



## CRI Australia Pty Limited

ABN 20 075 466 330

level 2 76 berry street north sydney nsw 2060

t: [02] 9954 8888 f: [02] 9929 3388

[www.cri.com.au](http://www.cri.com.au)



# COCHLEAR GLOBAL HEADQUARTERS PROJECT

## PRELIMINARY CONSTRUCTION PLAN

JULY 2008

## Introduction

This plan sets out the proposed site access and worksite requirements for the construction of the Cochlear Global Headquarters project.

The project will be under the control of a Head Contractor who will be appointed after the Development Approval is granted. Upon appointment and once they have become familiar with the site and developed a methodology for the construction of the headquarters, the Contractor will prepare and submit a Detailed Construction Management Plan. It is anticipated the Plan will be based on this Plan and be prepared during the fourth quarter of 2008.

## Description of the Works

The Cochlear Global Headquarters project comprises two principle components:

- The 2 level Basement comprising car parking, Bicycle storage areas and service plant rooms.
- The office structures comprising the production, research and general office areas for the Cochlear Global.

The project has a lower ground floor level which will require the removal of approximate 45,000 cubic meters of soil from the site. This work will be undertaken upon receipt of the Development Consent and approval of the Construction Certificate. Once excavation has been completed, in-ground services will be installed and the footings and ground slab poured.

It is anticipated that Cochlear's new premises, planned for completion in early to mid 2010, will have an NLA in the order of 23,300m<sup>2</sup> and might be built as two linked buildings of 6 to 7 storeys in height. While the buildings will contain some areas of manufacturing and warehouse usage, it is envisaged that the form of the buildings will be largely that of typical, newer, A grade office buildings in the Macquarie Park / North Ryde Area.

## Hoarding and Fences

Prevention of unauthorised access to the site is a very high priority and will be vigorously managed throughout the construction period. When the Contractor is appointed, the site will be secured with fences and barriers and, if necessary, hoardings to an approximate of height of 2.4m. Alternate pedestrian routes around the site will be created and clearly signed. Particular attention will be paid to maintaining the access and amenity of the existing single storey child care centers on the site.

## Site Offices and Amenities

The Contractor will establish site offices and accommodation at the in a suitable location on site in accordance with Macquarie University works.

## Major Plant and Equipment

During excavation, heavy earthmoving equipment will be active on the site. This work will involve tree removal and mulching, top soil removal and it is anticipated rock ripping, loading and removal. As the excavation deepens, the earth walls will be nailed to prevent slippage.

During construction the following equipment will be used:

- Bulldozers, backhoes and excavators
- Articulated and fixed trucks
- Mobile cranes
- Fixed crane
- Concrete delivery trucks
- Concrete pumps
- Man and material hoists
- Scissor and boom lifts
- Fork trucks

## Traffic and Pedestrian Management

Refer to the Preliminary Construction Management Plan which shows the intent of the traffic and pedestrian management.

The site is bounded by University Avenue to the North and University Creek to the South East. The northern boundary has pedestrian access which provides access to the existing ongrade Carpark and existing buildings. The Southern boundary is approximately 10 meters to the North of Waratah Occasional Care Centre.

The existing Bus Stop and Shelter at the Eastern End of University Avenue will require relocation to the location as indicated in the draft Concept plan, and as shown in landscape plan LA-502reva06 prepared by DEM (Aust) to ensure amenity of commuters.

Construction traffic will enter the construction zone at the Eastern end of the site after entering the Campus via Herring Road. The construction site will be delineated by means of concrete jersey kerb with screened fencing, lockable gates at the entry and departure points.

Construction traffic will enter the University Campus from Balaclava Road or Herring Road and approach the site on University Avenue.

Spoil from the excavation will be loaded, as much as possible, within the site boundary then leave the site at the centre of the southern boundary and head east onto University Avenue.

Delivery trucks will enter as per above, park outside the site on University Avenue where the truck will be unloaded. Once construction advances, the loading dock will be utilized as a loading and staging area as much as possible to avoid parking and loading on the roadway.

## Environmental / Biodiversity

Although the Flora and Fauna assessment has found that no native plant communities exist on the subject site, the detailed construction / environmental management plan will be issued by the contractor. This will be reviewed by qualified personnel to ensure appropriate measures are in place for the works with regard to Biodiversity.

The presence and the conservation significance of the Sydney Turpentine Ironbark Forest to the South East of the Stage 1 Site are to be incorporated in the detailed construction/ environmental management plan for the entire staged construction process.

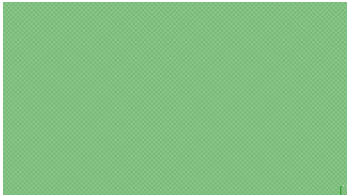
## Impact on Child Care Centres

### *Ownership / Leasing Arrangements*

Macquarie University intends to maintain both childcare centers, Waratah Occasional Care centre does not have an existing lease and is operated by U@MQ. Gumnut has a 10 year lease with a 10 year option. The Gumnut lease is held by U@MQ and has been in place since 2001. The childcare operators U@MQ are a licensed entity of MQ.

### *Consultation with the Child Care Centres*

Macquarie University has maintained continuous consultation with the Childcare operators U@MQ who are a licensed entity of Macquarie University. U@MQ has also made numerous consultations with the parents of the childcare centre by newsletter, and issued letters. No new enrolments have been furnished for the construction period. Currently one of the centers operates reasonably under capacity.



## DESCRIPTION OF PROJECT

### *Access, Carparking*

Sufficient temporary access, parking, circulation and protection is being provided.

Modifications will be carried out for the play areas and the buildings to minimize the impact to the participants

MQ has met with U@MQ the internal group that looks after the operations of the day care centers. They have agreed on the Carparking allowance of 35 spaces for the two centers.

Suitable access path to the western side of the access road from University Avenue to Gumnut and Waratah buildings.

### *Air Quality*

Appropriate signage will be placed on areas at street level, indicating the works area and restricted access to the site. The contractor will be required to prepare demolition and excavation management plans. CRI will review the demolition, and excavation management plan issued by the contractor to ensure appropriate measures are in place for the works. All works will be undertaken in line with the requirements of Workcover NSW as well as the relevant standards and codes of practice. Contractors will be required to undertake a thorough induction specific to the site and hold on-site briefings periodically as the project and site evolves.

All demolition and excavation works will be undertaken by appropriately licensed and experienced contractors, utilising the relevant codes of practice with regards to the generation of dust. Wet demolition practices are likely to be employed by demolition contractors to afford further protection against dust generation. Dust control measures must be left in place until suitable vegetative cover, or other coverage, has been established.



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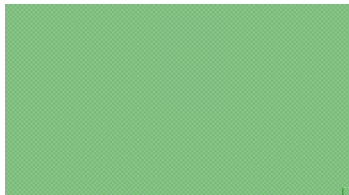
### *Noise & Vibration*

Noise and vibration criteria have been established for the construction and operational stage of the proposed Stage 1 Building in accordance with Department of Environment and Climate Change (DECC) guidelines including the DECC's *Environmental Noise Control Manual* and the *Industrial Noise Policy*.

The Acoustic Assessment notes that construction noise levels may exceed the maximum amenity criteria established by relevant policies. However this is the worst case scenario and is typical of construction sites in close proximity to noise-sensitive receivers. To minimise the construction noise impact on the childcare centres, acoustical shielding is proposed to be provided by hoardings at the boundary between the proposed works site and child care centres.

The Acoustic Assessment (Appendix P) infers that the noise impacts associated with the operation of the proposed Stage 1 Building will be within the criteria set by relevant guidelines, particularly in relation to impacts on the nearby childcare centres. Additionally, the acoustic amenity levels within the Stage 1 Building are considered to be appropriate for the use.

Control of noise and vibration will be achieved through the use of appropriately licensed and experienced contractors coupled with monitoring. Plant and equipment utilised during demolition will be required to meet relevant guidelines with regards to noise levels. Dialogue with the both daycare centers will be established to ensure that impacts from works are minimised and mitigated where possible.



## DESCRIPTION OF PROJECT

### Key Statistics

Estimate number on site is as follows:

- Site Management Team 20
- Sub-contractors 70

### Work Periods

General construction times will be limited to:

Monday to Friday: 7am – 6pm  
Saturday: 7am – 3pm