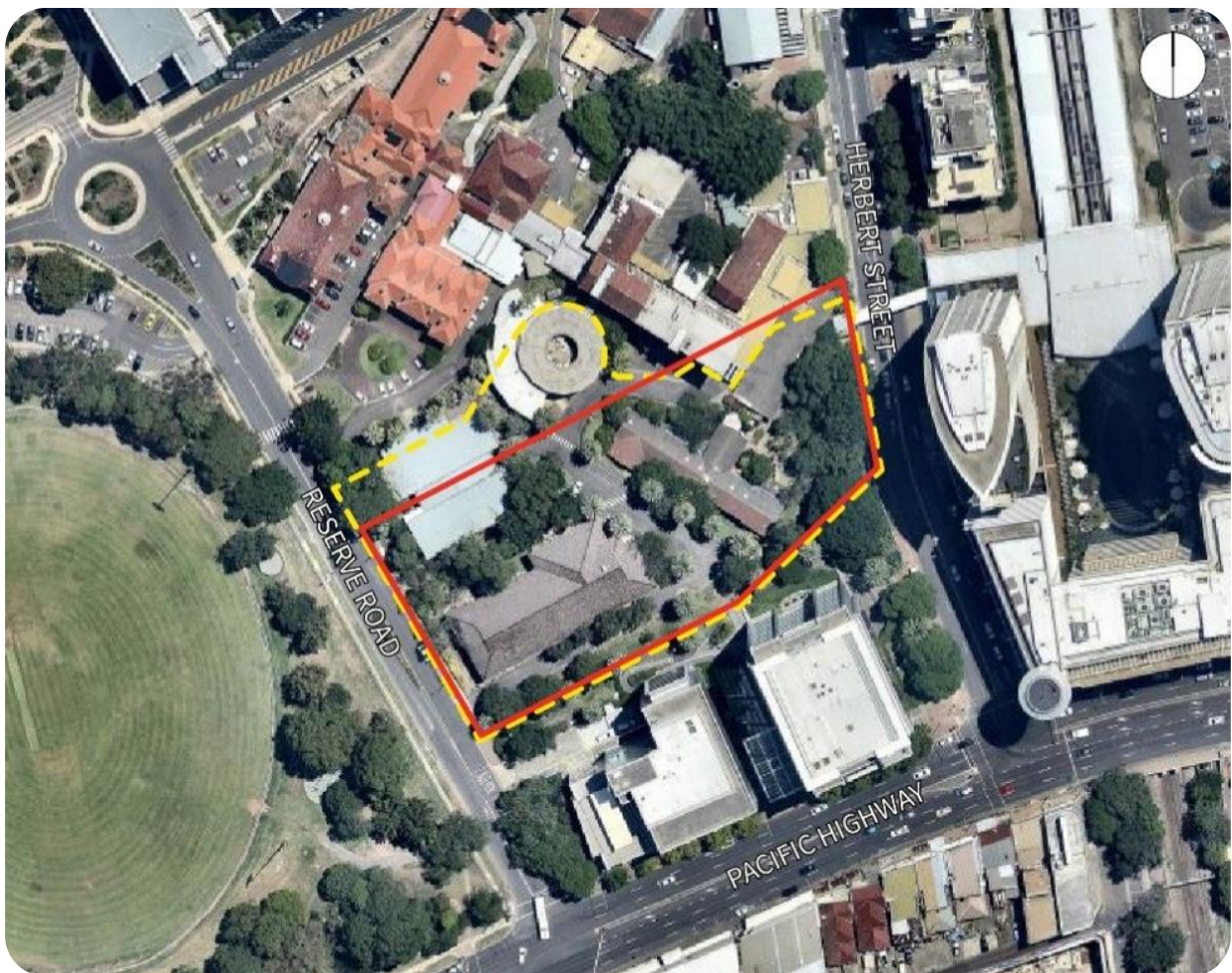


ST LEONARDS HEALTH ORGANISATIONS RELOCATION (SHOR)

STATE SIGNIFICANT DEVELOPMENT APPLICATION STRUCTURAL DESIGN REPORT



Prepared for: Health Infrastructure NSW

By: **enstruct** group pty ltd

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HEALTH ENTITIES RELOCATION AND CONSOLIDATION

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1 Introduction

This report supports a State Significant Development Application (SSDA) submitted to the Department of Planning and Environment pursuant to Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) for the St Leonards Health Organisations Relocation (SHOR) Project at the Royal North Shore Hospital (RNSH).

The SSD Application relates to the Concept Plan Approval for the Royal North Shore Hospital, St Leonards which was approved in April 2007 (MP 06_0051). This application is SSD by way of Ministerial declaration pursuant to Section 89(C) of the EP&A Act, the order for which was published on 13 October 2017.

This proposal relates specifically to the construction of a new building on the south-western edge (identified as site 4A under the Concept Plan) of the RNSH Campus. Uses proposed include health-related commercial uses, retail and a child care centre.

This report has been prepared having regard to the Secretary's Environmental Assessment Requirements issued for the project.

2 Background

The subject site is located within the hospital grounds of RNSH, and is identified as Site 4a, within Precinct 4.

The site forms part of a wider Concept Plan approval for the redevelopment and renewal of RNSH (MP 06_0051). On 13 April 2007, approval was granted for a Concept Plan, including proposed building envelopes (height, bulk, scale), associated GFA and land use, site preparatory works, and road networks.

The Concept Plan proposed staged renewal of the entire campus through the nomination of eight precincts and a six-stage construction and delivery strategy. Since concept approval, redevelopment of the following buildings has been completed:

- Kolling Institute Research Building;
- Acute Services Building;
- Clinical Services Building;
- Community Services Building; and
- Multi-Storey Car Park with capacity for 567 spaces.

Under the Concept plan, the subject site is identified as Precinct 4, comprising of Site 4a and Site 4b.

Approval for demolition of existing buildings currently located on Precinct 4 and adjoining areas of the RNSH Campus was obtained as part of a Review of Environmental Factors (REF) under Part 5 of the EP&A Act 1979, dated August 2016. The Part 5 approval also included regrading of land for landscaping purposes and some landscaping works. Other works that have been carried out on site, and were covered under the REF include refurbishment of the existing buildings (Building 33, 35, 36 and the Douglas Building) and other civil infrastructure upgrades.

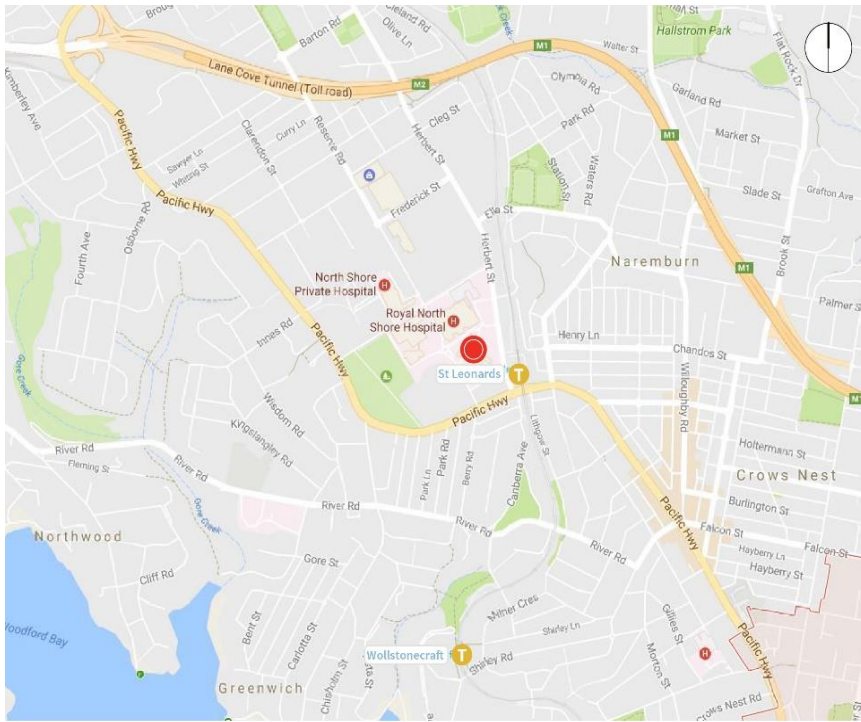
The Concept Plan has undergone several modifications, with the most recent modification relating to the subject site. Modification 7 (MP 06_0051 MOD 7 - Modification to Concept Plan building footprint in Precinct 4a) was lodged on December 2016 and approved by the DP&E on 20 July 2017. The modification amended the building footprint originally approved for Site 4a under the Concept Plan and consolidated the commercial floor plate design, allowing a more efficient commercial floor plate and an improved design response for the site.

3 Site Description

The RNSH Campus is situated approximately 6.5 km north of Sydney CBD and 3 km south west of Chatswood. The RNSH precinct is located within Willoughby City Council LGA, less than 200 metres from St Leonards Station.

The subject site (Precinct 4) is located at the southern edge of the RNSH Campus with direct frontage to Reserve Road (west of the site).

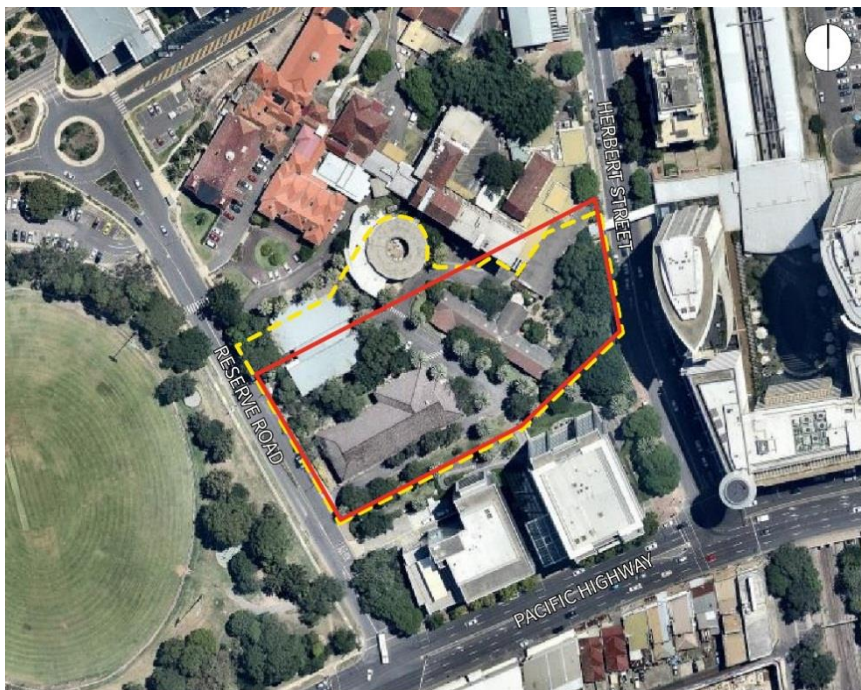
The land is owned by the Health Administration Corporation. Precinct 4 currently forms a part of the Royal North Shore Hospital campus, legally described as Lot 210 under DP 1172133. Total site area of the existing campus is 11.38 hectares.



● The Site

Figure 1 – Site Context Plan

Source: Ethos Urban



— Site Boundary — Precinct 4 Boundary

Figure 2 – Project Aerial Plan

Source: Ethos Urban

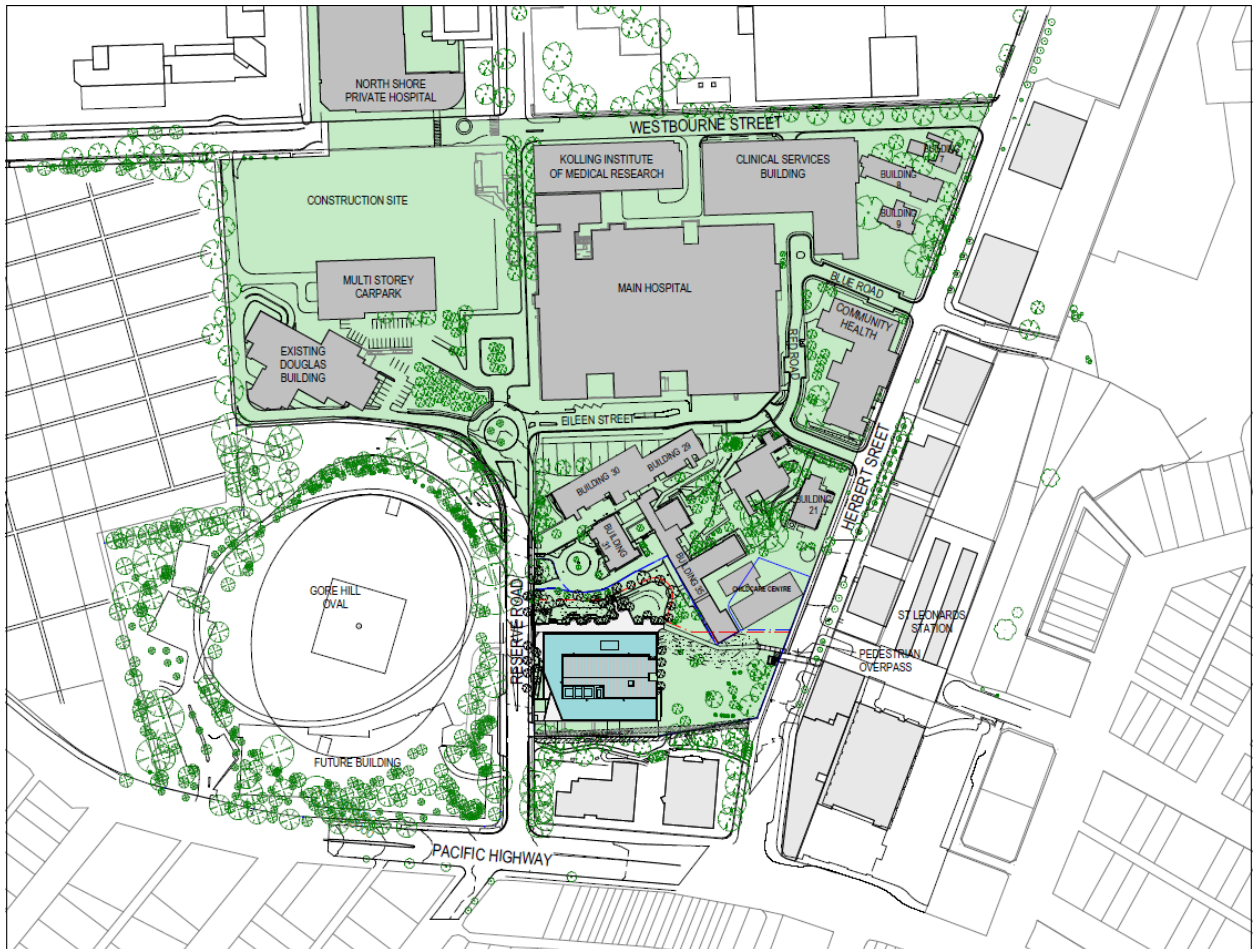


Figure 3 – Proposed Precinct Plan

Source: BVN

4 Overview of Proposed Development

This SSD Application seeks approval for works proposed to Precinct 4 (Site 4A and Site 4B) and some adjoining public domain grounds. Specifically, consent is sought for the following:

- Construction of a 10-storey building with a total GFA of 30,977 m² comprising of the following uses:
 - 28,615 m² of health-related employment generating uses;
 - 658m² lobby;
 - 241m² café;
 - 902 m² child care facility;
 - 561m² basement storage and miscellaneous.
- Construction of 2 basement levels with 115 car parking spaces and 1 car wash bay;
- Subdivision of the existing land parcel into the following additional allotments:
 - Proposed Lot 41 (Area 8,049 m²);
 - Proposed Lot 42 (Area 64 m²); and
 - Proposed Lot 40 (Residue Lot comprising the RNS hospital precinct)
- Improved east-west connectivity of the 4A+4B precinct through an at grade pedestrian access way interconnecting Herbert Street (east) to Reserve street (west);
- Creation of an additional easement along the southern alignment of the site for unrestricted vehicular access; and
- Associated public domain and landscaping works.

5 Structural Design Report

enstruct group has been involved in the structural concept design and preparation of the State Significant Development Application documentation for all permanent structural elements for this project. This is inclusive of all in-ground and above ground permanent structures.

We confirm that the building structural design is able to be completed without significant impact on the proposed building envelopes.

5.1 Design Criteria

- The Design shall comply with:
- The BCA (NCC);
- The Project Brief
- Relevant Australian Standards, including:
 - AS3600 Concrete Structures Code
 - AS4100 Steel structures Code
 - AS3700 Masonry Structures
 - AS1720 Timber Structures
 - AS1170.0 Structural Design Action Effects
 - AS1170.1 Loading Code
 - AS1170.2 Wind Loads
 - AS1170.4 Earthquake Loads
 - AS2159 Piling Code
- Local Authority development controls & design codes;
- Major Development SEPP;
- The requirements of the DA conditions;
- Disability Discrimination Act (DDA) and Access to Premises Standards;

The design will also meet the following additional criteria;

- Project PCA requirements;
- Project Green Star requirements; and
- Existing easements, covenants and restrictions that both burden and benefit the land.