#### **ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979**

#### APPROVAL OF MAJOR PROJECT NO. 09-0149

(FILE NO. S09/01470-1)

# PENRITH NEPEAN HEALTH CAMPUS REDEVELOPMENT **DERBY STREET, KINGSWOOD**

I, the Minister for Planning, under section 75J of the Environmental Planning & Assessment Act, 1979, approve the project referred to in Schedule 1 subject to the conditions in Schedule 2.

These conditions are required to:

- (1) To ensure the site is appropriately managed for the proposed use:
- (2) To adequately mitigate the environmental and construction impacts of the development;
- (3) To reasonably protect the amenity of the local area; and
- (4) To adequately mitigate traffic impacts of the development.

Tony Kelly MLC

Minister for Planning

2 0 FEB 2010 Sydney, 2010

#### **SCHEDULE 1**

# MAJOR PROJECT NO. 09\_0149

#### PART A-TABLE

Application made by:	Health Administration Corporation on behalf of NSW Health Infrastructure		
Application made to:	Minister for Planning		
Major Project Application:	MP 09_0149		
On land comprising:	Lot 1 DP 1114090		
Local Government Area	Penrith		
For the carrying out of:	Redevelopment of the Penrith Nepean Hospital including:		
	Construction of the new East Block;		
	Refurbishment and expansion of the Intensive Care Unit;		
	Demolition of the chapel and construction of a new chapel;		
	Associated car parking, access, landscaping, engineering services, and site works.		
Estimated Cost of Works \$64,400,000			
Type of development: Major Project			
Determination made on:			
Date approval is liable to lapse:	5 years from the date of determination unless specified action has been taken in accordance with section 75Y of the Act.		

# PART B-NOTES RELATING TO THE DETERMINATION OF MP No. 09-0149

#### Responsibility for other consents / agreements

The Proponent is solely responsible for ensuring that all additional consents and agreements are obtained from other authorities, as relevant.

#### Legal notices

Any advice or notice to the approval authority shall be served on the Director General.

#### Inconsistencies between documents

In the event of any inconsistency between the conditions to this major project approval and the approved plans and documentation described in Schedule 2 and the Statement of Commitments in Schedule 3, the conditions in this major project approval prevail.

#### PART C—DEFINITIONS

In this approval:

EP&A Act means the Environmental Planning and Assessment Act, 1979.

Advisory Notes means advisory information relating to the approved development but do not form a part of this approval.

BCA means the building code of Australia.

Certifying Authority has the same meaning as Part 4A of the EP& A Act.

Council means Penrith City Council

Department means the Department of Planning or its successors.

Director General means the Director General of the Department or nominee

**Environmental Assessment** means the Environmental Assessment dated 26 August 2009 prepared by HASSELL including all Appendices.

GFA means gross floor area.

Minister means the Minister for Planning.

**MP No. 09\_0149** means the Major Project described in the Proponent's Environmental Assessment Report.

**Proponent** means NSW Health Infrastructure or any party acting upon this approval.

Regulation means the Environmental Planning and Assessment Regulation, 2000.

RTA means the Roads and Traffic Authority, NSW.

**Statement of Commitments** means the proponent's statement of commitments in Schedule 3.

Subject Site has the same meaning as the land identified in Part A of this schedule.

**PPR** means the Penrith Nepean Hospital Review of Submissions and Preferred Project Report and appendices prepared by HASSELL on behalf of the Health Administration Corporation, dated 18 December 2009.

# SCHEDULE 2 CONDITIONS OF APPROVAL

# MAJOR PROJECT NO. 09\_0149

#### PART A—ADMINISTRATIVE CONDITIONS

# A1 Development Description

Except as amended by the conditions of this approval, approval is granted only to carrying out the development as described in Schedule 1, and development must be carried out consistently with the Statement of Commitments (attached as Schedule 3).

These conditions of approval do not relieve the Proponent of its obligations under the EP&A Act any other Act.

# A2 Development in accordance with plans and documents

The development will be undertaken in accordance with the Environmental Assessment dated 26 August 2009 prepared by HASSELL including all appendices, and the following drawings prepared by HASSELL:

Architectural (or Design) Drawings prepared by HASSELL			
Drawing No.	Revision	Name of Plan	Date
EB-SK 100	10	East Block Plan – Level 1	09-12-2009
EB-SK 101	11	East Block Plan - Level 2	01-12-2009
EB-SK 102	11	East Block Plan - Level 3	01-12-2009
EB-SK 103	08	East Block Plan - Level 4	12-11-2009
EB-SK 104	07	East Block Plan – Roof	01-12-2009
EB-SK 150	04	East Block Elevations -1	01-12-2009
EB-SK 200	03	East Block Sections	01-12-2009
ICU-SK 100	05	ICU Plan – Level 1	08-09-2009
ICU-SK 101	07	ICU Plan – Level 2	01-12-2009
ICU-SK 102	03	ICU Plan – Level 3	01-12-2009
ICU-SK 103	03	ICU Plan – Roof	01-12-2009
ICU-SK 150	03	ICU Elevations	01-12-2009
ICU-SK 200	03	ICU Sections	01-12-2009
SK 012	05	East Block Parking Strategy	18 -12-2009

# A3 Inconsistency between documents

In the event of any inconsistency between conditions of this approval and the drawings/ documents referred to above, including the Proponent's Statement of Commitments, the conditions of this approval prevail.

# A4 Compliance with the Building Code of Australia

Work must be carried out in accordance with the requirements of the *Building Code of Australia*.

#### A5 Development Expenses

It is the responsibility of the developer to meet all expenses incurred in undertaking the development, including expenses incurred in complying with conditions imposed under this approval.

#### PART B-PRIOR TO THE CERTIFICATION OF CROWN BUILDING WORK

# B1 Crown Building work

Crown building work cannot be commenced to be carried out unless the Crown building work is certified by or on behalf of the Crown to comply with the technical provisions of the State's building laws.

#### B2 Mechanical Ventilation

All mechanical ventilation systems shall be designed in accordance with Part F4.5 of the Building Code of Australia and shall comply with Australian Standards AS1668.2 and AS3666 *Microbial Control of Air Handling and Water Systems* of Building, to ensure adequate levels of health and amenity to the occupants of the building and to ensure environment protection.

# B3 Construction Management Plan

Prior to certification of the Crown building works, a Construction Management Plan shall be prepared. The Plan shall include, but not be limited to, the following matters which are to be addressed by suitably qualified person(s):

- (1) Hours of work, which must be in accordance with the conditions of this approval;
- (2) Contact details of the site manager and all principle contractors;
- (3) **Traffic management**, which is to be developed in consultation with Council and is to include:
  - · ingress and egress of vehicles to the site;
  - management of loading and unloading of materials;
  - number and frequency of vehicles accessing the site;
  - the times vehicles are likely to be accessing the site;
  - management of existing vehicular and pedestrian movements / routes around the site throughout the various stages of construction;
- (4) **Erosion and sediment control**, identifying appropriate measures to be installed during construction which shall be designed in accordance with in accordance with the document *Managing Urban Stormwater Soils & Construction Volume 1 (2004)* by Landcom; and must include:
  - The procedures by which stormwater and waste water deposited or generated on site is to be collected and treated prior to discharge including details of any proposed pollution control device.
  - The procedures to be adopted for the prevention of run-off loose material and litter from the site onto the public way.
- (5) Noise and vibration management, identifying specific activities that will be carried out and associated noise sources, identify all potentially affected sensitive receivers, noise and vibration monitoring reporting and response procedures, description of specific mitigation treatments management measures and procedures to be implements, and

- address any other relevant provisions of Australian Standard 2436-1981 Guide to Noise Control on Construction, Maintenance and Demolition Sites;
- (6) **Waste management**, identifying options for minimising waste in construction; reuse and recycling of materials; the storage, control and removal of construction waste.
- (7) Dust control measures to be implemented to prevent the movement of airborne particles from the site throughout the construction process, and the tracking of material from the site by trucks and other vehicles. This is to include the appropriate use of physically barriers and the dampening of exposed excavated surfaces. The storage and stockpiling areas for material is also to be detailed.

#### B4 Stormwater Plan

The proponent is to prepare a detailed storm water and drainage works plan prior to certification of the Crown building works.

Drainage from the development is not to impact the down stream catchment or downstream properties.

#### B5 Contamination Assessment

A detailed contamination assessment (and remediation action plan if necessary) is to be prepared prior to certification of the Crown building works.

# B6 Landscape Plan

A detailed landscape plan is to be prepared prior to certification of the Crown building works.

#### B7 Access and Movement

An Access and Safety plan will be prepared to maintain access and use of the site during the redevelopment of the building to ensure the safety of staff, visitors and the public.

#### B8 Disabled Access

Access and facilities for people with disabilities shall be provided in accordance with Part D3 of the BCA's Access Policy.

#### B9 Traffic, Carparking and Access Arrangements

Prior to certification of the Crown building works, plans are to be prepared identifying the following traffic and parking details:

- Opposing traffic flows on the car park ramps are to be separated by the provision of an appropriate kerb and/or safety barrier.
- Separated access for bicycles via the carpark entry ramps are to be provided (by bollards or similar safety barrier) to minimise any chance of conflict between cyclists and vehicles on the access ramps.
- On-site parking accommodation being provided for a minimum of 155 vehicles, inclusive of 2 disabled parking spaces.
- 10 Bicycle storage spaces to be provided, with the provision of male/female shower facilities and lockers.
- The minimum clearance for car parks being in accordance with AS 2890.1.
- All parking bays being permanently marked out on the pavement surface.

The parking strategy measures detailed in the traffic and parking impact assessment to reduce off street parking are to be investigated.

# B10 Reflectivity

The light reflectivity from any building materials used on the facades of the building shall not exceed 20% and shall be designed so as not to result in glare that causes any nuisance or interference to any person or place. A report demonstrating compliance with these requirements is to be prepared prior to certification of the Crown building works.

#### **B11** Outdoor Lighting

All outdoor lighting shall comply with, where relevant, AS/NZ1158.3: 1999 Pedestrian Area (Category P) Lighting and AS4282: 1997 Control of the Obtrusive Effects of Outdoor Lighting.

#### PART C— PRIOR TO COMMENCEMENT OF WORKS

#### C1 Notice to be Given Prior to Commencement / Excavation

Council shall be given written notice, at least 48 hours prior to the commencement of excavation, shoring or underpinning works on the site for each stage of the project.

# C2 Vehicle Cleansing

Prior to the commencement of work, suitable measures are to be implemented to ensure that sediment and other materials are not tracked onto the roadway by vehicles leaving the site. It is an offence to allow, permit or cause materials to pollute or be placed in a position from which they may pollute waters.

# C3 Utility Services

- Prior to the commencement of work the Proponent is to negotiate with the utility authorities (e.g. Energy Australia, Sydney Water Corporation Limited and Telecommunications Carriers) in connection with the relocation and/or adjustment of the services affected by the construction of the underground structure. Any costs in the relocation, adjustment or support of services are to be the responsibility of the developer.
- Any necessary alterations to public utility installations being at the Developer/Demolisher's expense and to the requirements of both Council and the appropriate authorities.

### C4 Contact Telephone Number

The Proponent shall ensure that a 24 hour contact telephone number is continually attended by a person with authority over the works for the duration of the development. The contact number shall be forwarded to Council and the Department prior to commencement of works.

#### C5 Haulage Routes

The routes for import of any fill materials or export of any spoil being submitted to and agreed to by the relevant road authorities prior to the commencement of haulage. Unacceptable deterioration or failures within public roads attributable to these operations is to be restored to the requirements of, and at no cost to the road authorities.

# C6 Safety and Security

The recommendations of the CPTED assessment are to be implemented and consultation is to be undertaken with the NSW Police Penrith and St Mary's Local Area Commands regarding community safety considerations and implications of the development.

#### **PART D – DURING CONSTRUCTION**

#### D1 Hours of work

The hours of excavation and work on the development must be as follows:

- All excavation and construction work and activities in the vicinity of the site generating noise associated with preparation for the commencement of work (e.g. loading and unloading of goods, transferring of tools etc) in connection with the approved development must only be carried out between the hours of:
  - 7.00am and 6.00pm on Mondays to Fridays
  - 8.00am and 1.00pm on Saturdays
  - No work must be carried out on Sundays or public holidays.
- Works may be undertaken outside these hours where:
  - the delivery of materials is required outside these hours by the Police or other authorities
  - It is required in an emergency to avoid the loss of life, damage to property and/or to prevent environmental harm
  - the work is approved by the Director General or his nominee.

#### D2 Site Notice

A site notice(s) shall be prominently displayed at the boundaries of the site for the purposes of informing the public of project details including, but not limited to:

- (1) Details of the Builder, Certifying Authority and Structural Engineer for all stages of the project;
- (2) The approved hours of work;
- (3) the name of the site/project manager, the responsible managing company (if any), its address and 24 hour contact phone number for any inquiries, including construction/noise complaint are to be displayed on the site notice; and
- (4) To state that unauthorised entry to the site is not permitted.

#### D3 Protection of Trees – Street Trees

All street trees shall be protected at all times during construction. Any tree on the footpath, which is damaged or removed during construction of any stage of the project, shall be replaced, to the satisfaction of Council.

#### D4 Noise Control

 All work, including excavation and construction work must comply with the Australian Standard 2436-1981 'Guide to Noise Control on Construction, Maintenance and Demolition Sites'. Noise and vibration emissions from equipment and associated site works must not result
in damage to nearby premises or result in an unreasonable loss of amenity to nearby
residents or businesses and the relevant provisions of the Protection of the Environment
Operations Act 1997 must be satisfied at all times.

#### D5 Standards and Codes

All building works shall be constructed in accordance with safe work practices and complying with the relevant Australian Standards, Codes of Practice and the Building Code of Australia.

# D6 Work Cover Requirements

To protect the safety of work personnel and the public, the work site shall be adequately secured to prevent access by unauthorised personnel, and work shall be conducted at all times in accordance with relevant Work Cover requirements.

# D7 Hoarding Requirements

- To ensure an appropriate presentation of the site to the public domain during the construction period, temporary artwork shall be provided along any hoarding/fencing proposed to be erected around the subject site.
- The temporary artworks shall inform the general public about the proposed works being undertaken by the Proponent, the site's history and heritage significance.
- No third party advertising is permitted to be displayed on the subject hoarding/fencing.
- The construction site manager shall be responsible for the removal of all graffiti from any construction hoardings or the like within the construction area within 48 hours of its application.

## D8 Loading and Unloading During Construction

A Works Zone is required if loading and unloading is not possible on site. If a Works Zone is warranted an application must be made to Council prior to commencement of the work on the site. An approval for a Works Zone may be given for a specific period and certain hours of the day to meet the particular need for the site for such facilities at various stages of construction. The approval will be reviewed periodically for any adjustment necessitated by the progress of the construction activities.

#### D9 No obstruction of public way

The public way (outside of the work area) must not be obstructed by any materials, vehicles, refuse, skips or the like, under any circumstances. Non-compliance with this requirement will result in the issue of a notice by the relevant Authority to stop all work on site.

## D10 Disposal of seepage and stormwater

Any seepage or rainwater collected on-site during excavation shall not be pumped to the street stormwater system unless separate prior approval is given in writing by the relevant Authority.

#### D11 Erosion and sediment control

Sediment controls are to be in place for the duration of the works to ensure that no sediment, fines, and like material can enter the waterway or drainage system. The Proponent is to carry out works generally in accordance with the Construction Management Plan and

controls are to be maintained at design level throughout the duration of the works and are to be inspected for this purpose at frequent intervals. Any deficiencies are to be immediately made good.

#### D12 Dust Control Measures

Dust control measures are to be in place or are to be undertaken for the duration of the works to prevent dust from affecting the amenity of the immediate area during construction. The Proponent is to carry out works generally in accordance with the Construction Management Plan, and controls are to be maintained at design level throughout the duration of the works and are to be inspected for this purpose at frequent intervals. Any deficiencies are to be immediately made good.

# D13 Pedestrian Access During Construction

Pedestrian access along Derby Street and Somerset Street is to be maintained throughout construction. Alternative routes, including those for persons with disabilities, shall be clearly identified and signposted for the duration of the works, and until such time as the permanent accessible paths are provided.

# D14 Setting Out of Structures

The new buildings shall be set out by a registered surveyor to verify the correct position of each structure in relation to property boundaries and the approved alignment levels.

# D15 Directional Signage

- Directional signage shall be modified as required to accommodate any altered pedestrian and vehicular movements within the area.
- Particular attention is to be paid to:
  - wheelchair accessible paths of travel
  - safe road crossing areas including signalised and other designated crossings
  - key landmarks
  - access to transport nodes including public transport
  - the vehicular entrance and exit driveways and the direction of traffic movement within the site being clearly indicated by means of reflectorised signs and pavement markings.

#### D16 Traffic Movement

- All loading and unloading associated with works must occur on site.
- All vehicles must enter and leave the site in a forward direction.
- The cost of all traffic management works shall be borne by the Proponent.
- No trucks associated with the approved works are permitted to park or stand on public roadways.
- Gates shall be closed between vehicle movements.
- Movement of trucks to and from the site shall be staggered so as to limit access and egress during peak traffic periods.
- The Contractor small make provision for safe, continuous movement of traffic and pedestrians in public roads and private roads accessible to the public and erecting traffic warning signs conforming to the Roads and Traffic Authority's General Specifications

(RTA Spec. Part G10 "Control of Traffic" and RTA Spec. 3355). Traffic control is to be carried out only by flagmen with certification that they have been trained in accordance with Australian Standard 1742.3 – 2002.

### D17 Approved plans to be on-site

A copy of the approved and certified plans, specifications and documents incorporating conditions of approval shall be kept on the site at all times and shall be readily available for perusal by any officer of the Department, HDC or Council.

#### D18 Work on site to cease

- If any unidentified historical archaeological remains or deposits are exposed during the
  works excavation is to cease immediately in the affected areas and the archaeologist is
  to undertake an evaluation of the potential extent and significance of such relics. The
  Heritage Council is to be notified in accordance with section 146 of the NSW Heritage
  Act, 1977.
- Should any Aboriginal relics or artefacts be discovered during the course of any works on-site, then work is to cease immediately. Work may only be resumed following written consent being obtained from the National Parks and Wildlife Service.

#### D19 Excavated Material

Any excavated material to be removed from the site must be assessed, classified, transported and disposed of in accordance with the EPA's Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wastes.

#### D20 Imported Fill

Any imported fill onto the site being validated to ensure its suitability for the proposed land use from a contamination perspective. Imported fill is to be certified that it is not contaminated, based upon analysis or the known past history of the site from which is it obtained.

#### PART E - PRIOR TO OCCUPATION AND COMMENCEMENT OF USE

#### E1 Sydney Water

An application shall be made to Sydney Water for a Certificate under Part 6, Division 9, section 73 of the Water Board (Corporatisation) Act, 1994 (Compliance Certificate).

Following application a "Notice of Requirements" will advise of water and sewer extensions to be built and charges to be paid. Please make early contact with the Coordinator, since building of water/sewer extensions can be time consuming and may impact on other services and building, driveway or landscape design.

## E2 Noise Control – Plant and Machinery

Prior to occupation a report is to be prepared by a qualified acoustic engineer confirming that the installation and performance of the mechanical systems complies with:

- the Acoustic Assessment Report (Norman Disney and Young 2 July 2009)
- the Building Code of Australia
- Australian Standard AS1668 and other relevant codes
- the project approval and any relevant modifications
- any dispensation granted by the New South Wales Fire Brigade.

# E3 Fire Safety Certificate

A Fire Safety Certificate shall be obtained for all the Essential Fire or Other Safety Measures forming part of this approval prior to Occupation. A copy of the Fire Safety certificate must be submitted to the relevant authority and Council.

# E4 Road Damage

The cost of repairing any damage caused to Council or other Public Authority's assets in the vicinity of the subject site as a result of construction works associated with the approved development, is be met in full by the Proponent prior to Occupation.

#### E5 Waste Management

Prior to Occupation, waste handling works must have been completed in accordance with the Waste Management Plan; other relevant approval conditions; and any relevant Council policy.

#### PART F - POST OCCUPATION & ON GOING OPERATIONAL CONDITIONS

# F1 Annual Fire Safety Certificate

An annual Fire Safety Statement must be given to Council and the NSW Fire Brigade commencing within 12 months after the date on which the initial Interim/Final Fire Safety Certificate is issued. This must ensure that the essential services installed in the building for the purpose of fire safety have been inspected and at the time of inspection are capable of operating to the required minimum standard.

# F2 Noise Control – Plant and Machinery

Noise associated with the operation of any plant, machinery or other equipment on the site, shall not give rise to any one or more of the following:

- Transmission of "offensive noise" as defined in the Protection of the Environment Operations Act 1997 to any place of different occupancy.
- A sound pressure level at any affected residential property that exceeds the background (LA90, 15 minute) noise level by more than 5dB(A). The background noise level must be measured in the absence of noise emitted from the premises. The source noise level must be assessed as a LAeq, 15 minute.
- Notwithstanding compliance with (1) and (2) above, the noise from mechanical plant associated with the premises must not be audible in any habitable room in any residential property between the hours of 12.00 midnight and 7.00am.

## F3 Loading and Unloading

All loading and unloading, including deliveries to and from the site in connection with the use must be carried out in a manner so as not to cause inconvenience to the public or detrimentally impact the amenity of the locality.

#### F4 Unobstructed Driveways and Parking Areas

All driveways and parking areas shall be unobstructed at all times. Driveways and car spaces shall not be used for the manufacture, storage or display of goods, materials or any other equipment and shall be used solely for vehicular access and for the parking of vehicles associated with the use of the premises.

#### **ADVISORY NOTES**

#### AN1 Use of Mobile Cranes

The Proponent shall obtain all necessary permits required for the use of mobile cranes on or surrounding the site, prior to the commencement of works. In particular, the Proponent shall ensure the following matters are complied with:

- For special operations including the delivery of materials, hoisting of plant and equipment and erection and dismantling of on site tower cranes which warrant the on street use of mobile cranes, permits must be obtained from Council:
  - at least 48 hours prior to the works for partial road closures which, in the opinion of Council will create minimal traffic disruptions
  - at least 4 weeks prior to the works for full road closures and partial road closures which, in the opinion of Council, will create significant traffic disruptions.
- The use of mobile cranes must comply with the approved hours of construction and shall not be delivered to the site prior to 7.30am without the prior approval of Council.

# AN2 Movement of Trucks Transporting Waste Material

The Proponent shall notify the Roads and Traffic Authority's Traffic Management Centre (TMC) of the truck route(s) to be followed by trucks transporting waste material from the site, prior to the commencement of the removal of any waste material from the site.

# AN3 Disability Discrimination Act

This application is to comply with the Disability Discrimination Act 1992. The Proponent/owner is responsible to ensure compliance with this and other anti-discrimination legislation. The Disability Discrimination Act 1992 covers disabilities not catered for in the minimum standards called up in the Building Code of Australia which references AS 1428.1 - Design for Access and Mobility. AS1428 Parts 2, 3 & 4 provides the most comprehensive technical guidance under the Disability Discrimination Act 1992 currently available in Australia.

# AN4 Temporary Structures

A Barricade/Hoarding Permit must be obtained prior to the commencement of construction works from the relevant Authority. The permit application must be supported by a report detailing compliance with the provisions of the Building Code of Australia.

Structural certification from an appropriately qualified practicing structural engineer must also be submitted to the relevant Authority to certify the structural adequacy of the design of the temporary Barricades/Hoarding.

#### AN5 Structural Capability for Existing Structures

The structural capabilities of any existing structure will need to meet the requirements of the BCA and may require engaging a structural engineer.

# AN6 Commonwealth Environment Protection and Biodiversity Conservation Act 1999

The Commonwealth Environment Protection and Biodiversity Conservation Act 1999 provides that a person must not take an action which has, will have, or is likely to have a

significant impact on a matter of national environmental significance (NES) matter; or Commonwealth land, without an approval from the Commonwealth Environment Minister.

This application has been assessed in accordance with the New South Wales Environmental Planning & Assessment Act, 1979. The determination of this assessment has not involved any assessment of the application of the Commonwealth legislation. It is the proponent's responsibility to consult Environment Australia to determine the need or otherwise for Commonwealth approval and you should not construe this grant of approval as notification to you that the Commonwealth Act does not have application. The Commonwealth Act may have application and you should obtain advice about this matter. There are severe penalties for non-compliance with the Commonwealth legislation.

# **SCHEDULE 3**

# MP09\_0149 PENRITH HEALTH CAMPUS KINGSWOOD PROPONENT'S STATEMENT OF COMMITMENTS

Penrith Nepean Hospital\_ Environmental Assessment

#### 1 \_\_\_\_Revised Draft Statement of Commitments (27 November 2009)

A Draft Statement of Commitments has been prepared to outline the proposed environmental management of the development, including mitigation and monitoring measures to be implemented to minimise the potential impacts that have been identified.

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#### 1.1\_Construction and Operational Environmental Management Plans

An Environmental Management Plan (EMP) outlines the environmental goals of the project, the mitigation measures to be implemented, the timing of implementation, responsibilities for implementation and management, and a review process to determine the effectiveness of strategies.

A Construction Environmental Management Plan (CEMP) will be prepared by NSW Health prior to construction, and an Operational Environmental Management Plan (OEMP) will be prepared by NSW Health prior to occupation of the development. The objectives of the EMPs would be as follows:

- \_Ensure works are carried out in accordance with the assessments detailed in this Environmental Assessment to mitigate the potential for adverse environmental impacts;
- \_Ensure that the works are carried out in accordance with statutory requirements and non-statutory policies;
- \_Ensure that employees engaged to undertake the works comply with the conditions detailed in the EMPs as well as relevant OH&S requirements; and
- \_Identify management responsibilities and reporting requirements to demonstrate compliance with the EMPs.

The EMPs would be working documents and are to be amended should the strategies implemented be found to be inadequate to manage environmental impacts. The EMPs would typically:

- \_Establish environmental goals and objectives;
- \_Detail the required mitigation measures recommended in this Environmental Assessment;
- List actions, timing and responsibilities for implementation that arise from the mitigation measures recommended in this Environmental Assessment:
- \_Detail statutory requirements;
- \_Provide a framework for reporting on relevant matters;
- \_Detail training requirements for personnel in environmental awareness and best practice EMS;
- \_Outline emergency procedures including contact names and corrective actions;
- \_Detail process surveillance and auditing procedures;
- \_List compliant handling procedures; and
- \_Detail quality assurance procedures

#### 1.2\_Mitigation Measures and Monitoring

The following mitigation measures and monitoring procedures have been proposed for the development, and are summarised from the main body of this report.

#### Safety, Security and Crime Prevention

As requested by Penrith City Council, consultation is to be undertaken with the Penrith and St Mary's Local Area Commands during the detailed design stage regarding community safety considerations and implications of the development.

#### Lighting

It is recommended that the following lighting design criteria, as outlined in the Penrith DCP (2006:6), is taken into consideration during the detailed design of the lighting for East Block. A review of the existing lighting in place for the ICU and Renal units should also be undertaken against these criteria and measures incorporated where possible.

- (a) All areas intended to be used at night should allow appropriate levels of visibility.
- (b) Pedestrian pathways, lane ways and access routes in outdoor public spaces should be lit to the minimum Australian Standard of AS 1158. Lighting should be consistent in order to reduce the contrast between shadows and illuminated areas. Lighting should be designed in accordance with AS4282 – Control of the obtrusive effects of outdoor lighting.

HASSELL

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Penrith Nepean Hospital Environmental Assessment

- (c) Lighting should have a wide beam of illumination, which reaches to the beam of the next light, or the perimeter of the site or area being traversed. Moreover, lighting should clearly illuminate the faces of users of pathways.
- (d) Streetlights should shine on pedestrian pathways and possible entrapment spaces as well as on the road.
- (e) Lights should be directed towards access/egress routes to illuminate potential offenders, rather than towards buildings or resident observation points.
- (f) Lighting should take into account all vegetation and landscaping that may act as an entrapment spot.
- (g) Lighting should be designed so that it is "vandal tough" or difficult for vandals to break.
- (h) Where appropriate use movement sensitive and diffused lights.
- (i) Avoid lighting spillage onto neighbouring properties as this can cause nuisance and reduce opportunities for natural surveillance.
- (j) Illuminate possible places for intruders to hide.
- (k) As a guide areas should be lit to enable users to identify a face 15 metres away.
- (I) All lighting should be maintained and kept in a clean condition with all broken or burnt out globes replaced quickly.
- (m) Use energy efficient lamps/fittings/switches to save energy.

#### Car Parking

It is recommended that the following matters are incorporated into the project in the detailed design stage:

Lighting of the car park should meet Australian standards for car parking, and be of a uniform nature so as to avoid problems associated with adjustment of vision for motorists and pedestrians moving from dark to light areas. Lighting should cover all of the parking area and not just driving aisles. Pedestrian exit and entry points should also be uniformly lit to ensure smooth visual transition from the interior of the facility to the external environment.

The car park is retained as light grey concrete or painted in a light colour in order to reflect as much light as possible.

The car park incorporates signage to indicate the location of the exit, lifts, stainvells, intercoms, and emergency

The car park is generally spacious and open, however there are corners in the north-east and north-west which could provide concealment opportunities. It is recommended that mirrors are provided in this area to provide full visual coverage to pedestrians and vehicles approaching this area.

Particular attention should be paid to providing sufficient lighting and CCTV coverage to the lift area and stairwells, as they represent potential entrapment points.

Stainwell doors to incorporate transparent panels where appropriate to provide sightlines and give advanced warning of any potential dangers.

Signage and tactile pavement treatment is incorporated into the East Block car park detailed design, to direct disabled users to the lifts.

#### **Entrapment Spots and Blind Corners**

It is recommended that the following matters are incorporated into the project in the detailed design stage:

Consideration should be given to installing mirrors at the edge of the external East Block courtyard area to provide views around the corners.

Doors to stairwells throughout the development to incorporate glass panels where appropriate.

#### Landscaping

It is recommended that a detailed landscape plan is prepared in the detailed design stage that:

- \_stipulates the use of canopy trees and low-level shrubs;
- \_stipulates spacing requirements for any dense low growth foliage;
- requires any vegetation near the main entrance to be of low-level so as to maintain visibility of the entrance;
- highlights the location of street lighting and stipulates vegetation of a height and type that will not interfere with the lighting of the public space; and
- \_recommends appropriate plant varieties to achieve the above.



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#### Building Identification and Way Finding

It is recommended that prior to occupation of the development:

Signage on the Hospital campus is to be updated to clearly show the location of the new buildings and facilities, and to provide directions.

Where possible, new signage seeks to meet the following design criteria outlined in the Penrith DCP (2006:24):

- (a) Signs should be large and legible, with strong colours, standard symbols (e.g. for washrooms) and simple graphics. They should indicate where to go for help or assistance.
- (b) Signs should be strategically located at entrances and near activity nodes such as intersections of corridors or paths.
- (c) Signs should indicate how to report maintenance problems in the complex.
- (d) The main pedestrian route through a large building, sets of building or areas of open public space should be indicated as such with appropriate signage.
- (e) Where exits to pedestrian routs are closed after hours this should be indicated at the entrance to the route and information on alternative routes should clearly advised.
- (f) Signs that provide way finding information should not be relied upon solely, the overall legibility of the design needs to be well considered. Users of the space need to be able to intuitively understand where they are within the complex or area and how they can get away.

#### Security

It is recommended that prior to occupation of the development:

Existing security systems provided at the Hospital are to be extended to the new buildings.

A Security Management Plan is prepared detailing the processes that will be implemented to effectively manage the security of patients, staff and visitors to the new facilities. This includes the use of security personnel, closed-circuit television systems, alarms and monitoring systems to provide a safe and secure environment.

#### Sustainability

A commitment is made, as per the NSW Health Engineering Services and Sustainable Development Guidelines (TS11), Version 2, to achieve a design that is capable of achieving a Green Star rating of at least 4 stars.

#### Waste Management

The operation of the new and refurbished facilities will be subject to standard Hospital procedures in regards to waste management, which include guidelines for meeting legislative requirements. Waste management is coordinated across the Sydney West Area Health Service (SWAHS) and is subject to the Waste Management Policy Manual, attached at Appendix AB.

#### **Utilities and Services**

Prior to the start of construction, utility and services companies are to be contacted to confirm the location of existing infrastructure on the site, and to arrange connections and disconnections.

Construction access and ingress is to be limited to Somerset Street. If there is any requirement to deviate from this, it must be agreed with Jemena Gas Networks and any other relevant utility providers.

#### Drainage, Stormwater and Groundwater Impacts

Soil erosion and sediment control measures, to prevent or minimise any discharge into waterbodies, are included in section 9.23 of this report. These measures are to be implemented prior to construction.

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#### Transport, Traffic and Access

Suitable bicycle parking and storage areas are to be integrated on the site prior to issue of a Construction Certificate. The bicycle storage area must be designed in accordance with Australian Standard AS 2890.3:1993 Parking Facilities – Bicycle parking facilities. Details are to be provided prior to the issue of a Construction Certificate.

A Transport Access Guide (TAG) will be developed and distributed to staff of the Hospital. The TAG will consider and incorporate the following measures as appropriate:

- \_Make all staff aware and encourage the use of www.131500.com.au by regular emails and by inclusion in TAG. \_Introduce a system which would inform staff members about other staff who reside in their neighbourhood, for the purposes of car pooling.
- Prepare and distribute a guide on health benefits of walking and cycling.

#### Accessibility

The development will comply with the requirements of Part D3 of the Building Code of Australia (BCA) and Australian Standard AS 1428.1 General requirements for Access.

#### Heritage

If an item of archaeological significance is found during excavation or construction, work would cease immediately, the site would be closed and the Heritage Office would be informed. Actions would be undertaken in accordance with the Heritage Act 1977, Part 6 Division 8 Controlling and restricting harm to buildings, works, relics and places not subject to interim heritage orders or State Heritage Register listing, in particular Clause 136 Order restricting harm to buildings.

#### Flora

If an external site compound is to be set up, it should be located away from any existing landscaping plantings.

Any landscaping or revegetation is to incorporate locally indigenous plant species that are characteristic of Cumberland Plain Woodland.

Machinery is to be cleaned of soil and debris before bringing it on to the site to reduce the potential spread of weeds and the fungal pathogen *Phytophthora cinnamomi*.

The site is to be made good on completion of construction with no excess construction materials or debris to remain on the site.

Prior to construction, trees to be retained on the site are to be protected from construction activities using the following measures:

- \_Services should be designed so that no trenching is required within 8 metres of the trees.
- \_A site arborist should supervise any activities in the vicinity of trees, including fencing, excavation and root pruning, and make periodic visits and reports to monitor the state of the trees.
- \_Excavation in the vicinity of trees should be done initially by hand. Any roots encountered that are less that 50 millimetres in diameter should be cut cleanly with a hand saw. Any roots encountered that are greater than 50 millimetres in diameter should be retained intact and referred to the site arborist for advice.
- \_Prior to the start of construction, trees should be fenced (in groups where possible) to a radius of 8 metres from each trunk except where access is required for construction, to form tree protection zones. Fences should be chainlink, 1.8 metres high, and supported by steel posts.
- \_Where access is required within these radii for building purposes, the fence should be set back 1.5 metres from the building face and the soil surface between the fence and the building should be protected by plywood sheets or strapped planking.
- \_Where not otherwise protected, trunks should be armoured with 2 metres lengths of 50x100 millimetre hardwood timbers spaced at 150 millimetre centres and secured by 8 gauge wires or steel strapping at 300 millimetre spacing. The trunk protection should be maintained intact until the completion of all work on the site.
- \_There should be no pedestrian or vehicular access to the tree protection zones. No building activities should take place within the tree protection zones, including storage or stockpiling. Runoff from the site should not be allowed to enter the tree protection zones.

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- \_The soil surface within the tree protection zones should be mulched with a layer of composted organic material (Vitagrow Landcure or similar) to a depth of 100 millimetres.
- \_At the end of construction all retained trees should be pruned to remove deadwood and weak branches. All pruning should be done in accordance with AS4373 Pruning of Amenity Trees.

#### Fauna

Prior to construction, temporary fencing should be installed around construction and storage compounds to prevent access by native fauna and minimise opportunities for fauna to shelter in machinery or materials stockpiles.

#### Contamination

A detailed contamination assessment will be undertaken in the area of the proposed East Block prior to the commencement of construction works, in accordance with the *DECC Guidelines for Consultants Reporting on Contaminated Sites* (NSW EPA, 1997), and any necessary remedial action or further investigations prescribed accordingly.

If any contamination is found during construction, it is to be removed in accordance with Department of Environment and Climate Change (DECC) and Workcover requirements.

#### Hazardous Materials

A hazardous materials assessment is to be undertaken on the Intensive Care Unit and Renal Dialysis Incentre Unit buildings prior to the commencement of works on these buildings.

#### Soil and Soil Erosion

#### Geotechnical Investigations

Additional geotechnical investigations and testing is to be undertaken to prior to construction to:

- \_Evaluate design and construction requirements to alleviate the effects of the potential saline condition of the subsurface clay.
- \_Confirm the behaviour of the CLASS H site (high ground movement), in accordance with AS/NZS 287001996 'Residential Slabs and Footings'.
- \_Assess soil erosion potential, with testing to comprise particle size distribution of the soils and the determination of the Emerson Class Number to assess the dispersive nature of the soils.

#### Earthworks

Earthworks for the proposed cutting and filling shall be performed as follows:

- \_Excavate the existing topsoils from within the development footprint and stockpile these separately for either re-use for landscaping or removal from site.
- Excavate the subsurface soils in the building areas to the design level of the building pads / floor slab sub-grade. Stockpile these materials separately for removal from site or, should it be required, these soils may be suitable for re-use within the development as 'controlled fill' if they are suitably combined with appropriate imported granular materials.
- \_A suitably qualified Geotechnical Engineer is to be present during proof-roll testing of exposed residual soils at foundation levels for the building pads / floor slab sub-grade to assess the ability of the prepared surfaces to act both as a foundation platform for shallow footings and also as a sub-grade for the undercroft and walkway pavements. Should soft heaving areas be identified, such soils are to be removed as directed by the engineer on site and replaced using suitable granular fill material.
- \_Fill material is to be placed in no more than 250mm loose thickness and suitably compacted. The degree of compaction is to be verified by in-situ and laboratory testing.

The exposed residual clay soils will not be trafficable under wet conditions. Trafficked areas during the construction works need to be covered by a suitable layer of crushed gravel or concrete.

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#### Footings

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Footings are to be designed and constructed in accordance with sound engineering principles and the following preliminary recommendations and advice:

- All footings of the proposed East Block building or walkways must found on ground of similar bearing capacity to prevent differential movement resulting from the varying foundation materials. It is therefore recommended that all footings found either entirely within the residual soils or entirely at depth within the weathered shale using deepened pier footings where necessary.
- \_All footing excavations must be suitably cleaned free of loose debris and wet soil before construction.
- The foundation material is to be inspected at the time of footing excavation to ensure that all footings found on suitable ground with anticipated foundation conditions.
- \_With regards to the proposed ICU extension, the type and layout of the existing building foundations and the condition of the foundation materials are to be established to assess the capacity of the existing footings to carry the additional loading.

#### Soil Erosion and Sediment Control

Proposed soil erosion and sediment control measures during construction are as follows:

- \_Initial works shall be undertaken in the following sequence prior to commencing construction:
  - \_Install all temporary sediment fences and barrier fences. Where fences are adjacent to each other the sediment fence can be incorporated into the barrier fence.
  - \_Construct temporary stabilised site access.
  - Install sediment traps.
- \_Undertake site development works so that land disturbance is confined to areas of minimum workable size.
- \_At all times and in particular during windy and dry weather, large, unprotected areas will be kept moist (not wet) by sprinkling with water to keep dust under control.
- \_Any sand used in the concrete curing process (spread over the surface) will be removed as soon as possible and within 10 working days from placement.
- \_Water will be prevented from entering the permanent drainage system unless it is relatively sediment free, i.e. the catchment area has been permanently landscaped/stabilised and/or any likely sediment has been filtered through an approved structure.
- \_Temporary soil and water management structures will be removed only after the lands they are protecting are stabilised / rehabilitated.
- \_Acceptable receptors will be constructed for concrete and mortar sturries, paints, acid washings, light-weight waste materials and litter.
- \_Any existing trees which form part of the final landscaping plan will be protected from construction activities by:
- \_Protecting them with barrier fencing or similar materials installed outside the drip line:
- \_Ensuring that nothing is nailed to them:
- Prohibiting paving, grading, sediment wash or placing of stockpiles within the drip line except under the following conditions.
- \_Encroachment only occurs on one side and no closer to the trunk than either 1.5 metres or half the distance between the outer edge of the drip line and the trunk, whichever is the greater
- \_A drainage system that allows air and water to circulate through the root zone (e.g. a gravel bed) is placed under all fill layers of more than 300 millimetres depth
- \_Care is taken not to cut roots unnecessarily nor to compact the soil around them.
- \_Allow for grass stabilisation of unstable areas, open channels and rock batters as and where directed.
- \_Allow for establishment of other erosion protection measures as directed.
- Receptors for concrete and mortar slurries, paints, acid washings, light-weight waste materials and litter are to be emptied as necessary, disposal of waste shall be in a manner approved by the site superintendent.
- \_Erosion and sediment control measures shall be inspected to ensure that they operate effectively. repairs and or maintenance shall be undertaken regularly and as required, particularly following storm events.
- \_The contractor shall provide all monitoring controls and testing.
- \_The temporary access shall be maintained in a condition that prevents tracking or flowing of sediment onto public rights of way. This may require periodic top dressing with additional gravel as conditions demand and repair and/or cleanout of any measures used to trap sediment.
- "All sediment spilled, dropped, washed or tracked onto public rights of way must be removed immediately.

The contractor will be responsible for the establishment and management of a detailed erosion and sediment control scheme to meet Council requirements.



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#### Noise

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All building materials and systems will meet the requirements of the NSW Health Facility Guidelines, AS/NZS 2107:2000 "Acoustics-Recommended design sound levels and reverberation times for building interiors", and the NSW DECC Industrial Noise Policy Guidelines.

A detailed assessment of plant noise emissions will be conducted prior to occupation of the development.

Noise attenuation measures are to be implemented for plant rooms at roof level, such as screens or barriers, internal insulation, attenuators and acoustic louvers, prior to occupation of the development.

Plant will be selected and operated in accordance with the NSW DECC Industrial Noise Policy Guidelines and the Protection of the Environment Operations Act 1997.

Following occupation of the development, operational noise monitoring shall be undertaken to ensure noise levels meet criteria within the NSW DECC Industrial Noise Policy Guidelines (INP). If the results of operational noise monitoring are found to exceed operational noise criteria derived under the INP, further consideration of reasonable and feasible measures will be undertaken to minimise the noise impacts to surrounding sensitive receivers.

Investigative noise monitoring will be undertaken, as required, in response to any specific complaints that may be received.

#### Fire Safety

All works will comply with the provisions of the BCA, either in terms of the deemed-to-satisfy provisions or by way of alternate solution.

Elements of the development that are to be undertaken as alternative solutions under the BCA, are to be evaluated by a suitably qualified fire safety engineer in accordance with the *International Fire Engineering Guidelines 2005*, and to be referred to the NSW Fire Brigades for approval where required. The evaluation and verification of these matters by a fire safety engineer must be concluded prior to the issue of certification for the design under Section 116G of the *Environmental Planning and Assessment Act 1979*.

#### **Construction Impacts**

Prior to commencing construction, a Construction Management Plan will be prepared by the contractor. This plan will include the identification and mitigation of potential impacts during the construction of the project including the following:

- \_Development of a site specific soil erosion and sediment control plan;
- \_Construction hours;
- \_Air quality/dust control procedures;
- \_Noise management procedures;
- Construction waste management plan;
- \_Storage and handling of materials procedures;
- Details of hoarding requirements:
- Traffic Management Plan;
- \_Procedures during events, including pedestrian movements, signage etc;
- \_Environmental training and awareness; and,
- \_Emergency preparedness and response.

The Construction Management Plan is to clearly indicate the frequency of noise monitoring, the locations at which monitoring shall take place, recording and reporting of monitoring results, and if any exceedance is detected, the manner in which any non-compliance shall be rectified.

Work sites are to be inspected on a regular basis during construction to ensure that the dust control procedures, such as regularly watering unsealed areas, which are to be incorporated into the Construction Management Plan are being implemented. Visual monitoring of dust generation from work areas is to be undertaken to ensure that excessive dust is not being produced.

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Regular inspection of the work site(s) is to be undertaken to:

- \_Evaluate the effectiveness of waste storage and collection practices;
- \_\_\_\_\_\_Monitor waste recycling and disposal procedures to ensure they are being complied with;
- \_Ensure waste receptacles are not being overfilled and are being collected on a regular basis;
- \_Ensure there is no unauthorised waste disposal activity; and
- Inspect any portable toilet facilities to ensure they are being emptied on a regular basis.

General construction hours will be: Monday to Friday 7am to 6pm; and Saturday 7am to 3pm. Where construction work is undertaken which generates significant noise or vibration impacts, construction hours will be: Monday to Friday 9am to 12pm and 2pm to 5pm, and Saturday 9am to 12pm.

During construction, the project will be aiming for a minimum 80% recycling of construction waste which is line with the Greenstar Healthcare v1 tool. All waste will be separated into different streams on site by the Contractor.

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