

# Paediatric Services Building at The Children's Hospital at Westmead SSDA No. SSD-10349252

## Infrastructure Management Plan

Electrical Services

**Prepared for:** Health Infrastructure C/ PwC

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# Revision

Revision	Date	Comment	Prepared By	Approved By
1	02/11/2020	Draft Issue	AW	RBAR
2	27/11/2020	Final Issue	AW	RBAR

Design with **community** in mind



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# 1. Introduction

Stantec has been engaged by Health Infrastructure NSW to prepare an infrastructure management plan report for the proposed Paediatric Services Building (PSB) at The Children's Hospital at Westmead (CHW) located on the Redbank Rd, Westmead NSW 2145.

## 1.1 Proposed Development

The proposal seeks consent for the construction of a new **Paediatric Services Building (PSB)** to be located adjacent to the CASB, and on the site of the decommissioned P17 car park, including development of the Hawkesbury Road forecourt and access links. This includes works associated with CHW forecourt on Hawkesbury Road to provide improved community amenity in the form of a new front entry, improved street frontage and enable a more cohesive main entrance connecting existing CHW, adjoining research facilities, and the PSB.

The scope of proposed works includes:

- Construction of the main PSB:
  - The main PSB may contain the following uses: perioperative and interventional services, neonatal and paediatric intensive care units, cancer centre, acute inpatient beds, back of house and parent facilities; and
- Alterations and additions to existing CHW KR and CASB buildings adjoining PSB site area to accommodate floor realignment and movement corridors
- Construction of a new pedestrian canopy link through KR, connecting the main PSB with the CHW forecourt and existing hospital entrance
- The canopy link is to be lifted 2 storeys above the CHW forecourt
- A new ground plane / forecourt landscaped area extending from Hawkesbury Road to the proposed PSB
- Tree removal to accommodate the construction of the PSB

## 1.2 SEARs Requirements

This report addresses the requirements outlined in the Planning Secretary's Environmental Assessments Requirements (SEARs), issued 20 November 2020 for application SSD-10349252 Paediatric Services Building at The Children's Hospital at Westmead.

This report addresses SEARs Item 15

- **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 on-site and off-site to facilitate the development and any arrangements to ensure that the upgrades will be implemented on time and be maintained.



## 1.3 Design Criteria

The Electrical Services will be designed in accordance with, but not limited to, the following codes, standards and guidelines:

- NSW Health Infrastructure Engineering Services Guidelines
- NSW Health ICT Cabling Standards
- Service and Installation Rules of NSW
- Endeavour Energy Network Standards
- Relevant Australian Standards

## 1.4 Site

The Children's Hospital at Westmead site is legally described as Lot 101, DP 1119583. The legal description of the site's entrance is off Redbank Road, which crosses Lot 1, DP 1194390.

It is understood the subject site, which makes up a portion of Lot 101 DP1119583 is owned by the Health Administration Corporation.

# 2. Electrical Utility Services

## 2.1 Existing Supply Authority Infrastructure

The Supply Authority for the Children's Hospital at Westmead is Endeavour Energy.

Refer to Figure 2.1 for the extent of Endeavour Energy's High Voltage (HV) network in the vicinity of the Westmead Health Precinct.

The Endeavour Energy HV network supplies the Westmead Health Precinct.

The Westmead Health Precinct is a HV customer.

The existing Endeavour Energy Zone Substation 9563 has been recently upgraded.

The High Voltage Operational and Maintenance protocol between Endeavour Energy and HVC 7741 Westmead Hospital dated Sept 2019 allows a maximum total load of 26MVA. The protocol already includes an allowance for the additional load required for the PSB.

Endeavour Energy Zone Substation 9563 provides supply to the privately owned Westmead Hospital Substation No. 1.

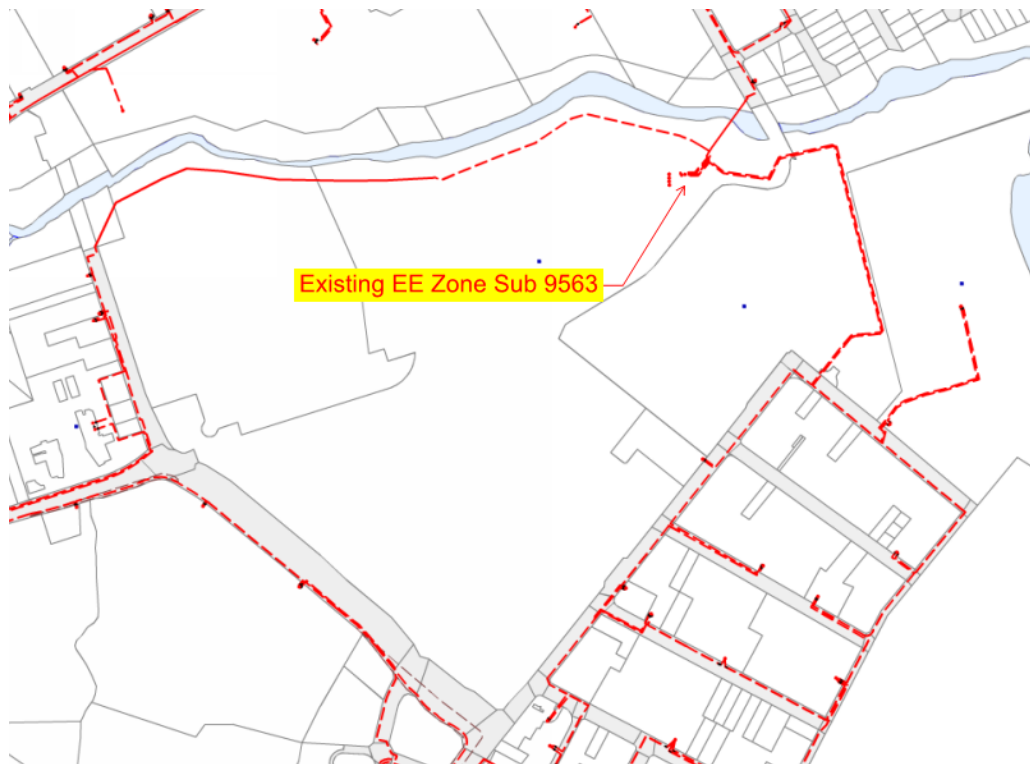
All HV infrastructure downstream of the Zone Substation constitutes the Westmead Hospital Private HV Network. Assets are typically either owned by the Western Sydney Local Health District (WSLHD) or the Sydney Children's Hospital Network (SCHN).

Westmead Hospital Substation No. 1 consists of 2 off HV Main Switchboards (HV-MSB 1 and HV-MSB 2)

Two new HV feeders will be supplied from HV-MSB 2 to form a new HV ring on the Westmead Private HV network that will service the new PSB.

There are sufficient spares on the HV- MSB 2 to accommodate the 2 off new HV feeders required for the new PSB.





**Figure 2.1: Existing Endeavour Energy HV Network and Zone Substation 9563**

Easements and rights of way will not need to be created for the property as the assets are owned by WSLHD or SCHN.

## 2.2 Construction Period Services Continuity

An early works package under a separate planning application is underway to help facilitate continuity during construction.

Any interruption to the power supply during construction shall be kept to a minimum and shall be at a time to suit the Westmead Health Precinct.

## 3. Telecommunications Carrier Services

### 3.1 Existing Telecommunication Infrastructure

There are no existing incoming telecommunication carrier services within the proposed PSB footprint.

### 3.2 Proposed Telecommunication Infrastructure

The new PSB will be connected to the two existing CHW ICT network Campus Distributors.

### 3.3 Construction Period Services Continuity

Existing incoming telecommunication carrier services should not be affected or interrupted during the construction period.

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