Preliminary Construction Management Plan

Hospital Road REF – Randwick Campus Redevelopment

February 2020



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1 Introduction

This Preliminary Construction Management Plan has been prepared to support the Randwick Campus Redevelopment (RCR) – Hospital Road Review of Environmental Factors (REF) application. This Preliminary Construction Management Plan will be replaced by the Contractor's Construction Management Plan once appointed.

- The Hospital Road REF comprises works related to the diversion of key service infrastructure required to enable the construction of a future podium that will provide interconnectivity across the Randwick Hospitals Campus.
- Additional works include the remediation of soil, piling works, and excavation of the area noted in Figure 1.
- It should be noted that the above noted scope will involve works on the pedestrian footpaths and roadway at the intersection of Hospital Road and High Street.
- This Preliminary Construction Management Plan outlines the proposed works, key milestones, site management principles, environmental considerations and traffic and waste management considerations.

2 Background

The Randwick Health and Education Precinct (RHEP) is one of the most comprehensive health innovation districts in Australia. While health care at RHEP 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.

Hospital Road is an important campus road that supports the precinct and provides access to existing buildings such as the Sydney Children's Hospital (SCH) and Royal Hospital for Women (RHW). Hospital Road provides access to the campus logistical hub located on Delivery Drive. Additionally, Hospital Road will become a key link for vehicles and pedestrians enabling the integration of the existing campus with the future Integrated Acute Services Building (IASB) and Sydney Children's Hospital Stage 1/ Children's Comprehensive Cancer Centre (CCCC).

2.1 Hospital Road

Hospital Road provides access to Delivery Drive and is currently accessed by vehicles and pedestrians from Magill Street to the South and High Street to the North. The figure below shows the area of Hospital Road that this report addresses.



Figure 1: Site plan of Hospital Road, Randwick

The works on Hospital Road will involve excavation works to enable the lowering of Hospital Road for vehicle access whilst constructing a new podium level for pedestrians to allow for the interconnectivity across the Randwick Hospitals Campus.

These works on Hospital Road are pivotal in allowing for the development of an interlinked campus and removing the interface between pedestrians and vehicles. To achieve this, key service infrastructure assets that are currently located in Hospital Road will need to be diverted.

Potential impacts and risks for the existing services is subject to negotiation and approvals by each affected authority. Liaison with the relevant authorities is to be undertaken as part of the design process. Piling works will be undertaken as shown in Figure 1 to allow for the excavation of Hospital Road and associated remediation of areas where required.

2.2 Scope of works

Note: This section is to be read in conjunction with the supporting Engineering Services Reports prepared by Bonacci, JHA and Arup.

The scope of works associated with the Hospital Road REF includes the diversion of services infrastructure within Hospital Road. This will require the service infrastructure to be relocated outside of the proposed future podium construction works area. The scope of works will include but is not limited to the following:

- Relocation of Ausgrid infrastructure;
- Relocation of communications infrastructure including AARNet and Telstra assets;
- · Relocation of private Hospital services including fire, cold water and electrical services;
- All associated works to enable the relocation of services including but not limited to:
 - Non-destructive digging
 - Temporary diversions
 - Concrete cutting
 - Excavation and backfilling with appropriate material
 - Traffic control and traffic diversions
 - Temporary restorations
 - Removal of disused services
 - Removal of material from site
 - Works associated with service switch overs
- Remediation of areas on Hospital Road, where required;
- · Retention piling from interface location in the south to the end of Hospital Road at High Street;
- Retention piling across the High Street boundary; and
- Excavation of Hospital Road.

2.3 Key Milestones

The indicative key project milestones include:

Key Milestone	Date
Construction Commencement	Q3 2021
Construction Completion	Q3-Q4 2021

3 Site Management

The Hospital Road REF 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.

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 Acoustic Review 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 1:00pm
- 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 relocation works at critical traffic junctions and high-use areas;
- 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.

The main construction vehicular access point will be via the signalised intersection of Hospital Road and High Street. 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 Randwick campus will be maintained for the hospital. This will be monitored 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 Hospitals Campus 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 Randwick Hospitals Campus stakeholders for approval prior to the commencement of construction works.

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 Acoustic Review 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 premises 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 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 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. The main construction vehicular access point will be via the signalised intersection of Hospital Road and High Street

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 Hospitals Campus. 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 for 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 un-use areas during the works.

6 Waste Management / Recycling Principles

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 for sufficient ventilation in accordance with relevant codes of practice and standards. Material safety data sheets on all of the 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 existing campus services will be required. In general terms, the following principles will be adopted when disconnecting services:

- Services impacts on the existing Hospitals Campus 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 Hospitals Campus and to the community.

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