Environmental Planning and Assessment Act 1979

Determination of the Hunter Medical Research Institute Project
Major Project No. 08_0250

I, the Minister for Planning, under the *Environmental Planning and Assessment Act 1979* (the Act), having considered the matters in section 75J(2) of the Act, determine pursuant to section 75J(1) of the Act to **give approval** to the project referred to in Schedule 1 subject to the conditions in Schedule 2.

The reasons for the imposition of conditions are to:

(a) prevent, minimise, and/or offset adverse impacts of the project;
(b) ensure the site is appropriately managed for the proposed use;
(c) encourage ecologically sustainable development;
(d) adequately mitigate the environmental impacts of the project;
(e) protect the amenity of the local area; and
(f) protect the public interest.

Tony Kelly MLC
Minister for Planning

Sydney, 18 MAR 2010 2010

SCHEDULE 1

Part A – Table

Application made by:	The Hunter Medical Research Institute
Approval Authority:	Minister for Planning
Major Project Number:	MP08_0250
On land comprising:	Lot 132 DP1053492 and Lot 2 DP 839929
Local Government Area:	Newcastle
For the carrying out of:	The demolition of the existing building and car park on site and construction and operation of a new medical research facility and associated infrastructure
Capital Investment Value:	$84.6 million
Type of Development:	Project Approval under Part 3A of the EP&A Act
Date approval is liable to lapse:	5 years from the date of this approval unless the building works associated with the project have physically commenced.

Part B – Definitions

In this approval the following definitions apply:

BCA	Building Code of Australia
Construction	Any works, including earth and building works
Council	Newcastle City Council
Day	The period from 7am to 6pm on Monday to Saturday, and 8am to 6pm on Sundays and Public Holidays
DECCW	Department of Environment, Climate Change and Water
Department	Department of Planning
Director-General	Director-General of the Department of Planning, or nominee
EA	The Environmental Assessment titled *Environmental Assessment, Proposed Medical Research and Development Facility*, dated 25 September 2009 and prepared by ADW Johnston Pty Ltd.
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
Evening	The period from 6pm to 10pm
Incident	A set of circumstances that causes or threatens to cause material harm to the environment, and/or breaches or exceeds the limits or performance measures/criteria in this approval
Minister	Minister for Planning, or nominee
Night	The period from 10pm to 7am on Monday to Saturday, and 10pm to 8am on Sundays and Public Holidays
Project	The development of a 4 storey research facility, and associated infrastructure
Proponent	The Hunter Medical Research Institute, or anyone else entitled to act on this Approval
POEO Act	*Protection of the Environment Operations Act 1997*
Reasonable and Feasible	Reasonable relates to the application of judgement in arriving at a decision, taking into account: mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements. Feasible relates to engineering considerations and what is practical to build.
Response to Submissions	The response to submissions submitted on 16 December 2009, with the letter from David Rann – Ref N7135/7568/3.30 and following additional information: • the advice provided by Better Transport Futures in their

letter from Sue McAuly dated 18 December 2009, to David Rann and the replacement table 5.1 dated 18 December 2009;

- including the revised report from ecobiological dated December 2009 (submitted in the email dated 22 December 2009 and titled: *HMRI's Part 3A Development Application*); and
- the letter dated 24 February 2010 from David Rann – Ref N7266/7568/3.31 and enclosed information (9 attachments).

RTA	Roads and Traffic Authority
Site	Lot 132 DP1053492 and Lot 2 DP 839929

SCHEDULE 2

Part A – Administrative Conditions

A1. Development Description

Project Approval is granted for the demolition of the existing building and car park and construction and operation of a 4 storey research facility (with 2 wings) and associated infrastructure.

A2. Development in accordance with Plans and Documents

The Proponent shall carry out the project generally in accordance with the following plans, documentation and recommendations made therein:

(a)	The Environmental Assessment (the EA)			
(b)	The Response to Submissions			
(c)	The Statement of Commitments (at Appendix B)			
(d)	The following architectural drawings (key plans also at Appendix A), prepared by S2F Pty Ltd:			
	Drawing No.	*Revision*	*Drawing Title*	*Date*
	T0000	3	Title Sheet	11 Nov 05
	T0001	7	Site Plan	26/08/2009
	T0010	2	Existing Site Plan	31/07/2009
	T0111	3	Overview Plan – Level 1	31 Jul 09
	T0121	2	Overview Plan – Level 2	03 Jul 09
	T0131	2	Overview Plan – Level 3	03 Jul 09
	T0141	2	Overview Plan – Level 04	2/07/0229
	T0151	2	Overview Plan Roof Plant Level	03 Jul 09
	T0161	2	Overview Plan Roof Level	03 Jul 09
	T1202	1	East Wing Reference Plan Sub-Floor	29/07/2009
	T5011	2	West Wing Reference Plan North Elevation	7/08/2009
	T5012	2	West Wing East Elevation	7/08/2009
	T5013	2	West Wing South Elevation	7/08/2009
	T5014	2	West Wing West Elevation	7/08/2009
	T5021	2	East Wing North Elevation	7/08/2009
	T5022	2	East Wing East Elevation	7/08/2009
	T5023	2	East Wing South Elevation	7/08/2009
	T5024	2	East Wing West Elevation	7/08/2009
	T5032	1	Pod East Elevation	25/06/2009
	T5033	1	Pod South Elevation	25/06/2009
	T5034	1	Pod West Elevation	25/06/2009
	T6001	3	Section A West Wing	7/08/2009
	T6002	3	Section B East Wing	7/08/2009
	T6003	3	Section C West Wing	7/08/2009
	T6004	3	Section D East Wing	7/08/2009
	T6005	2	Section E Pod	7/08/2009
	T6006	2	Section F Pod	7/08/2009
	K0500	3	Key Drawing Site Sections	25/08/2009
	K0510	3	Key Drawing Coloured Elevations	25/08/2009
	K0520	2	Key Drawing Photomontage 1	18/08/2009
	K0521	3	Key Drawing Photomontage 2	18/08/2009
	K1000	4	Key Drawing Access & Movement Pedestrian & Bus Movement	30/07/2009

	K1001	4	Key Drawing Access & Movement Car Movement	30/07/2009
	K1002	5	Key Drawing Access & Movement Pedestrian & Bicycle Movement	7/08/2009
	K1003	4	Key Drawing Access & Movement Service Vehicles & RFS Access	31/07/2009
	K1004	1	Key Drawing Ecology & Bushfire Protection	14/08/2009
	K1005	1	Key Drawing Views	14/08/2009
	K1050	1	Key Drawing Shadow Diagrams	31/07/2009
(e)	The conditions of this approval			

A3. Inconsistency between plans and documents

If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.

A4. Lapsing of Approval

This approval shall lapse if the Proponent does not physically commence the building works associated with the project within 5 years of the date of this approval.

A5. Compliance with relevant legislation and Australian Standards

The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA and comply with relevant Australian Standards.

Notes:

- *Under Part 4A of the EP&A Act, the Proponent is required to obtain construction and occupation certificates for the proposed building works.*
- *Part 8 of the EP&A Regulation sets out the requirements for the certification of the project.*

A6. Obligation to Minimise Harm to the Environment

The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the demolition works, construction or operation of the project.

A7. Compliance with any reasonable requirements of the Director-General

The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:

(a) any strategies, plans, programs, reviews, audits, or correspondence that are submitted in accordance with this approval; and

(b) the implementation of any actions or measures contained in these documents.

A8. Protection of public infrastructure

The Proponent shall:

(a) repair or pay the full costs associated with repairing, any public infrastructure that is damaged by the development; and

(b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.

A9. Operation of Plant and Equipment

The Proponent shall ensure that all plant and equipment used on site is:

(a) maintained in a proper and efficient condition; and

(b) operated in a proper and efficient manner.

A10. Incident Reporting

Within 24 hours of detecting an exceedance of the limits/performance criteria in this approval or an incident causing (or threatening to cause) material harm to the environment, the Proponent shall notify the Director-General, and any other relevant agencies. Within 7 days of the date of the exceedance/incident the Proponent must provide a report on the exceedance/incident to the Department, and any other relevant agency. This report must:

(a) describe the date, time, and nature of the exceedance/incident;
(b) identify the cause (or likely cause) of the exceedance/incident;
(c) describe what action has been taken to date; and
(d) describe the proposed measures to address the exceedance/incident.

A11. Flora and Fauna

Within 12 months of the date of this approval, the Proponent must secure offset land in relation to impacts on the *Tetratheca juncea* population on site. These arrangements must meet the requirements of DECCW's publication 'Principles for the use of biodiversity offsets in NSW'.

Part B – Prior to the commencement of demolition or works on site

B1. Demolition and Construction Management Strategy

The Proponent shall prepare and implement a Demolition and Construction Management Strategy for the project to the satisfaction of the Director-General. This strategy must:

(a) be prepared in consultation with Council and approved by the Director-General prior to the commencement of any works onsite;
(b) describe in general how the environmental performance of the project would be monitored and managed;
(c) describe the procedures that would be implemented to:
    i. keep the local community and relevant agencies informed about the demolition, construction and environmental performance of the project;
    ii. receive, handle, respond to, and record complaints;
    iii. resolve any disputes that may arise during the course of the project;
    iv. respond to any non-compliance;
    v. manage cumulative impacts;
    vi. respond to emergencies;
(d) provide contact details and describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the project;
(e) include a Demolition Work Plan, describing the measures that would be implemented to ensure compliance with *Australian Standard AS 2601-2001: Demolition of Structures* and include the details of the demolition contractor;
(f) include a Demolition and Construction Noise and Vibration Management Plan. This plan must:
    i. identify noise goals and vibration criteria at all sensitive receivers;
    ii. describe the measures to be implemented to manage noise and vibration within these levels during demolition and construction;
    iii. include a consultation, notification and complaints handling procedure;
    iv. provide for scheduling of works to minimise impacts on sensitive receivers;
    v. include contingency measures that would be implemented should complaints occur; and
(g) include a Demolition and Construction Traffic Management Plan. This plan must:
    i. be prepared in consultation with Council;
    ii. describe the measures to be implemented to minimise and manage demolition and construction parking and traffic impacts;
    iii. identify the contingency measures that would be implemented should these measures prove insufficient.

B2. Dilapidation Report

The Proponent shall prepare a dilapidation report of the public infrastructure in the vicinity of the site (including roads, gutters, footpaths, etc) to the satisfaction of Council, prior to the commencement of any works onsite.

B3. *Tetratheca juncea* Translocation

Prior to the commencement of construction of the car park, the Proponent must ensure that the translocation of *Tetratheca juncea* plants is undertaken in accordance with the recommendations and supervision of a suitably qualified and experienced ecologist, and in accordance with '*Guidelines for the Translocation of Threatened Plants in Australia*'.

Part C – Prior to the Issue of Construction Certificate

C1. Mine Subsidence

The Proponent must ensure that the Mine Subsidence Board is satisfied risks of mine subsidence will be suitably minimised and managed, prior to the issue of a Construction Certificate for the building.

C2. Water and Energy Efficiency Program

The Proponent shall prepare and implement a Water and Energy Efficiency Program for the project, to the satisfaction of the Director-General. The program must:

(a) be approved by the Director-General prior to the issue of a Construction Certificate for the building;
(b) compare the proposed energy and water usage ratio with other medical research or similar facilities and set benchmarks for best practice;
(c) investigate energy and water efficiency measures available, including the installation of solar panels and cogeneration;
(d) describe the measures that would be implemented onsite, quantifying the savings made and demonstrating the use of best available technology;
(e) include a program to monitor and report on the effectiveness of the measures implemented and a protocol for periodic review of the plan to ensure the project would continue to operate at best practice over time.

C3. Design

The Proponent shall prepare and implement detailed roof material plans and façade design plans for the building. The Plans must:

(a) be approved by the Director-General, prior to the issue of a Construction Certificate for the building;
(b) demonstrate the reflectivity and glare from the roof would be minimised;
(c) provide greater variation in colour, articulation, materials and/or finishes for the north and south elevations;
(d) demonstrate the treatments are of suitable design quality; and
(e) provide photomontages to illustrate the character of the facility, and how the design would integrate with the surrounding landscape.

C4. Landscape Management Plan

The Proponent must prepare and implement a Landscape Management Plan for the Project. The Plan must:

(a) be prepared in consultation with Council and approved by the Principal Certifying Authority prior to the issue of a Construction Certificate for the building;
(b) comply with the principles of *Planning for Bushfire Protection*, or its latest version;
(c) use endemic species only, ensuring seed and propagule sources are from local botanical provenance and maximising the replacement of the species cleared during construction;
(d) illustrate the location, species and mature heights of plants to be established on site and how they would integrate with the building and car parking; and
(e) provide for the ongoing maintenance of the landscaping and the asset protection zone.

Part D – During Demolition and Construction

D1. Demolition

The Proponent shall ensure that all demolition works is carried out in accordance with Australian Standard *AS 2601-2001: The Demolition of Structures*, or its latest version.

D2. Demolition and Construction Hours

The Proponent shall comply with the demolition and construction hours in Table 1.

Table 1: Demolition and Construction Hours

Activity	Day	Time
Demolition and Construction	Monday – Friday	7am to 6pm
	Saturday	8am to 1pm
	Sunday and Public Holidays	Nil

Notes:

- *Emergency work to avoid the loss of life, property and/or prevent environmental harm may be undertaken outside the hours in Table 1.*
- *Deliveries of oversize equipment may occur outside these hours if required by the RTA or NSW Police, or if approved by the Director-General.*

D3. Air Quality Management

During demolition and construction, the Proponent shall ensure that:

(a) all reasonable and feasible measures to minimise dust generated by the project, are implemented;
(b) all trucks entering or leaving the site, that could generate dust, have their loads covered;
(c) trucks associated with the project do not track dirt onto the public road network; and
(d) public roads used by these trucks, in the vicinity of the site, are kept clean.

D4. Erosion and Sediment Controls

During demolition and construction, the Proponent shall implement appropriate erosion and sediment controls on site, in accordance with the relevant requirements in Landcom's (2004) *Managing Urban Stormwater: Soils and Construction* manual.

D5. Aboriginal Cultural Heritage

In the event that Aboriginal objects are uncovered during the course of the project, then work in the immediate area shall cease, the Director-General, DECCW and appropriate Aboriginal groups shall be notified and expert archaeological advice must be sought from an appropriately qualified professional. Works may only resume in this area with the written approval of the Director-General.

D6. Fill

Any fill material brought to the site must be Virgin Excavated Natural Material or material subject to a Resource Recovery Exemption that is permitted to be used as a fill material, in accordance with the provisions of the *Protection of the Environment (Waste) Regulations 2005*.

Note: Any fill material received at the site, subject to a Resource Recovery Exemption, must be accompanied by documentation demonstrating the material's compliance with the conditions of the exemption, and this documentation must be provided to the Department, Council or the Principle Certifying Authority on request.

D7. Service Providers/Additional Approvals

Prior to the construction of any utility works, the Proponent shall obtain all relevant approvals from service providers, including Hunter Water.

D8. Waste Minimisation, Classification and Management

During the demolition and construction of the project the Proponent must:

(a) implement all reasonable and feasible measures to minimise waste generated by the project; and

(b) ensure all waste generated by the project is classified in accordance with the DECCW's *Waste Classification Guidelines - Part 1: Classifying Waste*, and disposed of appropriately.

Part E – Prior to the Issue of Occupation Certificate

E1. Environmental Management Strategy

The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must be submitted to the Director-General and Council prior to the issue of any Occupation Certificate, and:

(a) identify the statutory requirements that apply to the project;
(b) describe in general how the environmental performance of the project would be monitored and managed;
(c) describe the procedures that would be implemented to:
    i. keep the local community and relevant agencies informed about the operation and environmental performance of the project;
    ii. receive, handle, respond to, and record complaints;
    iii. resolve any disputes that may arise during the course of the project;
    iv. respond to any non-compliance;
    v. manage cumulative impacts;
    vi. respond to emergencies; and
(d) provide contact details and describe the role, responsibility, authority, and accountability of all the key personnel involved in environmental management of the project.

E2. Sustainable Travel Plan

The Proponent shall prepare and implement a sustainable travel plan for the project. The plan must:

(a) be prepared in consultation with Council and NSW Transport and Infrastructure, and approved by the Director-General prior to the issue of any Occupation Certificate;
(b) include a travel access guide and workplace travel plan for the project;
(c) consider the need for a transport coordinator;
(d) describe the existing transport infrastructure and services;
(e) consider the suitability of the shuttle bus route and number of services (to minimise travel times for staff);
(f) describe the measures to be put in place to:
    i. encourage sustainable travel;
    ii. minimise travel times; and
    iii. ensure the parking is allocated equitably;
(g) provide for ongoing monitoring of and reporting on the effectiveness of the plan; and
(h) ensure the findings of the monitoring are used to improve the effectiveness of the plan over time.

E3. Pre-Occupation Compliance Audit

Prior to the issue of any Occupation Certificate, the Proponent shall submit work as executed plans to the Department for all the development associated with the project. These plans must be prepared by a suitably qualified and experienced expert, and include plans showing the work as executed plans laid over the approved plans, to demonstrate that the development has been carried out in accordance with the approved plans and that the proposal would comply with conditions F3, F4, F6 and F7.

E4. Retaining Walls

Any retaining walls in excess of 1.2 m in height must be certified by a structural engineer, confirming the structural adequacy of the proposed retaining wall structure(s). This certification must be provided to the Certifying Authority prior to the issue of any Occupation Certificate.

E5. Construction in a Bushfire Prone Area

The Proponent shall ensure that the facility is constructed to comply with Australian Standard *AS3959-1999 'Construction of buildings in bushfire prone areas'*. The:

(a) western elevation must comply with Level 3; and

(b) all other elevations must comply with Level 1.

Part F – During Operations

F1. Noise Limits

The Proponent shall ensure that noise from operation of the project does not cause the cumulative noise levels to exceed the noise limits presented in Table 2.

Table 2: Precinct Noise Limits (dB(A))

Location	Day	Evening	Night	
Kookaburra Cottages	$L_{Aeq\ (day)}$ 60	$L_{Aeq\ (evening)}$ 50	$L_{Aeq\ (night)}$ 45	$L_{A1\ (1\ minute)}$ 55
Residents on Roberts Circuit Lambton and Dangerfield Drive Elemore Vale	$L_{Aeq\ (15\ minute)}$ 45	$L_{Aeq\ (15\ minute)}$ 40	$L_{Aeq\ (15\ minute)}$ 35	$L_{A1\ (1\ minute)}$ 45
Any hospital ward onsite - internal	$L_{Aeq(noisiest\ 1\text{-}hour\ period)}$ 35			
Any hospital ward onsite - external	$L_{Aeq(noisiest\ 1\text{-}hour\ period)}$ 50			

Note: Noise generated by the project is to be measured in accordance with the relevant requirements of the NSW Industrial Noise Policy.

F2. Bushfire Hazard Management

The Proponent must ensure that the project is undertaken in accordance with the requirements of *Planning for Bushfire Protection 2006*, or its latest version, and the NSW Rural Fire Service. For the life of the project, the Proponent must:

(a) manage the 50 m asset protection zone in accordance with the standards prescribed by the NSW Rural Fire Service; and
(b) ensure an up to date emergency evacuation plan is in place.

F3. Lighting

The Proponent shall ensure that lighting associated with the project:

(a) complies with the latest version of Australian Standard *AS 4282(INT)-Control of Obtrusive Effects of Outdoor Lighting*; and
(b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties, conservation areas or the public road network.

F4. Access

The Proponent shall ensure:

(a) that internal roads, driveways and parking comply with Australian Standards *AS 2890.1 – 2004* and *AS 2890.2 – 2002*;
(b) bicycle facilities are provided on site;
(c) all parking generated by the project is able to be accommodated on site; and
(d) all vehicles are able to enter and exit the site in a forward direction.

F5. Signage

The Proponent shall not install any signage on site without the written approval of the Director-General. In seeking this approval the Proponent shall:

(a) submit detailed plans of the proposed signage, that have been prepared in consultation with Council; and
(b) demonstrate the proposed signage is consistent with the relevant requirements in any relevant Council Development Control Plan.

F6. Sight Lines

Any proposed landscaping, fencing or signage is not to impede the desired sight lines of all road users including pedestrians and cyclists.

F7. Bunding

All chemicals, fuels and oils shall be stored in appropriately bunded areas, with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund. The bund(s) shall be designed and installed in accordance with the:

(a) requirements of all relevant Australian Standards; and
(b) DECCW's *Storing and Handling Liquids: Environmental Protection – Participants Manual*.

F8. Security

The Proponent must ensure that security measures are implemented to minimise the risks of crime and protect the safety of staff using the car park out of business hours.

F9. Energy and Water Efficiency

The Proponent shall ensure the project is energy and water efficient, in accordance with industry best practice.

F10. Waste Management

During the operation of the project, the Proponent shall:

(a) implement all reasonable and feasible measures to minimise waste generated by the project; and
(b) ensure all waste generated by the project is classified in accordance with the DECCW's *Waste Classification Guidelines - Part 1: Classifying Waste*, and disposed of appropriately.

Advisory Notes

AN1. Requirements of Public Authorities for Connection to Services
The Proponent shall comply with the requirements of any public authorities (e.g. Hunter Water, energy and gas providers, telecommunications carriers, etc) in regard to the connection to, relocation and/or adjustment of the services affected by the construction of the proposed structure. Any costs in the relocation, adjustment or support of services shall be the responsibility of the Proponent.

AN2. Application for Hording and Scaffolding
A separate application shall be made to Council for approval under Section 68 of the *Local Government Act 1993*, to erect a hoarding or scaffolding in a public place. Such an application shall include:

(a) architectural, construction and structural details of the design in accordance with Council's policies; and
(b) structural certification prepared and signed by a suitably qualified practising structural engineer.

AN3. 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 following matters shall be complied with:

(a) 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:
    i. at least 48 hours prior to the works for partial road closures which, in the opinion of Council will create minimal traffic disruptions; and
    ii. 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; and
(b) 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.

AN4. Roads Act 1993
A separate application shall be made to Council for approval under Section 138 of the *Roads Act 1993* to undertake any of the following:

(a) erect a structure or carry out a work in, on or over a public road, or
(b) dig up or disturb the surface of a public road, or
(c) remove or interfere with a structure, work or tree on a public road, or
(d) pump water into a public road from any land adjoining the road, or
(e) connect a road (whether public or private) to a classified road.

AN5. Stormwater Drainage or Effluent Systems
Works that involve water supply, sewerage and stormwater drainage work or management of waste as defined by Section 68 of the *Local Government Act 1993* require separate approval by Council under Section 68 of that Act. Applications for these works must be submitted on Council's standard Section 68 application form accompanied by the required attachments and the prescribed fees.

AN6. Temporary Structures
An approval under Section 68 of the *Local Government Act 1993* must be obtained from the Council for the erection of the temporary structures. The 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 be submitted to the Council with the application under Section 68 of the *Local Government Act 1993* to certify the structural adequacy of the design of the temporary structures.

AN7. Excavation – Historical Relics
Should any historical relics be unexpectedly discovered then all excavations or disturbance to the area is to stop immediately and the Heritage Council of NSW shall be informed in accordance with Section 146 of the *Heritage Act 1977*.

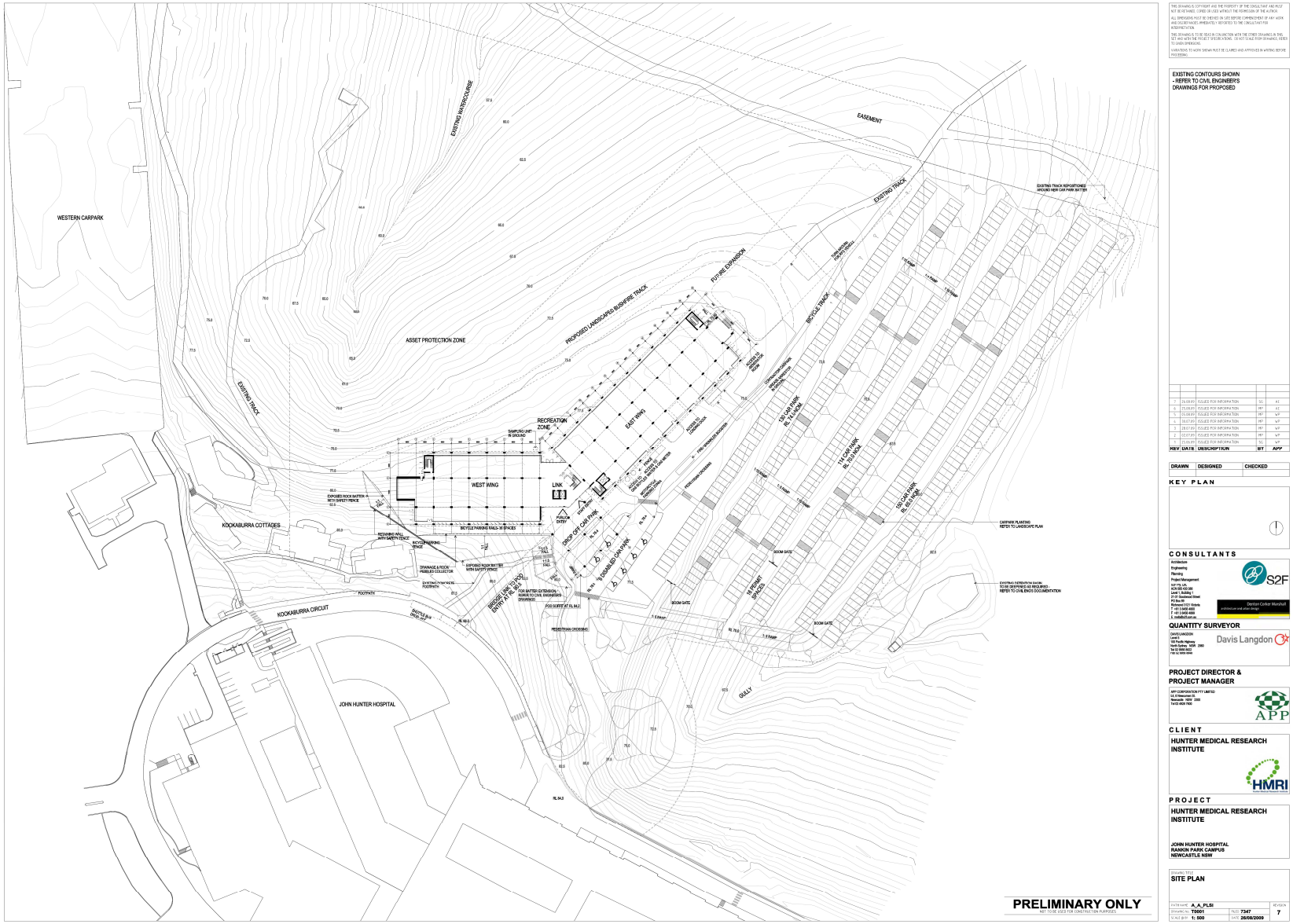
AN8. Long Service Levy
Under Section 34 of the *Building and Construction Industry Long Service Payments Act 1986* any work costing $25,000 or more is subject to a Long Service Levy. The levy rate is 0.35% of the total cost of the work and shall be paid to either the Long Service Payments Corporation or Council. Under section 109F(1) of the *Environmental Planning & Assessment Act 1979* this payment must be made prior to commencement of building works.

AN9. Disability Discrimination Act 1992
This project is to comply with the *Disabilities Discrimination Act 1992*. The Proponent is responsible for ensuring compliance with this and any other anti-discrimination legislation. The *Disabilities Discrimination Act 1992* covers disabilities not catered for the in the Building Code of Australia which references *AS 1428.1 Design for Access and Mobility*. AS 1428 Parts 2, 3 &4 provide comprehensive technical guidance under the *Disabilities Discrimination Act 1992*.

AN10. Commonwealth *Environmental 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 and Assessment Act 1979*. 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.

APPENDIX A - PLANS



EXISTING CONTOURS SHOWN
- REFER TO CIVIL ENGINEER'S DRAWINGS FOR PROPOSED

REV	DATE	DESCRIPTION	BY	APP
7	15.09.09	ISSUED FOR INFORMATION	SC	AJ
6	15.09.09	ISSUED FOR INFORMATION	MP	AJ
5	15.09.09	ISSUED FOR INFORMATION	MP	MP
4	30.07.09	ISSUED FOR INFORMATION	MP	MP
3	28.07.09	ISSUED FOR INFORMATION	MP	MP
2	22.07.09	ISSUED FOR INFORMATION	MP	MP
1	15.04.09	ISSUED FOR INFORMATION	SC	MP

DRAWN	DESIGNED	CHECKED

KEY PLAN

CONSULTANTS

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Engineering
Planning
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PROJECT MANAGER

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APP

CLIENT

HUNTER MEDICAL RESEARCH INSTITUTE

HMRI

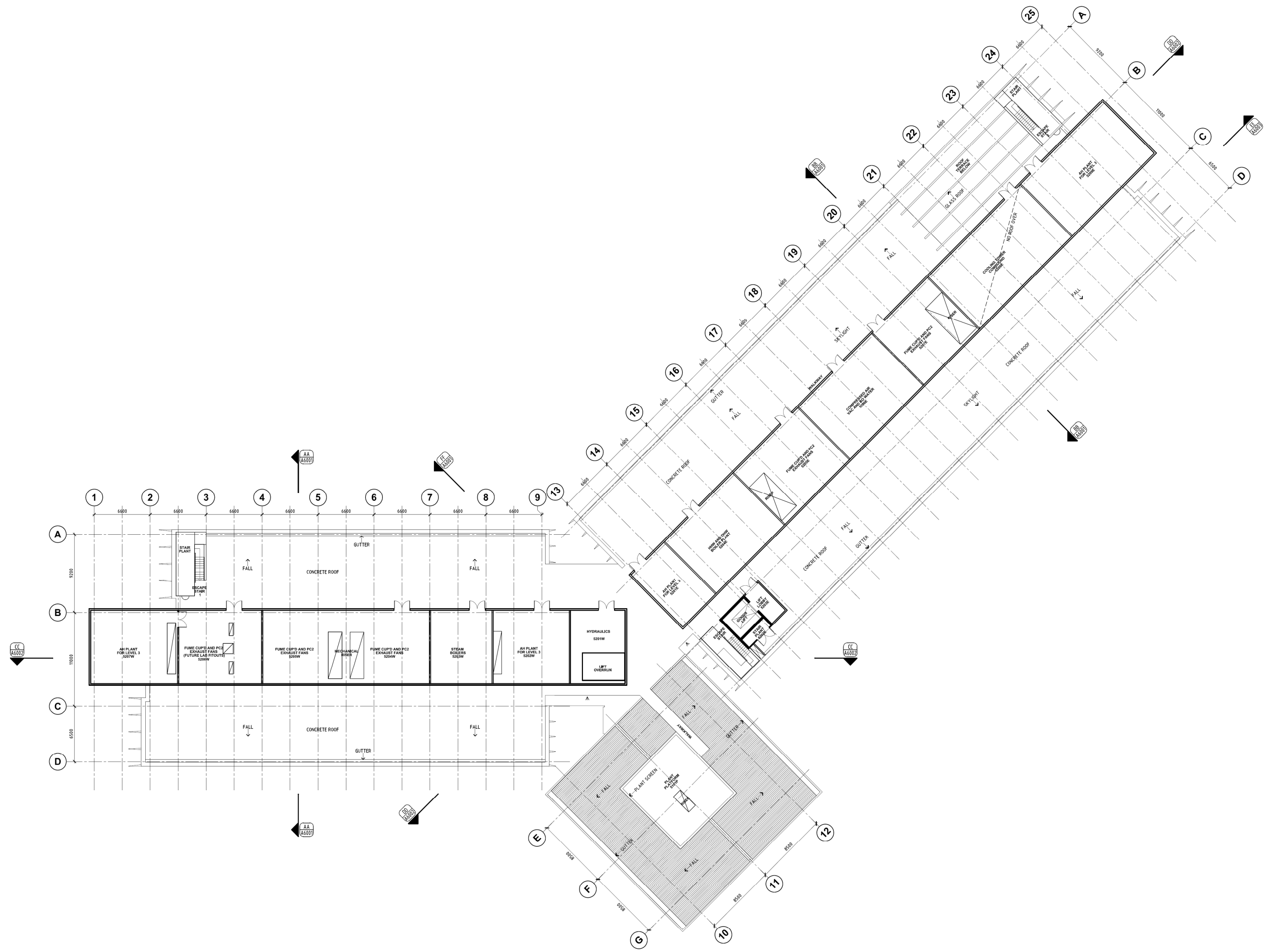
PROJECT

HUNTER MEDICAL RESEARCH INSTITUTE

JOHN HUNTER HOSPITAL
RANKIN PARK CAMPUS
NEWCASTLE NSW

DRAWING TITLE
SITE PLAN

PATH NAME	A_A_FLS1		REVISION
DRAWING No.	T3001	FILE	7347
SCALE @ A1	1: 500	DATE	26/08/2009



PL | OVERVIEW - ROOF PLANT LEVEL FLOOR PLAN
- | 1:200

PRELIMINARY ONLY
NOT TO BE USED FOR CONSTRUCTION PURPOSES

REV	DATE	DESCRIPTION	BY	APP
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1	30JUN09	FOR CLIENT INFORMATION	GJR	JS

DRAWN	DESIGNED	CHECKED
		SMS

KEY PLAN

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PROJECT

HUNTER MEDICAL RESEARCH INSTITUTE

JOHN HUNTER HOSPITAL
RANKIN PARK CAMPUS
NEWCASTLE NSW

ARCHITECTURAL

DRAWING TITLE
OVERVIEW PLAN
ROOF PLANT LEVEL

PATH NAME	S:\HUNTER MEDICAL RESEARC...\4750PT0151-02		REVISION
DRAWING No.	T0151	FILED 4750	2
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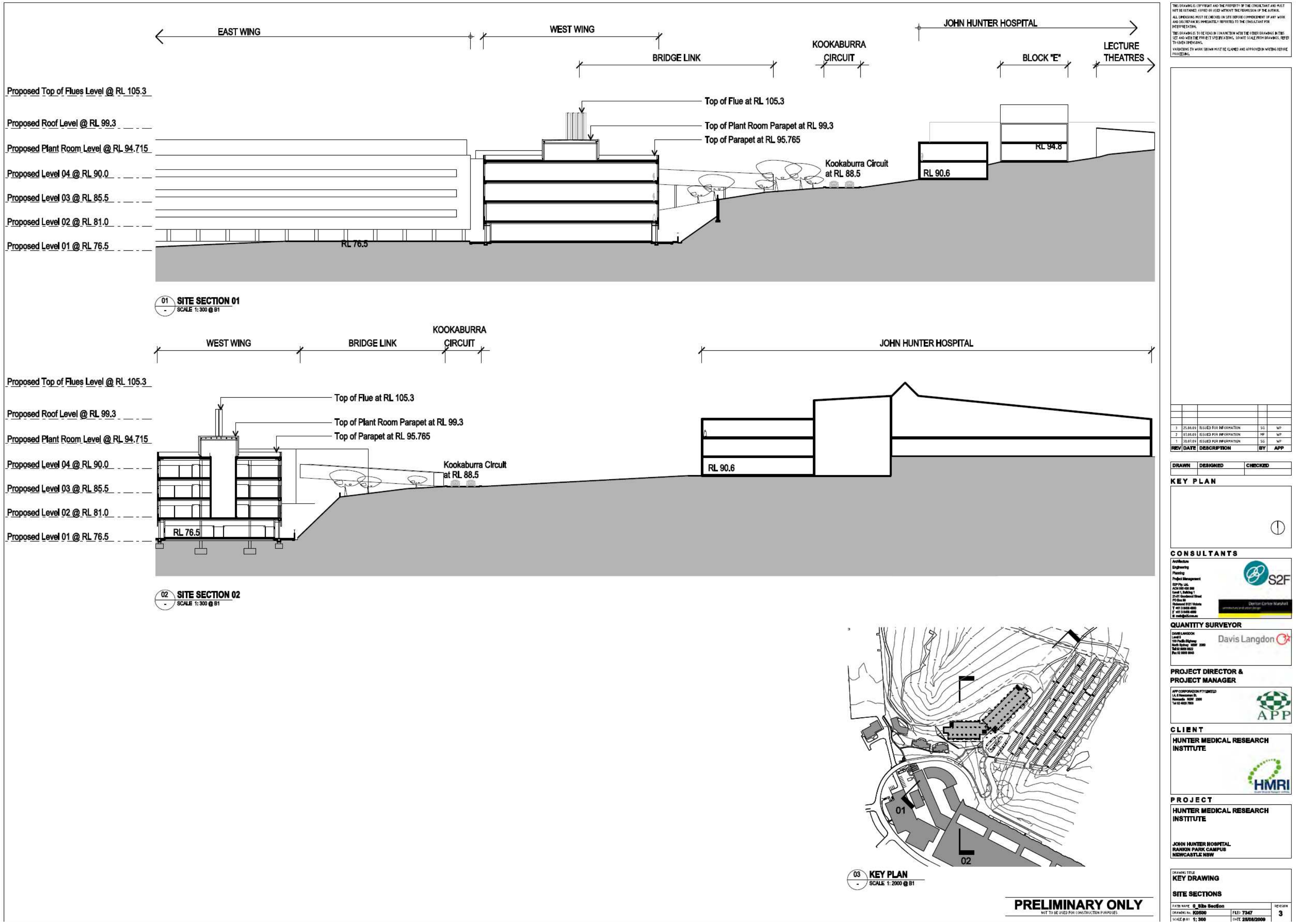
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WEST WING
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KOOKABURRA CIRCUIT
JOHN HUNTER HOSPITAL
BLOCK "E"
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Proposed Roof Level @ RL 99.3
Proposed Plant Room Level @ RL 94.715
Proposed Level 04 @ RL 90.0
Proposed Level 03 @ RL 85.5
Proposed Level 02 @ RL 81.0
Proposed Level 01 @ RL 76.5
Top of Flue at RL 105.3
Top of Plant Room Parapet at RL 99.3
Top of Parapet at RL 95.765
Kookaburra Circuit at RL 88.5
RL 94.8
RL 90.6
RL 76.5
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BRIDGE LINK
KOOKABURRA CIRCUIT
JOHN HUNTER HOSPITAL
Proposed Top of Flues Level @ RL 105.3
Proposed Roof Level @ RL 99.3
Proposed Plant Room Level @ RL 94.715
Proposed Level 04 @ RL 90.0
Proposed Level 03 @ RL 85.5
Proposed Level 02 @ RL 81.0
Proposed Level 01 @ RL 76.5
Top of Flue at RL 105.3
Top of Plant Room Parapet at RL 99.3
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RL 90.6
RL 76.5
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01
02
03 KEY PLAN
SCALE 1:2000 @ B1
PRELIMINARY ONLY
REV DATE DESCRIPTION BY APP
DRAWN DESIGNED CHECKED
KEY PLAN
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QUANTITY SURVEYOR
Davis Langdon
PROJECT DIRECTOR & PROJECT MANAGER
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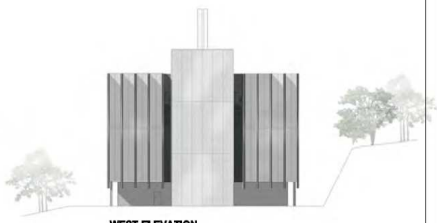
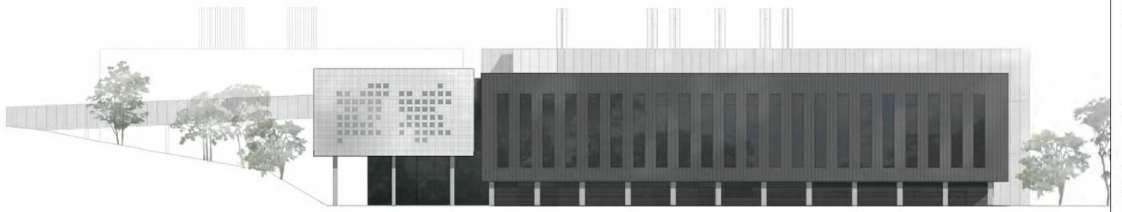
HUNTER MEDICAL RESEARCH INSTITUTE
HMRI
PROJECT
HUNTER MEDICAL RESEARCH INSTITUTE
JOHN HUNTER HOSPITAL
RANKIN PARK CAMPUS
NEWCASTLE NSW
KEY DRAWING
SITE SECTIONS

FLATTENED NORTH ELEVATION



WEST ELEVATION

EAST ELEVATION



SOUTH ELEVATION

PRELIMINARY ONLY

NOT TO BE USED FOR CONSTRUCTION PURPOSES

REV	DATE	DESCRIPTION	BY	APP
3	25.08.09	ISSUED FOR INFORMATION	SG	AC
2	07.08.09	ISSUED FOR INFORMATION	MF	MP
1	31.07.09	ISSUED FOR INFORMATION	DH	MP

DRAWN	DESIGNED	CHECKED
DM		

KEY PLAN

CONSULTANTS

QUANTITY SURVEYOR

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APP

CLIENT

HUNTER MEDICAL RESEARCH INSTITUTE

HMRI

PROJECT

HUNTER MEDICAL RESEARCH INSTITUTE

JOHN HUNTER HOSPITAL
RANKIN PARK CAMPUS
NEWCASTLE NSW

DRAWING TITLE

KEY DRAWING
COLOURED ELEVATIONS

DRAWING No. K0016	FILE: 7347	REVISION 3
SCALE @ A1: N.T.S	DATE: 25/08/2009	

APPENDIX B – STATEMENT OF COMMITMENTS

7.1 INTRODUCTION

The following section outlines the proponent's commitment to implement construction and operational strategies relating to environmental management and mitigation measures. The section details how the proposal and its environmental safeguards will be implemented and managed in an integrated and feasible manner.
The construction impacts associated with the proposed development are likely to be more significant than the operational impacts. Construction impacts are short term impacts and can be managed through appropriate measures. These measures would include keeping the local community informed of proposed construction activities.

An Environmental Management Plan (EMP) will be prepared for the construction and operation of the proposed facility once approval has been granted and the detailed designs are complete. The EMP will ensure that the commitments made in the EAR, and the requirements under subsequent approval and licence conditions are fully implemented. It will provide a framework for managing and mitigating the environmental impacts for the construction of the facility, and will also make provision for auditing the effectiveness of the proposed environmental protection measures and procedures.

The EMP will clearly outline who is responsible and when the commitments associated with mitigation and monitoring strategies should be implemented / undertaken.

For the purpose of the EAR the level of detail contained in a comprehensive EMP is not considered necessary, and as such the outline Statement of Commitments is provided. The Statement of Commitments will guide the preparation of the Environmental Management Plan and Environmental Monitoring Plan.

For ease of reference the commitments are provided in order of the key issues listed within section 6 of this report.

7.2 BUILT FORM AND DESIGN

7.2.1 Architectural Design

The building, associated works and operations of the HMRI building will be carried out generally in accordance with the EAR (included Appendices) and architectural plans nominated on the architectural drawing list (DCM/S2F) dated 31th July 2009. If there is any inconsistency between the plans, the EAR and conditions imposed by the consent authority then the conditions will prevail to the extent of the inconsistency.

7.2.2 Landscape Design

The proposed landscape design will be carried out generally in accordance with the Directory General's Environmental Assessment Requirements, the Bushfire Management Plan, and the landscape plans L-TP-01 – L-TP-06, prepared by EDAW AECOM, dated 31 July 2009.

In addition, the following aspects of site and landscape management will be addressed in the detailed design and landscape construction documentation:

- A final plant palette which consists of species indigenous to the surrounding site area;
- The protection during construction of existing trees to be retained;
- Where possible, the stockpiling and re-placement of site topsoils to planted areas, with amelioration through recycled compost and green waste;
- A mulch product which consists of locally resourced recycled product; and
- The use of locally sourced stone and aggregate in the paving materials.

7.2.3 BCA

The HMRI building will achieve compliance with the BCA through a combination of compliance with the deemed-to-satisfy (DTS) provisions and the documentation of alternative solutions in accordance with Clause A0.5 of the BCA, suitably prepared by a NSW Accredited Fire Safety Engineering to achieve compliance with the performance provisions of the BCA.

7.2.4 Access

MGAC (VIC) Pty Ltd has been applying the requirements of AS 1428 and the Disability Discrimination Act (DDA) for over 10 years. The DDA is a Federal Government legislation that seeks to ensure all new developments and

refurbishments, infrastructure, services and transport projects provide functional, equitable and independent accessibility.

The key outcome of the DDA Consulting is to provide design and project sign off to the requirements of the Australian Standards 1428 series and the spirit of the DDA. MGAC's accessibility consulting will ensure the built environment meets the 'universal accessibility' design principles whilst also protecting the building owners against the DDA.

MGAC notes that where the Australian Standard or DDA requirements compromises the safety and security of anyone associated with the Hunter Medical Research Institute, or the particular area of research may require a skill base that excludes people with particular impairments, the security and safety or skill base requirement will override the regulatory requirements and therefore a DDA dispensation can be applied.

The HMRI building will be reviewed based on the following Statutory Requirements:

- Federal Disability Discrimination Act (DDA);
- Draft DDA Premises Standards;
- Australian Standards 1428.1- AS1428.4 series; and
- Building Code of Australia (BCA).

MGAC Project Commitments:

- MGAC commits to provide advice and assistance during all design stages to ensure that facilities allow full access for people with disabilities with reference to area functionality, safety and security;
- MGAC will assess project documentation to verify compliance with the requirements of the DDA Act and Building Code of Australia deemed to satisfy controls relating to disability access; and
- MGAC comments and advice incorporate a proactive liaison and coordination with other members of the consultant team.

7.3 TRANSPORT, TRAFFIC & ACCESS

In regard to traffic management, HMRI commit to the following:

- The proposal will provide car parking spaces and motor cycle parking designed in accordance with the relevant Australian Standards;
- Bicycle parking will be provided within the overall site footprint and will be determined as part of the detailed design of the facilities and agreed with Council at that time;
- A Travel Access Guide (TAG) should be prepared for staff and visitors to the HMRI building as indicated by the Ministry of Transport; and,
- Additionally, incentives to encourage public transport use should be identified at both the HMRI level and at Campus level, these could include:
    - Real time public transport information.
    - Car Pooling.
    - Flexible working hours.
    - Extend the Park and Ride Route.

7.4 BUSHFIRE

The following recommendations shall be adopted for the HMRI facility:

Recommendation 1:
***Defendable Spaces to HMRI Building**:*
A Defendable Space of minimum 40 metre width shall be provided to the west, north, northwest and northeast of the HMRI Building. *[Refer to Attachment A].*

Recommendation 2:
Management of Defendable Space:
The Defendable Spaces shall be maintained as an Inner Protection Area in accordance with Appendix 5 *Planning for Bushfire Protection 2006* and the NSW Rural Fire Service's *'Specifications for Asset Protection Zones'.*

Recommendation 3:
Fuel Managed Area:
The area of retained vegetation between the building and the Power Line Easement shall be managed as a fuel reduced zone. *[Refer to Attachment A].*

Recommendation 4:
Fire Management Plan for the Defendable Space/Fuel Managed Area:
There shall be a Fire Management Plan prepared for the Defendable Spaces and fuel managed area. The Fire Management Plan shall provide the protocols for the management of the bushfire fuels and the maintenance of the fire trail network.

Recommendation 5:
Covenant for the management of the Asset Protection Zones:
An 88b covenant shall be created on the title of the lot to ensure the ongoing management of the Defendable Spaces/Fuel Managed Area and Fire Trail.

Recommendation 6:
Construction Standards to the HMRI building:
The north-western elevation of the building shall be constructed to comply with the 29kW/m2 radiant heat specifications as defined by A.S. 3959 – 2009.

The remainder of the building shall be constructed to comply with the 12.5kW/m2 radiant heat specifications as defined by A.S.3959 – 2009.

Recommendation 7:
Access for fire-fighting operations:
The internal road network shall comply with the deemed-to-satisfy provisions of Section 4.1.3(1) [Access - Public Roads] and Section 4.2.7 [Access – Internal Roads] of *Planning for Bushfire Protection 2006.* A minimum pavement width of 6.5 metres shall be provided with 'No Parking to one side.

A parking lay-by shall be provided adjacent to hydrant booster valves so as to permit fire service vehicles to park clear of the road width.

Fire trails shall be constructed to comply with the provisions of Section 4.1.3(3) of *Planning for Bushfire Protection 2006* and shall have a minimum width of 4.0 metres within a cleared width of 6.0 metres. Passing bays shall be provided at 200 metre intervals.

Recommendation 8:
Water Supply for fire-fighting operations:
Hydrants shall comply with the specifications of Australian Standard A.S 2419.2 and have a flow rate of 10 litres / second.

Fire hydrants shall be accessible and located such that a fire appliance can park within a maximum distance of 20 metres from a hydrant and the habitable building must be located such that a fire at the furthest extremity can be attacked by fire-fighters using two 30 metre hose lines and a 10 metre water jet. A clear unobstructed path between the hydrant and the most distant point of the building cannot exceed 90 metres.

Hydrants shall also be located to the northwest of the building to provide a water supply for bushfire fighting operations.

Recommendation 9:
Evacuation Plan:
An Emergency Evacuation Plan shall be prepared for the HMRI which establishes the emergency management protocols to address the safety of staff and visitors during emergencies which occur within or external to the Institute. HMRI shall be responsible for establishing and maintaining an Emergency Management Committee [EMC] within the Institute. HMRI and the EMC shall be responsible for the daily management of the welfare of persons working in or visiting the Institute.

A copy of the Emergency Evacuation Plan shall be provided to the Local Emergency Management Committee [LEMC] and the local Emergency Services.

7.5 BIODIVERSITY

- The recommendations contained within the Flora, Fauna & Threatened Species Assessment shall be adopted for the period of construction including:
- Clearing of hollow-bearing trees should be minimised where possible and those occurring within the bushfire APZ be retained if deemed appropriate under Planning for Bushfire Protection (NSW RFS 2006);
- All other hollow bearing trees proposed for clearing should be inspected for wildlife habitation by an appropriately qualified and licensed ecologist within one week before clearing commences. An ecologist should also supervise the clearing operations where necessary to avoid injury or death of native animals;
- Best practice erosion and sedimentation control methods should be adopted, enforced and maintained during construction;
- Potential fauna habitat trees should be retained where possible (i.e. Eucalyptus punctata, Corymbia maculata, Allocasuarina torulosa and Acacia species); and,
- The use of insecticides and herbicides within the study area should be avoided where possible to retain the integrity of the surrounding habitat for insectivorous Microchiropteran bats, Large Forest Owls and amphibian species.

7.6 DRAINAGE, STORMWATER AND GROUNDWATER MANAGEMENT

Typical standard building construction methodologies and practices to mitigate construction impacts will be implemented, including sediment and erosion control, dust management and stormwater management.
The contractor will be responsible for adequately managing / controlling site stormwater runoff with the aim of preventing erosion and deposition, specifically within water ways or stormwater drains.
The contractor will undertake sediment and erosion control awareness and education as part of the site induction or general induction for all personnel.

The contractor will be responsible for adequately implementing the requirements of the Sediment and Erosion Control Plan which will be specifically prepared for the site and proposed development as part of the Construction Certificate Phase. However, from a conceptual viewpoint, the Sediment and Erosion Control Plan will include specific requirements such as:

- All work is to be carried out in accordance with relevant ordinances and regulations; note in particular the requirements of Landcom's 'Managing Urban Stormwater, Soils and Construction' (the 'blue book').
- Install sediment protection filters on all new and existing stormwater inlet pits in accordance with the typical detail contained within the 'Bluebook'.
- All stormwater devices being upgraded are in full working order at the end of each days work.
- All stormwater devices in the designated route of vehicular access shall be protected from damage. All damage to stormwater devices during the works shall be repaired or replaced prior to the completion of works.
- Sediment and Erosion Control measures shall be installed prior to the commencement of construction and regularly maintained in accordance with the Engineering drawings and specifications.
- Stage the earthworks operations where appropriate to reduce the extent of the site that is 'open' and susceptible to erosion processes.
- Install a 'rumble strip' or 'shakedown' at all vehicle entrances / exists to reduce the likelihood of sediment being trafficked offsite. Manually remove (by means other than washing into stormwater drains) sediment tracked offsite on the adjacent roads.
- Use silt fences and staked hay bales to control runoff in individual building zones across the site.
- All trench (including all service trenches) shall be side-cast to the high side and closed at the end of each days work.
- Construct and maintain all material stockpiles in accordance with detail SD4-1 of the 'blue book'.
- Once cut/fill operations have been finalised all disturbed areas that are not being worked on shall be re-vegetated or sealed as soon as is practical.
- The Site Foreman (Contractor) shall be responsible for keeping a detailed written record of all erosion and sediment controls on site during the construction period. This record shall be updated on a daily basis and shall contain details on the condition of controls and any/ all maintenance, cleaning and breaches. This record shall be kept on site at all times and shall be made available for inspection by the principal certifying authority during normal working hours.

- To reduce the likelihood of suspended solids entering downstream stormwater drains; flocculate, settle and discharge stored water from the temporary sediment basin in accordance with the methodology outlined in the blue book.

All site operations will be undertaken with consideration given to their potential to produce dust. A management strategy of *avoid* > *minimise* >*control* shall be implemented.
The Contractor will instigate measures to minimise and control generation of dust from the site. These measures will include, but not be limited to:

- Program works around periods of significant and adverse meteorological conditions;
- Install wind fences around stockpiles in accordance with detail SD6-15;
- Maintain vegetation across the site where possible otherwise establish vegetation or seal disturbed site areas as soon as practical;
- Provide water trucks or sprinkling devices during construction as required to suppress dust; and
- Install and maintain protective cloth to perimeter fence to assist with dust suppression.

7.7 GEOTECHNICAL AND CONTAMINATION

7.7.1 Geotechnical

The proposed development will be constructed in accordance with the recommendations detailed within the Geotechnical Report prepared by Coffey Geotechnics which relate to:

- Excavations;
- Footings;
- Support of Excavations;
- Site Contamination; and,
- Mine Subsidence.

7.7.2 Mine Subsidence

Monitoring of ground subsidence

The risk of future subsidence is considered to be low but must be safeguarded against. Furthermore, the anticipated rate of subsidence movements are considered to be sufficiently low such that regular monitoring and re-levelling can be carried out should relative settlement values exceed trigger values.

Datum markers will be provided above every jacking point, ie at each column, both ends of a shear wall, and all four corners of a core. The as-built HMRI building will be surveyed so that any future subsidence can be correlated back to the as-built geometry to assess how much subsidence has occurred and the appropriate re-levelling performed. A guideline document will be produced to state how regularly monitoring is to be done, and what the trigger points are for re-levelling. Please note that the jacks will be temporarily installed only as needed.

Re-levelling

When monitoring shows that the actual subsidence is approaching the normal building limits of 2mm in 1000mm, then it is proposed that the affected buildings will be re-levelled. As such, provision for jacking has been incorporated below the L1 ground slab at every vertical support. It is envisaged that jacking would be required if differential settlement limits of L/500 or H/500 were exceeded, which for instance, equates to 12mm between columns at 6600mm centres. Re-levelling the building, or parts thereof, by means of jacks under the vertical structural elements is considered to be both a practical and cost-effective means to respond to imposed curvature and tilt.

Isolation of the building footings from the surrounding rock mass by means of slip membranes and compressible joints will accommodate imposed ground surface strains.

These design principles were accepted by the Mine Subsidence Board on 12 August 2009.

Conclusion

So in summary, damage from any future mine subsidence will be controlled by

- The structural provision for re-levelling; and,
- The careful articulation details for incoming and outgoing building services at the building perimeter.

7.8 CONSTRUCTION IMPACTS

7.8.1 Noise & Vibration

The mitigation measures identified by ArupAcoustic are implemented and maintained through the construction period.

7.8.2 Stormwater Management

The proposal includes:

1. Roof water collection and reuse as per the Building Hydraulics Report.
2. Collection and treatment of runoff from paved surfaces to remove waterborne pollutants. The proposal incorporates vegetated swales in accordance with Newcastle City Council's DCP 2005, 'Element 4.5 Water Management'. There is potential to fit the swales with additional bioretention treatment to further enhance the treatment of runoff as required.
3. Surface water infiltrating into the ground will be managed using conventional techniques (water proofing membranes, subsoil drainage pipes, etc) to maintain slope stability and pavement integrity. The geotechnical investigation report, undertaken by Coffey (ref. GEOTWARA20576AB-AC) indicates that ground water profiles are relatively low and should not result in any significant effects.
4. Collection of surface runoff derived from upstream catchments from a small area to the North West. This runoff will be collected and conveyed to prevent impact upon the new building and discharged to maintain the status quo (i.e. utilising the same discharge point as currently occurs).
5. Onsite detention of an initial volume of rainfall in 'site discharge controls' emulating the runoff characteristics of more natural site conditions. The proposal incorporates detention in vegetated swales fitted with check dams, a roof water storage tank and enhancement of the existing detention basin.
6. Erosion and scour control at the site outlet.
7. Surface levels have been graded to ensure the site is free draining and excess waters do not enter buildings when the underground drainage systems are operating above their design capacity.

Stormwater Management will be carried out as detailed above in **Section 7.6** of this report.

7.8.3 Dust and Erosion Control

The contractor shall implement the requirements of the 'Sediment and Erosion Control Plan' which will be specifically prepared for this site and proposed development as part of the Construction Certificate Phase.
The Contractor shall instigate measures to minimise and control generation of dust from the site. The measures shall include but not be limited to:

- Program works around periods of significant and adverse meteorological conditions.
- Install wind fences around stockpiles in accordance with detail SD6-15.
- Maintain vegetation across the site where possible, otherwise establish vegetation or seal disturbed site areas as soon as practical.
- Provide water trucks or sprinkling devices during construction as required to suppress dust.
- Install and maintain protective cloth to perimeter fence to assist with dust suppression.

7.8.4 Waste Management

All waste / surplus building material from the construction phase of the proposed development will be recycled wherever possible. A detailed Waste Management Plan will be incorporated into the detailed Environmental Management / Construction Plan.

7.8.5 Traffic and Pedestrian Access Management

A Construction Traffic Management Plan will be prepared and submitted to Council prior to any construction activity commencing on site. Construction is expected to take approximately 24 months over which period there will be up to 200 workers at the peak. The issue of where there workers will park has been considered as part of this assessment and, whilst the details of the construction method have not been finalised, the following options have been identified:

1. Stage 1 'Enabling Works' are planned to reconstruct the existing 150 bay car park. This will be undertaken by a small gang of workers who would be able to park on the waste ground alongside the car park. These workers would then construct the 250 parking bays to coarse level so they can be used for contractor parking and construction materials. The workers temporary parking area will be allocated to accommodate all workers identified onsite;
2. Workers park at the Energy Australia stadium or elsewhere as arranged by the construction company, and are bussed to the Hospital complex. This will require a temporary supplement to the capacity of the existing shuttle bus service;
3. Negotiations with the building should include a clause in the contract specifying no contractor parking will be permitted other than in specific areas; and,

4. Construction staff must be discouraged from parking in the residential area to the east of Lookout Road. The quantity of construction traffic will be determined by the construction time table, however some controls will be put in place including the following:
    - Construction traffic will be encouraged to avoid the peak on-street traffic periods;
    - Construction traffic will be encouraged to use Jacaranda Drive where possible to reduce the use of the intersection of Kookaburra Circuit and Lookout Road and potential impacts on other essential services on the campus; and,
    - Having some specific delivers undertaken on weekends to avoid blocking Kookaburra Drive.

7.8.6 Cut and Fill

The proposal shall where possible:

- Minimisation of cut and fill earthworks to limit impacts to the existing site and reduce the need for exportation or disposal of excess cut and the importation of fill.
- Cut and fill balance across the site, requiring minimal exportation or importation of bulk earthworks.
- Revegetation of batter slopes to reinforce slope stability and minimise sediment movement from the site.

7.9 OPERATIONAL IMPACTS

7.9.1 Noise from Plant and Equipment

The mitigation measures and design solutions proposed by ArupAcoustics are included within the final building design.

7.9.2 Waste Management

All liquid trade waste water generated from the HMRI facility will be pre treated prior to discharging to the Hunter Water Corporation sewer. This will be in compliance with the HMRI Liquid Trade Wastewater agreement with Hunter Water Corporation.

Further details of the liquid trade waste discharge are included in **Appendix R** of this report.

7.9.3 Site Security and Lighting

The Security management plan for the John Hunter Hospital Campus will be revised to include the new HMRI facility. Details of the precise operational requirements and procedures are to be agreed between HMRI and John Hunter Hospital.

All staff to the new HMRI facilities will be issued with security photo identification access cards.

Access permissions will be programmed for each individual as determined by HMRI.

Electronic lockdown of the facility will occur outside of business hours. Exact times to be agreed with HMRI. Access to the building outside of working hours will be restricted to authorised personnel and programmed into their access cards.

Staff duress buttons are proposed for the reception and contact rooms.

CCTV coverage is proposed to cover the external entry points to the facility, public areas, entrances to the bioresources area and the entrance to the car park.

The provision of night patrols to the external of the building are to be determined by HMRI.

Lighting will be provided in accordance with AS/NZS 1158 to car parks, pathways, roads and building perimeter to provide a safe environment for the movement of vehicular traffic and pedestrians.

External lighting will be designed to limit light pollution in accordance with AS4282. External lighting will be controlled via a daylight sensor. Light fittings selected will have an efficacy of not less than 60 lumens/W to comply with section J6 of the BCA.

Internal lighting will be designed in accordance with AS 1680 and section J6 of the BCA.

Emergency and exit lighting will be provided in accordance with AS2293 and the BCA.

7.9.4 Emergency Procedures

HMRI will manage the building under a fire safety policy which includes:

- A fire safety management plan in accordance with AS3745; including procedures for the safety of people in buildings, structures and workplaces during emergencies, the appointment of an Emergency Planning Committee and setting up of an Emergency Control Organisation;
- Good house keeping and fire prevention procedures such as maintaining clear evacuation routes;
- Regular maintenance of all fire safety systems;
- Fire training of staff, including evacuation procedures and use of fire fighting equipment, undertaken at regular intervals.

The HMRI building is to be provided with sprinkler protection and smoke detection throughout. These systems will be connected to the Sound System and Intercom System for Emergency Purposes (SSISEP) and will be monitored by the Fire Brigade. The building will have a Fire Indicator Panel (FIP) located at the main entrance to the building. The Fire Brigade on arrival will take control of the emergency.

7.9.5 Fire Safety

The Fire Engineering Report will include detailed information relating to the proposed egress strategy for the building. The building is to be served by 3 fire-isolated stairs discharging direct to the outside at level 1 (ground level). In addition, occupants can evacuate horizontally into an adjoining fire compartment, if safe to do so. Emergency lighting and directional signage will be provided to help occupants identify the location of exits and exit routes quickly and easily. Sprinklers provided throughout the building will significantly reduce the likelihood of a large fire developing in the building. The smoke detection and occupant warning system will provide occupants with early warning in the event of a fire, and the Sound System and Intercom System for Emergency Purposes (SSISEP) will provide occupants with additional warning and further information in relation to safe evacuation procedures in the event of a fire.

The building will be required to be managed under a fire safety policy which includes:

- A fire safety management plan in accordance with AS3745; including procedures for the safety of people in buildings, structures and workplaces during emergencies, the appointment of an Emergency Planning Committee and setting up of an Emergency Control Organisation;
- Good house keeping and fire prevention procedures such as maintaining clear evacuation routes;
- Regular maintenance of all fire safety systems; and
- Fire training of staff, including evacuation procedures and use of fire fighting equipment, undertaken at regular intervals.

7.9.6 Signage

External Signage to direct visitors to the new facility will be coordinated with HNEAHS requirements. Signage is intended to be easily comprehended by all users of the building and the following DDA requirements to comply with AS 1428.1, Clause 14, will be adopted:

- Place signage (including Braille) and international symbols at all major crossovers, accessible entrances and exits, emergency exits, common areas lifts, & toilets.
- Accessible signage can be produced in different colours and on different surfaces e.g. brass, ensure the colour contrast is significant between the background and symbol / letter colours.
- Where an accessible pathway or route is different to the main route, signage including the international logo for access should be clearly highlighted, (Highlight changes in surface materials for nature pathways).
- Braille signage shall be provided on all gender and unisex toilet doors and signage boards located at a height of 1500mm.
- Signage to include international symbol for people with disabilities, directional arrow and a written explanation.
- Symbol size shall be the following according to viewing distance:-
  - < 7 metres - 60mm X 60mm
  - > 7 < 18 metres - 110mm X 110mm
  - > 18 metres - 450mm X 450mm
- Letter heights shall be the following according to viewing distance:-
  - 2 metre - 6mm
  - 6 metres - 20mm
  - 15 metres - 50mm

    - 35 metres - 100mm
    - 50 metres - 150mm
- Directional signage shall be installed at a height not less than 1500mm and provided in an accessible sightline location.
- All signage should provide a distinct contrast to the background colour/s with colours such as pastels and reflective colours being avoided.

7.10 ESD MEASURES

The key ESD goals are:

- Minimise the impact of the construction process; and
- Minimise the impact of the building operation while improving the researcher experience.

To achieve this, the HMRI building shall implement measures related to:

- Water reuse and demand management;
- Energy efficiency; and
- Recycling and waste disposal.

A number of other measures have been identified that provide additional value to the project.

7.11 SERVICES

The following electrical infrastructure work will be carried out in accordance with the services reports in **Appendix R** of this report.

- Electrical power services;
- Lighting;
- Fire detection;
- Emergency Warning and Intercom System;
- Communications services; and
- Security Services.

The following hydraulic services infrastructure work will be carried out in accordance with the services reports in **Appendix R** of this report.

- Water service;
- Sewer drainage service; and
- Natural gas service.