Environmental Impact Statement

Greenwich Health Campus – Detailed Design (SSD 13619238)

95-115 River Road, Greenwich
HammondCare

Ethos Urban

Prepared by Ethos Urban
Submitted to Department of Planning and Environment

26 August 2022 | 2190376

'Gura Bulga'
Liz Belanjee Cameron

'Gura Bulga' – translates to Warm Green Country. Representing New South Wales.

By using the green and blue colours to represent NSW, this painting unites the contrasting landscapes. The use of green symbolises tranquillity and health. The colour cyan, a greenish-blue, sparks feelings of calmness and reminds us of the importance of nature, while various shades of blue hues denote emotions of new beginnings and growth. The use of emerald green in this image speaks of place as a fluid moving topography of rhythmical connection, echoed by densely layered patterning and symbolic shapes which project the hypnotic vibrations of the earth, waterways and skies.

Ethos Urban acknowledges the Traditional Custodians of Country throughout Australia and recognises their continuing connection to land, waters and culture.

We acknowledge the Gadigal people, of the Eora Nation, the Traditional Custodians of the land where this document was prepared, and all peoples and nations from lands affected.

We pay our respects to their Elders past, present and emerging.

Contact	Chris Forrester Associate Director	cforrester@ethosurban.com 9956 6962

This document has been prepared by:		**This document has been reviewed by:**	
Yousheng Li	13.07.2022	Chris Forrester	13.07.2022

Version No.	**Date of issue**	**Revision by**	**Approved by**
Draft	29.04.2022	YL	CF
V1	27.05.2022	YL	CF
V2	26.08.2022	YL	CF

Ethos Urban | Ethos Urban Pty Ltd | ABN 13 615 087 931 | 173 Sussex Street Sydney NSW 2000 (Gadigal Land) | +61 2 9956 6962 | ethosurban.com

Contents

Table of Figures

Table of Tables

Appendices

A Architectural Plans
Bickerton Masters

B Urban Design Report
Bickerton Masters

C Secretary's Environmental Assessment Requirements
Department of Planning and Environment

D Landscape EIS Report and Plans
Taylor Brammer Landscape Architects

E Construction Management Plan
Roberts Co

F Schedule of Conservation Works
Built Environmental Heritage Group

G Heritage Interpretation Strategy
Cultural Heritage Connections & Built Environmental Heritage Group

H Vegetation Management Plan
Travers Bushfire & Ecology

I Biodiversity Development Assessment Report
Travers Bushfire & Ecology

J Consultation Outcomes Report
TSA Management

K Traffic and Parking Assessment including Preliminary Construction Traffic Management Plan
Transport and Traffic Planning Associates

L Green Travel Plan
Transport and Traffic Planning Associates

M Archaeology Updated Impact Assessment
Cultural Heritage Connections

N Heritage Impact Statement
Built Environmental Heritage Group

O Updated Aboriginal Archaeological Impact Assessment and Consultation Report
Cultural Heritage Connections

P Visual Impact Assessment
Clouston Associates

Q Wind Study
Vipac

R Tree Impact Assessment Report and Tree Management Plan
Mark Bury Consulting

S Tree Pruning Specification
Mark Bury Consulting

T Additional Site Investigation
JK Environments

U Remediation Action Plan
JK Environments

V Hazardous Building Materials Survey
JK Environments

W Additional Geotechnical Investigation
JK Geotechnics

X Acid Sulfate Soil Assessment
JK Environments

Y Salinity Investigation
JK Environments

Z Noise and Vibration Impact Assessment
Acoustic Logic

AA Services Infrastructure Report
JHA

BB Stormwater Management Report including Civil Engineering Plans, and Erosion & Sediment Control Plan
Van Der Meer

CC Flood Assessment
Solutions Water Modelling

DD Accessibility Report
ABE Consulting

EE Waste Management Plan
Waste Audit

FF Crime Prevention Through Environmental Design Assessment
Ethos Urban

GG Preliminary Dangerous Goods Screening Report
JHA

HH Bushfire Protection Assessment
Travers Bushfire & Ecology

II Lighting Statement
JHA

JJ Ecologically Sustainable Development Report including Climate Adaption Plan, and Section J Statements of Compliance
JHA

KK Structural Statement
Vand Der Meer

LL Social Impact Assessment
Ethos Urban

MM Quantity Surveyor's Report
WT Partnership

NN Site Survey
LTS Lockley

OO Site Survey – Supporting Letter
LTS Lockley

PP Road Safety Audit including Response by TTPA
J. Wyndham Prince & Transport and Traffic Planning Associates

QQ Supplementary Visual Impact Assessment
Ethos Urban

RR SDRP Meeting Notes
NSW Government Architect

SS Section 10.7(2) and (5) Planning Certificates
Department of Planning and Environment

Under separate cover: Response to RFI Cover Letter

Statement of Validity

Development Application Details	
Applicant name	HammondCare
Applicant address	Level 4, 207B Pacific Highway, St Leonards, Sydney NSW 2065
Applicant ABN	48 000 026 219
Land to be developed	95-115 River Road, Greenwich
Proposed development	Demolition of existing hospital and associated facilities on site, and construction of a new hospital facility and integrated healthcare campus comprising of hospital, residential aged care, seniors housing and overnight respite.

Prepared by	
Name	Chris Forrester
Qualifications	Bachelor of Planning, City/Urban, Community and Regional Planning
Address	173 Sussex Street, Sydney
In respect of	State Significant Development – Development Application

Certification

I certify that I have prepared the content of this EIS and to the best of my knowledge:

- it is in accordance with Division 5 of the Environmental Planning and Assessment Regulation 2021;
- all available information that is relevant to the environmental assessment of the development to which the statement relates; and
- the information contained in the statement is neither false nor misleading.

Signature

Name Chris Forrester

Date 26 August 2022

Executive Summary

This Environmental Impact Statement (EIS) is submitted to the Department of Planning and Environment (DPE) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in support of a State Significant Development Application (SSDA) for the redevelopment of Greenwich Hospital at 95-115 River Road, Greenwich (the site). It is proposed to redevelop the site into a new integrated health campus comprising hospital, residential aged care, seniors housing and overnight respite facilities. It is made pursuant to the Greenwich Concept Approval (SSD 8699).

The Site

The site is located in the suburb of Greenwich, within the Local Government Area (LGA) of Lane Cove Council. Surrounding land uses are predominantly of low density residential uses and open space with substantial vegetation cover. It is known as 95-115 River Road, Greenwich. It comprises a total of two allotments, which are legally described as Lots 3 and 4 in DP584287. Lot 3 accommodates the existing Hospital building, and Lot 4 accommodates Pallister House. In total, the site is 33,763m^2 in size and irregular in shape.

The site is bounded by River Road to the north, St Vincents Road to the east, and existing residential housing to the south and west. The site is characterised by a sloped and varied topography. Site levels rise towards the centre from its southwestern and southeastern boundaries, with a steep fall at the southwestern end, towards Gore Creek Reserve.

Existing development on the site comprises the current Greenwich Hospital complex. Existing buildings at the site range between 1-5 storeys in height and are interconnected through a series of internal corridors and external pathways. This includes the Main Hospital Building, which provides patient hospital beds, general healthcare, and palliative care services, the Riverglen building which provides sub-acute mental health services for older persons, and the Blue Gum Lodge, which is currently used for pain clinic and community care healthcare services.

Near the southern end of the site, within Lot 4 in DP584287, is the State Heritage-listed 'Pallister House' building (SHR 00574). This two-storey Victorian house currently houses the hospital's dementia and research facilities, and education facilities.

Strategic Context

The existing Greenwich Hospital is a dated 1960s facility which is no longer fit for purpose. It is proposed to be redeveloped into an integrated, contemporary healthcare campus with specialised care services for seniors and people with complex health needs to meet the growing community demand in the Northern Sydney Local Health District (NSLHD). By 2031, the number of people aged 65 or older in northern Sydney is expected to increase to 18% of the population and the need for specialist dementia care is estimated to double in NSW by 2051.

The overarching objective of Greenwich Hospital's redevelopment is to enable this demographic to continue to live well and maintain independence as they age via access to appropriate support and care. This will be achieved through HammondCare's unique 'continuum of care' model, involving the expansion and integration of specialised health services, and short, medium, and long-term accommodation options. A key feature of the 'continuum of care' model and the design of the campus is flexibility of use across the facility to meet the complex and changing care needs of residents. Accordingly, the entire development has been designed to Class 9 standards for patient/residential spaces (Class 9A for the hospital building and Class 9C for the seniors housing buildings), which will enable flexibility and conversion between serviced seniors housing, health, or more traditional aged care services as required. This helps 'futureproof' the site and secure its long-term use for the provision of critical healthcare services to the NSLHD.

With HammondCare being listed as an Affiliated Health Organisation under Schedule 3 of the Health Services Act 1997, the refurbished facilities will provide critical healthcare services to Greenwich and the surrounding community, in line with the Greenwich Concept Approval (SSD 8699).

The proposed development is consistent with the relevant strategic planning framework and guidelines, including that of the following:

- NSW State Priorities;
- *Future Transport Strategy 2056*;
- *Better Placed: An integrated design policy for the built environment of New South Wales*;

- Healthy Urban Development Checklist;
- Draft Greener Places Design Guide;
- *The Greater Sydney Region Plan - A Metropolis of Three Cities*;
- *Our Greater Sydney 2056 – North District Plan*; and
- *Lane Cove Council Local Strategic Planning Statement*.

Project Description

This application seeks approval for the detailed design and construction of the redevelopment of Greenwich Hospital into an integrated health campus, following concept approval for the project under SSD 8699. Specifically, consent is sought for the following:

- Site preparation works, including demolition of the existing hospital building and associated facilities, site remediation, and tree removal;
- Construction of a new hospital facility and integrated healthcare campus comprising of hospital, residential aged care, seniors housing, and overnight respite, across:
  - A new main hospital building up to RL 80.0;
  - Two new seniors housing buildings, northern building up to RL 56.35, and southern building up to RL 60.63;
  - A new respite care building up to RL 56.9;
- Construction of associated site facilities and services, including pedestrian and vehicular access, and basement parking;
- Site landscaping, signage and infrastructure works; and
- Preservation of Pallister House which will continue to host research and administrative functions.

Construction of the proposal will be staged to ensure that hospital uses can continuously operate at the site from commencement of construction works through to completion of the project. The new hospital building is to be built first (reflecting it being the nexus of the new Greenwich health campus, with the seniors housing and respite care uses requiring it to function), followed by the serviced seniors housing buildings, and finally the respite building.

Statutory Context

The proposed development is State Significant Development (SSD) in accordance with Chapter 2 of *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP), as it is made pursuant to an earlier Concept SSDA (SSD 8699) under clause 2.11 of the Planning Systems SEPP, and also by virtue of being for the purposes of a hospital with a Capital Investment Value (CIV) of more than $30 million under schedule 1, clause 14 of the Planning Systems SEPP.

The site is zoned SP2 Infrastructure under the *Lane Cove Local Environmental Plan 2009* (LLEP 2009) specifically for the purposes of *Health Services Facilities* under the land use zoning map. The proposal is consistent with the objectives of the SP2 zoning, as it:

- Delivers health services facilities, which is the intended purpose of the site on the Land Zoning Map;
- Provides for health infrastructure and related uses; and
- Prevents development not compatible with the delivery of health services facilities as the entirety of the proposal is permissible with consent, further discussed below.

The entirety of the proposal is permissible with consent. With regards to each of the component land uses proposed:

- Hospitals are considered to be a type of health services facility and is permissible with consent.
- Seniors housing, while not directly permissible under the LEP, is permissible at the site by virtue of *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004*.
- As the proposed respite care is for overnight stays, it also falls under the land use definition of 'health service facility', rather than the separate 'respite day care centre' use which does not support overnight accommodation.

The proposal is commensurate with the relevant statutory planning framework. This includes the Objects of the EP&A Act, SSD requirements under the Planning Systems SEPP, SEPP Seniors, and other applicable SEPPs, as well as the *Lane Cove Local Environmental Plan 2009* and the relevant biodiversity framework as set under the *Biodiversity Conservation Act 2016* and *Environment Protection and Biodiversity Conservation Act 1999*. The project is consistent

with the Future Environmental Assessment Requirements (FEARs) established under the Greenwich Concept Plan (SSD 8699) consent.

Environmental Assessment

Built Form and Design

The maximum height, bulk and scale of the proposed buildings are set by the envelopes established under the Greenwich Concept Approval (SSD 8699). The Concept Approval envelopes were the result of a substantive design and planning process to determine what bulk and scale impacts would represent an acceptable outcome for the site, ultimately culminating in its approval by the Independent Planning Commission (IPC) on 10 November 2020.

Maintaining the heritage curtilage of, and views to, Pallister House has been a major focal point of the proposed built form. It is noted that the existing hospital buildings are currently positioned directly in front of Pallister House from River Road, with the effect of blocking views to this heritage item from the site's primary streetscape. The proposed health campus has been specifically designed to remedy this and enable views to this important heritage item from the River Road frontage.

The proposed hospital building has been designed to present as a highly bespoke, staggered and articulated built form, to reduce perceived bulk and scale of the building when viewed from the surrounding public domain. The hospital building makes use of a series of green roofs and landscaped terraces that progressively sets back the building, reducing its footprint at upper levels and preventing it from appearing overbearing at street level. Opportunities for landscaping integration have also been integrated into the façade expression of this building, in accordance with the biophilic design principles adopted for the proposal.

The proposed seniors housing buildings have been designed in accordance with the principles of SEPP 65 and the criteria of its accompanying Apartment Design Guide (ADG). The seniors housing units respond to ADG requirements for solar access, cross ventilation, size and layout, private open space, and storage.

To ensure that a high standard of design is delivered at the site, with a high degree of environmental amenity, the project team has consulted with the NSW Government Architect's State Design Review Panel (SDRP) throughout the design development process. The project team has met with the SDRP on two separate occasions: 10 November 2021, and 16 March 2022. Advice provided by the SDRP has informed the design of the proposal.

Visual Impact and Overshadowing

The proposal will not generate unreasonable visual impacts when viewed from the surrounding public domain or residential properties. Visual impacts are not extensive in terms of visual catchment as existing vegetation and topography has resulted in there being generally only single standpoint views rather than wide panoramic views. Additionally, much of the proposed development is to be obscured by the site topography, with the upper levels of the proposed buildings being the most noticeable visual element in the surrounding area.

It is noted that the reduction in building heights and incorporation of landscaped terraces, when compared to SSD 8699 as submitted, has resulted in a reduction in assessed visual impacts compared to that assessed under the Concept Plan.

Additional overshadowing generated by the proposal is minor, with no property receiving additional overshadowing of more than 2 hours as a result of the project, and overshadowing impacts being limited to less than half of properties affected (generally backyards or non-built up areas). Overshadowing onto surrounding residential properties continues to comply with the requirements of the Lane Cove DCP, and no property has its solar access reduced to below 3 hours midwinter as a result of the proposal.

Transport and Accessibility

Vehicular access arrangements will generally remain as existing at the site. The existing western signalised entry from River Road, as well as the existing driveway from St Vincents Road is to be retained, and the existing eastern driveway to River Road will be upgraded into the new 'Ceremonial Entrance' set-down loop, with formal prohibition of right turn movements (excepting emergency vehicles). Vehicular access, internal circulation, and servicing at the Greenwich health campus will comply with the relevant Australian Standards, and the internal access road will be able to

accommodate all vehicles which are expected to access the site. Similarly, the proposed servicing and loading areas at the rear of the hospital building was found to be adequate, and compliant with the relevant standards.

The proposal is expected to generate 85 vehicular trips per hour during the AM peak, and 88 trips per hour during the PM peak. These trip generation rates will not result in adverse impacts on intersection performance, including the River Road and St Vincents Road intersection.

A total of 329 parking spaces are proposed as part of the proposal, which strikes appropriate balance between the site's public transport accessibility with the fact that there are no existing convenient or appropriate off-site on street spaces available; the need to accommodate occasional peak visitor/patient activity (e.g., during public holidays), as well as a significant portion of the site's users being elderly, who may find it too physically demanding to use public or active modes of transportation.

Heritage and Archaeology

A State Heritage Register (SHR)-listed item – Pallister House (SHR item no. 00574; item no. I118 under Schedule 5 of the LLEP 2009) is located on the site. Being listed on the SHR, this building is considered to be of State significance.

A Heritage Impact Statement (HIS) has been prepared, which concludes that: "*the overall proposal will have a positive Heritage impact on the site, allowing the site's social significance as a place of service to the community to continue without erasing the earlier layers of history*", as:

- The design of the proposal has considered the significance of Pallister House and presents a sympathetic understanding of the character and heritage of this heritage item in its built form.
- The views from the new development will accommodate view lines from River Road to Pallister House, representing an improvement over the existing site condition.
- The design of the seniors housing buildings is respectful in recognising and supporting the heritage significance of Pallister House.
- The proposed design of the hospital building includes terraces and roof gardens to provide a modular composition to reduce the appearance of bulk and ensure a sympathetic interface with Pallister House's north and northwest boundary.

With regards to archaeology, the portion of the site at and around Pallister House has a moderate to high potential of containing localised areas of archaeological remains from the period relating to Pallister House but that this area will remain largely undisturbed. Elsewhere across the site, the construction of the existing hospital buildings would likely have removed much of the previous archaeological remains that once may have been present. An Archaeological Research Design & Excavation Methodology for the project has been prepared.

Vegetation Removal and Protection

Of the of the 279 existing on-site trees:

- 194 will be retained under the proposal.
- 52 are to be removed to facilitate the proposed development.
- 33 are to be removed due to being invasive, decaying, or overmature.

86 new trees are also proposed to be planted on-site. Discounting the 33 trees that are being removed due to external factors (e.g., due to being invasive, dying, or overmature), this represents an increase of 34 site-appropriate trees when compared to the existing condition.

Landscaping at key locations within the health campus will be designed to embody biophilic design and integrate the built form into the landscape. Landscaping at the site is to be broken up into a number of different themed areas, each with their distinctive design principles. The proposal will restore and manage vegetation located at the southwestern corner of the site. Specifically, the proposal will:

- fully restore 600m^2 of currently managed/planted coastal enriched sandstone forest (PCT 1841);
- manage 1,500m^2 of currently unmanaged/remnant coastal enriched sandstone forest (PCT 1841);
- partially revegetate 200m^2 of vegetation in Asset Protection Zone (APZ) land; and
- manage 300m^2 of coastal sandstone gallery rainforest (PCT 1828).

Other Environmental Impacts

This EIS also considers the following environmental impacts of the proposal:

- Wind impacts;
- Contamination;
- Hazardous building materials;
- Geotechnical, acid sulfate soils and salinity;
- Noise and vibration;
- Utilities and services;
- Stormwater and flooding;
- Accessibility;
- Waste management;
- Crime Prevention Through Environmental Design;
- Dangerous goods management;
- Bushfire risk;
- Lighting impacts;
- Ecologically Sustainable Development;
- Structural integrity;
- Social impacts; and
- Site suitability and public interest.

In doing so, the EIS confirms that the proposed development will not give rise to unacceptable environmental impacts and is supportable from a planning perspective. A number of specialist consultant inputs appended to this EIS have informed this analysis (refer to table of contents).

Justification and Conclusion

The proposal will deliver substantive public benefits for the Greenwich community. It will:

- Redevelop an ageing 1960s facility which is no longer fit for purpose into an integrated, contemporary healthcare campus with specialised care services for seniors and people with complex health needs;
- Provide 130 hospital and residential aged care beds to respond to the area's ageing population and meeting the growing community demand in the Northern Sydney Local Health District;
- Provide 89 serviced seniors housing units to enable elderly members of the community to 'age in place', with access to hospital-quality care while maintaining a degree of independence;
- Provide an overnight respite care facility for seniors whose day-to-day carers may need a break or rest; and
- Deliver increased tree canopy cover at the site, with a built form that embodies the principles of Ecologically Sustainable Development and exhibits Design Excellence.

Therefore, it is recommended that this SSDA be approved by DPE, given the that the proposed development:

- Is consistent with the relevant strategic planning framework and guidelines;
- Is consistent with the relevant statutory legislation and requirements;
- Will not generate unreasonable environmental impacts; and
- Is suitable for the site, and in the public interest.

1.0 Introduction

This Environmental Impact Statement (EIS) is submitted to the Department of Planning and Environment (DPE) pursuant to Part 4 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) in support of a State Significant Development Application (SSDA) for the redevelopment of Greenwich Hospital at 95-115 River Road, Greenwich (the site). It is proposed to redevelop the site into a new integrated health campus comprising hospital, residential aged care, seniors housing and overnight respite facilities.

The proposed development is State Significant Development (SSD) in accordance with Chapter 2 of *State Environmental Planning Policy (Planning Systems) 2021 (Planning Systems SEPP)*, as it is made pursuant to an earlier Concept SSDA (SSD 8699) under clause 2.11 of the Planning Systems SEPP, and also by virtue of being for the purposes of a hospital with a Capital Investment Value (CIV) of more than $30 million under schedule 1, clause 14 of the Planning Systems SEPP.

This EIS has been prepared by Ethos Urban on behalf of HammondCare and is informed by the Architectural Plans (**Appendix A**) and Urban Design Report (**Appendix B**) prepared by Bickerton Masters, and other supporting technical documentation appended to the report (refer to Table of Contents).

This EIS has been prepared in accordance with the requirements of Part 4 of the EP&A Act, Division 5 of the *Environmental Planning and Assessment Regulation 2021* (EP&A Regulation), DPE's December 2021 'State significant development guidelines – preparing an environmental impact statement', and the issued Secretary's Environmental Assessment Requirements (SEARs) for SSD 13619238, appended at **Appendix C** and reproduced at **Section 1.5**.

1.1 Overview of the Proposed Development

This application seeks approval for the detailed design and construction of the redevelopment of Greenwich Hospital into an integrated health campus, following concept approval for the project under SSD 8699. Specifically, consent is sought for the following:

- Site preparation works, including demolition of the existing hospital building and associated facilities, site remediation, and tree removal;
- Construction of a new hospital facility and integrated healthcare campus comprising of hospital, residential aged care, seniors housing, and overnight respite, across:
  - A new main hospital building up to RL 80.0;
  - Two new seniors housing buildings, northern building up to RL 56.35, and southern building up to RL 60.63;
  - A new respite care building up to RL 56.9;
- Construction of associated site facilities and services, including pedestrian and vehicular access, and basement parking;
- Site landscaping, signage and infrastructure works; and
- Preservation of Pallister House which will continue to host research and administrative functions.

1.2 Development Objectives

The key objectives of the Greenwich health campus redevelopment project are as follows:

- To create a new integrated health and seniors housing campus which shifts away from the institutional design model, and instead represents a homely environment for clients which is well integrated with the wider community.
- To provide flexibility in land use to meet the complex care needs of residents and to enable them to age in place as their needs change.
- To continue and enhance specialised health service offerings such as rehabilitation, palliative and supportive care, pain management, mental health care for older people, community, and other vital support services.
- To expand health and care services, with new residential care services delivered on site and outpatient services for the wider community, to meet growing local demand.
- To enhance the natural landscape of the Greenwich site to provide a high quality, welcoming space for residents, patients, and the wider community.

- To enhance heritage precinct landscape and create strong relationships between the site, Pallister House, and the proposed buildings.

1.3 The Applicant – HammondCare

HammondCare is the applicant of this application. HammondCare's details are provided in **Table 1**.

Table 1 Applicant Details

Applicant:	HammondCare
Address:	Level 4, 207B Pacific Highway, St Leonards, Sydney NSW 2065
ABN:	48 000 026 219

HammondCare is an independent Christian charity that specialises in dementia and aged care, palliative care, rehabilitation, and older people's mental health. They are committed to supporting people of low or no financial means as part of their mission and are recognised both nationally and internationally as being one of Australia's most innovative health and aged care providers.

HammondCare is best defined as a health care provider and is listed as an Affiliated Health Organisation under Schedule 3 of the *Health Services Act 1997*, meaning it is recognised as part of the public health system.

As there is no public money or government funding for capital works on Schedule 3 hospitals, the capital for this important project is fully funded by HammondCare who relies on revenue from its operations, donations, and government grants to fund their network of care services.

1.4 Greenwich Concept Approval – SSD 8699

A Concept SSDA pertaining to the site, SSD 8699 was approved by the Independent Planning Commission (IPC) on 10 November 2020. SSD 8699 was described in its instrument of approval as follows:

- *Concept proposal for the redevelopment of Greenwich Hospital including:*
  - *demolition, earthworks and remediation works;*
  - *new health care and allied health facilities and residential aged care and seniors housing in an integrated care campus;*
  - *building envelopes, comprising:*
    - *main hospital building envelope with an integrated basement;*
    - *two seniors living building envelopes with an integrated basement; and*
    - *respite care building envelope;*
  - *car parking and site access arrangements; and*
  - *landscaping, including tree removal.*

SSD 8699 sets the maximum permitted building envelopes, maximum gross floor area for each of the redevelopment's component uses, and other relevant parameters to guide the detailed design and construction of the Greenwich health campus (i.e., this application).

Part B of the SSD 8699 consent provides a schedule of conditions to be satisfied in future detailed design development applications. Consistency with these SSD 8699 conditions is addressed at **Section 5.7** of this report.

1.4.1 Concurrent Modification – SSD 8699 MOD 1

HammondCare is currently undertaking a concurrent Section 4.55 Modification Application (SSD 8699 MOD 1) to the concept approval. MOD 1 seeks to amend Conditions A3 and A5 of the SSD 8699 consent to facilitate minor amendments to the building envelope and to increase the maximum GFA available to the main health and seniors housing buildings in accordance with the detailed design under this application.

This SSDA has been prepared pursuant to, and is consistent with, the SSD 8699 consent, as proposed to be modified under SSD 8699 MOD 1.

1.5 Secretary's Environmental Assessment Requirements

In accordance with section 4.39 of the EP&A Act, the Secretary of DPE issued the requirements for the project (SSD 13619238) on 24 February 2021. A copy of these Secretary's Environmental Assessment Requirements (SEARs) is attached at **Appendix C**.

It is noted that several of the legislation nominated in the SEARs have since been repealed, including the *Environmental Planning and Assessment Regulation 2000* (superseded by the *Environmental Planning and Assessment Regulation 2021*), and a number of SEPPs (see **Section 5.2**). This EIS has been structured to respond to this new legislation.

Table 2 below provides a detailed summary response of the individual matters as listed in the SEARs and identifies where each requirement has been addressed in this EIS and the accompanying appended technical studies.

Table 2 Secretary's Environmental Assessment Requirements

Requirement	Relevant EIS section	Relevant appendix
General requirements		
The Environmental Impact Statement (EIS) must be prepared in accordance with and meet the minimum requirements of clauses 6 and 7 of Schedule 2 the Environmental Planning and Assessment Regulation 2000 (the Regulation). Notwithstanding the key issues specified below, the EIS must include an environmental risk assessment to identify the potential environmental impacts associated with the development. In addition, the EIS must include:	**Environmental Impact Statement** – throughout report.	
• an executive summary	**Executive Summary**	
• a complete description of the development, including: – the need for the development. o justification for the development. – suitability of the site. – alternatives considered. – likely interactions between the development and existing, approved and proposed operations in the vicinity of the site. – a description of any proposed building works. – a description of existing and proposed operations, including: – staff and visitor numbers, hours of operation, shift changes. – details of how the hospital would continue to operate during construction activities, including proposed site management and mitigation measures to ensure the safety of users. – details of services provided to meet serviced self-care housing requirements. – site survey plan, showing existing levels, location and height of existing and adjacent structures / buildings and site boundaries. – a detailed constraints map identifying the key environmental and other land use constraints that have informed the final design of the development. – plans, elevations and sections of the proposed development. – cladding, window and floor details, including external materials. – 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). – plans and details of any advertising/business identification signs to be installed, including size, location and finishes. – any staging of the development. details of construction and decommissioning including timing.	**Section 4**	

– an estimate of the retained and new jobs that would be created during the construction and operational phases of the development along with details of the methodology to determine the figures provided.		
• 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. – 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. – consideration of the cumulative impacts due to other related development proposed or underway on the site, including development progressed under other assessment pathways and all other developments in the vicinity (completed, underway or proposed). – identification of all proposed monitoring or required changes to existing monitoring programs. – 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.	**Sections 3, 5, 7**	
• a consolidated summary of all the proposed environmental management and monitoring measures, identifying all commitments included in the EIS.	**Section 7**	
• 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.	**Section 10**	
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.	**Section 7.24**	**Appendix MM**
Key issues		
1. Statutory and strategic context Address the statutory provisions contained in all relevant legislated and draft 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 (Housing for Seniors or People with a Disability) 2004. • State Environmental Planning Policy No 19 – Bushland in Urban Areas. • State Environmental Planning Policy No.33 – Hazardous and Offensive Development. • State Environmental Planning Policy No 55 – Remediation of Land. • State Environmental Planning Policy No 64 – Advertising and Signage. • State Environmental Planning Policy 65 – Design Quality of Residential Apartment Development. • Draft State Environmental Planning Policy (Remediation of Land). • Draft State Environmental Planning Policy (Environment). • Draft State Environmental Planning Policy (Infrastructure) (Health Infrastructure Provisions).	**Section 5**	

• State Environmental Planning Policy (Coastal Management) 2018. • Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005. • Lane Cove Local Environmental Plan 2009. 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.		
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. • 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. • North District Plan. • Lane Cove Council Local Strategic Planning Statement. • Lane Cove Development Control Plan 2010.	**Section 3**	
Redevelopment of Greenwich Hospital Concept Proposal • In accordance with the Environmental Planning and Assessment Act 1979, demonstrate that the proposal is not inconsistent with the development consent granted for the Redevelopment of Greenwich Hospital Concept Proposal (SSD-8699).	**Section 5.8**	
2. Built Form and Urban Design: • Assess how the proposed built form is consistent with and located in accordance with the built form, urban design and landscaping conditions imposed under SSD-8699. • Address: – the height, density, bulk and scale, setbacks and interface of the development 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 colour palette. – how services, including but not limited to waste management, loading zones, and mechanical plant are integrated into the design of the development.	**Section 7.1**	**Appendix B**
Provide: 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.	**Section 7.2**	**Appendix P**
3. Trees and Landscaping • Assess how the proposed landscape strategy is consistent with landscaping conditions imposed under SSD-8699.	**Section 4.5** **Section 4.6** **Section 7.6**	**Appendix D** **Appendix H** **Appendix R**

• Provide: – an arboricultural impact assessment prepared by a Level 5 (Australian Qualifications Framework) Arborist, which details the number, location and condition of trees to be removed and retained, includes detailed justification for each tree to be removed and details the existing canopy coverage on-site. *Relevant Policies and Guidelines:* • Australian Standard 4970 Protection of trees on development sites. • 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).		
4. Environmental Amenity • Assess amenity impacts on the surrounding locality, including addressing conditions imposed under SSD-8699. • Provide: – shadow diagrams. – a view analysis, where relevant, of the site from key vantage points and streetscape locations and public domain including photomontages or perspectives showing the proposed and likely future development. – an analysis of proposed lighting that identifies lighting on-site that will impact surrounding sensitive receivers and includes mitigation management measures to manage any impacts. – a wind impact assessment, including a wind tunnel study, prepared by a suitably qualified person that considers the impact of the proposed development having regard to the surrounding development and pedestrian amenity and comfort and includes mitigation management measures to manage any impacts.	**Section 7.1** **Section 7.2** **Section 7.5** **Section 7.19**	**Appendix A** **Appendix B** **Appendix P** **Appendix Q** **Appendix II**
5. Transport and Accessibility Provide a transport and accessibility impact assessment, which includes, but is not limited to the following: • consistency with requirements of conditions imposed under SSD-8699. • analysis of the existing transport network, including existing performance levels of nearby intersections utilising appropriate traffic modelling methods (such as SIDRA network modelling). • analysis of the impacts due to the operation of the proposed development, including: – proposed modal split for all users of the development including vehicle, pedestrian, bicycle riders, public transport and other sustainable travel modes. o a clear explanation and justification of the: – assumed growth rate applied. – volume and distribution of proposed trips to be generated. – type and frequency of vehicles accessing the site. – adequacy of the existing / proposed pedestrian infrastructure to enable convenient and safe access to and from the site for all users. *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.	**Section 7.3**	**Appendix K** **Appendix L**

• 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).		
6. Ecologically Sustainable Development (ESD) • Address Ecologically Sustainable Development conditions imposed under SSD-8699. • Identify proposed measures to minimise consumption of resources, water (including water sensitive urban design) and energy. • Provide 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. *Relevant Policies and Guidelines:* • NSW and ACT Government Regional Climate Modelling (NARCliM) climate change projections.	**Section 7.20**	**Appendix JJ**
7. Heritage • Address Heritage conditions imposed under SSD-8699.	**Section 7.4**	**Appendix F** **Appendix G** **Appendix M** **Appendix N**
8. Aboriginal Cultural Heritage • Demonstrate that the recommendations of the Aboriginal Cultural Heritage Assessment Report approved under SSD-8699 have been addressed in the proposed development. • Provide an Aboriginal Cultural Heritage Management Plan (ACMP) that has been prepared in consultation with the registered Aboriginal parties (RAPs).	**Section 7.4.3**	**Appendix O**
9. Social Impacts • Provide a Social Impact Assessment prepared in accordance with the draft Social Impact Assessment Guideline 2020. *Relevant Policies and Guidelines:* • Draft Social Impact Assessment Guideline 2020 (Department of Planning, Industry and Environment)	**Section 7.22**	**Appendix LL**
10. Noise and Vibration • Provide a noise and vibration impact assessment that: – addresses the conditions imposed under SSD-8699. – 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. – outlines measures to minimise and mitigate the potential noise impacts on nearby sensitive receivers. – 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. – 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. *Relevant Policies and Guidelines:*	**Section 7.10**	**Appendix Z**

• 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).		
11. 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: – a copy of the BDAR waiver and demonstrate that the proposed development is consistent with that covered in BDAR waiver. – an assessment of flora and fauna impacts where significant vegetation or flora and fauna values would be affected by the proposed development.	**Section 5.3** **Section 5.4**	**Appendix I**
12. 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 3.5**	N/A
13. 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.	**Section 4.1**	**Appendix A** **Appendix B**
14. Utilities • In consultation with relevant service providers: – assess 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.	**Section 7.11**	**Appendix AA**
15. Stormwater Drainage • Provide: – a preliminary stormwater management plan for the development that: – addresses the conditions imposed under SSD-8699.	**Section 7.12**	**Appendix BB**

– 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 in consultation with Council and comply with Council's relevant standards.		
16. Flooding • Identify any flood risk on-site in consultation with Council and having regard to the most recent flood studies for the development 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 onsite or off-site, and detail design solutions to mitigate flood risk where required *Relevant Policies and Guidelines:* • NSW Floodplain Development Manual (DIPNR, 2005).	**Section 7.13**	**Appendix CC**
17. Soil and Water • Provide: – an assessment of potential impacts on surface and groundwater (quality and quantity), soil, related infrastructure and watercourse(s) where relevant. – details of measures and procedures to minimise and manage the generation and off-site transmission of sediment, dust and fine particles. – 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). • Acid Sulfate Soil Manual, (NSW Acid Sulfate Soil Management Advisory Committee, 1998). • Acid Sulfate Soils Assessment Guidelines (DoP, 2008). • Managing Urban Stormwater: Soils and Construction Volume 1 (Landcom 2004) and Volume 2 (A. Installation of Services; B. Waste Landfills; C. Unsealed Roads; D. Main Roads; E. Mines and Quarries) (DECC, 2008).	**Section 7.9**	**Appendix W** **Appendix X** **Appendix Y**
18. Waste • Identify, quantify and classify the likely waste streams to be generated during construction and operation. • Provide 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.	**Section 7.15**	**Appendix EE**

Relevant Policies and Guidelines: • Waste Classification Guidelines (EPA, 2014).		
19. Contamination • Address contamination conditions imposed under SSD-8699. *Relevant Policies and Guidelines:* • Managing Land Contamination: Planning Guidelines - SEPP 55 Remediation of Land (DUAP, 1998). • Sampling Design Guidelines (EPA, 1995). • Consultants Reporting on Contaminated land – Contaminated Land Guidelines (EPA, 2020). • National Environment Protection (Assessment of Site Contamination) Measure (National Environment Protection Council, as amended 2013).	**Section 7.7**	**Appendix T** **Appendix U**
20. Hazards and Risk • Provide: – a preliminary risk screening regarding all dangerous goods and hazardous materials associated with the development. – a Preliminary Hazard Analysis, if required where the development includes handling or storage of dangerous or hazardous materials.	**Section 7.17**	**Appendix GG**
21. Bush fire • Provide a bush fire assessment that details proposed bush fire protection measures and demonstrates compliance with Planning for Bush Fire Protection (NSW RFS, 2019).	**Section 7.18**	**Appendix HH**
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. Any plans and diagrams included in the EIS must include key dimensions, RLs, scale bar and north point.	N/A	**Appendix A**
In addition to the plans and documents required in the General Requirements and Key Issues sections above, the EIS must include the following: • Section 10.7(2) and (5) Planning Certificates (previously Section 149(2) and (5) Planning Certificate).	N/A	**Appendix SPP**
• Design report to demonstrate how design quality would be achieved in accordance with the above Key Issues including: – architectural design statement. – diagrams, structure plan, illustrations and drawings to clarify the design intent of the proposal. – detailed site and context analysis. – analysis of options considered to justify the proposed site planning and design approach. – summary of feedback provided by GANSW and NSW State Design Review Panel (SDRP) and responses to this advice. – summary report of consultation with the community and response to any feedback provided.	**Section 7.1**	**Appendix B**
• Geotechnical and Structural Report.	**Section 7.9.1** **Section 7.21**	**Appendix W** **Appendix KK**
• Accessibility Report, including addressing how the proposal would satisfy clause 26 of the State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004.	**Section 7.14**	**Appendix DD**

• Erosion and Sediment Control Plan.	**Section 7.12**	**Appendix BB**
Consultation		
During the preparation of the EIS, you must consult with the relevant local, State or Commonwealth Government authorities, service providers, community groups, relevant special interest groups, including local Aboriginal land councils and registered Aboriginal stakeholders and affected landowners. In particular, you must consult with: • the relevant Council. • Government Architect NSW (through the NSW SDRP process). • Transport for NSW. Consultation should commence as soon as practicable to inform the scope of investigation and progression of the proposed development. The EIS must describe and include evidence of the consultation process and the issues raised and identify where the design of the development has been amended in response to these issues. Where amendments have not been made to address an issue, a short explanation should be provided. Targeted consultation in accordance with the draft Social Impact Assessment Guideline 2020 (Department of Planning, Industry and Environment) must also occur where there is a requirement to prepare and submit a Social Impact Assessment.	**Section 6**	**Appendix J**

1.6 Related Development

As noted above, this SSDA has been prepared concurrently with a modification to the Greenwich Concept Approval (SSD 8699; **Section 1.4.1**). There is otherwise no development application(s) or approval(s) which this SSDA is reliant on for approval. At this stage, it is not anticipated that there will be any development outside the parameters of this SSDA that will be required for this project, and subject to separate approval.

2.0 The Site

2.1 Site Context

The site is located in the suburb of Greenwich, within the Local Government Area (LGA) of Lane Cove Council. Surrounding land uses are predominantly of low density residential uses and open space with substantial vegetation cover. The site's location in the context of its surroundings is shown in **Figure 1** below.

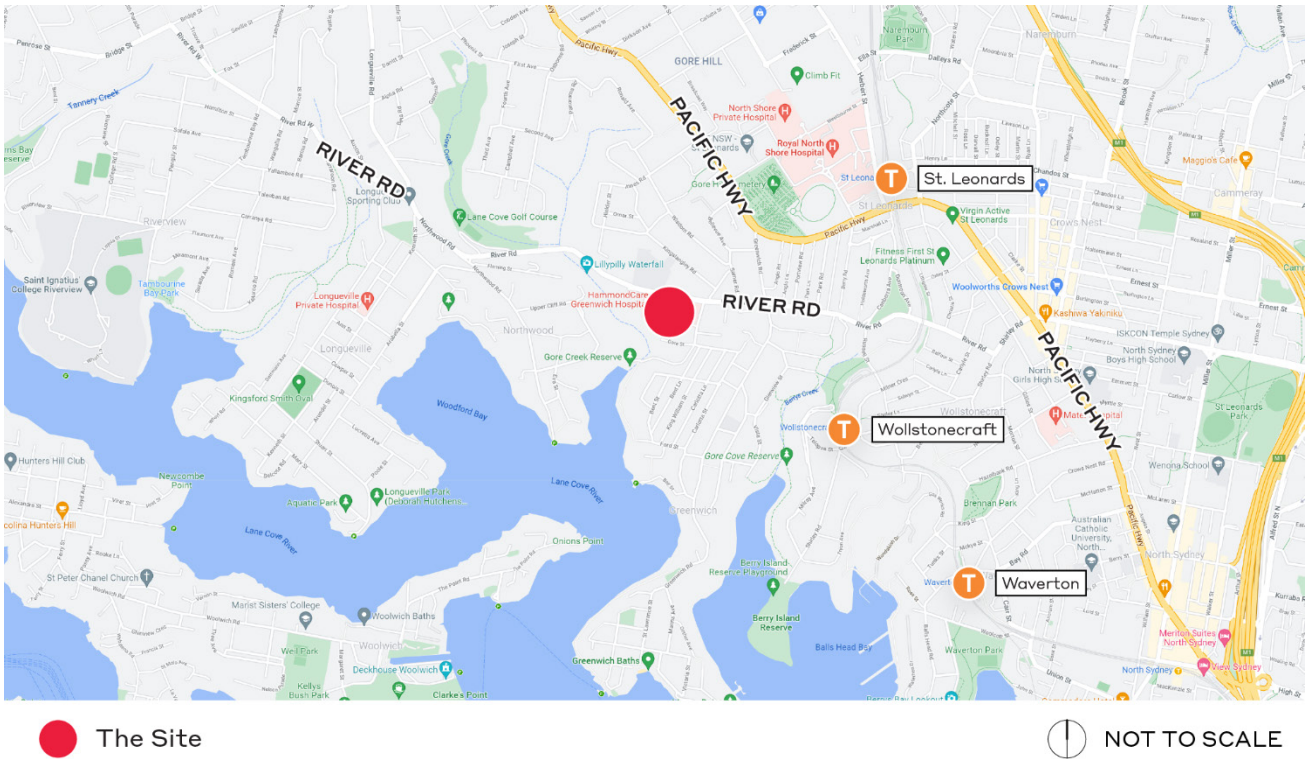

Figure 1 Location of the site in its surrounding context

Source: Google Maps, edits by Ethos Urban

2.2 Site Description

The site is known as 95-115 River Road, Greenwich. It comprises a total of two allotments, which are legally described as Lots 3 and 4 in DP584287, as shown in **Table 3** and **Figure 2** below. Lot 3 accommodates the existing Hospital building, and Lot 4 accommodates Pallister House (see **Section 2.3**). In total, the site is 33,763m^2 in size and irregular in shape.

The site is bounded by River Road to the north, St Vincents Road to the east, and existing residential housing to the south and west. The site is characterised by a sloped and varied topography. Site levels rise towards the centre from its southwestern and south-eastern boundaries, with a steep fall at the southwestern end, towards Gore Creek Reserve.

A Site Survey has been prepared by LTS Lockley and attached at **Appendix NN**. It is noted that the southwestern corner of the site is not included as part of the survey, as no building works are proposed in this area, with it being steep and heavily overgrown with weed, and representing a high risk environment to surveying works. Surveying this area would require the removal of vegetation with potential to lead to bank instability. Refer to the Supporting Letter prepared by LTS Lockley at **Appendix OO** for further detail on why surveying this unused area would not be in the public interest.

Table 3 Site legal description

Lot no. (Figure 3)	Address	Title	Approx. area (m^2)
1	97-115 River Road	Lot 3 / DP584287	22,500m^2
2	95 River Road	Lot 4 / DP584287	11,400m^2

Figure 2 **Site aerial and subject lots**

Source: Nearmap, edits by Ethos Urban

2.3 Existing Development

Existing development on the site comprises the current Greenwich Hospital complex. Existing buildings at the site range between 1-5 storeys in height and are interconnected through a series of internal corridors and external pathways. This includes the Main Hospital Building, which provides patient hospital beds, general healthcare, and palliative care services (**Figure 3**), the Riverglen building which provides sub-acute mental health services for older persons (**Figure 4**), and the Blue Gum Lodge (**Figure 5**), which is currently used for pain clinic and community care healthcare services.

Near the southern end of the site, within Lot 4 in DP584287, is the State Heritage-listed 'Pallister House' building (SHR 00574). This two-storey Victorian house currently houses the hospital's dementia and research facilities, and education facilities (**Figure 6**).

Significant existing vegetation is currently located on the site, especially concentrated at its eastern, western, and southern boundaries. A number of hardstand parking areas are also integrated into the existing Greenwich Hospital campus.

Figure 3 Main Hospital Building, viewed from the main River Road entrance

Source: Ethos Urban

Figure 4 Riverglen Building, viewed from western vehicle entrance

Source: Ethos Urban

Figure 5 Blue Gum Lodge, viewed from River Road

Source: Ethos Urban

Figure 6 Pallister House

Source: Ethos Urban

2.4 Surrounding Development

Development surrounding the site comprises a predominantly low rise residential typology, which is generally separated from the Hospital campus by on-site vegetation. The site's surrounding context includes:

- To the north of the site is River Road, across which is a series of low density, detached dwellings (**Figure 7**), as well as the Greenwich Public School to the northwest (**Figure 8**);
- To the south of the site are low density detached dwellings along Gore Street (**Figure 9**). The Bob Campbell Oval public open space, which is part of Gore Creek Reserve (**Figure 10**), is located to the southwest.
- To the east of the site is a row of low density detached dwellings across St Vincents Road (**Figure 11**).
- To the west are additional detached residential dwellings (**Figure 12**).

Figure 7 Detached residential dwellings to the north

Source: Ethos Urban

Figure 8 Greenwich Public School to the northwest

Source: Ethos Urban

Figure 9 Residential dwellings to the south

Source: Ethos Urban

Figure 10 Bob Campbell Oval to the southwest

Source: Ethos Urban

Figure 11 Detached dwellings to the east

Source: Ethos Urban

Figure 12 Detached to the west, along River Road

Source: Ethos Urban

2.5 Transport and Access

The Greenwich site is well served by public transport. The 261 bus service along River Road provides frequent service between Chatswood and the Sydney CBD via the site, Lane Cove and North Sydney. The 265 bus along St Vincents and Kingslangley Road also provides access to Lane Cove and North Sydney.

The site is approximately 950m to the southwest of St Leonards railway station, and 800m to the northwest of Wollstonecraft station.

Existing vehicular access to the site is predominantly provided via River Road. River Road is a major road that provides access to the Pacific Highway, including the centres of St Leonards and North Sydney. There is also a secondary vehicular entrance up from St Vincents Road. Shared bicycle/pedestrian shared footpaths are also provided along River Road and St Vincents Road, in an east-west and north-south direction respectively.

2.6 Restrictions and Covenants

Refer to the site survey prepared by LTS Lockley at **Appendix NN**. There are no registered restrictions and/or covenants located within the development site. There is an existing right-of-way easement located along the portion of concrete driveway accessed from St Vincents Road within Lot 4 in DP584287 (95 River Road).

3.0 Strategic Context

3.1 Strategic Justification of the Project

The redevelopment of Greenwich Hospital into a new integrated health campus including a new hospital, residential aged care, seniors housing, overnight respite, and research uses is considered to hold significant strategic merit. With HammondCare being listed as an Affiliated Health Organisation under Schedule 3 of the Health Services Act 1997, the refurbished facilities will provide critical healthcare services to Greenwich and the surrounding community, in line with the Greenwich Concept Approval (SSD 8699).

The existing Greenwich Hospital is a dated 1960s facility which is no longer fit for purpose. It is proposed to be redeveloped into an integrated, contemporary healthcare campus with specialised care services for seniors and people with complex health needs to meet the growing community demand in Northern Sydney Local Health District (NSLHD). By 2031, the number of people aged 65 or older in northern Sydney is expected to increase to 18% of the population and the need for specialist dementia care is estimated to double in NSW by 2051.

The overarching objective of Greenwich Hospital's redevelopment is to enable this demographic to continue to live well and maintain independence as they age via access to appropriate support and care. This will be achieved through HammondCare's unique 'continuum of care' model, involving the expansion and integration of specialised health services, and short, medium, and long-term accommodation options.

In terms of the serviced seniors housing accommodation, it is important to distinguish between this and other forms of seniors housing such as retirement living which does not provide the same degree of support for residents. **Figure 13** depicts the range of seniors housing typologies generally available and, whereas retirement living developments may cater to those aged 55+ who are largely independent, the proposed seniors housing is expected to attract older residents (75+ years of age) with chronic health care needs.

The accommodation aims to bridge the gap between general community living and residential aged care by providing social and clinical support for older people who may lack family support or require specialised care but want to remain as independent as possible. Further, unlike some other forms of retirement living, the seniors housing accommodation proposed for Greenwich Hospital will all be offered on a licensed basis. As such, HammondCare will retain ownership of all units which will not be able to be strata subdivided and sold off to individuals.

A key feature of the continuum of care model and the design of the campus is flexibility of use across the facility to meet the complex and changing care needs of residents. Accordingly, the entire development has been designed to Class 9 standards for patient/residential spaces (Class 9A for the hospital building and Class 9C for the seniors housing buildings), which will enable flexibility and conversion between serviced seniors housing, health or more traditional aged care services as required. This helps 'futureproof' the site and secure its long-term use for the provision of critical healthcare services to the NSLHD.

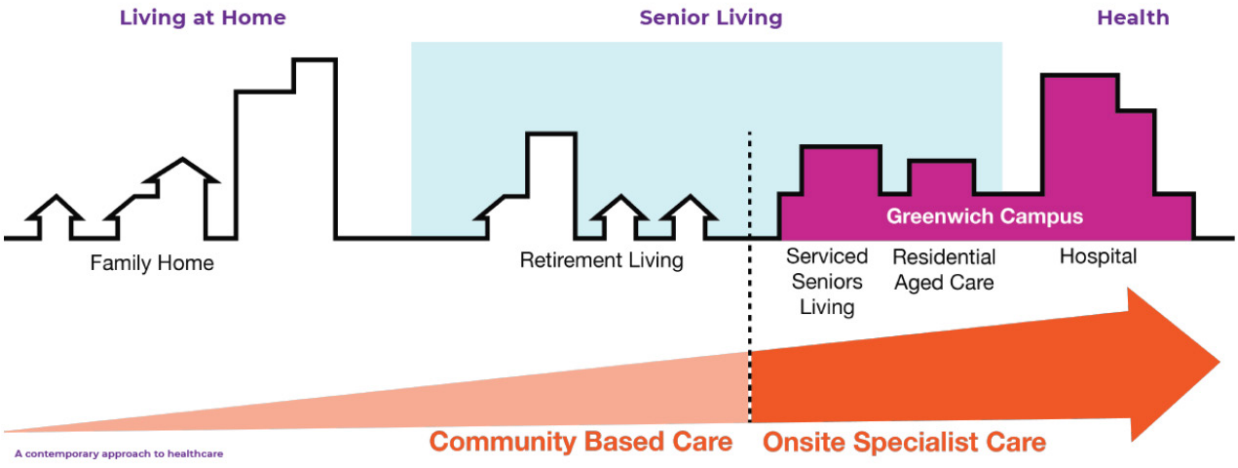

Figure 13 The HammondCare 'continuum of care' model

Source: HammondCare

The Greenwich health campus will include the following:

- Day and overnight respite;
- Short term restorative care programs;
- Inpatient and outpatient rehabilitation services;
- Older persons mental health;
- Centre for Positive Ageing supporting seniors to age well and remain connected to their community;
- Palliative and supportive care;
- The Dementia Centre, HammondCare learning and research teams;
- Residential aged care with specialised support services for people living with dementia and their carers; and
- Serviced seniors housing with 24/7 support services including 'hospital in the home' opportunities for older people to stay in their homes longer (it is noted that such facilities are not presently available in the Lane Cove LGA).

3.2 Compliance with Strategic Guidelines

The proposed development is consistent with the relevant strategic planning framework and guidelines. An analysis against the relevant strategies, as listed in the issued SEARs for SSD-13719238 (**Section 1.4**), is provided in **Table 4** below.

Table 4 Summary of consistency with relevant strategies, policies, and guidelines

Instrument/Strategy	Comments
NSW State Priorities	The NSW State Priorities are a set of 12 high-level priorities aimed at making a significant difference to enhance the quality of life of the people of NSW. • Being for the redevelopment of a hospital site to provide greater quality and quantity of care, the proposed development directly responds to the State Priority for 'Improving service levels in hospitals'. Importantly, as a Schedule 3 hospital, HammondCare will self-fund the capital for the health campus which will be used as part of the public health care system. • The proposal provides integrated seniors housing uses to enable ageing in place with appropriate access to support and care under HammondCare's 'continuum of care' model, in line with the State Priority for 'Improving outpatient and community care'. Therefore, the proposal is consistent with the NSW State Priorities.
Future Transport Strategy 2056	The site is well serviced by public transport, including through the frequent 261 and 265 bus services, providing easy access from the site to the centres of Chatswood, St Leonards, and North Sydney (**Section 2.5**). Through co-locating new health floorspace with existing public transport connections, the proposal is consistent with the aims and objectives of *Future Transport Strategy 2056*.
Crime Prevention through Environmental Design (CPTED) Principles	The proposed development is consistent with the principles of CPTED. Refer to CPTED Assessment at **Appendix FF** and further discussion at **Section 7.16** below.
Better Placed: An integrated design policy for the built environment of New South Wales	The built form of the proposal has been designed to respond to the seven objectives for good design identified in *Better Placed*. Refer to discussion provided at page 37 of the Urban Design Report at **Appendix B**.
Healthy Urban Development Checklist	The Healthy Urban Development Checklist is a practical tool to help NSW health and built environment professionals understand and assess built environment factors that impact on health. The document is framed into 11 checklist themes. The proposal is consistent with the Checklist, as it:

	• Delivers seniors housing uses that bridge a critical gap between traditional retirement living and hospital care, allowing elderly members of the community to 'age in place' and maintain a sense of independence, while receiving direct access to hospital quality care in line with Hammondcare's 'continuum of care' model. This approach delivers specialist residences that offers significant support for health, in line with theme 3 of the Guideline (Housing). • Provides increased employment opportunities in the healthcare sector in the local Greenwich community, in line with theme 5 of the Guideline (Quality employment). • Is consistent with CPTED Principles, in line with theme 6 of the Guideline (Community safety and security). Refer to CPTED Assessment at **Appendix FF** and further discussion at **Section 7.16** below. • Provides for a high quality built environment that is integrated with nature and biophilic design principles, with increase to tree canopy and quality of landscaping at the site in line with theme 7 of the Guideline (Open space and natural features). • Enables for high quality ecologically sustainable development, as consistent with theme 11 of the Guideline (Environmental sustainability and climate change).
Draft Greener Places Design Guide	The draft Greener Places Design Guide has been prepared by the GANSW to guide the design, planning and delivery of green infrastructure across NSW. The aim is to create healthier and more liveable cities and towns by improving community access to recreation and exercise, walking, and cycling connections and the resilience of urban areas. The Guide identifies four design principles to help deliver green infrastructure in NSW – Integration, Connectivity, Multifunctionality and Participation. The proposal responds to the design principles, as follows: • *Integration* – the built form combines green infrastructure with grey infrastructure through usage of extensive on-site landscaping and biophilic design principles. • *Connectivity* – connectivity of built form has been a crucial design driver in the project's development. The proposal has been designed to allow ease of access and movement across the health campus for persons of all ages and physical abilities. • *Multifunctionality* – the proposal is for a health campus that delivers a number of interrelated health uses, including palliative care, dementia care, respite care and specialist seniors housing, leveraging off the new hospital. • *Participation* – stakeholders have been engaged and involved in the development of the built form to date. Refer to further discussion at **Section 6**.
The Greater Sydney Region Plan - A Metropolis of Three Cities	The *Greater Sydney Region Plan – A Metropolis of Three Cities* (GSRP) is the current strategic plan for the Greater Sydney metropolitan area. The proposed development exhibits a high degree of consistency with the relevant planning Objectives of the GSRP, as it will: • Redevelop existing health infrastructure to provide quality hospital care, specialised aged care and respite care in line with forecast growth of Greenwich's elderly population, as consistent with Objective 2 that 'Infrastructure aligns with forecast growth – growth infrastructure compact'. • Respond to Sydney's ageing population (with the proportion of population over 65 years of age to increase from 13 to 18 percent), in line with Objective 6 that 'Services and infrastructure meet communities' changing needs'. • Enable elderly members of the community to maintain their health and 'age in place' with access to hospital care while remaining in the community. The provision of specialist serviced seniors housing as part of HammondCare's

	'continuum of care' model, therefore, responds to Objective 7 that 'Communities are healthy, resilient and socially connected'. • Provide for a built form that is more accessible, with excellence in urban design and appropriate for all ages and physical abilities. Accordingly, the health campus responds to the needs of patients, visitors, and their families in line with Objective 12 to create 'Great places that bring people together'. • Maintain and conserve the historic Pallister House, responding to Objective 13 that 'Environmental heritage is identified, conserved and enhanced'. • Provide significant on-site vegetation, increasing tree cover and best practice in ecologically sustainable development with an emphasis on biophilic design. This helps meet Objective 27 that 'Biodiversity is protected, urban bushland and remnant vegetation is enhanced' and Objective 33 that for 'A low-carbon city contributes to net-zero emissions by 2050 and mitigates climate change'.
North District Plan	*Our Greater Sydney 2056 – North District Plan* (NDP) details a range of opportunities, priorities, and actions specific to the LGAs of northern Sydney that assists and facilitates the implementation of the GSRP's vision. The proposed development is consistent with the Planning Priorities of the NDP, as it will: • Respond to Sydney's ageing population and forecast growth in healthcare outcomes, especially specialist dementia and aged care, through redevelopment of the existing health infrastructure in line with Planning Priority N3 for 'Providing services and social infrastructure to meet people's changing needs'. • Enable elderly members of the community maintain their health to 'age in place' with access to hospital care while remaining in or connected to the community, through the provision of specialist seniors housing as part of HammondCare's 'continuum of care' model, responding to Planning Priority N4 for 'Fostering healthy, creative, culturally rich and socially connected communities'. • Provide for a built form that is more accessible, welcoming and responds to the needs of all patients, visitors and their families, while also maintaining and preserving Pallister House, in line with Planning Priority N6 for 'Creating and renewing great places and local centres, and respecting the District's heritage'. • Provide significant on-site vegetation, increasing tree cover and best practice in ecologically sustainable development with an emphasis on biophilic design, helping meet Planning Priorities N16 and N21 for 'Protecting and enhancing bushland and biodiversity' and 'Reducing carbon emissions and managing energy, water and waste efficiently'.
Lane Cove Council Local Strategic Planning Statement	The *Lane Cove Council Local Strategic Planning Statement* (LSPS) is the primary local planning document for the Lane Cove LGA, defining the long-term vision for land-use and infrastructure provision in the LGA and giving guidance to its future character. It provides for a series of Planning Priorities at local level that respond to the overarching aims and objectives of the GSRP and NDP. The proposal is consistent with the LSPS, including through responding to the identified Planning Priorities as follows: • Ensuring that healthcare outcomes in Greenwich continue to respond to the evolving needs of the community, in the context of Sydney's ageing population and the need for additional specialist dementia, aged care and palliative care. This is achieved through the redevelopment of an existing health facility to substantially improve quality and quantity of health outcomes in line with Planning Priority 1 to 'Provide, maintain and upgrade infrastructure to meet changing community needs and accommodate future growth'. • Ensuring that elderly members of the community can 'age in place', bridging the gap between regular retirement living and hospital care through the provision of specialist serviced seniors housing on-site in line with

	HammondCare's 'continuum of care model'. This enables access to hospital staff and care while allowing residents to maintain a degree of independence and remain in or connected to the community, in line with Planning Priority 4 to 'Facilitate socially connected communities and enhance our cultural identity'. • Enhancing tree cover on the site and enabling the latest in ecologically sustainable development and biophilic design to deliver a green built form that responds to Planning Priority 10 to 'Enhance our urban tree canopy, bushland and waterways' and Planning Priority 11 to 'improve the management of energy, water and waste resources'.
Lane Cove Development Control Plan 2010	Although DCP's do not apply to SSD (in accordance with Clause 2.10 of the Planning Systems SEPP), the proposed development is generally consistent with the relevant provisions of the Lane Cove DCP 2010. See **Section 5.6**.

3.3 Analysis of Alternatives

Design alternatives for this SSDA are intrinsically limited, due to the parameters approved by the Greenwich Hospital Concept Approval (SSD 8699; **Section 1.4**), which sets the relevant planning framework, including the maximum permitted building envelopes and maximum gross floor area limits, to guide the detailed design, construction and operation of the new Greenwich health campus.

Throughout the Concept Approval planning process, a number of potential alternative development scenarios were considered by the project team. These were:

- Do nothing;
- Upgrade the existing hospital at the site;
- Redevelop the site with a new hospital building; or
- Redevelop the site into an integrated health campus including a new hospital/residential aged care building, two seniors housing buildings, and a respite care building (the chosen option).

The alternative options were found to be unsuitable. A summary of each is provided below.

3.3.1 Do Nothing

Doing nothing was found to fail to deliver any of the substantive public benefits offered by the site's redevelopment. It would not increase the quantity or quality of healthcare floorspace, including improvements to specialist aged care and dementia care, that is required by the Greenwich community now and into the future. Doing nothing at the site would not remedy the existing situation of the current buildings on the site being dated and no longer fully fit for purpose in meeting the needs of patients today and into the future; and would jeopardise continuity of service by not meeting compliance requirements for a Schedule 3 hospital.

3.3.2 Upgrade the Existing Hospital

Upgrading the existing hospital building(s) was also found to represent a missed opportunity for the site to make a major contribution to healthcare and aged care specialist services in Greenwich and the surrounding community. It would involve prohibitive costs to bring the building up to today's standards and would not respond to the need for increased specialist care, with the number of people aged 65 or older in northern Sydney set to increase to 18% by 2031.

3.3.3 Redevelopment of Site with New Hospital Building

Redevelopment of the site through replacing the Hospital building only, without any of the integrated health campus uses proposed, was found to be inconsistent with HammondCare's unique 'continuum of care' model and would not deliver the full suite of objectives envisaged for the project, nor address the growing need for health facilities within the local area.

The overarching objective of Greenwich Hospital's redevelopment is to enable elderly members of the community and those with chronic illnesses to continue to live well and maintain independence as they age via access to appropriate support and care. Seniors housing uses are an integral part of the site vision and an innovative response to the changing health needs of the community which is characterised by higher incidents of chronic disease, prolonged

duration of illness and complex co-morbidities. The serviced nature of the accommodation, and diverse range of care options on-site, allows people to age in place and access the range of health services provided by HammondCare within their home environment. Being targeted at older residents (75+ years of age) with chronic health care needs, the seniors housing uses proposed for the site are considerably different to that of traditional retirement living.

Being an independent not-for-profit Christian charity, redevelopment of the site to only include a sub acute hospital without the associated healthcare uses would also be financially unfeasible for HammondCare and preclude the developability of the entire project. As there is no public money or government funding for capital works on Schedule 3 hospitals, the capital for this important project is fully funded by HammondCare who relies on revenue from its operations, donations, and government grants to fund care services.

3.3.4 Redevelopment of Site into Integrated Health Campus

Redevelopment of the site into an integrated health campus including new hospital, residential aged care, seniors housing, overnight respite uses (i.e., the proposed development) was found to be the only feasible development scenario for the site. Through realisation of the innovative HammondCare 'continuum of care' model, the following healthcare services can be delivered to a high quality as part of the proposed redevelopment:

- Day and overnight respite;
- Short term restorative care programs;
- Inpatient and outpatient rehabilitation services;
- Older persons mental health;
- Centre for Positive Ageing supporting seniors to age well and remain connected to their community;
- Palliative and supportive care;
- The Dementia Centre, HammondCare learning and research teams;
- Residential aged care with specialised support services for people living with dementia and their carers; and
- Serviced seniors housing with 24/7 support services including 'hospital in the home' opportunities for older people to stay in their homes longer (it is noted that such facilities are not presently available in the Lane Cove LGA).

3.4 Cumulative Impact

The proposal is expected to have positive cumulative impacts on the provision of healthcare within Greenwich. As noted above, the number of people aged 65 or older in northern Sydney is expected to increase to 18% of the population and the need for specialist dementia care is estimated to double in NSW by 2051. HammondCare is well versed in providing specialist care for older patients as part of its 'continuum of care' model.

As aforementioned, the new redeveloped health campus will provide 130 hospital/residential aged care facility (RACF) beds (a net increase of 52 beds compared to existing site conditions), and 89 seniors housing units with on-site care to enable elderly members of the community to better 'age in place' and maintain a degree of independence. Importantly, the campus will expand on outpatient and community care, to provide services to enable seniors in the local area to age well.

The specialist consultant reports appended to this EIS, and environmental assessment at **Section 7** consider the expected environmental impacts of the proposal, during both construction and operation, in the short, medium, and long term.

The proponent has not identified any other significant development(s) in the suburb of Greenwich or its immediate surroundings, including any other State Significant Developments(s), that will generate material cumulative impact requiring further assessment under this proposal.

3.5 Development Contributions

The relevant section 7.11 contributions plan is the *Lane Cove Section 94 Contribution Plan 1996* (Lane Cove S94 Plan). No section 7.12 contributions apply for development in the Lane Cove LGA.

3.5.1 Seniors Housing Component

With regards to the proposed seniors housing uses, we note that the Ministerial Direction dated 14 September 2007 exempts from the payment of contributions developments for the purpose of any form of seniors housing, as defined

under the *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* (SEPP Seniors), provided that the development is by a social housing provider. Social housing is defined (also within SEPP Seniors) as:

> *Social housing provider means any of the following:*
> *a) the New South Wales Land and Housing Corporation,*
> *b) the Department of Housing,*
> *c) a community housing organisation registered with the Office of Community Housing of the Department of Housing,*
> *d) the Aboriginal Housing Office,*
> *e) a registered Aboriginal housing organisation within the meaning of the Aboriginal Housing Act 1998,*
> *f) the Department of Ageing, Disability and Home Care,*
> *g) a local government authority that provides affordable housing,*
> *h) a not-for-profit organisation that is a direct provider of rental housing to tenants.*

HammondCare is a not-for-profit organisation registered with the Australian Charities and Not-For-Profits Commission. It is also a direct provider of housing for seniors, owning and managing a number of seniors housing, health and aged care facilities where they specifically offer support for aged and dementia patients and provide relevant palliative care, rehabilitation, pain management and support for younger onset dementia.

The term 'rental housing' is not defined under the SEPP, however, the Macquarie Dictionary defines rent as 'a return or payment made periodically by a tenant to an owner for the use of land or building'. HammondCare provides accommodation to its residents under the auspices of the Aged Care Act 1997 (Commonwealth) and the Retirement Villages Act 1999 (NSW) as well as under standard Tenancy Agreements. None of the accommodation provided is owned by the person residing in it, with the ownership residing with HammondCare.

In respect of the accommodation, a resident moving into aged care undergoes an income and assets assessment to determine how their accommodation is to be paid for:

- If a person's assets and income are below a certain amount the Australian Government pays the accommodation costs on behalf of the resident to the provider (in effect, the Government pays the rent).
- If a person's assets and income are above the threshold, the resident is required to pay a contribution towards the cost of accommodation and the Australian Government pays the rest (in effect, part payment of the rent by the resident and part by the Australian Government). This is on a sliding scale with the Government contribution phasing out when a further threshold is reached.
- The resident assets and income are at a level where they pay the accommodation payment in full (resident pays the full rent).

The accommodation cost, where they are paid for by a resident can be made as a lump sum refundable accommodation deposit (the interest on which is effectively the rent and is paid to the accommodation provider) or a rental type payment called a 'daily accommodation payment' (or a combination of both). At any one time, the proportion of residents in one of the two categories above will vary depending on individual financial circumstances. Similarly, the percentage of residents opting for a one-off lump sum payment or daily accommodation payment or combination of both will also vary. All of these arrangements are simply different methods of "paying the rent". It should be noted that in none of these instances does the resident own accommodation which they reside in. Payments are made periodically, at agreed times, to HammondCare consistent with the above definition.

It is therefore evident that the Ministerial Direction dated 14 September 2007 exempts the seniors housing component of the proposal from the payment of development contributions. It is noted that this is also consistent with the intent of the Draft *Environmental Planning and Assessment Amendment (Infrastructure Contributions) Regulation 2021* which excludes seniors housing caried out by a social housing provider from the payment of local levies.

3.5.2 Hospital Component

Hospitals are defined as a type of "commercial development" under section 11 of the Lane Cove S94 Plan. Therefore, the hospital component of the proposal (including respite care building) may be liable for the payment of development contributions. It is generally understood that offset credits are available where existing floorspace (e.g. the existing hospital building) is to be demolished.

Notwithstanding this, the proponent will be seeking an exemption from the payment of section 7.11 contributions. HammondCare is listed as an Affiliated Health Organisation under Schedule 3 of the *Health Services Act 1997*, meaning

it is recognised as part of the public health system. The principal reason for recognising Affiliated Health Organisations is to enable certain non-profit, religious, charitable or other non-government organisations and institutions that significantly contribute to the operation of the public health system to be treated as part of said system where they provide hospital and healthcare services, such as at Greenwich.

HammondCare is a not-for-profit, independent Christian charity which is reflective in the underlying objectives of the project: to provide quality health infrastructure and services for the most vulnerable members of the community. By extension, the proposed hospital is not-for-profit, unlike a typical "commercial" development or private hospital. Furthermore, as there is no public money or government funding for capital works on Schedule 3 hospitals, the capital for this important project is fully funded by HammondCare.

The underlying intention of development contributions is to enable Council to fund the provision, extension or augmentation of public amenities and services that will or are likely to be required as a consequence of development within the LGA. The proposed hospital facility is in and of itself a public amenity and service, providing direct benefit in critical healthcare amenities and services to members of the public in Greenwich and surrounding suburbs.

Further, HammondCare is a self-sufficient facility in that it provides its own facilities and services on the premises including medical, therapeutical, entertainment, recreational and cultural programs. Given the characteristics of the development's population and the provision of community facilities on site, the clients will not create an increase in demand for public amenities and services provided by Council nor are they likely to avail themselves of the facilities to be funded thorough the section 7.11 contributions. The provision of the health care facility is in fact more likely to reduce the demand for Council amenities and facilities than would be the case if in the broader community where they would be reliant on the services provided by the Council and the local health authorities.

The levying of 7.11 payments in this instance is effectively a tax on a charitable institution and Affiliated Health Organisation in the public health system, with little or no benefit to the clients. It disadvantages the not-for-profit organisation and reduces its capacity to provide additional or enhanced health and care facilities. Further, it redirects the donations provided by the public and donated specifically for the provision of HammondCare's care services to non-related causes. An exemption from contributions will allow HammondCare to better serve the needs of the elderly and those in need within the LGA, which will ultimately reduce their reliance on government agencies.

4.0 Project Description

This application seeks approval for the detailed design and construction of the redevelopment of Greenwich Hospital into an integrated health campus, following concept approval for the project under SSD 8699. Specifically, consent is sought for the following:

- Site preparation works, including demolition of the existing hospital building and associated facilities, site remediation, and tree removal;
- Construction of a new hospital facility and integrated healthcare campus comprising of hospital, residential aged care, seniors housing, and overnight respite, across:
  - A new main hospital building up to RL 80.0;
  - Two new seniors housing buildings, northern building up to RL 56.35, and southern building up to RL 60.63;
  - A new respite care building up to RL 56.9;
- Construction of associated site facilities and services, including pedestrian and vehicular access, and basement parking;
- Site landscaping, signage and infrastructure works; and
- Preservation of Pallister House which will continue to host research and administrative functions.

Key plans and artist's impressions of the proposal are provided in **Figures 14** – **16** below. A detailed description of the project is provided in the below subsections.

Figure 14 Artist's impression of the proposed Greenwich health campus

Source: Bickerton Masters

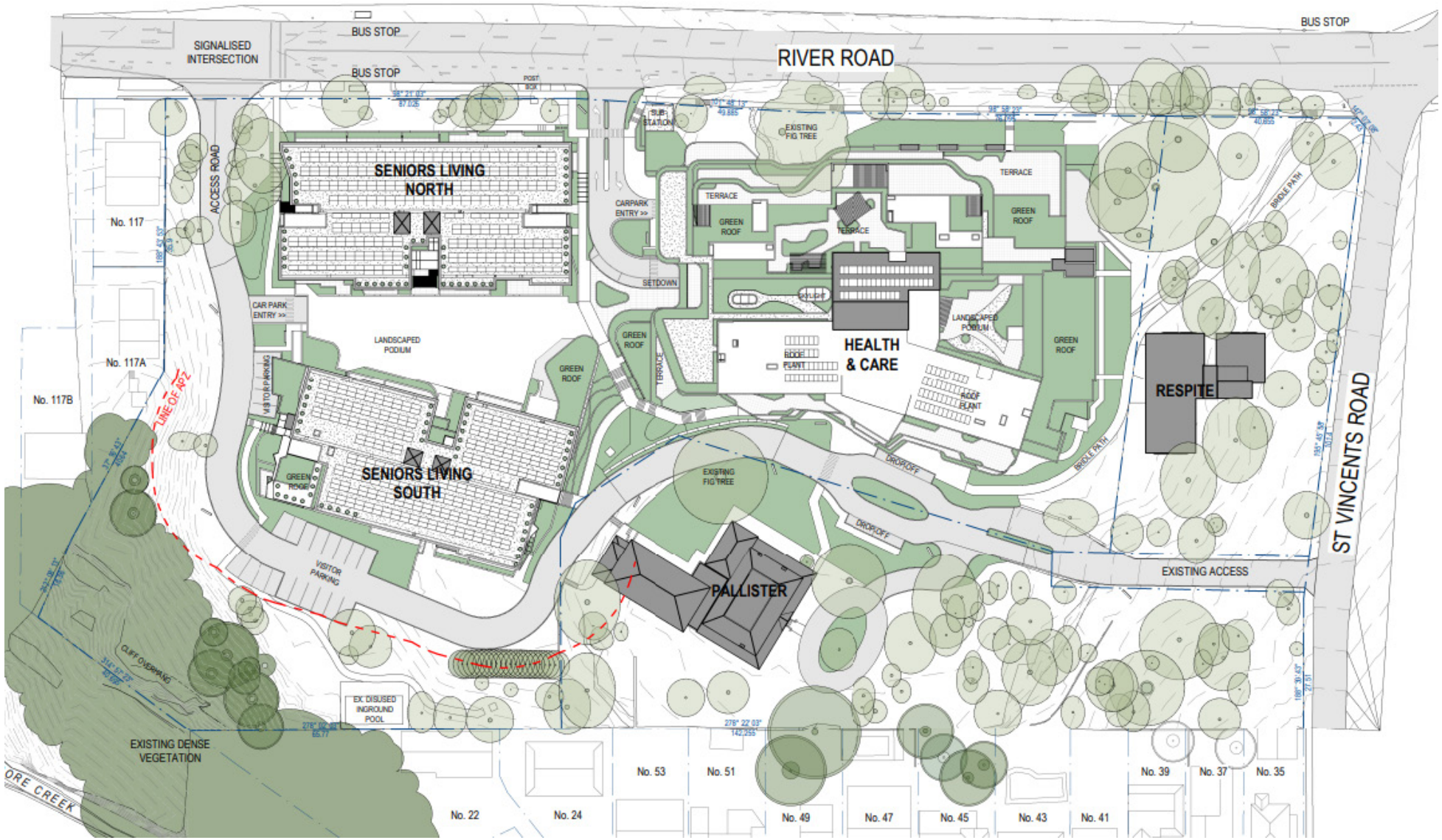

Figure 15 Proposed site masterplan

Source: Bickerton Masters

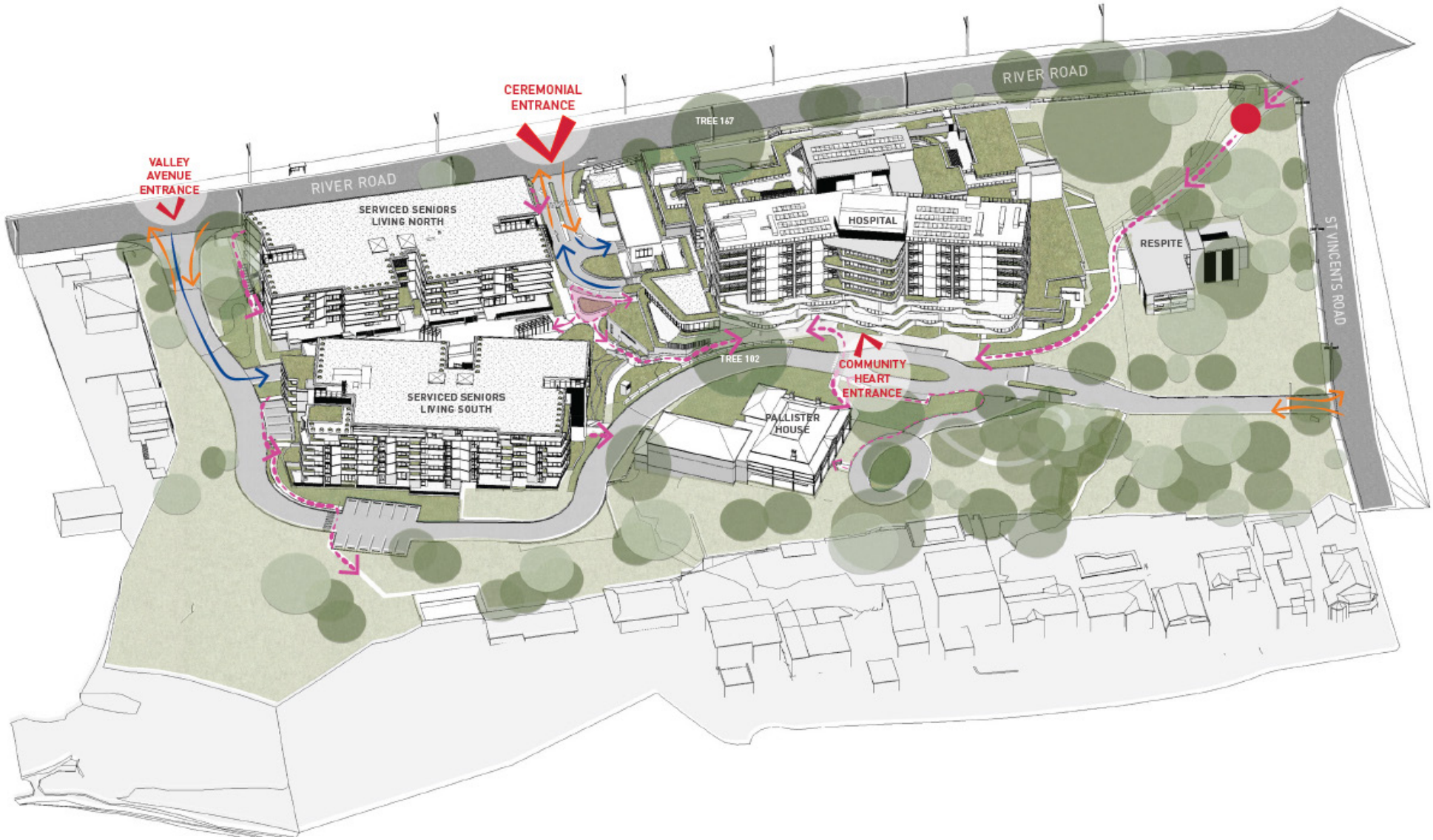

Figure 16 Proposed built form massing

Source: Bickerton Masters

4.1 Project Staging

Construction of the proposal will be staged to ensure that hospital uses can continuously operate at the site from commencement of construction works through to completion of the project. The new hospital building is to be built first (reflecting it being the nexus of the new Greenwich health campus, with the seniors housing and respite care uses requiring it to function), followed by the serviced seniors housing buildings, and finally the respite building.

Staging will be undertaken in accordance with the Staging Plans (Drawings DD-SW-0120 – 0127) within the Architectural Plans at **Appendix A**. The development will occur over five stages:

- Stage 1:
  - Stage 1.1: Early works, including demolition of the eastern extent of the existing hospital. The western portion of the existing hospital will continue to operate.
  - Stage 1.2: Excavation works for the new hospital building.
- Stage 2: Construction and operation of the new hospital building.
- Stage 3:
  - Stage 3.1: Demolition of the western portion of the existing hospital. The new hospital building will have already entered operation.
  - Stage 3.2: Construction and operation of the southern serviced seniors housing building, including the shared carpark.
- Stage 4: Construction and operation of the northern serviced seniors housing building.
- Stage 5: Construction and operation of the respite care building.

Site remediation will extend across any significant demolition and excavation works and is anticipated to occur during Stages 1.1, 1.2 and 3.1. An excerpt of the Staging Plans is provided at **Figure 17** below. Indicative construction timeframes for each of the identified stages is discussed in **Section 4.9**.

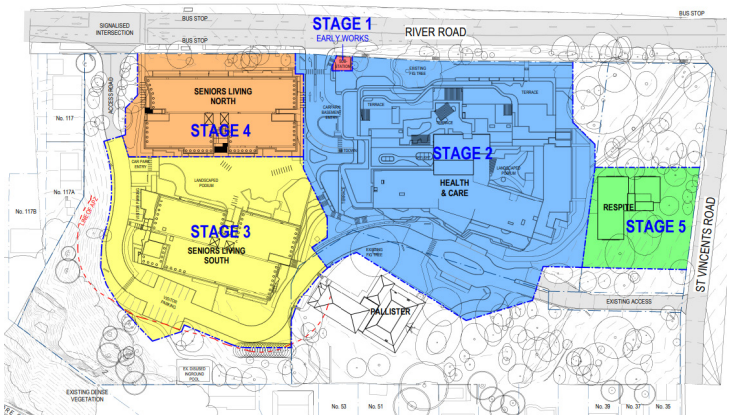

Figure 17 Proposed staged approach

Source: Bickerton Masters

4.2 Demolition and Vegetation Removal

The proposal seeks consent to demolish the existing hospital building, in accordance with the staged approach delineated above, and Demolition Plans (Drawings DD-SW-0121, 0124) within the Architectural Plans at **Appendix A**. The eastern extent of the existing hospital will be demolished before its western portion.

Tree removal works will be undertaken in accordance with the Existing Trees Plan (Drawing DD-SW-0104), and the Tree Impact Assessment Report and Tree Management Plan at **Appendix R**. In summary, of the 279 existing on-site trees:

- 194 will be retained under the proposal.
- 52 are to be removed to facilitate the proposed development.
- 33 are to be removed due to being invasive, decaying, or overmature.

The project tree retention and removal plan is provided at **Figure 18**. As further discussed in **Section 4.5**, 86 new trees are also proposed to be planted on-site.

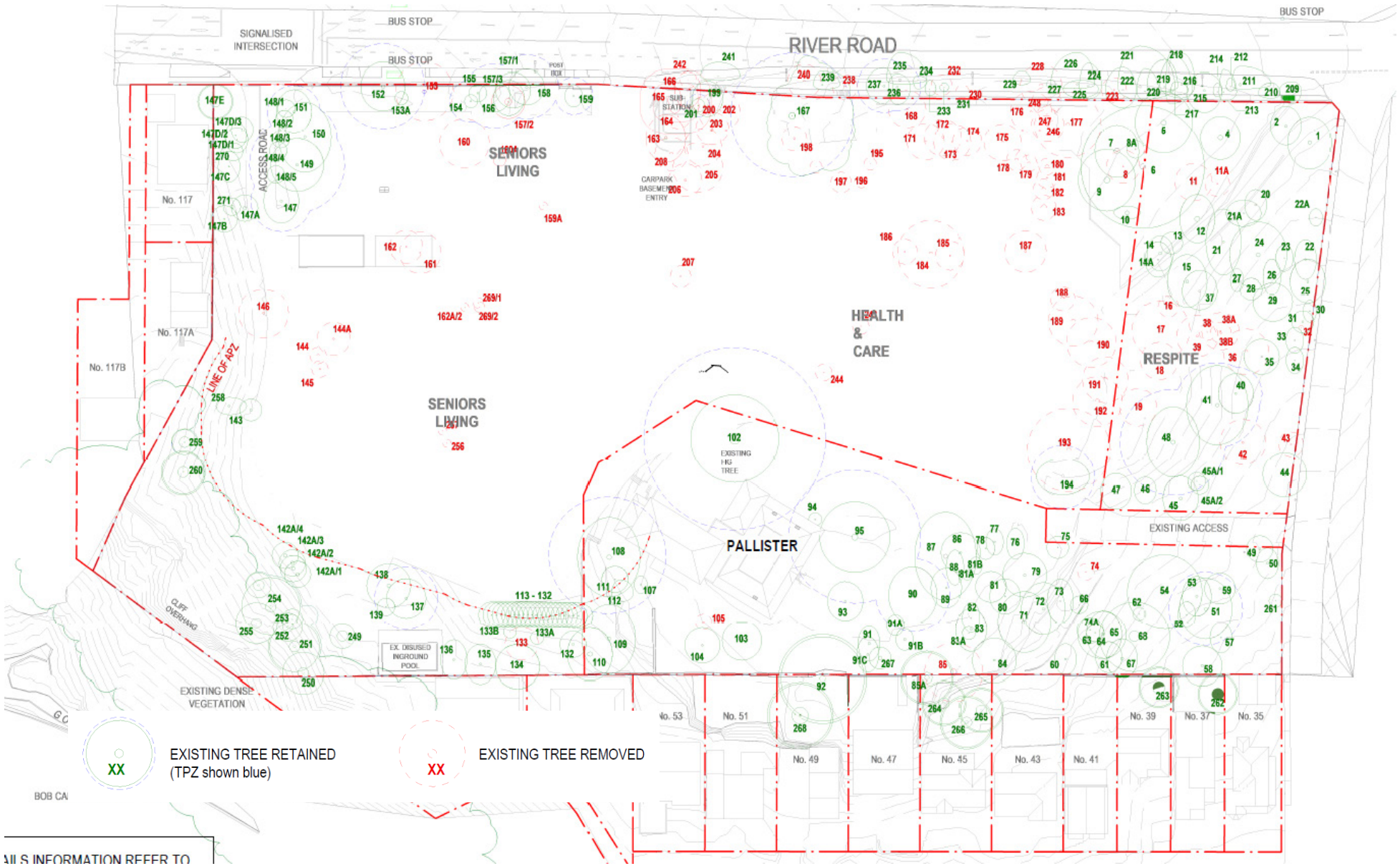

Figure 18 Tree retention and removal plan

Source: Taylor Brammer Landscape Architects

4.3 Built Form – Greenwich Health Campus

The proposal seeks to redevelop the site into a new integrated health campus for the 21st century, including a new modern hospital / aged care facility and co-located health uses including seniors housing and respite care. Consent is sought for the construction and operation of the following:

- A new 7 storey main hospital / residential aged care building;
- Two new 5-6 storey serviced seniors housing buildings;
- A new 2-3 storey overnight respite care building; and
- Retention and preservation of Pallister House, which will continue to host dementia care and administrative functions.

Each of these is further described below. The hospital and seniors housing buildings have a shared, integrated basement. Due to the sloping topography of the site, building access is provided at different levels for different areas of the site.

Detailed descriptions and justification of the proposed design are provided within the Urban Design Report by Bickerton Masters at **Appendix B**.

4.3.1 Numerical Summary

A numerical summary of the key development parameters of the proposed health campus is provided in **Table 5** below.

Table 5 Key development information

Component		Proposal
Site area		33,763m^2
GFA		• Hospital building: 13,950m^2 • Seniors housing north building: 5,557m^2 • Seniors housing south building: 6,654m^2 • Respite building: 654m^2 • Pallister House: 1,031m^2 (unchanged from existing) **Total GFA: 27,847m^2**
FSR		0.76:1
Maximum height		• Hospital building: RL 80.00m • Seniors housing north building: RL 56.35m • Seniors housing south building: RL 60.63m • Respite building: RL 56.90m • Pallister House: RL 59.98m (unchanged from existing)
Height in storeys		• Hospital building: 7 storeys, above 3 storeys of basement • Seniors housing north building: 4-5 storeys • Seniors housing south building: 5-6 storeys • Respite building: 2-3 storeys • Pallister House: 2 storeys (unchanged from existing)
Accommodation and capacity		• Hospital / aged care: 130 beds • Seniors housing north building: 42 serviced dwellings • Seniors housing south building: 47 serviced dwellings
Boundary setbacks	North (River Road)	6.0m (hospital), 9.1 metres (seniors housing north)
	East (St Vincents Road)	13.8m (respite building)
	West	24.5m (seniors housing north), 19.5m (seniors housing south)
	South	33.6m (seniors housing south), 12.7m (Pallister House)

Vehicular parking	Seniors housing • Seniors housing north building: 42 spaces • Seniors housing south building: 47 spaces Staff (hospital & seniors housing) • 76 spaces Visitor • Basement: 123 spaces • Set-down area: 20 spaces (6 drop-off bays, 14 short-term) • Access road: 21 spaces (4 drop-off bays, 16 short-term) **Total: 329 parking spaces**
Deep Soil Area	14,000m^2 (41.5% of site area)

4.3.2 New Hospital / Residential Aged Care Building

Central to the proposed new integrated health campus is the new hospital and residential age care facility (RACF) building. This building is 7 storeys in height above ground, in addition to 3 storeys of basement, and is located towards the eastern side of the new Greenwich Health Campus.

The facility will comprise 130 beds, representing an increase of 52 beds over existing site conditions. The beds will be used flexibly for hospital and/or residential aged care uses, as required by the community.

Detailed plans for the hospital building are provided in drawings prefixed 'DD-HST' of the Architectural Plans at **Appendix A**, excerpts of which are provided below in **Figures 19** – **22**.

The building comprises the following key parameters:

- Below ground are three basement levels. Basement level 3 is shared with the seniors housing buildings and contains staff parking, ambulance bays and services areas including storage, a mortuary and maintenance workshops.
- Basement level 2 contains the vehicle drop-off loop for the main Ceremonial Entrance from River Road, including short-term parking and set-down spaces. Parking for visitors, the hospital pool, a wellness centre, and the hospital chapel are also located on this level (**Figure 19**). Above is basement level 1, a mezzanine level that contains meeting rooms as well as additional visitor parking.
- Pedestrian access is primarily provided adjacent to Pallister House at ground level. The main lobby including foyer, café and dining areas, hospital pharmacy, rehab gym, as well as the hospital staff hub are all located at this level. Also located at ground level to the southeast is a hospital wing (**Figure 20**).
- Three health care wings are located on the level 1 of the hospital building (noting that, due to the sloped topography of the precinct, this is shown as level 5 on the Architectural Plans – **Figure 21**), and two are located on level 2 (level 6 on the Plans). The upper levels of the building (levels 3 – 6; levels 7 – 10 on the Plans) each contain one health care wing. Each wing contains its own single-occupancy rooms, dining, and lounge area which reflect HammondCare's 'cottage' model which is recognised as a leader in specialist person centred care. A central staff and services lobby area is also provided for each floor.
- Diverse landscaped outdoor terraces are also provided for each hospital wing, with lower levels being provided with large roof terraces due to the staggered nature of the built form.

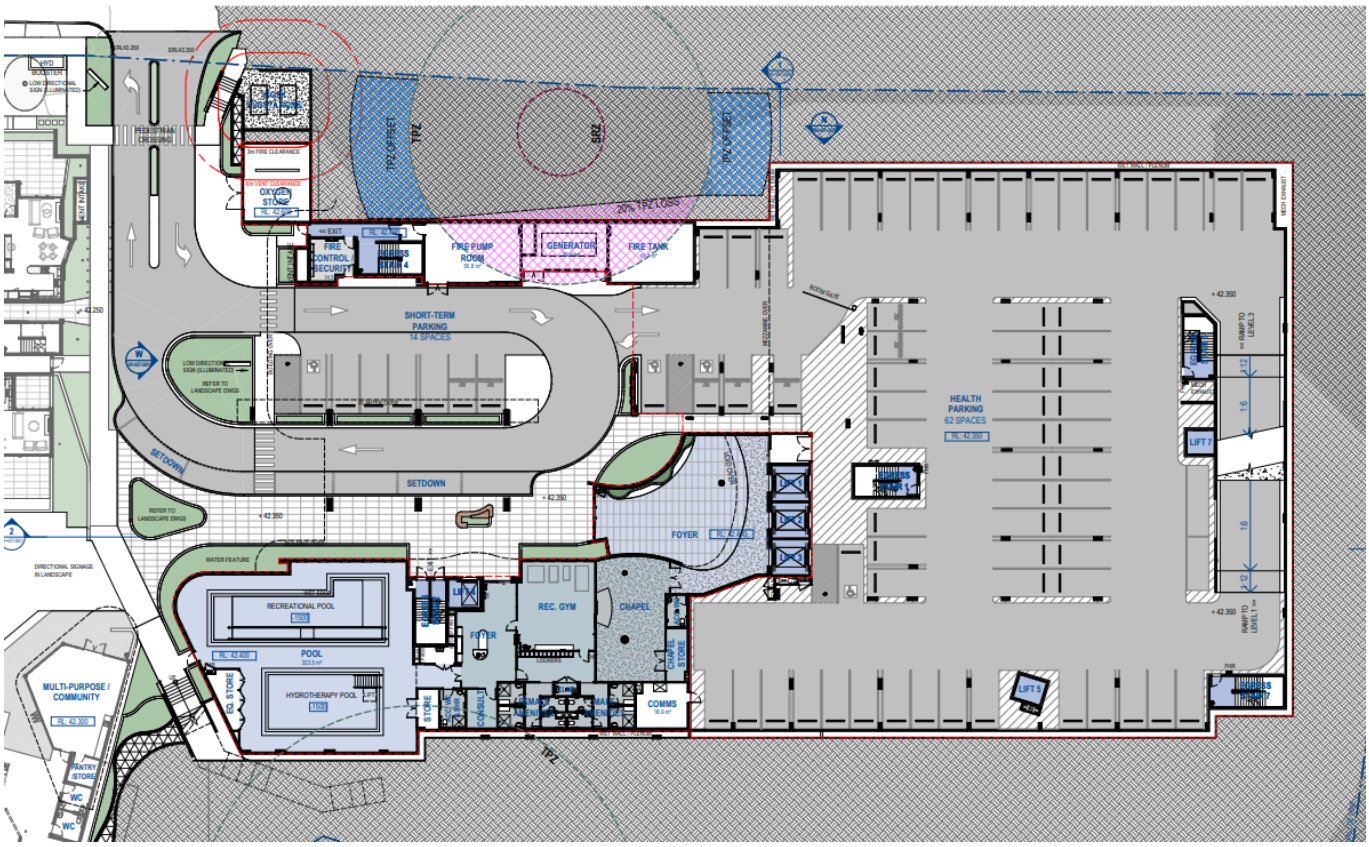

Figure 19 Hospital building – Basement level 2 floorplan (level 2 on the Architectural Plans)

Source: Bickerton Masters

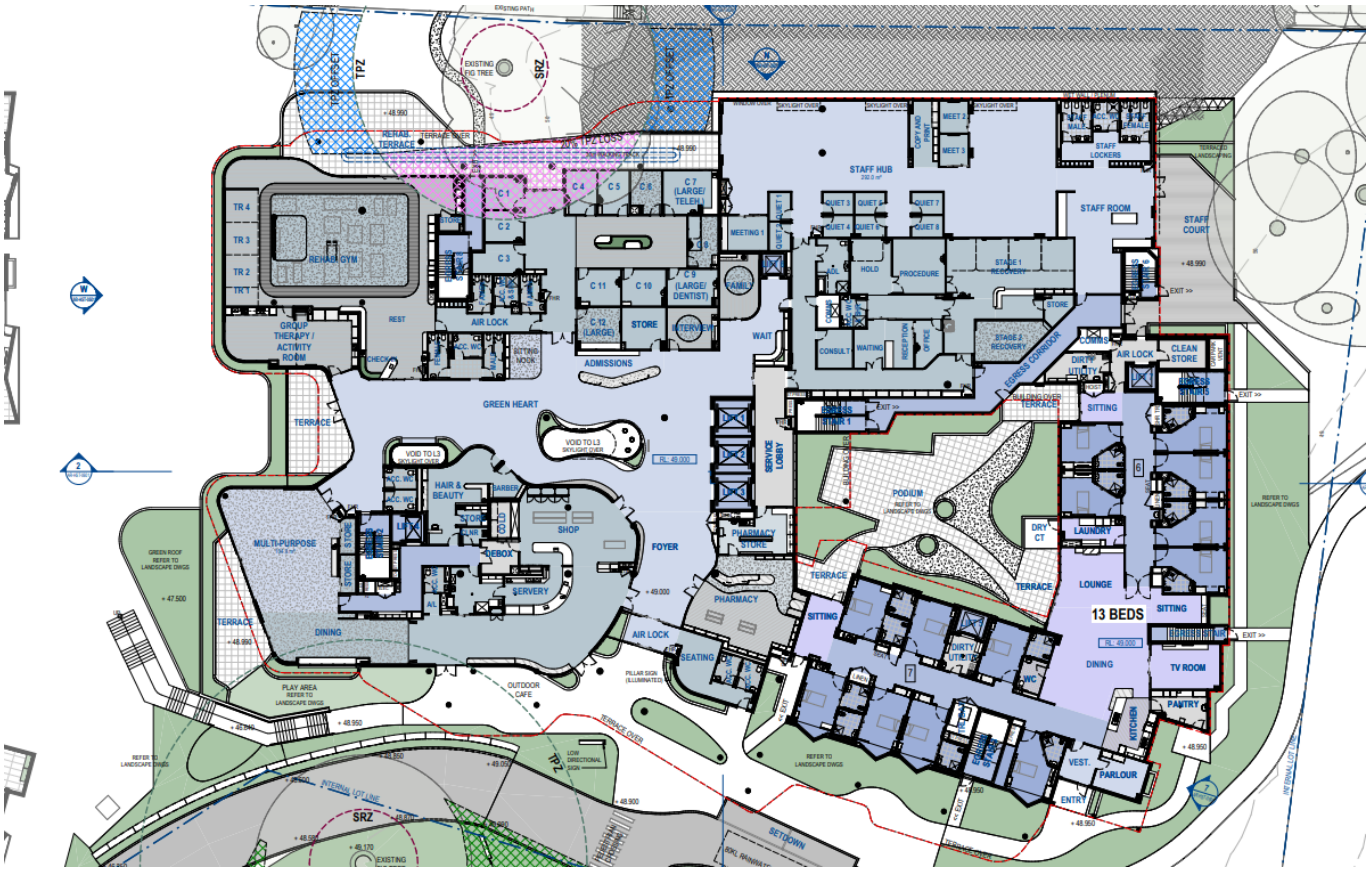

Figure 20 Hospital building – ground floorplan (level 4 on the Architectural Plans)

Source: Bickerton Masters

Figure 21 Hospital building – level 1 floorplan (level 5 on the Architectural Plans)

Source: Bickerton Masters

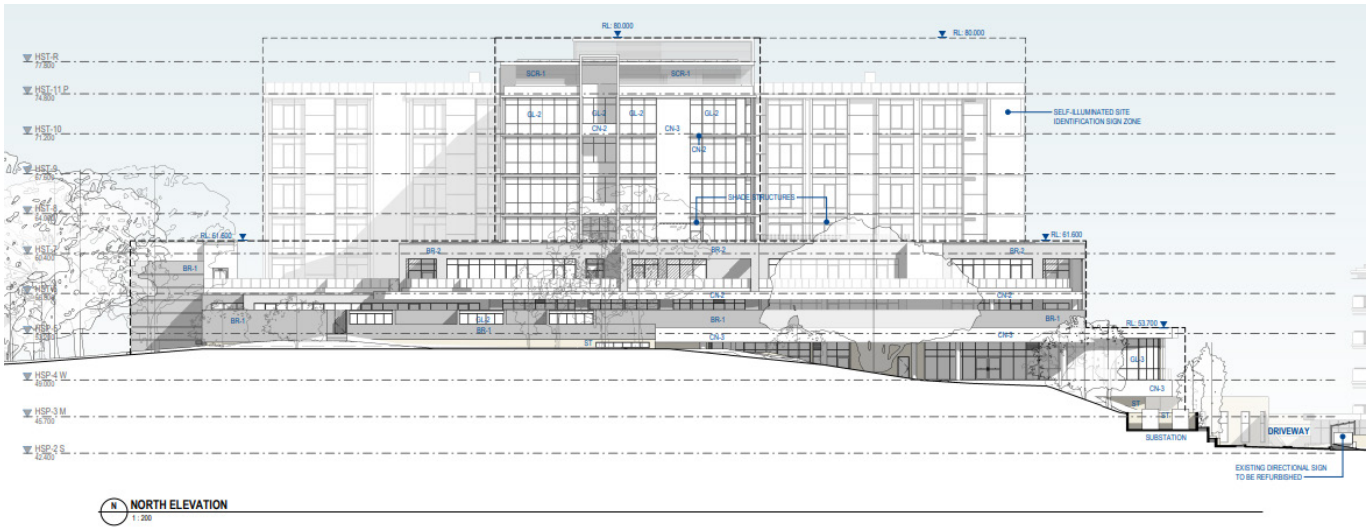

Figure 22 Hospital building – northern elevation (from River Road)

Source: Bickerton Masters

4.3.3 Serviced Seniors Housing Buildings

Two serviced seniors housing buildings are proposed to the west of the new hospital building. The northern building is 4-5 storeys in height, and the southern building is 5-6 storeys in height to respond to the site's sloping topography. As noted above, the two buildings share a basement with the main health building, as well as a landscaped podium in between (see **Section 4.5**).

The buildings contain a total of 89 dwellings: 42 in the northern building, and 47 in the southern building. The buildings contain:

- 15 three-bedroom dwellings;
- 64 two-bedroom dwellings; and
- 10 one-bedroom dwellings.

Residents will typically be 75+ years of age, with chronic health needs.

The dwellings within the buildings are self-contained, each with their own amenities, kitchen, bedroom(s) and balconies or courtyard, to enable residents to 'age in place' and retain their independence in the community. However, they are purpose-built to Class 9C building standards (residential care buildings) and include facilities such as corridor seating nooks for residents, and storage and utilities areas for hospital staff, who will be on hand at all hours as required to attend to building residents. Building to Class 9C standards also allows these dwellings to be able to be converted to hospital-related uses as required, thereby 'futureproofing' the proposal.

A sky lounge and terrace are provided at level 6 of the southern seniors housing building for the benefit of all residents.

Detailed plans for the seniors housing buildings are provided in drawings prefixed 'DD-SL' of the Architectural Plans at **Appendix A**, excerpts of which are provided in **Figures 23** – **25** below.

Figure 23 Seniors housing buildings level 2, showing podium and typical dwelling layout

Source: Bickerton Masters

Figure 24 Northern seniors housing building – northern elevation (from River Road)

Source: Bickerton Masters

Figure 25 Southern seniors housing building – southern elevation

Source: Bickerton Masters

4.3.4 Respite Care Building

An overnight respite care building is proposed at the eastern end of the site, near the frontage to St Vincent's Road. Due to the site's topography, the building has a staggered built form that is 3 storeys, in height, but generally presents as 2 storeys at any one point of the building.

The building will provide overnight respite care services, for elderly members of the community normally cared for at home, but whose usual carer(s) need a break/rest from providing care. A total of 10 rooms are to be provided across the building, with shared living spaces. As with the seniors housing buildings, specialist trained staff will be on hand as required to provide care at all hours of the day.

Detailed plans for the respite care buildings are provided in drawings prefixed 'DD-RS' of the Architectural Plans at **Appendix A**, excerpts of which are provided in **Figures 26** – **27** below.

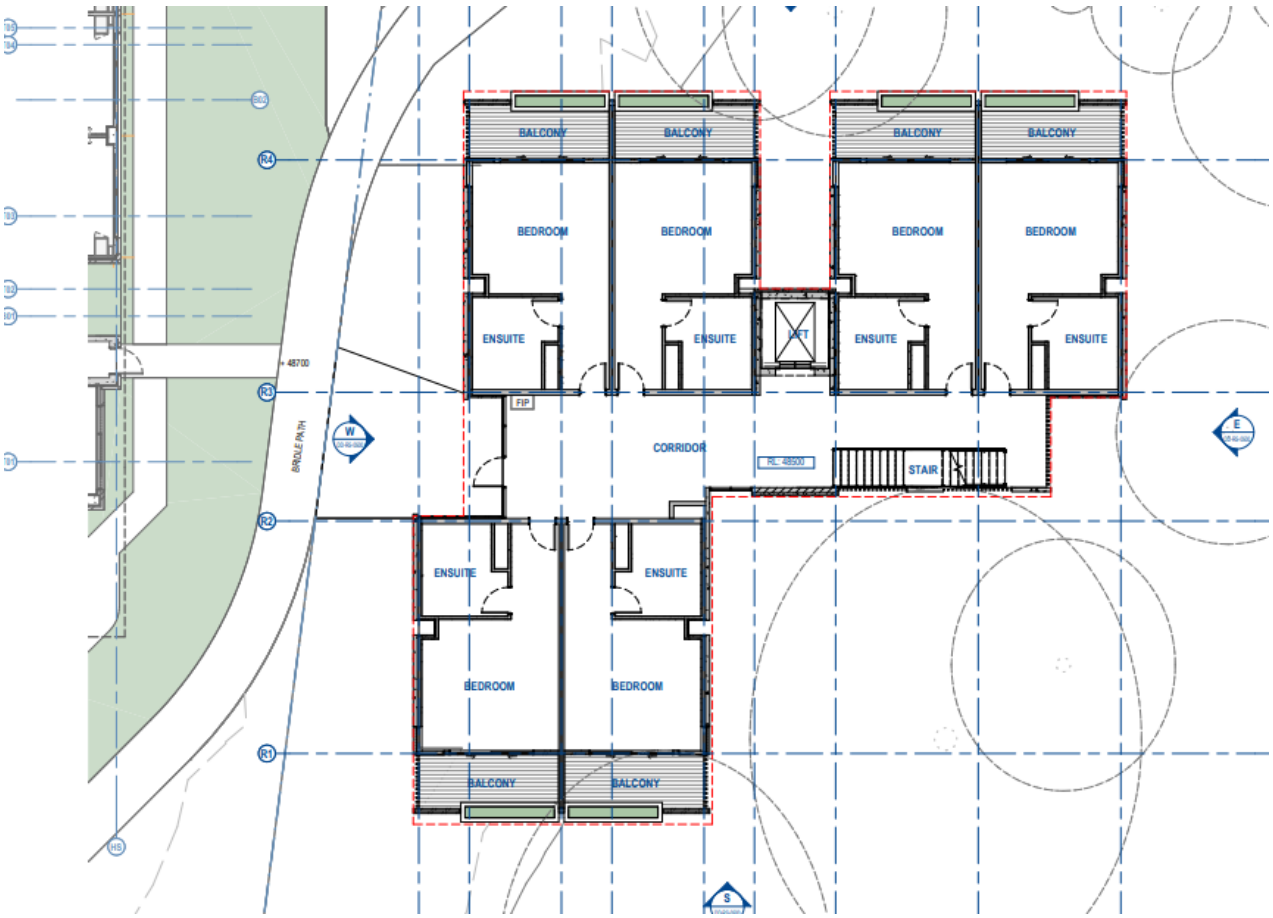

Figure 26 Respite care building – level 2 layout

Source: Bickerton Masters

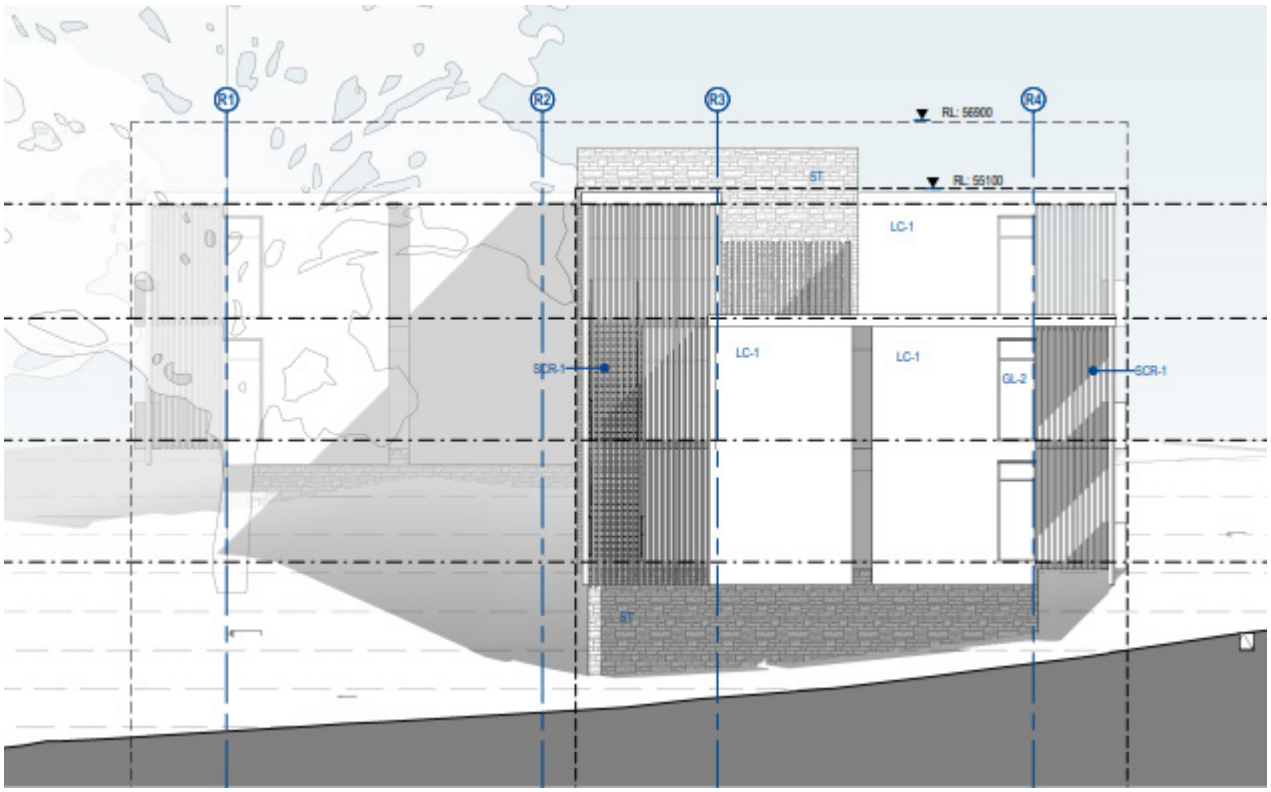

Figure 27 Respite care building – eastern elevation (from St Vincent's Road)

Source: Bickerton Masters

4.3.5 Pallister House

Pallister House is to be retained and conserved under the proposal, with make good works to be undertaken to the original heritage fabric, and intrusive fabrics and elements to be removed. The following works conservation are envisioned:

- Sandstone repairs;
- Ashlar render repairs;
- Repairs to original timber floorboards, both internal and external, as appropriate;
- Stained glass and glass window repairs;
- Tile repairs; and
- Marble repairs.

The full extent of conservation works anticipated are detailed in the Schedule of Conservation Works prepared by Built Environmental Heritage Group (BEHG) at **Appendix F**. Pallister House will continue to host administrative functions of Greenwich Hospital, as well as HammondCare's dementia and research teams as consistent with existing arrangements.

Additionally, a Heritage Interpretation Strategy (HIS) for Pallister House has been prepared by Cultural Heritage Connections and Built Environmental Heritage Group, at **Appendix G**. The HIS confirms that the following interpretation strategies will be explored in detail for Pallister House to ensure that site visitors, residents and patients will benefit from a heightened sense of appreciation and understanding of the heritage item:

- Interpretive panels;
- Art displays;
- Interactive art displays;
- Paving inlays;
- *In situ* conservation of archaeological remains;
- Adaptive re-use of architectural elements;
- QR codes;
- Website and events;
- Conservation of the heritage item; and
- Vegetative planting.

The HIS still preliminary at this stage of this project and is to be finalised at the construction certificate stage following further consultation between the project team and heritage consultant, as is standard best practice.

4.4 Access and Parking

4.4.1 Access and Movement

Access to and from the Greenwich health campus will occur from the following points (**Figure 28**):

- Primary access for pedestrians and vehicles will be via the centrally located 'Ceremonial Entrance' in between the new hospital building and seniors housing buildings, fronting River Road. This space provides a clearly legible entry point for residents and visitors and connects to the vehicular set-down loop beneath the hospital.
- Service vehicles, and vehicles belonging to the seniors housing residents, will predominantly continue to access the health campus from the existing signalised intersection at the western end of the site. This entrance also fronts River Road and has been designed to skirt around the buildings and provide entrance to the basement carpark, 'burying' the carpark from view to maximise space for pedestrian pathways and landscaping and minimise pedestrian-vehicular conflict. The hospital loading dock will also be accessed from this entrance.
- Access will also be retained from St Vincents Road, with the existing driveway leading to the additional set down space between the main community area and Pallister House.
- Additionally, pedestrians will also be able to access the site from the corner of River Road and St Vincents Road, via a pedestrian pathway that follows the historical entrance to Pallister House known as the 'Bridle Path'. The path links to the Community Heart Entrance at the rear of the hospital.

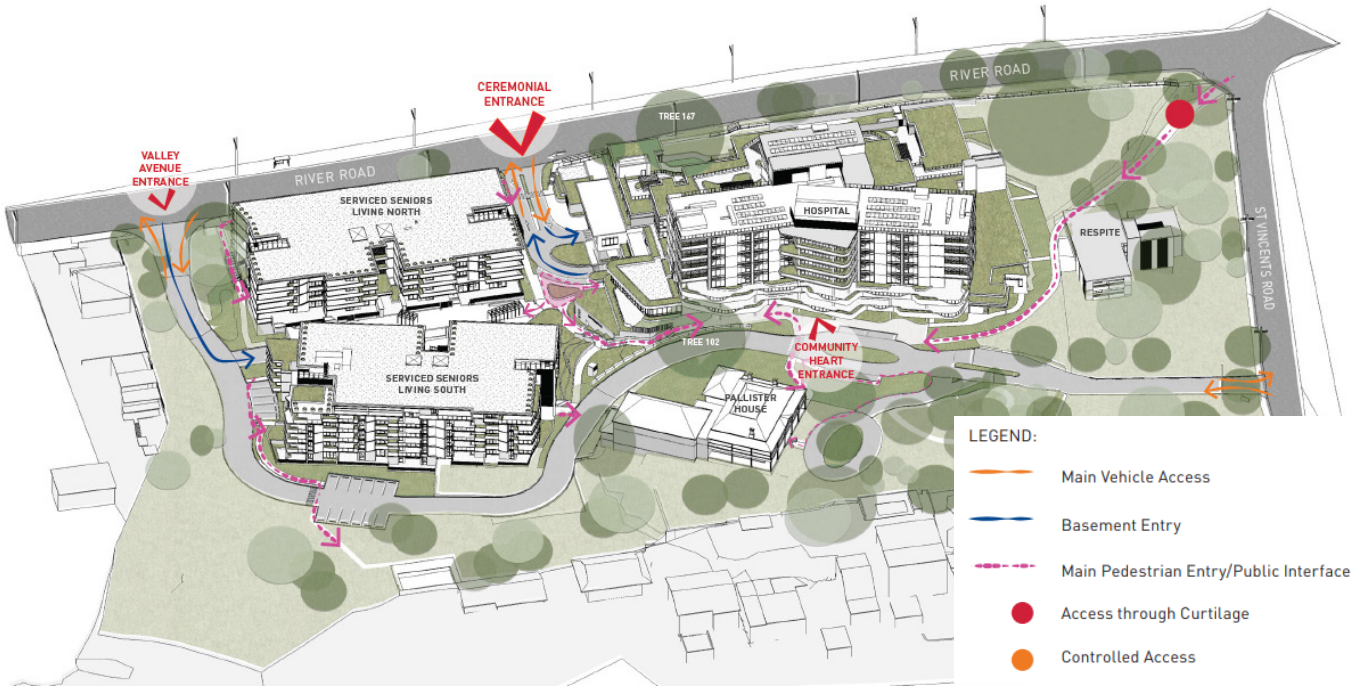

Figure 28 Access points and principal movement pathways through the site

Source: Bickerton Masters

As shown in **Figure 28**, as with existing site conditions, an internal access road will run from the Valley Avenue Entrance to St Vincents Road. The site has been designed to maximise equitable access for the elderly, frail, those with limited mobility, and/or dementia, through the provision of highly legible pathways and built forms with a distinct sense of place. Further discussion and design justification around access and movement is provided within the Urban Design Report by Bickerton Masters at **Appendix B**.

4.4.2 Vehicular Parking

The Greenwich health campus will provide a total of 329 on-site car parking spaces. This ensures that all parking requirements are accommodated on-site without spill-over street parking onto the Greenwich street network. Parking arrangements are as follows:

- 288 spaces provided in the shared basement, including:
  - 123 spaces for hospital visitors, including for short and longer-term visitors;
  - 76 spaces for staff (including hospital, seniors housing and respite care staff);
  - 42 spaces for residents of the northern seniors housing building;
  - 47 spaces for residents of the southern seniors housing building;
- 20 spaces provided within the set-down loop beneath the hospital, including:
  - 14 parking spaces for short-term hospital visitors;
  - 6 drop-off bays;
- 21 spaces provided along the internal access road, including:
  - 16 parking spaces for short-term hospital visitors; and
  - 4 drop-off bays.

Of the proposal parking spaces, 18 (5%) of the basement spaces are to be electric vehicle charging spaces.

4.5 Open Space and Landscaping

The provision of healthy architecture is a major objective of the proposal. An extensive landscaping arrangement is proposed for the site, as discussed in detail in the Landscape EIS Report and Plans prepared by Taylor Brammer Landscape Architects at **Appendix D** (**Figure 29**).

Figure 29 Site landscaping masterplan

Source: Taylor Brammer Landscape Architects

As discussed in **Section 4.2**, 86 new trees will be planted on-site. Discounting the 33 trees that are being removed due to external factors (e.g., due to being invasive, dying, or overmature), this represents an increase of 34 site-appropriate trees when compared to the existing condition.

Landscaping at the site is broken up into a number of different themed areas, each with their distinctive design principles, as delineated within the Landscape EIS Report. Along the site's boundaries, this includes the following:

- Along the site's western boundary with existing housing, existing weeds are to be replaced with ecologically diverse native flora and fauna. Deciduous planting will be provided to the east of the Valley Avenue Entrance.
- Within the riparian and bushland zone at the southwestern corner of the site, bushland regeneration and new indigenous canopy trees will enhance the existing environment, interfacing with the Gore Creek Reserve. Opportunities for bush tucker collecting, and clearings for sitting and viewing will be provided.
- Along the site's River Road frontage, informal clusters of native shrub and ground cover planting under native canopy trees will enhance the existing streetscape with small clearings of pocket parks. The pocket parks will form part of themed Circuit Walk pathways (see below) with points of interest. Existing native Turpentine trees opposite Rover Road will be supplemented with further Turpentine trees along the site's frontage.

Landscaping at key locations within the health campus will be designed to embody biophilic design and integrate the built form into the landscape, including through the following initiatives:

- A central community hub is to be provided at the centre of the site, between the hospital building and seniors housing buildings. Landscaping at the hub has been designed to reflect its status as a focal point of the community and place of gatherings, incorporating landscape themes of late 20th century planting at the River Road frontage.
- The landscaped podium space in between the seniors housing buildings has been designed to include garden plant species combined with evergreen and deciduous trees, providing a familiar residential environment, and integrated with pathways, activity spaces, and entertaining areas and facilities for residents.
- Landscaping at the arrival and set down area near the Ceremonial Entrance features a series of lush plantings intended to evoke a sense of calmness and welcome to the site. Palms and supplementary plantings provide an appropriate scale and screening between the driveway and surrounding built form, complimented by trailing and hanging plantings from the hospital atrium to create a sense of arrival.
- Landscaping at and around the Pallister House heritage curtilage aims to retain and reinstate the heritage value of the building and Bridle Path. Fruit and nut tree species reflecting the cultural heritage of Pallister will be linked by additional walking and activity circuits for residents and visitors. Selected trees will be removed to re-open views and improve interpretation of the heritage item.

As aforementioned, the site landscaping strategy provides for a series of 'Circuit Walks', comprising a number of themed pedestrian walkways at the site. Walkways are designed to be as accessible as possible for all users of the site, and involve themes of Art and Craft, Activities, Valley Views and Bush Tucker, Heritage, Market Garden and Workshop, and Seasonal Flowers as delineated within the Landscape EIS Report and Plans at **Appendix D**. The walks form part of the desire to provide a therapeutic landscape which connects people with nature and local history and promote wellbeing, with family and friends.

4.6 Vegetation Restoration and Management

The proposal will restore and manage vegetation located at the southwestern corner of the site. This land is identified as riparian land under clause 6.3 of the *Lane Cove Local Environmental Plan 2009* (**Section 5.5**). Specifically, the proposal will:

- fully restore 600m^2 of currently managed/planted coastal enriched sandstone forest (PCT 1841);
- manage 1,500m^2 of currently unmanaged/remnant coastal enriched sandstone forest (PCT 1841);
- partially revegetate 200m^2 of vegetation in Asset Protection Zone (APZ) land; and
- manage 300m^2 of coastal sandstone gallery rainforest (PCT 1828).

These vegetation restoration and management works will be undertaken in accordance with the Vegetation Management Plan prepared by Travers Bushfire & Ecology at **Appendix H** (**Figure 30**), and involves erection of protection and sediment fencing, weed control and vegetation maintenance, and revegetation works. The works are to be undertaken by qualified and experienced bushland regeneration contractors.

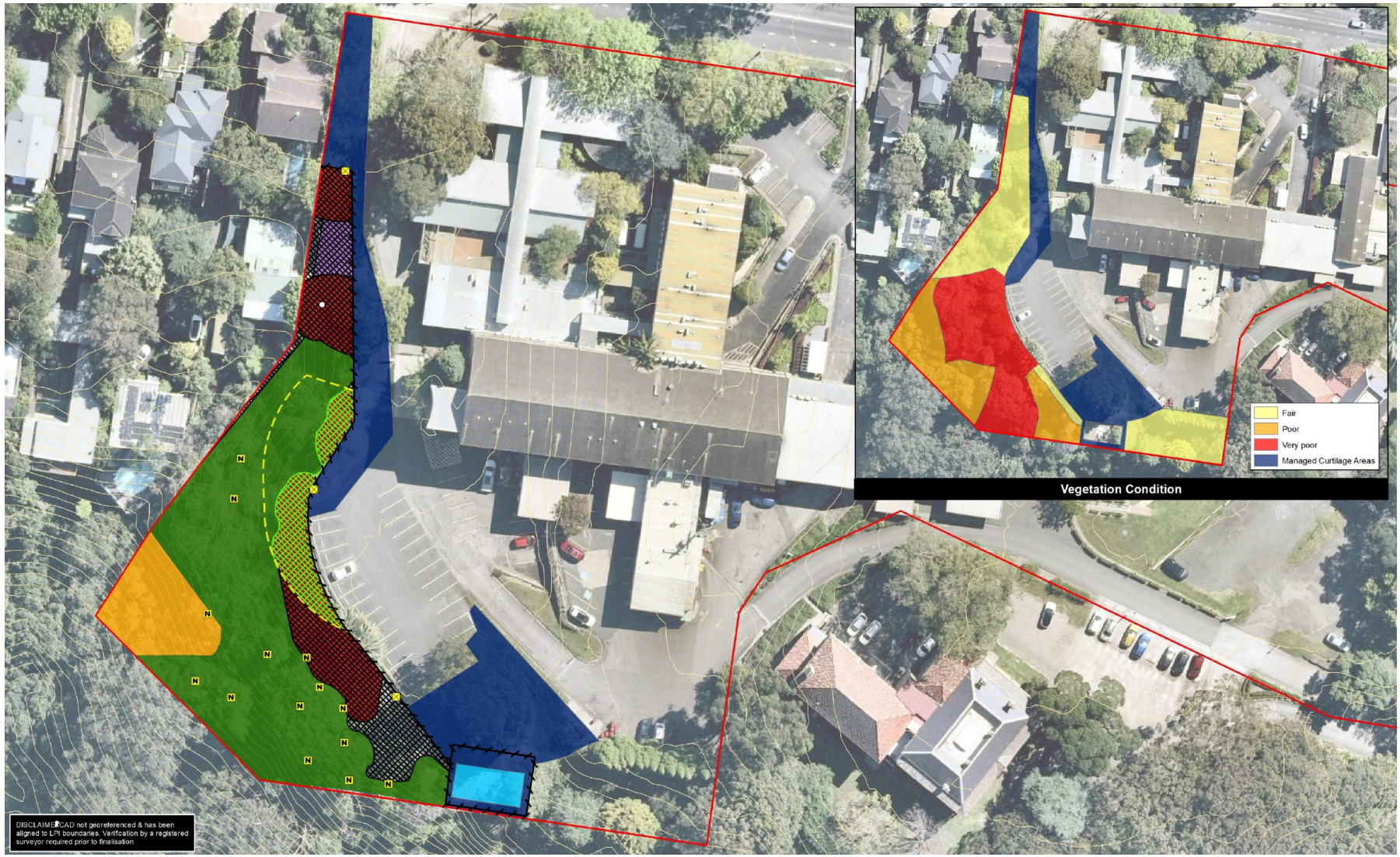

Figure 30 Vegetation Management Plan

Source: Travers Bushfire & Ecology

4.7 Signage

Consent is sought for the installation of signage for the new Greenwich health campus. A total of nineteen (19) signs are proposed to be installed, including building identification signs to help identify the new hospital building, and directional wayfinding signage. Specifically, the following signs are proposed:

- Installation of three (3) new illuminated building identification signage zones located on the southern, eastern and northern facades of the new hospital building;
- The replacement of ten (10) existing directional wayfinding signs with updated signage reflecting the layout of the new Greenwich health campus, two (2) of which are illuminated; and
- An additional six (6) new directional wayfinding signs, two (2) of which are illuminated.

The installation of signage will occur in accordance with the Signage Details Plan at Drawing DD-SW-0900 of the Architectural Plans by Bickerton Masters (**Appendix A**), which delineates the size, materiality, and design of the proposed signage. Signage content will be confirmed at the construction certificate stage but will comply with the prescribed dimensions. The location of the proposed signage at the site is shown in the Signage Details Location Plan (Drawing DD-SW-0901).

4.8 Construction Hours and Management

A Construction Management Plan (CMP) for the project has been prepared by Roberts Co, and is attached to this EIS at **Appendix E**. The CMP sets out the proposed pre-construction requirements and construction methodology for the project, including identification of any site-specific and/or project challenges.

The CMP also sets out the proposed construction hours for the project, which are to be as follows:

- 7:30 – 17:30 Mondays to Fridays;
- 7:30 – 15:30 Saturdays; and
- No works on Sundays and Public Holidays.

The site will be secured with a combination of A class and B class hoardings. The proposed hoarding locations at each stage of the site's redevelopment is shown within the CMP. Site access will only be via turnstiles which operates via a QR code. No one will be able to enter the site without a QR code which is issued after undertaking a site induction via the RCO Subbie App; this includes visitors sign-in.

Outside of normal construction hours, drive-by security inspections of the site will be conducted. A night-time security guard may also be present at the site, if found to be required.

As confirmed within the CMP, a detailed Site Environmental Management Plan (SEMP) will be prepared in full accordance with ISO 14001:2015, the *Protection of Environment Operations Act 1997* and the *Protection of Environment Operations (Noise Control) Regulation 2008* at the construction certificate stage.

4.9 Construction Timeframes

Indicative construction timeframes for the project have been provided within the Construction Management Plan (**Appendix E**). Although more detailed timeframes are to be confirmed at the construction certificate stage, the anticipated construction timeline for the stages identified in **Section 4.1** are provided below in **Table 6**.

Table 6Indicative construction timeframes

Stage(s)	Indicative timeframe
Stages 1 and 2	• Site establishment: 6 weeks • Demolition works: 5 weeks • Excavation works: 8 weeks • Construction and fitout: 114 weeks
Stage 3	• Site establishment: 3 weeks • Demolition works: 8 weeks • Excavation works: 6 weeks

	Construction and fitout: 65 weeks
Stage 4	• Site establishment: 2 weeks • Demolition works: 6 weeks • Excavation works: 7 weeks • Construction and fitout: 114 weeks
Stage 5	• Site establishment: 6 weeks • Earthworks: 2 weeks • Construction and fitout: 30 weeks

4.10 Hours of Operation

Being for the purposes of a hospital and health facility, the proposed development will operate 24 hours a day, 7 days a week following its completion, as consistent with the hours of operation of the existing hospital. Staff shift times will remain the same as per existing conditions, with three shifts per day and changeovers in the morning, afternoon, and evening.

Visitors will be permitted at the site 24 hours a day, 7 days a week and will not be restricted to any specific area.

The expected hours of operation for on-site café, shop and pharmacy are follows. These ancillary facilities will operate as part of the hospital use of the site.

- 8:00 – 17:00 Mondays to Fridays;
- 9:00 – 16:00 Saturdays; and
- 9:00 – 16:00 Sundays and Public Holidays.

5.0 Statutory Context

This section provides an assessment of the proposal against the relevant Environmental Planning Instruments (EPIs) as set out in the issued SEARs.

5.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) establishes a specific system to consider projects classed as State Significant Development (SSD). The proposed development is categorised as SSD (see **Section 5.2.1**). **Table 7** provides an assessment of the proposed development against the objects of the EP&A Act.

Table 7 Assessment against objects of the EP&A Act

Object	Comment
(a) to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources,	The proposed development will deliver key hospital and healthcare floorspace for the betterment of the Greenwich community, through redevelopment of a key health facility.
(b) to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment,	The principles of Ecologically Sustainable Development, as set out in Schedule 2 of the EP&A Regulation, as well as other relevant economic, environmental, and social considerations have been addressed in this EIS at **Section 7.20.1**.
(c) to promote the orderly and economic use and development of land,	The proposed development is required to facilitate the orderly and economic use of land in future at the site as envisioned under the Greenwich Concept Approval (SSD 8699).
(d) to promote the delivery and maintenance of affordable housing,	It is proposed that 45% of all residential aged care beds, and 15% of all seniors living units will be provided as affordable housing, representing approximately 30% of all proposed dwellings/rooms.
(e) to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats,	A Biodiversity Development Assessment Report (BDAR) has been prepared which assesses the development against the relevant requirements of the *Biodiversity Conservation Act 2016*, *Environment Protection and Biodiversity Conservation Act 1999* and other legislation. See **Appendix I** and further discussion at **Sections 5.3**, **5.4** below.
(f) to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage),	Heritage impacts of the proposed works, including on the State Heritage-listed Pallister House, are addressed at **Section 7.4** of this report. The proposal will retain and conserve Pallister House for future generations in accordance with the Schedule of Conservation Works at **Appendix F**, discussed at **Section 4.3.5**.
(g) to promote good design and amenity of the built environment,	Ensuring good amenity is central to the design of the proposal. The proposed built environment has been designed in response to the objectives of the NSW Government Architect's *Better Placed* as well as the unique requirements of the elderly, frail, those with limited mobility, and those with dementia who will use the site. Refer to Urban Design Report at **Appendix B**.
(h) to promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants,	The proposal has been designed with the protection of the health and safety of hospital patients, seniors housing residents, and their visitors in mind. See Urban Design Report at **Appendix B**.

(i) to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State,	Not relevant to the proposed development.
(j) to provide increased opportunity for community participation in environmental planning and assessment.	An extensive programme of consultation and community participation continues to inform the Greenwich site's redevelopment. Refer to discussion provided at **Section 6** of this EIS.

As required by Clause 192(1)(d)(v) of the EP&A Regulation 2021, the following additional approvals set out in **Table 8** are either not required by virtue of the fact that the project is SSD, or because they are not required in order to permit the proposed development to occur.

Table 8 Other Legislation

Act	Approval Applicable/ Required
Approvals that do not apply to State Significant Development	
Coastal Protection Act 1979	N/A
Fisheries Management Act 1994	N/A
Heritage Act 1977	N/A
National Parks and Wildlife Act 1974	N/A
Native Vegetation Act 2003	N/A
Rural Fires Act 1997	N/A
Water Management Act 2000	N/A
Legislation that must be applied consistently	
Fisheries Management Act 1994	No
Mine Subsidence Compensation Act 1961	No
Mining Act 1992	No
Petroleum (Onshore) Act 1991	No
Protection of the Environment Operations Act 1997	No
Roads Act 1993	Yes
Pipelines Act 1967	No

5.2 State Environmental Planning Policies

It is noted that on 1 March 2022, 45 previously existing State Environmental Planning Policies (SEPPs) were consolidated to form 11 new SEPPs. Additionally, 5 previous housing-related SEPPs were consolidated to form *State Environmental Planning Policy (Housing) 2021* (SEPP Housing).

As the issued SEARs for SSD-13619238 predate the consolidation of these SEPPs, the SEPPs mentioned in the issued SEARs have generally been repealed and are no longer in force. Therefore, this section of the EIS responds to the SEPPs relevant to the issued SEARs after their consolidation.

5.2.1 State Environmental Planning Policy (Planning Systems) 2021

Chapter 2 of *State Environmental Planning Policy (Planning Systems) 2021* (Planning Systems SEPP) identifies development which is declared to be State Significant. This chapter was formerly known as *State Environmental Planning Policy (State and Regional Development) 2011*. The proposal is considered to be SSD by virtue of clause 2.11 of the Planning Systems SEPP, as it is made pursuant to a Concept SSDA (the Greenwich Concept Approval, SSD 8699).

The proposal is also SSD by virtue of Clause 14 'Hospitals, medical centres and health research facilities' of Schedule 1 of the Planning Systems SEPP, as it is to be for the purposes of a hospital with a Capital Investment Value (CIV) of more than $30 million. (The Quantity Surveyor's Report at **Appendix MM** confirms the project CIV to be $210,684,867 including GST).

> *Development that has a capital investment value of more than $30 million for any of the following purposes—*
> *(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 Quantity Surveyor's Report at **Appendix MM** confirms the proposal to have a total capital investment value of $103,131,457 for its hospital component. Therefore, the proposal is SSD as its hospital component has a capital investment value in excess of $30 million.

5.2.2 State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004

State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 (SEPP Seniors), although a repealed instrument following the implementation of *State Environmental Planning Policy (Housing) 2021* (Housing SEPP), continues to apply to the proposal. The new Housing SEPP does not apply to the development by virtue of the savings and transitional provisions provided within clause 2(c) of Schedule 7 of the Housing SEPP, due to being a development made subsequent to a concept approval granted before the commencement date. Therefore, SEPP Seniors continues to apply.

SEPP Seniors permits seniors housing developments on land zoned special uses if it adjoins land zoned primarily for urban purposes regardless of whether the use is permissible in the land use zone. The site adjoins land zoned for R2 Low Density Residential land in all four cardinal directions. This is considered to be land zoned for urban purposes. Therefore, the proposed serviced seniors housing buildings are a permissible use for the Greenwich site.

An assessment of the proposal against the relevant requirements of SEPP Seniors is provided in **Table 9** below. The proposed residential aged care uses within the hospital building (though not the hospital use), and seniors housing uses, are considered to be 'Residential care facilities' and 'Self-contained dwellings' within the meaning of SEPP Seniors (noting that this SEPP Seniors has its own definitions which differs from that of other legislation).

Table 9 Consistency with SEPP Seniors requirements

Clause	Assessment
Part 2 – Site-related requirements	
26 – Location and access to facilities	The proposed development has good access to public transport. The 261 and 265 bus services are located adjacent to the site and provide frequent access to the centres of Lane Cove and North Sydney. See **Section 2.5** above. A pharmacy will be located on site. Being for a hospital and integrated health campus, specialist medical personnel will be on site.
27 – Bush fire prone land	The proposal is capable of compliance with the relevant bushfire requirements. Refer to further discussion at **Section 7.18** below and the Bushfire Protection Assessment at **Appendix HH**.
28 – Water and sewer	The development will be appropriately serviced by potable water and sewage systems. Refer to discussion at **Section 7.11** and Services Infrastructure Report at **Appendix AA**.
Part 3 – Design requirements	

Division 1 – General	
30 – Site analysis	Detailed discussion of the site and its surroundings has been provided at **Section 2** of this EIS. Further discussion on site context is also provided within the Urban Design Report at **Appendix B**.
32 – Design of residential development	The proposal responds to the SEPP Seniors design principles set out in Division 2 of Part 3, as discussed below.
Division 2 – Design principles	
33 – Neighbourhood amenity and streetscape	The built form of the proposed development is informed by the building envelopes and GFA limits established under the Greenwich Concept Approval (SSD 8699). It has been designed to comply with the design and building setback requirements of SEPP 65 and its accompanying Apartment Design Guide (ADG), as discussed at **Section 5.2.3**, and to maintain a high standard of neighbourhood amenity and visual/acoustic privacy. Refer to further analysis at **Section 7.1** of this report, and the Urban Design Report by Bickerton Masters at **Appendix B**.
34 – Visual and acoustic privacy	
35 – Solar access and design for climate	The development enables solar access requirements to the seniors housing buildings in accordance with the ADG. Refer to **Section 5.2.3**. The development embodies Ecologically Sustainable Development principles to reduce energy use. Refer to **Section 7.20**.
36 – Stormwater	The proposal will control and minimise stormwater runoff at the site. Stormwater impacts are further discussed at **Section 7.12** and the Stormwater Management Report at **Appendix BB**.
37 – Crime prevention	The proposal considers and embodies the principles of Crime Prevention Through Environmental Design (CPTED). Refer to **Section 7.16** for further assessment and the CPTED Report at **Appendix FF**.
38 – Accessibility	The proposal has been designed to enable equitable access for the frail, elderly, disabled, and those with dementia. An Accessibility Report is provided at **Appendix DD** with further discussion at **Section 7.14**.
39 – Waste management	The proposal provisions for appropriate waste management facilities. Waste generation and management is discussed at **Section 7.15** and the Waste Management Plan at **Appendix EE**.
Part 4 – Development standards to be complied with	
Division 1 – General	
40 – Development standards – minimum sizes and building height	The requirements of this clause do not apply to the proposal by virtue of subclause (5)(b), as HammondCare is considered to be a 'social housing provider' within the meaning of SEPP Seniors. Justification is provided at **Section 3.5.1** above.
Division 2 – Residential care facilities – standards concerning accessibility and useability	
N/A	The proposal has been designed in accordance with the Building Code of Australia.
Part 5 – Development on land adjoining land zoned primarily for urban purposes	
42 – Serviced self-care housing	Residents of the proposed seniors housing buildings will have reasonable access to meals, personal care and home nursing, and assistance with housework.
43 – Transport services to local centres	The proposed development has good access to public transport. The 261 and 265 bus services are located adjacent to the site and provide frequent access to the centres of Lane Cove and North Sydney. See **Section 2.5** above.

44 – Availability of facilities and services		As noted above in **Section 4.1**, the site will be developed in such a way that the new hospital building will already be operational by the time the seniors housing buildings begin accepting residents.
Part 7 – Development standards that cannot be used as grounds to refuse consent		
Division 2 – Residential care facilities		
48 – Standards that cannot be used to refuse development consent for residential care facilities	(a) building height	The proposal complies with the building envelopes established under Greenwich Concept Approval, as to be amended under SSD 8699 MOD 1 (**Section 1.4.1**). No height or FSR limit applies to the site.
	(b) density and scale	
	(c) landscaped area	A total of 130 beds will be located on site, to be used flexibly for hospital and/or residential aged care uses. 3,250m^2 of landscaping is needed to meet the recommendation of 25m^2 of landscaped area per bed under this clause. 14,000m^2 (41.5% of site area) of deep soil is provided, significantly above this requirement.
	(d) parking for residents and visitors	Parking for hospital and residential age care services at the site have been provided as consistent with this control.
Division 4 – Self-contained dwellings		
50 – Standards that cannot be used to refuse development consent for self-contained dwellings	(a) building height	The proposal complies with the building envelopes established under Greenwich Concept Approval, as to be amended under SSD 8699 MOD 1 (**Section 1.4.1**). No height or FSR limit applies to the site.
	(b) density and scale	
	(c) landscaped area	Substantive landscaping is provided for the site, with a significant majority of the site is to be landscaped. Refer to the Landscape EIS Report and Plans at **Appendix D**.
	(d) deep soil zones	14,000m^2 (41.5% of site area) of deep soil is provided, significantly above the 15% requirement.
	(e) solar access	The seniors housing buildings comply with the solar access requirements of the Apartment Design Guide. See **Section 5.2.3**.
	(f) private open space for in-fill self-care housing	The seniors housing buildings comply with the private open space requirements of the Apartment Design Guide. **Section 5.2.3**.
	(h) parking	Parking for the seniors housing buildings has been provided as consistent with this control.

5.2.3 State Environmental Planning Policy No 65 – Design Quality of Residential Apartment Development

Although not strictly residential flat buildings, the proposed seniors housing buildings have been designed in accordance with the principles of *State Environmental Planning Policy No 65 – Design Quality of Residential Apartment Development SEPP 65* (SEPP 65), as well as the design criteria of its accompanying Apartment Design Guide (ADG).

54 out of 89 units (60.7%) are naturally cross ventilated. 64 out of 89 units (71.9%) receive more than 2 hours direct sunlight during midwinter, with only 9 units (10.1%) not receiving sunlight midwinter.

Assessment of the seniors housing buildings against these design principles and the ADG has been provided within pages 42 – 52 of the Urban Design Report by Bickerton Masters at **Appendix B**. The report demonstrates that these two buildings are in accordance with the ADG design guidance and exhibit a high level of amenity for future residents.

5.2.4 State Environmental Planning Policy (Industry and Employment) 2021

Chapter 3 of *State Environmental Planning Policy (Industry and Employment) 2021* (former SEPP 64) applies to all signage that, under an environmental planning instrument, can be displayed with or without development consent and is visible from any public place or public reserve. Clause 3.6 under the SEPP requires that the consent authority prior to granting consent for any signage consider the consistency of the signage with regards to the SEPP objectives under clause 3.1(1)(a), and the assessment criteria under Schedule 5.

The proposed signage (see **Section 4.7** for details) is consistent with the aims and objectives under clause 3.(1)(a) of the SEPP in that it:

- Is scaled appropriately for the building and the broader locality;
- Is commensurate with the amenity and visual character of the area;
- Does not block any significant views and will not have an adverse impact on the amenity of future character of the surrounding area;
- Relates specifically for wayfinding purposes and/or to identify the redeveloped hospital on the site; and
- Is of a high quality design and finish and is integrated with the design of the building facades.

Schedule 5 of the Industry and Employment SEPP contains the relevant assessment criteria for signage which are to be considered by the consent authority. An assessment of the proposal against the criteria is provided in **Table 10** below.

Table 10 Assessment against Schedule 5 of the Industry and Employment SEPP

Objective	Assessment	Compliance
1 – Character of the Area		
Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?	The proposed signage is consistent with the area's existing character. It is proposed to replace the existing wayfinding signage at the site to reflect Greenwich health campus, provide additional wayfinding signage, and provide three new top of building signs for the new hospital building.	Yes
Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?	No specific outdoor advertising theme applies to the area or locality. The design of the signage is considered to be appropriate with the surrounding context of the locality with regards to its size and scale.	Yes
2 – Special Areas		
Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?	The proposal does not detract from the visual quality of any surrounding open space or sensitive area. The signage is designed to positively address and not adversely impact the amenity of the locality. This includes specifically designing the top of building identification signs so that they are located on the building facades and do not protrude above the built form.	Yes
3 – Views and Vistas		
Does the proposal obscure or compromise important views?	The proposed signage will not obscure or compromise any important views or vistas. The top of building identification signage is to be located on the façade of the hospital building and will not protrude above the built form.	Yes
Does the proposal dominate the skyline and reduce the quality of vistas?	As, above, he proposed signage will not protrude above the building and dominate the skyline and/or reduce the quality of vistas.	Yes
Does the proposal respect the viewing rights of other advertisers?	There are no other advertisers within the vicinity of the proposed signage. The signage has been designed to integrate into the built forms of the proposed Greenwich health campus.	Yes

4 – Streetscape, setting or landscape		
Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?	The scale, proportion and form of the proposed signage is appropriate for the setting and will respond to the needs for wayfinding (including for elderly users of the site and those with dementia) and building identification.	Yes
Does the proposal contribute to the visual interest of the streetscape, setting or landscape?	The replacement signage will continue to improve the visual interest of the setting and landscape through facilitating high quality signage that enables easy wayfinding for site users and building identification.	Yes
Does the proposal reduce clutter by rationalising and simplifying existing advertising?	As noted in **Section 4.7** above, the proposal replaces ten existing wayfinding signs at the site to reflect the new proposed site layout.	Yes
Does the proposal screen unsightliness?	The proposed signage has been designed for wayfinding and building identification purposes.	N/A
Does the proposal protrude above buildings, structures or tree canopies in the area or locality?	The proposed signage does not protrude above buildings, structures or tree canopies in the area or locality.	Yes
Does the proposal require ongoing vegetation management?	The proposed signage does not require ongoing vegetation management	N/A
5 – Site and Building		
Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?	The proposed signage has been designed in tandem with the proposed built form at the site to ensure that it is well integrated with, and respects, the design of overarching redevelopment of Greenwich health campus.	Yes
Does the proposal respect important features of the site or building, or both?	The proposed signs are respectful in their design and appropriately respond to the design of the proposed buildings, Pallister House, and the site surroundings.	Yes
Does the proposal show innovation and imagination in its relationship to the site or building, or both?	The proposed signage has been designed for wayfinding and building identification purposes. Showing innovation/imagination is not the intention of, and would not be appropriate for, the proposed signage.	Yes
6 – Associated devices and logos with advertisements and advertising structures		
Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?	Not applicable for the proposed signage.	N/A
7 – Illumination		
Would illumination result in unacceptable glare?	The proposed illuminative elements will not result in unacceptable glare at the site.	Yes
Would illumination affect safety for pedestrians, vehicles or aircraft?	The proposed illuminative elements will not affect pedestrian, vehicular or aviation safety.	Yes

Would illumination detract from the amenity of any residence or other form of accommodation?	The proposed illuminative elements will not detract from the amenity of any residence or other form of accommodation.	Yes
Can the intensity of the illumination be adjusted, if necessary?	The proposed illumination can be adjusted if found necessary.	Yes
Is the illumination subject to a curfew?	Signage illumination at the site is not subject to a curfew.	N/A
8 – Safety		
Would the proposal reduce safety for any public road?	Due to the design, location, scale and intensity of the proposed signage, the proposal will not reduce the safety of any public road.	Yes
Would the proposal reduce safety for pedestrians/cyclists?		Yes
Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?	The proposal would not obscure sightlines from any public area.	Yes

5.2.5 Other SEPPs

Assessment of the proposal against the other relevant SEPPs as listed in the issued SEARs, and following their consolidation in 2021, is provided in **Table 11** below.

Table 11 Assessment against relevant SEPPs

SEPP	Chapter	Assessment
State Environmental Planning Policy (Transport and Infrastructure) 2021	2 – Infrastructure	Clauses 2.118, 2.119 and 2.121 of Chapter 2 of the Transport and Infrastructure SEPP (former Infrastructure SEPP) apply to the proposal as it is traffic-generating development (within the meaning of the SEPP) that fronts onto a classified road (River Road). Hence, consultation and the concurrent of Transport for NSW (TfNSW) is required. Traffic impacts are further discussed within the Traffic Statement at **Appendix K** and **Section 7.3** below, demonstrating that the proposal will not generate adverse impacts onto the surrounding road network.
State Environmental Planning Policy (Biodiversity and Conservation) 2021	6 – Bushland in urban areas	Chapter 6 of the Biodiversity and Conservation SEPP (former SEPP 19) aims to protect and preserve bushland in urban areas, including Lane Cove Council. The site contains substantive planting and vegetation, including at its interface with the Gore Creek Reserve. The proposal is consistent with the consent requirements as stipulated in clause 6.5 of Chapter 6 of the SEPP as: • A comprehensive assessment of vegetation impacts has been made by a qualified arborist with regards to the proposal, which has found said impacts to be acceptable. Refer to **Appendix R** and **Section 7.6** below. • Removal of existing vegetation is inevitable with any reasonable redevelopment of the site, and the proposal has mitigated vegetation removal where possible, prioritised the removal of invasive species and/or unhealthy vegetation, and embodied connection with nature as a key design principle.

		• Vegetation and bushland will be restored to the site as part of the proposal, above and beyond existing conditions, which will increase canopy tree cover.
	10 – Sydney Harbour Catchment	Chapter 10 of the Biodiversity and Conservation SEPP (former Sydney Harbour SREP) is technically a matter of consideration for the proposal as it is located within the Sydney Harbour Catchment within the meaning of the SEPP. However, it is not located within the Foreshores and Waterways Area within the meaning of the SEPP. The proposal will not impact the hydrological, ecological, and geomorphological processes of Sydney Harbour, and is therefore consistent with Chapter 10 of the SEPP.
State Environmental Planning Policy (Resilience and Hazards) 2021	2 – Coastal management	The development does not contain land identified as coastal wetlands and/or littoral rainforest within the meaning of Chapter 2 of the Resilience and Hazards SEPP (former Coastal Management SEPP). However, it is in proximity to land identified as coastal wetlands and/or littoral rainforest located within Gore Creek Reserve. Therefore, clause 2.8 of Chapter 2 of the SEPP applies to the proposal. The Vegetation Management Plan at **Appendix H** confirms that the proposal will have positive effects on this vegetation.
	3 – Hazardous and offensive development	Chapter 3 of the Resilience and Hazards SEPP (former SEPP 33) applies to the proposal as hospitals can be considered a 'hazardous storage establishment' within the meaning of the SEPP. A Preliminary Dangerous Goods Screening Report has been prepared by JHA at **Appendix GG**. The report confirms that storage and use of dangerous goods can be appropriately managed at the site. See **Section 7.17** below.
	4 – Remediation of land	In accordance with Chapter 5 of the SEPP (former SEPP 55), an Additional Site Investigation and Remediation Action Plan have been prepared by JK Environments at **Appendix T** and **U** respectively. Refer to further discussion at **Section 7.7**.

5.3 Biodiversity Conservation Act 2016

In accordance with Section 7.9 of the *Biodiversity Conservation Act 2016*, an assessment of any SSD's biodiversity impacts must be undertaken as part of the assessment of any SSDA, including the provision of a Biodiversity Development Assessment Report (BDAR) in instances where it is required.

Accordingly, a BDAR has been prepared by Travers Bushfire & Ecology and is attached to this EIS at **Appendix I**. The BDAR confirms that offsetting under the Biodiversity Offsets Scheme (BOS) is required for the proposal, including with regards to ecosystem credits and species credits.

The BDAR confirms that the project will be liable for:

- 9 ecosystem credits; and
- 114 species credits;

As detailed in **Table 12** below.

Table 12 Required BOS credits – SSD 13619238

Species / vegetation zone	Area (ha) / count	Required credits
Requirement for ecosystem credits		
Remnant coastal enriched sandstone forest	0.64	6
Planted coastal enriched sandstone forest	0.29	3
Requirement for species credits		
Callocephalon fimbriatum / Gang-gang Cockatoo	0.62	7
Calyptorhynchus lathami / Glossy Black-Cockatoo	0.62	7
Cercartetus nanus / Eastern Pygmy-possum	0.93	11
Chalinolobus dwyeri / Large-eared Pied Bat	0.93	16
Deyeuxia appressa	5 individuals	15
Hieraaetus morphnoides / Little Eagle	0.93	8
Litoria aurea / Green and Golden Bell Frog	0.93	11
Miniopterus australis / Little Bent-winged Bat	0.1	2
Miniopterus orianae oceanensis / Large Bent-winged Bat	0.1	2
Myotis macropus / Southern Myotis	0.47	6
Ninox connivens / Barking Owl	0.84	9
Ninox strenua / Powerful Owl	0.84	9
Petaurus norfolcensis / Squirrel Glider	0.93	11

5.4 Environment Protection and Biodiversity Conservation Act 1999

The BDAR also addresses requirements for consideration under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). It confirms that, with regards to the EPBC Act:

- One threatened fauna species, the Grey-headed flying fox (*Pteropus poliocephalus*) has been recorded within the development footprint;
- No threatened flora species have been recorded within the development footprint; and
- No threatened ecological communities have been recorded within the development footprint.

5.5 Lane Cove Local Environmental Plan 2009

The *Lane Cove Local Environmental Plan 2009* (LLEP 2009) is the principal environmental planning instrument applying to the proposal. An assessment of the relevant clauses of the LLEP 2009 against the proposal is provided in **Table 13** below.

Table 13 Assessment against LLEP 2009

Clause	Control	Commentary
2.1 – Land use zones	SP2 Infrastructure	The site is zoned SP2 Infrastructure under the LLEP 2009, specifically for the purposes of *Health Services Facilities* under the land use zoning map. The proposal is consistent with the objectives of the SP2 zoning, as it: • Delivers health services facilities, which is the intended purpose of the site on the Land Zoning Map; • Provides for health infrastructure and related uses; and • Prevents development not compatible with the delivery of health services facilities as the entirety of the proposal is permissible with consent, further discussed below. The entirety of the proposal is permissible with consent. With regards to each of the component land uses proposed, which together form an integrated health campus under HammondCare's 'continuum of care' model: • Hospitals are considered to be a type of health services facility and is permissible with consent. • Seniors housing, while not directly permissible under the LEP, is permissible at the site by virtue of SEPP Seniors (see **Section 5.2.2**). • It is noted that as the proposed respite care is for overnight stays, it also falls under the land use definition of 'health service facility', rather than the separate 'respite day care centre' use which does not support overnight accommodation.
4.3 – Height of building	N/A	The site is not mapped as containing height of building or floor space ratio limits in recognition that hospitals are, by nature, designed primarily for functionality to ensure efficient delivery of care and to meet operational requirements. Instead, the built form of the proposed development is governed by the Greenwich Concept Approval (SSD 8699). The proposal is consistent with the SSD 8699 building envelopes as is to be modified under SSD 8699 MOD 1. Assessment of consistency against the Concept Approval is provided in **Section 5.7** below.
4.4 – Floor space ratio	N/A	
5.10 – Heritage conservation	State Heritage Item – SHR00574	The site is mapped as containing a Heritage item on the State Heritage Register – Pallister House (SHR item no. 00574; item no. I118 under Schedule 5 of the LLEP 2009). Pallister House will be retained and continue to be conserved under the proposed development (see **Section 4.3.5** and Schedule of Conservation Works at **Appendix F**). A Heritage Impact Assessment has been provided at **Appendix N** (with further discussion at **Section 7.4.2** below) confirming that the proposal will have positive impacts on, and will not adversely affect, Pallister House.
6.1 – Acid sulfate soils	N/A	The site is not mapped as containing acid sulfate soils (ASS) under the LLEP 2009. Irrespective of this, an Acid Sulfate Soil Assessment has been prepared by JK Environments at **Appendix X**. It confirms that the site is not adversely impacted by ASS and an ASS management plan would not be required. See **Section 7.9.2** below.
6.2 – Foreshore building line	N/A	The site is not mapped as containing a foreshore building line within the meaning of clause 6.2 of the LLEP 2009.
6.3 – Riparian land	Riparian land	The southwestern corner of the site is identified as riparian land under the Riparian Land Map of the LLEP 2009.

		The proposal will improve vegetative cover and rehabilitation of this riparian land. A Vegetation Management Plan has been prepared for this land by Travers Bushfire & Ecology at **Appendix H**. See **Section 4.6** above.
6.4 – Environment protection land	N/A	The site is not mapped as being environment protection land within the meaning of clause 6.4 of the LLEP 2009.

5.6 Lane Cove Development Control Plan 2010

It is noted that SSD applications are treated differently to regular 'local' and 'regional' developments, with a range of other legislation not applying (Section 4.41 and 4.46 of the EP&A Act) and other legislation needing to be applied consistently with the terms of any SSD consent (Section 4.42 of the EP&A Act).

Accordingly, in this instance Development Control Plans are specifically excluded from being applicable to SSD applications per clause 2.10 of the Planning Systems SEPP.

Notwithstanding this, the proposed development has considered provisions of the Lane Cove Development Control Plan 2010 (LDCP 2010). Notably, the LDCP 2010 does not include specific controls relating to health care facilities or hospitals. However, the proposal considers and generally complies with the following general aspects of the LDCP:

- Part B – General Controls,
- Part F – Access and Mobility;
- Part H – Bushland Protection with regards to Gore Creek Reserve;
- Part J – Landscaping;
- Part O – Stormwater Management;
- Part Q – Waste Management and Minimisation; and
- Part R – Traffic, Transport and Parking.

5.7 Consistency with the SSD 8699 Concept Approval

The Greenwich Hospital Concept Approval (SSD 8699) – refer to **Section 1.4** – sets out the relevant planning parameters to guide the detailed design and construction of the Greenwich redevelopment. The proposal is required to be consistent with SSD 8699 pursuant to section 4.24 of the EP&A Act, which states that "*while any consent granted on the determination of a concept development application for a site remains in force, the determination of any further development application in respect of the site cannot be inconsistent with the consent for the concept proposals for the development of the site*".

Part B of the SSD 8699 conditions of consent sets out conditions which must be met in all future detailed design applications at the site (the Future Environmental Assessment Requirements – FEARs). The proposal is consistent with the SSD 8699 FEARs, as demonstrated in **Table 14** below.

Table 14 Assessment against SSD 8699 FEARs

FEAR		Relevant report section	
B1	The proposed new built form must be contained generally within the approved building envelopes illustrated in the approved plans referenced at Schedule 2, condition A3 except where amended by condition A4.	The proposed built form is wholly contained within the building envelopes, as amended under SSD 8699 MOD 1. Refer to Architectural Plans at **Appendix A**.	
B2	The detailed design of the new buildings must ensure a sympathetic interface be provided to "Pallister's" north and north-west boundary. The detailed design must be informed by a suitably qualified and experienced heritage consultant nominated for the development, including matters relating to the form, detailing and materiality of the buildings.	**Section 7.4.2**	**Appendix N**
B3	The development application(s) for future hospital buildings must address: • (a) how materials and detailing responds to the heritage context; • (b) articulation and modulation to minimise bulk and massing, especially when viewed from the north and at the "Pallister" interface; • (c) visual and acoustic privacy, noise and reflectivity, particularly in relation to River Road residents to the north; • (d) environmental amenity including access to natural daylight and ventilation, acoustic separation, access to landscape and outdoor spaces and future flexibility; and • (e) access and circulation across the Site including pedestrian, cycle, vehicular and service movements.	**Section 4** **Section 7.1** **Section 7.2** **Section 7.4** **Section 7.10**	**Appendix A** **Appendix B** **Appendix K** **Appendix P** **Appendix Z**
B4	The development application(s) for future seniors living buildings must address: • (a) the Design Principles in State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004; • (b) State Environmental Planning Policy No 65-Design Quality of Residential Apartment Development and the Apartment Design Guide; • (c) safe pedestrian circulation; • (d) how the natural setting has been incorporated in the design; • (e) connectivity between seniors living and hospital buildings and landscaped areas for residents, patients, staff and visitors; • (f) potential adjustments to the orientation of and modulation of the southern seniors living envelope to minimise bulk and massing and improve relationship at the "Pallister" interface; • (g) measures to minimise privacy impacts on residents to the west and south, including the appropriate treatment of any balconies or habitable rooms facing the west or south; and • (h) relocation of the carpark entry under the seniors living away from adjacent properties to the west unless it can be demonstrated that noise impacts from the operation on the carpark entry/exit would not result in adverse noise impacts.	**Section 4** **Section 5.2.2** **Section 5.2.3** **Section 7.1**	**Appendix A** **Appendix B**

B5	All future development applications for new built form must include: • (a) detailed plans, elevations and sections; • (b) artist's perspectives and photomontages; • (c) a design statement demonstrating the design quality of the proposed development having regard to the existing buildings on Site and the character of surrounding development; • (d) consideration of the Design Guidelines in the RtS; and • (e) consideration of Crime Prevention Through Environmental Design (CPTED) Principles.	**Section 4**	**Appendix A** **Appendix B**
B6	All future development applications for new built form must include: • (a) detailed landscape plans identifying the vegetation to be removed or relocated, and the location of replacement and additional landscaping. The plans must: - (i) be generally in accordance with the Landscape Concept Proposal submitted with the RtS; - (ii) demonstrate that replacement tree planting of a minimum 1:1 is provided for all trees to be removed as part of the application; - (iii) include sufficient planting to create a landscaped area buffer zone around "Pallister" and screen the new buildings from "Pallister"; - (iv) provide specific details on how the parking areas and the landscaped setting of the area surrounding "Pallister" would respect and reintroduce the historical landscaped setting and character of "Pallister"; - (v) include additional planting in the front setback to the northern seniors living building envelope; - (vi) include relevant details of the species to be planted (preferably species of local provenance), pot size of plantings (including larger pot sizes to support quicker maturity to restore the canopy cover for the Site), growth area and the landscape treatments, including any pavement and seating areas; - (vii) consider opportunities for additional tree planting where this can be managed in relationship to bushfire risks; and - (viii) consider opportunities for the inclusion of green roofs above new buildings. • (b) an Arboricultural Impact Assessment, including detailed root mapping, which demonstrates that the proposed works would not be detrimental to the long term health of the existing trees retained on-site, along River Road and adjoining properties.	**Section 4.5** **Section 7.6**	**Appendix D** **Appendix R** **Appendix S**
B7	All future development applications for new built form must include an assessment of amenity impacts and demonstrate that consideration has been given to the protection and minimisation of potential amenity impacts, including: • (a) solar access to residential properties impacted by overshadowing from the development (including detailed overshadowing diagrams); • (b) visual privacy (including identifying measures to minimise impacts on residents to the south and west such as facing non-habitable areas to adjacent residential areas, the use of devices such as fixed louvres, high and/or deep sills and planter boxes); • (c) view impacts (including to Northwood private properties to the west and Lane Cove River); and • (d) light spill (including a lighting plan identifying measures to reduce light spill into the surrounding sensitive receivers).	**Section 7.1** **Section 7.2** **Section 7.19**	**Appendix A** **Appendix B** **Appendix P** **Appendix II**

B8	All future development applications for new built form must identify and provide a quantitative assessment of the main noise and vibration generating sources during demolition, site preparation, bulk excavation, and construction, and outline measures to minimise and mitigate the potential noise impacts on surrounding occupiers of land.	**Section 7.10**	**Appendix Z**
B9	All future development applications for new built form must identify and provide a quantitative assessment of the potential noise and vibration impacts on the identified sensitive receivers due to the operations of the hospital and occupation of the seniors living, particularly impacts from the carpark access located under the seniors living buildings orientated to the west.	**Section 7.10**	**Appendix Z**
B10	All future development applications for new built form must include a statement of significance and an assessment of the impact on the heritage significance of the heritage items on the Site in accordance with the guidelines in the NSW Heritage Manual.	**Section 7.4.2**	**Appendix N**
B11	The first development application for new built form must include a schedule of conservation works for "Pallister", prepared by a suitably qualified and experienced heritage consultant nominated for the development. The schedule is to specifically address urgent, medium and long-term conservation works, which support the conservation of the building.	**Section 4.3.5**	**Appendix F**
B12	The first development application for new built form must include a heritage interpretation plan, prepared in accordance with the NSW Heritage Division publication Interpreting Heritage Places and Items Guidelines. The interpretation plan must: • (a) detail how information on the history and significance of "Pallister" will be provided for the public and make recommendations regarding signage and lighting; • (b) identify the types, locations, materials, colours, dimensions, fixings and text of interpretive devices that would be installed as part of the development; • (c) provide a timeline for implementation of the interpretation. • (d) incorporate the results of any archaeological investigative program undertaken for the Site.	**Section 4.3.5**	**Appendix G**
B13	All future development applications for new built form must demonstrate how the archaeological significance on the Site has been avoided and the impacts the development may have on this significance. This assessment must consider both Aboriginal and non-Aboriginal archaeological impacts.	**Section 7.4.1**	**Appendix M**
B14	A historical archaeological program must be prepared for the Site and it must: • (a) be managed by a suitably qualified and experienced historical archaeologist, including fulfil the Heritage Council's Excavation Director Criteria (2019) for the excavation of locally significant archaeological sites; • (b) be guided by an Archaeological Research Design and Excavation Methodology, prepared in accordance with Heritage Council of NSW guidelines, in consultation with the Heritage Council of NSW. • (c) document the results of the archaeological program in a final excavation report, which must: - (i) outline opportunities for conservation in situ (as a preference) according to significance, development and interpretation;	**Section 7.4.1**	**Appendix M**

	- (ii) be prepared within 12 months of the completion of archaeological excavation; - (iii) include details of any significant artefacts recovered, where they are located and details of their ongoing management, conservation and protection in perpetuity by the landowner; and • (iv) be provided to the Planning Secretary, the Heritage Council of NSW and to the local Council's local studies unit.		
B15	An Aboriginal Heritage Management Plan, prepared in consultation with Registered Aboriginal Parties and EESG, that has been informed by sub-surface testing as per the recommendations of the ACHAR, must be submitted with future applications for new built form within areas with moderate potential for archaeological resources.	**Section 7.4.3**	**Appendix O**
B16	All future development applications for new built form must demonstrate how the principles of Ecologically Sustainable Development have been incorporated into the design, construction and on-going operation of the new buildings.	**Section 7.21**	**Appendix JJ**
B17	All future development applications for new built form must consider opportunities for the incorporation of green roofs.	The proposed development incorporates green roofs. Refer to Architectural Plans at **Appendix A**.	
B18	The development application(s) for future seniors living buildings must be accompanied by a BASIX assessment.	As these buildings have been built to Class 9C standards, Section J, not BASIX, is the relevant sustainability benchmark.	
		Section 7.20	**Appendix JJ**
B19	The development application(s) for future hospital buildings must: • (a) include a framework for how the future development will 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; • (b) include preliminary consideration of building performance and mitigation of climate change, including consideration of Green Star Performance and where certification cannot be achieved, specific details on where compliance cannot be achieved. In such instances, as assessment against an accredited ESD rating system or an equivalent program of ESD performance must be provided. This should include a minimum rating scheme target level; and • (c) provide a statement regarding how the design of the future development is responsive to the CSIRO projected impacts of climate change, specifically: - (i) hotter days and more frequent heatwave events - (ii) extended drought periods - (iii) more extreme rainfall events - (iv) gustier wind conditions	**Section 7.20**	**Appendix JJ**

	- (v) how these will inform landscape design, material selection and social equity aspects (respite/shelter areas).		
B20	All future development applications for new built form must include a Disability Access Review to demonstrate an appropriate degree of accessibility in accordance with State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004 and the Disability (Access to Premises - Buildings) Standards 2010 (the Premises Standards).	**Section 7.14**	**Appendix DD**
B21	All future development applications for new built form must be accompanied by: • (a) a Road Safety evaluation of all access points, pedestrian and vehicle movement along River Road and St Vincents Road within the vicinity of the Site. • (b) a Traffic Impact Assessment that considers the traffic and transport impacts associated with the construction and operation of the proposed development, including details of: - (i) current daily and peak hour vehicle movements (using current traffic flow surveys); - (ii) estimated total daily and peak hour trips generated by the proposal, including vehicle, public transport, pedestrian and bicycle trips; - (iii) the adequacy of existing public transport or any future public transport infrastructure within the vicinity of the Site, pedestrian and bicycle networks and associated infrastructure to meet the likely future demand of the proposed development; - (iv) the impact of trips generated by the development on nearby intersections using a realistic distribution of traffic based on Site characteristics, with consideration of the cumulative impacts from other approved developments in the vicinity using SIDRA traffic modelling; - (v) any upgrades or road improvement works required to ameliorate any impacts on traffic efficiency or road safety impacts associated with the proposed development and funding arrangements; - (vi) walking and cycling access arrangements and connections to public transport services, including assessment of road and pedestrian safety in line with CPTED and provision of adequate way-finding signage and strategy; - (vii) access arrangements, including pick-up/drop-off facilities and the design of the leftin and left-out River Road eastern access, and measures to mitigate any associated traffic impacts and impacts on public transport, pedestrian and bicycle networks, including pedestrian crossings and refuges and speed control devices and zones; - (viii) bicycle parking provision, including end of trip facilities, in secure, convenient, accessible areas close to main entries incorporating lighting and passive surveillance; - (ix) the number of on-site car parking spaces for staff and visitors and compliance with existing parking codes, including requirements of the State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004, and justification for the level of car parking provided on-site; - (x) an assessment of the cumulative on-street parking impacts of cars, staff parking and any other parking demands associated with the development; and - (xi) emergency vehicle access, service vehicle access, delivery and loading arrangements and estimated service vehicle movements (including vehicle type and the likely arrival and departure times). • (c) a Green Travel Plan outlining the measures to reduce private vehicle usage, including provision of a free shuttle bus service to local retail centres and public transport nodes.	**Section 7.3**	**Appendix K** **Appendix L**

	• (d) a preliminary Construction Traffic and Pedestrian Management Plan to demonstrate the proposed management of the impact in relation to construction traffic addressing the following: - (i) assessment of cumulative impacts associated with other construction activities (if any). - (ii) an assessment of road safety at key intersections and locations subject to heavy vehicle construction traffic movements and high pedestrian activity. - (iii) details of construction program detailing the anticipated construction duration and highlighting significant and milestone stages and events during the construction process. - (iv) details of anticipated peak hour and daily construction vehicle movements to and from the Site. - (v) details of on-site car parking and access arrangements of construction vehicles, construction workers to and from the Site, emergency vehicles and service vehicles. - (vi) details of temporary cycling and pedestrian access during construction.		
B22	All future development applications for works that would impact biodiversity values must demonstrate that the development is consistent with the Biodiversity Development Assessment Report (BDAR), prepared by Eco Logical Australia, dated 23 September 2019, submitted with the RtS. Where impact on biodiversity values of the development vary from those identified in the BDAR, a revised BDAR must be submitted with all future applications that are State significant development.	**Section 5.3** **Section 5.4**	**Appendix I**
B23	All future development applications for new built form must demonstrate satisfactory compliance with the relevant provisions of Planning for Bush Fire Protection 2019.	**Section 7.18**	**Appendix HH**
B24	All future development applications for new built form must be accompanied by a Remedial Action Plan.	**Section 7.7.1**	**Appendix U**
B25	All future development applications for new built form must be accompanied by a Stormwater Management Plan detailing an assessment of any flood risk on Site and consideration of any relevant provisions of the NSW Floodplain Development Manual 2005, stormwater and drainage infrastructure, and details demonstrating that water sensitive urban design measures have been incorporated into the development.	**Section 7.12**	**Appendix BB**
B26	All future development applications for new built form must detail measures to minimise operational water quality impacts on surface waters and groundwater	**Section 7.12**	**Appendix BB**
B27	All future development applications for new built form must include stormwater plans detailing the proposed methods of drainage without impacting on the downstream properties, in particular properties adjoining the Site to the west and south and the bushland to the south-west.	**Section 7.12**	**Appendix BB**
B28	All future development applications for new built form must address the existing capacity and any augmentation requirements of the development for the provision of utilities including staging of infrastructure through the preparation of an Infrastructure Management Plan in consultation with relevant agencies and service providers.	**Section 7.11**	**Appendix AA**
B29	All future development applications for new built form must include Waste Management Plan(s) to address storage, collection, vermin-control, hygiene and management of waste and recycling within the development and during construction and demolition works.	**Section 7.15**	**Appendix EE**

6.0 Community Engagement

6.1 Concept Approval (SSD 8699) Community Engagement

Substantial engagement with the local community was carried out under the Greenwich Concept Approval (SSD 8699). The design of the Concept Approval evolved over time as part of a collaborative process with the local community. Consultation undertaken prior to EIS lodgement included the following initiatives:

- Community drop-in session held at Pallister House on 2 November 2017. Feedback from this event resulted in amendments being made to the early Concept Approval design.
- A letterbox drop was conducted to advise neighbours of EIS lodgement on 23 January 2019.
- A dedicated community enquiry phone line, and dedicated community engagement email address (AskGreenwich@Hammond.com.au) was set up in January 2019.
- On-site meetings were held with the Lane Cove Council Mayor and Councillors on 1 April 2019, and nearby local residents on 12 April 2019.

Following lodgement of the Concept Approval EIS, comments raised by members of the local community further informed and amended the design of SSD 8699 prior to its approval, through the Response to Submissions (RTS) process. As part of the RTS response, HammondCare undertook the following additional consultation initiatives:

- Provided regular updates and responded to queries from the community;
- Undertaken dedicated engagement, including site visits, with government agencies, key community groups, neighbours, and stakeholders;
- Created a new project page on HammondCare's website and responded to enquiries received through the website portal;
- Letterbox dropped community updated and notifications to more than 1,830 residents; and
- Held a community drop-in event where information regarding the proposed key amendments to the Concept Plan was made available.

For more information, refer to the Community Consultation Summary Report prepared by KJA attached at Appendix S to the SSD 8699 Response to Submissions Report prepared by Ethos Urban dated 18 November 2019.

6.2 Detailed Design (SSD 13619238) Community Engagement

HammondCare has continued to liaise and engage with the local community as part of the detailed design stage of the project (this application). These initiatives are discussed in detail in the Consultation Outcomes Report prepared by TSA Management at **Appendix J**. A summary of further community engagement activities undertaken as part of this application is provided in **Table 15** below.

Table 15 SSD 13619238 community engagement

Initiative	Summary
Project newsletter	A two-page A4 project newsletter (see Appendix A) was distributed to 1,836 residents and key stakeholders on 17 March 2022. The newsletter provided a general project update and welcomed further input and engagement on the latest design through invitation to attend an online information session.
Media release	A media release was published on 17 March 2022 to announce the latest design changes and promote online information sessions. The announcement received media coverage from the following local outlets: • The North Shore Times website and Facebook; • The Weekly Source; and • In The Cove website.

Online information sessions	Two online information sessions were held on Monday 28 March from 6 to 7pm and Thursday 31 March 2022 from 12 to 1pm and hosted using the Microsoft Teams platform. This format was preferred over in-person drop-in sessions due to the COVID-19 situation at the time. The sessions involved a formal presentation by members of the HammondCare project team, Dr Andrew Montague (General Manager of Health and Palliative Care) and Katie Formston (Head of Design, Property and Capital Works). Chris Forrester (Associate Director, Planning) from Ethos Urban was also present to answer any technical questions about the proposed design. The sessions were interactive and provided an opportunity for interested stakeholders to hear about the project and ask any questions to the HammondCare project team. The sessions were attended by approximately 25 community members and interested stakeholders.
Individual stakeholder meetings	The HammondCare project team also sought to undertake individual stakeholder briefings with the local Members of Parliament, Lane Cove Council and several local interest groups, as follows: • Briefing to Lane Cove Council executive on Tuesday 29 March 2022. Council staff in attendance were: - Rajiv Shankar – Manager Development Assessment; - Chris Shortt – Senior Town Planner; - Chris Pelcz – Coordinator Strategic Planning; and - Terry Tredrea – Strategic Planner. • Briefing to Lane Cove North Residents Association on Monday 4 April 2022. • Briefing to Greenwich Hospital staff on Friday 8 April 2022. • Briefing to Lane Cove Council elected members on Monday 11 April 2022. • Briefing to the Greenwich Community Group on 20 April 2022. • Briefing to Greenwich Public School on 4 May 2022. Additionally, briefings were also offered (though at the current time not accepted) with a number of additional stakeholders, including the following persons and organisations: • Hon Anthony Roberts MP, Member for Lane Cove • Mr Trent Zimmerman MP, Member for North Sydney • Greenwich Public School Parent's and Citizens Association Inc • Greenwich Action Group • Greenwich St Leonards Action Group • Lane Cove Bushland and Conservation Society • Longueville Residents Association • Northwood Action Group
Meetings and on-site walks	The project team has continued to meet with site neighbours since the approval of SSD 8699. These meetings, phone calls and emails occur on an ad hoc basis and relationship management will be ongoing.
Dedicated information line and email address	The following dedicated phone and email lines continue to provide an opportunity for members of the local community to ask questions and raise concerns about the project: • Phone: 1300 426 666 • Email: AskGreenwich@hammond.com.au

6.3 Exhibition and Assessment

Following its submission, DPE will exhibit this EIS and supporting technical reports and plans on the Major Projects NSW Website and invite submissions from government agencies and the general public. This will provide additional opportunities for members of the public to comment on the proposal.

Once the exhibition period is complete, DPE may require the Proponent to prepare a Submissions Report in response to issues raised. The Proponent will continue to liaise with DPE and stakeholders during the Project's assessment to address queries that may arise.

7.0 Environmental Assessment

This section of the EIS assesses and responds to the potential environmental impacts of the proposed development as outlined in **Section 4**. It has been structured to respond to the SSD 13619238 SEARs (**Section 1.5**), as well as SSD 8699 FEARs (**Section 5.7**). The Environmental Risk Assessment at **Section 8** and mitigation measures at **Section 9** complement the findings of this section.

7.1 Built Form and Design

7.1.1 Design Principles

Achieving symbiosis between the natural and built environment represents the overarching design aim of the proposed built form. The proposed built form has been guided by six primary design principles. These are summarised below as follows:

- Sense of place – a design that responds to the unique characteristics of the site and its surrounding context.
- Accessibility, inclusiveness, and integration – a health campus that welcomes everyone, particularly people who may be frail, disabled and vulnerable, with people of all mobility levels able to move around the site.
- Built form and scale – a built form of an appropriate bulk and scale to complement the existing River Road landscape and preserve key site lines through the site.
- Promoting choice and familiarity – buildings, spaces and landscapes designed to provide a range of care and empower individuals to have a sense of agency in how care is received and delivered.
- Sustainability, flexibility, and adaptability – supporting positive social, environmental, and economic outcomes through a resilient, adaptable, and enduring built form.
- Healthy architecture and biophilic design – for an environment supporting physical, mental, and social wellbeing while enhancing the landscape character of the locality.

These principles are further elaborated upon in the Urban Design Report by Bickerton Masters at **Appendix B**.

Designing with Country has also formed a major part of the proposed built form design. The project team has extensively consulted with 15 Registered Aboriginal Parties with this feedback helping shape the design of the proposal, with the proposed buildings being largely located away from identified key areas of Aboriginal cultural significance. Strategies including walking tracks, interpretative signage and landscaping will acknowledge and preserve the Aboriginal cultural heritage of the site. Designing with Country is further discussed within the Urban Design Report.

7.1.2 Height, Bulk and Scale

The maximum height, bulk and scale of the proposed buildings are set by the envelopes established under the Greenwich Concept Approval (SSD 8699). The Concept Approval envelopes were the result of a substantive design and planning process to determine what bulk and scale impacts would represent an acceptable outcome for the site, ultimately culminating in its approval by the Independent Planning Commission (IPC) on 10 November 2020.

The proposed detailed design of the health campus buildings responds to these Concept Approval envelopes. As noted at **Section 1.4.1**, this SSDA has been lodged with a concurrent Modification Application to the Concept Approval (SSD 8699 MOD 1), which seeks minor amendments to the approved building envelope and GFA parameters. This MOD is necessary as exact GFA and operational requirements were not yet known at the time of the Concept Approval, and subsequent detailed design has demonstrated that adjustments are necessary to ensure each building incorporates all necessary facilities and design requirements to provide specialist care in accordance with HammondCare's model of care. For further information, refer to the Section 4.55(1A) Modification Report for SSD 7699 MOD 1 prepared by Ethos Urban dated 27 May 2022.

The Architectural Plans at **Appendix A** demonstrate that the proposal has been designed to sit fully within these envelopes and GFA thresholds, as to be modified under SSD 8699 MOD 1 (excerpts provided at **Figures 31** – **32**). Building envelopes are shown as black dotted lines in the plans. Through consistency with the building envelopes, the height, bulk, and scale of the proposal are considered to be compatible with what was previously deemed acceptable by the Concept Approval, and therefore appropriate for the site.

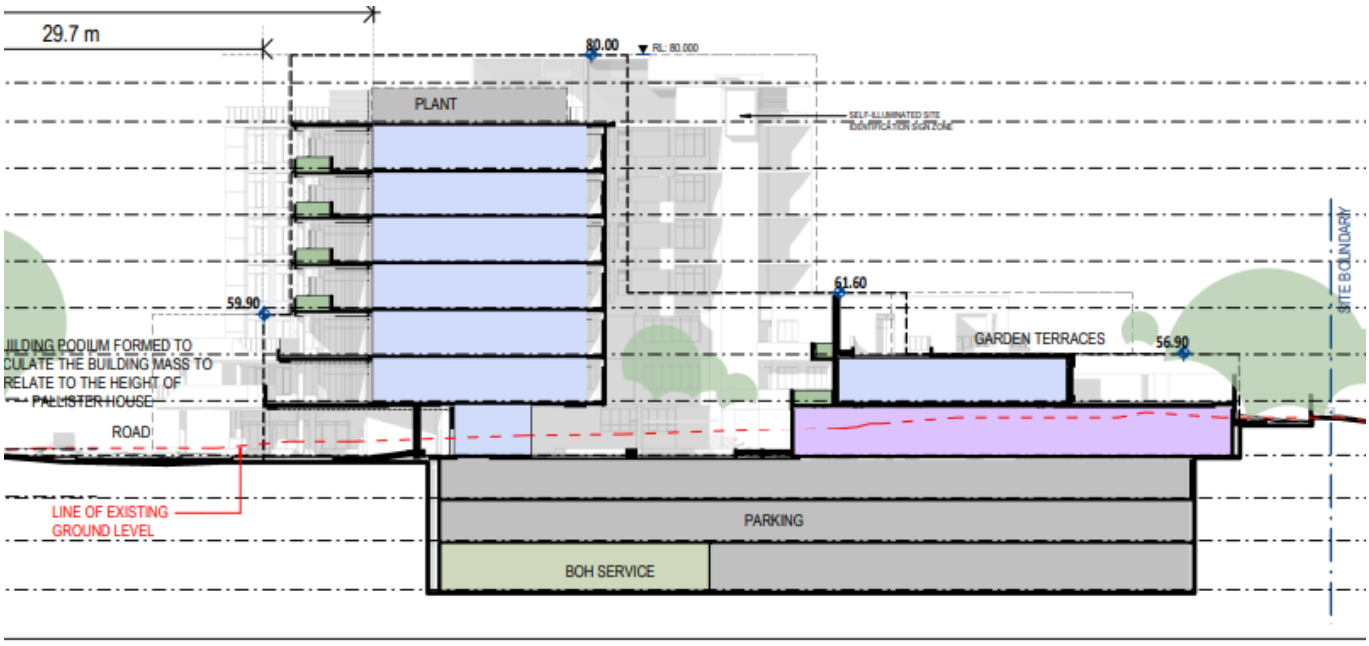

Figure 31 Compliance with building envelope (orange line) – hospital building

Source: Bickerton Masters

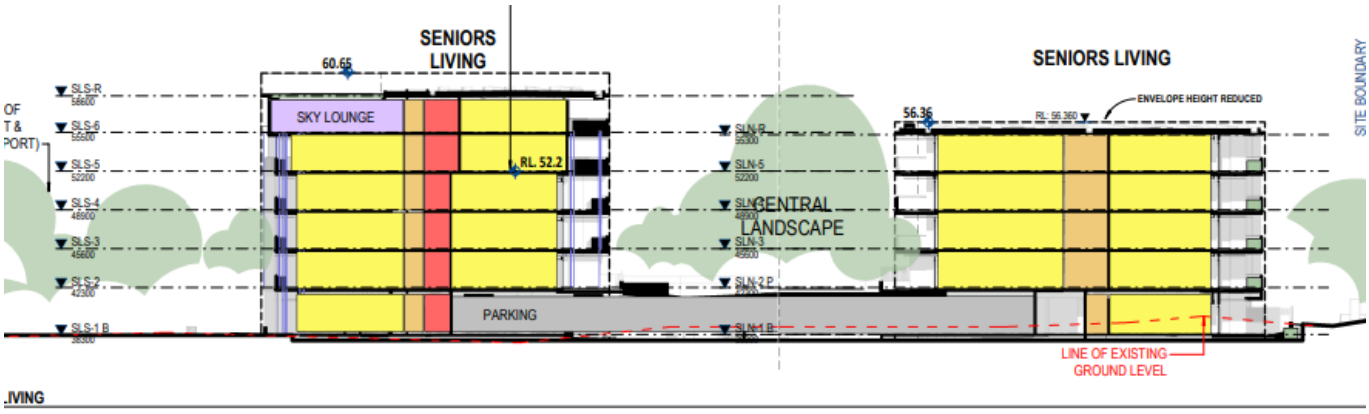

Figure 32 Compliance with building envelope (orange line) – seniors housing buildings

Source: Bickerton Masters

7.1.3 Interface with Pallister House

Maintaining the heritage curtilage of, and views to, Pallister House has been a major focal point of the proposed built form. It is noted that the existing hospital buildings are currently positioned directly in front of Pallister House from River Road, with the effect of blocking views to this heritage item from the site's primary streetscape.

The proposed health campus has been specifically designed to remedy this and enable views to this important heritage item from the River Road frontage. The Heritage Impact Statement prepared by Built Environmental Heritage Group (**Appendix N**) confirms that these views are achieved, and the new buildings integrate well and respond to that of Pallister House. Further discussion is provided at **Section 7.4.2** below.

At the interface between the hospital building and Pallister House, large podium communal open spaces are provided enabling views to the heritage item, with the upper levels of the hospital set back to provide an appropriate visual bulk and scale that does not appear overbearing when viewed from Pallister House. The seniors housing buildings are set on a landscaped podium that opens up views toward Pallister House and its curtilage.

Notably, under the Greenwich Concept Approval, loading dock and servicing uses for the hospital was to occur from the rear of the building, along the internal access road opposite Pallister House. This has been reconfigured under the proposal so that site loading and servicing will now within the shared basement, with access from the basement entrance to the site's west. This change will further reduce impacts on Pallister House's heritage curtilage.

7.1.4 Setbacks and Building Separation

Building setbacks at the site are shown in the Architectural Plans at **Appendix A**. An excerpt is provided below in **Figure 33**.

The proposal provides the following minimum setbacks from the boundaries of the site:

- Northern boundary: 6.0m (hospital), 9.1 metres (seniors housing north);
- Southern boundary: 33.6m (seniors housing south), 12.7m (Pallister House);
- Eastern boundary: 13.8m (respite building); and
- Southern boundary: 24.5m (seniors housing north), 19.5m (seniors housing south).

The two seniors housing buildings have been set back in line with ADG guidance to ensure adequate building separation for future residents. The two buildings are separated by a minimum 17.1 metre setback (at their western end of the buildings), with this gap progressively widening towards the east. The northern building is setback a minimum 30.9 metres from the closest habitable rooms in the hospital building, and the southern building is setback a minimum 16.9 metres from Pallister House.

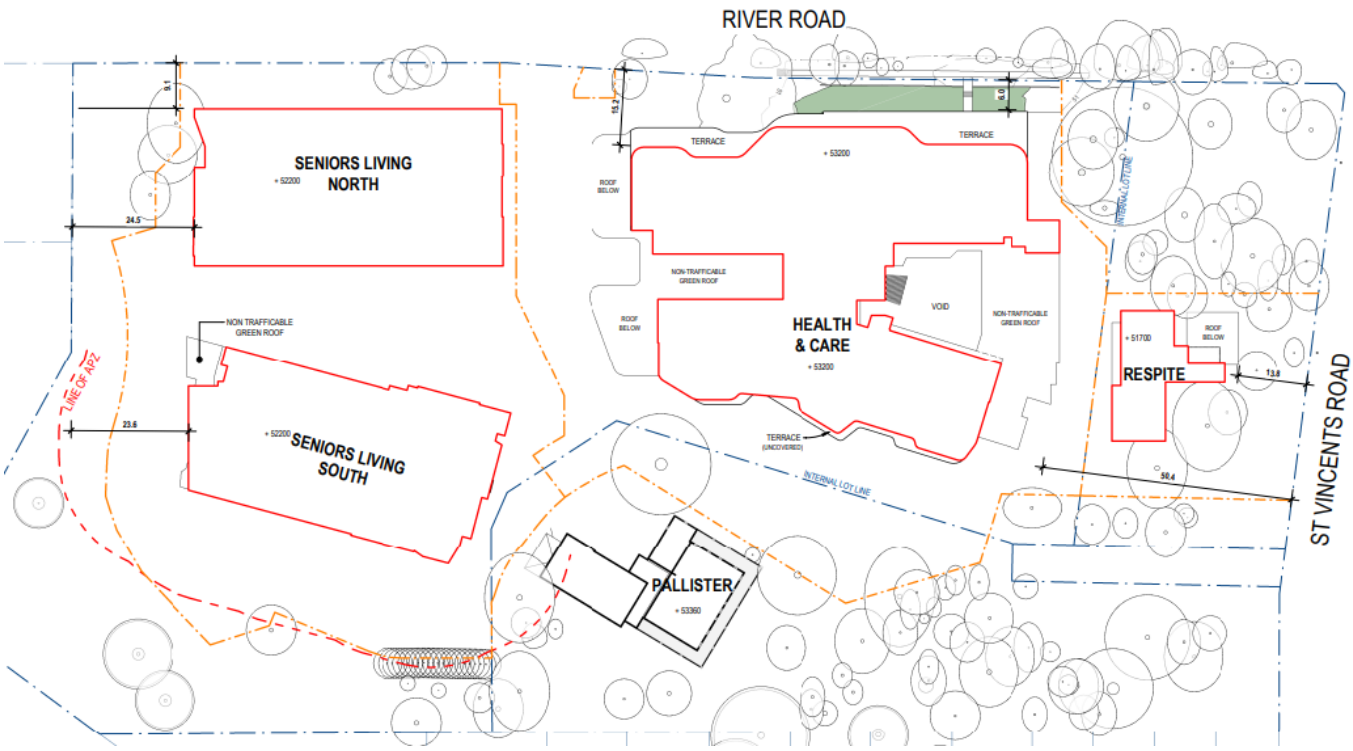

Figure 33 Building envelopes and site setbacks – level 5

Source: Bickerton Masters

7.1.5 Visual Privacy

In addition to substantial setbacks and building separation, largely in excess of ADG criteria, the proposal also incorporates additional measures to protect the visual privacy of surrounding residential receivers, including to the detached dwellings located towards the site's west and south, in accordance with condition B4 of the SSD 8699 FEARs. In particular;

- The seniors living buildings have been specifically oriented so that views from the units will be predominantly towards River Road or Gore Creek Reserve. This includes orienting the southern seniors housing building so that the

building's southern façade has a perspective towards the Reserve to the southwest, rather than existing residential dwellings to the southeast of that building.

- The proposed buildings on the site have been located in accordance with the Concept Plan envelopes, which was the result of a substantive planning process to ensure that the future built form is adequately separated from surrounding residential uses in a manner that protects visual privacy. This includes:
  - The placement of the seniors housing buildings at the western end of the site which ensures that the buildings are provided with a substantive buffer to the residential properties to the south, which line the eastern end of the site's southern boundary. This represents a visual separation distance of at least 50 metres between the built form and the closest residential property site boundary to the south.
  - Hospital rooms of the upper levels of the hospital building are designed to provide views to the Lane Cove River and beyond, rather than the residential dwellings directly to the south. The sloped site topography and provision of terraces ensures that the hospital rooms do not overlook these dwellings. Additionally, Pallister House, the internal access road and significant landscaping provides additional visual buffer between south-facing hospital rooms at the lower levels and the residential properties.
  - The seniors housing buildings are set back a significant distance from the site's western boundary, with substantive landscaped buffer and the internal access road providing considerable separation between the built form and the residential receivers to the site's west (a minimum of 24.5 metres separation from the buildings to the closest residential site boundary).
  - Where balconies of the seniors housing buildings have an aspect to the western frontage, a screen and/or vegetative planters are provided at the balcony edge to prevent residents from looking down to residential properties below (example shown in **Figure 34** below).
  - The residents' sky lounge and terrace for the southern seniors building has also been set back from the building's western frontage with a green roof below, further minimising residential privacy impacts.
- Substantial landscaping and tree planting are located between the proposed built form and the site's southern and western boundaries. This provides a natural visual barrier between the new health campus and the existing residential dwellings and enhancing the highly vegetated character of Greenwich.
- The proposed built form incorporates additional landscaping on balconies which function as a green screen, softening the edges of the buildings and how they are viewed from surrounding residential properties. Balconies are typically solid, with glazed balustrades off living spaces to allow sunlight to penetrate whilst maintaining visual privacy. Additionally, bedroom windows are also setback to minimise privacy impacts.

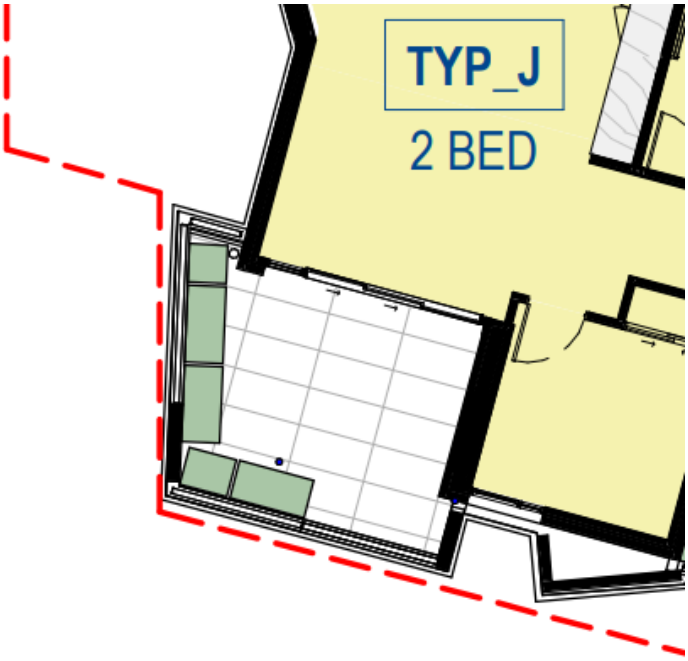

Figure 34 Example showing vegetative planter along the balcony's western edge

Source: Bickerton Masters

The proposed development's interface with surrounding residential properties to the south and west is demonstrated in **Figure 35** below.

Figure 35 Interface of the seniors housing buildings with surrounding residential properties, to the south (left) and west (right)

Source: Bickerton Masters

7.1.6 Facades and Materiality

The proposed hospital building has been designed to present as a highly bespoke, staggered and articulated built form, to reduce perceived bulk and scale of the building when viewed from the surrounding public domain. As demonstrated on the Architectural Plans at **Appendix A**, the hospital building makes use of a series of green roofs and landscaped terraces that progressively sets back the building, reducing its footprint at upper levels and preventing it from appearing overbearing at street level. Opportunities for landscaping integration have also been integrated into the façade expression of this building, in accordance with the biophilic design principles adopted for the proposal.

This includes at the interface between the hospital building and the River Road frontage. As shown in **Figure 36** below, the hospital presents as a 2-3 storey podium towards River Road and is progressively set back through a series of stepped landscaped terraces, offering the opportunity for cascading landscaped elements.

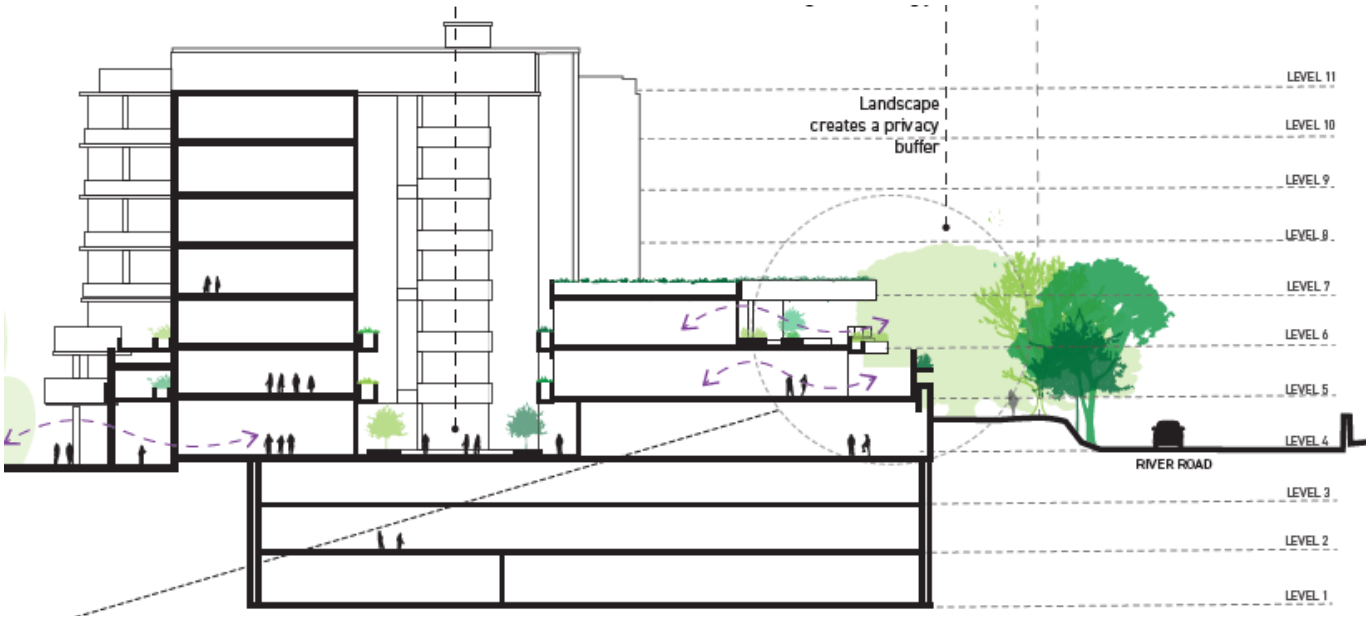

Figure 36 Interface of proposed hospital building with River Road

Source: Bickerton Masters

The materiality of the hospital building differs across its levels. At lower levels, connection to its surroundings is reinforced through the use of stone cladding and clay brick façade treatment. For building elements above the podium, the façade treatment is instead made up predominantly of masonry components and glass with some light-weight cladding.

Articulation elements have also been incorporated into the design of the seniors housing buildings, including at the interface between the northern building and the River Road frontage. The usage of different palettes and materials at different levels allows the facades of the buildings to present as a diverse built form:

- The base levels (1 – 2) offer an opportunity to ground the buildings as landforms and have a stronger connection to a greener landscape with a sandstone colouring.
- The mid levels (3 – 4) use natural materials, like masonry, brick, and concrete with a colour palette derived from the site's eucalypts to be a background to the green planted elements hanging off the building.
- The top levels (4 – 6) break down the scale of the building and visually relates to either the health precinct or its neighbours with screening, glazed balustrades, and light weight cladding.

Further discussion and justification of façade design and materiality is presented in the Urban Design Report at **Appendix B**. A detailed Digital Materials Board of the proposed materials and finishes is provided at drawing DD-SW-1000 of the Architectural Plans (**Appendix A**).

7.1.7 Residential Amenity

As noted above in **Section 5.2.3**, although not strictly a residential flat building, the proposed seniors housing buildings have been designed in accordance with the principles of SEPP 65 and the criteria of its accompanying Apartment Design Guide (ADG). The seniors housing units respond to ADG requirements for solar access, cross ventilation, size and layout, private open space, and storage.

54 out of 89 units (60.7%) are naturally cross ventilated. 64 out of 89 units (71.9%) receive more than 2 hours direct sunlight during midwinter. Only 9 units (10.1%) do not receive direct sunlight midwinter due to the southerly aspect of these units. A number of these units instead benefit from filtered views towards Gore Creek Reserve and/or the Lane Cove River. Detailed assessment against SEPP 65 and ADG guidelines is provided at pages 40 – 48 of the Urban Design Report by Bickerton Masters at **Appendix B**.

A mixture of 15 three-bedroom, 64 two-bedroom, and 10 one-bedroom dwellings have been provided for housing diversity and to respond to market demand research conducted by HammondCare. With the seniors housing units being targeted towards those aged 75+ with chronic health needs, the buildings have been designed with legibility and dementia-friendly principles in mind.

The central landscaped open space between the two buildings allows a resident to orientate themselves relative to this space. A resident can easily navigate to their front door along the central corridor within each building, with small nooks off the corridors offering visual memory cues and resting points along the way.

Furthermore, the proposed seniors housing buildings have been built to Class 9C (residential care building) standards, as opposed to that of Class 2 (apartment building) to ensure that care services can be suitably delivered in accordance with HammondCare's 'continuum of care' model. This includes the inclusion of dirty utility spaces and care support and ancillary storage spaces, and circulation spaces being widened to provide adaptability and manoeuvrability of a hospital bed into the bedroom of each unit.

Such a specialised design directly responds to previous concerns raised under SSD 8699 regarding the potential for the seniors housing development to restrict the expansion of health services in the future. Designing to Class 9C will 'futureproof' the buildings by allowing for delivery of hospital-related or more traditional aged care into the seniors living buildings to respond to the needs of the residents, as required.

7.1.8 Landscaping

Extensive landscaping is to be provided for at the site, as discussed in **Section 4.5** above, with further detailed justification provided within the Landscape EIS Report and Plans prepared by Taylor Brammer Landscape Architects at **Appendix D**. The landscaping has been designed in tandem with the proposed built form to ensure that there is a high degree of integration between the proposed planting and the new buildings.

Landscaping has been designed in accordance with the issued SEARs, and condition B6 of the SSD 8699 FEARs. The Landscape EIS Report and Plans demonstrate that the proposed landscaping arrangements:

- Are generally in accordance with the Concept Approval Landscape Plans, with further refinements made under the detailed design stage of the project;

- Result in a minimum 1:1 tree replanting at the site; when trees that are being removed due to external factors (e.g., being invasive, decaying or overmature) are discounted, the proposal results in a net increase of 34 trees.
- Have been designed to provide a sensitive interface to Pallister House (as confirmed in the Heritage Impact Statement – **Section 7.4.2**);
- Deliver additional planting to the street interface of the northern seniors housing building and incorporates green roofs atop buildings.

As noted above, landscaping at the site is broken up into a number of different themed areas to respond to the unique context of each part of the site. A detailed planting schedule is provided within the Landscape EIS Report and Plans.

7.1.9 Overshadowing

Detailed Overshadowing Plans have been prepared by Bickerton Masters at drawings DA-SW-0300 through DA-SW-0311 of the Architectural Plans (**Appendix A**). The Overshadowing Plans provide an hourly overshadowing comparison of both the existing on-site and proposed built forms, during the midwinter (21 June), equinox (21 March) and midsummer (21 December) scenarios.

Notwithstanding that DCPs are technically inapplicable to SSDs (see **Section 5.6**), Section 1.8.1 of the Lane Cove Development Control Plan 2010 has been used as a guide which requires that adjacent dwellings should not be reduced to less than 3 hours of direct sunlight between 9:00 and 15:00 during midwinter (21 June). In situations where the 3 hour standard is not achievable due to topography and/or lot orientation, a reduction in solar access can be accepted.

Additional overshadowing impacts of the proposed development above and beyond those of the existing built form, outside the site boundaries are highlighted in yellow on the Overshadowing Plans. The Plans demonstrate that:

- During midsummer (21 December), the proposal does not generate any additional overshadowing impacts outside the site boundary between 9:00 – 15:00 when compared to existing conditions.
- During the equinox (21 March), the proposal results in very minor additional overshadowing to the property at 117B River Road to the immediate west, for the hour of 9:00 – 10:00 only. The proposal otherwise does not generate any additional overshadowing impacts outside the site boundary between 9:00 – 15:00 when compared to existing conditions.
- During midwinter (21 June), the proposal results in:
  - Additional overshadowing to 24 Gore Street, the backyard of 117B River Road, and the backyards of 49 and 51 Gore Street at 9:00;
  - Minor additional overshadowing to the backyard of 24 Gore Street at 10:00;
  - Negligible additional overshadowing to 24 Gore Street at 11:00;
  - No additional overshadowing to any property between 12:00 – 13:00;
  - Negligible additional overshadowing to the backyards of 35 and 37 Gore Street at 14:00; and
  - Additional overshadowing to the backyards of 35 and 37 Gore Street at 15:00.

Overall, the additional overshadowing generated by the proposal is considered to be minor, with no property receiving additional overshadowing of more than 2 hours as a result of the project. Where a property is overshadowed by the proposal, less than 50% of the property is affected by overshadowing at any given time, with these impacts being limited to generally backyards or non-built up areas.

Overshadowing onto surrounding residential properties continues to comply with the requirements of the Lane Cove DCP, and no property has its solar access reduced to below 3 hours midwinter as a result of the proposal.

7.1.10 Design Excellence

To ensure that a high standard of design is delivered at the site, with a high degree of environmental amenity, the project team has consulted with the NSW Government Architect's State Design Review Panel (SDRP) throughout the design development process.

The project team has met with the SDRP on two separate occasions: 10 November 2021, and 16 March 2022. Advice provided by the SDRP has informed the design of the proposal.

The advice letters issued by the SDRP following each meeting have been attached at **Appendix RR** of this EIS. The project team has responded to this advice at pages 38 – 39 of the Urban Design Report by Bickerton Masters at **Appendix B**. A response to the latest SDRP advice is also provided in **Table 16** below.

Table 16 Response to SDRP feedback

SDRP comment	Response
Connecting with Country	
1. Connecting with Country needs to be directed and informed by consultation with First Nations community members and if possible, designers. Through this process a more wholistic appreciation of Country and the opportunities it presents to improving the entire project will be gained. Continue engagement processes and allow the outcomes to have an impact on the project.	Connecting with Country principles have informed the design of the proposed development, with Indigenous groups involved throughout the design process, as discussed in sections 3.3 and 4.3 of the Urban Design Report at **Appendix B**, and the Landscape EIS Report and Plans at **Appendix D**. Consultation with seven Registered Aboriginal Parties (RAPs) is ongoing, as detailed in the Updated Aboriginal Archaeological Impact Assessment and Consultation Report at **Appendix O**.
2. Consider the experience of First Nation patients and family and demonstrate how Connecting with Country principles have informed and improved the experience of Indigenous and Aboriginal users of the facilities.	
3. Refer to the Connecting with Country Draft Framework on the GANSW website.	
Site Strategy and Landscape	
4. The success of the landscape strategy and associated mitigation of heat, environmental performance, and enjoyment of the new hospital is dependent on ensuring the planting and trees will be abundant and resilient to future environmental stresses. The following provisions are strongly recommended: • a. Sufficient onsite water storage • b. Inclusion of large and mature trees in the landscape design with sufficient soil depth • c. Provide ample deep soil to protect and futureproof landscape	Substantive landscaping has been provided at the site, in accordance with the Landscape EIS Report and Plans prepared by Taylor Brammer Landscape Architects at **Appendix D**. The proposal retains a large number of existing mature trees at the site. As confirmed in the Tree Impact Assessment Report and Tree Management Plan (**Appendix R**), 224 trees are to be retained. The proposal provides for significant quantities of deep soil (14,000m^2; 41.5% of site area).
5. Illustrate pathways through the landscape that offer a range of experiences for patients and inhabitants, including therapeutic opportunities.	The site landscaping strategy provides for a series of 'Circuit Walks', comprising a number of themed pedestrian walkways at the site. Refer to Landscape EIS Report and Plans prepared by Taylor Brammer Landscape Architects at **Appendix D**.
Architecture	
6. Investigate the possibility of providing deep soil planting zones within the carpark structure to support the presence of mature trees in the 'green heart.' Depending on the design approach this may also add natural light to the parking area.	The possibility of deep soil planting zones above the carpark has been explored in detail. Due to structural constraints, provision of deep soil at this location would not be feasible. Deep soil planting has instead been provided between the basement carpark and northern site boundary.
7. Consider accommodating a wider variety of uses across terraces and threshold areas, including: • a. Spaces with planted edges for private therapeutic use	The site landscaping strategy has been refined to provide a wider diversity of landscaped terraces and threshold areas. Refer to Landscape EIS Report and Plans prepared by

• b. Green spaces for common use within the building • c. Spaces with restricted access including deep soil areas enabling dense planting	Taylor Brammer Landscape Architects at **Appendix D**.
8. The arrival into the heart of the facility is currently dominated by the entry into the dark car park. Review the composition of the entry for further opportunities to provide a light, generous and welcoming place for patients and visitors.	The 'arrival' area design has been refined to be over 6 metres high and provide a space that is more generous and welcoming. Refer to the Architectural Plans at **Appendix A** and the illustration at **Figure 37** below.
9. Review the working environment for employees for further opportunities to provide healthy, light, and safe workspaces.	A range of staff spaces have been provided within the hospital building. Staff spaces provide lockers, amenities, and a kitchenette, with generous views to the site's densely vegetated surroundings. The site design generally minimises staff-only areas, to encourage staff to deliver care to patients and residents.
Sustainability	
10. Ensure the principles that have been developed as part of the Sustainability Framework are translated into ambitious and measurable improvements in the performance of the building and landscape.	Sustainability principles are incorporated into the design of the proposal and represent a substantial improvement over existing site conditions. Refer to section 6.1 of the Urban Design Report and ESD Report at **Appendix JJ**.
11. Recommend electrifying the project as much as possible and providing infrastructure for the shift to full electrification in the near future.	Noted. 18 (5%) of the site's total number of parking spaces have been provided with electric charging facilities for EVs.

Figure 37 Illustration of hospital arrival area design

Source: Bickerton Masters

7.2 Visual Impact

A Visual Impact Assessment (VIA) of the proposal has been prepared by Clouston Associates and is attached to this report at **Appendix P**. The VIA analyses expected view impacts of the proposal from thirteen (13) locations at and around the site, as shown in **Figure 38** below.

Figure 38 Assessed viewpoint locations

Source: Clouston Associates

Additionally, in response to DPE comments dated 1 June 2022, a Supplementary Visual Impact Assessment has also been prepared by Ethos Urban at **Appendix QQ** with modelling prepared by V-Mark Design and Bickerton Masters. The Supplementary VIA analyses the visual impact of the proposal from two additional viewpoints: Northwood private residential properties to the west (taken from 17 Upper Cliff Road), and the Lane Cove River (taken from Onions Point).

The general findings of the VIA documents have been summarised in **Table 17** below.

Table 17 Summary of VIA findings

Viewpoint	Location	Significance of visual impact
Visual Impact Assessment – Appendix P		
1	Footpath near 150 River Road	Moderate
2	Gore Creek Reserve	Moderate
3	Corner of River Road and Sarner Road	Moderate
4	Corner of Gore Street and Carlotta Street	Low/Moderate
5	110 River Road	High
6	46A Cliff Road	Moderate/High
7	Corner of Gore Street and St Vincents Road	Negligible

8	47 Gore Street	Moderate/High
9	Local Reserve, French Street	Moderate
10	Footpath near 20 St Vincents Road	Low
11	Corner of River Road and St Vincents Road	Moderate
12	Footpath near 120 River Road	Moderate
13	Footpath near 10 River Road	Low
Supplementary Visual Impact Assessment – Appendix QQ		
14	Northwood – 17 Upper Cliff Road	Low
15	Lane Cove River (Onions Point)	Negligible

In summary, it was found that:

- Two viewpoints received a significance rating of Negligible;
- Three viewpoints received a significance rating of Low;
- One viewpoint received a significance rating of Low/Moderate;
- Six viewpoints received a significance rating of Moderate;
- Two viewpoints received a significance rating of Moderate/High; and
- One viewpoint received a significance rating of High.

The documents confirm that these impacts are not extensive in terms of visual catchment as existing vegetation and topography has resulted in there being generally only single standpoint views rather than wide panoramic views. Additionally, much of the proposed development is to be obscured by the site topography, with the upper levels of the proposed buildings being the most noticeable visual element in the surrounding area.

It is noted that the reduction in building heights and incorporation of landscaped terraces, when compared to SSD 8699 as submitted, has resulted in a reduction in assessed visual impacts compared to the Concept Approval Visual Impact Assessment, which was provided at Appendix H of the Response to Submissions Report prepared by Ethos Urban dated 18 September 2019.

Therefore, visual impacts of the proposal are considered to be acceptable. The VIA recommends that the project should not be refused on visual impact grounds.

7.3 Transport and Accessibility

A Traffic and Parking Assessment (TPA) of the proposed development has been prepared by Transport and Traffic Planning Associates and is attached to this EIS at **Appendix K**. The TPA assesses the traffic and parking implications of the proposal in accordance with the issued SEARs. Its findings are summarised in the below subsections.

7.3.1 Access, Internal Circulation and Servicing

Section 6 of the Traffic and Parking Assessment confirms that vehicular access arrangements will generally remain as existing at the site. As discussed in **Section 4.4**, the existing western signalised entry from River Road, as well as the existing driveway from St Vincents Road is to be retained, and the existing eastern driveway to River Road will be upgraded into the new 'Ceremonial Entrance' set-down loop, with formal prohibition of right turn movements (excepting emergency vehicles).

The report confirms that vehicular access, internal circulation, and servicing at the Greenwich health campus will comply with the relevant requirements of AS2890 Australian Standards Parts 1 – 6, and the internal access road will be able to accommodate all vehicles which are expected to access the site. Similarly, the proposed servicing and loading areas at the rear of the hospital building was found to be adequate, and compliant with the relevant standards.

Detailed turning and swept path assessments for up to a 12.5m rigid vehicle have been provided at Appendix H of the Traffic and Parking Assessment, with reference to the site vehicular entries, parking and loading areas.

7.3.2 Impact on Surrounding Road Network

Section 5 of the Traffic and Parking Assessment analyses the predicted traffic generation rates of the proposed development, and the impact this has on the surrounding road network. In summary, the proposed development is expected to generate the following traffic movements during its operational phase, expressed in vehicular trips per hour (VTPH) (**Table 18**):

Table 18 Expected vehicular generation rates

Land use	AM peak (VTPH)	PM peak (VTPH)
Hospital and respite care	67 trips	64 trips
Residential aged care	11 trips	14 trips
Seniors housing	7 trips	10 trips
Total	**85 trips**	**88 trips**

Therefore, in total, the proposal is expected to generate 85 vehicular trips per hour during the AM peak, and 88 trips per hour during the PM peak. It is expected that 75% of trips will be inbound and 25% of trips outbound during the AM peak, and 25% of trips will be inbound and 75% of trips outbound during the PM peak. The generated numbers have factored in that the seniors housing building residents are to be those of 75+ years of age with chronic health needs.

The Traffic and Parking Assessment confirms that the above trip generation rates will not result in adverse impacts on intersection performance, including the River Road and St Vincents Road intersection. Detailed SIDRA modelling of the intersection has been undertaken at Appendix F of the assessment report, confirming that the intersection will continue to operate at a Level of Service (LOS) of A, with an average delay (seconds) of 5.8 seconds in the AM peak, and 12.9 seconds in the PM peak.

7.3.3 Parking

Section 4 of the Traffic and Parking Assessment analyses the adequacy of the proposed development's parking provision. As noted in **Section 4.4.2**, the 329 parking spaces are to be provided at the site, as follows:

- 288 spaces provided in the shared basement, including:
  - 123 spaces for hospital visitors, including for short and longer-term visitors;
  - 76 spaces for staff (including hospital, seniors housing and respite care staff);
  - 42 spaces for residents of the northern seniors housing building;
  - 47 spaces for residents of the southern seniors housing building;
- 20 spaces provided within the set-down loop beneath the hospital, including:
  - 14 parking spaces for short-term hospital visitors;
  - 6 drop-off bays;
- 21 spaces provided along the internal access road, including:
  - 16 parking spaces for short-term hospital visitors; and
  - 4 drop-off bays.

The report provides an assessment of the above arrangements against the requirements of the Lane Cove Development Control Plan 2010. The DCP requires:

- 1 space per 3 beds, 1 space per 2 staff, and 1 space per registered medical practitioner for hospital uses
- 1 space per 10 beds (1 per 15 for dementia), and 1 space per 2 staff for residential aged care uses
- 0.5 spaces per bedroom for serviced seniors housing uses

When the above DCP rates are applied to the proposed development, a total of 269 spaces are required. The proposed development's provision of 329 parking spaces represents a surplus of 60 spaces. The Traffic and Parking Assessment considers this to be acceptable, given that there are no existing convenient or appropriate off-site on street spaces being available; the need to accommodate occasional peak visitor/patient activity (e.g., during public holidays), as well

as a significant portion of the site's users being elderly, who may find it too physically demanding to use public or active modes of transportation.

7.3.4 Green Travel Plan

Supporting the TPA is a Green Travel Plan (GTP), which has been prepared by Transport and Traffic Planning Associates and is attached at **Appendix L**.

The GTP confirms that the proposal will aim for modal share targets of 40% car as driver; 3% car as passenger; 1% motorcycle; 15% bus; 35% train; 5% walking; and 1% other as the primary method of transportation to work. The GTP outlines the site-specific measures to be implemented to maximise sustainable modes of transport during the proposed development's operation, including promotion of walking, cycling, public transport, and carpooling to reduce car dependency, as delineated within the report.

7.3.5 Construction Traffic Management

A Preliminary Construction Traffic Management Plan (Prelim CTMP) is appended to the Traffic and Parking Assessment (**Appendix K**). The Prelim CTMP provides preliminary analyses of the expected construction traffic impacts of the proposal, and how they are to be managed. A detailed CTMP is to be prepared at construction certificate stage prior to the commencement of works, with relevance to the Prelim CTMP. It is recommended that this be facilitated through a condition of consent, in line with the mitigation measures at **Section 9**.

The Prelim CTMP confirms that the proposal is expected to generate up to a maximum of 30 – 40 truck movements per day (6 – 8 per hour) while bulk excavation works are being undertaken. The proposal will generate 30 – 40 movements per day (5 per hour) during structural works, 30 movements per day (6 per hour) during fitout works, and 20 movements per day (4 per hour) during landscaping works. Trucks will access the site from River Road as shown in the truck route diagrams provided within the Prelim CTMP.

Limited on-site parking will be available for construction workers, who will be provided with secure on-site storage for their tools and materials. Construction workers will be encouraged to utilise public transport or car-pool where possible.

7.3.6 Road Safety

In accordance with the SSD 8699 FEARs, a Road Safety Audit of all access points, pedestrian and vehicle movement along River Road and St Vincents Road within the vicinity of the site has been prepared by an independent party (J. Wyndham Prince). It is attached at **Appendix PP**.

Transport and Traffic Planning Associates' response to the findings of the Audit has been attached to the Audit. The responses identify the project team's proposed response to each item. This includes providing a left-in, left-out arrangement for the Ceremonial Entrance to prohibit right turn movements and reduce vehicular conflict, improvements to footpaths, as well as the trimming of vegetation to improve sight lines.

It is important to note that the Audit is for the surrounding traffic environment as a whole, and a number of items identified do not fall within the scope of the proposed development. Therefore, these issues are not directly relevant to the proposal and are the responsibility of the relevant road authority (i.e., Council) to address.

7.4 Heritage and Archaeology

7.4.1 Archaeological Impact

An assessment of the potential archaeological impacts of the proposed development is documented in the Archaeology Updated Impact Assessment prepared by Cultural Heritage Connections at **Appendix M**. The document supplements the Archaeological Assessment and Impact Statement that was prepared as part of the Greenwich Concept Approval (SSD 8699).

In summary, the assessment finds the portion of the site at and around Pallister House has a moderate to high potential of containing localised areas of archaeological remains from the period relating to Pallister House but that this area will remain largely undisturbed. Elsewhere across the site, the construction of the existing hospital buildings would likely have removed much of the previous archaeological remains that once may have been present.

It is noted that condition B14 of the SSD 8699 FEARs requires that an archaeological program be prepared for the site, guided by an appropriate Archaeological Research Design and Excavation Methodology (ARDEM). It is currently not feasible for this archaeological program to be undertaken prior to approval, for the following reasons:

- The site is currently a live hospital environment. Archaeological testing is intrusive, and there are substantial challenges around conducting these works given the disruption this may cause to hospital staff and especially patients, a substantial number of whom a frail, elderly, or require specialist care due to dementia or other co-morbidities.
- Given the current context of the COVID-19 pandemic, hospitals are minimising visitors on site and contact with external persons wherever possible. This is especially pertinent to Greenwich Hospital given that it hosts elderly patients and those requiring specialist care. Undertaking this testing would therefore potentially generate unacceptable health and safety impacts on current hospital operations.

Given the above, it is proposed for archaeological testing to be undertaken post-approval prior to the commencement of works. Such an approach ensures that archaeological works will continue to be undertaken at an appropriate stage of the site's redevelopment, while preventing intrusive testing from hindering live hospital operations in the context of the COVID-19 pandemic. It is also noted that this approach was supported in-principle during pre-lodgement discussions with DPE.

The Archaeology Assessment (**Appendix M**) makes the following conclusions:

- There is potential for significant archaeological relics and/or deposits to be contained within the project area.
- Archaeological remains are likely to be of local significance, depending on their nature and extent.
- Significant remains are likely to be those associated with the construction of Pallister House and the observatory as well as occupation of the site by John St Vincent Welch and his family.
- The proposed development will involve activities that will disturb the ground surface and include excavation of soils that have moderate to high potential of containing archaeological relics and therefore management and mitigation measures are warranted.

Based on the above conclusions, the following recommendations are provided within the report:

- The ARDEM for the project has been prepared and is attached at Appendix 2 to the Archaeology Updated Impact Assessment. The ARDEM is recommended to be reviewed by Heritage NSW and implemented prior to commencement of works.
- Results of archaeological works should be documented in an excavation report that includes opportunities for *in situ* conservation within 12 months of completion of the archaeological excavation, in accordance with condition B14 of the SSD 8699 FEARs.
- Consideration should be given within the report to the conservation of any significant artefacts and protection in perpetuity by the landowner and included in the Heritage Interpretation Plan.
- Information relating to potential heritage and a procedure for dealing with unexpected finds should be included within site inductions for all contractors involved in ground disturbing works.

The project will implement the above recommendations and it is recommended that conditions of consent be included in the SSD 13619238 consent to enable this. Suggested measures are included in the mitigation measures at **Section 9**.

7.4.2 Non-Aboriginal Heritage

As has been discussed, a State Heritage Register (SHR)-listed item – Pallister House (SHR item no. 00574; item no. I118 under Schedule 5 of the LLEP 2009) is located on the site. Being listed on the SHR, this building is considered to be of State significance.

A Heritage Impact Statement (HIS) has been prepared by Built Environmental Heritage Group at **Appendix N**, analysing the impact of the proposed works on Pallister House. The HIS concludes that: "*the overall proposal will have a positive Heritage impact on the site, allowing the site's social significance as a place of service to the community to continue without erasing the earlier layers of history*". The following points have informed this conclusion:

- Built Environmental Heritage Group considered the design of the proposal to have considered the significance of Pallister House and presents a sympathetic understanding of the character and heritage of this heritage item in its built form.

- The views from the new development will accommodate view lines from River Road to Pallister House, representing an improvement over the existing site condition.
- The design of the seniors housing buildings is respectful in recognising and supporting the heritage significance of Pallister House.
- The proposed design of the hospital building includes terraces and roof gardens to provide a modular composition to reduce the appearance of bulk and ensure a sympathetic interface with Pallister House's north and northwest boundary.

The HIS finds that the overall design of the proposed development to be supportable from a heritage perspective.

Additionally, as discussed above in **Section 4.3.5**, a Schedule of Conservation Works (SCW) and Heritage Interpretation Strategy (HIS) has been prepared for Pallister House, at **Appendix F** and **G** respectively. These documents ensure that Pallister House is to be retained and conserved under the proposal, with intrusive elements removed, and that strategies will be introduced to further the understanding and appreciation of the heritage item by future site visitors, residents, and patients.

7.4.3 Aboriginal Cultural Heritage

An Updated Aboriginal Archaeological Impact Assessment and Consultation Report (AAIACR) has been prepared by Cultural Heritage Connections and is attached to this EIS at **Appendix O**. The report is pursuant to the Aboriginal Cultural Heritage Assessment Report (ACHAR) submitted as part of the Greenwich Concept Approval (SSD 8699).

In summary, the report confirms that no Aboriginal objects have previously been recorded within the site; no declared Aboriginal Place is located within the site; and the project has not been subject to any previous Aboriginal Heritage Impact Permit(s). However, one portion of the site (at its far eastern boundary, facing St Vincents Road) has been found to have potential to contain Aboriginal objects, within rock overhangs that are currently inaccessible.

It is noted that condition B15 of the SSD 8699 FEARs requires an Aboriginal Cultural Heritage Management Plan (ACHMP) be prepared, to be informed by sub-surface testing undertaken at the site. As discussed in **Section 7.4.1**, in the context of the COVID-19 pandemic and the site being a live hospital environment, it is currently not feasible for sub-surface testing and archaeological works to be undertaken prior to approval. Furthermore, it is understood that condition B15 were informed by the Aboriginal Cultural Heritage Assessment Report (ACHAR) submitted at Appendix R of the Concept Plan (SSD 8699), which recommends that a ACHMP be prepared. However, the ACHAR notes that that it is only necessary for the ACHMP to be completed prior to the commencement of ground disturbance works.

Therefore, it is proposed for the ACHMP to be finalised prior to the commencement of works, as delineated within the AAIACR. The recommendations from the AAIACR and Concept Plan ACHAR will be incorporated into the ACHMP as required. A methodology and research design for sub-surface archaeological testing has been provided within the AAIACR, to be reviewed by the relevant Registered Aboriginal Parties (RAPs). This ensures that an ACHMP informed by sub-surface testing will continue to be provided at the most appropriate stage of the development while preventing adverse impacts on hospital operations during the COVID-19 pandemic.

7.5 Wind Impact

A Wind Study has been prepared by Vipac and has been attached to this report at **Appendix Q**. The report analyses the impact of the proposed built form on pedestrian level wind conditions at the site. This was achieved through the construction of a physical development model which then underwent wind tunnel testing.

In summary, the Wind Study finds that the proposed development:

- Fulfills the relevant pedestrian criterion for safety at all tested locations;
- Fulfills the criterion for walking at all footpath locations;
- Fulfills the criterion for standing at all building entrances;
- Fulfills the criterion for sitting at all external communal/dining areas subject to the recommendation that 1.5m solid wind screens be placed at certain locations; and
- Fulfills the criterion for walking at all outdoor communal terraces subject to the recommendation that a 1.5m-1.8m planter be placed at the southern western corner of the level 5 terrace.

The recommendations of the wind report have been implemented into the design of the proposed development. Therefore, the proposed development is supportable from a wind perspective, and will not generate unreasonable amenity or safety impacts for site users.

7.6 Vegetation Removal and Protection

A Tree Impact Assessment Report and Tree Management Plan has been prepared by Mark Bury Consulting and is attached at **Appendix R**. This document provides detailed information on the tree and vegetation works required to enable the proposed development and has been prepared with reference to the Tree Impact Report and Tree Management Plan prepared by Redgum Horticultural as part of the SSD 8699 Concept Approval.

The report confirms that the following tree removal works will be required to facilitate the proposed development (with reference to the tree numbering scheme provided under the SSD 8699 Redgum Horticultural report):

- Twenty-six (26) trees identified within the SSD 8699 report have since died and are no longer present at the site.
- Eight-five (85) trees are to be removed, including:
  - 52 are to be removed to facilitate the proposed development.
  - 33 are to be removed due to being invasive, decaying, or overmature.
- One hundred and ninety-four (194) trees will be preserved under the proposed development.

Refer to **Figure 18** earlier in this EIS.

The Tree Impact Assessment Report and Tree Management Plan provides a detailed schedule of all trees on the site, including an assessment of the condition, dimensions, structure, and health of each. For every tree to be retained, a detailed Tree Management Plan has been prepared at Appendix 6 of the report outlining the management and protection requirements for each tree.

Additionally, five (5) trees to be retained on-site will require pruning works to provide sufficient clearance to the built form of the proposal. These works are described in the supplementary Tree Pruning Specification prepared by Mark Bury Consulting at **Appendix S**. The Tree Pruning Specification confirms that these pruning works should not adversely affect the long-term viability of these trees.

As noted in **Section 4.5** above, substantive landscaping forms part of the proposal, including the planting of 86 new trees as detailed in the Landscape EIS Report and Plans at **Appendix D**. Discounting trees that are being removed due to external factors (e.g., due to being invasive, dying, or overmature), the proposal represents an increase of 34 site-appropriate trees when compared to existing conditions. This is in addition to the restoration and revegetation works to be undertaken at the riparian land in the site's southwestern corner fronting Gore Creek Reserve, as detailed in **Section 4.6** and the Vegetation Management Plan at **Appendix H**.

7.7 Contamination

An Additional Site Investigation (ASI) of the development site has been prepared by JK Environments and has been included at **Appendix T**. The ASI supplements the Detailed Site Investigation (DSI) that was undertaken as part of the SSD 8699 Concept Approval and provides additional information on contamination conditions at the site. An additional 19 soil samples were collected under the ASI, complimenting the 30 samples collected under the DSI, for a total of 49 sampled locations.

The ASI finds that, with the exception of total recoverable hydrocarbons (TRH), all soil results were below the adopted Site Assessment Criteria (SAC). If not remediated, the concentration of TRH F1 in natural soils at one location was considered to pose a potential risk to human health, and the TRH F2 and/or TRH F3 fill soils in four locations were considered to pose potential risk to ecological receptors.

With the exception of heavy metals (cadmium, copper, lead, nickel, and zinc), and pH, all groundwater results were below the human health and ecological SAC. These heavy metal exceedances were considered likely be a regional issue, rather than an indication of any site contamination. The concentrations were also likely partly attributable to leaking potable water supply in the area. The concentrations were assessed to not pose risk to receptors at the site in the context of the proposed development, though stormwater treatment during discharging may be required.

At least one underground storage tank has been identified at the site. SafeWork NSW records indicate that this tank may have been used to store petrol.

In summary, the ASI concludes that the site is capable of being made suitable for the proposed works, subject to the implementation of recommendations provided within the report, which includes:

1. The preparation of a Remediation Action Plan (RAP);
2. Continuous monitoring of Hazardous Ground Gas (HGG), and
3. A validation assessment documenting remediation works.

With regards to recommendation (1), RAP has been prepared at **Appendix U** as further discussed below. It is suggested that recommendations (2) and (3) be enforced through conditions of consent.

7.7.1 Remediation

As consistent with the findings of the ASI summarised above, a Remediation Action Plan (RAP) has been prepared for the site by JK Environments and is attached at **Appendix U**. The RAP provides the necessary strategy to remediate the site to make it suitable for the proposal.

In summary, the RAP confirms that the preferred option for remediation of the identified underground storage tank and associated infrastructure, and total recoverable hydrocarbons (TRH)-impacted fill/soil/bedrock, is the removal of these materials to an appropriate facility.

Management of Hazardous Ground Gas (HGG) will be considered following the additional investigation and addressed in a stand-alone remedial works plan (RWP). This will be undertaken at construction certificate stage and can be facilitated through a condition of consent, as it is not possible to undertake these investigations prior to the demolition of the existing on-site buildings.

Following completion of remediation works, a site validation report is to be prepared on completion of remediation activities and submitted to the consent authority to demonstrate that the site has been made suitable. This will be provided prior to the site entering operation and can be enforced through a condition of consent. Suggested measures for contamination and remediation are included in the mitigation measures at **Section 9**.

7.8 Hazardous Materials

A Hazardous Building Materials Survey of the site has been prepared by JK Environments and is attached to this report at **Appendix V**. The report provides an analysis of existing buildings and structures on the site, and whether they contain hazardous materials (e.g., asbestos).

As the site is a currently operating hospital, and due to restrictions associated with COVID-19 at the time of the survey, only limited inspections were conducted of patient and resident rooms within the main hospital building and the Riverglen building. Patient rooms that were vacant at the time of the survey were inspected. This is not considered to impact the completeness of the survey; however, areas not covered will be inspected prior to commencement of works. In summary, the survey found that:

- Asbestos fibre containing construction materials have been identified within the interior and the exterior of existing buildings and structures. The asbestos is to be removed by a licensed Class A asbestos removalist and an Asbestos Removal Control Plan and Asbestos Management Plan is to be prepared prior to commencement of works.
- Deteriorated paint films containing elevated lead levels were identified on external and internal doors and frames, metal air-conditioning plant and ductwork and walls and handrails. Lead containing paint films are to be removed by an experienced hazardous materials removalist.
- Light fittings potentially housing polychlorinated biphenyl (PCB)-containing metal capacitors were identified. PCBs are a scheduled waste and are to be removed in accordance with the requirements provided within the report.
- Sources of synthetic mineral fibre (SMF) containing materials were found to be present as insulation material in the form of foil wrapped insulation, foil backed insulation, metal wrapped insulation, sprayed insulation, fire stopper pillows, vinyl sheeting and water heater systems. SMF materials are to be removed by an experienced hazardous materials removalist.

The proposed demolition of existing structures will implement the findings and recommendations of the Hazardous Building Materials Survey as confirmed within the Mitigation Measures at **Section 9**.

7.9 Soil and Water

7.9.1 Geotechnical Impact

An Additional Geotechnical Investigation (AGI) of the site has been prepared by JK Geotechnics and is attached to this report at **Appendix W**. The AGI supplements geotechnical investigations of the site that were undertaken as part of the SSD 8699 Concept Approval and provides additional information on subsurface conditions. In summary, the investigation found the site to exhibit the following subsurface conditions:

- The site is underlain by Hawkesbury Sandstone.
- Asphalt-concrete paved surface accounted for a depth of 10mm to 65mm at a number of tested borehole locations.
- From surface level or beneath the asphalt-concrete paved surface, sandy and clayey fill with varying silt fines and gravel content could be found to depths ranging between 0.3m and 3.4m. The fill was found to be moderately to poorly compacted.
- Residual soils were encountered at a number of borehole locations, and comprised silty clay, sandy clay, or silty sand overlaying silty clay. Where found, residual soils extend to the sandstone bedrock at depths from 0.7m to 1.4m.
- Weathered sandstone bedrock was encountered at all the boreholes below the residual soils or fill at depths of between 0.3m and 3.4m. On first contact, the sandstone bedrock was of variable quality ranging from extremely weathered and of dense to very dense relative density or hard soil strength, to distinctly or moderately weathered and medium to high strength. With depth, the sandstone was typically assessed to be slightly weathered or fresh and of medium or high strength.
- With regards to groundwater, all boreholes were 'dry' during, and on completion of auger drilling. Groundwater levels were measured at between 3.7m and 9.94m at a number of boreholes, and not encountered at two boreholes.

The Geotechnical Report confirms that the subsurface conditions at the site are appropriate in facilitating the proposed works, subject to the construction recommendations provided within the report.

7.9.2 Acid Sulfate Soils

An Acid Sulfate Soil Assessment of the site has been prepared by JK Environments at **Appendix X**. The report assesses the potential for the occurrence of Acid Sulfate Soils (ASS), including Potential Acid Sulfate Soils (PASS) and Actual Acid Sulfate Soils (AASS) at the site, and the need for the preparation of an Acid Sulfate Soils Management Plan.

In summary, although field tests and laboratory results identified acidic conditions greater than the relevant action criteria, the results were considered to be indicative of acid soils associated with organic/humic material rather than ASS materials. This is because significant concentrations of oxidisable sulfur were not encountered in tested samples, demonstrated by the low S_{CR}% results.

PASS and AASS conditions that would be expected to pose a risk to the environment were not identified. Therefore, JK Environments concludes that an Acid Sulfate Soils Management Plan would not be required for the proposal.

7.9.3 Salinity

A Salinity Investigation has been prepared by JK Environments at **Appendix Y**. The report investigates and characterises soil salinity conditions at the proposed development site.

In summary, the investigation indicates that the site is not located within a dryland salinity risk area. No visual indications of saline conditions (such as scalding or significant vegetation dieback/stress) were observed during the investigation. Soils at the site were found to exhibit the following salinity conditions:

- The soils are classed as very strongly acidic to very strongly alkaline;
- The soils are classed as non-saline with localised occurrences of slightly to moderately saline conditions;
- The soils are generally non-sodic;
- The soils are mildly aggressive towards buried concrete;
- The soils are mildly aggressive towards buried steel;
- The groundwater is moderately aggressive towards buried concrete; and
- The groundwater is not aggressive towards buried steel.

Based on the investigation results, the Salinity Investigation recommends that a Salinity Management Plan (SMP) be prepared for the proposal. A SMP for the site will be prepared at the construction certificate stage, as is best practice. This can be enforced through a condition of consent.

7.10 Noise and Vibration

A Noise and Vibration Impact Assessment for the project has been prepared by Acoustic Logic at **Appendix Z**. The report sets out the expected noise and vibration impacts of the proposed development, during the project's construction and operational stages.

7.10.1 Operational Noise Generation

The operation of the proposed development will result in the generation of noise. The Noise and Vibration Impact Assessment identifies the following potential sources of noise emitted from the project on surrounding sensitive receivers:

- Traffic noise emissions due to the internal access road and basement car entry, and resultant impacts on sleep disturbance;
- Noise created on public roads as a result of additional traffic generated by the proposal; and
- Noise emissions from mechanical plant and equipment associated with the proposal.

The Noise and Vibration Impact Assessment finds that, with regards to the above issues:

- For traffic noise emissions due to the internal access road and basement car entry, as this access road already exists and is operational under existing site conditions, no new sources of noise are being introduced, with any changes in noise being due to increased usage. The report confirms the expected increase to be marginal. Impacts on the nearest surrounding residential receivers, being the dwellings the west at 117, 117A and 117B River Road Greenwich, are considered acceptable based on the NSW EPA Road Noise Policy with regards to sleep disturbance. Compliance with the Project Intrusiveness Noise Objective is achieved at all times, as further detailed within the report.
- With regards to noise created as a result of additional traffic on public roads, the Noise and Vibration Impact Assessment finds such impacts to be acceptable, being less than a 2dB(A) increase during a worst-case one-hour peak, and negligible at all other times, as compliant with the EPA Road Noise Policy.
- Detailed acoustic review of mechanical plant and equipment cannot yet be undertaken, as plant selections and locations would not be finalised until construction certificate stage. However, an indicative assessment of typical plant noise has been conducted. The assessment confirms that the operation of mechanical plant and equipment at the site is capable of compliance with the relevant acoustic criteria, subject to the implementation of the recommended plant treatments provided within the report.

Therefore, the proposed development will not generate adverse noise impacts onto sensitive surrounding residential receivers.

7.10.2 Operational Acoustic Amenity

The Noise and Vibration Impact Assessment also assesses the expected noise levels for future residents at the site, being that of both patients and residential aged care residents in the hospital building, and residents within the serviced seniors housing buildings.

The report confirms that compliance with the maximum internal noise level criteria for all buildings will be achieved at all times of day. However, the implementation of the following will be required to ensure compliance:

- Implementation of acoustic treatments, including incorporation of glazing in accordance with section 4.2 of the report.
- Mechanical ventilation will be required to the units within the northern serviced seniors housing building facing River Road, in accordance with AS 1668.2, as there may be exceedances to the acoustic criteria when the windows to these units are open. Similarly, mechanical ventilation will also be required for spaces within the hospital building facing River Road.

Therefore, the proposal is supportable from an acoustic amenity perspective.

7.10.3 Construction Noise and Vibration

Anticipated construction noise and vibration impacts are addressed in the Noise and Vibration Impact Assessment. EPA noise guidelines adopt different strategies for noise control depending on predicted noise level:

- For "Noise affected level", the proponent should take reasonable/feasible work practices to reduce noise. This level is defined as exceeding ambient levels by more than 10dB(A)$L_{eq(15min)}$.
- For "Highly affected noise level", noise controls such as respite periods should be considered. This level is defined as exceeding 75dB(A)$L_{eq(15min)}$ at nearby residences.

The Noise and Vibration Impact Assessment provides a comprehensive assessment of expected construction activities (e.g. jackhammer, piling rigs) and their respective noise levels. In summary, it was found that a number of activities would result in intermittent exceedances of the "Noise affected level" but remain below the "Highly affected noise level". Exceedances of the "Highly affected noise level" would only occur when working close to the northern and southern boundaries of the site, for excavator with rock-breaking attachment and jackhammer works.

The Noise and Vibration Impact Assessment confirms that following the implementation of the recommendations and mitigation measures outlined in Sections 8 – 9 of the report, construction noise and vibration impacts at the site are acceptable and can be suitably managed to avoid unreasonable impacts on surrounding residential receivers. This includes compliance with the relevant guidelines, including the *Noise Policy for Industry 2017*, *NSW EPA Interim Construction Noise Guideline*, and *AS 2436-1981 "Guide to Noise and Vibration Control on Construction, Demolition and Maintenance Sites*".

7.11 Utilities and Services

A Services Infrastructure Report has been prepared for the proposal by JHA at **Appendix AA**. The report identifies existing utilities infrastructure on the site, and the proposed arrangements to service the health campus with regards to sewage, water supply, gas, and electrical infrastructure as it is progressively redeveloped.

The proposal is expected to generate an:

- Average daily sewage discharge of 36.3kL (hospital and respite building) and 19.0kL (seniors housing);
- Average daily potable water demand of 42.2kL (hospital), 23.85kL (seniors housing), 2.71kL (respite building) and 2.78kL (rainwater top-up);
- Average daily electrical demand of 2,993.04 Amps per phase, including 1,922.8 Amps for the hospital, 993.18 Amps for the seniors housing, and 77.06 Amps for the respite building.

Pallister House is not counted in overall site demand as it is currently fed from its own supply. However, opportunities for combining this supply with that of the new buildings will be explored at construction certificate stage.

The statement confirms that the project team will continue to consult with the relevant utilities authorities (Sydney Water; Jemena; Ausgrid) to ensure that adequate services infrastructure will be provided to the site at the construction certificate stage, as is best practice.

7.12 Stormwater Impact

A Stormwater Management Report has been prepared by Van Der Meer and is appended at **Appendix BB**. The report confirms proposed stormwater management measures to be incorporated into the proposal, which includes the following:

- A pit and pipe network to collect minor storm runoff from areas;
- 2x 70kL rainwater tanks with stormwater treatment system to support sustainability outcomes;
- Overland flow paths to carry flows from major storm events through the site in a safe manner;
- Proposed point of discharge are to the:
  - existing council stormwater pipe for the western catchment area; and
  - kerb outlet on St Vincent Road on the for the eastern catchment area.

On-Site Detention (OSD) tanks are not required for the proposed development, as the site is within an OSD exclusion zone as nominated under the Lane Cove Council DCP. Council correspondence confirming this is attached to the Stormwater Management Report. MUSIC modelling within the report confirms that the proposed stormwater treatment measures achieves and exceeds Council's targets for a full range of pollutants, as follows (**Table 19**):

Table 19 MUSIC modelling results

Requirement	Council target	Proposed development
Reduction – Total Suspended Solids (TSS)	85%	89.4%
Reduction – Total Phosphorus (TP)	60%	66.3%
Reduction – Total Nitrogen (TN)	45%	46.4%
Reduction – Gross Pollutants	90%	100%

Therefore, the report demonstrates that the proposed development is supportable on stormwater and water quality grounds.

Civil Engineering Plans, including an Erosion and Sediment Control Plan, have been attached to the Stormwater Management Report, detailing drainage layout, and erosion/stormwater control measures to be in place during the construction phase of the proposal.

7.13 Flood Impact

A Flood Assessment of the proposed development has been prepared by Solutions Water Modelling at **Appendix CC**. The report confirms that the proposal will not generate, and will not be adversely affected by, significant flooding impacts. The report concludes that:

- In a 1% AEP flood event, runoff within the site is generally limited to low hazard (H1) shallow sheet flow with depths typically less than 0.15m. The greatest flood risk exists at the north western corner, where runoff enters from River Road in rare events. Other than this area, flood risk within the site is generated by direct rainfall only and can be managed using suitable stormwater drainage design.
- The finished floor levels of the proposed development will be at or above the PMF level adjacent to each entry, meaning that occupants can safely shelter in place during a flood event with the support of a Flood Emergency Response Plan to be prepared prior to occupation.
- The proposed development does not adversely affect flood behaviour outside the site. Importantly, the proposed landscaping bunding along the southern boundary reduces flood risk to neighbouring properties to the south, which had previously been subject to shallow overland flow (less than 0.15 m deep) but now are no longer flooded by 1% AEP events.

The Flood Assessment summarises that the proposal meets the requirements of the Lane Cove LEP 2009 and DCP and is supportable from flood planning grounds.

7.14 Accessibility

An Accessibility Report has been prepared by ABE Consulting and is appended to this report at **Appendix DD**. The report provides an assessment of the development with regards to the relevant disability access requirements of the *Disability (Access to Premises – Buildings) Standards 2010*, 'deemed-to-satisfy' requirements of the Building Code of Australia, relevant Australian Standards, as well as *State Environmental Planning Policy (Housing for Seniors or People with a Disability) 2004* (SEPP Seniors).

The report confirms that the development is generally capable of compliance with the relevant requirements. Further work will be required during design development to ensure appropriate outcomes are achieved. This will be undertaken at the construction certificate stage, as consistent with industry best practice. As noted above, the seniors housing buildings have been built specifically to Class 9C standards to ensure that a higher standard of accessibility will be provided to future building residents compared to a typical residential flat building, and to ensure flexibility of care services within the seniors housing buildings.

7.15 Waste Management

A Waste Management Plan (WMP) has been prepared by Waste Audit at **Appendix EE** covering the demolition, construction, and operational phases of the proposal.

7.15.1 Demolition and Construction Waste

The WMP outlines principles to be implemented to minimise waste generation during demolition and construction. An *avoid > reduce > reuse > recycle > dispose* waste hierarchy will be adopted to minimise waste to landfill. The proposal is expected to generate the following quantities of waste during demolition and construction (**Table 20**):

Table 20 Expected waste generation rates – demolition and construction

Material	Estimated m^3	Treatment
Demolition phase		
Excavated soil and rock	13,600	Reuse/recycle onsite and offsite
Bricks	1,000	Reuse/recycle onsite and offsite
Trees and vegetation	200	Reuse/recycle onsite and offsite
Roof tiles	100	Reuse/recycle offsite
Bitumen	100	Reuse/recycle offsite
Concrete	60	Reuse/recycle onsite and offsite
Metals	60	Reuse/recycle offsite
Floor coverings	60	Reuse/recycle offsite; non-recyclable material to landfill
Structural and fencing timber	50	Reuse/recycle onsite and offsite; non-recyclable material to landfill
Glass	40	Reuse/recycle offsite
Hazardous materials	30	Disposal to licensed landfill
Ceiling tiles	20	Reuse/recycle offsite
Lighting fixtures, lamps	30	Reuse/recycle offsite
Wiring, electrical fittings	30	Reuse/recycle offsite
Plumbing, fixtures	30	Reuse/recycle offsite
Plasterboard	20	Reuse/recycle offsite; non-recyclable material to landfill
Bathroom and kitchen tiles	10	Reuse/recycle offsite
General waste (materials unsuitable for reuse/recycling)	60	Disposal to landfill
Total	**15,540m^3**	**99% potentially diverted from landfill**
Construction phase		
Soft plastics	85	Reuse/recycle onsite and offsite
Used pallets	83	Reuse/recycle onsite and offsite
Paper/cardboard recycling	66	Reuse/recycle onsite and offsite
Metal offcuts, wiring, etc.	58	Reuse/recycle offsite
Plasterboard offcuts	52	Reuse/recycle offsite; non-recyclable material to landfill
Floor coverings	50	Reuse/recycle offsite; non-recyclable material to landfill

Recyclable glass, metal, and plastic containers	41	Reuse/recycle offsite
Timber offcuts	39	Reuse/recycle offsite; non-recyclable material to landfill
Concrete (excess)	33	Reuse/recycle offsite
Glass (excess)	28	Reuse/recycle offsite
General waste	55	Disposal to landfill
Total	**589m³**	**90.2% potentially diverted from landfill**

7.15.2 Operational Waste

The WMP also discusses how waste is to be managed during the operational phase of the proposal, including processes for the storage, management and disposal of clinic waste, general waste, cardboard and paper, secure documents, commingled recycling, organic recycling, polystyrene recycling, and specialised recycling such as e-waste.

As confirmed within the WMP, all waste collections are to occur from the loading dock beneath the hospital building. Waste will be collected from across the site and moved to the central waste and recycling storage facilities located within the loading dock in accordance with Appendix 7 of the WMP. These central storage facilities are to be locked and accessed by authorised staff only. Waste collection will be undertaken by a private contractor.

The WMP also quantifies expected waste generation rates of the proposed development. These rates are still tentative, with waste collection and bin allocation potentially requiring further amendment once the development enters operation. The tentative operational generation rates are anticipated to be as follows (**Table 21**):

Table 21 Expected waste generation rates – operation

Material stream	Daily litres	Bin size (L)	No.	Collection frequency	m² per bin	Total area m²
Hospital component						
General waste	10,799	1100	12	7 per week	1.33	14.63
Cardboard and paper recycling	2,505	1100	4	3 per week	1.33	5.32
Confidential paper recycling	86	240	2	1 per week	0.43	0.85
Commingled recycling	492	240	8	3 per week	0.43	3.41
Food organics recycling	474	120	5	7 per week	0.26	1.30
Cooking oil recycling	20	500	1	1 per month	0.50	0.50
Clinical waste	123	240	6	1 per month	0.43	2.56
Pharmaceutical waste	8	120	1	1 per quarter	0.26	0.26
Cytotoxic waste	17	120	2	1 per month	0.26	0.52
Sanitary waste	574	28	10	1 per week	0.10	1.00
Sharps waste	<5	5	To be determined			
E-waste recycling	Irregular	240	1	Irregular	0.43	0.43
Lamp recycling	Irregular	240	1	Irregular	0.43	0.43
Bin wash area	N/A					4
Bulky goods area	N/A					8

Circulation space (+30% of bin footprint)	N/A					10.56
Total	**15,596 L**					**55.09m²**
Seniors housing component						
General waste	11,089	1100	11	7 per week	1.33	14.63
Cardboard and paper recycling	2,573	1100	4	3 per week	1.33	5.32
Confidential paper recycling	88	240	2	1 per week	0.43	0.85
Commingled recycling	505	240	8	3 per week	0.43	3.41
Food organics recycling	20	500	5	7 per week	0.26	1.82
Clinical waste	126	240	6	1 per month	0.43	2.56
Pharmaceutical waste	8	120	1	1 per quarter	0.26	0.26
Sanitary waste	589	28	10	1 per week	0.10	1.00
Circulation space (+30% of bin footprint)	N/A					9.16
Total	**14,999 L**					**39.69m²**

7.16 Crime Prevention Through Environmental Design

A Crime Prevention Through Environmental Design (CPTED) Assessment has been prepared by Ethos Urban at **Appendix FF**. The CPTED Assessment assesses the potential crime risk of the proposal, with regards to the four crime risk principles of surveillance, territorial reinforcement, activity and space management, and access control.

In summary, the report finds the layout of the proposal to promote clear sight lines, natural surveillance, ease of access and wayfinding. This includes the layout of all access ways and walkways which promotes sight lines for both ground level pedestrians and from upper floor balconies of both the seniors housing buildings and the hospital building. This layout avoids secluded areas and dead ends, which improves the safety of the site and mitigates the opportunities for crime.

The Lane Cove LGA is identified as having a low occurrence of crime relative to NSW averages. The CPTED Assessment founds the crime risk rating of the existing built form to be 'low'. The proposed redevelopment of the site continues to have a 'low' crime risk rating. Nevertheless, the CPTED Assessment provides a number of recommendations to minimise crime risk at the site, such as through implementation of CCTV surveillance, wayfinding signage, access control and ongoing maintenance of buildings. These technical recommendations will be incorporated at the construction certificate and operational stages of the development.

7.17 Dangerous Goods Management

A Preliminary Dangerous Goods Screening Report has been prepared by JHA and is attached to this EIS at **Appendix GG**. The report provides a preliminary risk screening of all dangerous goods and hazardous materials associated with the development, including those to be stored on-site.

The report confirms that storage and use of dangerous goods can be appropriately managed at the site. The existing hospital contains Dangerous Goods (DG) of the following classes:

- Class 3 Flammable Liquids;
- Class 4.1 Flammable Solids;
- Class 5.1 Oxidising Agents;
- Class 6 Toxic Substances;
- Class 8 Corrosives; and
- Class 9 Miscellaneous Dangerous Goods.

The existing on-site chemicals will be retained for re-use in the redeveloped hospital. A temporary means of safe storage will be provided as the site is redeveloped, with a suitable location to be confirmed by the appointed contractor prior to commencement of works. Within the hospital, it is anticipated that a central DG storage location is to be established, with smaller quantities to be housed within local cabinets.

The preliminary report will be expanded into a comprehensive Dangerous Goods Report for the project prior to the commencement of works, as consistent with industry best practice.

7.18 Bushfire Risk

A Bushfire Protection Assessment has been prepared by Travers Bushfire & Ecology and is attached to this report at **Appendix HH**. The Bushfire Protection Assessment confirms that the proposal is capable of compliance with the relevant bushfire requirements, subject to the recommendation of the following bushfire measures:

- Provision of Asset Protection Zones (APZs) in accordance with the minimum setbacks calculated by the use of an alternative solution to determine minimum APZ and bushfire attack level (BAL) setbacks for the south western aspect of the development.
- Provision of access in accordance with the acceptable solutions outlined in *Planning for Bushfire Protection 2019* (PBP 2019);
- Water, electricity, and gas supply in compliance with the acceptable solutions outlined in PBP 2019;
- Future construction in compliance with the appropriate construction sections of AS3959-2018, and PBP 2019; and
- Emergency management and evacuation in compliance with PBP 2019 and NSW RFS guidelines for the preparation of an emergency evacuation plan.

The proponent will continue to work with the bushfire consultant at the construction certificate stage to ensure that the detailed technical design of the buildings incorporates the recommendations provided by the Bushfire Protection Assessment. The proposal is therefore supportable from a bushfire perspective.

7.19 Lighting Impact

A Lighting Statement of the proposal has been prepared by JHA and is attached at **Appendix II**. The statement confirms that the proposed lighting design will comply with Australian/New Zealand Standard 4282:2019 – Outdoor Lighting Obtrusive Effects. Detailed lighting design will occur at the construction certificate stage.

7.20 Ecologically Sustainable Development

An Ecologically Sustainable Development (ESD) Report for the proposal has been prepared by JHA and is attached to this EIS at **Appendix JJ**. The report details the relevant ESD objectives and commitments incorporated into the design of the proposed development to achieve a high level of energy efficiency and sustainability.

In summary, the project will commit to the following key ESD outcomes and initiative:

- Building design enabling sufficient exposure to daylight;
- Appropriate construction and glazing selection;
- Fabric and glazing 10% better than National Construction Code (NCC) compliance level;
- Energy-efficient air-conditioning systems with control strategy and thermal comfort tuning;
- Energy-efficient lighting systems;
- High Water Efficiency Labelling and Standards (WELS) rated water fixtures;
- Provision for electric vehicle parking;
- Capture and reuse of rainwater; and
- On-site photovoltaic system (expected to be close to 200kW).

Although the proposal is not pursuing a formal Green Star rating (as consistent with standard industry practice for healthcare buildings, where operational efficiency and safety must come first), the project is targeting a 4 star equivalent Green Star rating across the entire Greenwich health campus. The hospital building will target a minimum of 55 points, and the seniors housing buildings a minimum of 60 points (exceeding the >45 points required for a 4 star equivalent rating).

The ESD Report confirms that the proposal has considered the CSIRO projected impacts of climate change, as required under the SSD 8699 FEARs. A detailed Climate Adaption Plan has been prepared at Appendix B of the ESD Report.

Additionally, Section J Statements of Compliance for the development have been provided at Appendix C of the ESD Report in accordance with the NCC. It is noted that the issued SEARs request that a BASIX certificate be provided for the seniors housing buildings. However, as these buildings are to be built to Class 9C (residential care building) standards, instead of a Class 2 (apartment building) standards, Section J, not BASIX, is the relevant sustainably benchmark for these buildings.

7.20.1 Ecologically Sustainable Development Principles

The ESD Report (**Appendix JJ**) also addresses at chapter 3 the project's consistency with the principles of ESD as defined in clause 193 of Division 5 of the *Environmental Planning and Assessment Regulation 2021*, as follows:

- The precautionary principle;
- Inter-generational equity;
- Conservation of biological diversity and ecological integrity; and
- Improved valuation, pricing, and incentive mechanisms.

The ESD Report confirms that the proposal exhibits consistency with these principles. A summary of the proposed development's consistency with the principles is provided below.

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

This EIS has not identified any serious threat of irreversible damage to the environment and therefore the precautionary principle is not relevant to the proposal. The proposal will deliver a high standard of ESD outcomes and initiatives at the site, as described above, and will minimise environmental impacts in areas of energy, water, and materials efficiency.

Inter-generational equity
Inter-generational equity is concerned with ensuring that the health, diversity, and productivity of the environment are maintained or enhanced for the benefit of future generations.

The proposed development will not cause any significant impact on the health, diversity, and productivity of the environment and will provide a community benefit in the form of increased and improved services for site users, employee capacity, and upgraded living, caring, and working facilities.

By 2031, the number of people aged 65 or older in northern Sydney is expected to increase to 18% of the population and the need for specialist dementia care is estimated to double in NSW by 2051. The proposed development responds to these projections, while refurbishing an existing dated 1960s facility, and ensures that the Greenwich community will have access to high standards of care for both current and future generations.

Conservation of biological diversity and ecological integrity
A Biodiversity Development Assessment Report (BDAR) has been prepared by Travers Bushfire & Ecology and is attached to this EIS at **Appendix I**. The BDAR ensures that impacts of the proposal on the surrounding biological environment are appropriately considered and minimised. Refer to **Sections 5.3** and **5.4** above.

The proposal includes practical strategies to increase the ecological value of the site:

- 86 new trees will be planted, representing an increase of 34 site-appropriate trees after discounting the 33 trees that are being removed due to external factors (e.g., due to being invasive, dying, or overmature). Refer to **Section 4.2**.
- The development will fully restore 600m^2 of coastal enriched sandstone forest, manage 1,500m^2 of currently unmanaged/remnant coastal enriched sandstone forest, and manage 300m^2 of coastal sandstone gallery rainforest, as discussed in **Section 4.6** and the Vegetation Management Plan at **Appendix H**.

Improved valuation, pricing, and incentive mechanisms
The principles of improved valuation and pricing of environmental resources requires consideration of all environmental resources which may be affected by a proposal, including air, water, land and living things. These resources have all been addressed within this EIS in accordance with the issued SEARs.

An Environmental Risk Assessment (**Section 8**) has been prepared, and mitigation measures (**Section 9**) have been implemented to ensure the responsible use of resources, and that no environmental resources are adversely affected by the proposal.

Construction materials will be selected based on the outcomes of relative cost-benefit analysis with decisions being made based on the whole of life costs rather than capital expenditure only. Certified recycled and reused materials, as well as materials with low embodied energy, will be preferred over others.

7.21 Structural Integrity

A Structural Statement for the proposal has been prepared by Van Der Meer at **Appendix KK**. The report sets out the structural performance requirements of the proposed built form and confirms that the built form is capable of compliance with the relevant requirements, including that of the Building Code of Australia (BCA).

7.22 Social Impact

A Social Impact Assessment (SIA) of the proposal has been prepared by Ethos Urban and is attached at **Appendix LL**. The SIA analyses the potential social impacts that may arise from the development, having regard to social trends and issues affecting the local and broader surrounding areas.

In summary, the SIA concludes that the overall level of the long-term social impact of the proposed development is very high and positive. The SIA finds that the development will support various community priorities identified in local strategic documents, such as improved community health, improved landscaping, amenity and streetscape improvements, and improved access to health services.

The development was also found to have the potential to support community accessibility and inclusiveness with the inclusion of various landscaped activity areas, to facilitate social interactions and connections. No significant negative impacts were identified with regards to the proposal. Minor and/or temporary negative impacts were quantified, including potential temporary impacts during construction works, and it was found that these impacts would be appropriately mitigated through the implementation of a robust Construction Management Plan and ongoing consultation with the local community and relevant stakeholders.

7.23 Site Suitability and Public Interest

The proposed works are suitable for the site. The suitability of the proposed health campus and land uses were established under the SSD 8699 Concept Approval, which the proposed development is consistent with. The proposal will deliver key healthcare outcomes for the Greenwich community in the short, medium and long term.

The proposal is also in the public interest in that it will:

- Redevelop an ageing 1960s facility which is no longer fit for purpose into an integrated, contemporary healthcare campus with specialised care services for seniors and people with complex health needs;
- Provide 130 hospital and residential aged care beds to respond to the area's ageing population and meeting the growing community demand in the Northern Sydney Local Health District;
- Provide 89 serviced seniors housing units to enable elderly members of the community to 'age in place', with access to hospital-quality care while maintaining a degree of independence;
- Provide an overnight respite care facility for seniors whose day-to-day carers may need a break or rest; and
- Deliver increased tree canopy cover at the site, with a built form that embodies the principles of Ecologically Sustainable Development and exhibits Design Excellence.

7.24 Cost of Works

The Quantity Surveyor's Report prepared by WT Partnership at **Appendix MM** confirms the project's Capital Investment Value (CIV) to be $191,531,697 excluding GST, or $210,684,867 including GST.

8.0 Environmental Risk Assessment

The Environmental Risk Assessment (ERA) establishes a residual risk by reviewing the significance of environmental impacts and the ability to manage those impacts. The ERA for the SSD 13619238 has been adapted from Australian Standard AS4369.1999 Risk Management and Environmental Risk Tools.

The ERA addresses the following significant risk issues:

- the adequacy of baseline data;
- the potential cumulative impacts arising from other developments in the vicinity of the site; and
- measures to avoid, minimise, and/or offset the predicted impacts where necessary involving the preparation of detailed contingency plans for managing any significant risk to the development.

Figure 39 below indicates the significance of environmental impacts and assigns a value between 1 and 5 based on:

- the receiving environment;
- the level of understanding of the type and extent of impacts; and
- the likely community response to the environmental consequence of the project.

The manageability of environmental impact is assigned a value between 1 and 5 based on:

- the complexity of mitigation measures;
- the known level of performance of the safeguards proposed; and
- the opportunity for adaptive management. The sum of the values assigned provides an indicative ranking of potential residual impacts after the mitigation measures are implemented.

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)

Figure 39 **Risk assessment matrix**

Source: Ethos Urban

An Environmental Risk Assessment of the project based on the above methodology is provided in **Table 22**.

Table 22 Environmental risk assessment

Item	Phase	Potential environmental impact	Comments	Impact significance	Impact manageability	Residual impact
Built form and visual impact	Operation	• Visual impact of the development when viewed from the public domain. • Visual impact of the development from private properties in the area. • Potential for overshadowing impacts.	• The proposed built form is consistent with the concept building envelopes established under SSD 8699, as proposed to be modified under SSD 8699 MOD 1. • The proposed bulk and scale are consistent with the density envisaged for the site in the Independent Planning Commission (IPC)'s planning approval for SSD 8699 on 10 November 2020. • The proposed landscaping and vegetative planting help maintain the character of the area and mitigates visual impacts. • Visual impacts and overshadowing analysis (**Sections 7.1** and **7.2**) has demonstrated that the project will not generate adverse visual or overshadowing impacts.	3	1	4 *Low/Medium*
Transport, access and parking	Construction Operation	• Increased traffic on the surrounding road network during construction. • Increased traffic on the surrounding road network during operation. • Impacts of increased traffic on intersection and road network performance.	• Traffic analysis at **Section 7.3** confirms vehicular trips to be generated by the proposal. • The analysis demonstrates that the proposal will not adversely affect the surrounding road network and intersection performance during operation and construction. • Allocation of parking at the site accounts for its strategic context and the nature of the site's future users (including the elderly and frail) but also the site's accessibility to public transport. • Usage of active and public transportation is encouraged through adoption of a Green Travel Plan (**Section 7.3.4**). • Co-location of seniors housing and hospital uses under HammondCare's 'continuum of care' model reduces the need for residents to travel for healthcare. • During construction, efforts will be made to minimise heavy vehicle movements during peak hours.	3	2	5 *Low/Medium*
Aboriginal cultural heritage impacts	Construction Operation	• Potential for Aboriginal archaeological	• **Appendix O** confirms no Aboriginal objects have been recorded within the site, and the site is not subject to any Aboriginal Heritage Impact Permit(s).	4	2	6 *Medium*

		objects to be found during construction. • Consultation with the Aboriginal community, and opportunities for co-design.	• An archaeological program and Aboriginal Cultural Heritage Management Plan will be implemented; refer to **Section 7.4.3** and **Appendix O**. • Consultation continues to occur with the relevant Registered Aboriginal Parties (RAPs), following on from consultation under the SSD 8699 Concept Approval. • Designing with Country opportunities have been implemented in the project design.			
Non-Aboriginal archaeological impacts	Construction	• Potential for archaeological objects to be found during construction.	• As discussed in **Appendix M** and **Section 7.4.1**, there is potential for archaeological relics and/or deposits to be contained within the project area. • An Archaeological Research Design & Excavation Methodology (ARDEM) for the project has been prepared and attached to **Appendix M**. • If items are found works will cease and an archaeologist notified to assess the finds.	4	2	6 *Medium*
Impacts on Pallister House	Construction Operation	• Impacts on the heritage significance and curtilage of Pallister House.	• Pallister House is to be retained under the proposal and will continue to host research and administrative functions. • The Schedule of Conservation Works (**Appendix F**; **Section 4.3.5**) ensures that Pallister House will be conserved, and its heritage value retained. • The Heritage Interpretation Strategy (**Appendix G**) will enable residents and patients to have a heightened sense of appreciation for Pallister House. • Views to Pallister House from the site's primary road frontage (River Road) are improved under the proposal.	3	2	5 *Low/Medium*
Land remediation	Construction Operation	• Potential health and safety impacts if the land is not remediated, or improperly remediated.	• Remediation should occur in line with the provided Additional Site Investigation (**Appendix T**); Remediation Action Plan (**Appendix U**); Hazardous Building Materials Survey (**Appendix V**); Additional Geotechnical Investigation (**Appendix W**); and Salinity Management Plan (**Appendix Y**). • The above documentation has demonstrated that the site can be suitably remediated to accommodate the proposed uses.	4	1	5 *Low/Medium*

Noise and vibration impacts	Construction Operation	• Noise and vibration impact during construction. • Noise and vibration impact during operation.	• The Noise and Vibration Impact Assessment (**Appendix Z**) confirms noise and vibration impacts can be suitably managed. • Noise generated by increase in traffic levels during construction and operation have been found to not be adverse. • Acoustic treatments and mechanical ventilation will be provided to habitable spaces facing River Road; see **Section 7.10.2**. • Ensure future building plant(s) chosen at detailed design stage will not exceed the relevant acoustic criteria. • Construction activities are to minimise noise and vibration impacts in line with **Appendix Z**.	2	3	5 *Low/Medium*
Wind impact	Operation	• Adverse wind impacts leading to poor comfort and/or safety.	• The Wind Study (**Appendix Q**) confirms that the proposed development generally fulfills the wind safety and comfort criterion. • Recommendations provided by the Wind Study have been implemented.	2	1	3 *Low*
Stormwater and flooding	Construction Operation	• Potential for adverse stormwater runoff onto adjacent properties • Potential for adverse flooding impacts	• The Flood Assessment (**Appendix CC**) confirms the site is not adversely impacted by flooding, and the proposal meets flooding requirements • The Stormwater Management Report (**Appendix BB**) confirms that the proposal meets stormwater and water quality requirements	2	1	3 *Low*
Crime risk and safety	Operation	• Potential for crime and unsafe behaviour.	• The CPTED Assessment (**Appendix FF**) finds the crime risk rating of the proposal to be low. • The Lane Cove LGA is identified as having a low occurrence of crime relative to NSW averages.	2	1	3 *Low*
Social impact	Construction Operation	• Potential for negative social impacts on the local community	• The Social Impact Assessment (**Appendix LL**) finds the social impact of the proposal to be very high and positive. • No significant negative social impacts have been identified.	1	1	2 *Low*

9.0 Mitigation Measures

The recommended measures required to mitigate the impacts associated with the proposed works sought for approval are detailed below in **Table 23**. This section compliments the discussion of environmental impacts outlined in **Section 7** and discussed in the appended consultants' reports, and the Environmental Risk Assessment at **Section 8**.

Table 23 Mitigation measures

Mitigation Measures
Detailed Design • All proposed buildings and structures are to be designed and constructed in accordance with the requirements of the *National Construction Code 2019* and relevant Australian Standards. • All proposed buildings and structures are to be designed and constructed in accordance with the relevant requirements of the Building Code of Australia (BCA). • Where the design does not meet the prescriptive deemed-to-satisfy (DtS) provisions of the BCA as identified within the Structural Statement prepared by Van Der Meer dated 14 April 2022 (**Appendix KK**) and Accessibility Report prepared by ABE Consulting dated 6 May 2022 (**Appendix DD**), appropriate performance solutions should be documented and provided at construction certificate stage in accordance with the BCA.
Construction Management • A detailed Site Environmental Management Plan, consistent with ISO 14001:2015, the *Protection of Environment Operations Act 1997* and the *Protection of Environment Operations (Noise Control) Regulation 2008*, is to be submitted to the Principal Certifying Authority prior to the commencement of works. The detailed Site Environmental Management Plan should not be inconsistent with the submitted Construction Management Plan prepared by Roberts Co dated 9 June 2022 (**Appendix E**). • A detailed Construction, Pedestrian and Traffic Management Plan (CPTMP) is to be submitted to the Principal Certifying Authority prior to the commencement of works. The detailed CPTMP should not be inconsistent the preliminary CTMP prepared by Transport and Traffic Planning Associates dated May 2022 (**Appendix K**). • Traffic and pedestrian impacts during construction are to be managed in accordance with the detailed CPTMP.
Heritage • Conservation work to Pallister House is to be undertaken in accordance with the Schedule of Conservation Works prepared by Built Environmental Heritage Group dated 6 May 2022 (**Appendix F**), including implementation of the following works, as required: - Sandstone repairs; - Ashlar render repairs; - Repairs to original timber floorboards, both internal and external, as appropriate; - Stained glass and glass window repairs; - Tile repairs; and - Marble repairs. • A final Heritage Interpretation Strategy (HIS) is to be submitted to the PCA prior to the issuance of the relevant occupation certificate. The HIS is to detail the heritage interpretation initiatives to be adopted for Pallister House, and should not be inconsistent with the preliminary HIS prepared by Cultural Heritage Connections and Built Environmental Heritage Group dated 6 May 2022 (**Appendix G**), and should consider the following interpretation strategies identified within the preliminary HIS: - Interpretive panels; - Art displays; - Interactive art displays; - Paving inlays; - In situ conservation of archaeological remains; - Adaptive re-use of architectural elements; - QR codes; - Website and events; - Conservation of the heritage item; and - Vegetative planting.

- A detailed Aboriginal Cultural Heritage Management Plan (ACHMP) is to be submitted prior to commencement of works. The ACHMP is to be informed by sub-surface testing to be undertaken at the site. The ACHMP should not be inconsistent with the Concept Plan (SSD 8699) ACHAR dated December 2018, and the Updated Aboriginal Archaeological Impact Assessment and Consultation Report prepared by Cultural Heritage Connections dated May 2022 (**Appendix O**).

Archaeology

- Implement the recommendations of the Archaeology Updated Impact Assessment prepared by Cultural Heritage Connections dated May 2022 (**Appendix M**), including the following requirements:
  - The Archaeological Research Design & Excavation Methodology (ARDEM) provided within the Archaeology Updated Impact Assessment is to be reviewed by Heritage NSW and submitted to the PCA prior to commencement of works.
  - All excavation works at the site are to be undertaken in accordance with the ARDEM.
  - As per Condition B14 of the SSD 8699 consent, results of the archaeological works should be documented in an excavation report that includes opportunities for *in situ* conservation within 12 months of completion of the archaeological excavation. It should be provided to the Planning Secretary, the Heritage Council of NSW and to the local Council's local studies unit.
  - Consideration should be given within the report to conservation of any significant artefacts and protection in perpetuity by the landowner.
  - Relevant information should be included in the interpretation plan prepared for the project area.
  - Information relating to potential heritage and a procedure for dealing with unexpected finds should be included within site inductions for all contractors involved in ground disturbing works. Heritage provisions and/or protocols should be included in the construction management plan for the development.
- In the event that unexpected historical archaeological objects or deposits are uncovered, works should cease and a qualified Archaeologist contacted to assess the significance of the material and recommend whether further investigation is required.
- If the finds are found to be Aboriginal objects, the Office of Environment and Heritage must be notified under section 89A of the *National Parks and Wildlife Act 1974*.
- In the event that potential human remains are uncovered, work must cease immediately, and the NSW Police Force and Coroner's Office notified.

Contamination, Remediation, and Geotechnical

- Remediation of the site is to occur in accordance with the detailed remediation methodology as outlined within the Additional Site Investigation prepared by JK Environments dated 5 May 2022 (**Appendix T**) and Remediation Action Plan prepared by JK Environments dated 5 May 2022 (**Appendix U**), including:
  - A Remedial Works Plan is to be prepared detailing additional investigations and management of Hazardous Ground Gas (HGG) at the site, prior to issuance of the relevant construction certificate.
  - A site validation report is to be prepared on completion of remediation activities and submitted to the consent authority to demonstrate that the site has been made suitable prior to issuance of any occupation certificate.
- Demolition of existing buildings is to incorporate the findings, protocols and recommendations as contained within the Hazardous Building Materials Survey by JK Environments dated 5 May 2022(**Appendix V**), including that of the following:
  - An Asbestos Management Plan and Asbestos Removal Control Plan is to be prepared for works in areas containing asbestos. Asbestos is to be removed by a licensed Class A Asbestos Removalist.
  - All synthetic mineral fibres and lead containing paint films is to be removed by an experienced hazardous materials removals contractor in accordance with the relevant regulations and codes.
  - Removal of light fittings potentially housing PCB metal capacitors is to occur in accordance with the Environmental Protection & Heritage Council's *Polychlorinated Biphenyls Management Plan*.
  - Areas of the existing building not covered by the Hazardous Building Materials Survey should be inspected prior to the commencement of works.
- Construction of the proposed development should not be inconsistent with the recommendations and construction strategies as identified within the Additional Geotechnical Investigation prepared by JK Geotechnics dated 10 May 2022 (**Appendix W**).
- Construction of the proposed development should not be inconsistent with the recommendations of the Salinity Investigation prepared by JK Environments dated 8 April 2022 (**Appendix Y**), including as follows:
  - A detailed Salinity Management Plan (SMP) is to be prepared prior to the issuance of the relevant construction certificate.
  - The detailed SMP is to be reviewed by the project team (civil, construction and landscaping) and incorporated into the project design, as required.

Wind Impact

- Buildings and structures at the site are to ensure that a suitable level of wind pedestrian comfort is provided to all communal and public open spaces, building entry points, and balconies on the site.

- Ensure that the detailed design of buildings and structures at the site continues to implement recommendations provided within the Wind Study prepared by VIPAC dated 24 March 2022 (**Appendix Q**), being that of the following:
  - Provision of 1.5m high solid wind screens at locations specified in Figure 29 of the Wind Study to ameliorate wind conditions.
  - Provision of 1.5m-1.8m planter at the south western corner of level 5 of the hospital building as specified in Figure 30 of the Wind Study.

Noise and Vibration

- Future detailed design and selection of mechanical plant and equipment for the proposal should be made with relevance to the recommendations for mechanical plant detailed in Section 5.3.3 of the Noise and Vibration Impact Assessment prepared by Acoustic Logic dated 7 June 2022 (**Appendix Z**).
- Acoustic treatments to future buildings shall be implemented in accordance with the recommendations of the Noise and Vibration Impact Assessment, including as follows:
  - Single glazing to all façade glazed elements. Glazing will vary from Rw 27 to 35 acoustic performance, depending on size and location. All elements will need to be installed with full perimeter rubber acoustic seals.
  - Standard lightweight façade elements will include steel studs, top hats, acoustic insulation and plasterboard or Fibre Cement (FC) sheet lightings. Extent of insulation and internal sheet linings are to be determined by an acoustic consultant.
  - All opening or penetrations in ceiling must be acoustically sealed. If lightweight elements are proposed, these specific cases will need to be reviewed to address any necessary acoustic treatment.
  - Provision of mechanical ventilation to the units within the northern serviced seniors housing building facing River Road, in accordance with AS 1668.2S.
  - Provision of mechanical ventilation to spaces within the hospital building facing River Road.
- Construction noise and vibration impacts shall be managed in accordance with the recommendations and mitigation measures outlined within the Noise and Vibration Impact Assessment, including as follows:
  - Trucks and bobcats to use non-tonal reversing beacon (subject to OH&S requirements).
  - Avoid careless dropping of construction materials into empty trucks.
  - Trucks, trailers, and concrete trucks (if feasible) should turn off their engines during idling unless ignition needs to remain on during concrete pumping.
  - In the event of a noise complaint, the procedures outlined in the Noise and Vibration Impact Assessment should be adopted.
  - A detailed Noise Management Plan is to be developed by the main contractor that describes in detail the construction phases, programme, processes and equipment used, noise impact assessment and proposed mitigation and management.
  - Consideration of alternative construction techniques for high noise generating equipment, where feasible.
  - At site induction, a copy of the detailed Noise Management Plan is to be available to contractors. The location of the Noise Management Plan should be advised in any site induction. Site induction should also detail the site contact is to be notified in the event of a noise complaint.

Stormwater and Flooding

- Stormwater controls and management measures are to be implemented in accordance with the Stormwater Management Report prepared by Van Der Meer dated 4 May 2022 (**Appendix BB**). The following stormwater control elements identified in the Stormwater Management Report are to be delivered at the site:
  - A pit and pipe network to collect minor storm runoff from areas;
  - 2x 70kL rainwater tanks with stormwater treatment system to support sustainability outcomes;
  - Overland flow paths to carry flows from major storm events through the site in a safe manner;
  - Proposed point of discharge are to be to the:
    - existing council stormwater pipe for the western catchment area; and
    - kerb outlet on St Vincent Road on the for the eastern catchment area.
- Civil works at the site are to be undertaken as consistent with the Civil Engineering Plans and Erosion and Sediment Control Plans attached to the Stormwater Management Report.
- In line with the recommendations of the Flood Assessment prepared by Solutions Water Modelling dated 14 April 2022 (**Appendix CC**), a Flood Emergency Response Plan is to be prepared for the site prior to the issuance of the relevant occupation certificate.

Waste Generation and Management

- Waste management during demolition, construction and operation is to generally be in accordance with the Waste Management Plan prepared by Waste Audit dated 6 May 2022 (**Appendix EE**).

Utilities and Services Infrastructure

- Where necessary, utilities and services infrastructure shall be extended and augmented in accordance the requirements and specifications of the relevant utilities authority, and with reference to the Services Infrastructure Report prepared by JHA dated 24 May 2022 (**Appendix AA**).

Crime Prevention and Site Safety

- Implement the recommendations provided in the Crime Prevention Through Environmental Design (CPTED) Report prepared by Ethos Urban dated 29 April 2022 (**Appendix FF**) at the construction and operational stages of the project, including that of the following:
  - Surveillance: To ensure and maintain opportunities for natural and incidental surveillance through effective lighting, community creation and interaction and environmental maintenance.
  - Lighting and Technical Supervision: All lighting throughout the private and public areas are to meet the minimum Australian Standard AS/NZ 1158 and the implementation of a CCTV network.
  - Territorial Reinforcement: Clearly delineate between public and private space, CCTV signage and wayfinding signage throughout the site.
  - Design Definition and Designation: Appropriate wayfinding signage integrated with the wider site.
  - Activity and Space Management: An active management approach should be adopted for any public spaces on the site, to be implemented following issue of an Occupation Certificate.
  - Environmental Maintenance: Ensure there are mechanisms for the ongoing maintenance of the building including a rapid removal policy for vandalism and removal of graffiti and vegetation maintenance.
  - Access Control: Security access measures including gates/doors and swipe access between private and public spaces and appropriate security for the mailboxes.

Dangerous Goods Management

- A detailed Dangerous Goods Report is to be prepared for the proposed development prior to issuance of the relevant construction certificate. The detailed Report is not to be inconsistent with the Preliminary Dangerous Goods Screening Report prepared by JHA dated 5 May 2022 (**Appendix GG**). The transportation, storage and use of dangerous goods at the site is to be in accordance with the Dangerous Goods Report.

Bushfire

- Implement the findings and the recommendations of the Bushfire Protection Assessment prepared by Travers Bushfire & Ecology dated 6 April 2022 (**Appendix HH**), including that of the following:
  - Asset Protection Zones (APZs) are to be provided to the proposed development as outlined within the Bushfire Protection Assessment.
  - APZs are to be maintained in perpetuity and managed as outlined in Appendix 4 of *Planning for Bush Fire Protection 2019* (PFP 2019) and the NSW RFS document 'Standards for asset protection zones'.
  - Building construction standards or the proposed future buildings located within 100m of forest / woodland vegetation or within 50m of grassland are to be applied in accordance with *AS3959 Construction of buildings in bushfire prone areas* (2018) or NASH Standard and Section 7.5 of PBP 2019.
  - A Bushfire Emergency Management and Evacuation Plan is to be prepared in accordance with with Section 6.8.4 of PBP 2019.
  - Access is to comply with the acceptable solutions outlined in Section 5.3.2 of PBP 2019.
  - Water, electricity and gas supply is to comply with Section 5.3.3 of PBP 2019.
  - Fencing is to comply with Section 7.6 of PBP 2019. All fences in bush fire prone areas should be made of either hardwood or non-combustible material. However, in circumstances where the fence is within 6m of a building or in areas of BAL 29 or greater, they should be made of non-combustible material only.

Lighting

- Installation of external lighting is to comply with *AS/NZS 4282:2019 – Outdoor Lighting Obtrusive Effects*.

10.0 Project Justification and Conclusion

This EIS has been prepared to consider the environmental, social, and economic impacts of the redevelopment of Greenwich Hospital at 95-115 River Road, Greenwich into a new integrated health campus comprising hospital, residential aged care, seniors housing and overnight respite facilities. Specifically, it has assessed the following works:

- Site preparation works, including demolition of the existing hospital building and associated facilities, site remediation, and tree removal;
- Construction of a new hospital facility and integrated healthcare campus comprising of hospital, residential aged care, seniors housing, and overnight respite, across:
  - A new main hospital building up to RL 80.0;
  - Two new seniors housing buildings, northern building up to RL 56.35, and southern building up to RL 60.63;
  - A new respite care building up to RL 56.9;
- Construction of associated site facilities and services, including pedestrian and vehicular access, and basement parking;
- Site landscaping, signage and infrastructure works; and
- Preservation of Pallister House which will continue to host research and administrative functions.

The existing Greenwich Hospital is a dated 1960s facility which is no longer fit for purpose. Its redevelopment into an integrated, contemporary healthcare campus with specialised care services for seniors and people with complex health needs is necessary to meet the growing community demand in Northern Sydney Local Health District (NSLHD). The proposal enables this demographic to continue to live well and maintain independence as they age via access to appropriate support and care, through HammondCare's innovative 'continuum of care' model.

Section 3 of the EIS has demonstrated that the carrying out of the proposed works is consistent with the relevant strategic planning framework and guidelines at the metropolitan, regional, and local level, including consistent with the Greater Sydney Region Plan, North District Plan, and Lane Cove Local Strategic Planning Statement. It was found that the proposed development represents the optimal strategic site outcome compared to the considered design alternatives, and that the proposal is unlikely to generate adverse cumulative impacts in Greenwich.

Section 5 of the EIS has demonstrated that the proposal is commensurate with the relevant statutory planning framework. This includes the objectives of the EP&A Act, SSD requirements under the Planning Systems SEPP, SEPP Seniors, and other applicable SEPPs, as well as the *Lane Cove Local Environmental Plan 2009* and the relevant biodiversity framework as set under the *Biodiversity Conservation Act 2016* and *Environment Protection and Biodiversity Conservation Act 1999*. Importantly, the project was found to be consistent with the Future Environmental Assessment Requirements (FEARs) established under the Greenwich Concept Plan (SSD 8699) consent.

Section 7 of this EIS has comprehensively analysed the environmental impacts of the proposal. This includes with regards to traffic and parking, heritage and archaeology, amenity impacts, contamination and remediation, noise and vibration, flooding and stormwater, vegetation removal and management, and Ecologically Sustainable Development, amongst other environmental issues. A number of specialist consultant inputs appended to this EIS have informed this analysis. The EIS confirms that the proposed development will not give rise to unacceptable environmental impacts and is supportable from a planning perspective.

The proposal will deliver substantive public benefits for the Greenwich community. It will:

- Redevelop an ageing 1960s facility which is no longer fit for purpose into an integrated, contemporary healthcare campus with specialised care services for seniors and people with complex health needs;
- Provide 130 hospital and residential aged care beds to respond to the area's ageing population and meeting the growing community demand in the Northern Sydney Local Health District;
- Provide 89 serviced seniors housing units to enable elderly members of the community to 'age in place', with access to hospital-quality care while maintaining a degree of independence;
- Provide an overnight respite care facility for seniors whose day-to-day carers may need a break or rest; and
- Deliver increased tree canopy cover at the site, with a built form that embodies the principles of Ecologically Sustainable Development and exhibits Design Excellence.

Therefore, it is recommended that this SSDA be approved by DPE, given the that the proposed development:

- Is consistent with the relevant strategic planning framework and guidelines;
- Is consistent with the relevant statutory legislation and requirements;
- Will not generate unreasonable environmental impacts; and
- Is suitable for the site, and in the public interest.