

Nepean Hospital and Community Base Services Redevelopment Stage 2 – TAM & CAMHS Buildings



Preliminary Construction Management Plan

Review of Environmental Factors

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1. Stage 2 Overview

This report has been prepared as part of the REF (Review of Environmental Factors) application for the Nepean Hospital and Community Base Services Redevelopment Stage 2 – Child & Adolescent Mental Health Services (CAMHS) and Total Asset Management Services (TAM) Buildings.

The Stage 2 Redevelopment seeks to deliver significantly enhanced acute services, as well as a new campus main entry and drop-off area. It complements the recent Stage 1 Redevelopment (SSD 8766) approved in February 2019 and due for completion by early 2022. The proposed Stage 2 Tower will be located west of, and connected to, the Stage 1 Tower.



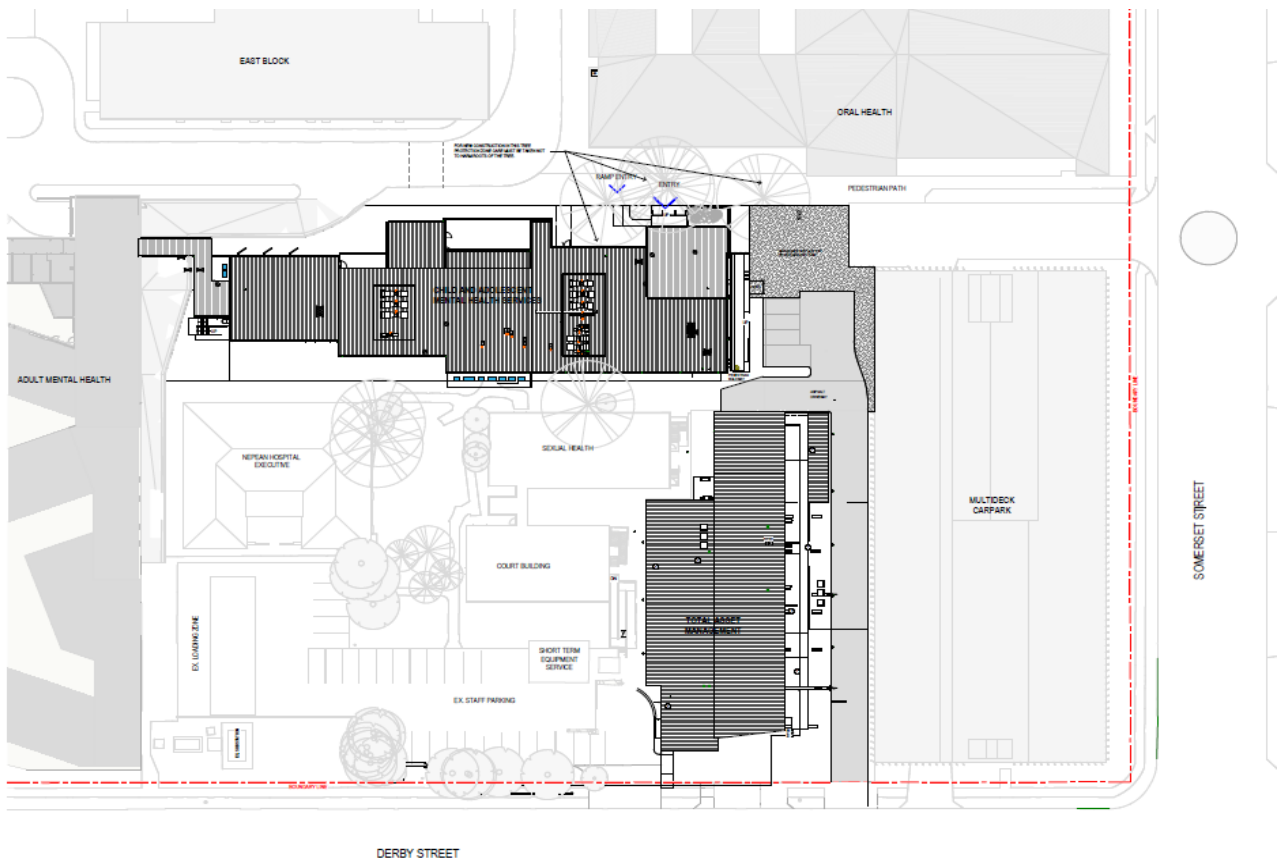
Nepean Hospital Campus

1.1 TAM Overview

This report has been prepared as part of the REF (Review of Environmental Factors) application for the Total Asset Management Services building. As a result of the Nepean Master Plan and Stage 2 Redevelopment, there is a requirement to relocate the Total Asset Management department to alternative location on the Nepean Campus. The TAM project comprises the construction of a new single storey building located within the grounds of the existing Nepean Hospital Campus between the existing Multi Storey Care Park to the East and the Sexual Health and Court Building to the South.

1.2 CAMHS Overview

This report has been prepared as part of the REF (Review of Environmental Factors) application for an extension to the existing Mental Health building for new two-storey Child and Adolescent Mental Health Services (CAMHS) building and ancillary works. The CAMHS Unit is considered a key priority for the State-wide Mental Health Infrastructure Program, supporting the delivery of Mental Health care reform in NSW. The new CAMHS Unit will be integrated into the existing Nepean Hospital Campus and will be closely located to the existing Acute Mental Health Building.



Nepean Hospital Campus – TAM & CAMHS Site Plan

2. Proposed Works

2.1. Project Scope

The CAMHS & TAM scope of works for the REF includes:

- Site-wide services infrastructure diversions and relocations consisting of LV electrical, hydraulics and fire services.
- Demolition of the existing Nepean 1, Nepean 2 and NBMLHD Executive buildings and relocation of staff.
- CAMHS Building Level 02 there is an enclosed link to the existing Adult Mental Health Facility located to the west of the proposed building.
- The new CAMHS building will be provided with a non-essential supply from the proposed new external MSB and an essential supply from the existing Generator Switchboard in existing Adult Mental Health.
- The new TAM building will be provided with a non-essential supply from the proposed new external MSB and an essential supply from the existing Generator Switchboard in existing Adult Mental Health.
- Relocation of the existing TAM administration building and Workshops located on Barber Avenue to where the current fleet parking area is, adjacent to the sexual health and court buildings.

3. Key Milestones

3.1. Key Project Milestones

Milestone	Timeframe
Schematic Design	Completed
Design Development	Completed
REF approval	February 2023
Tender and Award	December 2022
Construction	February 2023 - January 2024

4. Construction Methodology

4.1. CMP Scope

The Construction Management Plan summarises the following areas of management:

- Issues around Staging, Safety and Quality
- Construction Traffic and Pedestrian management during the duration of the works
- Waste management and Storage of dangerous goods
- The operations of site management when undertaking the works
 - Legislative requirements
 - Hours of construction works
 - Public fencing
 - Disruption
- Mitigation and/or minimisation of impacts to amenity and Environmental Management factors
 - Noise
 - Vibration management
 - Dust Management
 - Odour control
 - Protection of trees
 - Stormwater management and soil erosion
- Services Disconnections

	Description of Works	Estimated Contract Value	Building Contract
Nepean Hospital TAM & CAMHS Buildings (Fev 2023 - Jan 2024)			GC21 Design Finalisation & Construct (DF&C)
1	Demolition of existing buildings, site clearing, and preparation works. Construction of new CAMHS & TAM buildings, with associated landscaping and driveways.	\$18 million	

4.2. Safety Considerations

The following work tasks will be identified through project planning and the risk management processes:

- Working at heights greater than 2 metres
- Working near live traffic
- Working near live services
- Working in and around mobile plant and equipment
- Electrical work
- Work involving temporary works
- Mobile cranes and lifting operations
- The demolition of the whole or part of a structure that is either load bearing or is related to the physical integrity of a structure
- Any disturbance of or likely to involve any disturbance of, asbestos
- Work in or near a confined space
- A shaft or trench that is deeper than 1.5 metres
- Work carried out on or near pressurised gas distribution mains or piping, or
 - Chemical, fuel or refrigerant lines
 - Energised electrical installations or services
- Work in an area that may have a contaminated or flammable atmosphere

All Safety and Health risks, including the Safety Essentials and the Business defined High Risk Construction work tasks, will be managed by the CBRE Project Management Team through the application of the risk management processes, as follows:

- Project Risk Register
- Project Management Plan
- Construction Area Risk Assessment
- Safe Work Method Statements

4.3. Quality Considerations

Quality objectives and targets will be designed to facilitate the management and implementation of quality for the Nepean Hospital TAM & CAMHS Buildings. The Contractor will prepare a Quality Plan to provide a framework to manage quality on the project, consistent with relevant Australian Standards. Quality performance will be monitored and work processes reviewed in an ongoing way to improve, innovate and learn. The Contractor will be responsible for complying with relevant procedures, reporting and rectifying non-compliance, and actively participating in quality meetings, committees and various training sessions.

4.4. Site Establishment

The construction management of the works will be managed by the Contractor from a site office, to be established close to the site. The Contractor's Construction Management Plan will be developed to consider several elements, including but not limited to:

- Risks identified for the Project
- Site constraints with respect to access

- Existing traffic flows including pedestrian, vehicular and other service vehicles
- All environmental requirements
- Project security, amenity and access
- Project material handling including hoisting and crange

4.5. Construction Traffic Management

As part of the Contractor's Construction Management Plan, the Contractor will be required to submit a Traffic and Pedestrian Management Plan for approval to the Principal prior to commencement of the works. Construction vehicular access and egress to the site will be determined prior to site mobilisation with the LHD, all site access entry and exit will be via Derby Street. The proposed driveway access will be designed to accommodate the left turn movement into the site and the right turn exit movement. There is no intention for vehicle to use the roads to the west of the campus.

At times it may be necessary to direct pedestrians and cyclists onto the road carriageway and adequate warning signs and barricades would be provided. Traffic controllers or other traffic devices to direct traffic would be provided in accordance with AS 1742.3: 1996. The construction schedule for the development will also aim to minimise:

- Disruption to traffic movements particularly at peak periods
- Interference with public transport services

All demolition and construction related vehicles will comply with relevant Penrith City Council traffic and parking regulations. Vehicular access points to the construction site have been configured to avoid conflict with pedestrian desire lines.

Appropriate traffic controls will be put in place during construction to separate construction activities from the public. In addition, traffic controllers will be engaged to manage the interface between pedestrians and to direct vehicles entering and leaving the site including pedestrian traffic.

Details of construction vehicles per day (including likely arrival and departures) will be assessed within the Construction Traffic Management Plan to be prepared by the Contractor. It is likely the following construction equipment will be used during the inground services diversions and demolition works:

- Articulated vehicles for delivery of excavation machinery
- Heavy and medium rigid trucks for construction material delivery
- Heavy and medium rigid trucks for construction rubble and materials from demolition
- Rigid trucks & excavators for removal of excavated material
- Concrete delivery trucks & concrete pumps

4.6. Pedestrian Management

Pedestrian and vehicular passage to and around the site will be maintained, or alternate routes determined where necessary, and be defined by clear signage. Temporary hoarding appropriate to the interaction between pedestrians and construction works (as per Workcover requirements and Australian Standards) will be constructed to prevent unauthorized access to the Site. These hoardings and fences may be staged to allow access to in-use areas during the Works.

4.7. Materials Handling

The Contractor will designate their proposed material handling zone on the site, including where truck deliveries will access the site. Trucks will be coordinated to enter and exit the site via gate staff. An approved waiting zone will be designated, prior to entry of the hospital campus, to minimise construction traffic in the work zone.

4.8. Material Quality

The Contractor is to provide and source quality materials and products for the delivery of the project and meet the needs and expectations of the client in relation to design and construction performance.

4.9. Construction Waste Management

All waste materials will be treated in accordance with the Penrith City Council and EPA requirements. Excavated soil is to be classified prior to disposal and/or reuse. Identification of suspected or contaminated soil will cease work. Suspected contaminated spoil will be tested to provide classification for disposal.

The project scope includes for some demolition activity. Rubbish will be removed using both liftable construction bins and wheelie type bins. The waste in these bins will be loaded into the larger 'skip' bins located in the building delivery/laydown area within the site compound.

The Contractor will be required to recycle and reuse 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 disposal subcontractor will recycle material where possible and record waste volumes. A receipt summarising status of recycled and waste quantities will be issued to the contractor on a monthly basis. Target for recycling of waste by the disposal subcontractor to be agreed upfront (as percentage of the total waste generated). All other/general waste will be removed from site as required.

Anticipated construction waste streams are identified below. Recycling will be sorted and stockpiled on site in the following categories: concrete; steel/metals; bricks. Waste streams will be classified, and their recovery or disposal tracked:

- Demolition waste (rubble, concrete, solid waste)
- Mixed spoil
- Excavated Natural Material (ENM)
- Green waste
- Asbestos and asbestos-containing material
- Metal waste
- Office waste

4.10. Storage of Dangerous Goods & Hazardous Materials

Dangerous goods (such as petrol, diesel, oils etc) will be stored in a lockable compound with sufficient ventilation, in accordance with relevant codes of practice and standards. Material safety data sheets on all flammable and potentially harmful liquids will be provided by the contractor undertaking the Works.

A Geotechnical Report and Site Contamination Report have been undertaken, which indicate the potential for quantities of asbestos contaminated material to be uncovered during the demolition works. This material will be removed and remediated by a licenced asbestos removalist, in accordance with relevant codes and standards.

5. Site Management

The Works will be undertaken by a Contractor under as GC21 DF&C (Design Finalisation & Construct) contract. All statements and proposals documented in this 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 of the appointed Contractor.

5.1. Legislative Requirements

The work will be undertaken in accordance with the following legislative requirements, together with any others that must be complied with in carrying out the Works as required:

- Protection of the Environment Operations Act and Regulations
- Approved Methods for the Modelling and Assessment of Air Pollutants in NSW (EPA)
- Environmentally Hazardous Chemicals Act 1985
- Protection of the Environment Administration Act and Regulations
- Occupational Health and Safety Act 2000 and relevant codes of practice and Standards
- Occupational Health and Safety Regulation 2001 and relevant codes of practice and Standards
- Resource and Recovery Act 2001
- Environmental Planning and Assessment Act 1979
- Heritage Act 1997
- Local Government Act 1993
- Applicable aviation standards e.g. CASA requirements
- Occupational Health and Safety Act 1983
- Soil Conservation Act 1983

5.2. Hours of Operation

The proposed hours of construction work, including delivery of materials to and from the site, shall be restricted as follows:

- Monday to Friday: 7:00am to 6:00pm
- Saturday: 8:00am to 1:00pm
- Sunday and Public Holidays: No work
- In accordance with the requirements detailed within the noise and vibration impact assessment

Situations where construction work may need to be undertaken outside these hours are:

- The delivery of oversized plant or structures that police or other authorities determine require special arrangements to transport along public roads
- Emergency work to avoid the loss of life or damage to property, or to prevent environmental harm
- Maintenance and repair of public infrastructure where disruption to essential services and/or considerations of worker safety do not allow work within standard hours
- Public infrastructure works that shorten the length of the project and are supported by the affected community
- Works where a proponent demonstrates and justifies a need to operate outside the recommended standard hours

5.3. Public and Property Protection

Appropriate hoarding/fencing (as specified in Australian Standards and Workcover requirements) will be installed to prevent public and staff access and to maintain security for the various areas of the works. Access to the Hospital, public and staff car park areas and on-site facilities will be maintained during the works. At times it may be necessary to redirect pedestrians and cyclists, and adequate warning signs and barricades would be provided. Traffic controllers or other traffic devices to direct traffic will be provided in accordance with AS 1742.3: 1996. The construction schedule for the development will aim to minimise:

- Disruption to traffic movements particularly at peak periods
- Interference with public transport services

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.

5.4. Disruption Notices

Any planned disruptions to hospital operations and services will be managed through the process of Disruption Notices (DNs). For such stoppages, the DN will describe the applicable works, timetable, issues and contingency plans. DNs are submitted by the Contractor to the Project Manager and stakeholders impacted by the works for approval. Depending on the nature of the works these may be required between 48 hours and 6 weeks prior to commencement of works.

5.5. Plant & Equipment

A range of plant and equipment typically used for building demolition and construction work, including but not limited to:

- powered mobile plant
- excavators
- cranes
- personnel and/or materials hoists
- air compressors
- electric generators jack hammers
- hydraulic jacks
- oxy-acetylene (gas cutting/welding)
- concrete saws and corers
- scaffolding
- ladders (limited use)
- many types of handheld plant, including: angle grinders, power saws, hammers,
- demolition saws, hydraulic jacks and pinch/lever bars.

The Contractor is to ensure:

- plant is used and operated by a competent person that appropriate guards and operator protective devices are fitted;
- that the safe working load is displayed, and any load measurement devices are operating correctly; and
- plant is maintained in accordance with the manufacturer/supplier's instructions or relevant Australian Standards.

6. Environmental Management

The Contractor undertaking the Works will be required to submit for approval to the Principal a comprehensive Environmental Management Plan (EMP) to ensure compliance with all statutory requirements as well as NSW Health's 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 project engineering consultants. The environmental performance of the Contractor will be monitored throughout the Works.

6.1. Noise and Vibration

Noise from the site shall not exceed the limits set out in the EPA's Interim Construction Noise Guidelines and Australian Standards such as AS:2436 and a Construction Noise Impact Statement specify requirements for the contractor. No machine work will occur outside the normal working hours set unless approval has been given through the DN process.

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.

6.2. Dust

To control dust generation water will be sprayed 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 project stakeholders.

Furthermore, during the demolition works, measures will be put in place to separate the construction works from the hospital operations to reduce the impacts of dust.

6.3. Odour Control

The scope for demolition activity for the site will be minor and odour problems will be minimal. All plant and machinery involved in the Works will be regularly serviced and checked for exhaust emissions and catalytic converters.

6.4. Protection of Trees

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. Where trees are required to be retained and are close to the works, the contractor will be required to put in place procedures for their protection at every stage of the development process.

6.5. Stormwater Management

Stormwater management works associated to the TAM & CAMHS Buildings to be delivered under the REF will be according to engineers' design.

6.6. Earthworks and Excavations adjacent Buildings or Structures

Any earthworks and excavation that is below the level of the footing of any structure including retaining walls that could affect the stability of the structure must be assessed by a competent person and secured by a suitable ground support system which has been designed by a competent person. Suitable supports to brace the structure may also be required and should be identified by a competent person.

6.7. Trenching

The contractor will be undertaking the trenches for the services diversions and proposes to excavate a trench at least 1.5m deep, the contractor must minimise the risk to any person arising from the collapse of the trench by ensuring that all sides of the trench are adequately supported by one or more of the following:

- shoring by shielding or other comparable means (for example boxing)
- benching, and
- battering

7. Service Disconnections

In general terms the following principles will be adopted when disconnecting services:

- Services impacts on the existing Nepean Hospital Campus facilities will be done with full coordination; development and input with relevant hospital and authority stakeholders and will only proceed with approval from same, via a Disruption Notice process.
- Impacts on the hospital will be kept to the absolute minimum, which may result in 'Out of Hours' work. At all times patient care will be paramount and Staff/Visitor safety, access and security maintained.
- 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