

# Preliminary Construction Management Plan

**Sydney Children's Hospital Stage 1 and Children's  
Comprehensive Cancer Centre (SCH Stage 1 and  
CCCC)**

January 2021



# Contents

1	Introduction	4
2	Background	5
3	Site Management	8
4	Environment and Amenity	10
5	Traffic Management	12
6	Waste Management / Recycling Principles	13
7	Service Disconnections/ Interruptions	14
8	Construction Materials Handling	15

# 1 Introduction

This Preliminary Construction Management Plan has been prepared to support the proposed Sydney Children's Hospital (SCH) Stage 1 and Children's Comprehensive Cancer Centre (CCCC) located at the Randwick Hospitals Campus (RHC). This Preliminary Construction Management Plan will be replaced by the Contractor's Construction Management Plan once appointed.

The proposed SCH Stage 1/ CCCC (the Project) is a State Significant Development (SSD) for the purposes of the Environmental Planning and Assessment Act 1979 (EP&A Act), and Schedule 1, Clause 14(a) of the State Environmental Planning Policy (State and Regional Development) 2011. The SCH Stage 1/ CCCC is a proposed health services facility development with a capital investment value in excess of \$30 million.

This Preliminary Construction Management Plan outlines the proposed development, key milestones, site management principles, environmental considerations and traffic and waste management considerations.

## 2 Background

The Randwick Health and Innovation Precinct (RHIP) is one of the most comprehensive health innovation districts in Australia. While health care at RHIP has been evolving for over 160 years, the last five years has seen a strengthening of collaboration amongst a wide range of organisations in the precinct, including with government, universities and community. Advancing this culture of collaboration, the NSW Government has made a significant commitment to expanding and upgrading the RHIP.

Over \$1.5B is being invested in the RHIP, of which over \$1B is from the NSW Government, to strengthen the precinct as a world-class centre for health, research and education, driving cutting edge, compassionate and holistic healthcare and wellness programs for the local community and other residents of NSW.

The SCH is part of the Sydney Children's Hospitals Network (SCHN) formed in 2010. The SCH is the main paediatric referral hospital for Eastern Sydney and provides quality care and clinical services to approximately 155,000 sick children each year (across the network).

A fully integrated partnership between the Kids Cancer Centre (KCC), SCHN, the Children's Cancer Institute (CCI), and UNSW Sydney (UNSW), the project will bring together health practitioners, researchers, academics, patients and the community to integrate patient care, research and education in Australia's first Children's Comprehensive Cancer Centre.

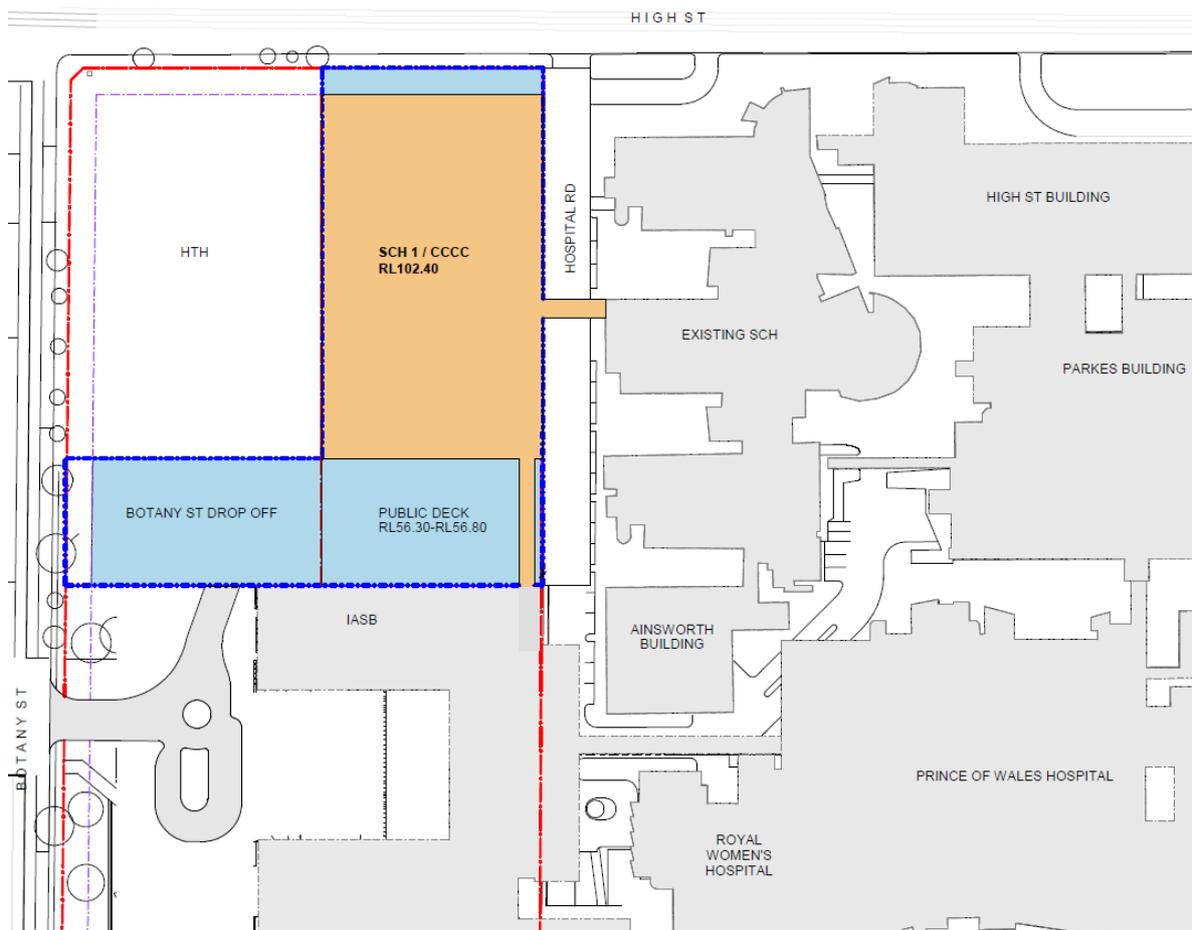


Figure 1: Site Plan

## 2.1 Scope of works (Works)

**Note: This section is to be read in conjunction with the supporting Architectural drawings and design statement.**

The scope of works associated with the proposed SCH Stage 1/ CCCC development includes the following:

- Construction and Operation of a new 9 level plus 2 basement levels to provide:
  - A new Emergency Department;
  - A new Intensive Care Unit;
  - Short Stay Unit;
  - Day and inpatient CCCC oncology units;
  - Children's Comprehensive Cancer Centre;
  - Ambulance access, parking, back of house and loading dock services;
  - Integration with the Prince of Wales Acute Services Building (ASB) and Integrated ASB (IASB), both currently under construction and UNSW Heath Translation Hub (HTH) subject of a separate SSDA;
  - Public domain and associated landscaping;
  - Tree removal;
  - Utilities services and amplification works; and
  - Site preparation and civil works.
  
- The Project will deliver 2 basement levels, 9 levels above plus plant level:
  - Level -02 – Loading dock, back of house and patient carpark
  - Level -01 – Emergency Department
  - Level 00 – Front of House
  - Level 01 – Intensive Care Unit
  - Level 02 – Plant and Pharmacy
  - Level 03 – Medical Short Stay Unit and CCC Research Laboratories, education and workspaces
  - Level 04 – CCCC Research Laboratories, education and workspaces
  - Level 05 – Day Oncology and CCCC Research Laboratories, education and workspaces
  - Level 06 – Oncology Inpatient Units (IPUs)
  - Level 07 – Medical/ Surgical IPUs
  - Level 08 – Medical/ Surgical IPUs
  - Level 09 – Plant

Majority of the SCH Stage 1/ CCCC site has been cleared by works associated with the broader Randwick Campus Redevelopment of the block.

## 2.2 Local Context

The SCH Stage 1/ CCCC site is located in the RHIP immediately south of the Randwick Town Centre. The site is located approximately 150m from UNSW High Street light rail stop and 250m from Randwick light rail stop. In addition, the site is located approximately 400m from Randwick Town Centre, 1km from Royal Randwick Racecourse and 2km from Coogee Beach.

The Site is located in the Randwick Local Government Area (LGA), approximately 6 kilometres (km) from the Sydney Central Business District (CBD) and 4km from Sydney Airport.

## 2.3 Key Milestones

The indicative key project milestones include:

<b>Key Milestone</b>	<b>Date</b>
SSDA Approval (Estimated)	Q4 2021
Construction Evaluation and Award	Q4 2021
Construction Commencement	Q1-Q2 2022
Operational Milestone	2025

# 3 Site Management

The Project scope of works will be undertaken by a Principal Contractor. All statements and proposals documented in this Preliminary Construction Management Plan will be reviewed at the time of contract award for the Works to ensure alignment with the proposed methodologies and construction staging.

The Final Construction Management Plan will be required to detail the controls and management protocols for the following:

- Dilapidation reporting;
- Site fencing, hoarding and security;
- Construction signage;
- Site amenities;
- Stakeholder management and communication;
- Construction vehicle parking;
- Site inductions; and
- Site access.

## 3.1 Legislative Requirements

The Works will be undertaken in accordance with the following legislative requirements (not limited to) and any others that must be complied with in carrying out of the works as required:

- Protection of the Environment Operations Act 1997 and Regulations;
- approved methods for the modelling and assessment of air pollutants in NSW (EPA);
- Environmentally Hazardous Chemicals Act 1985;
- Environmentally Hazardous Chemicals Regulation 2017;
- Protection of the Environment Administration Act 1991 and Regulations;
- Work Health and Safety Act 2011 and relevant codes of practice and Standards;
- Relevant Australian Standards and other applicable authority standards;
- Code of Practice for the Safe Removal of Asbestos (Safe Work Australia's 'Safe Removal of Asbestos 2nd Edition [NOHSC: 2002 (2005)]');
- Resource and Recovery Act 2001;
- Environmental Planning and Assessment Act 1979;
- Heritage Act 1997;
- Local Government Act 1993; and
- Soil Conservation Act 1938.

## 3.2 Hours of Operation

**Note: This section is to be read in conjunction with the supporting Noise and Vibration Report prepared by Pulse Acoustics.**

The following standard hours of operation related to the construction works will apply:

- Monday to Friday: 7:00am to 6:00pm
- Saturday: 8:00am to 5:00pm

- Sunday and Public Holidays: No work

In addition to the above construction hours, it is likely that works outside the standard hours of operation may be required. The following works may be required outside the standard construction hours and will be dependent on design finalisation and final construction staging plan with the relevant authorities.

- Service reticulation works;
- Service switch overs (including private services);
- Large deliveries;
- Road restoration works; and
- Any other works deemed necessary for safety reasons or as directed by the relevant authorities.

### **3.3 Property Protection**

The general principle for construction works is to separate construction areas of work from the public and hospital staff and visitors. Where there is a cross-over this will be managed to ensure safety of all persons and equipment.

The construction phasing will be developed to ensure continued hospital operations and distinct isolated construction zones which maximise separation between the hospital operation and construction work. Appropriate hoarding/fencing (as specified by Australian Standards and SafeWork NSW) will be installed to prevent public and staff access and to maintain security for the various areas of the works. Access disruptions to public and staff car park areas will be minimised during the works.

Traffic controllers will be used where required to manage the interface of construction vehicles with pedestrians, and staff/visitor/patient vehicles. Pedestrian access from High Street to the Sydney Children's Hospital (SCH) and the rest of the RHC will be maintained. This will be monitored and managed appropriately during construction.

These public and property protection measures will be reviewed at the time of contract award for the works to ensure alignment with the proposed preferred methodologies and construction staging and to ensure that the safety of the public and staff is maintained at all times during the works.

### **3.4 Disruption Notices**

Any planned disruptions to the RHC operations and services will be managed through the established process of Disruption Notices (DNs). For such stoppages, the DN will describe the applicable works, programme, issues, risks and contingency plans. DNs will be submitted by the Contractor to the Project Manager and RHC stakeholders for approval prior to the commencement of construction works affecting the RHC.

# 4 Environment and Amenity

The contractor undertaking the Works will be required to submit for approval to the Principal a comprehensive Environmental Management Plan (EMP) to ensure that all elements of the plan meet all statutory requirements as well as NSW Health requirements.

As a minimum, the erosion and sediment controls for the Works shall be designed, installed and maintained in accordance with the requirements of Managing Urban Stormwater: Soils and Construction "The Blue Book" 2004 (4th edition) and/or details provided by the relevant project engineering consultants.

The environmental performance of the contractor will be monitored throughout the Works.

## 4.1 Noise and Vibration

**Note: This section is to be read in conjunction with the supporting Noise and Vibration Report prepared by Pulse Acoustics.**

Noise generated by the construction works shall not exceed the limits set out in the NSW Environment Protection Authority's (EPA's) Interim Construction Noise Guidelines (ICNG) and any relevant Australian Standards.

The noise and vibration from the use of any plant equipment and/or building services associated with the Works shall not give rise to an offensive noise as defined under the provisions of the Interim Construction Noise Guidelines, EPA and Australian Standards.

As part of the noise mitigation treatment for the project, the contractor will be responsible for the management, checking of compliant maintenance regimes and statutory supervision of all equipment, such as making sure all trucks and machinery involved in the Works will be checked for defective exhaust systems and general servicing.

All construction works will be undertaken during standard construction hours unless there are specific safety risks requiring Works to be undertaken outside of the standard construction hours. Additionally, Works will be undertaken outside of the construction hours if directed by the relevant service infrastructure authority.

## 4.2 Dust

To control dust generation, water suppression will be utilised where necessary at the source of origin and surrounding areas to prevent airborne dust particles migrating into the surrounding environment.

Management of dust prevention is to be developed by the contractor and agreed by the relevant project stakeholders.

Additional precautions that will be implemented during the Works include the covering of all haulage trucks with tarpaulins and monitoring of weather conditions (including wind). Management and contingency plans will be developed to prevent any foreseeable impacts from dust. All works will be undertaken in line with the relevant Guidelines.

## 4.3 Odour Control

It is envisaged that odour problems will be minimal for the planned construction works. All plant and machinery involved in the Works will be regularly serviced and checked for exhaust emissions and catalytic converters. All works will be undertaken in line with the relevant Guidelines.

## 4.4 Protection of Trees

**Note: This section is to be read in conjunction with the supporting Arborist Report prepared by Eco Logical.**

The contractor undertaking the Works will be required to comply with Australian Standard 4970-2009: Protection of Trees on Development Sites to include tree management guidelines for the proper care and protection of trees retained and integrated into construction projects.

While minimal tree trimming/ removal activities are planned to occur as part of the planned Works, this will be minimised wherever practical. Tree trimming/ removal activities will be undertaken where required due to overhanging branches that may interfere with the operation of construction machinery and equipment. Tree trimming/ removal activities will only occur following assessment by an experienced Arborist. Please refer to the accompanying Arborist Report supporting this document.

The contractor undertaking the Works will be required to protect any existing trees and use tree protection measures such as barriers and protectors. Where trees are required to be retained and are close to the works, the contractor will be required to maintain protection procedures for all construction activities.

## **4.5 Stormwater, Erosion and Sedimentation Management**

Measures will be employed on each stage of works, and on the site overall, to control stormwater, soil erosion and sedimentation during construction. These measures will be in accordance with currently accepted principles, as described in *Managing Urban Stormwater: Soils & Construction* (4th edition, Landcom, 2004).

A Stormwater, Erosion and Sedimentation Management Plan will be developed by the contractor prior to construction works to detail applicable control measures. The key objectives of the Stormwater, Erosion and Sedimentation Management Plan will be:

- To avoid erosion, contamination and sedimentation occurring, resulting from construction or demolition activities.
- To control the quality of any stormwater leaving the construction site, so that no unacceptable impact will intrude upon the local area.
- To minimise disturbance of the surrounding hydrological regime and maximise opportunities to enable stormwater recycling on site.
- To effectively manage the bulk excavation and associated dewatering activities.
- To detail any water treatment procedures to achieve acceptable water quality criteria.
- To monitor the effects of construction activities and effectiveness of mitigation measures.

Any water to be discharged from the construction site into Council's stormwater drainage system will be required to meet the relevant water quality guidelines. Where required, a stormwater/ groundwater discharge strategy will be developed in collaboration with the Council and relevant stakeholders prior to any construction works.

The site will be continually cleaned to minimise possible sediment flow during rainfall periods. Stormwater kerbs and drainage lines will have sediment controls in the form of sedimentation socks or similar where required. Stormwater grate inlets surrounding the work areas will be covered with geotextile fabric to allow water to enter drains whilst retaining sediments.

Should surface run-off flow into works areas, it may need to be diverted to reduce sediment transportation using sedimentation socks or similar where required. All drainage control devices will be regularly checked particularly during heavy rainfall periods.

# 5 Traffic Management

**Note: This section is to be read in conjunction with the supporting Traffic Report prepared by Arup.**

As part of the contractors Construction Management Plan, the contractor will be required to submit a Traffic and Pedestrian Management Plan to the Principal for approval prior to commencement of the works.

Traffic controllers will be used to manage the interface of construction vehicles with pedestrians, and staff/visitor/patient vehicles where required. Pedestrian access from High Street and within the campus will be maintained for the RHC. This will be monitored during construction.

It is likely the following construction vehicles will be used:

- Articulated/ rigid vehicles for delivery of plant and equipment;
- Heavy and medium rigid trucks for construction material delivery;
- Heavy rigid tankers for fuel delivery;
- Compacting and excavation machinery;
- Rigid trucks for removal of excavated material;
- Mobile/ fixed crane/s;
- Piling rig/s;
- Concrete delivery truck/s; and
- Light vehicles.

A vehicle wash-down area where required will also be placed at vehicle entry points to prevent construction vehicles tracking dust/mud onto public roads where required.

## 5.1 Pedestrian Protection

Pedestrian and vehicular passage to and around the site will be maintained, or alternate routes determined where necessary, and be defined by clear signage.

Construction vehicles will have controlled access points and observe all pedestrian controls. The works zone and surrounding area will be maintained with appropriate signage to warn pedestrians of construction activity. At times, it may be necessary to direct pedestrians onto temporary footpaths, in which case adequate warning signs and barricades will be provided where necessary.

Temporary hoarding and safety fencing will be utilised to delineate the interaction of pedestrians and construction works. This will assist to prevent unauthorised access to the construction works zone. Any hoardings and safety fencing will be implemented in a staged manner to allow access to certain areas during the works.

# 6 Waste Management / Recycling Principles

**Note: This section is to be read in conjunction with the supporting Preliminary Waste Management Plan prepared by WSP.**

The contractor will be required to recycle and reuse where possible. Where possible, the contractor will be required to arrange for the sorting and recycling of waste materials and packaging to ensure maximum recycling is achieved. The contractor will be committed to achieving compliance with the EPA guidelines.

The Contractor will be required to prepare a Waste Management and Recycling Plan specific to the Works.

## **6.1 Dangerous Goods and Hazardous Materials**

Dangerous goods (such as petrol, diesel etc.) will be stored in an appropriate manner to allow sufficient ventilation in accordance with relevant codes of practice and standards. Material safety data sheets of all flammable and potentially harmful liquids will be provided by the contractor undertaking the Works and made available on site during the works according to established codes of practice and standards.

Geotechnical and Site Contamination investigations have been undertaken by Douglas Partners. The contractor will refer to these reports and ensure that these reports are used as the basis for identifying and managing the removal of any contaminated materials identified during the Works. An 'unexpected finds' protocol will be implemented to manage any unexpected finds identified during the works.

# 7 Service Disconnections/ Interruptions

As part of the Works, some service disconnections/ interruptions to the RHC services will be required. In general terms, the following principles will be adopted when disconnecting services:

- Services impacts on the existing RHC will be undertaken with full coordination; development and input with the relevant hospital and authority stakeholders and will only proceed with approval from same, via a Disruption Notice process or formal notice from the relevant service authority;
- All Service authorities will be consulted prior to the Works commencing to ascertain lead times and correct termination locations. All termination works will be undertaken in accordance with project design engineers' specifications and instructions. All termination works will be undertaken by suitably licensed contractors; and
- Service switch overs will be undertaken with careful planning and coordination from all relevant hospital and authority stakeholders and will only proceed once formal notifications and approvals have been received.

All service disconnections/ disruptions will be undertaken with a paramount focus on safety of workers, hospital staff and the public. The Works will be planned to ensure minimal disruption to the existing RHC and to the community.

# 8 Construction Materials Handling

Materials handling covers the movements of materials around the construction site. The planning of works will consider the most efficient handling methods in order to minimise double handling and ensure an efficient construction process.

Several different materials handling equipment will be utilised which include, but are not limited to, forklifts, cranes and concrete pumps (for concrete pours).

Tower cranes will be utilised to aid the construction works. Relevant authority approvals will be requested and obtained for tower cranes where it may be required to enter prescribed airspace.

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