified consultants recognised by the NSW Environment Protection Authority: o Preliminary Site Investigation (PSI) o Detailed Site Investigation (DSI) where recommended in the PSI	*Appendix R – U* *Section 6.14*

Item/ Description	Document Reference
○ Remediation Action Plan (RAP) where remediation is required. This must specify the proposed remediation strategy ○ Preliminary Long-term Environmental Management Plan (LEMP) where containment is proposed on-site. *Relevant Policies and Guidelines:* • Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP, 1998) • Sampling Design Guidelines (EPA, 1995) • Guidelines for Consultants Reporting on Contaminated Sites (OEH, 2011) • National Environment Protection (Assessment of Site Contamination) Measure (National Environment Protection Council, as amended 2013).	
21. Hazards and Risk	
• Provide: ○ a preliminary risk screening completed in accordance with *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development* and *Applying SEPP 33* with clear indication of class (and any subsidiary hazard), quantity and location of all dangerous goods and hazardous materials associated with the development. Should the preliminary risk screening indicate that the development is "potentially hazardous" a Preliminary Hazard Analysis (PHA) must be prepared in accordance with *Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis'* and *Multi-Level Risk Assessment.* ○ a Preliminary Hazard Analysis, if required.	*Appendix T & U* *Section 7: Environmental Risk Assessment*
Plans and Documents	
The EIS must include all relevant plans, architectural drawings, diagrams and relevant documentation required under Schedule 1 of the Regulation. Provide these as part of the EIS rather than as separate documents. In addition, the EIS must include the following:	
• A section 10.7(2) and (5) Planning Certificates (previously Section 149(2) and (5) Planning Certificate)	*Appendix C and Section 2.2*
• Design report to demonstrate how design quality will be achieved in accordance with the above Key Issues including:	*Appendix F*
○ architectural design statement	*Appendix F*
○ diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal	*Appendix F*
○ detailed site and context analysis	*Appendix F*
○ analysis of options considered to justify the proposed site planning and design approach	*Section 3.14*
○ summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice	*Appendix F and Section 4: Consultation*
○ summary report of consultation with the community and response to any feedback provided	*Section 4: Consultation*
○ Geotechnical and Structural Report	*Appendix V and Y*
○ Accessibility Report	*Appendix AA*
Consultation	

Item/ Description	Document Reference
During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, special interest groups, including local Aboriginal land councils and registered Aboriginal stakeholders, and affected landowners. In particular, you must consult with: o Sutherland Council o Government Architect NSW (through the NSW SDRP process) o Transport for NSW	*Section 4: Consultation*

1. Introduction

1.1 Preliminary

This Environmental Impact Statement has been prepared by Architectus Australia Pty Ltd (Architectus) on behalf of Health Infrastructure NSW in support of a State Significant Development (SSD) Application (SSD-11099584) for upgrades to the operating theatre at The Sutherland Hospital at Kingsway and Kareena Road, Caringbah NSW 2229 (the site).

1.2 Project overview

The site

The Sutherland Hospital (the site) is located at the corner of the Kingsway and Kareena Road, Caringbah NSW 2229 and encompasses almost an entire block. It is bound by the Kingsway to the north, Kareena Road to the west, a railway corridor to the south and residential area fronting Hinkler Avenue to the east.

The site has a total site area of 9.3 hectares and is made up of 3 lots. The first two lots are occupied by existing hospital buildings, while a NSW Ambulance station occupies the third lot which adjoins Kareena Road to the west. The three lots are all owned by Health Administration Corporation (HAC).

The existing Sutherland Hospital is a 375-bed metropolitan hospital and is part of the South Eastern Sydney Local Health District (SESLHD). The Hospital provides a range of services including, acute specialist services (surgical, emergency critical care, medical, women's and children health), sub-acute services (aged care and rehabilitation) as well as ambulatory care. The hospital is a Centre of Excellence for specialty surgeries including gastroenterology, orthopaedics and joint replacements.

The campus was initially established in 1958 and has been significantly redeveloped with multiple additions and refurbishments to date. The existing main hospital building is three to four storeys in height.

Figure 1 Site Context
The site is outlined in red
Source: Near Maps with Architectus overlay (2020)

Proposed development

Health Infrastructure NSW propose to undertake a redevelopment of the existing Sutherland Hospital in order to increase theatre capacity, improve efficiency and access to services and enable implementation of new models of care and surgical clinical pathways.

This EIS seeks development consent for the following works:

- Alterations and additions to the existing South Wing building west towards the Ambulance Station, including:
    - Additional operating theatres;
    - Additional endoscopy suites;
    - New Magnetic Resonance Imaging (MRI) suite;
    - New Central Sterilising Services Department (CSSD);
    - Surgical short stay unit;
    - Post-Anesthesia Care Unit (PACU), recovery and other perioperative clinical and supporting spaces;
    - Facilities for admission and discharge;
    - Associated Staff Amenities.
- Earthworks, in ground services installation and demolition;
- Tree removal and associated landscaping works; and
- Category 1 Remediation work.

Refurbishment of the existing South Wing building is to be staged following the construction of the main expansion to enable continuous operation of existing facilities and to minimise disruption to the overall operation of the hospital.

A detailed description of the proposed development is provided at **Section 3** of this EIS. Refer also to the Architectural Plans prepared by HDR Architects at **Appendix E** and landscape plans prepared by Arcadia Landscape Architects at **Appendix G**.

Reason for the proposal

The core planning objectives for the project are to:

- Improve access to surgical services and patient flow;
- Improve functionality to support workflow and contemporary models of care;
- Increase surgical capacity and improve efficiency;
- Improved work performance and productivity; and
- Provide a flexible, contemporary operating theatre environment.

1.3 Project objectives

The redevelopment will increase operating theatre capacity to meet future demand driven by an increasing and ageing population with associated increase in chronic and complex disease. The existing operating theatre infrastructure is over 36 years old, in poor condition and lacks functionality. The redevelopment will deliver a contemporary operating theatre environment, improve efficiencies and access to services and enable implementation of new models of care and surgical clinical pathways.

1.4 Report Structure

This EIS provides the following:

- Section 1: an overview of the site, proposed development, project objectives and project team;

- Section 2: a detailed description of the site and surrounding context, and summary of site constraints;
- Section 3: a detailed description of the proposed development;
- Section 4: a description of the consultation undertaken for the project, including the consultation process, issues raised and how the design of the development has responded to these issues;
- Section 5: an assessment of the proposed development against relevant strategic and statutory planning controls;
- Section 6: an assessment of key issues and impacts generated by the proposed development;
- Section 7: risk assessment;
- Section 8: recommended mitigation measures; and
- Section 9: conclusion.

This EIS should be read in conjunction with the SEARs attached at **Appendix A,** and the supporting technical documents provided at **Appendix B – Appendix AI.**

1.5 Project Team

The project team is set out in **Table 2** below.

Table 2 Project team

Discipline	Consultant
Applicant	Health Infrastructure NSW
Project Manager	CBRE
Quantity Surveyor	MBM
Surveyor	Macquarie Survey Pty Ltd
Architect	HDR
Landscape Architect	Arcadia
Urban Planner	Architectus Australia Pty Ltd
Heritage Consultant	Artefact
Traffic Consultant	TTW
Geotechnical Engineer/	JK Geotechnics
Environmental Engineer	JK Environments
Arboricultural Consultant	Allied Tree Consultancy
Social Impact Consultant	Ethos Urban
Civil Engineer	ACOR Consultants Pty Limited
ESD Consultant	Steensen Varming
Accessibility Consultant	BM+G
Structural Engineer	ACOR Consultants Pty Limited
Acoustic Consultant	JHA
Waste Management Consultant	Ricardo Energy Environment & Planning
Hazmat Consultant	Coffey
Ecologist Consultant	Abel Ecology
Lighting Consultant	JHA
Wind Consultant	CPP Wind
Hazardous Chemicals Consultant	Arup

2. Site analysis

Site context

The Sutherland Hospital is located at Kingsway and Kareena Road, Caringbah NSW 2229.The site is located approximately 26km south of the Sydney CBD. The surrounding areas include Cronulla, Woolooware, Miranda and Taren Point.

The Sutherland Hospital is located within the Sutherland Shire Local Government Area (LGA) and forms part of the greater Caringbah town centre, one of Sutherland's local centres, which includes a range of local shops and services. The Sutherland Hospital is located within a well-established residential neighborhood, with residential development surrounding the site.

Refer to the site context plan (**Figure 1)**, local context plan (**Figure 2**) and regional context plan (**Figure 3**).

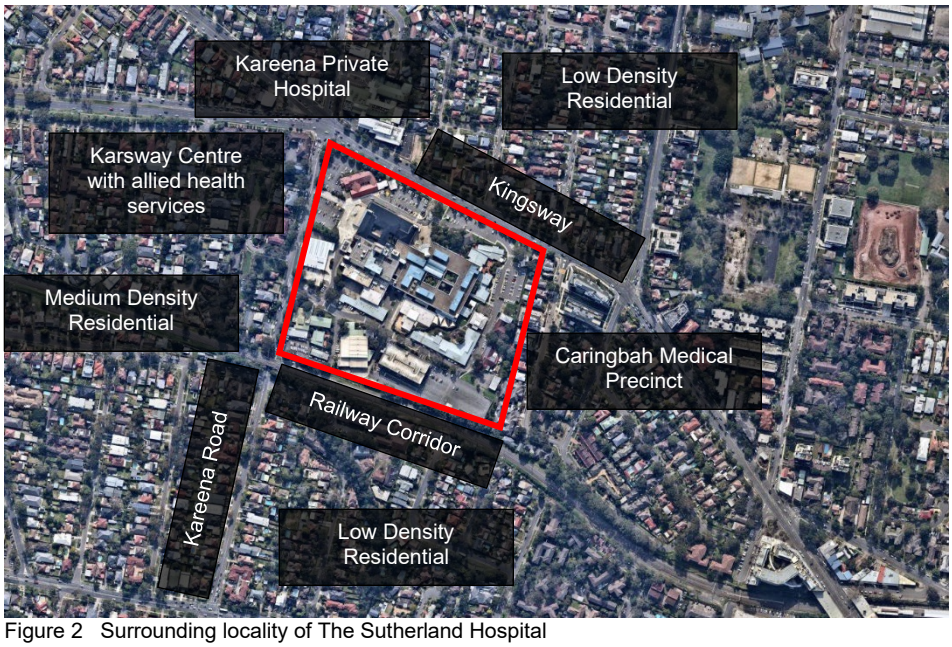

Figure 2 Surrounding locality of The Sutherland Hospital
Site outlined in red
Source: MetroMap and Architectus edits (2020)

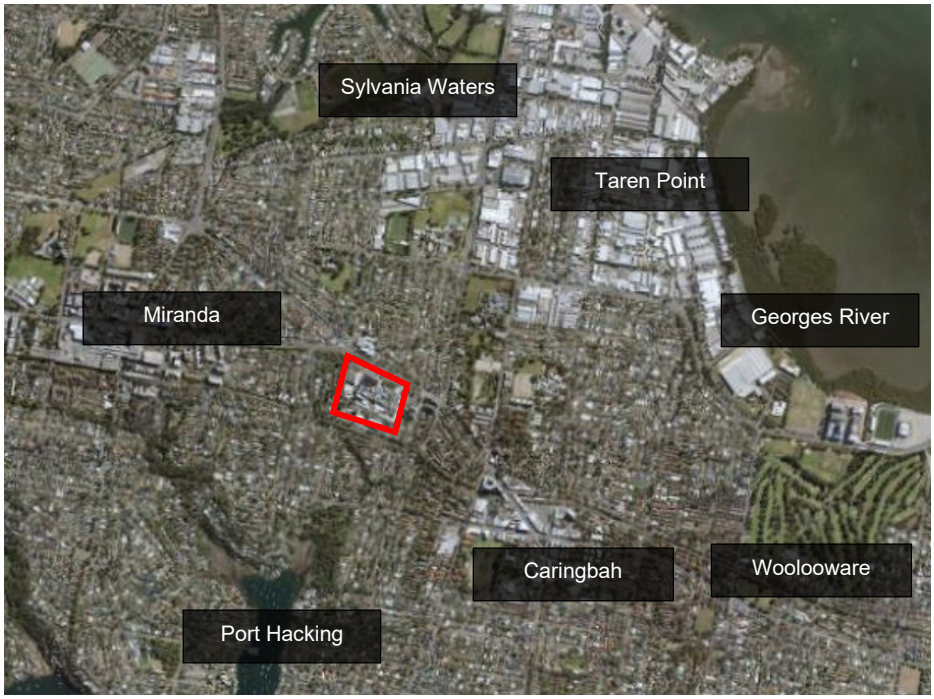

Figure 3 Aerial View of Regional Context
Site outlined in red
Source: MetroMap and Architectus edits (2020)

Surrounding built form and land use

The built form and land use character surrounding the site can be categorised by the following distinct areas:

- Kareena Private Hospital, north west of the site – 2 to 3 storey complex;
- Allied health services complex, north west of the site – 2 storeys;
- Mix of medium density residential development to the east of the site – up to 6 storeys;
- Multi dwelling housing along Kareena Road – 1 to 2 storeys;
- Low scale residential, north and south of the site – predominantly 1 to 2 storeys.

A cluster of private health services facilities and allied services are located north west of the site, at the intersection of Kingsway and Kareena Road.

The surrounding area is well serviced by various bus routes, with bus stops located on Kingsway adjacent to the hospital entrance and at Kareena Road, approximately 50m south of the intersection approach. The site is located approximately 500m west of Caringbah railway station and 1km east of Miranda railway station – both stations are served by T4 services which run at 7 minute intervals during peak hours.

Legal Description

The site comprises three (3) lots which are legally described as; Lot 1 in Deposited Plan 432283, Lot 1 in Deposited Plan 119519 and Lot 1 in Deposited Plan 398975.

Ownership

The Sutherland Hospital site is owned in its entirety by the NSW Health Administration Corporation (HAC).

Note: The lot occupied by the Ambulance Station (Lot 1 DP 398975) is under lease by NSW Ambulance.

2.1 Existing Development

The site is currently occupied by the CP3 car parking area, an internal loop road, and landscaping, to the north of the NSW Ambulance superstation (Caringbah Superstation) within the Sutherland Hospital campus.

The one (1) storey NSW Ambulance superstation is located along the Kareena Road frontage, and was constructed in 2017. It accommodates:

- Parking bays for up to 10 emergency ambulance vehicles;
- Administration, office areas and amenities;
- A logistics and storage area, purpose-built medication room; and
- An external wash bay.

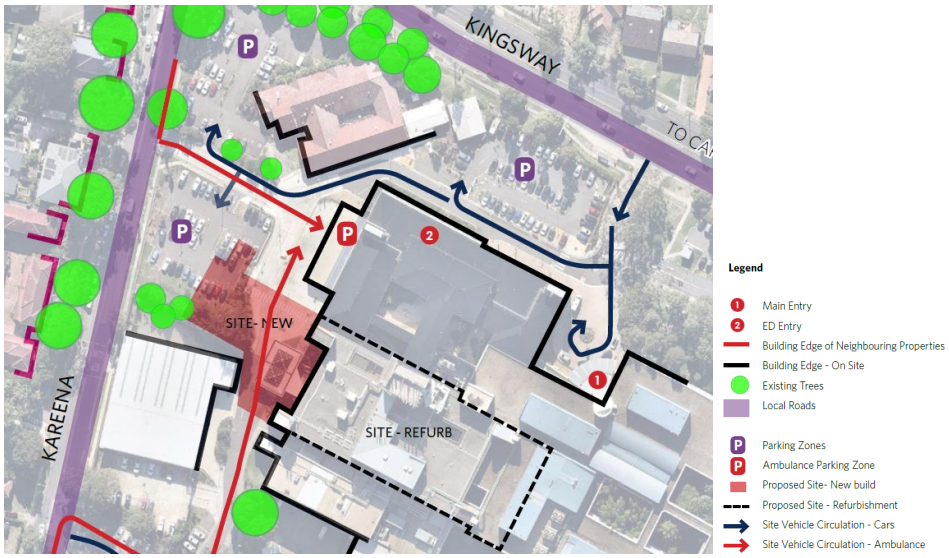

Figure 4 Aerial photo of existing site. Site is shaded in red
Source: HDR Architects

Photographs of the site are shown in **Figure 5** to **Figure 10.**

Figure 5 View of main entrance to The Sutherland Hospital
Source: HDR Architects

Figure 6 View of southern entry of The Sutherland Hospital
Source: HDR Architects

Figure 7 View of emergency drop off at The Sutherland Hospital
Source: HDR Architects

Figure 8 View of The Sutherland Hospital from south of Kareena Road
Source: HDR Architects

Figure 9 View of NSW ambulance station
Source: HDR Architects

Figure 10 View of NSW ambulance station
Source: HDR Architects

The most recent approved works on site was for The Sutherland Hospital Stage 1 Redevelopment ('Stage 1') (SSD-6847). The Stage 1 development included:

- New and expanded Emergency Department;
- New acute inpatient services unit, including a high dependency unit and a general medical unit; and
- Refurbishment of internal areas of the existing main hospital building.

This was approved by the Minister for Planning in 2015 and reached completion in 2017.

2.2 Site considerations

Section 10.7(2)&(5) Planning Certificates were issued for Lot 1 DP 432283 (Certificate No. 20/3376), Lot 1 DP119519 (Certificate 20/3377) and Lot 1 DP398975 (Certificate No. 20/3378) at **Appendix C,** dated 15 July 2020, identifies that the respective lots are:

- Zoned SP1 – Special Activities (for purpose of Health Services Facility);
- NOT in a heritage conservation area;
- Does NOT comprise an item of environmental heritage;
- NOT affected by section 38 or 39 of the Coastal Protection Act 1979;
- NOT proclaimed to be in a mine subsidence district;
- NOT affected by a road widening or road realignment;
- NOT affected by a policy that restricts development of land due to the likelihood of landslip, bushfire, tidal inundation, subsidence or any other risk;
- NOT identified as Class 5 on the Acid Sulphate Soils map;
- NOT affected by any acquisition of land provision;
- NOT biodiversity certified land;
- NOT subject to any bio-banking agreement;
- NOT bushfire prone;
- NOT affected by any property vegetation plan;
- NOT significantly contaminated;
- Is NOT subject to flooding conditions.

2.3 Topography

The study area is situated on a broad high crest that slopes south toward Yowie Bay and into the Hacking River catchment and gently to the north toward the Georges River catchment. Refer to Survey Plan attached at **Appendix B**.

2.4 Vegetation

The Sutherland Hospital campus is largely disturbed and cleared, however there are some older planted trees present in the area as street trees in additional to disbursed in parts through the existing car park.

A vegetated area is located immediately south of the site (south of Carpark 3), comprising an earth mound of imported fill overgrown with grass, and several planted native trees and shrubs that are generally not local to the area.

Refer to the Arboricultural Impact Assessment prepared by Allied Tree Consultancy, dated January 2021 at **Appendix H**. The report provides an assessment of existing trees on the site.

2.5 Flooding

The Sutherland Hospital site is not within a flood risk zone or subject to external flooding and therefore it is not anticipated that additional flood planning requirements for the 1% AEP event or Probable Maximum Flood (PMF) will be required.

The Section 10.7(2)&(5) Planning Certificates issued for Lot 1 DP 432283 (Certificate No. 20/3376), Lot 1 DP119519 (Certificate 20/3377) and Lot 1 DP398975 (Certificate No. 20/3378), at **Appendix C,** dated 15 July 2020, identify that the allotments are not subject to flood development controls.

2.6 Bushfire

The subject site is not identified as being bushfire prone land.

2.7 Services

The site is connected to all necessary services including water, gas, electricity, communications and sewage.

2.8 Access and car parking

A Transport and Accessibility Impact Assessment has been prepared by TTW, and is provided at **Appendix M**.

Access

There are three main access points to the site. General traffic can enter and exit the site from:

- Kingsway (westbound only);
- The northern access point at Kareena Road (southbound only); and
- The southern access point at Kareena Road (all directions via roundabout).

Ambulances can approach the site from all access points, however, the emergency department is located closest to the Kareena Road northern access.

The ring road around the site allows vehicle access to all areas and facilitates movements such as ambulances between the emergency department and the ambulance station, and movements between parking modules. The ring road is partially disconnected at the CP6 car park in the north-east of the site as this car park is boom gate controlled.

All loading activity occurs via the Kareena Road southern access, which is located near the internal loading dock.

Refer to **Figure 11** for vehicle circulation and access into The Sutherland Hospital.

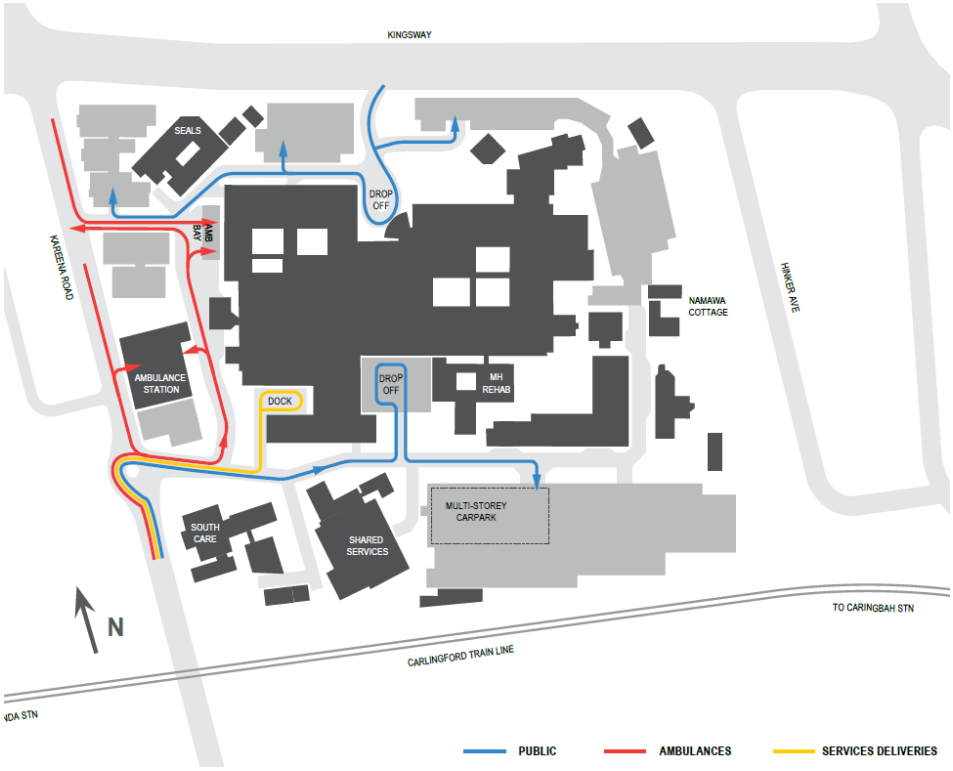

Figure 11 Vehicle circulation and access at The Sutherland Hospital
Source: HDR

Parking

Off-street car parking

The Transport and Accessibility Assessment (**Appendix M)** finds the overall off-street parking inventory available to the staff, visitors and some special uses is 873 spaces. Refer to **Table 3** below for off-street parking breakdown, and **Figure 12** for existing car parking layout at The Sutherland Hospital.

Table 3 Existing parking provision
Source: TTW

Parking	Number of parking spaces
Car spaces	**853**
Staff/visitor use	700
Disabled	19
Staff (Carpark 6)	134
Special Uses	
Ambulances, police, patient transport, security and maintenance	9
Motorbikes	11

Figure 12 Existing car parking layout
Source: TTW

On-street parking

On-street parking subject to some timing restrictions is available on all the roads surrounding the Hospital. there are approximately 150 parking spaces available within 300 metres radius of the Hospital. The breakdown of these spaces are as follows:

- 62 spaces on Port Hacking Road;
- 55 spaces on Kingsway; and
- 33 spaces on Kareena Road.

2.9 Public transport

Bus

The surrounding area is well serviced by various bus routes, with bus stops located on Kingsway adjacent to the hospital entrance and at Kareena Road, approximately 50m south of the intersection approach. These bus stops service bus routes 477, 478, 969, 971, 977, 978, 985, 986, 988 as of 6 August 2020.

Train

The site is located approximately 500m west of Caringbah railway station and 1km east of Miranda railway station – both stations are served by T4 services which run at 15 minute intervals during peak hours.

2.10 Active transport

Pedestrian

The site is connected with a broader network of pedestrian footpaths. Signalised pedestrian crossings are available on all approaches of the intersection at Kingsway/ Kareena Road. The signalised crossing on the eastern and southern legs of the intersection provides direct pedestrian access to the site.

Cycling

There are no dedicated cycleways available in the vicinity of the site. Cyclists generally ride on roadways and footpaths throughout the local area.

End of Trip Facilities

The existing end-of-trip facilities at Sutherland Hospital consists of a small amount of on-site bicycle parking adjacent to the main entrance and dialysis unit. The hospital provides staff male and female changing rooms including showers and lockers.

3. The proposed development

3.1 Project description

The Project will deliver a world class operating facility in the heart of South Eastern Sydney Local Health District. The new facility will increase theatre capacity, improve efficiencies and access to services and enable implementation of new models of care and surgical clinical pathways. The Project will provide the Hospital with the opportunity to meet increased surgical demand due to numerous factors including population growth and ageing population as well as providing additional medical services and an upgrade to the existing infrastructure.

The scope of the proposed works includes the following:

- Alterations and additions to the existing South Wing building west towards the Ambulance Station, including:
    - Additional operating theatres;
    - Additional endoscopy suites;
    - New Magnetic Resonance Imaging (MRI) space;
    - New Central Sterilising Services Department (CSSD);
    - Surgical short stay unit;
    - Post- Anaesthesia Care Unit (PACU), recovery and other perioperative clinical and supporting spaces;
    - Facilities for admission and discharge;
    - Associated Staff Amenities.
- Earthworks and demolition;
- Tree removal and landscaping works; and
- Category 1 Remediation work.

Refurbishment of the existing South Wing building is to be staged following construction of the extension of the main building to enable continuous operation of existing facilities and to minimise disruption to the overall operation of the hospital.

Refer to site, local, and regional context plans of the site in **Figures 1** to **3** above**,** the proposed site plan at **Figure 13**, and the photomontages of the proposed development at **Figures 14** to **15.**

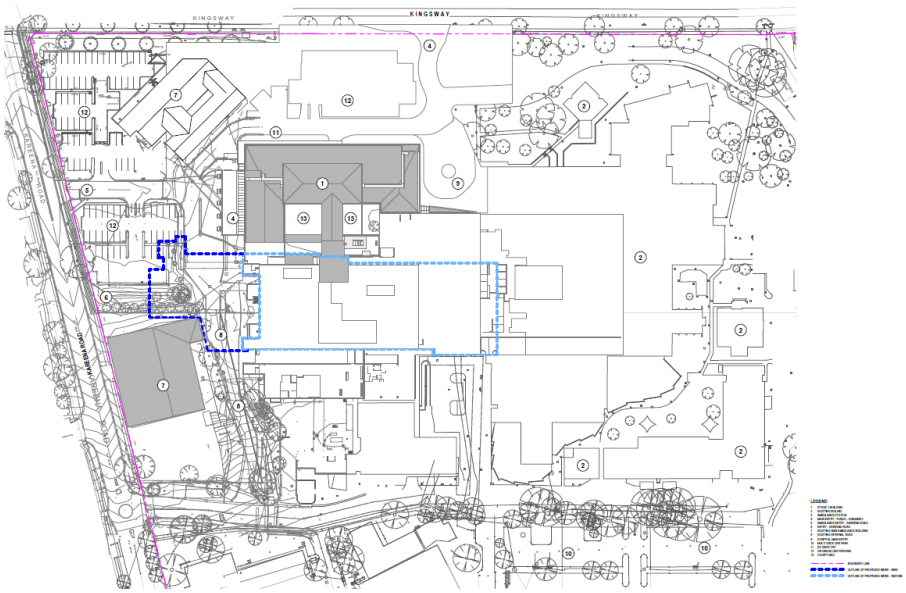

Figure 13 Proposed Site Plan showing building names
Source: HDR

3.2 Design principles

The Architectural Design Statement at **Appendix F,** prepared by HDR Architects identifies the following principles have informed the design:

- Planning for the development to support future expansion of capacity for key services, and proposing an architectural form that is flexible and supports future growth;
- Supporting greater integration of the existing Hospital into the broader Caringbah Medical Precinct;
- Consideration of local context through height, bulk scale and setback;
- Ensuring the links between existing and new expansion are maintained and enhance future potential growth; and
- Using the clinical chassis and building circulation to respond to and enhance the existing public and clinical separation principles on the site.

3.3 Numerical Overview

The key numerical information for the proposed development is summarised in **Table 4** below.

Table 4 Numerical overview

Component	Proposal
Building Height	
Highest RL	RL 55.440
Storeys	3
Parking (car spaces):*	
Existing site supply	853 spaces
Supply lost	Phase 1: -12 (841) spaces Phase 2: 0 (841) spaces
Demand with Stage 1 development	Phase 1: 772 (surplus 69 spaces) Phase 2: 797 (surplus 44 spaces)
Jobs	
Jobs – construction	377 FTE over 36 months
Jobs – operation	146 FTE

*The proposed development has phased trip generation / traffic growth and parking demand, owing to staged opening of the project and therefore, staged staffing levels. Phase 1 being 2023/26 and Phase 2, 2026/31.

3.4 Building height

No maximum building height applies to the site under Sutherland Shire LEP 2015.

The top RL of the building is proposed to be RL 55.440. This is the ridge level of the metal roof. The lift overrun and associated lift motor room RL is 55.230.

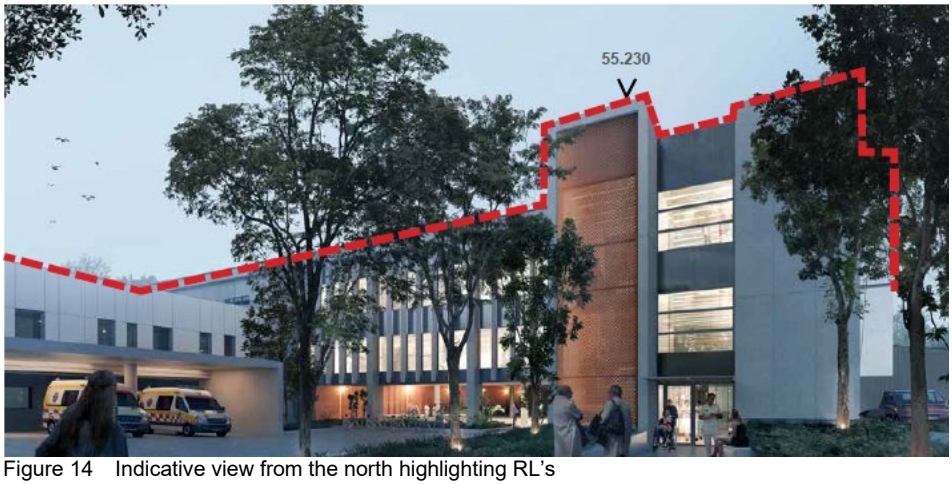

Figure 14 Indicative view from the north highlighting RL's
Source: HDR Architects

Figure 15 Indicative view from south highlighting RL's
Source: HDR Architects

3.5 Built form and scale

The siting of the proposed operating theatre has been carefully considered to respect existing site and context. The expansion to the operating theatre includes part new build and part refurbishment of the existing hospital. The new build element will extend west of the existing hospital and set back from Kareena Road. The expansion will sit firmly within the existing mass of the hospital, as demonstrated in the elevation plans above and at **Appendix E**. The core grounds itself will act as a buffer between the expansion and Kareena Road.

The new building form will be an extension to the existing hospital as illustrated in **Figure 16** and **Figure 17**. The expansion will create an extension west containing pods of Operating Theatre on Level 3 and plant and SSD on Level 4. Additionally, fire stairs and lift core have also been included.

Figure 16 Indicative massing (left) and building form (right) of Sutherland Hospital from the north west
Source: HDR Architects

Floor to floor heights in the proposed development have been designed to achieve the preferred 4500 mm floor to floor height.

The scale of the proposed development takes reference from the adjoining hospital to the east. The new building maintains the height precedent set within the existing hospital campus and comprises of three levels.

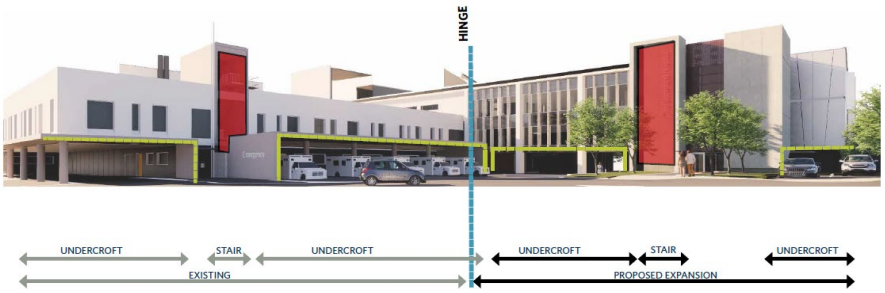

Figure 17 Indicative view showing response to existing hospital
Source: HDR Architects

The proposed development is setback:

1. 51m (Distance Site to Residential Properties West);
2. 27m (Distance Site to Kareen Road Kerb);
3. 92m (Distance Site to Kingsway North);
4. 113m (Distance Site to Kingsway/ Kareena Rd North); and
5. 46m (Distance Site to Kareena Rd West).

Refer to **Figure 18** for a diagram demonstrating the setbacks of the proposed development from Kareena Road and The Kingsway.

Figure 18 Building setbacks in relation to surrounding context
Source: HDR Architects

Additionally, the new public domain and landscaping as part of the proposed development will also help soften the appearance of the operating theatre expansion.

3.6 External materials and finishes

The chosen materials were selected as a direct response to the existing site and as a requisite to the aboriginal narrative of ‘colours for country’. As well as colour, texture and pattern were required to enhance the response to indigenous culture.

The materials selected for the new hospital have been identified to create a building that is of its time, but also sensitive to the local environment. They have been selected to be pragmatic, fit for purpose and visually appealing. Refer to **Figure 19**.

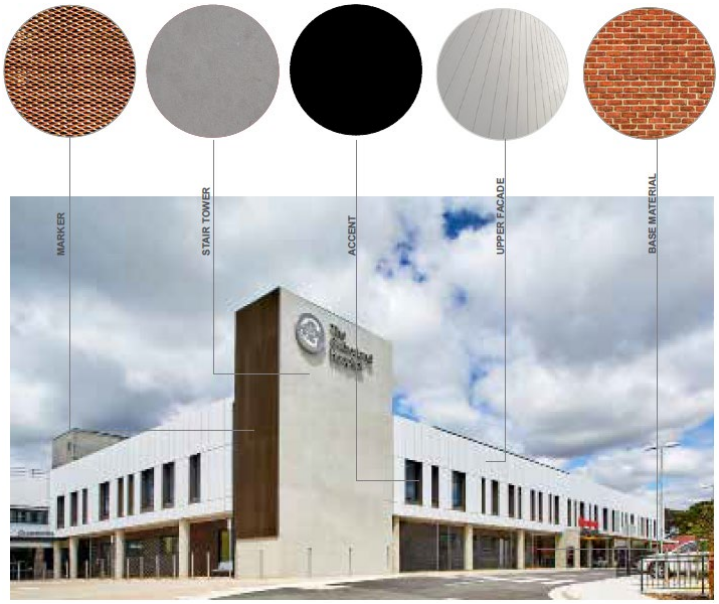

Figure 19 Materials for the proposed development and its relationship with the existing hospital building
Source: HDR Architects

Refer to Architectural Design Statement prepared by HDR Architects for a detailed description of the proposed materiality and facade treatments (**Appendix F**).

3.7 Tree removal

As identified in the Arboricultural Impact Assessment prepared by Allied Tree Consultancy at **Appendix H**, a total of fourteen (14) trees (Trees No.1-5 and No.10-19) are proposed to be removed as part of the proposed development. Refer to **Figure 20** below for the proposed tree locations.

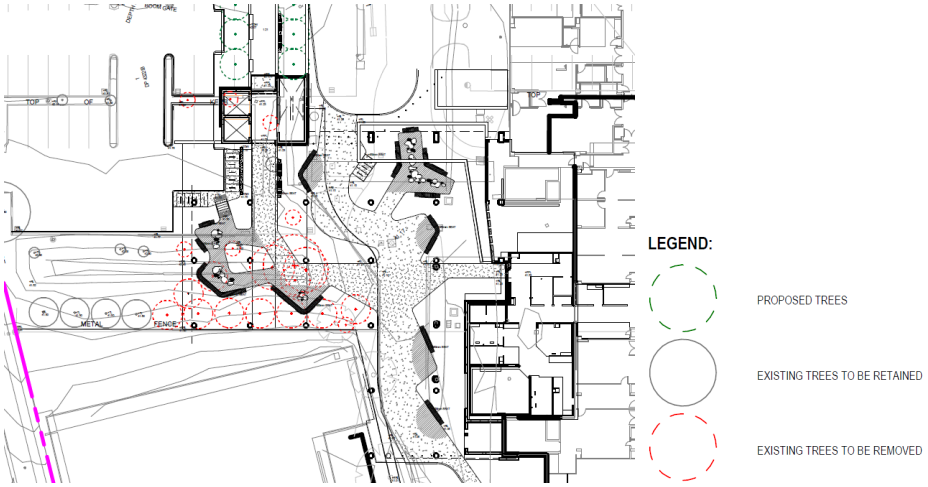

Figure 20 Existing trees proposed to be removed
Source: HDR Architects

Further discussion of tree removal and ecological impacts is provided at **Section 6.2.**

3.8 Landscaping and open space

Landscape Plans and a Landscaping Strategy Report have been prepared for the proposed development by Arcadia landscape architects. Refer to this report at **Appendix G.**

The landscaping works include:

- Providing 1:20 ramp access to lifts;
- Improving existing vegetation buffering and screening;
- Improving the safety of crossing conditions;
- Provide a variety of landscaping elements:
- Include respite spaces, meeting/congregation spaces;
- Improve egress paths and emergency/ service and maintenance access.

The proposed landscaping has been influenced by the following design objectives:

- Ensure that the landscape proposal is inclusive, and entries are easily defined throughout the site.
- The design is an integrated node of the greater medical campus, community, and ecology.
- Utilise the beneficial healing aspects of nature in the proposal by weaving natural infrastructures into the interactive functions of the site and bringing the landscape under and through the building.
- Implement design choices which encourage safety in egress and use.
- Design a positive and welcoming green arrival experience.
- Design amenity which is both natural and familiar through key planting and material use.

These design objectives have been used to influence the proposed landscaping within the public domain of The Sutherland Hospital to provide intimate spaces for hospital patients and visitors.

A total of twenty (20) trees are proposed which will compensate for those fourteen (14) trees being removed from the site. Existing tree canopy cover pre-development is 16% and post-development is 26%. Refer to **Section 6.6** for assessment of landscape impacts.

Figure 21 Landscape Concept Plan
Source: Arcadia Landscape Architects

3.9 Signage

Approval for signage is not sought as part of this application.

3.10 Lighting

The External Lighting Strategy (**Appendix AI)** outlines that the external lighting proposed complies with the requirements of the National Construction Code of Australia, including AS 4282 – 1997.

The proposal's external lighting is to be included but not limited to:

- Emergency lighting and illuminated existing signage;
- Lighting to the existing car park area; and
- External lighting and lighting control.

All external lighting proposed by the application will use LED technology.

3.11 Hours of Operation

The proposed operating theatre will operate 24 hours a day, for every day of the year.

3.12 Employment

It is proposed that the development will generate 377 jobs during the construction phase. This is reflected in the Capital Investment Value Report which is provided under separate cover.

The proposed development will provide 146 FTE additional operational jobs.

3.13 Construction Hours and Duration

Construction Hours

As stated in the Preliminary Construction Management Plan, appended at **Appendix Q** it is proposed that the construction hours will be as follows:

- Monday to Friday between 7am to 6pm;
- Saturday – between 8am to 1pm; and
- No work will be conducted on Sundays or Public Holidays.

A variation to these hours may be required for out of hours work or where special requirements exist. A separate application will be made as appropriate as required.

Construction Staging and Duration

The application does not seek approval for staging. Works are anticipated to commence in December 2021 and complete in February 2024. An indicative construction program is outlined at **Appendix Q** and is anticipated to occur as below:

- New extension construction;
- Decant from existing areas to new extended areas and temporary accommodation;
- Refurbishment.

3.14 Analysis of Feasible Alternatives

Seven options were initially considered in the Master Planning phase and explored expansions in different geographic directions at The Sutherland Hospital. A feasibility review of the long list of options was undertaken with the Planning Development Committee/Executive User Group. Options did not progress if there was not space for expansion in the direction being considered, or where it was considered to have a major impact and disruption to adjacent departments.

Four short-listed options were taken forward during Master Planning and a multi-criteria evaluation undertaken by the Planning Development Committee/Executive User Group, without reference to cost. Each of the four short-listed options delivered the CSP 2014 infrastructure requirements to support the forecast demand to 2030/31.

A number of non-capital options were also identified and will be further explored and implemented by SESLHD to maximise the outcomes of the Project. These include workforce changes (i.e. 24 hour roster), streamlining of surgery and reviewing theatre list allocations, implementation of the Enhanced Recovery After Surgery and Advanced Recovery for Orthopaedic Patients initiatives. Implementation of laser instrument marking would improve instrument tracking and patient safety.

The Master Plan shortlisted options that were considered are detailed as follows:

- Option 1: North Expansion – expands to the north of the existing operating theatre complex and utilises the future expansion capacity built into the Stage 1 redevelopment.
- Option 4A: West Expansion - expands to the west of the existing operating theatres, with minimum new build and maximum refurbishment (impacts Ambulance Station).
- Option 4C: West Expansion - expands to the west of the existing operating theatres, with maximum refurbishment and minimum new build (no impact on Ambulance Station).
- Option 7: West Expansion - expands to the west of the existing operating theatres with a single stage new building.

Refer to **Figures 22** to **25** below for the sketch layouts of each option.

The Base Case – make safe and operational, would involve extensive building remediation and upgrade required to infrastructure. The Base Case assumes no

increase in activity, no service improvements and no implementation of new models of care.

The four shortlisted options were further assessed in the Cost Benefit Analysis Report with the results confirming that Option 4C was the Preferred Option to be progressed to Concept Design.

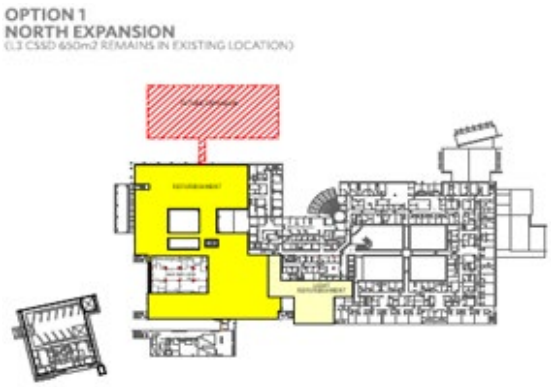

Figure 22 Option 1 Sketch Layout
Source: Health Infrastructure NSW

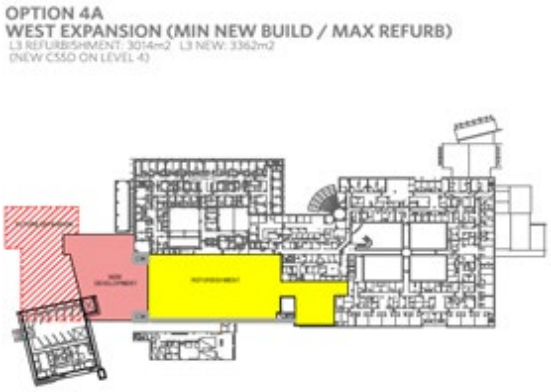

Figure 23 Option 4A Sketch Layout
Source: Health Infrastructure NSW

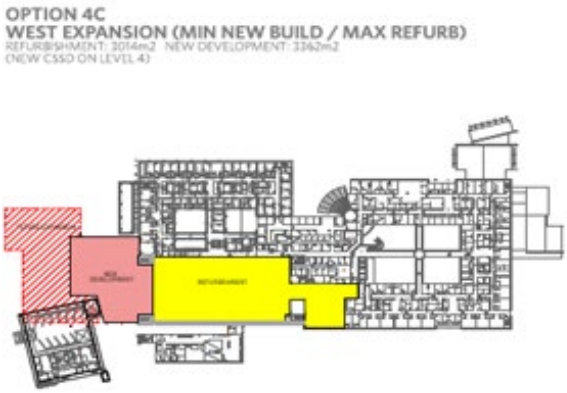

Figure 24 Option 4C Sketch Layout'
Source: Health Infrastructure NSW

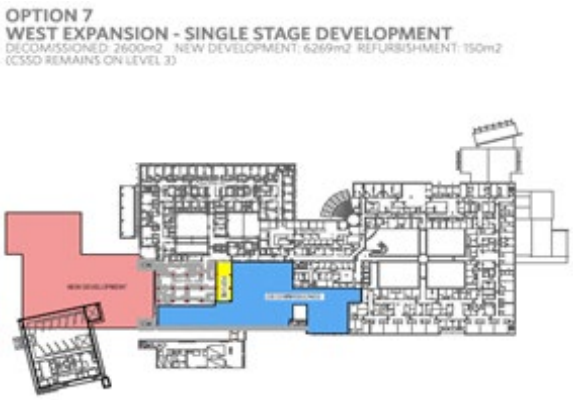

Figure 25 Option 7 Sketch Layout
Source: Health Infrastructure NSW

3.15 Preferred Option Justification

Option 4C

The proposed development (Option 4C) is essential in addressing current insufficient operating theatres and clinical support services.

Option 4C initially delivers up to six operating theatres and the CSSD within the new build component, reducing disruption to the existing operating theatres (which can remain operational during construction of the first stage). The remaining operating theatres/procedure rooms, Stage 1 Recovery, Surgical Short Stay Unit and other support spaces will be progressively refurbished (subsequent to the hand over and operation of the first stage) with a simplified internal staging strategy to minimise the impact on adjacent departments or services e.g. Ambulance Station.

The Project Team have developed a strategy to align optimal programme outcomes, with the need to maintain patient and staff safety and business continuity for The Sutherland Hospital.

Option 4C provides an opportunity to expand to the west towards the Ambulance Station and Carpark 3. The proposed development would bridge across the existing hospital access road with an elevated structure to maintain the road below.

In the long-term Option 4C provides the greatest scope of expansion due to the space available on the western side of the hospital site. The scope provides for:

- Minimum new build component and maximum refurbishment of the existing Sutherland Hospital;
- Provides for clear linkages into future expansion zones; and
- Minimal disruption to the existing operating theatres and Ambulance Station.

3.16 Consequences of not carrying out the development

The consequences of not carrying out the development would be not meeting forecast demand for health care services in the catchment which would adversely affect the public interest.

4. Consultation

This section provides a summary of the consultation activities carried out to inform the design and assessment of the upgrades to the operating theatre and describes how the outcomes of these activities have been and will continue to be considered by Health Infrastructure NSW.

Engagement of government agencies and the community will continue throughout the public exhibition of the Environmental Impact Statement.

4.1 Council and Agency Consultation

Sutherland Shire Council

Consultation with Sutherland Shire Council ('Council') began during the early stages of the SSDA process. An email was sent to Council on 20 May 2020 providing an overview of the proposed development, and seeking preliminary feedback to inform design development. Following responses from Council, a virtual pre-application discussion meeting was undertaken via Microsoft Teams on 18 June 2020, to which a formal introduction to the Sutherland Hospital operating theatre project was provided. Council was made knowledgeable of the service need, benefit of the proposed development to the community, and the master plan options considered.

Consultation with SSC was also undertaken to develop a stronger understanding of the proposed Infrastructure Upgrade Works at Sutherland Hospital at Kareena Road (subject of a Review of Environmental Factors), and how these works can to be coordinated with the proposed development. SSC had minor concerns regarding the works to Kareena Road, however this has now been endorsed in principle by Council, subject to being reviewed by TfNSW.

NSW Ambulance

Consultation was undertaken with NSW Ambulance on three separate occasions on the 06 May 2020, 26 June 2020, and 18 November 2020.

The project team provided Ambulance NSW Health Manager, WHS Manager and Health Safety representatives with an overview of the Project and an update on the current status of the project. NSW Ambulance queried the swept path analysis completed to date. Additionally, they requested pedestrian and ambulance vehicle shared zones be reduced, for e.g. between the east carpark and building.

After consultation, the Project team issued swept path analysis to Ambulance NSW for review. No comments were received from NSW Ambulance after issue.

The Project team also revised the traffic plan and landscape design package to incorporate a new right turn entrance into site from Kareena Road to remove the shared pedestrian and vehicle zone between the building and east car park.

Transport for NSW

Consultation was undertaken with Transport for NSW (TfNSW) on three different occasions. The Sutherland Hospital Operating Theatre Upgrade was presented to TfNSW including existing paths of travel and proposed scope of works. Consultation sessions were hosted on various occasions, including:

10 June 2020 (virtual meeting)

- The minutes confirm that TfNSW does not have any concerns with the proposal and noted that the main issue will be the impact on the Kingsway intersection; and

- It was agreed that the Project Team will undertake SIDRA modelling to aid the TfNSW assessment.

30 June 2020 (virtual meeting)

The SIDRA analysis was issued to TfNSW for review on the 30th June 2020 with a meeting invite for the 9th July 2020.

6th July 2020 (virtual meeting)

- TfNSW responded confirming "TfNSW is satisfied with the modeling results provided and does not require a meeting to be held to discuss the results".

4.2 Local Aboriginal Land Council

An Aboriginal Cultural Heritage Assessment for the proposed development has been completed, the results of which have been presented in an Aboriginal Cultural Heritage Assessment Report (**ACHAR**) at **Appendix I**. Aboriginal community consultation is being undertaken in accordance with the Aboriginal Heritage Consultation Requirements for Proponents 2010.

The proposed ACHAR methodology was distributed to the Registered Aboriginal Parties (RAPs) on 15 September 2020, with a 28-day period for review and comment. Three responses to the ACHAR methodology were received after the review period. These responses have been addressed in Section 3.3 of the ACHAR at **Appendix I.**

A copy of the draft ACHAR was distributed to the RAPs on 7 January 2021. A response to the one (1) comment received is provided in Section 3.5 of the ACHAR at **Appendix I.**

4.3 Government Architect NSW / State Design Review Panel

The design team were given the opportunity to consult with State Design Review Panel (SDRP) on three (3) separate occasions. To date, three meetings have been held.

The first consultation meeting was held on the 29 July 2020 and involved briefing the panel on the site and proposed building use. Refer to an overview of issues raised and responses in **Table 5** below.

Table 5 Government Architect response - 29 July 2020

Government Architect Comment – 29 July 2020	Response
Masterplan and Landscape	
A masterplan is required for the site to illustrate subsequent stages of development. This should articulate when and how the 'Masterplan Expansion Zone' is going to be integrated into the proposed scheme and existing site. Issues to consider include the interstitial spaces between the old and the new and the hospital's relationship to the streetscape of Kareena Road.	The master plan notates areas of Public Space close to the main hospital entry. The Operating Theatre expansion project provides further opportunity for public spaces. With successful consultation with Sutherland Council, NSW Ambulance and Transport for NSW, the closure of the internal road has created an opportunity for public space in and around the new site. The Operating theatre expansion project sets up the opportunity for future expansion should the need arise. At this stage there are no requirements for future expansion or a proposed timeline.
The future expansion zone should accommodate both built form and public domain and include setbacks off Kareena Road.	3D graphics were presented to demonstrate the proposed built form, public domain and setback from Kareena Road. The presentation included façade renders and examples of proposed materials.

There is limited public space across the site. The masterplan, including future expansion zone, should consider how public space could be provided and delineated.	The landscape plan was presented including delineated spaces and a new public space for meeting and cultural heritage incorporated in the building's undercroft.
A landscape plan is required to illustrate how this upgrade project integrates into the overall site including the existing overland flow. Consider the character of the open spaces created as well as defining wayfinding, green pathways, architectural form and public domain. Provide drawings and diagrams to illustrate how this will be achieved.	Landscape plans were presented with reference to the wayfinding that is being incorporated into the Design Development Stage of the project. The presentation included the response. The extent of landscaping has been increased to the north and west allowing the new TSH expansion project to sit within a bed of landscaping. The tree canopy has been increased on site extending a link from Kareena Road into the site.
The tree canopy on the site should be increased in line with State targets.	The extent of landscaping has been increased to the north and west allowing the new TSH expansion project to sit within a bed of landscaping. The Tree Canopy has been increased on site extending a link from Kareena Road into the site.
The relationship of the undercroft to the landscaped areas adjacent the existing carpark and ambulance station requires further resolution.	Consultation with Sutherland Shire Council, NSW Ambulance and Transport for NSW has removed the need for Ambulance access. This has created the opportunity for place making beneath the building. Soft landscaping is brought in from the edges and areas carved into the space to create a serene and contemplative environment. Surface treatment are light and reflect natural light into the space. A landscape buffer is provided adjacent to the Ambulance station.
Architecture	
The conceptual ambition to integrate the built form with the landscape and form on access to natural light is not reflected in the architecture which presents a series of windowless imposing boxes. As a hospital, the building should exude wellness and foster health.	Consultation with Sutherland Shire Council, NSW Ambulance and RMS has removed the need for Ambulance access. This has created the opportunity for place making beneath the building. Soft landscaping is brought in from the edges and areas carved into the space to create a serene and contemplative environment. Surface treatment are light and reflect natural light into the space. A landscape buffer is provided adjacent to the Ambulance station
While the Kareena Road façade is considered sacrificial, it requires further articulation. The lack of windows to this façade also presents a safety risk to the carpark and adjacent street.	The Kareena Road Facade has been further articulated both horizontally and vertically. It also provides large windows in circulation zones and departments. This will allow oversight and natural surveillance of the car park and adjacent street.
The concept of an elevated building atop piloti is also unrealised in the architecture. While	The Operating Theatre Expansion project explores it relationship with its context with

raising the building facilitates overland flow and ambulance access, the resulting undercroft is considered a safety risk to staff, patients and visitors and is not supported in its current form. Consideration should be given to how this space can be improved through natural light, planting and surface treatments.	large areas of glazing provided in transient spaces. This allow the maximum number of occupants to interact with the local environment and encourage natural surveillance and security. Windows have not been provided where clinically inappropriate to do so (i.e clinical stores). As a defining element of the hospital the landscape extends beneath the building creating a new setting for the western edge of the campus and promoting areas for rest and relaxation. The scale is set lower than the existing building.
Given the proposed form projects further past the existing facade and is higher than the surrounding existing buildings, it needs to work harder as a defining architectural element of the hospital.	The Operating Theatre Expansion project explores its relationship with its context with large areas of glazing provided in transient spaces. This allows the maximum number of occupants to interact with the local environment and encourage natural surveillance and security. Windows how not been provided where clinically inappropriate to do so (i.e. clinical stores). As a defining element of the hospital the landscape extends beneath the building creatin a new setting for the western edge of the campus and promoting areas for rest and relaxation. The scale is set lower than the existing building.
While circulation corridors that end in windows are supported, the potential provided by the refurbishment and newbuild for existing recovery, waiting or staff areas to benefit from natural light and ventilation should be explored	The functional requirements of the Operating Theatre together with existing building interface have pushed a number of clinical stores to the edge of the building footprint. As such windows have not been provided in these locations as it does not suit the requirements of the room. Windows are provided in transient spaces (stair cores, main circulations zones) staff admin, and short stay zones.
Reconsider the solid block work at the junction to the existing building, explore the use of glazing to the stair core, and consider a lighter materials palette overall.	Junction to existing building has been modified to contain the third grid of curtain walling. Natural light provided to the stair core. Materials palette is lighter.
Provide updated renders that accurately reflect the selected materials	Renders were incorporated in the presentation to accurately reflect the building materials.
Provide updated plans that clearly sow the programming of all rooms	Updated plans were presented to demonstrate the programme of all rooms.
Transport and access	
Reconsider the need for ambulance access under the new building to the ambulance station. If this is a required, confirm the height of the under croft can accommodate the height of these vehicles.	The presentation included revised access and landscaping plans to detail the removal of ambulance access under the new building.
Demonstrate how accessibility will be achieved, indicating locations of ramps and	General layouts were presented to identify the proposed location for ramps, stairs and

stairs and illustrating how these will integrate with the overall landscape approach.	integration with the overall landscape approach.
Aboriginal Cultural Heritage	
The ambition to communicate the importance of this site and the surrounding area as a significant point of first contact is supported. Provide details of how the connection to Country and expression of Aboriginal cultural heritage will be made evident through the upgrade project and integrated with the built forms, for example using place naming, landscape, materials, plant selection, art installations/ murals, wayfinding devices, paving, colour and texture.	The design team have undertaken two consultations with the local Aboriginal cultural heritage group and have agreed on the key strategies for the development of TSH Operating Theatre expansion project. Connection to country through Art, Colour, place-making and landscape will be part of the narrative that will be delivered under the Health Infrastructure Art in Health programme.
Sustainability	
While sustainability initiatives were provided in the agenda pack these were not discussed in detail. Strategies to demonstrate excellence in sustainability should be presented at the next SDRP, including natural ventilation, solar orientation and screening.	As part of the sustainability approach priority has been given to ESD initiatives that support Health, comfort and wellness. The team have undertaken climate adaption and Life cycle assessment to promote an environmentally responsive design. The project include refurbishment through adaptive reuse, and a thermally responsive extension to the west. Natural daylight is provided to transient spaces and encourages views to local flora. Windows are screened with vertical fins or perforated mesh to reduce the impact of heat gain within the building.

The second consultation meeting was held on 23 September 2020 and focused on the building form and internal planning while the third consultation addressed the panel's comments and elaborated on materiality. Please refer to an overview of issues raised and responses in **Table 6** below.

Table 6 Government Architect Response 23 September 2020

Government Architect Comment – 23 September	Response
The proposal has responded to the issues raised at the first SDRP and the following strategies are supported: – Removing ambulance access from beneath the undercroft to use this as a place of respite for patients, visitors and staff – Development of both a landscape and masterplan for the site as a whole and the subsequent increase in tree canopy – Staff entry to the north of the proposed building – Lighter materials palette and increase in glazing to allow solar access into the stair core	Noted.

– Consultation with Indigenous user groups brought together by HI and the LHD to develop an appropriate cultural response – Consultation with HI SMEs, council and NSW ambulance to ensure the proposal adopts a place-based response	
Masterplan and Landscape	
While a landscape and masterplan were presented for this site as a whole. The 'Masterplan Expansion Zone' is still unclear, noting it is not required or scheduled at this time but should still be considered. Particularly the ability of the zone to accommodate built form and public domain and include setbacks off Kareena Road.	The master plan notates areas of Public Space close to the main hospital entry. The Operating Theatre Upgrade project provides further opportunity for public spaces. With ongoing positive consultation with Sutherland Council, NSW Ambulance and RMS the closure of the internal road has created an opportunity for public space in and around the new site. The Operating Theatre Upgrade Project set up the opportunity for future expansion should the need arise. At this stage there are no requirements for future expansion or a proposed timeline.
The resolution of interstitial spaces between old and new, and between the hospital and the NSW ambulance building to the south, remains a concern and should be addressed.	The new landscape design has been provided with a focus on the interstitial spaces. This design has CPTED principles applied with a high focus on passive surveillance.
The increase of 10-15 trees across the site still falls short of the recommended 40% tree canopy coverage. The addition of more densely planted trees closer to the northern and western façade could act to provide the required sunshading rather than relying on vertical sunshades, which would have the added benefit of enabling views out and connection to the landscape. Approximately, 25 large trees (or 65 smaller trees) are required across the site.	The project scope and nature of the large under croft area combined with 20 number trees looks to address shade requirements and heat island affect. The provision of 26% tree canopy cover for the works area is consistent with achievable canopy cover in medium / high density precincts and represents an increase in canopy cover from pre development of 10%.
The ambition to use the under croft as a breakout space for patients, visitors and staff is commended but requires development to ensure solar access and natural ventilation are conducive to respite. The depth to height ratio at 1:8 presents significant difficulties in terms of amenity. Solar access diagrams, wind studies for both summer and winter, sections through the undercroft, and 3D images that show how this use is supported should be provided.	The under-croft area has been tested for sunlight versus shade amounts. Further, a wind assessment has been carried out by Cermak Peterka Petersen at **Appendix X**.
The undercroft should be conceived as a 'seasonal garden' with both a winter and a summer face. Consider crafting spaces that are more responsive to solar access in particular at the edges and locate seating areas for groups and individuals to suit micro-climate conditions. Consider optical fibres,	Solar tubes / light pipes not feasible due to Operating Theatre planning and Plant on levels above.

solar tubes and/ or light pipes to allow daylight penetration, and options for heating in cooler months	
Provide details of the type of plantings to the undercroft which consider the low light levels and introduce fragrant planting.	Planting Schedule has been issued.
The landscaping to the undercroft does not need to fit within the building footprint but rather can bleed out to support the ambition for the building to sit within the landscape.	Landscape extends from Undercroft towards the North and West.
The overland flow to the undercroft should cross plant areas rather than paving to allow for absorption.	Overland flow absorbed by planted areas.
Explore the potential to remove the boundary fence to the NSW ambulance building to maximise useable green space.	Crossovers have been redefined to provide more intuitive pedestrian access.
The pedestrian path from the main entry to the new entry is not direct and should be more intuitive, and ease of access for the public from Kareena Road should be increased.	Fence removal is under review.
Architecture	
The conceptual ambition to integrate the built form with the landscape is improved, however further articulation of the facades is needed, including the addition of windows, to ensure the building exudes wellness and fosters health.	The Operating Theatre Upgrade Project explores it relationship with its context with large areas of glazing provided in transient spaces. This allow the maximum number of occupants to interact with the local environment and encourage natural surveillance and security. Windows have not been provided where clinically inappropriate to do so (i.e clinical stores). The Plan addresses patient flow principles providing clinical planning around a central clinical corridor.
The long, glazed wall to the north presents an opportunity to allow solar access, natural ventilation and views into the building. Consider reconfiguration of the operating theatres and storerooms to maximise the potential of the valuable internal perimeter to provide increased amenity to the useable parts of the of the building wherever possible. A window into a least one operating theatre is recommended. The operating theatre to the west could have solar access if the store was deleted from the western side and glazing introduced.	Operating Theatre and CSSD require high controlled environments thus natural ventilation is not considered appropriate.
Further articulation of the façade facing Kareena Road is recommended noting that no further hospital expansion is required or proposed at this time. The lack of windows to façade also means a lack of surveillance and presents a safety risk to the carpark and adjacent street.	The Kareena Road Facade has been articulated both horizontally and vertically. It also provides large windows in circulation zones and departments. This will allow oversight and natural surveillance of the car park and adjacent street.

Aboriginal Cultural Heritage	
Consultation between HI and the local Aboriginal cultural heritage group, and the proposals to demonstrate connection to Country through art, colour, placemaking and landscape are supported. Further detail of these proposals should be provided at the next SDRP.	The design team have undertaken four consultations with the local Aboriginal cultural Heritage group and have agreed on the key strategies for the development of TSH Operating Theatre Upgrade project. Connection to country through Art, Colour, place-making and landscape will be part of the narrative that will be delivered under the Health Infrastructure Art in Health programme.
Sustainability	
While sustainability strategies were discussed, further consideration should be given to adopting strategies that demonstrate excellence in sustainability such an increasing the target Green Star rating and roof water harvesting.	As part of the sustainability approach priority has been given to ESD initiatives that support Health, comfort and wellness. The team have undertaken climate adaption and Life cycle assessment to promote an environmentally responsive design. The project include refurbishment through adaptive reuse, and a thermally responsive extension to the west. Natural daylight is provided to transient spaces and encourages views to local flora. Windows are screened with vertical fins or perforated mesh to reduce the impact of heat gain within the building.

A third GANSW meeting occurred on 10 March 2021 to provide clarity to the comments raised during the meeting on 23 September 2020. It is noted that formal comments have not been provided.

Refer to the Architectural Design Statement at **Appendix F** for further details regarding GANSW Consultation.

4.4 Community Consultation

Community feedback and consultation has been integral to the proposed development.

A wide variety of engagement strategies have been undertaken to gather feedback and insights from key stakeholders to ensure the proposed development meets the needs of patients, families, staff, and the community now and into the future. The community consultation and engagement strategies are outlined below:

- Establishment and coordination of Consumer Advisory Group, comprising representatives of patients, visitors and volunteers.
- Establishment and coordination of Aboriginal Consultative Group.
- Community Information Sessions (attended by 66 consumers and community members). The Sutherland Shire community was engaged to attend a virtual presentation that provides an overview of the proposed development, an update on the current status of the proposed development, and the opportunity to provide feedback and comments. Invitations were sent via:
    - The Sutherland Hospital Consumer, to the volunteer and community contact list of more than 300 individuals,
    - Facebook posts on South Eastern Sydney Local Health District and Health Infrastructure NSW Facebook pages,
    - Sutherland Shire Community Events website page
    - Local resident letter drops to 200 residents.

- The Sutherland Hospital Operating Theatre Upgrade Project Web Page. This web page provides an overview of the proposed development, and updates of the current status of the project. An email address is provided on the web page for the public to send through comments on the scope of the proposed development.

- Newsletters:
    - Year in Review Newsletter. Issues of the newsletter include an email for the volunteer and community contact list (<300 members) to submit comments on the proposed development scope. The newsletter is also made available on The Sutherland Hospital Operating Theatre Upgrade Project Web Page.
    - Planning Factsheet. Comments on the proposed development can be submitted to the email address provided on the fact sheet.
    - Arts and Culture Interiors Landscape document. Comments on the proposed development can be submitted to the email address provided on the Upgrade Arts and Culture Interiors Landscape document.

Community consultation highlighted key aspirations from the project, including:

- A desire to proactively minimise the disruption to the hospital environment and maintain operational continuity for The Sutherland Hospital throughout the project implementation;
- Ensure the patient experience is not affected during the construction period and remains at a high level throughout the project implementation. It is important to note, that the design was chosen in order to minimise impacts on the clinical environment;
- Desire for improved access to an MRI machine within the Sutherland Shire locality. It is important to note, a petition of 5000 signatures has been circulating the Sutherland Shire for several years identifying the need for MRI machines;
- Improved wayfinding within the existing hospital and future development and projects on the site;
- Improvements to the amenity and atmosphere of The Sutherland Hospital campus;
- Based on discussions and consultation with the Aboriginal Consultive Group, the project highlights an opportunity to incorporate Aboriginal art and design elements within the project.

Refer to Social Impact Assessment at **Appendix L** for greater detail.

Overall, community consultation through engagement activities and outcomes, have to date significantly informed the proposed development. However, it is acknowledged that aspects of the proposed development, such as operating theatres, CSSD and MRI will not be accessible to the general public and are subject to stringent technical and regulatory specifications.

5. Statutory and strategic planning context

5.1 Overview

This EIS includes an assessment of the proposed development against the following strategic plans, policies and guidelines, in accordance with the issued SEARS.

5.2 Strategic Planning

This proposal has been considered against the relevant strategic planning policies in accordance with the issued SEARS. The proposal has been assessed and found to be generally consistent with these, as detailed within **Table 7** below.

Table 7 Consistency with relevant strategic plans, policies and guidelines

Strategic Planning policy	Response
NSW State Priorities	The NSW State Priorities are fourteen priorities unveiled by the NSW Premier, in a commitment to making a significant difference to enhance the quality of life. The relevant priorities are: – Improving service levels in hospitals; – Improving outpatient and community care; – Greener public spaces; – Greening our city; The proposed development will improve service levels in hospitals through the expansion of the operating theatres at The Sutherland Hospital. The proposed development aligns with the NSW State Priorities, seeking to enhance the quality of life through quality health care and services in NSW.
The Greater Sydney Region Plan – A Metropolis of Three Cities (2018)	The Greater Sydney Region Plan – A Metropolis of Three Cities, was released by the Greater Sydney Commission in March 2018 and is the NSW Government's 40-year plan for the Sydney metropolitan area. The proposed development is consistent with the vision of the Greater Sydney Region Plan as the proposed scope of works will facilitate the refurbishment and expansion of The Sutherland Hospital and reinforce the South Eastern Sydney Local Health District as a significant employment and health services hub. The site will assist the South District, with the proposed development contributing to rebalancing opportunities across the Greater Sydney region and support a 30 – minute city, where the community are able to access world-class medical support within a reasonable timeframe. The plan aims to develop and implement land use and infrastructure plans for health and education precinct in order to be internationally competitive and more accurately described as innovation precincts. The Sutherland Hospital Operating Theatre Upgrade aims to assist in meeting Sydney's growing health needs. The

	proposal is consistent with the objectives and directions of the Metropolis of Three Cities Plan, including: ***Objective 1: Infrastructure supports the three cities*** The proposal is a significant infrastructure investment of the Southern District. The upgrades of the operating complex at The Sutherland Hospital aligns with Objective 1 through enhancing health services, including - increasing theatre capacity, improving efficiency and access to services and enable implementation of new models of care and surgical clinical pathways for hospital patients, visitors and staff. ***Objective 2: Infrastructure aligns with forecast growth – growth infrastructure compact*** The Greater Sydney Region Plan identifies that Sydney's population is to grow from 4.7 million to 8 million by 2056. The Southern District will be suspectable to major population growth, particularly evident through the ageing population. The proposed works will help provide jobs and services to the population, as well as providing health services to a growing population. ***Objective 3 – Infrastructure adapts to meet future need*** The upgrade of the operating theatre complex will enhance the Hospital's services to adapt to the ever-changing technological environment of the 21st century. The redevelopment works will provide access to new health opportunities for the community. ***Objective 5 – Benefits of growth realised by collaboration of governments, community and business*** Extensive collaboration has been undertaken by the project team, to produce good outcomes for the design and function of the site. Collaboration with government, agencies and the community have assured that the proposed works undertaken will respond to the communities changing needs. Refer to **Section 4** for further detail on Consultation. ***Objective 6 – Services and infrastructure meet communities changing needs*** The proposal ensures that The Sutherland Hospital will remain at a scale to provide health services for the community. ***Objective 21 – Internationally competitive health, education, research and innovation precincts*** The Sutherland Hospital redevelopment will facilitate growth of health facilities in the South Eastern Sydney Local Health District and provide more jobs in the health and education sector, ultimately contributing to the economic productivity of the area. Overall, the project aligns with Greater Sydney Region Plan as it will redevelop and provide additional and improved health facilities to meet the growing needs of the South Eastern Sydney Local Health District.
Future Transport Strategy 2056	The Future Transport Strategy sets out a 40-year vision, direction and outcomes framework for customer mobility in NSW and will guide transport investment over the longer term. The proposal does not impact the implementation of this strategy.
State Infrastructure Strategy 2018-	The State Infrastructure Strategy 2018-2038, released in February 2018 by Infrastructure NSW, is a 20-year strategy that outlines the NSW Government's major long-term

2038 Building the Momentum	infrastructure plans across all key sectors – transport, energy, water, health, education, justice, social housing, culture, sport and tourism. The Strategy notes the demand for healthcare will grow by over 50 per cent by 2036, highlighting that there is a need to expand and deliver more health infrastructure and services to support the State's medical needs. A strategic objective for health is included in the Strategy to 'Plan and deliver world-class health infrastructure that supports a 21st century health system and improved health outcomes for the people of NSW'. The proposed development aligns with the strategic objectives of the Strategy as the proposed scope of works will contribute to the refurbishment and expansion of The Sutherland Hospital. The hospital is a part of the South Eastern Sydney Local Health District and provides for acute specialist services (surgical, emergency critical care, medical, women's and children health), sub-acute services (aged care and rehabilitation) as well as ambulatory care.
Sydney's Cycling Future 2013	The goal of Sydney's Cycling Future is to make cycling a safe, convenient and enjoyable transport option for short trips. Health Infrastructure is supportive of using active transport options to and from and the site. The site will provide options for bike parking locations for hospital staff and visitors.
Sydney's Walking Future 2013	The goal of Sydney's Walking Future is to encourage people to walk more, to make it more convenient, better connected and safer mode of transport. The proposal supports walking by providing multiple pedestrian access points to the site for hospital staff and visitors.
Sydney's Bus Future 2013	Sydney's Bus Future Strategy is the NSW Government's long-term plan to redesign the bus network to meet customer needs now and into the future. The site is serviced by four major bus routes, with the nearest bus stop being located on Kingsway adjacent to the Hospital entrance and at Kareena Road approx. 50 metres south of the intersection approach. This bus stop services multiple bus routes including the 477, 478, 977 and 978.
Crime Prevention through Environmental Design Principles	The Architectural Design Statement provides a CPTED assessment of the proposal at **Appendix F**. The assessment considers the objectives and desired outcomes of the principles/ strategies employed by CPTED, including: **Natural Surveillance** Main public routes through the hospital have a direct relationship to the external environment. This will aid natural surveillance over external spaces. Additionally, public spaces have been designed to create 'safe' spaces through clear sight lines, be well lit, provide for access control to define staff only areas and public access will be controlled to areas that are well supervised and entry points into the building to be limited. **Lighting** Lighting will meet the minimum requirements under Australian standards. White lighting will be used for natural surveillance and direct lighting will be provided in all external environments and car park so that passive surveillance can occur.

	Additionally, CCTV and visible pedestrian access ways will be clearly marked.
Healthy Urban Development Checklist, NSW Health	The Healthy Urban Development Checklist prepared by NSW Health assess the built environment factors that impact on health. As NSW undergoes significant population growth over the next 20-30 years. The proposal promotes the checklist's 11 themes through the design and function of the site. The Proposal supports the themes of the Checklist, including: – Healthy eating – Physical activity – Housing – Transport and connectivity – Quality employment – Community safety and security – Open space and natural features – Social infrastructure – Social cohesion and connectivity – Environment and health – Environmental sustainability and climate change. The Proposal aims to improve the amenity and wellbeing of staff and visitors, through improved landscape (**at Appendices G and H),** architectural design (at **Appendices E and F**) and incorporated CPTED principles.
Better Placed: an integrated design policy for the built environment of NSW (GANSW,2017)	Better Placed is an integrated design policy for the built environment of NSW. It seeks to capture our collective aspiration and expectations for the places where we work, live and play. The proposal aligns with the objectives for good design, including: – Better fit: contextual, local and of its place – Better performance: sustainable, adaptable, durable – Better for community: inclusive, connected and diverse – Better for people: safe, comfortable and liveable The proposal aligns with the objectives stated in the Better Placed policy.
Draft Greener Places Design Guide	The Draft Greener Places Design Guide provides information on how to design, plan and implement green infrastructure in urban areas throughout NSW. The draft guide provides strategies, performance criteria and recommendations to assist planning authorities, and design and development communities to deliver green infrastructure. The Greener Places Design Guide has three main objectives: – Open space for Recreation: green infrastructure for people; – Urban tree canopy; green infrastructure for adaptation and resilience; and – Bushland and waterways: green infrastructure for habitat and ecological health. The Draft Greener Places Design Guide will guide the delivery of green infrastructure of the site. Consultation with the Government Architect has guided the project to ensure that the project will deliver and provide green infrastructure for the hospital and the greater community. Conversion of internal

	road to open space and embellishment with soft and hard landscaping will occur. Refer to **Section 3** for further details.
Greater Sydney Commission's South District Plan	The South District Plan was released by the Greater Sydney Commission in March 2018. The Plan identifies that the South District has an anticipated growth of 204,000 people. This population increase can only occur with associated infrastructure such as Hospitals. Several planning priorities in the District Plan are relevant to the proposed development including: ***Planning Priority S1 – Planning for a city supported by infrastructure*** It is considered that the proposed development will contribute to the success of this Planning Priority as it enables optimal land use and allows The Sutherland Hospital to increase their servicing health capacity. ***Planning Priority S3* – Providing services and social infrastructure to meet peoples changing needs** The Proposal will assist this demand by updating health facilities on site, to continue to help and provide services to the Sutherland Shire and the surrounding local community. ***Planning Priority S9 – Growing and investing in health and education precincts*** As the demand for health services rise to support the population, it is crucial that the proposed works are undertaken to enhance and update the site to assist this demand. Investment in health services such as that proposed is essential in sustaining the health of our population.
Sutherland Shire Local Strategic Planning Statement (LSPS) 2019	The Sutherland Shire Local Strategic Planning Statement (LSPS) was publicly exhibited during September – October 2019, endorsed by Council on 10 September 2020, and assured by the Greater Sydney Commission on 15 September 2020. Over the next 20 years, the LSPS aims to guide and maintain the high level of amenity, livability and quality within the Sutherland Shire LGA. As the community grows and changes, The Sutherland Hospital is a key piece of infrastructure in the LGA that can respond to the evolving needs and opportunities of the wider community. The upgrade of Sutherland Hospital is consistent with the following Planning Priorities: ***Planning Priority 1 – Align planning to existing infrastructure*** With Sydney's population forecasted to rise significantly, upgrading existing health infrastructure is vital to support and facilitate the health needs of the community. The expansion of The Sutherland Hospital will in turn allow for the forecast population growth of the Sutherland Shire. ***Planning Priority 13 – Grow Caringbah Health Cluster*** In 2016, the health care and social assistance industry was Sutherland Shire's largest employer, accounting for 15% of the total workforce. The Sutherland Hospital provides a large number of jobs for the Sutherland Shire community. Through upgrading and expanding the health services provided at the Hospital, additional jobs will be provided through the proposed development. The proposed development will support the

Caringbah health cluster, strengthen the existing hospital services and encourage new synergies within the workforce.

5.3 Legislation

Environmental Planning and Assessment Act 1979

Objects

Development under the EP&A Act 1979 must have regard to the objects of the Act as provided in Section 1.3 of the Act. A response to the relevant objects of the Act is provided in **Table 8** below.

Table 8 Objects of the EP&A Act 1979

Objects of the EP&A Act 1979	Response
to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,	The proposed development seeks to promote the social welfare of the community by increasing and improving health facilities within the precinct. Environmental impacts have been appropriately mitigated as detailed in **Section 8** of this report.
to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	The response to the principles of ecologically sustainable development (ESD) under Clause 7(4) of Schedule 2 of the EP&A Regulation is provided at **Section 5.4** of this EIS. The proposal incorporates a range of ESD initiatives as outlined in the ESD Report prepared by Steensen Varming at **Appendix AG**.
to promote the orderly and economic use and development of land,	The proposed development seeks to deliver necessary infrastructure upgrades to the hospital to improve and significantly expand health care facilities on the site.
to promote the delivery and maintenance of affordable housing,	The provision of affordable housing is not relevant to the proposed development.
to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	The proposed development has sought to retain existing trees on site where appropriate, compensate for those being removed with additional proposed trees, converts internal road to open space, and embellishes with soft and hard landscaping. The BDAR Waiver Request prepared for the proposed development (**Appendix AF**) has concluded that it is highly unlikely to have significant impacts upon defined biodiversity values as impacts are limited to highly modified areas. It is also unlikely that there will be significant impact to threatened species as a result of the proposed development. The BDAR Waiver was approved by DPIE on 23 December 2020.

to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	The proposed development has been designed in consideration of the sustainable management of building and cultural heritage of the site. Refer to **Section 6.3** below.
to promote good design and amenity of the built environment,	The proposed development, including the siting, built form and materiality of the proposed theatre expansion is guided by the site's existing surroundings and built form, topography, surrounding landscape, views, and solar access. Maintaining and improving amenity at The Sutherland Hospital site has been a key driver of the design. Refer to the Architectural Design Statement at **Appendix F**.
to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	The plans and reports prepared by the consultant team have been prepared in line with relevant provisions and standards to ensure proper construction and maintenance of buildings is achievable, and to protect the health and safety of occupants, during the construction and operation phase of the hospital. The proposed development will be maintained in accordance with standards and guidelines of Health Infrastructure NSW.
to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	Being SSD, the Minister for is the relevant consent authority for the proposed development. Sutherland Shire Council has been consulted in the preparation of the SEARs and prior to lodgement of this SSD application as detailed at **Section 4** of this EIS. The Project Team has consulted extensively with GANSW (Government Architect) / SDRP.
to provide increased opportunity for community participation in environmental planning and assessment.	Consultation has been undertaken by Health Infrastructure NSW on the proposed redevelopment.

State Significant Development

Trigger for SSD

Section 4.36 of the EP&A Act provides that the Minister, or a State Environmental Planning Policy may declare development to be State Significant Development. Clause 14(1) of Schedule 1 of State Environmental Planning Policy (State and Regional Development) 2011 (SEPP SRD) specifies development that has a CIV of more than $30 million for the following purposes is to be assessed as State Significant Development:

> *"(a) hospitals,*
>
> *(b) medical centres,*
>
> *(c) health, medical or related research facilities (which may also be associated with the facilities or research activities of a NSW local health district board, a University or an independent medical research institute)"*

The proposed redevelopment has a CIV which exceeds $30 million and therefore constitutes SSD.

Additional approvals required

The provisions of section 4.42 of the EP&A Act 1979, which lists those approvals under other legislation that must be applied consistently, are addressed in **Table 9** below.

Table 9 Response to Section 4.42 of the EP&A Act 1979

Section 4.42 of the EP&A Act	Response
(1) An authorisation of the following kind cannot be refused if it is necessary for carrying out State significant development that is authorised by a development consent under this Division and is to be substantially consistent with the consent:	Noted
(a) an aquaculture permit under section 144 of the *Fisheries Management Act 1994*,	Not required
(b) an approval under section 15 of the *Mine Subsidence Compensation Act 1961*,	Not required
(c) a mining lease under the *Mining Act 1992*, Note. Under section 380A of the *Mining Act 1992*, a mining lease can be refused on the ground that the applicant is not a fit and proper person, despite this section.	Not required
(d) a production lease under the *Petroleum (Onshore) Act 1991*, Note. Under section 24A of the *Petroleum (Onshore) Act 1991*, a production lease can be refused on the ground that the applicant is not a fit and proper person, despite this section.	Not required
(e) an environment protection licence under Chapter 3 of the *Protection of the Environment Operations Act 1997* (for any of the purposes referred to in section 43 of that Act),	Not required
(f) a consent under section of the *Roads Act 1993*,	Not required
(g) a licence under the *Pipelines Act 1967*.	Not required
(2) This section does not apply to or in respect of: (a) an application for the renewal of an authorisation or a renewed authorisation, or (b) an application for a further authorisation or a further authorisation following the expiry or lapsing of an authorisation, or (c) in the case of an environment protection licence under Chapter 3 of the	Not relevant

Protection of the Environment Operations Act 1997—any period after the first review of the licence under section 78 of that Act.	
(3) A reference in this section to an authorisation or development consent includes a reference to any conditions of the authorisation or consent.	Not relevant
(4) This section applies to a person, court or tribunal that deals with an objection, appeal or review conferred on a person in relation to an authorisation in the same way as it applies to the person giving the authorisation.	Not relevant

Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The *Commonwealth Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) contains the provisions for the assessment of actions likely to have a significant impact on Matters of National Environmental Significance (MNES) listed under the Act. Part 3 of the EPBC Act provides requirements for environmental approvals where there is significant impact.

A BDAR Waiver Request was prepared by Abel Ecology and is provided at **Appendix AF.** It concludes that the project is highly unlikely to have significant impacts upon defined biodiversity values.

It is noted that approval to waive the need for a BDAR report as part of the SSD application has been provided by the Directors within the Planning and Assessment Division of DPIE. Refer to **Appendix AF**.

Contaminated Land Management Act 1997 (CLM Act)

The aim of the CLM Act 1997 is to establish a process for investigating and (where appropriate) remediating land that the Environment Protection Authority (EPA) considers to be contaminated significantly enough to require regulation under Division 2 of Part 3.

The Section 10.7 Planning Certificates at **Appendix C** do not regard the site to be significantly contaminated. Refer to **Section 6.14** below for further details on contamination.

National Parks and Wildlife Acts 1974 (NP&W Act)

The objects of the NP&W Act are the conservation of nature and the conservation of objects, places or features (including biological diversity) of cultural value within the landscape, fostering public appreciation, understanding and enjoyment of nature and cultural heritage and their conservation, and providing for the management of land reserved under this Act in accordance with the management principles applicable for each type of reservation.

An ACHAR has been undertaken and is appended at **Appendix I** and confirms that the proposed works in this area will avoid areas of high Aboriginal archaeological potential, essentially having nil impact on Aboriginal Cultural Heritage.

5.4 Regulation

Environmental Planning and Assessment Regulation 2000

The EP&A Regulation supports the EP&A Act and provides specific requirements for the preparation of Environmental Impact Statements under Schedule 2.

The ESD principles include:

- Precautionary principle;
- Inter-generational equity;

- Conservation of biological diversity and ecological integrity;
- Improved valuation, pricing and incentive mechanisms.

A response against the ESD principles is detailed below.

Precautionary principle

The proposed development is not considered to result in any serious or significant irreversible environmental damage.

The BDAR Waiver Request (**Appendix AF**) found no significant or threatened flora or fauna species, communities or habitat to be present on the subject site and no remnant vegetation. However, compensatory measures in the form of tree and other planting will be provided as part of the landscaping for the proposed development, and this vegetation will provide similar habitat values to that removed. It is concluded unlikely that a significant impact to threatened species would occur as a result of the proposed development.

The land is impacted by contamination will be appropriately remediated prior to occupation.

There will be suitable stormwater quality and erosion and sediment control measures in place.

Inter-generational equity

The proposal will ensure that the health, diversity and productivity of the environment will be enhanced for future generations as the proposed development is for a public health building.

Conservation of biological diversity and ecological integrity

Ecological impacts have been considered as part of the proposed development as detailed in the BDAR Waiver Request at **Appendix AF**. Refer to response at 'Precautionary Principle' above.

Improved valuation, pricing and incentive mechanisms

Environmental factors (in particular inter-generational equity and ecological integrity) have been included in the valuation of assets and services for the development.

The proposed development was the subject of a Government business case and included principles and "Affordability and Value for Money" and "Sustainability". The business case found the expansion of services capacity is critical to meeting increasing demand for local health District services. The increased mass of services provides enhanced opportunities for specialisation, enhanced effectiveness of intervention, better patient outcomes, and broader opportunities for research to contribute to the care of the patient. This in turn supports inter-generational equity as the hospital is a public hospital.

5.5 Environmental Planning Instruments

This Proposal has been considered against the relevant environmental planning instruments (EPIs) in accordance with the issued SEARS. The proposal has been assessed and found to be generally consistent with these, as detailed within **Table 10** below.

Table 10 Response to relevant State Environmental Planning Policies

Environmental Planning Instrument	Response
State Environmental Planning Policy (State and Regional	Under Schedule 1, Clause 14 of SEPP SRD, development that has a capital investment value (CIV) of more than $30 million for hospital purposes can be assessed as State Significant Development. The CIV of the development exceeds $30 million. The proposed 'Hospital' use is permissible with

Development) 2011	development consent on the land which is under zone SP2 Infrastructure. Clause 11 of SEPP SRD states that development control plans (DCPs), whether made before or after the commencement of this Policy), do not apply to State Significant Development. Furthermore, the SEARs issued for the project do not reference the DCP as a requirement. Therefore, no assessment has been made of the compliance of the proposed development with Sutherland Shire LEP 2015.
State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)	The ISEPP is applicable to the site and provides several aims to facilitate the effective delivery of state infrastructure, including hospitals and associated health services facilities. Clause 57(1) of Division 10 of ISEPP provides that development for the purpose of health services facilities (including a hospital) may be carried out by any person with consent on land in a prescribed zone. The site is zoned SP2 Infrastructure – Health Services Facility, being a prescribed zone under Clause 56 of the ISEPP and the proposed development is therefore also permitted with consent under Clause 57 of the ISEPP.
State Environmental Planning Policy No. 33 – Hazardous and Offensive Development	Clause 11 of SEPP 33 applies to: – Development for the purposes of a potentially hazardous industry; – Development for the purposes of a potentially offensive industry; – Development notified in the Gazette as being a potentially hazardous or potentially offensive development. A SEPP 33 Requirements report was prepared by ARUP (refer **Appendix S**). This report defines the thresholds for storage quantities of dangerous goods, in particular Class 3, 5.1 and 8 for Sutherland Hospital. A Preliminary Hazard Analysis (**Appendix T**) has been prepared for the proposed development in accordance with Clause 12 of SEPP 33. This assessment concluded that the cryogenic/liquid oxygen storage tanks and compressed oxygen cylinders will exceed the screening threshold of SEPP 33. Therefore, a detailed qualitative analysis was conducted to determine the risk to off-site populations. It was concluded that the cryogenic oxygen tanks and compressed oxygen cylinders while exceeding the Applying SEPP 33 threshold quantities, do not pose a significant off-site risk to the surrounding residential areas. Refer to **Section 6.12** below for details.
State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)	SEPP 55 requires that a consent authority must not consent to the carrying out of any development on land unless it has considered whether the land is contaminated. An Environmental Site Assessment was carried out for the proposed development and based on its findings, a Remediation Action Plan (**RAP**) prepared. Refer **Appendix W** for these reports, and impact assessment discussion at **Section 6.13** below. The development qualifies as Category 1 remediation work owing to Clause 9(d) of SEPP 55, because the Infrastructure

	SEPP requires development consent for the proposed use/development.
State Environmental Planning Policy No. 64 – Advertising and Signage (SEPP 64)	State Environmental Planning Policy No. 64 – Advertising and Signage (**SEPP 64**) applies to advertising and signage within NSW. Consent is not sought for signage as part of this application.
Draft SEPP (Environment)	The Draft Environment SEPP is a proposed new SEPP that will form part of the broader land use planning framework in NSW. The proposed new SEPP aims to deliver a planning framework that protects a number of water catchments, waterways, urban bushland, and Willandra Lakes World Heritage Property. The Draft Environment SEPP contains provisions that are not dissimilar to the gazetted Sydney Harbour SREP. The Draft Environment SEPP is not directly applicable to the proposed development.
Draft SEPP 55	Draft SEPP 55 contains content that is not dissimilar to the gazetted SEPP 55. The proposed development aligns with the aims and objectives of Draft SEPP 55.

5.6 Sutherland Shire Local Environmental Plan 2015

Table 11 Sutherland Shire Local Environmental Plan 2015

Provision	Consistency	Response
1.2 – Aims of Plan	Yes	The proposed development is in accordance with the aims of the Sutherland Shire LEP 2015, as it will foster economic, social and physical wellbeing in the South Eastern Sydney Local Health District.
2.2 – Zoning of land to which Plan applies – SP1 Special Activities	Yes	The proposed development is for the purpose of a health services facility, and are consistent with the objectives of SP1 Special Activities – Health Services Facility.
4.4 Floor Space Ratio (FSR)	N/A	No FSR control applying to the site
4.3 Height of buildings	N/A	No building height control applying to the site
5.10 Heritage Conservation	N/A	There are no heritage items located on the site or adjacent to the site. The proposed development will not impact any nearby heritage items.
6.1 Acid Sulfate Soils	Yes	The site is not identified under a Class of acid sulfate soils (ASS) pursuant to Clause 6.1 of SSLEP 2015 and associated map. The Environmental Site Assessment (**Appendix R**) refers the site is not located in an acid sulfate soil (ASS) risk area according to the risk maps prepared by the Department of Land

		and Water Conservation. As such an acid sulfate soils management plan is not required for the works.
6.2 Earthworks	Yes	The Civil Report incorporates a soil and water management strategy for the site, including specific mitigation measures. Refer to the Civil Report at **Appendix Z.**
6.12 Airspace Operations	Yes	The site is located within the 'Outer Horizontal Surface' area which is subject to a surface level of 156m AHD. Clause 6.12 prevents any construction or alteration of buildings or other structures that results in a height greater than this prescribed airspace (156m AHD), unless the applicant has obtained approval for the controlled activity under regulations made for the purposes of Division 4 of Part 12 of the Airports Act 1996. The proposed development does not penetrate this surface level.
6.13 Development in areas subject to aircraft noise	N/A	The site is not subject to any ANEF contour within the Sydney Airport ANEF 2039 under the Sydney Airport Master Plan 2039. Clause 6.13 of Sutherland LEP 2015 is therefore not triggered.
6.16 Urban design - general	Yes	The requirements of this clause have been addressed by the proposed design in terms of the landscape embellishments which will improve the streetscape from Kareena Road and the user experience. Similarly, the proposed architectural design will improve the view from Kareena Road frontage with high quality built form and materials, that respond to context, and provide adequate way finding.

5.7 Sutherland Shire Development Control Plan 2015

An assessment of the proposed hospital redevelopment against the requirements of the Sutherland Shire Development Control Plan 2015 has not been undertaken, as Clause 11 of SEPP State and Regional Development provides that DCPs do not apply to SSD and the SEARs do not include the DCP as a relevant policy for consideration.

5.8 Sutherland Shire Section 7.12 Development Contribution Plan 2020

Local infrastructure contributions are legislated under the provisions of Sections 7.11 and 7.12 of the Environmental Planning and Assessment Act 1979 (EP&A Act) and authorise Sutherland Shire Council to levy a monetary contribution which is used towards the provision of public amenities and services.

The Sutherland Shire Section 7.12 Development Contribution Plan 2020 applies to the site. Section 7.12 levies payable under this contributions plan are the maximum rates permitted by direction of the Minister for Planning under section 7.12 of the EP&A Act. The Contribution Plan includes the following exemptions from requirement to pay contributions (although note not limited to):

- *Applications by a Public Authority for services and community infrastructure.*

As such, the proposal for a Health services facility including a hospital qualifies under these criteria and is therefore exempted from the requirement to pay contributions under Section 7.12 of the EP&A Act and that policy.

The proposed development will be providing a significant public benefit by providing an important public health service to the community, and exemption from contributions is also supported by Planning Circular (Circular D6) relating to Crown Development Applications issued by the then Department of Urban Affairs and Planning. Circular D6 sets out the circumstances in which it is appropriate for a consent authority to seek the approval of the applicant or the Minister to impose conditions of consent. Circular D6 notes that where a consent authority intends to levy contributions on Crown Development, they must be justified, and consideration should be given to the Crown's role in providing a community service, the cost of which is accountable to all taxpayers in the State.

There are no Voluntary Planning Agreements or Special Infrastructure Contribution Plans that affect land to which the application relates or the proposed development type.

6. Environmental Assessment

This section assesses and responds to the matters for consideration set out in the SEARs. The recommendations and mitigation measures at **Section 8** complement the findings of this section.

6.1 Built Form and scale

The proposed form and siting have been designed to respond and maintain the height precedence set within the existing hospital campus and comprises of three levels. The form height and massing of the building responds to the proposed staging and growth of the clinical services provided, whilst capitalising on the opportunity for increasing the future density of the site.

The new expansion zone takes reference from the adjoining hospital to the east. Constructed in 2017 the existing hospital is contemporary in nature and uses specific elements to break up and create interest within the building form. These include the egress stair towers and the carved under croft elements.

The key design drivers for the proposed built development, include:

- Continuation of the Existing Hospital Chassis;
- Distribution of highly services areas around Hospital Circulation;
- Not preclude future expansion of the facility should it be required at a later date; and
- Ensuring the expansion beds into a new landscape setting.

The proposed expansion is substantially setback from the Kingsway by approximately 113m and Kareena Road by 27m. This limits the built form and amenity impacts on neighbours, allows for retention of existing landscaping where possible, and provides opportunities for additional open space and landscape embellishments to the Kareena Road street frontage.

For further discussion on built form, scale and relationship of the building to context, refer to the Architectural Design Statement at **Appendix F.**

6.2 Existing trees

An Arboricultural Impact Assessment was prepared by Allied Tree Consultancy (**Appendix H**) for the proposed development. A total of 20 trees were assessed as part of the hospital expansion works. 1 tree is considered of low significance, 14 trees are considered of medium significance and 5 of high significance. The trees are assessed are a mixture of native and exotic species of varying ages, health and vigour.

14 trees are directly conflicting with the design and located in the footprint of the proposed design. These trees will require removal based on this premise. None of the trees identified for removal are identified as being of high significance.

5 trees will be retained and protected using protection measures in place to ensure their longevity during construction and operation.

Existing tree canopy cover on the site is estimated to be 16% by the arborist.

6.3 Heritage

Aboriginal Heritage

The SEARs for the project require preparation of an Aboriginal Cultural Heritage Assessment Report (ACHAR), notwithstanding the findings of the aboriginal archaeology

assessment report (refer **Appendix I**) which finds that the study area is unlikely to contain Aboriginal objects and that no further archaeological investigations would be required.

The ACHAR was prepared in accordance with the SEARs, and specifically the following guidelines:

- the Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in NSW (Office of Environment and Heritage [OEH] 2011); and
- the Aboriginal Cultural Heritage Consultation Requirements for Proponents (Department of Environment Climate Change and Water [DECCW] 2010a).

The objectives of the report are to:

- Assess the Aboriginal cultural heritage values of the study area, including archaeological and community cultural values, and the significance of identified values;
- Identify Aboriginal cultural heritage values that may be impacted by the proposed works, including consideration of cumulative impacts, and measures to avoid significant impacts;
- Ensure appropriate Aboriginal community consultation in the assessment process;
- Identify any recommended further investigations, mitigation and management measures required, should the project proceed.

The National Parks and Wildlife Act 1974 is the primary legislation for the ACHAR, and provides statutory protection for all Aboriginal 'objects' (consisting of any material evidence of the Aboriginal occupation of NSW), and for 'Aboriginal Places' (areas of cultural significance to the Aboriginal community).

In accordance with Stage 4.1.2 of the Consultation Requirements, correspondence was sent on 6 August 2020 to the following organisations requesting details of Aboriginal people who may hold cultural knowledge relevant to determining the Aboriginal significance of Aboriginal objects and/or places within the Sutherland Shire Council LGA:

- Sutherland Shire Council
- National Native Title Service Provider for Aboriginal Traditional Owners in New South Wales and the Australian Capital Territory (NTSCorp)
- South Metropolitan Heritage NSW, DPC
- Greater Sydney Local Land Services
- La Perouse LALC
- National Native Title Tribunal
- The Registrar, ALR Act

The ACHAR methodology was distributed to RAPs for comment, and later, the draft ACHAR. A Site Survey was also undertaken. No particular areas of cultural significance were identified during the survey.

In summary the ACHAR finds:

- No previously unrecorded Aboriginal sites were identified within the study area;
- All sections of the study area have been subjected to high levels of ground disturbance;
- All sections of the study area were found to have a low archaeological potential;
- No direct impacts from the project on Aboriginal cultural heritage have been identified;
- No further archaeological investigation is required.

The report recommends an unexpected finds protocol be implemented, with specific recommendations for inclusion as mitigation measures (refer **Section 8** below).

Non-Aboriginal Heritage

A Statement of Heritage Impact (**SoHI**) has been prepared by Artefact for the proposed development to assess any non-Aboriginal heritage impact to any built heritage items or potential archaeological deposits. Refer to this report at **Appendix J**.

The assessment undertaken by Artefact confirms:

- There are no heritage items located within the study area, or in a buffer zone of 250m around the site. A Department of Health s170 listing for the "Main Building" of The Sutherland Hospital exists on the site in the State Heritage Inventory, however this listing is not current or relevant as the building was demolished in 2003-2004. No indicative curtilage is given, however it is assumed from the name that the item related to only the original Main Building (dating to 1958);
- The development and redevelopment of The Sutherland Hospital from the 1950s onwards has likely removed or truncated any significant archaeological remains from early phases of occupation of the site;
- The proposal is unlikely to impact significant archaeological remains, and as there are no listed heritage items within the vicinity impacts to built heritage, views and settling will be nil.

Based on this, the following mitigation measures are proposed:

- If unexpected archaeological finds are discovered during the proposed work advice a qualified archaeologist should be sought to determine whether they are relics;
- Consultation should take place with the administrator of the Department of Health s170 register to confirm the former nature of the listing.

6.4 CPTED Principles

A Crime Prevention through Environmental Design (CPTED) assessment has been included in the Architectural Design Statement prepared by HDR Architects (**Appendix F).** The Design Statement outlines the design elements and CPTED principles included in this Proposal that will deter unsocial and criminal behavior from the site.

Please refer to **Table 12** below that highlights the Proposal's consistency with CPTED principles.

Table 12 CPTED Principles

Principle	Proposed development
Lighting	– Lighting will meet minimum requirements under Australian Standards; – White light will be used for natural surveillance as it allows for clarity of vision; – Direct lighting will be provided to the external environment and car park so that guardians or passers-by can see inside the area;
Natural Surveillance	– Main public routes have a direct relationship to the external environment; – Public areas have been designed to create safe spaces; – Clear sight lines between public and private areas, external public spaces will be well lit; – Access control to define staff only areas throughout the hospital;

	– Public access will be controlled to areas that are well supervised and entry points into the building are limited; – Public space will be attractive and encourage visitor use;
Other	– Use of CCTV will be considered where feasible; – Visible pedestrian access ways ; – Circular movement of traffic will provide more constant natural surveillance of the landscape.

In summary there are adequate CPTED measures proposed to deter anti-social behaviour and promote public safety.

6.5 Public Art

Public Art will be integrated within the proposed development. Through extensive team consultation with the indigenous community, the public art concept will be guided through three key principles, including:

- Connection to country through art: The design approach of the team is to subtly communicate the connection to site so that occupants have the opportunity to reflect while using the space – externally or internally;
- Connection to country through song: The historical significance of song and story time provided a living link to ancient Australians; and
- Creation of meeting place: To reflect the importance of storytelling and congregating in indigenous culture, a series of spaces such as the garden at Level 2 have been designed which can be used as meeting rooms, lunch nooks or places of respite for the public.

These three principles will be incorporated and integrate indigenous art throughout the building's internal and external fabric.

A new externally landscaped space has been designed for the Level under croft area. Designed in association with the local Aboriginal groups the space provides a new meeting place for users and staff within the hospital. It will be interspersed with native planting and sculptures to create a calming environment.

Refer to details on Public Art within the Architectural Design Statement at **Appendix F**.

6.6 Landscaping

Landscape Plans and a Landscape Public Domain Report have been prepared for the proposed development by Arcadia. Refer to these at **Appendix G.**

Additionally, **Section 3.8** of this report provides detail of proposed landscaping strategy for Sutherland Hospital.

Areas to be landscaped

The areas of the site proposed for landscape embellishments have been maximized where possible, given the site constraints, and comprise predominantly conversion of internal roadways to open space with new pedestrian pathways, soft landscaping and amenities such as seating.

Amenity

Refer to **Section 3.8** above and the Landscape Public Domain Report at **Appendix G** for landscape strategy and benefits to site users, including provision of places to rest and congregate.

Compensatory tree planting

To compensate for trees required to be removed as part of the works, and for the creation of amenity for hospital users and for presentation to the public domain, a total of 20 trees are proposed to be planted. These trees will be a combination of native and

endemic species of the area, including *Angophora costata*, *Corymbia maculata*, *Elaeocarpus reticulatus* and *Tristaniopsis laurina*.

Tree canopy coverage

Arcadia landscape architects have calculated the proposed tree canopy cover for the site accounting for trees removed and proposed. In summary proposed tree canopy cover is 26%.

The Draft Greener Places Design Guide sets an overall target for the Greater Sydney Region to achieve 40% tree canopy cover. However, the extent of works is located within a medium/high density Precinct. The achievement of 26% tree canopy cover for the extent of works area is consistent with achievable canopy cover in medium/high density precincts.

6.7 Environmental Amenity

Solar access

The proposed development has been designed to maximize the amount of natural daylight. The proposal includes passive design measures to promote a comfortable environment for patients and staff, including:

- Use of light well to improve daylight in larger floor plates at lower levels;
- Transient spaces to maximise views and natural light;
- High performance building envelope;
- Public areas at lower level shaded by concourse;
- The façade is conceived as a panelised façade system that allows flexibility for internal configuration and is thermally, acoustically and structurally efficient to allow for a comfortable environment for occupants; and
- Materials are robust.

Overshadowing

Overshadowing and solar access within the site is detailed in the shadow diagrams, prepared by HDR Architects. Refer to the Architectural Design Statement at **Appendix F.**

The overshadowing diagrams highlight the period of greatest impact throughout the year being the winter solstice (2pm-4pm). The Building has been setback from the boundary edge and has been designed to protect the mid-winter solar access to the neighboring residential properties. All overshadowing impacts 2pm – 4pm at the winter solstice are contained within the site.

View Analysis / View loss

View impact assessment is detailed in the Architectural Design Statement at **Appendix F.**

The location for viewpoints (four in total) are all within the public domain at street frontages to the site. These include:

1. View 1: Junction of Kingsway and Kareena Road looking south east towards the proposed site;
2. View 2: View from Kareena Road looking east towards the proposed site;
3. View 3: View from Kingswayh looking south towards the proposed site;
4. View 4: View from Kareena Road looking north east towards the proposed site.

Refer to **Figures 26** to **29** for view analysis of the above viewpoints.

View 1: Junction of Kingsway and Kareena Road looking south east towards the proposed site

Figure 26 Junction of Kingsway and Kareena Road looking south east towards the proposed site
Source: HDR Architects

Assessment of impact: The combination of the sensitivity of the viewpoint and the magnitude of the proposal on the view provides an integrated impact of Low. The level of impact is lessened by existing trees providing coverage for the proposal.

View 2: View from Kareena Road looking east towards the proposed site

Figure 27 View from Kareena Road looking east towards the proposed site
Source: HDR Architects

Assessment of impact: The combination of the sensitivity of the viewpoint and the magnitude of the proposal on the view provides an integrated impact of Moderate**.**

View 3: View from Kingswayh looking south towards the proposed site

Figure 28 View from Kingswayh looking south towards the proposed site
Source: HDR Architects

Assessment of impact: The combination of the senstivity of the viewpoint and the magnitude of the proposal on the view provides an integrated impact of Low. The level of impact is lessened by existing trees providing coverage for the proposal.

View 4: View from Kareena Road looking north east towards the proposed site

Figure 29 View from Kareena Road looking north east towards the proposed site
Source: HDR Architects

Assessment of impact: The combination of the sensitivity of the viewpoint and the magnitude of the proposal on the view provides an integrated impact of Low. The level of impact is lessened by existing trees providing coverage for the proposal.

The assessment notes that many of the views primarily comprise of surrounding mature trees and vegetation with the hospital as the dominant feature. Overall, the assessment concludes that the level of impact on the view is low/medium as it is lessened by existing trees and vegetation.

6.8 Transport and Accessibility

A Transport and Accessibility Statement has been prepared by Taylor Thomson Whitting (TTW). Refer to this report at **Appendix M**. A summary of the findings and recommendations are discussed below. In addition, a Green Travel Plan, Operational Transport and Access Management Plan and Construction Traffic and Pedestrian Management Plan were prepared by TTW. Refer to these at **Appendix O, Appendix N** and **Appendix P** respectively.

Operation

Traffic

Trip generation

A summary of generated trips from the proposal is detailed in **Table 13** below.

Table 13 Summary of generated trips
Source: TTW

	Current	Phase 1: 2023/26	Phase 2: 2026/31
TSHOTUP staff (headcount)	221	345	404
Net increase (headcount)	-	124	183
Number of beds	13	17	18
AM peak hour trips	99	152 (+53)	177 (+78)
PM peak hour trips	143	221 (+78)	256 (+113)

Traffic growth

Background traffic growth across the forecast period has been assumed at 2% per annum.

Trip distribution

Distribution of additional trips has been calculated based on the distribution of existing movements at the site entry, which is approximately 10% to the northeast (Kingsway access), 30% to the north (Kareena Road northern access), and 60% to the south (Kareena Road southern access).

Future traffic conditions and impact on intersections

The post-development traffic impact on the nominated study intersection has been assessed using SIDRA Intersection modelling.

The proposed development will have a negligible impact on the overall performance of the Kingsway/ Port Hacking/Kareena Road intersection, in the year 2023 (Opening Year) and 2030 (Horizon Year). It is noted that with the addition of development traffic in 2030 during PM peak, the southern approach of Kareena Road shows an increase in 95th percentile queue length by approximately 20 metres and delays up by 3 seconds with the same level of service (LOS C) as the base scenario. The overall intersection will operate at LOS C and LOS D during AM and PM peak respectively, which is same as without development scenario in the year 2023 (Opening Year) and 2030 (Horizon Year).

The intersection of Kareena Road / Northern Access to the Hospital will become operational prior to the year 2023 (Opening Year). A post-development assessment for the intersection shows no significant vehicle queuing or delays on the newly built right turn lane and overall intersection.

When compared with the existing conditions and the year 2023 operations, the roundabout controlled intersection of Kareena Road/ Southern Access shows a minor improvement in delays. Due to the opening of a right-turn lane at the intersection of Kareena Road / Northern Access, it is assumed that approximately 50% of the northbound traffic on Kareena Road associated with the Hospital is likely to shift to the northern access.

This results in improving the intersection operational performance of the roundabout. However, with the anticipated increase in traffic generation by the year 2030, the intersection assessment for the PM peak shows a minor increase in 95th percentile queue by approximately 15 metres on the eastern approach of the roundabout. This increase in the queue would occur within the Hospital boundary and is likely to have a negligible impact on the Kareena Road traffic operations.

Based on the post-development traffic assessment, the proposed redevelopment would have a minor impact on the surrounding traffic with no major additional queuing or delays observed associated with the redevelopment traffic.

Parking

Based on the proposed development design, the building footprint would permanently eliminate up to 12 parking spaces from Car Park 3.

Table 14 below provides, with the additional parking demand and reduced parking provision, there would still be a surplus during the ultimate peak activity period. Based on the below, the overall parking supply would cater for the increase in parking demand associated with the proposed redevelopment.

Table 14 Parking supply and demand
Source: TTW

Stage	2020 (Existing)	2023/26 (Phase 1)	2026/31 (Phase 2)
Site supply	853	841	841
Site demand	718	772	797
Surplus	**135**	**69**	**44**

Access

Vehicular access

The building extension will result in the closure of the internal roadway, which connects the northern and southern portion of the site and facilitates vehicles access to the emergency department and car parking areas located to the north of the site. Subsequently, an alternative right turn arrangement off Kareena Road northern access has been determined via a separate planning approval under Part 5 of the EP&A Act, and would be constructed prior to commencement of construction works for the proposal. The newly constructed right turn treatment would provide access to the emergency department and surrounding car parks for the northbound traffic on Kareena Road.

Refer to **Figure 30** for the vehicular access points to the proposed development.

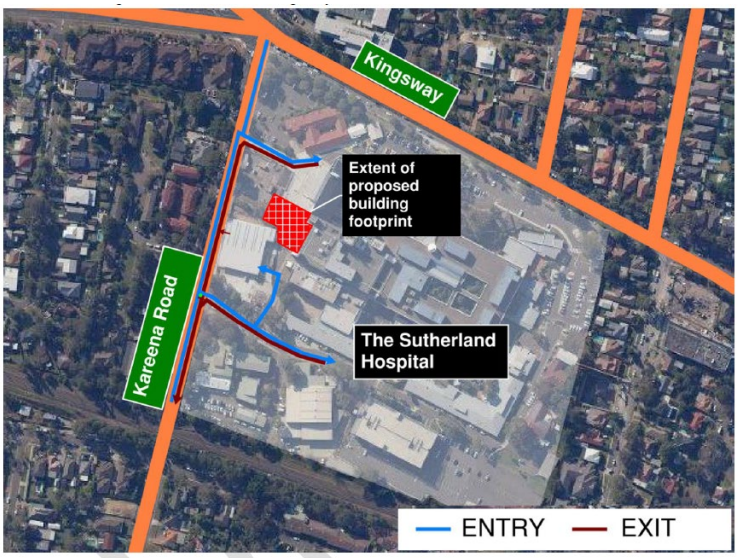

Figure 30 Proposed vehicular access
Source: TTW

Pedestrian access

All existing infrastructure is to be retained (or reconstructed where necessary along the site frontage) and considered to be adequate for the future operation.

Green Travel

A Green Travel Plan (inclusive of Workplace Travel Plan) has been developed (refer **Appendix O**). It provides a review of existing facilities and travel habits, and overarching principles and objectives relating to sustainable travel. It is intended to be dynamic and respond to staff and visitor behaviour.

Operational Traffic Management

A Preliminary Operational Traffic and Access Management Plan (OTAMP) has been prepared by TTW. Refer to this at **Appendix N**.

The OTAMP provides an overview of facilities and connectivity within and around the site, and the anticipated transport demands of the site. This plan considers the interface of multiple transport modes (including specialty modes such as service vehicles and ambulances) and strategies which may be required to safely and efficiently manage these. The document is preliminary in nature and is intended to be dynamic and respond to the future operation of the site. It is anticipated a detailed OTAMP will be required to be prepared as a condition of consent.

Construction

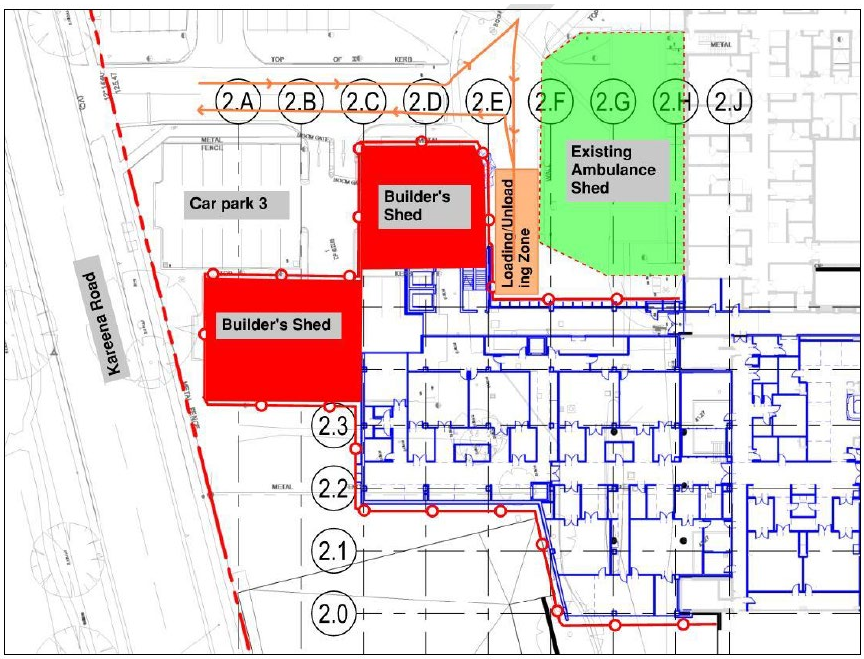

Figure 31 Preliminary Site Layout
Source: TTW

- A Preliminary Construction Traffic and Pedestrian Management Plan has been developed for the proposed development by TTW. Refer to this at **Appendix P**. A detailed CTPMP shall be developed by the contractor awarded the construction contract.
- Construction traffic management - it is anticipated that truck loading and unloading will occur wholly within site. All deliveries are to be made within the approved work hours. A Traffic Control Plan (TCP) showing appropriate warning signages addressing all the construction stages shall be developed as part of the contractor's detailed CTMP for the CC stage.
- Local traffic - local traffic patterns during construction are expected to remain consistent with the existing conditions.
- Construction parking - to minimise disruption to hospital and ambulance services, reduce interaction between hospital visitors and construction works and to prioritise patient, visitor and staff access to parking spaces at the Hospital, there will be no on-site parking created for construction workers. To minimise the impact to surrounding on-street parking and neighbouring properties, construction workers will be prohibited from parking within a 200m distance from the site. This restriction will be incorporated in the Principal Contractor's contractual obligations to ensure that the Contractor is required to enforce the restriction on all workers. On-street parking will be incorporated in the agendas of weekly meetings, monthly meetings and recurring project performance reviews to ensure compliance. Ongoing Council project updates will ensure that the project team are made aware of any complaints regarding on-street parking by construction workers, made to Council. The Contractor will encourage all the construction workforce to use public transport. The restrictions relating to on-street parking will be communicated to the workforce at the site induction and through regular and ongoing toolbox talks. All schemes and proposals would be subject to a future finalised CTMP to be prepared by the builder and approved where relevant with DPIE, Local Council and TfNSW.
- Pedestrian impact - the footpath at all the adjoining roads to the Hospital will remain operational, and construction traffic movements are unlikely to interrupt any pedestrian facility in the vicinity of the site. The site is to remain secured from pedestrian access with site fencing. Therefore, the proposed construction works would not impact on any pedestrian activity in the surrounding.

- Cyclist impact - there are no changes to dedicated cycleways in the area.
- Emergency services - emergency vehicles accessing the operational hospital emergency department and other critical areas will be unimpeded by construction works.
- Site safety - all construction work and operations are to be contained within site. Fencing with an A-class hoarding is to be implemented on all site boundaries. Safety for passing traffic, including pedestrians, shall be maintained at all times.
- Cumulative local impacts - no nearby construction sites are anticipated to create a cumulative impact on local traffic.

Concluding comments on traffic

As concluded in appended Transport and Accessibility Impact Assessment:

- With 10 years of background traffic growth and an estimated increase of up to 183 staff (by headcount), all intersections continue to operate at acceptable Levels of Service;
- Parking demand and supply will be catered for within the existing car parking provision Parking demand will be up to approximately 80 spaces once the development will reach its 100% anticipated staffing level. Based on the parking demand study, the additional parking demand associated with the redevelopment can be catered within the existing car parking provision with a remaining surplus of approximately 44 parking spaces;
- Pedestrian infrastructure will be retained and is adequate for construction and operation of the proposed development;
- Construction traffic management will be dealt within the site and within the approved work hours;
- The proposed development is considered acceptable with regards to its traffic and parking impacts. The capacity of the local road network and the site with regards to both traffic and parking is considered sufficient to cater for the redevelopment and is recommended for approval.

6.9 Ecologically Sustainable Development (ESD)

Ecologically Sustainable Design (ESD) principles addressing water and energy use, material selection and waste management have been incorporated into the design of the proposed development.

An ESD Report has been prepared by Steensen Varming detailing the ESD credentials of the proposed development. Refer to this report at **Appendix AG**.

The proposal incorporates a range of ESD initiatives, including:

- Building Form has been designed with consideration of façade access for greater access to natural daylight and opportunity. The operating theatres are located to the South while the administrative and staff areas are located in the North, with greater access to daylight and views;
- A new façade will be installed on the extension, there are therefore opportunities to optimise the Solar Heat Gain Coefficient (SHGC), light transmittance (VLT) and U-values;
- Metering and Monitoring will be included in the design to monitor energy consumption for ongoing building reporting and tuning;
- Water efficient fixtures / fttings will be specified. These include fittings such as taps, showerheads, toilets, zip taps, dishwashers etc certified under the WEL rating scheme.

In addition, refer to a detailed assessment of the proposed development against ESD principles under the EP&A Regulations at **Section 5.4** of this EIS.

The proposed development has been designed to minimise the impact of Climate Change using a variety of design principles, including:

- Improved thermal performance in line with Health Infrastructure Engineering – Guidelines, through low e-glazing and shading fins within the development for hotter days and more frequent heatwave events;
- Include landscaping with native low water plant species for extended drought periods; and
- Increase stormwater discharge capability, over-flow drainage for more extreme rainfall events.

6.10 Noise and Vibration

A Noise and Vibration Impact Assessment has been prepared for the proposed development by JHA. Refer to this report at **Appendix AH**.

Existing environment and standards

The report establishes sensitive receivers in the vicinity of the development, comprising residential (Kareena Road and Kingsway) and Kareena Private Hospital. Attended and unattended noise surveys were also undertaken to establish existing noise environment in accordance with the method described in the 'AS/NZ 1055:2018 Description and measurement of environmental noise'.

Various standards and guidelines were used to establish the project noise level criteria in respect of noise emissions and intrusive noise; transport noise; and construction noise and vibration.

Construction Noise and Vibration

A preliminary construction noise assessment has been carried out based on typical plant and machinery expected throughout the construction stages. The preliminary noise assessment has been considered at the nearest existing residential receivers and nearest hospital receivers.

Table 15 Construction Noise and vibration assessment

Noise & vibration source	Comment
Construction noise assessment at nearest residential receiver	The noise associated with the construction work is expected to exceed the highly noise affected level from the Interim Construction Noise Guideline (ICNG) at the nearest affected residential receivers, with no acoustic screening. The highly noise affected level criteria represents the point above which there may be strong community reaction to noise. Therefore, it is recommended that a detailed Construction Noise & Vibration Management Plan is prepared prior to Construction Certificate to further detail any required mitigation measures.
Construction noise assessment at private hospital	Noise and vibration from the use of any plant equipment and/or building services associated with the premises shall not give rise to any offensive noise or vibrations. Noise and vibration from the site shall not exceed the limits set out in the EPA's Interim Construction Noise Guidelines and Australian Standards. No machine work will occur outside the normal working hours set unless approval has been given. All reasonable feasible measures shall be applied based on the recommendations from the ICNG to further reduce any adverse noise impacts.
Vibration	If Contractor has concerns for the disruptions at nearest sensitive receivers due to vibration intensive plant use, it is recommended that prior to the commencement of the works, to

	undertake a preliminary vibration survey on each key vibration generating activity / equipment. The preliminary vibration survey and assessment will determine whether the vibration levels might exceed the relevant criteria then vibration mitigation and management measures will need to be put in place to ensure vibration impacts are minimized as far possible. A vibration monitoring system may be considered to assess the risk of potential structural damage to nearby buildings of concern.
Construction Hours	The following construction hours are proposed as follows: – Monday to Friday: 7am to 6pm. – Saturday: 8am to 1pm. – Sundays and Public Holidays: No excavation or construction works

Potential construction noise and vibration impacts on the nearest residential receiver have been presented in the Noise and Vibration Assessment and recommendations based on the relevant guidelines are provided. If during any construction work, equipment exceeds the established noise and / or vibration level criteria at any sensitive receiver, the additional noise and vibration control measures shall be considered to minimise the noise and vibration impacts.

A Detailed Construction Noise and Vibration Management Plan (CNVMP) will be required to be prepared as a condition of consent and included in the Construction Environmental Management Plan (CEMP) prepared by the contractor.

Operation

External noise emissions from the proposed hospital upgrade have the potential to impact on existing noise sensitive receivers. For the purpose of this noise impact assessment, the noise sources associated with the upgrade are assumed as follows:

– Noise emissions from mechanical plant from the Hospital to the surrounding receivers; and

– Noise emissions from traffic generated by the Hospital.

Table 16 Operational noise assessment

Noise source	Comment
Mechanical Noise Assessment	Based on the results of the assessment, the proposed cooling tower plant is expected to meet the external noise requirements. Additional noise controls will need to be considered during the design process and prior to Construction Certificate to ensure that the cumulative noise levels from plant to the nearest sensitive receivers meets the noise level criteria.
Road Noise Assessment	Traffic generated as a result of the proposed hospital development is not expected to have an adverse noise impact on the surrounding roads and is in compliance with the Road Noise Criteria.
External noise intrusion assessment	Northern facades overlook the Kingsway Road which is a source of continuous traffic noise with an AADT greater than 20,000 as per NSW RMS Data. The Southern façade overlooks the T4 Cronulla Branch Rail Corridor which is also a source of noise and vibration impacting on the development. As the façade of the development is approximately 160 metres

from the nearest operational rail line, this is outside the distance required for an assessment. Hence a noise assessment for rail noise and vibration is not required.

6.11 Wind

CPP were commissioned to prepare a Qualitative Wind Assessment for the proposed development. Refer to this at **Appendix X.**

The impact of the proposed Sutherland Hospital Upgrade Project on the local wind environment in and around the development site, with a particular focus on the under-croft area. Considering the scale and massing of the new build component of the upgrade within the existing built context, the impact of the proposed work on the local pedestrian-level wind environmental amenity is expected to be negligible. For the under-croft area, wind conditions are expected to be mostly similar to the adjacent outdoor environment, with some areas well protected and suited for short to medium term stationary use by pedestrians, and others slightly windier and suitable for more transitory use.

6.12 Hazardous and Offensive Development

A SEPP 33 Requirements report was prepared by ARUP (refer **Appendix S**). This report defines the thresholds for storage quantities of dangerous goods, in particular Class 3, 5.1 and 8 for The Sutherland Hospital. This assessment concluded that oxygen storage tanks exceed the screening threshold of SEPP 33. The Site should be considered potentially hazardous and therefore a preliminary hazardous assessment (PHA) is required.

A PHA has been prepared for the proposed development in accordance with Clause 12 of SEPP 33. Refer to this at **Appendix T**. This assessment concluded that the cryogenic/liquid oxygen storage tanks and compressed oxygen cylinders will exceed the screening threshold of SEPP 33. Therefore, a detailed qualitative analysis was conducted to determine the risk to off-site populations. It was concluded that the cryogenic oxygen tanks and compressed oxygen cylinders while exceeding the Applying SEPP 33 threshold quantities, do not pose a significant off-site risk to the surrounding residential areas.

6.13 Geotechnical

A Geotechnical Investigation Report (**Appendix V**) has been prepared by JK Geotechnics to provide information on the subsurface stratification, and comment on excavation, foundations, and groundwater levels.

The report states the 1:100,000 Geological Map of Wollongong indicates the site is close to the contact between a capping unit comprising claystone, siltstone and laminate and the underlying Hawkesbury Sandstone.

The report finds the results of borehole testing for the site disclosed a generalised subsurface profile comprising shallow to moderately deep fill overlying residual clays, with weathered siltstone and then sandstone at depth.

In terms of groundwater, the boreholes were ‘dry’ during, and on completion of auger drilling. Analysis revealed general groundwater gradient down to the south-east.

Laboratory test results of samples revealed:

- The clayey soils may be classified as having a ‘Mild’ and ‘Non-aggressive’ exposure classification for concrete and steel, respectively; and
- The siltstone may be classified as having a Non-aggressive exposure classification for both concrete and steel.

Based on the analysis, the report makes various recommendations for construction methods. Refer to the report for details. In summary the existing geotechnical conditions will not hinder the construction of the proposed development.

6.14 Contamination

An Environmental Site Assessment (ESA) was prepared for the proposed development by JK Environments. Refer to this report at **Appendix R**.

The ESA was prepared in accordance with the National Environmental Protection (Assessment of Site Contamination) Measure 1999 as amended (2013), the Contaminated Land Management Act 1997(CLM Act) and State Environmental Planning Policy No.55 – Remediation of Land.

The report noted the site area formed part of the wider Sutherland Hospital premises since at least 1956 and was used predominantly as a carpark/accessway since at least 2005. Prior to this time, the site was used for rural/agricultural purposes. A Woolworths service station was noted to be located 150m to the north/northwest (up-gradient) of the site which is considered to be a potential source of contamination. This property is notified to the NSW Environment Protection Authority (EPA) and is currently regulated under the CLM Act.

The investigation identified elevations of Total Polycyclic Aromatic Hydrocarbons (PAHs), carcinogenic PAHs, Benzo(a)pyrene and nickel contamination in soils on site and within the areas of proposed development works. The source of contamination was identified as the fill material historically imported onto the site. The contaminants requiring remediation include: Total PAHs and carcinogenic PAHs within the northern part of the site area, and Total Recoverable Hydrocarbons (TRH) F3, Benzo(a)pyrene and nickel identified also within northern as well as southern parts of the site which poses a risk to ecological receptors. These TRH exceedances where co-located with carcinogenic PAHs require remediation due to the potential risk to human health.

Although the contaminants in the soil were assessed to pose a potential risk, currently the site is largely paved and there are no complete source-pathway-receptor (SPR) linkages to the contamination.

Data gaps were identified which included ground water quality and characteristics, delineation of contamination hotspot, and characterization of soils for waste classification purposes. These are highlighted for investigation and resolution through preparation of a Remediation Action Plan (RAP).

The ESA assessment found that the site can be made suitable for the proposed development subject to the implementation of the recommendations, including in summary:

- Preparation of a RAP;
- Undertake a validation assessment;
- A detailed/destructive hazardous materials survey should be undertaken on all parts of the building which will be affected by the proposed works; and
- Any ACMs/PACMs identified within areas likely to be disturbed by the proposed upgrades should be removed by a licensed contractor prior to these works being undertaken.

A Remediation Action Plan (RAP) has been prepared for the proposed development by JK Environments. Refer to this at **Appendix W**. The goal of the remediation is to reduce human health and environmental risks associated with actual and potential site contamination to an acceptable level, in order to render the site suitable for the proposed development from a contamination viewpoint.

This RAP includes requirements to complete the data gap investigation and confirm the extent of remediation. Once this occurs, a Remedial Works Plan (RWP) is to be prepared to outline the remediation and validation requirements. The RAP proposes two options for remediation, including ‘cap and contain and management’ and ‘excavation and off-site disposal’. Either option, or a combination of the two options, is considered to be appropriate to mitigate the risks posed by the contaminants identified during the ESA.

The final extent of remediation will be confirmed via the site validation process. A validation report is to be prepared on completion of remediation to demonstrate that the

remediation was successful and to confirm that the site is suitable for the proposed development from a contamination viewpoint. An Environmental Management Plan (EMP) will also be prepared for those areas where contaminated soil is capped as these areas will be managed over the long-term so that risks remain low and acceptable.

6.15 Utilities

An Infrastructure Management Plan has been prepared by JHA Services and is attached at **Appendix AB**. The key findings are summarised below.

Electricity

The site is presently supported by the following electrical infrastructure:

- Two (2) 750kVA, prime rated generators that are synchronised and paralleled before supplying loads.
- A 75kVA UPS (Eaton 93PR) installed immediately outside main switch room 3, supplies much of the site's communication equipment.

Communication

NBN, Telstra and Optus cable and fibre are buried underground in conduits that run across the site in a manner that does not correlate with boundaries. These cables are located within the proposed building footprint and will be relocated but not augmented as a result of the proposal.

Hydraulic

The existing hospital precinct is supplied from Sydney Water's system via 2 independent connection points, being:

- 150mm connection complete with Ø150mm Water Meter Assembly and Reduced Pressure Zone Device (RPZD), from the existing Ø150mm watermain in Kareena Road
- 150mm connection complete with Ø150mm Water Meter Assembly and Reduced Pressure Zone Device (RPZD), from the existing Ø375mm watermain in the Kingsway

To facilitate the proposal no upgrade works are proposed at this time for the hydraulic infrastructure.

6.16 Ecology

A BDAR Waiver request for the project was prepared for the proposal by Abel Ecology and submitted to DPIE on 16 October 2020.

A formal BDAR waiver approval (refer **Appendix AF**) was issued for the project by DPIE on 23 December 2020. This determined that the development is not likely to have any significant impacts on biodiversity values and that the application does not need to be accompanied by a BDAR. A waiver under section 7.9 was therefore granted for the proposed development (being The Sutherland Hospital Operating Theatre Upgrade – SSD 11099584). The delegated "Environment Agency Head" in the Environment, Energy and Science Group (EESG) of the Department has also granted a waiver in a letter dated 3 December 2020.The EESG found in their assessment:

> "*This is a brownfield site. No identified biodiversity values are mapped for the land, no five part tests for locally occurring threatened species are breached by the proposal, no waterways are present on site, no threatened species or threatened ecological communities, critical habitat, karsts or caves are present and no wildlife corridor or flight paths will be impacted by this proposal. No direct or indirect biodiversity impacts are anticipated on or off-site by this proposal. A small area of vegetation will need to be removed within the building footprint of the theatre extension, well under the threshold for entry into the Biodiversity Offset Scheme. The vegetation comprises a young planted*

landscape of native sand exotic species in mounded and mulched garden beds."

Based on this the proposal is considered to have an acceptable impact on the ecology of the site.

6.17 Waste Management

A Waste Management Plan (WMP) has been prepared by Ricardo to outline operation and construction waste generation estimates, storage and mitigations measures relevant to the redevelopment works. Refer to this report at **Appendix AD**.

Construction

There is likely to be approximately 106 tonnes of landfill material produced during demolition and construction activities associated with the building if the site is managed to achieve the maximum waste generation benchmark identified by the Green Building Council of Australia (GBCA).

Operation

Waste generation associated with the perioperative activities includes, general waste, commingled recycling, anatomical clinical, kimguard, sharpsmart bins, cytotoxic waste, pharmaceutical waste, radioactive waste and confidential waste. A waste storage area of 30m2 is likely to provide sufficient onsite storage area based on a daily collection service and optimised layout. This area is to be developed in accordance with the relevant guidelines and best practice measures.

A Detailed Demolition WMP and Detailed Construction WMP will both be required to be prepared by the contractor for demolition activities on site to inform Crown building work certification (for demolition and construction).

Hazardous Materials

An Asbestos and Hazardous Materials Limited Pre-Demolition Assessment has been prepared for existing buildings within extent of works of the proposed development by Coffey. Refer to this report at **Appendix U**. It includes an Asbestos Materials Register.

The purpose of the hazmat pre demolition assessment was to Identify and assess the health risk posed by hazmat, including asbestos-containing materials (ACM) which may be encountered during future demolition/refurbishment works of the building. This is in order to meet the requirements of the relevant State Regulations, Compliance Codes, Codes of Practice and Guidance Notes.

This report identified or suspected the following hazardous building materials in Building A at the time of the assessment:

- Asbestos-containing Materials (non-friable and friable)
- Synthetic Mineral Fibre
- Lead-based Paint
- Lead-containing dust
- Poly-chlorinated Biphenyls
- Ozone Depleting Substances

A number of recommendations were made in the report to address the ongoing management of hazardous building materials at this site.

6.18 Soil and Water

Stormwater Drainage

A Civil Engineering Statement and Plans have been prepared for the proposed development by ACOR which includes stormwater management measures and a Stormwater Management Plan. Refer to this report at **Appendix AC**.

Stormwater quantity

The existing site stormwater catchments remain relatively unchanged and the design ensures that the equivalent post development catchment area is directed to the proposed 45m^3 OSD to ensure that the predevelopment flows are maintained as required by Sutherland Shire Council DCP. The proposed OSD is replacing existing OSD on site and was approved under separate planning approval via a REF.

The proposed drainage network has been designed and modelled in DRAINS with post development flows for all storm events up to the 1% AEP have been reduced to less than the pre-development site discharge.

The design ensures that for all storm events up to the 1% AEP, flows will be managed through the in-ground OSD tank and outlet pipe, with an internal overflow weir chamber within the OSD tank, which discharges flows in excess of the 1% AEP to the outlet pipe.

Stormwater works are being undertaken wholly within the TSH property, as such, no drainage infrastructure will be handed over to Council.

Stormwater quality

The proposed works will result in a roof being constructed over the existing vehicular hardstand which will also be returned to a landscaped area. Sutherland Shire Council consider stormwater runoff from roof areas so be clean water and as such the roof is effectively reducing the pollutant runoff from the site.

The reduction in vehicular pavement will also reduce the amount of oil and grease expected to be generated form the site and as such the development will not generate any additional pollutants, As such the proposed development will not generate additional pollutant loads and as such a GPT will be used to manage the stormwater quality similar to the measures that are currently implemented on site.

Impacts on surface and groundwater

A Geotechnical Investigation was carried out for the proposed development by JK Geotechnics. Refer to this at **Appendix V**. Following testing and sampling, this found groundwater at depths of 4.15m within monitoring wells, indicating a general groundwater gradient down to the south-east.

The Environmental Site Assessment prepared by JK Environments at **Appendix R** included assessment of impacts to groundwater. This found:

- Nickel in soil do not appear to pose a risk to groundwater based on the low concentration of this heavy metal reported in the immediately underlying fill soil sample;
- The hydrocarbon concentrations (TRHs and PAHs) in soil do not appear to pose a risk to groundwater based on the absent/low concentrations of these contaminants reported in the underlying fill soil sample, and the overall expected depth to groundwater and confining layers beneath the site (i.e. expected at between, 3.15 and 4.15 metres below the surface);
- A data gap relates to the lack of groundwater data beneath the site. Groundwater quality between up-gradient and down-gradient locations at the site was not completed and actual depth to groundwater table and flow direction beneath the site was not ascertained. There is a potential that proposed construction works would affect the groundwater beneath the site to an extent which would pose a risk of concern from a contamination viewpoint. Given that there are three monitoring wells which have been installed as part of the geotechnical assessment it is considered that all potential contamination concerns for groundwater can be further addressed as part of RAP protocols. Further groundwater monitoring is considered necessary for the proposed construction works. Groundwater conditions and quality could be further confirmed during the remediation/validation process.

ACOR have prepared construction management methodology for a Soil and Water Management Strategy for the development. Refer to this at **Appendix AC**, and response to erosion and sediment control below.

Erosion and sediment control

Principles and measures for erosion and sediment control, and a Soil and Erosion Sediment Control Plan, have been prepared by ACOR at **Appendix Z**.

Salinity

The site has not been identified as being affected by salinity in the Environmental Site Assessment prepared by JK Environments (**Appendix R**).

Acid Sulfate Soils

The site has not been identified as affected by Acid Sulphate Soils in the Sutherland Shire Council LEP 2015 or in the ESA prepared by JK Environments (**Appendix R**).

Flooding

ACOR engineers advise in their Civil report (**Appendix Z**) that the Sutherland Hospital site is not within a flood risk zone or subject to external flooding and therefore it is not anticipated that additional flood planning requirements for the 1% AEP event or Probable Maximum Flood (PMF) will be required.

6.19 Structural

A Structural Engineering Report has been prepared for the proposed development by ACOR. Refer to this at **Appendix Y**.

The structure will be supported on piled foundations and will typically consist of post tensioned band beams and slabs. The new building will provide its own stability system, without reliance on the existing buildings. Overall lateral stability will be provided by reinforced concrete stair and lift core walls. Future levels are to be incorporated into the design with the vertical structure designed for additional load including construction load-case.

The structural design shall be in accordance with the latest revision of all relevant structural Australian Standards, relevant structural sections of the BCA and other statutory requirements.

6.20 Accessibility

A BCA And Access Assessment Report has been prepared for the proposed development by Blackett Maguire + Goldsmith Pty Ltd. Refer to this report at **Appendix AA**.

The assessment was against the Deemed-to-Satisfy provisions and Performance Requirements of the National Construction Code Series (Volume 1) Building Code of Australia 2019 Amendment 1 & Disability (Access to Premises – Buildings) Standards 2010.

BMG confirm that subject to the recommended measures set out in their report being appropriately addressed by the project design team, compliance with the provisions of the BCA is readily achievable. They conclude that the development proposal is capable of achieving compliance with the accessibility provisions of the BCA and Access to Premises Standard.

6.21 Social Impacts

A Social Impact Assessment has been prepared by Ethos Urban and is appended at **Appendix L**. The Social Impact Assessment identifies that the expansion of The Sutherland Hospital has the potential for temporary negative impacts to way of life, including associated changes to the daily living routines and surrounding environment on The Sutherland Hospital.

However, the proposed development will have significant social benefits to the patients, staff and community including:

- The proposed project will deliver increased capacity and provide additional surgery and care services; including – operating theatre capacity from five to eight,

construction of supporting spaces including recovery, day surgery and storage, a new Central Sterilising Services Department and a new MRI space;

- The new, purpose built operating theatres have been designed and built in consultation with The Sutherland Hospital staff;
- Positive benefits to way of life and wellbeing associated with improvements to work environments on this site;
- Positive impacts to livelihoods associated with increased employment opportunities – including construction and operation;
- Positive benefits to connection to place associated with delivery of a reflective garden within the undercroft, incorporating native plantings and public art;
- Positive benefits to culture and surroundings associated with delivering of a landscaped reflective garden and incorporation of Aboriginal design elements.

The Social Impact Assessment concludes that the overall long term benefit of the proposed development is considered to be positive and potential negative impacts can be mitigated through implementation of a robust Construction Management Plan, effective staging and development of a Plan of Management for the site based on ongoing consultation with key stakeholders.

6.22 Economic Impacts

The economic impacts of the proposed development are positive as job creation will result from the proposal, with an estimated 377 full time construction jobs over a 26 month duration, and 146 FTE operational jobs.

6.23 Cumulative Impacts

The Sutherland Shire Development Application Tracker and Department of Planning Industry and Environment's Major Projects website do not identify any completed, underway or proposed developments in the immediate vicinity of the hospital site at the time of writing.

Early works were recently undertaken under Part 5 of the EP&A Act by Health Infrastructure NSW as "development without consent" under ISEPP. These works allow for the relocation and replacement of existing in ground services, associated civil works for a right hand turn on Kareena Road, and associated road works. These works will allow the hospital to ease disruption on hospital operations while the SSDA scope are carried out on site.

The anticipated construction time frame is currently expected to take place just over a 2-year period, from December 2021 to February 2024. A CCTMP has been prepared by TTW at **Appendix P,** concludes that "no nearby construction sites are anticipated to create a cumulative impact on local traffic. The volume of construction traffic generated by the site is within normal daily traffic variations and can be catered for within the capacity of the local network".

6.24 Site Suitability

There are no known site conditions which would prevent the development including geotechnical conditions, contamination, flooding, biodiversity, Aboriginal cultural heritage historical archaeology, or other.

While existing trees will be impacted, and this is a consequence of being a constrained site, their removal will be compensated by proposed tree planting to suitably augment the tree canopy of the site.

The impacts on surroundings during construction and operation are not significant and can be adequately ameliorated.

The Sutherland Hospital site has historically been used for a Hospital. The proposed development seeks to build on this established character through the provision of additional service capacity on the site. The proposed built form provides a scale of

services that responds to the requirements and needs of the SESLHD whilst not precluding future development of The Sutherland Hospital.

The site is therefore considered suitable for the proposed development.

6.25 Public Benefits

The proposed Sutherland Hospital upgrade offers significant public benefits to the patients and broader community of the Sutherland Shire.

Where there are environmental impacts these can be sufficiently ameliorated through mitigation measures and design development. There will be impacts on the local community during construction particularly from construction traffic. This will be closely managed in accordance with the Preliminary CTPMP and the Detailed CTPMP that will be required to be prepared as a condition of consent.

Generally, the proposal will deliver a significant public benefit because it is for the purpose of important public social infrastructure that will meet the health and social needs of the local community. It will result in increased quality of heath infrastructure and improve patient outcomes and staff satisfaction.

Other key benefits of the proposed hospital upgrade include:

- It responds to a forecast increase in demand for health facilities;
- It will provide permanent facilities for patients and staff to meet current standards and best practice requirements;
- It will generate 377 full time construction jobs over a 26 month contract duration, and 146 FTE operational jobs.
- The proposed new building will align with setbacks and scale of surrounding buildings and reflect the rhythm, form and materiality of its built form context. It has been subject to a design review process with Government Architect NSW State Design Review Panel;
- Improved and coherent landscaping strategy for the site which will provide a more appropriate setting for its built form and provide amenity benefits for users and visitors with new open space and landscape embellishments; and
- The site has been long used as a hospital and its redevelopment will ensure its longevity as a hospital is maintained to serve the Sutherland Shire community.

On balance, accounting for site suitability, environmental impacts, risk assessment and key benefits detailed further above, the proposed development is in the public interest.

7. Environmental Risk Assessment

In accordance with the SEARs, this section addresses the following significant environmental risk issues:

- A description of the existing environment, using sufficient baseline data and methodology to establish baseline conditions;
- An assessment of the potential impacts of all stages of the development on all potentially impacted environments, sensitive receivers, stakeholders and future developments;
- Consideration of potential cumulative impacts due to other development in the vicinity;
- Identification of all proposed monitoring or required changes to existing monitoring programs; and
- Measures to avoid, minimise and if necessary, offset the predicted impacts, including detailed contingency plans for managing any significant risks to the environment.

Table 18 sets out the anticipated impacts, the level of respective impact in terms of severity (low, medium, high), identifies mitigation measures, and once these measures are applied, identifies residual risks (low, medium, high).

The risk assessment has been adapted from Australian Standard AS4360.1999 Risk Management and Environmental Risk Tools. The sum of the values assigned provides an indicative ranking of potential residual impacts after the mitigation measures are implemented. Risk scores for likely and potential impacts were derived using the following risk matrix in **Table 17** below.

Table 17 Risk Matrix

Significance of Impact	**Manageability of Impact**				
	5 Complex	4 Substantial	3 Elementary	2 Standard	1 Simple
1 – Low	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)	2 (Low)
2 – Minor	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)	3 (Low)
3 – Moderate	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)	4 (Low/Medium)
4 – High	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)	5 (Low/Medium)
5 - Extreme	10 (High)	9 (High)	8 (High/Medium)	7 (High/Medium)	6 (Medium)

Table 18 Environmental Risk Assessment

Impact Theme	Potential Impact	Mitigation Measure	Significance of Impact	Manageability Impact	Residual Impact
Traffic					
Construction	As mentioned in the Preliminary Construction Traffic and Pedestrian Management Plan (CTPMP), TTW identifies that the construction activity is anticipated to have minimal disruption to the daily activities within the vicinity of the site. There will be no on-site parking created for construction workers.	Construction Traffic and Pedestrian Management - A Detailed Construction Traffic and Pedestrian Management Plan will be required to be prepared as a condition of consent. This is to address cumulative impacts of other on-site and surrounding development including truck movements. To minimise the impact to surrounding on-street parking and neighbouring properties, construction workers will be prohibited from parking within a 200m distance from the site. This restriction will be incorporated in the Principal Contractor's contractual obligations. Emergency vehicles access - The existing and future emergency access routes to/from The Sutherland Hospital would be maintained via Kareena Road.	3	3	6 (Medium)
Operation	The proposed development will increase traffic generation by +55 trips (to 165) in the morning and + 29 trips (to 183) in the afternoon peak hours. This increase of trips will be insignificant to the surrounding road network and will continue to operate at acceptable Levels of Service. In addition, the hospitals reliance on active transport options will relieve impact and stress on traffic.	Operational Traffic and Management Access Plan A Detailed Operational Traffic and Management Access Plan will be required to be prepared as a condition of consent.	2	2	4 (Low/Medium)
Noise and Vibration					
Construction	The noise associated with the construction work is expected to exceed the highly noise affected level from the ICNG Guideline at the nearest affected residential receivers with no acoustic screening.	A Detailed Construction Noise and Vibration Management Plan (CNVMP) will be required to be prepared as a condition of consent, and included in the CEMP.	4	3	7 High/Medium
Operation	Noise emissions associated with operation of the hospital includes the mechanical plant and the traffic generation generated.	Once SSDA determination is received, a detailed assessment will be undertaken to ensure compliance with established noise criteria, including assessment of cumulative impacts of all plant on surrounding sensitive receivers, prior to seeking Crown building works certification.	2	2	4 (Low/Medium)
Aboriginal Heritage					
Construction	No previously unrecorded Aboriginal sites were identified within the study area. All sections of the study area have been subjected to high levels of ground	An "Unexpected Finds Protocol" will be put in place prior to the commencement of work for the instance that any	1	2	3 (Low)

	disturbance. All sections of the study area were found to have a low archaeological potential. No direct impacts from the project on Aboriginal cultural heritage have been identified.	archaeological remains are found. If human remains, or suspected human remains, are found during excavation, all work in the vicinity should cease immediately. The site should be secured and the NSW Police and the DPIE notified.			
Operation	N/A to archaeological objects on site given very low potential they will be present.	N/A			N/A
Contamination					
Construction	The contaminants requiring remediation include: Total PAHs and carcinogenic PAHs within the northern part of the site area, and Total Recoverable Hydrocarbons (TRH) F3, Benzo(a)pyrene and nickel identified also within northern as well as southern parts of the site which poses a risk to ecological receptors. These TRH exceedances where co-located with carcinogenic PAHs require remediation due to the potential risk to human health. Data gaps were identified which included ground water quality and characteristics, delineation of contamination hotspot, and characterization of soils for waste classification purposes.	Data gaps are highlighted for investigation and resolution through Implementation of the Remediation Action Plan (RAP) that has been prepared. Once this occurs, a Remedial Works Plan (RWP) is to be prepared to outline the remediation and validation requirements. The final extent of remediation will be confirmed via the site validation process. A validation report is to be prepared on completion of remediation to demonstrate that the remediation was successful and to confirm that the site is suitable for the proposed development from a contamination viewpoint. An Environmental Management Plan (EMP) will also be prepared for those areas where contaminated soil is capped as these areas will be managed over the long-term so that risks remain low and acceptable	3	3	6 Medium
Operation	Nil	Nil	Nil	Nil	Nil

8. Recommendations and Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed development are detailed in **Table 18** below.

These measures have been derived from the previous assessment in **Section 6** and those detailed in appended consultant's reports.

Table 19 Mitigation Measures

Item	Mitigation Measures
Aboriginal Heritage	An "Unexpected Finds Protocol" will be put in place prior to the commencement of work for the instance that any archaeological remains are found. This is to incorporate the specific recommendations in the ACHAR.
Operational Traffic	Operational traffic impacts and requirements have been assessed and documented in the Transport and Accessibility Assessment, Operational Traffic and Access Management Plan and Green Travel Plan all prepared by TTW. Once design and development for the Hospital has been completed and a builder engaged, a Detailed Operational Traffic and Access Management Plan and Detailed Green Travel Plan will be prepared and submitted to authorities.
Construction Traffic	Construction traffic measures traffic impacts and requirements have been assessed and documented in the Construction Traffic and Pedestrian Management Plan prepared by TTW. Construction workers are prohibited from on-street parking within 200m distance from the proposed development site. This restriction will be incorporated in the Principal Contractor's contractual obligations to ensure that the Contractor is required to enforce the restriction on all workers. A Detailed Construction Traffic and Pedestrian Management Plan will be required to be prepared as a condition of consent.
Geotechnical	The proposed development is to be carried out in accordance with the recommendations outlined in the Geotechnical Investigation Report prepared by JK Geotechnics at **Appendix V**.
Contamination	The recommendations of the Environmental Site Assessment prepared by JK Environments (**Appendix R)** are to be implemented. This includes implementation of the RAP prepared by JK Environments at **Appendix W,** including preparation of Remedial Works Plan (RWP), a validation report on completion of remediation, and Environmental Management Plan (EMP) will also be prepared for those areas where contaminated soil is capped.
Arboricultural	The proposed development will be delivered in accordance with the protection specifications described in Section 8 of the Arboricultural Impact Assessment Report at **Appendix H**, prior to the commencement of any works.
Ecologically Sustainable Development	The proposed development will be delivered in accordance with the Ecologically Sustainable Development Report prepared by Steensen Varming at **Appendix AG.**
Accessibility	The proposed development has been designed in accordance with the Building Code of Australia standards. The proposal will be delivered in accordance with the recommendations provided in the Building Code of

	Australia and Access Assessment Report, prepared by BM+G, at **Appendix AA.**
Waste	Waste generated during construction and operation of the proposed development is to be managed in accordance with the industry standards and guidelines identified in the Waste Management Plan prepared by Ricardo at **Appendix AC**.
Noise and Vibration	A Construction Noise and Vibration Management Plan (CNVMP) will be prepared once construction management is finalised to mitigate noise emissions to the surrounding context and included in the CEMP. The Proposal will align with noise and vibration mitigation measures outlined in the Noise and Vibration Assessment report, prepared by JHA Services at **Appendix AH**.
Wind	The proposed development has been designed in accordance with the wind mitigation strategies outlined in the Wind Assessment prepared by Cermak Peterka Petersen at **Appendix X**.
Construction management	Construction will be managed in accordance with the measures identified in the Preliminary Construction Management Plan prepared by CBRE at **Appendix Q.** A Detailed Construction Environmental Management Plan will be required to be prepared by the contractor.

9. Conclusion

This Environmental Impact Statement (EIS) has been prepared for the proposed operating theatre upgrade works to The Sutherland Hospital in accordance with the SEARs issued by DPIE on 10 December 2020 (**Appendix A)**, Schedule 2 of the EP&A Regulation, and Section 4.15(1) of the EP&A Act. It includes assessment of the proposal against the relevant strategic and statutory planning framework, undertakes a merit assessment of the environmental impacts including assessment of site suitability, a risk assessment, and an evaluation of the public interest.

Having regard to the above, the carrying out of the project is justified for the following reasons:

- The assessment of this proposal has demonstrated that the proposed development will not generate environmental impacts that cannot be appropriately managed and is consistent with the relevant planning controls for the site;
- The development will provide alterations and upgrades to a significant piece of health infrastructure to the area;
- The proposal allows for the provision of new health facilities that meet the special design requirements for the proposed uses, whilst not resulting in any significant adverse impacts on the site or surrounding uses;
- The proposal is consistent with the principles of ecological sustainable development as defined by Schedule 2(7)(4) of the EP&A Regulation 2000;
- The proposed development will not have a significant impact on any threatened flora or fauna species;
- The proposed development will not result in any adverse traffic impacts on the surrounding road network, and parking demand associated with the proposed development can be accommodated;
- It will generate 377 full time construction jobs and 146 FTE operational jobs upon completion. Together with the value of the project and the jobs created this project will stimulate the economy.

On balance, accounting for site suitability, environmental impacts, risk assessment and key benefits, the proposed development is in the public interest.

Given the above it is considered that the SSD Application has merit and can be supported by the Department of Planning, Industry and Environment and the Minister for Planning and Public Spaces.