ROBINSON URBAN PLANNING

PROJECT APPLICATION ENVIRONMENTAL ASSESSMENT REPORT

(MP 08_0137)

VOLUME 1

Australian Red Cross Blood Service - NSW/ACT Principal Site

17 O'Riordan Street, Alexandria

Prepared on behalf of

Goodman

GOODMAN INTERNATIONAL LIMITED

22 SEPTEMBER 2008

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STATEMENT OF VALIDITY

Prepared under the *Environmental Planning and Assessment Act, 1979*:

Environmental Assessment Report prepared by

Name	Sandra Robinson *Director*
Qualifications	BTP (Hons), MPIA
Address	Robinson Urban Planning Pty Ltd 83 Fletcher Street TAMARAMA NSW 2026
In respect of	Australian Red Cross Blood Service NSW/ACT Principal Site for the processing of blood products, distribution, blood testing, tissue typing and research laboratories, warehousing and ancillary office/administration and staff amenity functions

Project Application

Proponent name	Goodman International Limited
Proponent address	Level 10, 60 Castlereagh Street SYDNEY NSW 2000
Land to which the Project Application applies	Lot 4 DP 794095 17 O'Riordan Street, ALEXANDRIA
Project summary	Demolition of existing buildings and construction of new purpose built facilities for the processing of blood and blood products, distribution, blood testing, tissue typing and research laboratories, warehousing, and ancillary office/administration and staff amenities functions for the Australian Red Cross Blood Service.

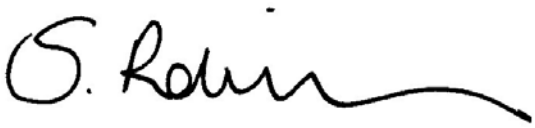
Environmental Assessment

Certificate

I certify that I have prepared the content of this Environmental Assessment and to the best of my knowledge:

- It is in accordance with the *Environmental Planning and Assessment Act 1979* and *Regulation*
- It is true in all material particulars and does not, by its presentation or omission of information, materially mislead.

Signature



Name Sandra Robinson

Date 19 September 2008

EXECUTIVE SUMMARY

1.0 Introduction

Goodman International Limited (**Goodman**) is the proponent for the development of a purpose built facility for the Australian Red Cross Blood Service (**ARCBS**) at 17 O'Riordan Street, Alexandria (**the site**). ARCBS is a subsidiary of the Australian Red Cross Society. It is a not for profit organisation which is jointly funded by Federal and State Governments. The ARCBS is responsible for providing the Australian community with safe, high quality blood products and related services. The ARCBS also provides vital services related to organ and tissue donation and tissue typing for transplants.

This Environmental Assessment Report (**EAR**) is submitted to the Minister for Planning pursuant to Part 3A of the Environmental *Planning and Assessment Act, 1979* (**EP&A Act**). The EAR, prepared by Robinson Urban Planning Pty Ltd comprises two volumes.

Volume 1 (this volume) describes the site, its locality, recent history and the project and includes an assessment of the project in accordance with the Environmental Assessment Requirements (**DGRs**) issued by the Director-General of the Department of Planning (**DoP**) under Part 3A of the EP&A Act. All technical reports are appended to Volume 1.

Volume 2 is an A3 document containing the PA plans.

2.0 Background

On 19 June 2008, the Director General of the DoP, as delegate of the Minister for Planning, formed the opinion that the proposed development is development of a kind described in Schedule 1 of the State Environmental Planning Policy (Major Projects) 2005. On 25 July 2008, the Minister issued DGRs for the EAR.

3.0 Site description

The site 17 O'Riordan Street, Alexandria, which is on the western side of the street, some 350m south of Green Square Railway Station (which is on the Airport and East Hills Line). It is described as Lot 4 in DP 794095.

4.0 Strategic planning context

City of Cities: A Plan for Sydney's Future (the **Metropolitan Strategy**) nominates an economic global corridor between the City and the Airport and Port Botany which includes the site. Jobs in the corridor are planned to increase by 150,000 by 2031 and locations in the corridor accessible to public transport (such as the site) are identified as being particularly suitable to accommodate this increased employment. The Metropolitan Strategy nominates Green Square, 350m to the north of the site, as a Planned Major Centre. By 2031, the employment capacity target for Green Square is 14,000 jobs (up from 5,827 in 2001, being a change of 140%). Accommodating 500 jobs, the project would make a meaningful contribution to this target.

The DoP has released the *Draft City of Sydney Subregional Strategy* which reinforces the role and employment targets for the planned Green Square Major Centre (which has an area of 14 ha). The site sits within the

defined 1 kilometre radius of the planned Green Square Major Centre and is within the boundaries of the Urban Renewal Area.

Sustainable Sydney 2030 (Draft), prepared by the City of Sydney, presents a vision for the sustainable development of Sydney City to the year 2030 and beyond. The project is consistent with the relevant 2030 goals. The City of Sydney engaged consultants to prepare a *Green Square Built Form Review*. The City of Sydney has not adopted the recommendations of the Review.

5.0 Consultation

The proponent and DoP have consulted City of Sydney, RTA, Sydney Water, RailCorp, Sydney Airport and the Ministry of Transport. The written advice of these agencies has been addressed in the EAR.

6.0 Project application

The Project Application (**PA**) seeks approval for the following:

1. Demolition of all existing buildings and structures on the site
2. Construction of a new four storey building containing:
   (i) A new purpose built facility for the processing of blood and blood products, distribution, blood testing, tissue typing and research laboratories, warehousing and ancillary office/administration and staff amenity functions having a total gross floor area (**GFA**) of 13,548m^2 which represents a floor space ratio (**FSR**) 1.84:1
   (ii) Basement car parking for 97 cars (comprising 88 staff spaces and nine visitor spaces), bicycle parking and amenities
3. Landscaping of the site
4. Fit-out and use of the completed building by the ARCBS

The estimated capital investment value of the project is $70 million and it will employ a total of 500 people.

7.0 Environmental assessment

Director General's Requirements

The EAR fully addresses the DGRs and accompanying advice from relevant agencies.

Relevant legislation and EPIs

The project is consistent with the relevant legislation and the following State Environmental Planning Policies (**SEPPs**) and other environmental planning instruments (**EPIs**) that are relevant to the project.

- SEPP (Major Projects) 2005
- SEPP (Infrastructure) 2007
- SEPP 64 – Advertising and Signage
- SEPP 55 – Remediation of Land

- SEPP 33 – Hazardous and Offensive Development
- Draft SEPP 66 – Integration of Land Use and Transport
- South Sydney Local Environmental Plan 1998 (**LEP 1998**)

Relevant DCPs and Contributions Plans

The following development control plans (**DCPs**) and Contributions Plan are relevant to the site and project:

- South Sydney Development Control Plan 1997: Urban Design including Precinct G: Special Precinct No. 9 – Green Square (**DCP 1997**)
- Green Square Affordable Housing Development Control Plan (**GSAHDCP**)
- South Sydney Development Control Plan No. 11 – Transport Guidelines for Development (**DCP 11**)
- City of Sydney Access Development Control Plan 2004 (**Access DCP**)
- Development Contributions Plan 2006

The project is generally consistent with these DCPs and the contributions plan. Where variations are proposed, they are minor and reasonable in the circumstances.

Access, transport and traffic

The Traffic Report by Masson Wilson Twiney concludes that traffic and parking aspects of the proposal would be satisfactory.

Energy efficiency

SBE has prepared an ESD Report for the project which demonstrates that the project includes measures to reduce the impact of the development on the environment, and in particular the greenhouse gas emissions from its construction and operation.

Noise and vibration

Acoustic Logic Consultancy has prepared a Noise and Vibration Impact Report. Part A provides recommendations to ensure that noise and vibration levels will acceptable for normal office and laboratory tenancies. Part B provides a preliminary assessment of noise and vibration impacts on surrounding properties and concludes that the project will have an acceptable impact (including potential noise emissions from process equipment, mechanical services plant and equipment and vehicle movements). Recommendations are set out in Part B to achieve acceptable noise emissions during the demolition, excavation and construction phase of the project.

Geotechnical

Douglas Partners has prepared a Preliminary Geotechnical Investigation which addresses excavation, excavation support, temporary ground anchors, groundwater, foundations and the effects of the development on the railway tunnel.

Stormwater and flooding

Whipps Wood Consulting has prepared a Hydraulic Services Report and Plans for the project (Appendix O). The Flood Study by Cardno demonstrates that the project satisfies Council's Development Conditions.

Waste

A WMP has been prepared by J D MacDonald addressing the operational stage of development.

Lighting

Up-lighting of the O'Riordan Street elevation is proposed. All lighting will be designed, at the detailed design phase, to ensure that it complies with Australian Standard AS4282 on "The Control of the Obtrusive Effects of Outdoor Lighting".

Construction Management

A CMP has been prepared by Buildcorp addressing Waste generated during the construction/demolition stage, traffic control, waste management, site establishment and stormwater and sediment control.

Utilities

A new substation is proposed in the north-eastern corner of the proposed building, addressing O'Riordan Street. Other utility services available to the site including electricity, telecommunications, sewer and gas may require some augmentation, but it is not anticipated that the project will affect the availability of these services.

BCA compliance and fire engineering

The EAR includes a BCA Assessment Report by Blackett Maguire + Goldsmith and a Fire Engineering Strategy by Raw Fire. They demonstrate that the project will generally comply with the Deemed-to-Satisfy provisions of BCA and that proposed alternative solutions can be designed to achieve compliance with the performance requirements of the BCA.

8.0 Draft statement of commitments

A draft statement of commitments (**Table 11**) has been prepared setting out the measures proposed by the proponent to manage and minimise the potential impacts arising from the project.

9.0 Conclusion

The development of a new purpose built facility for the processing of blood and blood products, distribution, blood testing, tissue typing and research laboratories, warehousing and ancillary office/administration and staff amenity functions to be occupied by the Australian Red Cross Blood Service (**ARCBS**) at 17 O'Riordan Street, Alexandria offers the following significant benefits:

- Implementation of the relevant objects of the EP&A Act by:
  - promoting the **social** welfare of the community through the provision of a new and improved facility for the ARCBS ensuring that they can provide safe, high quality blood products and related services for the population of NSW and ACT,
  - promoting the **economic** welfare of the community through the provision of approximately 500 jobs, making a significant contribution to the employment targets for Green Square Urban Renewal Area

(being 14,000 jobs by 2031 as set out in the Metropolitan Strategy for Sydney, Draft City of Sydney Subregional Strategy and Sustainable Sydney 2030).

- protecting the **environment** and promoting **ESD** by incorporating energy efficiency into the design and future operation of the project

- Provision of a purpose built facility to meet the current and future expansion needs of the ARCBS, consolidated into one facility. The site is particularly suitable for this given its proximity to the Airport, Sydney CBD, major hospitals and the regional road network enabling a more superior service and improved efficiency in the collection and distribution of blood and related products.
- A safe and secure facility for ARCBS, designed to operate 24 hours a day even in the event of a disaster. This is paramount to the successful operations of the facility and the well being of the people relying on its important service of supplying blood to the population of Australia.
- Balanced with the project's contribution to the economy, the proposal includes energy efficiency measures and it will not adversely affect the amenity of adjoining and nearby land uses including the nearby conservation area.
- Consistency with all relevant SEPPs and LEP 1998 (including permissibility in Zone No. 10(d) Mixed Uses "d" Zone).
- General compliance with DCP 1997.
- A high standard of contemporary architectural and landscape design with high quality and durable external materials and finishes.
- Encouragement of alternate forms of transport given the site's excellent access to public transport (trains and buses), the constrained provision of on site car parking (consistent with DCP 11) and bicycle parking facilities and amenities (including lockers and showers).

In light of the significant merits and the absence of any significantly adverse environmental effects, the project is considered worthy of the Minster's consent.

1.0 INTRODUCTION

Goodman International Limited (**Goodman**) is proposing the development of a purpose built facility for the Australian Red Cross Blood Service (**ARCBS**) at 17 O'Riordan Street, Alexandria (**the site**). ARCBS is a subsidiary of the Australian Red Cross Society. It is a not for profit organisation which is jointly funded by Federal and State Governments.

The ARCBS is responsible for providing the Australian community with safe, high quality blood products and related services. The ARCBS also provides vital services related to organ and tissue donation and tissue typing for transplants.

The NSW Operations Centre is currently located at 153 Clarence Street, Sydney and is supported by ARCBS processing facilities at Newcastle and Canberra and laboratory facilities at Parramatta. Due to expansion and changes in technology, ARCBS needs a new and larger facility. Due to its proximity to Kingsford Smith Airport, Sydney CBD, major hospitals, Green Square Railway Station (and future town centre) and the regional road network; the site offers an optimum location for the new facility. The site is located in the City of Sydney Local Government Area (**LGA**).

This Environmental Assessment Report (**EAR**) is submitted to the Minister for Planning pursuant to Part 3A of the *Environmental Planning and Assessment Act, 1979* (**EP&A Act**). It forms part of a Project Application (**PA**) seeking approval for the following:

1. Demolition of all existing buildings and structures on the site

2. Construction of a new four storey building containing:

    (i) A new purpose built facility for the processing of blood and blood products, distribution, blood testing, tissue typing and research laboratories, warehousing and ancillary office/administration and staff amenities functions having a total gross floor area (**GFA**) of 13,548m^2 which represents a floor space ratio (**FSR**) 1.84:1

    (ii) Basement car parking for 97 cars (comprising 88 staff spaces and nine visitor spaces), bicycle parking and amenities

3. Landscaping of the site

4. Fit-out and use of the completed building by the ARCBS

The estimated capital investment value of the project is $70 million and it will employ 500 people. A completed certificate of cost form is attached to the PA form.

Figure 1 *– Site location plan*

Figure 2 *– Aerial photograph of the site and surrounds*

This EAR has been prepared by Robinson Urban Planning Pty Ltd on behalf of Goodman (the proponent and landowner). It comprises two volumes.

Volume 1 (this volume) describes the site, its locality, recent history and the project and includes an assessment of the project in accordance with the Environmental Assessment Requirements (**DGRs**) issued by the Director-General of the Department of Planning (**DoP**) under Part 3A of the EP&A Act. It includes the following information and technical reports:

Appendix A	Record of Minister's Opinion for the purposes of Clause 6(1) of the State Planning Policy (Major Projects) 2005, dated 19 June 2008
Appendix B	Director General's Requirements (MP 08_137), issued July 2008
Appendix C	Site Survey Plan, by Hard & Forester
Appendix D	Architectural Design Report (including reduced architectural plans and shadow diagrams), by Bligh Voller Nield (**BVN**)
Appendix E	Statement of Heritage Impact, by the Australian Museum Business Service
Appendix F	Correspondence from Sydney Water and the City of Sydney
Appendix G	Landscape Plan, Tract Consultants Pty Ltd
Appendix H	Preliminary Contamination Assessment, by Douglas Partners Preliminary Environmental Site Assessment, by ERM and Hazardous Substances Audit, by ERM
Appendix I	ESD Report, by Sustainable Built Environment (**SBE**)
Appendix J	Preliminary Geotechnical Assessment, by Douglas Partners
Appendix K	Advice on Electrolysis Testing, by Corrosion Control Engineering
Appendix L	Traffic Report, by Masson Wilson Twiney (**MWT**)
Appendix M	Preliminary BCA Assessment, by BM+G and Fire Engineering Strategy by Raw Fire
Appendix N	Waste Management Plan (**WMP**), by J D McDonald
Appendix O	Hydraulic Services Report and Plans, by Whipps-Wood Consulting
Appendix P	Noise and Vibration Impact Report, by Acoustic Logic Consultancy
Appendix Q	Construction and Demolition Environmental Management Plan (**CMP**), by Buildcorp
Appendix R	Access Report, by Morris Godding Access Consultants
Appendix S	Flood Study, by Cardno

Volume 2 is an A3 document containing the plans listed in **Table 1**.

***Table 1** – PA Plans*

Plan	Author	Drawing reference	Issue/Rev
Site Survey Plan	Hard & Forester		
Architectural Plans	BVN	DA-A000 Cover Sheet	Issue A
		DA-A-001 Location Plan	Issue A
		DA-A002 Existing site plan	Issue A
		DA-A003 Site Plan	Issue A
		DA-D-001 Floor Plan - Basement	Issue A
		DA-D-002 Floor Plan – Ground Level	Issue A
		DA-D-003 Floor Plan – Level 1	Issue A
		DA-D-004 Floor Plan – Level 2	Issue A
		DA-D-005 Floor Plan – Level 3	Issue A
		DA-D-006 Floor Plan – Level 4/Roof Plan	Issue A
		DA-D-007 Floor Plan – Plan Room/Roof Plan	Issue A
		DA-E-001 East + West Elevations	Issue A
		DA-E-002 North + South Elevations	Issue A
		DA-E-003 Perspectives	Issue A
		DA-F-001 Sections A + B	Issue A
		DA-F-002 Detail Section/Elevation – East Facade	Issue A
		DA-F-003 Detail Section/Elevation – North Facade	Issue A
		DA-Z-001 Shadow Diagram – December	Issue A
		DA-Z-002 Shadow Diagram – June	Issue A
		DA-Z-003 Shadow Diagram – March/Sept	Issue A
		DA-Z-004 Photomontage	Issue A
		DA-Z-005 Area Schedule	Issue A
Schematic Fitout Plans	DesignInc	A.2002 – Ground Level Floor Plan	Revision G
		A.2003 – Level 1 Floor Plan	Revision D
		A.2004 – Level 2 Floor Plan	Revision G
		A. 2005 – Level 3 Floor Plan	Revision I
Landscape Plan	Tract Consultants	Drawing No. 9208009 LD SK 02, dated 27 June 2008	Rev 01
Hydraulic Services Plans	Whipps-Wood Consulting	Drawing No. HDA01 P1 – HAD/01 P1, dated 3 July 2008	
Bulk Earthwork Excavation Plan	SCP	ST01	Issue A

2.0 BACKGROUND

On 19 June 2008, the Director General of the DoP, as delegate of the Minister for Planning, formed the opinion that the proposed development is development of a kind described in Schedule 1 of the State Environmental Planning Policy (Major Projects) 2005, namely:

- Clause 11 "development that employs more than 100 or more people or with a capital investment of more than $30 million for the purposes of laboratory, research or development facilities"; and
- Clause 19 "development for the purpose of health, medical or related research that has a capital investment value of more than $15 million, or employs 100 or more people"

The Director General thus declared the development a project to which Part 3A of the EP&A Act applies. A copy of the Minister's Opinion is included in **Appendix A**.

On 25 July 2008, the Minister issued DGRs for the EAR (**Appendix B**). Section 8.1 includes a table detailing the matters listed and the section of this EAR or technical studies that address the requirements of the DGRs.

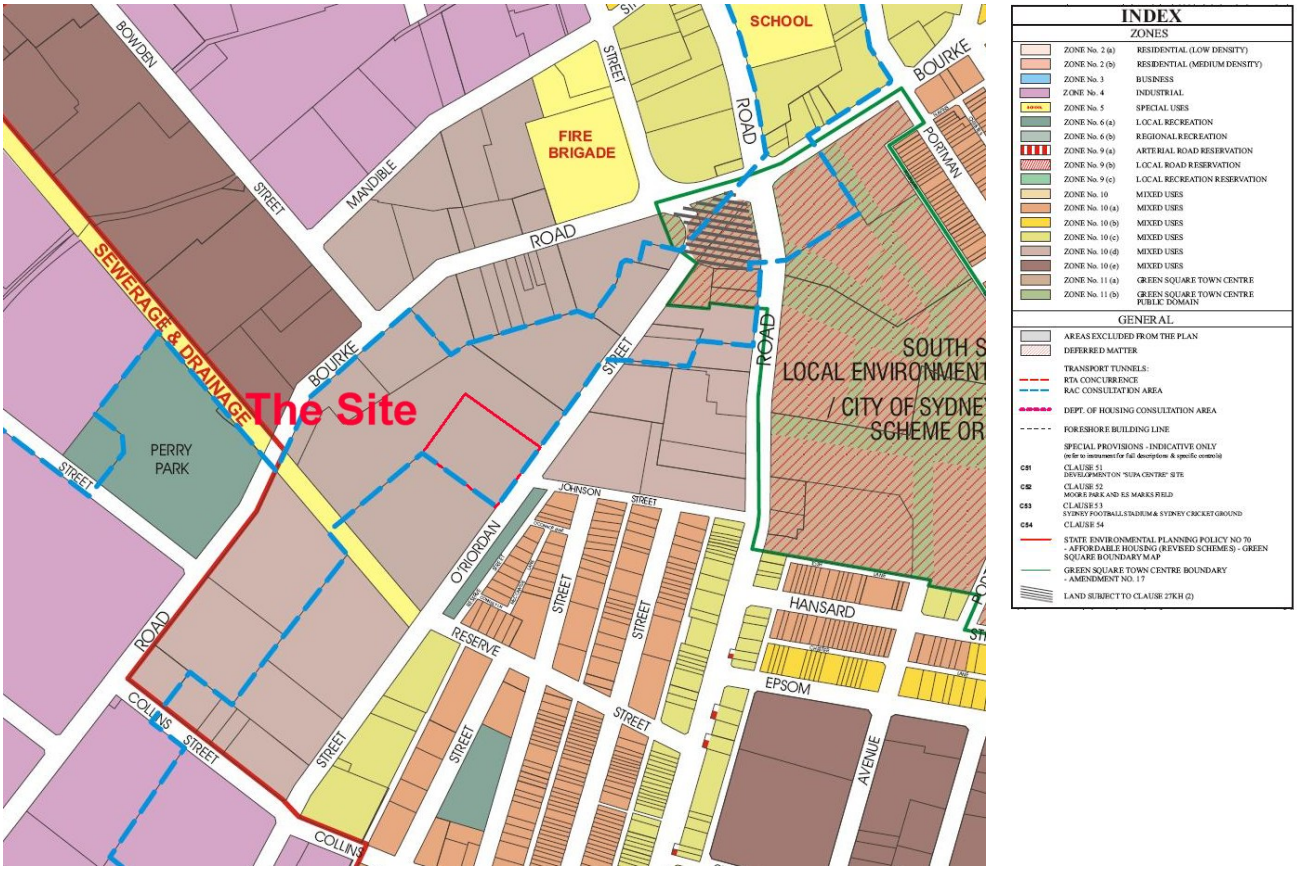


Figure 3 *– Zoning Map (LEP 1998)*

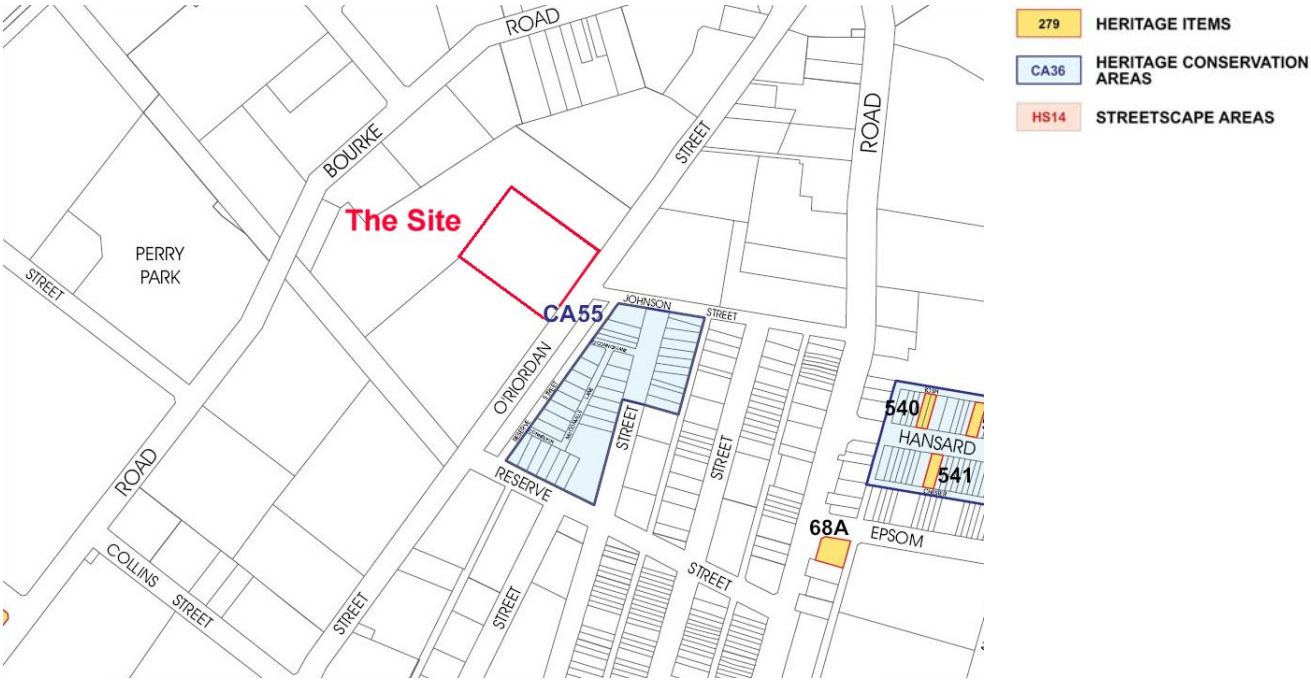


Figure 4 *– Heritage Conservation Map (LEP 1998)*

3.0 SITE DESCRIPTION & ANALYSIS

Location	17 O'Riordan Street, Alexandria, which is on the western side of the street, some 350m south of Green Square Railway Station (which is on the Airport and East Hills Line). Strategic plans for Green Square Town Centre and Green Square Urban Renewal Area will see dramatic change over the next 20-30 years. Sydney CBD is around 5km to the north and Sydney Airport is around 2.5km to the south (**Figure 1** and **2**).
Description	Lot 4 in DP 794095. A restriction as to user for the airport railway tunnel affects the north-western corner of the site (Zone 1 and 2) (refer to Site Survey, **Appendix C**).
LGA	City of Sydney
Frontages	76.8 metres to O'Riordan Street (to the east) 95.8 metres to the side boundary (to the north) 95.8 metres to the side boundary (to the south) 76.8 metres to the rear boundary (to the west)
Site area	7,357m^2
Existing GFA	6,000m^2/0.82:1
Zoning	Zone No. 10(d) Mixed Uses "d" Zone, pursuant to South Sydney Local Environmental Plan 1998 (**LEP 1998**). The site is also within the Rail Infrastructure Corporation consultation area (**Figure 3**).
Heritage	The site is not listed as a heritage item and is not located in a conservation area. The site is in the vicinity of the Hillview Estate Conservation Area (CA 55), as illustrated by the LEP 1998 Heritage Conservation Map (**Figure 4**) and detailed in the Statement of Heritage Impact (**Appendix E**).
Site history and existing consents	The existing buildings on the site were constructed in 1996 (approved by the former South Sydney Council (U94/00812)). The City of Sydney approved DA D2007/1355 on 3 September 2007 for use of the existing building as an office, warehouse and ancillary retail space with pallet racking to the warehouse.

Figure 5 *- The site: Existing two storey warehouse/office building*

Figure 6 *- The site: Frontage to O'Riordan Street*

Figure 7 *- The site: Existing service and parking area along the northern side boundary*

Figure 8 *- The site: Existing service and parking area along the northern side boundary*

Site history and existing consents (cont.)

Title deed records indicate that the site was owned by a number of parties since 1918. Ownership details are as follows:

1918 – Austral Bronze Company Pty Ltd

1970 – Austral Bronze Copper Ltd

1989 – Leda Holdings Pty Ltd

1990 – Court Developments Pty Ltd

1995 – Prudential Assurance Company Ltd

1997 – Prudential Corporation Australia Ltd

1999 – Permanent Trustee Australia Ltd

2000 – Perpetual Nominees Ltd

2005 - Trust Company Australia Ltd

A review of historic aerial photographs indicates the site was occupied with commercial / industrial type warehouse structures in the 1950s. Subsequently development for a similar purpose took place to the north, north-east and south over the next 20 years. In the early 1990s the site was demolished to make way for the existing building, adjacent lots were also cleared.

Improvements

Warehouse building (6,000m^2), with two storey office component addressing O'Riordan St, occupied by an online discount store selling electronic gadgets. Vehicular access, servicing and car parking is located on the northern side of the building. A narrow landscape strip runs along the site's frontage to O'Riordan Street.

Topography & vegetation

The site is generally flat, with a slight cross fall of approximately 1.8 metres from RL 12.8 in the south-west to approximately RL 11.3 in the north-east of the site (refer to Site Survey, **Appendix C**). There is no significant vegetation on the site.

Public transport

The site is located within 350m walking distance from the Green Square Railway Station (on the Airport and East Hills railway line) which provides direct train services to the City Circle stations, as well as Campbelltown and Macarthur Stations in the south. The line has a high frequency train service, running at approximately five to 10 minute intervals during peak periods. Green Square Station interchanges with bus and taxi services. Sydney Buses operates a number of high frequency bus services near the site, along Botany Road and Collins Street (STA buses 309 – Port Botany to Circular Quay, L09 - Port Botany to Redfern, 310 - East Gardens to Circular Quay, 348 – Bondi Junction to Alexandria and 370 – Leichhardt to Coogee).

Figure 9 *– Vacant land to the north of the site*

Figure 10 *– Warehouse use to the north of the site at 9-13 O'Riordan Street*

Figure 11 *– Vacant land to the west (rear) of the site*

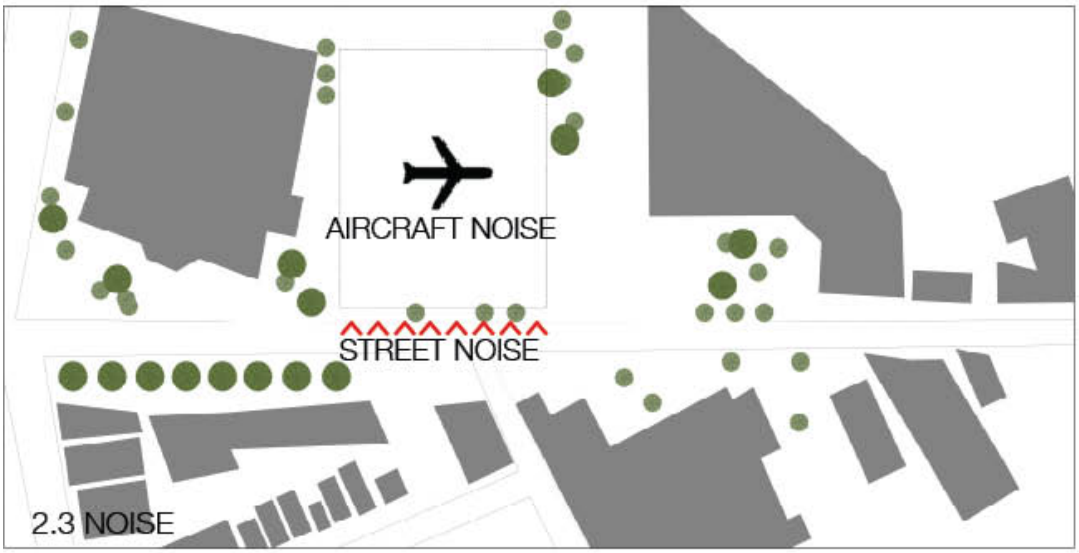
Figure 12 *– Adjoining warehouse building to the south of the site at 19 O'Riordan Street*

Figure 13 *– Mercedes Benz Service Centre to the east of the site, beyond O'Riordan Street*

Figure 14 *– Linear open space on the east side of O'Riordan Street. Hillview Estate Conservation Area is further east.*

Adjoining uses	*North*	Vacant land adjoins the site to the immediate north, beyond this is a planned future road connection and existing warehouse uses at 9-13 O'Riordan Street (occupied by Combined Communications Network). Further north is Green Square Railway Station and the future Green Square Town Centre, at the intersection of O'Riordan Street, Bourke Street and Botany Road.
	South	Existing warehouse, distribution and office facility at 19 O'Riordan Street occupied by True Alliance.
	East	Mercedes Benz service centre, McConville Reserve (a linear open space) and Hillview Estate Conservation Area (occupied by a mix of residential and warehouse uses), all beyond O'Riordan Street.
	West	Vacant land, beyond which are various warehouse uses addressing Bourke Road.

Figures 5 to **14** show photographs of the site and nearby development.



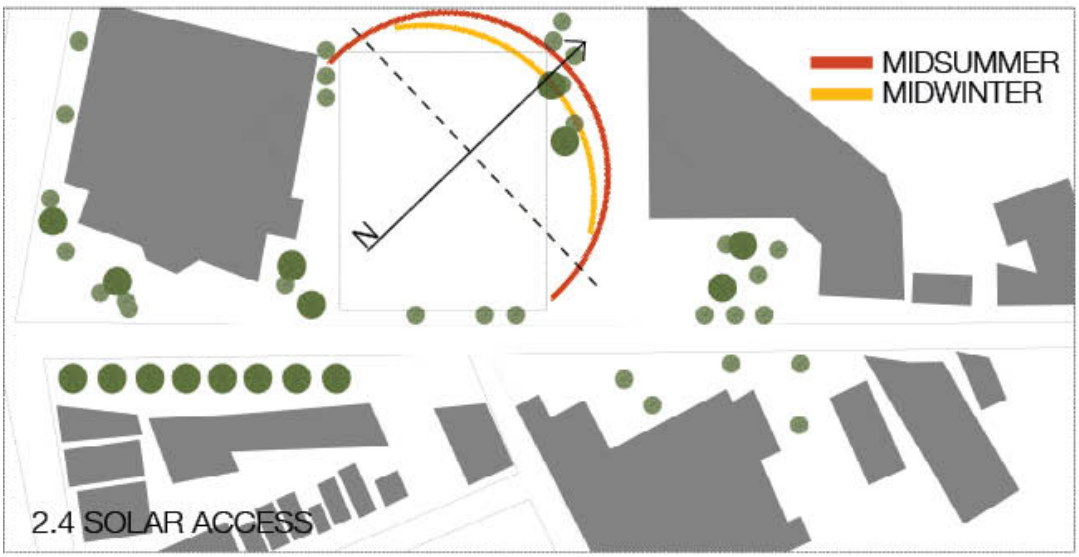


Figure 15 *– BVN site analysis*

4.0 SITE ANALYSIS

Included in the Design Report (**Appendix D**) and partly reproduced at **Figures 15** and **16** is a comprehensive analysis of the site and locality completed by BVN. Important findings from this analysis include the following:

- The site is ideally and uniquely located having:
  - close proximity to the CBD and Sydney Airport
  - good access to public transport (in particular Green Square Railway Station which is 350m to the north)
  - a developing work-force amenity (particularly upon completion of the future Green Square Town Centre)
  - excellent road transport connections (including South Dowling/Eastern Distributor and M5/M7)
- Access to the site for vehicles and pedestrians is via O'Riordan Street only. O'Riordan Street is a declared State Road under the control and maintenance of the Roads and Traffic Authority (**RTA**).
- The site is affected by traffic and aircraft noise. Sound insulation will be required to ensure that internal ambient noise levels meet relevant requirements.
- The site has very good solar orientation and views to the north-west towards the City, offering the potential to provide an outdoor recreation area for employees (ideally at the rear of the site away from traffic noise).
- The site enjoys context views to McConville Reserve, providing an opportunity for good workplace amenity.
- The eastern boundary of the site has a long frontage to O'Riordan Street. This is the site's only public face. The presentation of this elevation is important to the streetscape of O'Riordan Street.
- The north-western corner of the site is affected by the airport underground railway line. The tunnel itself does not cross the site, but the zones of influence do, precluding the siting of structures to the requisite depth in this area (refer to site survey plan, **Appendix C**).
- The existing pattern of built form in the locality is large footprint low scale (two to three storey) warehouse, bulky goods retail and light industrial buildings. These are predominantly surrounded by large open area surface carparks or goods handling hardstand areas. The result is one of varied street definition and minimal pedestrian amenity.

Detailed site and building planning studies are included in the Design Report (**Appendix D**). The studies demonstrate that the project is the end result of a comprehensive and site responsive design analysis.

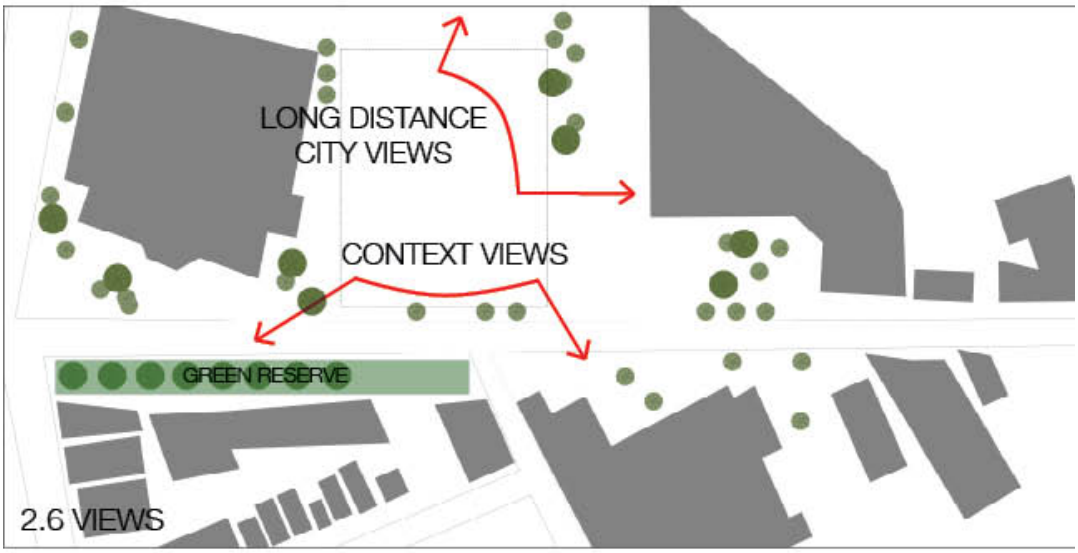


Figure 16 *– BVN site analysis*

5.0 STRATEGIC PLANNING CONTEXT

City of Cities: A Plan for Sydney's Future

City of Cities: A Plan for Sydney's Future (the **Metropolitan Strategy**) was released in December 2005. It supports continuing economic growth while balancing social and environmental impacts. It is based on anticipated population, economic and demographic trends and has been developed with five aims: enhance liveability, strengthen economic competitiveness, ensure fairness, protect the environment, and improve governance.

An economic global corridor between the City and the Airport and Port Botany is nominated in the Metropolitan Strategy. The corridor, which is to accommodate a concentration of jobs and activities, includes the site. Jobs in the corridor are planned to increase by 150,000 by 2031 which represents 30% of all new jobs in Sydney. Locations within the corridor accessible to public transport (such as the site) are identified as being particularly suitable to accommodate this increased employment.

The Metropolitan Strategy nominates Green Square, 350m to the north of the site, as a Planned Major Centre. By 2031, the employment capacity target for Green Square is 14,000 jobs (up from 5,827 in 2001, being a change of 140%). Accommodating 500 jobs, the project would make a meaningful contribution to this target.

Also relevant to the proposed ARCBS use is the Metropolitan Strategy's recognition of the economic importance of innovation, in particular research and development in the health sector.

Draft City of Sydney Subregional Strategy

The DoP has released Draft Subregional Strategies that translate some of the aims and objectives of the Metropolitan Strategy to the local level. Sydney comprises 10 subregions including the Sydney City Subregion (which comprises the City of Sydney LGA only). The Draft Sydney City Subregional Strategy restates the role and employment targets for the planned Green Square Major Centre (which has an area of 14 ha). The site sits within the defined 1 kilometre radius of the planned Green Square Major Centre and is within the boundaries of the Urban Renewal Area.

Sustainable Sydney 2030 (Draft)

This strategic plan, prepared by the City of Sydney, presents a vision for the sustainable development of Sydney City to 2030 and beyond. It builds on current regional and State planning including the Metropolitan and Draft Subregional Strategies discussed above. It sets out a vision that the City of Sydney will be *Green, Global and Connected* by 2030. The strategic plan sets out five big moves to transform the City.

The project would make a meaningful contribution toward realisation of Move 4 which relates to Activity Hubs (a focus for the City's village communities and transport where communities meet, create, learn, work and shop). In relation to Green Square, nominated as a Future Activity Hub, the strategic plan states:

> *Promote Green Square as an **exemplar of sustainable development**.*
>
> *Develop as a **mixed–use employment precinct with a focus on emerging environmental, creative and knowledge oriented industries**. Replicate the small business and residential mix of Surry Hills.*
>
> *Ensure social, community and cultural infrastructure is delivered upfront and utilise this as a catalyst for further development.*
>
> *Ensure built form allows for many investors, designers, owners and occupiers to play a role similar to that in the City's existing Villages.*
>
> *Provide affordable housing.*
>
> *Improve access from Rosebery to the Green Square Activity Hub and maintain options for an additional activity hub on Botany Road over the longer term to support growth and change in this corridor.*

Move 5, Transformative development and sustainable renewal, is also relevant to the site and project. In relation to the area around Green Square, the strategic plan states:

> *Prioritise **environmental performance**, housing affordability and sustainable transport in the wider Green Square area.*
>
> *Expand mixed–use residential areas beyond that currently planned and **allow for new employment opportunities**.*
>
> ***Reduce the demand for car parking** and provide it in a cost effective way in order to reduce construction costs and improve affordability.*
>
> *Investigate the potential for achieving high densities with low rise buildings.*
>
> *Create generous canal–side open space and parkland links to Green Square along tributary channels.*

The project is consistent with these relevant 2030 goals.

Green Square Built Form Review

The City of Sydney engaged consultants to assess how the current planning controls are performing in the Green Square Urban Renewal Area.

The study area, which includes the site, consists of the suburbs of Zetland and Beaconsfield and parts of Alexandria, Rosebery and Waterloo. The Green Square Town Centre is not covered by the Review.

The purpose of the Review was to examine the existing built form controls under *South Sydney Development Control Plan 1997: Urban Design*, in *Precinct G: Special Precinct No. 9 – Green Square* and to identify where changes are required to achieve the optimal built form outcome and a good public domain, whilst meeting the development targets identified in the Metropolitan Strategy (see above).

The City of Sydney Website[1] notes that Council has not adopted the recommendations of the Review stating that:

> *The recommendations and findings made by the consultants have not been adopted or endorsed by Council in any way. Any recommendations relating to LEP and DCP planning controls made within this report will not be taken into account in the assessment of any proposed development.*

[1] http://www.cityofsydney.nsw.gov.au/Development/UrbanRenewalProjects/GreenSquare/GreenSquareBuiltFormReview.asp

6.0 CONSULTATION

In preparing this EAR, and as required by the DGRs (**Appendix B**), the proponent has consulted a number of agencies, as summarised in **Table 2**. Relevant correspondence from the consulted agencies and minutes from meetings where relevant are included in **Appendix F**.

In preparing the DGRs, the DoP completed further consultation with the City of Sydney, RTA, RailCorp and The Ministry of Transport. The written advice of the agencies is included in **Appendix B**. Section 8.1 includes **Table 6** which details the issues identified by the Agencies and the section of this EAR or technical studies that address their requirements.

Table 2 – Agencies consulted

Agency	Date	Consultation and advice
City of Sydney	15 May 2008	Pre-lodgement meeting with Michael Soo, Specialist Planner. See Meeting Minutes attached (**Appendix F**).
	3 July 2008	Meeting with Senior Engineer Drainage & Environment on flooding also confirming that City of Sydney has no requirement for on-site detention (**OSD**), confirmed in writing by Council (**Appendix F**).
RTA (Parramatta)	21 May 2008	Pre-lodgement meeting with Garry Kenney. See Meeting Minutes attached (**Appendix F**).
Sydney Water	26 May 2008	Correspondence received confirming that Sydney Water has no requirement for OSD (**Appendix F**).
RailCorp	2 July 2008	Meeting with Chris Bailey confirmed as there were no structures proposed in Zone 2, RailCorp has no issues with the project.
Sydney Airport	8 July 2008	Meeting confirmed that obstacle height limitation of RL 51 applies to the site.
Ministry of Transport	Meeting to be scheduled for August 2008	

7.0 PROJECT APPLICATION

7.1 Project need and objectives

The NSW Operations Centre for ARCBS is currently located at the Australian Red Cross Society (**ARCS**) Building at 153 Clarence Street, Sydney. The eleven storey heritage listed building is shared between ARCS and ARCBS. Existing facilities have become inadequate and it is becoming increasingly difficult to meet operational and statutory obligations. Also, due to space restrictions at 153 Clarence Street, some operational functions have been re-located off-site to locations at 78-80 Clarence Street, Sydney and Parramatta (Donor Management and NAT laboratories). Accordingly, the ARCBS needs to relocate the current New South Wales and Australian Capital Territory Principal Site (**NAPS**).

The principal objectives of the project are to:

1. To provide a purpose built facility to meet the current and future expansion needs for the ARCBS, consolidated into one facility.

2. Develop the new facility on a site which is in close proximity to Kingsford Smith Airport, Sydney CBD, major hospitals and the regional road network enabling a more superior service and improved efficiency in the collection and distribution of blood and blood related products.

3. To provide a safe, mistake and risk free processing and distribution layout.

4. To increase opportunities for collaboration in the workplace particularly with research and development activities.

5. Design and site the new facility to maximise employee convenience and amenity (proximity to the Green Square Railway Station and future town centre are particularly important to the achievement of this object).

6. To create an environmentally sensitive low energy facility for the processing of blood and blood products, distribution, blood testing, tissue typing and research laboratories, warehousing and ancillary office/administration and staff amenities functions that provides spatially open, flexible and naturally lit (where possible) working environments.

7. To design a strong urban statement which signals the regeneration of O'Riordan Street as an economic corridor and extension of the Green Square Town Centre.

8. To deliver an appropriate response to the context of the site and the 'visual image' desired by the ARCBS.

7.2 Consideration of alternatives

In order to progress the design, an extensive analytical process has been undertaken by the proponent and ARCBS. This has been focused around the following areas:

Base building

Extensive testing of options has been undertaken in order to arrive at the proposed design. This has centred around providing a base building which can best accommodate the functional relationships of the proposed processes and activities to be undertaken within the facility while still maximising the amenity for building occupants in terms of access to natural day-lighting, opportunities for social interaction, provision of amenities, private open spaces and informal breakout spaces in order to make it an attractive place to work. This has also been balanced with an objective of creating a high quality, contemporary attractive building with a public presentation that will have a positive impact on its surrounds and is consistent with the image that ARCBS wants to portray to the public.

Internal space planning

Extensive consultation with user groups has been undertaken in order to develop the internal design brief for the project and determine the optimal layout, space requirements and functional relationships for the internal fit-out.

Site selection

ARCBS has given consideration to a number of potential sites. Following analysis, the site was found to best meet their desired objectives in terms of proximity to local services, public transport, the airport and CBD and arterial road network. In particular:

- Location comparison studies were undertaken by ARCBS testing the accessibility of sites in the following locations:
  - Homebush
  - Mascot – Green Square (the site of the proposed project)
  - Redfern
  - Clarence St, Sydney (being the location of the existing NSW Operations Centre)
  - Norwest
  - Bankstown
  - Eastern Creek

The comparison studies showed that the travel time from the site (under normal conditions) to each delivery area (including hospitals, courier depots and the airport) was less than 30 minutes. This compared favourably well with all of the other locations, except for the existing Clarence Street location. Due to its inability to accommodate the ARCBS's need to expand and to upgrade its technology, the heritage listed Clarence Street building is not a suitable location. Traffic congestion in the Sydney CBD also frustrates ARCBS's requirement for uninterrupted access/operations.

- Flood constraints within the Green Square area will not unreasonably preclude the ARCBS's requirement for uninterrupted access/operations as:
  - The proposed building is clear of flood planning levels as required by the City of Sydney and therefore the internal operations of the building will not be affected in flood events
  - Flood hazard on the site during the Probable Maximum Flood (**PMF**) event is typical in most built up areas (especially considering streets are typically designed to a 1 in 20 year event)
  - The 1 in 100 year flood event would result in flood levels of approx 0.73m and 0.35m for each vehicular entry point, therefore at least one point of entry (being the southern driveway) would be accessible for the duration of this rare occurrence
  - In the event of a PMF event, the likely period of inundation would be limited to the critical storm duration and perhaps one hour afterwards therefore constrained access is likely to occur for a short period and would not significantly impact on the operations of the facility

  This issue is addressed in more detail in the Flood Study by Cardno (**Appendix S**).

7.3 Project overview

As detailed in the introduction, the project comprises:

1. Demolition of all existing buildings and structures on the site

2. Construction of a new four storey building containing:

   (i) A new purpose built facility for the processing of blood and blood products, distribution, blood testing, tissue typing and research laboratories, warehousing and ancillary office/administration and staff amenities functions having a total gross floor area (**GFA**) of 13,548m^2 which represents a FSR 1.84:1

   (ii) Basement car parking for 97 cars (comprising 88 staff spaces and nine visitor spaces), bicycle parking and amenities

3. Landscaping of the site

4. Fit-out and use of the completed building by the ARCBS

Table 3 provides a numerical overview of the project. A more detailed description of the project follows.

The Environmental Assessment at Section 8.0 provides further details on energy efficiency, stormwater, accessibility, waste and construction management etc.

Table 3 – Numerical overview of the project

Element	Proposed
Site area	7,357m^2
No. of storeys	4 storeys
Building height [2]	16.25m
Total GFA [3]	13,548m^2
FSR	1.84:1
Site coverage (excluding awnings)	62.5%
Hardstand area	2,241m^2
Landscaped area [4]	1,105m^2
Car Parking Spaces	97
– *Accessible*	3
– *Staff*	88
– *Visitor*	9
– *Small*	13
Minimum floor to ceiling heights	
– Basement	2,650mm
– Ground Floor	3,050mm
– Level 1	2,700mm
– Level 2	2,700 – 3,000mm
– Level 3	2,700 – 3,000mm

[2] Pursuant to the Glossary in South Sydney DCP 1997:

Height *in relation to a building, means the vertical distance expressed in metres between a point on the ceiling of the topmost habitable floor and the natural ground level immediately below that point but does not include an attic elsewhere defined.*

Natural ground level *in relation to a site means the level determined by Council to be the natural ground level of the site.*

[3] Pursuant to the Glossary in South Sydney DCP 1997:

Gross floor area *the sum of the areas of each floor of a building where the area of each floor is taken to be the area within the outer face of the external enclosing walls as measured at a height of 1.4 metres above each floor excluding:*

(i) columns, fin walls, sun control devices and any elements, projections or works outside the general lines of the outer face of the external walls

(ii) lift towers, cooling towers, machinery and plant rooms and ancillary storage space and vertical air conditioning ducts.

(iii) car-parking and associated access needed to meet the requirements of the Council.

(iv) space for the loading and unloading of goods.

[4] **Landscaped area** is not defined in South Sydney DCP 1997. The area shown in Table 3 includes hard/soft landscaping and the landscaped terrace on Level 2.

Figure 17 *– Renderings of the proposed eastern elevation to O'Riordan Street (by BVN)*

7.4 Design

Perspective images and photomontages of the project are shown at **Figures 17** to **19**. The following Vision and Summary of Project Brief are taken from the Design Report (**Appendix D**). Architectural Plans and more information on Form, Mass and Materiality are also included in the Design Report.

Vision

The design team's vision is for a strong urban statement which signals the regeneration of O'Riordan Street as an urban corridor building which is an extension of the Green Square Town Centre, while delivering an appropriate response to the context of the site and the 'visual image' desired by ARCBS.

The building proposal aligns itself to the 2.4m front street setback allowance as prescribed in the Green Square DCP which allows the creation of a strong street urban edge to O'Riordan Street. This is in line with the intended urban design principles for the Green Square area and the City of Sydney intent for O'Riordan Street to continue to evolve into a significant entry corridor form the airport to the CBD.

The proposal creates a building with a strong visual urban presence onto O'Riordan Street through the formal use of a façade with a predominating vertical orientation. This is achieved by the use of deep vertical face concrete blades at close centres which has the affect of a dense colonnade as one moves along O'Riordan Street by either vehicle or by foot.

The effect is enhanced by reinforcing the vertical through the concealment of the horizontal floor plates behind the glazing plane. The deep vertical blades also form sun-shading elements as this is an east facing facade. The repeating order of the blades is interrupted by strategic openings that are placed according to functional and formal needs articulating the building plane. The most significant of these being the entry 'portal' which has a generous scale signalling the main entry of the building. This 'entry portal' opens up onto an internal atrium linking all floors of the building which also acts as a large 'window' into the building where habitation and occupant movement over multiple levels can be witnessed from outside. Importantly this atrium also delivers large amounts of natural light deeper into the floor plates.

The north, west, and south facades have a more regularly proportioned façade with an emphasis on balancing the horizontal with the verticals to create a contrast with the street elevation and emphasize its urban importance.

Materiality is intended to be expressed predominantly through pre-cast face concrete representing the structural and formal framing systems of the building. Placed within this formal ordering is a combination of grey tinted performance glazing and prefinished charcoal coloured cladding elements which contrast with the light colouring of the concrete to emphasise its framing and proportioning strength.

EXISTING

PROPOSED

Figure 18 *– Existing photograph and photomontage (by BVN) of the project looking south-west from the east side O'Riordan Stree*t

EXISTING

PROPOSED

Figure 19 *– Existing photograph and photomontage (by BVN) of the project looking north-west from the east side O'Riordan Street*

Summary of project brief

The design team's brief was to provide a purpose built facility to meet the current and future expansion needs for the ARCBS. The current planned facility was briefed to have 13,400m^2 GFA incorporating the following key areas:

- central processing laboratory on ground floor
- secondary laboratories on single or multiple floors
- administration on single or multiple floors
- freezer storage + connected freezer dock
- temperature controlled warehouse
- goods handling – deliveries and distribution
- clear, secure and safe delivery vehicle logistics

A vital aspect of the ARCBS brief is that the 'central processing operations' in associations with blood product deliveries, storage and dispatch operate solely on the ground floor in a clear and precise linear system to ensure quality handling of blood products to eliminate possible 'errors' or mistakes. Simply expressed donor blood products need to be delivered to one side of the building processed and dispatched on the other side of the building to ensure a one-way 'work flow' which reduces the risk of errors, miss-handling or miss-direction in the processing of the blood products for which the importance of exactness can not be understated.

Visually the ARCBS wish to demonstrate their presence to the wider public at this location and the incorporation of signage (to future detail) will be important in this regard. The ARCBS wished to represent an 'open and transparent culture' which is reflected through the large 'urban atrium window'. This element allows views into the entry and circulation spaces reflective of the working culture ARCBS wishes to project externally. It also provides internal transparency by visually and physically connecting multiple levels around a central social space.

Generally laboratories need to exclude most direct sunlight which is why traditionally laboratories have had small strip windows with larger solid facades. The street façade challenges this perception by being more transparent. This is achieved by consolidating predominantly administration, meeting rooms and staff service uses around the atrium and along the street elevation. These uses have a higher level of movement, denser habitation and more social interaction providing for a more activated street façade demonstrating habitation within.

7.5 Building height

The project has four storeys and a building height of 16.250m (see footnote 2 for the DCP 1997 definition of height). At its highest point (to the top of the plant), the project reaches RL 35.65 which is well below the obstacle height limitation for the airport (RL 51).

7.6 GFA, FSR & site cover

Table 4 shows the proposed GFA by level and total FSR (based on calculations provided by BVN). It shows that the proposed FSR is 1.84:1 (based on a site area of 7,357m^2 and proposed GFA of 13,548m^2). The proposed site coverage is 62.5% (excluding awnings).

Table 4 – Proposed GFA by level

Level	Proposed GFA (m^2)
Basement	167
Ground	4,253
Level 1	1,600
Level 2	3,723
Level 3	3,805
Total	**13,548**
FSR (based on site area 7,357m^2)	**1.84:1**

7.7 Landscaped area and open space

A total landscaped area of 1,105m^2 is proposed (including hard and soft landscape elements and the proposed Level 2 terrace). Endemic species will be used in the landscaping wherever possible.

Key features of the Landscape Plan by Tract (**Appendix G**) include:

– **Public domain streetscape**

New concrete paving along the O'Riordan Street frontage with tooled joints in a stretcher bond pattern highlighted with paving inserts. Planting between the proposed blades has not been included as it would significantly narrow the footpath and therefore weaken the street address to the building.

Existing street trees will be retained (except for one located within the proposed vehicular cross-over) and the grass verge will be reinstated. A new tree will be planted (to Council's specifications) to replace the one proposed for be removed (see **Table 11** – Draft Statement of Commitments (**SoC**)).

– **External landscape and rooftop terrace**

A rooftop staff recreation area is proposed along the western edge of the proposed building at Level 2. It has an accessible area of approximately 540m^2. The terrace has good solar access, views to the City and is separated from the O'Riordan Street traffic noise. A screen of native tree planting is proposed to protect the terrace from the harsh westerly sun and winds.

At the ground level, a 750mm landscape setback accommodating Casuarinas with low native groundcover is proposed along the western, northern and southern boundaries. Although slightly narrower than the 1m requested by the City of Sydney (refer to correspondence at **Appendix B**), the proposed boundary landscaping will effectively enclose the site with landscape planting. The ground floor processing requirements of the ARCBS, fire egress requirements and the swept path dimensions of a 19m articulated truck preclude the provision of additional planting. It should also be noted that an additional 250mm of planting would not make an appreciable visual difference nor would it act as a noise buffer (as suggested by the City of Sydney in its correspondence to the DoP (see **Table 6** later and **Appendix B**).

7.8 Access, parking and loading

Separate entry and exit driveways for the service vehicles and blood delivery vehicles are provided. This is a mandatory requirement of the ARCBS to ensure that blood delivery vans have certainty of access and egress.

The entry driveway is located at the northern end of the site while the exit driveway is located at the southern side. In this way the service and blood delivery vehicles enter the site from the northern driveway and circulate anti-clockwise around the building and exit via the southern driveway. The entry and exit driveways have been designed to accommodate the vehicle swept path of a 19 metre semi-trailer

Courier vans will load and unload from the sides of the building. Larger vehicles will access the warehouse area and loading docks at the southern side or rear of the facility. Loading and servicing in this manner optimises the processing functions on the ground floor.

Access to the basement car parking is via a shared entry/exit driveway located towards the southern end of the O'Riordan Street frontage. The basement accommodates parking for:

- 97 cars, comprising 88 staff spaces and 9 visitor spaces (including three disable parking spaces)
- 10 bicycle spaces (with adjoining amenities)
- 6 motorcycles

Additional visitor parking for 10 bicycles is to be provided at the O'Riordan Street pedestrian entry.

7.9 Signage

Signage location zones (for building/business identification signs, are shown on the Architectural Elevations. Separate application will be made for the detailed design of the signage.

7.10 Proposed fit-out and use

Development consent is sought for the fit-out and use of the ARCBS NSW/ACT Principal Site. Schematic fit-out plans, by DesignInc, are included in Volume 2 (and listed in **Table 1**).

The facility is to be the NSW and ACT state headquarters and central blood processing centre for NSW and ACT. All blood donated in NSW and ACT will be delivered to this facility, tested, processed, typed, packaged, stored and distributed out to users across the state and Australia. Donors will not be able to visit this centre to donate blood.

It is a project of high public importance for the day to day well being of the people of NSW and ACT relying on blood transfusions and it is a facility of high emergency security in the event of disaster. Therefore it can be appreciated that its smooth operations and secure safe access is paramount to the successful operations of the facility and the well being of the persons relying on its important service of supplying blood to the population of Australia.

The primary purpose of the building is to receive blood donations delivered primarily by vans from the donor centres around the state, process/test the blood, package the blood, safely store the blood and distribute the blood product to the required users.

A level by level description of the proposed building and its associated uses is provided below.

Basement Level

A single basement level would accommodate 97 parking spaces (including 3 accessible spaces and 13 small car spaces) for ARCBS operational vehicles, staff and visitor parking as well as six motorcycle spaces, 10 bicycle stands, lockers/showers, plant equipment, lifts and stairwells. A 10,000 litre rainwater tank will be installed in the basement. Access to the basement is via a shared entry/exit driveway located towards the southern end of the O'Riordan Street frontage.

Ground Level

The ground floor would accommodate the processing, inventory, distribution, supplies warehouse, transport and support areas, loading bays, archives, storage, outdoor loading , servicing areas for service vehicles, short term courier parking and visitor parking for 10 bicycles near the O'Riordan Street pedestrian entry (to be designed to Council's specifications).

Level 1

Level 1 accommodates meeting areas, staff rooms, plant equipment, lifts and stairwells.

Level 2

Level 2 accommodates operational laboratories for mandatory testing and reference and support facilities as well as an outdoor terrace area.

Level 3

Level 3 accommodates the National Transplantation Service (**NTS**) laboratories, research and business development laboratories and administrative/office functions.

7.11 Employment and hours of operation

A total of approximately 500 people will be employed at the ARCBS. Approval is sought for 24 hour operation with the following approximate number of staff in each shift:

- Principal day shift (7:00am to 6:00pm) – approximately 400 staff
- Night shift (6:00pm to 11:00pm) - approximately 75 staff
- Late shift (from 11:00pm to early morning) – approximately 20 staff

The total number of employees and number of staff working each shift will fluctuate depending on the number and type of research projects underway at any given time.

7.12 Staging of construction works

Construction works associated with the project are as follows:

- Demolition of existing building
- Earthworks to excavate to a depth of approximately RL 9.1
- Construction the four storey base building, one level basement and integrated fit-out
- Landscaping and public domain works.

The indicative construction program follows:

- Civil and Building Construction 1 December 2008 – 1 August 2010
- ARCBS Occupation 31 August 2010

8.0 ENVIRONMENTAL ASSESSMENT

This section of the EAR considers the environmental effects of the project. Issues such as design and character have already been addressed above in Section 7.0 (with more detail provided in the Design Report, **Appendix D**).

8.1 Director General's Requirements

A copy of the DGRs and accompanying advice from relevant agencies are included in **Appendix B**. **Table 5** provides a summary of the matters listed in the DGRs and identifies the section of this EAR or technical studies that address the requirements.

Written submissions from the City of Sydney, RTA, Ministry of Transport and RailCorp were attached to the DGRs. The issues raised and relevant section of this EAR or technical studies are summarised in **Table 6**.

Table 5 - Summary of DGRs

DGR	Addressed in
General Requirements	
An executive summary	EAR, Page v
A description of the site and any associated areas including: – Historical operations/activities – Existing and approved operations and facilities, including statutory approvals.	EAR, Section 3.0
A detailed description of the project including:	
– Need for the project	EAR, Section 7.1
– Alternatives considered including justification for the project	EAR, Section 7.1 & 7.2
– Likely staging of the project	EAR Section 7.12
– Plans of proposed building works.	Volume 2
A risk assessment of the potential environmental impacts of the project, identifying key issues for further assessment: – A detailed assessment of the key issues identified below and any other issues identified in the risk assessment (see above) – Description of the existing environment using sufficient baseline data – Assessment of all stages of the project including cumulative impacts, taking into consideration any relevant statutory provisions and technical or policy guidelines.	EAR Section 8.0 & 9.0
A description of the measures that would be implemented to avoid, minimise, mitigate, remediate, monitor and/or offset the potential impacts of the project, including detailed contingency plans for managing any potentially significant risks to the environment.	EAR, Section 8.0 & 9.0
A statement of commitments, outlining all the proposed environmental management and monitoring measures.	EAR, Section 9.0
A conclusion justifying the project on economic, social and environmental grounds, taking into consideration consistency with the objectives of the EP&A Act.	EAR, Section 10
A signed statement from the author of the EA certifying that the information contained in the report is neither false nor misleading.	EAR, Page iv
Key Issues	
Development Controls Demonstrate that the proposal is generally consistent with the development controls in DCP 1997 and all other relevant DCPs, and justify any inconsistencies.	EAR, Section 8.3 & 8.4
Developer contributions and/or Planning Agreements Review the project against any relevant contributions plans and outline what contributions should be made towards the provision of local and/or regional infrastructure or services	EAR, Section 8.5
Contamination Assessment of the potential soil and water contamination undertaken in accordance with SEPP 55, City of Sydney Contaminated Land DCP and where necessary a RAP.	Contamination Assessments, **Appendix H**
Geotechnical A geotechnical report demonstrating that the structural stability and integrity of RailCorp's facilities would be maintained.	Geotechnical Assessment, **Appendix J**
Soil and water	

DGR	Addressed in
implemented to minimise the use of water, waste water predictions and measures that would be implemented to treat, reuse and/or dispose of water	EAR, Section 9.0 (SoC No. 14)
– Proposed erosion and sediment controls during construction	Volume 2
– Proposed stormwater management system	Hydraulic Services Report, **Appendix O**
– Consideration of potential salinity, contamination, flooding and acid sulfate soil impacts of the project	Contamination Assessment, **Appendix H**, Geotechnical Assessment, **Appendix J**, Flood Study, **Appendix S**
Traffic, Parking and Access	
– A detailed transport impact study of the project on the performance and safety of the surrounding transport network (road, rail, other public transport) and a description of measures to be implemented to upgrade/maintain this network – Consideration of the potential for reducing the traffic generated by the project – An assessment of the potential parking demand of the project – Detailed plans of the proposed layout of the internal road network and parking on site in accordance with the relevant Australian Standards	Traffic Report, **Appendix L**
– The design and articulation of the buildings (scale, height and bulk), and proposed lighting and signage, landscaping and visual impact	EAR, Section 8.13
Heritage	Statement of Heritage Impact, **Appendix E**
Noise and vibration Construction, operation and traffic noise	Noise and Vibration Report, **Appendix P** CMP, **Appendix Q**
Greenhouse gas Including an assessment of the energy use on site and measures implemented to ensure that the proposal is energy efficient	ESD Report, **Appendix I**
Waste Accurate estimates of the quantity and nature of the potential waste streams of the project during construction and operation and a detailed description of measures to be implemented to minimise, reuse, recycle and dispose of this waste	WMP, **Appendix N** CMP, **Appendix Q**
Consultation Consult with relevant local, State and Commonwealth Government authorities, service providers, community groups and affected landowners. In particular: – Sydney City Council – RailCorp – Roads and Traffic Authority – The Ministry of Transport The consultation process and issues raised must be described in the EAR	EAR, Section 6.0 and **Table 6**.

Table 6 - Issues raised in written submissions from the City of Sydney, RTA, Ministry of Transport and RailCorp

Issue raised	Addressed in
City of Sydney	
Planning	
2.4m setback to O'Riordan Street complies with Green Square DCP and is acceptable. The area of the setback is to be dedicated to Council.	EAR, Section 9.0 (SoC No. 4)
Flood planning levels must be in accordance with Green Square DCP Section 3.1.5.	Flood Study, **Appendix S**
Assertion that OSD is not required is to be backed up in writing, in any case, flood management requirements must be in accordance with the Green Square DCP.	City of Sydney correspondence, **Appendix F** Flood Study, **Appendix S**
Comply with the City of Sydney Access DCP and relevant standards.	Access Report, **Appendix R**
Traffic	
Driveways to be setback from side boundaries by 1.0m minimum.	EAR, Section 7.7
19m trucks are to utilise classified roads only (not local roads). Streets in Beaconsfield generally have 3 tonne limit.	Able to comply
Vehicles must enter and exit the site in a forward direction. Swept paths of driveways need to demonstrate that a 19m truck can be accommodated.	Traffic Report, **Appendix L**
The combined driveway into the basement must meet relevant standards, based on 97 cars.	Traffic Report, **Appendix L**
Urban Design	
The minor non-compliance of 62.5% site coverage (rather than 60%) is acceptable, provided that the level of landscaping is increased. Denser landscaping would also provide a noise buffer to reduce the impact of trucks and associated beeping noises.	EAR, Section 7.7
Trees	
The removal of any trees must be supported by an aborist report. Street trees must be protected during the course of development.	EAR, Section 7.7 and Section 9.0 (SoC No. 3)
RTA	
Metropolitan Strategy designates the City of Sydney as a global city. It is important that the development take this into consideration and contributes to the achievement of transport objectives contained in this and other strategies (NSW State Plan, Urban Transport Statement and the Sydney City Subregional Strategy). These policies share the aim of increasing walking, cycling and public transport, appropriately collocating new development with existing and improved transport services and improving the efficiency of the road network. The EAR should demonstrate how users of the development will be able to make travel choices that support achievement of relevant State Plan targets.	Traffic Report, **Appendix L**
Daily and peak traffic movements to be generated on nearby intersections and the need for funding of upgrades or road improvement works (if required). Key intersections are: – O'Riordan and Collins Street	Traffic Report, **Appendix L**

Issue raised	Addressed in
– O'Riordan and Johnson Street – O'Riordan and Reserve Street	
Details of proposed accessed and parking provision including compliance with relevant Australian Standards (ie. Turn paths, sight distance requirements, aisle widths etc). Provide plans at a scale of 1:250 showing swept paths of articulated vehicles entering and exiting the site and manoeuvring the site.	Traffic Report, **Appendix L**
Proposed number of car parking spaces and compliance with appropriate parking codes.	EAR, Table 9
Details of service movements (including vehicle type and likely arrival and departure times).	Traffic Report, **Appendix L**
Assess the implications of the proposed development on non-car travel modes (including public transport use, walking and cycling); the potential for implementing a location-specific sustainable travel plan (eg. Travelsmart or other travel behaviour change initiative); and the provision of facilities to increase the non-car mode share for travel to and from the site. This entails an assessment of the accessibility of the development site by public transport.	Traffic Report, **Appendix L** EAR, Section 9.0 (SoC No. 6)
The RTA will require in due course, the provision of a traffic management plan for all demolition/construction activities detailing vehicle routes, number of trucks, hours of operation, access arrangements and traffic control measures.	EAR, Section 9.0 (SoC No. 11)
RailCorp	
Geotechnical Report Submit a geotechnical and structural stability report for review by RailCorp to ensure that the development is structurally sound and will not jeopardise the structural integrity of the existing rail tunnel. The report should be done with reference to the Geotechnical Structural Engineering Brief.	Geotechnical Report, **Appendix J**
Noise and vibration An acoustic report is to be submitted prior to the issue of a Construction Certificate demonstrating how the development will comply with RailCorp's Interim Guidelines for Applicants in the consideration of rail noise and vibration for the adjacent corridor.	Noise and Vibration Report, **Appendix P**
Construction The Construction Management Plan should consider the possibility of stray currents which can be associated with the rail corridor. Occasionally these currents may stray from the tracks and into the ground. Depending on the type of conductive material accelerating corrosion of metals and leading to concrete cancers. The applicant should consider this possible impact and engage an expert consultant	Advice on Electrolysis Testing, **Appendix K**
Ministry of Transport	
A detailed transport study should be prepared addressing: – Objectives and priorities of key State policies including the State Plan, Urban Transport Statement, Metropolitan Strategy and draft Sydney City Subregional Strategy – A car parking strategy which minimises provision and considers a range of management initiatives including:	Traffic Report, **Appendix L** EAR, Section 9.0 (SoC No. 6)

Issue raised	Addressed in
– The use of car share schemes for corporate fleets which can also be available for use by adjoining businesses and residents – Potential assistance for employees to access work by public transport together with walking and cycling. Measures may include: – Preparation of a Travel Access Guide (**TAG**) see www.rta.nsw.gov.au – Provision of bike storage and amenities – Flexible working arrangements which enable staff to avoid congested morning and afternoon peak periods – Assessment of the potential impact of vehicle trips on local roads network particularly impacts on key adjacent intersections – Compliance with minimum standards for pedestrian and cyclist access (see *Planning Guidelines for Walking and Cycling*, NSW Government, 2004).	
Measures to ensure that the frontages of the site allow safe pedestrian and cycle access during the entire demolition and construction period.	CMP, **Appendix Q**
Consider consistency with the proposed densities and building heights under the City of Sydney's Draft Comprehensive LEP.	N/A, there is no exhibited Draft LEP
Ministry requests opportunity to comment on any planning agreement which has the potential to secure funding for local and regional public transport infrastructure, particularly the strategic bus corridor No. 21 (Miranda to City) which is less than 400m from the site.	N/A, there is no Planning Agreement

8.2 Relevant legislation

Commonwealth Environmental Protection and Biodiversity Conservation Act, 1999 (**EPBC Act**)

The EPBC Act is relevant where a development will result is a significant impact on a nationally threatened species or community. If a significant impact will occur, the development is identified as a controlled activity and the proposal must be referred to the Commonwealth Department of Environment, Water, Heritage and the Arts.

As there are no nationally threatened species or community on or near the site, the project will not result in a significant impact.

NSW Threatened Species Conservation Act, 1995 **(TSC Act)**

As there are no threatened or endangered species on or near the site, the TSC Act does not apply.

Water Management Act, 2000 **(WM Act)**

As the site is not located within 40m of a water body, the WM Act does not apply.

Environmental Planning and Assessment **(EP&A)** ***Act, 1979 and Regulation 2000***

The project constitutes 'development' and therefore is to be considered under the EP&A Act and Regulation. The EP&A Act and Regulation set out the framework for which development must be assessed.

Part 3A of the EP&A Act sets out the process for assessing and determining major project applications.

8.3 Environmental Planning Instruments

Section 75I(2) of the EP&A Act requires that the Director-General's Assessment Report consider the provisions of State Environmental Planning Policies (**SEPPs**) and other environmental planning instruments (**EPIs**) that are relevant to the project.

The following EPIs are relevant to the site and project.

- SEPP (Major Projects) 2005
- SEPP (Infrastructure) 2007
- SEPP 64 – Advertising and Signage
- SEPP 55 – Remediation of Land
- SEPP 33 – Hazardous and Offensive Development
- Draft SEPP 66 – Integration of Land Use and Transport
- South Sydney Local Environmental Plan 1998 (**LEP 1998**)

An assessment of compliance with the relevant provisions of these EPIs follows.

8.3.1 SEPP (Major Projects) 2005

The SEPP (Major Projects) identifies development to which Part 3A of the EP&A Act applies for which the Minister is the consent authority. Clause 6 of the SEPP states that development referred to in Schedule 1 (Classes of Development), Schedule 2 (Specified Sites) or Schedule 3 (State Significant Sites) is a project to which Part 3A of the EP&A Act applies.

As detailed in the Record of Minister's Opinion for the purposes of Clause 6(1) of SEPP (Major Projects) (**Appendix A**), the development is a project of a kind described in the followings clauses of Schedule 1 of SEPP (Major Projects):

- **Schedule 1 – clause 11**

  11 Other manufacturing industries

  Development that employs 100 or more people or with a capital investment value of more than $30 million for the purpose of:

  (a) laboratory, research or development facilities,

- **Schedule 1 – clause 19**

  19 Medical research and development facility

  Development for the purpose of health, medical or related research (which may also be associated with the facilities or research activities of a NSW

Government Area Health Service, a University or an independent medical research institute) and that:

(a) has a capital investment value of more than $15 million, or

(b) employs 100 or more people.

8.3.2 SEPP (Infrastructure) 2007

SEPP (Infrastructure) aims to facilitate the effective delivery of infrastructure across the State. Division 15 – Railways and Division 17 - Roads and Traffic are relevant to the project.

Division 15 - Railways

The project involves the placing a metal finish on a structure and the adjoining airport rail corridor is used by electric trains. Therefore pursuant to Clause 85 of SEPP (Infrastructure), the DoP is required to refer the application to RailCorp for its consideration. As noted in Section 6.0 and 8.1, RailCorp was consulted prior to lodgement of this PA (by both the proponent and DoP). As requested by RailCorp during this pre-lodgement consultation, advice on Electrolysis Testing accompanies this EAR (**Appendix K**).

There is no penetration of the ground within or above the rail corridor or within 25m of the rail corridor or land above the rail corridor, therefore Clause 86 of SEPP (Infrastructure) does not apply.

The proposed facility is not one of the noise sensitive matters referred to at Clause 87 of SEPP (Infrastructure). In any event a Noise and Vibration Assessment accompanies this EAR (**Appendix P**).

Division 17 - Roads and traffic

Clause 104 of SEPP (Infrastructure) applies to traffic generating development (in a similar manner to the recently repealed SEPP 11) and ensures that the RTA is given the opportunity to make representations on certain traffic generating development applications before a consent authority makes a determination on the project.

The proposed facility would gain direct access from a classified road and therefore in accordance with Clause 104 (2) and (3), the DoP will be required to refer the application to the RTA for its consideration. As noted in Section 6.0, the RTA was consulted prior to lodgement of this PA.

8.3.3 SEPP 64 – Advertising and Signage

SEPP 64 applies to the State. Signage location zones, to be occupied by Building identification signs or Business identification signs (subject to a future application), are consistent with the assessment criteria at Schedule 1 of SEPP 64 (clause 8(b)) as they:

- Are consistent with the future character of the area
- Do not detract from the visual quality of the adjoining land
- Are fixed to the building and will not obstruct any views or vistas
- Have an appropriate and modest scale that does not rise above the building, adding visual interest to the building when viewed from O'Riordan Street
- Illumination will be designed to prevent any unacceptable glare (and distance separation effectively precludes any potential glare risk)
- Will not affect the safety of the O'Riordan Street

8.3.4 SEPP 55 – Remediation of Land

SEPP 55 provides state-wide planning controls for the remediation of contaminated land. The policy states that land must not be developed if it is unsuitable for a proposed use because it is contaminated.

A Preliminary Contamination Assessment by Douglas Partners and a Preliminary Environmental Site Assessment by ERM have been prepared for the site (both included in **Appendix H**). These reports show that various commercial and industrial entities have occupied the site for at least 90 years, the most significant being Austral Bronze Company Limited (between 1918 and 1989).

Douglas Partners found some contamination on the site, requiring some form of remediation to make it suitable for the proposed use. They conclude and recommend that:

> *Eleven soils samples (including one QA/QC replicate) were selectively analysed from five test bores drilled in the accessible portion of the site. One soil sample had elevated levels of total PAH and Benzo(a)pyrene above the adopted assessment criteria. Another sample identified a lead contamination hotspot above the adopted assessment criteria. The contaminant levels in all other soil samples were within the site assessment criteria.*
>
> *Two groundwater samples were collected from the groundwater wells constructed at the site. Both groundwater samples contained substantially elevated concentrations of TPH above the adopted screening levels for groundwater. The elevated levels of TPH may be due in part to the presence of BTEX compounds in the groundwater. The detected BTEX levels fell within the adopted assessment criteria but the full extent of the TPH and BTEX contamination has not been defined in the current assessment.*

One groundwater sample also had a marginally elevated concentration of zinc. The detected zinc level is, however, typical of industrial areas and does not constitute an unacceptable risk of harm.

***Based on the results of the preliminary contamination assessment, some form of remediation will be required to render the site suitable for commercial development**. The extent of the required remediation should be confirmed during the detailed assessment stage and its effectiveness confirmed by implementing an appropriate validation programme.*

Further assessment of groundwater contamination is warranted to determine the nature, extent and impact of the contaminants and whether the elevated levels of hydrocarbons in the samples analysed for the preliminary assessment are due to the presence of on-site contaminant sources or are due to off-site sources. The result is critical in the formation of the site remediation strategy.

A more detailed contamination assessment involving additional boreholes and laboratory analysis will need to be undertaken to fully 'characterise' the site. The detailed assessment will verify the findings of the preliminary investigation and assess the levels of contamination in areas that were not accessible during the preliminary investigation. The additional investigation should ideally be targeted at assessing contaminant levels in filling and soil that will remain on the site following development as well as the groundwater quality across the entire site.

Further assessment of contaminant levels within the zone of the proposed basement excavation will be required to classify the excavated materials for disposal purposes.

ERM has completed a further Environmental Site Investigation (Phase 1 Investigation) which found that the risk of contamination of soil and groundwater is high and recommended a more detailed Phase II Investigation (which can only be completed when the existing tenant vacates the site). Considering the schedule of works outlined in the ERM Phase 1 Investigation and the findings to date, ERM concludes that there is no reason for the project not to occur on the grounds of issues associated with contamination. ERM conclude as follows:

CONCLUSIONS AND RECOMMENDATIONS

The potential risk of contamination of soil and groundwater as a result of historical on site and off-site activities is considered to be high. Impacts to soil and groundwater have already been identified along the north east boundary of the site by Douglas Partners in 2008, and a more detailed Phase II ESA is required to characterise the concentration, location and extent of potentially contaminated soil and groundwater on the remainder of the site. In addition further work to assess if contamination is migrating on-site or off-site is also required.

The preliminary CSM indicates that subsequent to the proposed redevelopment of the site as a Red Cross facility, the exposure pathways to COPC will be limited to indoor and outdoor inhalation of vapours derived from soil and groundwater impacts. The primary receptors are considered to be future on-site employees and Alexandria Canal. The construction of a basement car park may result in the removal of potentially contaminated soil from approximately 80% of the site, however this will e confirmed subsequent to completion of a detailed Phase II ESA.

To address the identified data gaps discussed above, a detailed strategy to characterise soil and groundwater contamination on site is outlined below.

The scheduled additional environmental assessment works will aid in the development of an appropriate remediation strategy, if required, to remediate the site to a level suitable for the proposed commercial/industrial land usage. Considering these scheduled works and the results available to date, ERM considers that there is not reason for the proposed development not to occur on the grounds of issues associated with contaminated land.

Taking into account the findings and recommendations of Douglas Partners and ERM, the following phases of contamination investigations are proposed:

Phase II Completion of Phase II investigation (upon vacation of the site by the existing tenant)

Phase III Remediation Action Plan (**RAP**) - If remediation is required preparation of an RAP

Phase IIII Validation of RAP

This EAR is also accompanied by a Hazardous Substances Audit by ERM (**Appendix H**) which concluded that no hazardous substances were observed on the site.

8.3.5 SEPP 33 – Hazardous and Offensive Development

SEPP 33 provides definitions for hazardous and offensive industries.

The project would not involve the storage, distribution or use of significant quantities of dangerous goods or hazardous substances. Nor is the use of the facility likely to result in the emission of a polluting discharge (e.g. noise or odour) in a manner which would have a significantly adverse impact on the locality or on existing or likely future development on other land.

Accordingly, it is considered likely that the project does not constitute a 'potentially offensive industry', and that the project is able to be conducted in a manner that is consistent with the aims and objectives of SEPP 33.

Notwithstanding, the Draft Statement of Commitments at Section 9.0 (SoC No. 10) include the preparation of a Preliminary Hazard Analysis prior to occupation of the building (if deemed necessary by the DoP).

8.3.6 Draft SEPP 66 – Integration of Land Use and Transport

Draft SEPP 66, which applies to the project, seeks to integrate land use with the provision of adequate transport services. Consent authorities and applicants are encouraged to consider the pedestrian, cyclist, public transport and private vehicle accessibility to developments as part of the development investigation process.

The project is consistent with the aims (clause 2) and development application considerations (clause 9) stated in Draft SEPP 66 as it discourages travel to the site by private car and encourages alternate forms of travel. In particular:

- The site has excellent access to public transport (trains and buses) making it an ideal location for jobs
- On site car parking for 97 cars only is proposed (consistent with DCP 11). With up to 400 people will be working from the site during the day shift, parking at this rate will discourage car use
- Bicycle parking (10 spaces for employees and 10 spaces visitors), as well as lockers and showers, are proposed
- The Draft Statement of Commitments at Section 9.0 (SoC No. 6) include the preparation of a car parking strategy; including a TAG as requested by the Ministry of Transport during pre-lodgement consultation (refer **Appendix B** and **Table 6**). In preparing the TAG, ARCBS will consider initiating an employee parking policy at the site which:
  (a) Provides free parking spaces for disabled employees and bona fide visitors
  (b) Requires employees to reimburse the Blood Service for the pro-rata rental cost of parking spaces on site on a user pays per occasion basis in

conformity with the National Blood Authority's conditions of funding not to provide free parking on the site for employees;

(c) Encourages car pooling for three or more employees using one vehicle by waiving the per diem parking charge

(d) Provides non-user pays use of parking spaces for shift workers who arrive for work starting at or later than 4pm on weekdays. Such a policy would be directed at minimising the use of private car travel except for employees who finish work at times when public transport is unavailable and for car pooling. The policy is subject to approval by ARCBS Management.

8.3.7 South Sydney Local Environmental Plan 1998

Table 7 sets out the compliance of the project with LEP 1998. Notably, the project is permissible with consent in Zone No. 10(d) Mixed Uses "d" Zone.

Table 7 - Compliance with LEP 1998

LEP 1998 clause	Compliance
Clause 9 – Zones indicated on the map Zone No. 10(d) Mixed Uses "d" Zone	Noted. Refer **Figure 2**.
Clause 10 – Zone objectives and general development controls Council is able to grant development consent if, in its opinion, the proposed development is consistent with the relevant zone objectives.	√ The relevant zone objectives are stated at Clause 21D (see later).
Clause 21D – Zoning controls for Zone No 10(d) the Mixed Uses "D" Zone	
(a) to establish a predominantly employment based zone while allowing not more than 15% residential use of the total floorspace proposed for each development site, but only if it supports those employment uses,	√ The project provides employment for approximately 500 people. No residential development is proposed.
(b) to encourage appropriate business activities which contribute to economic growth and employment opportunities within the Green Square area,	√ The ARCBS use encourages business growth and additional employment opportunities within Green Square.
(c) to promote the vitality of the public domain by encouraging the location of active retail and entertainment uses at ground and first floor levels, particularly in areas fronting the Green Square Railway Station,	√ Public domain improvements are proposed which will improve the streetscape appearance of the site.
(d) to ensure through the design of a high quality public domain that a high level of amenity is provided for pedestrians, shoppers and workers within the zone,	√ A high quality urban and architectural design solution is proposed. In addition, high quality and durable external materials and finishes are proposed.
(e) to minimise any adverse impact, including social impact, on residential amenity by devising appropriate design assessment criteria and applying specific impact mitigation requirements by the use of DCPs	√ The future use of the site by ARCBS is not anticipated to result in any material environmental impacts to adjoining properties and will not impinge on existing levels of amenity.
(f) to ensure that existing and future development on land zoned industrial under this plan is preserved and promoted so as to protect the existing employment within South Sydney, and the use of development control plans,	√ The project does not preclude future redevelopment for industrial purposes on land zoned for such purposes.
(g) to ensure that development within the zone contributes to a sustainable, vibrant community, and reflects equal and integrated consideration of social, economic and environmental design issues,	√ The project will contribute to the growth of Green Square Urban Renewal Area and appropriately balances employment/economic growth targets with social/environmental design issues.
(h) to enhance and enliven Green Square through the implementation of public art where appropriate.	√ There is no public access to the site, limiting the value and appropriateness of public art.

LEP 1998 clause	Compliance
(2) What requires development consent: *advertising structures, amusement centres, backpackers' hostels, bed and breakfasts, car repair stations, child care centres, clubs, commercial premises, community centres, dwellings used in conjunction with and attached to a building used or intended to be used for a land use which is permissible within the zone, educational establishments,* ***high technology industries****, home industries, hospitals, hotels, light industries, local businesses, medical centres, motels, motor showrooms, multiple dwellings used in conjunction with and attached to, or within a building used or intended to be used for, a land use which is permissible within the zone, passenger transport terminals, places of assembly, places of public worship, private hotels, public art, public buildings, recreation areas, recreation facilities, restaurants, roads, service stations, shops, warehouses or distribution centres.*	√ The ARCBS facility for the processing of blood and blood products, blood testing, tissue typing and research laboratories complies with the definition of *high technology industry*[5] as an enterprise which has as its primary function the manufacture, development, production, processing of or research into biological, pharmaceutical, medical or paramedical systems, goods and components. The project is therefore permissible with development consent.
Clause 24 - Development in the vicinity of heritage items, heritage conservation areas, etc *The consent authority must not grant consent to development on land in the vicinity of a heritage item, a heritage conservation area… unless it has considered an assessment of the impact the proposed development will have on the heritage significance, curtilage and setting of the heritage item, on the heritage significance of buildings within the heritage conservation area, …, as well as the impact of the development on any significant views to or from the heritage item, heritage conservation area or streetscape.*	√ The Hill View Conservation Area the eastern side of O'Riordan Street, north of Johnson Street, is around 30m to the south-east of the site (identified as CA55 on the LEP 1998 Heritage Conservation Map (refer to **Figure 4**). Statement of Heritage Impact by Australian Museum Business Service (**Appendix E**) states: *The weatherboard cottages within the Hill View Conservation Area were constructed in the late nineteenth and early twentieth century as housing for workers, and are among the few remaining in the local area. The significance of such cottages is associated with their place in a tradition of timber clad buildings which began with the initial settlement of Sydney. These cottages are also an important part of the social fabric and history of the area. The cottages are representative of the modest dwellings of working class people, and form a material testament to the families which inhabited the area who were known for their*

[5] Pursuant to LEP 1998, Schedule 1 – Definitions

high technology industry *means an enterprise which has as its primary function the manufacture, development, production, processing or assembly of, or research into, any of the following:*

(a) electronic and micro-electronic systems, goods and components,

(b) information technology, computer software and hardware,

(c) instrumentation and instruments,

(d) biological, pharmaceutical, medical or paramedical systems, goods and components,

(e) other goods, systems and components intended for use in science and technology.

(our emphasis)

LEP 1998 clause	Compliance
	community spirit. *The proposed development will be substantially higher than the existing warehouse on the site; however, the nature strip, McConville Reserve, currently screens CA55 from O'Riordan St and will mitigate the visual impact of the proposed development.* *Whilst the current proposal will change the nature of the O'Riordan streetscape, it will not compromise the heritage significance of the weatherboard cottages within the Hill View Conservation Area (CA55). The proposed development is consistent with the industrial character of the area, and as an Australian Red Cross Blood Service facility, will perform an essential community function*
Clause 27A - Vision for Green Square *(1) The vision for Green Square is to transform Green Square into an attractive, vibrant and sustainable urban place by capitalising on the opportunities created by:* *(a) the area's strategic location between Sydney's most significant economic gateways: the Central Business District, Kingsford Smith Airport and Port Botany, and* *(b) the construction of the New Southern Railway and Green Square Railway Station.* *(2) Four key concepts sustain this vision:* *(a) Diversity* *This applies to the development of a mix of land uses, a range of building types, diverse public spaces, and employment and housing choices, which will support a socially diverse community, underpinning a vibrant city that offers complex experiences and social contact.* *(b) Connectivity* *This applies to an accessible network of public spaces and public streets, which integrate existing and future landscapes and buildings.* *(c) Interdependency* *This applies to the need for compatibility between land uses, to the high quality urban design response of buildings to public spaces, the interdependency of the social and physical environment, and the relationship of the Green Square area to the City South Region.* *(d) Long-term growth* *This applies to the development of an urban strategy that can accommodate and support renewal and growth of Green Square into a compact sustainable urban area over a long period of time*	√ The project is consistent with the vision for Green Square as it encourages business growth and additional employment opportunities. Furthermore it contributes to the creation of a sustainable and vibrant community and reflects equal and integrated consideration of social, economic and environmental design issues.

LEP 1998 clause	Compliance
Clause 27B - Planning principles for Green Square	
Schedule 4 states planning principles that Council must take into consideration before granting consent to any development within Green Square. The principles relate to (1) Regional role (2) Integrated planning and development (3) Public domain (4) Urban form (5) Economic and community life (6) Transport and access (7) Environmental performance (8) Quality of design (9) Implementation	√ Refer to the above comment.
Clause 27C – Determination of DAs	
(1) The Council must not grant consent for development of any land within Green Square unless: *(a) there is a masterplan adopted by the Council for the development site comprising that land or within which that land is situated, and* *(b) the development is consistent with the masterplan.* *(2) The Council may waive the requirement for a masterplan because of the minor nature of the development concerned, the adequacy of other planning controls that apply to the proposed development, or for such other reasons as the Council considers sufficient.* *(3) If:* *(a) the Council has waived the requirement for the masterplan under subclause (2), …* *then subclause (1) does not apply, but when the Council assesses the development application it must have regard to the criteria in clause 27D (4) (a)–(m).*	√ BVN has completed a comprehensive site analysis (refer to Design Report, **Appendix E**). The City of Sydney has also advised in pre-DA discussions that a Masterplan for this project is not required as a single freestanding building is proposed and provided that the design is preceded by a thorough site analysis.
Clause 27D(4) – Preparation of masterplans	
(4) A masterplan is to outline long-term proposals for the development of the land to which it applies, and illustrate and explain, where appropriate, the following: *(a) how those proposals address the vision for Green Square set out in clause 27A, the planning principles set out in Schedule 4, and any development control plan adopted for Green Square by the Council,*	√ Each of the items listed at clause 27D(4) have been considered in this EAR.

LEP 1998 clause	Compliance
(b) design principles drawn from analysis of the site and its context, *(c) phasing of the development,* *(d) distribution of land uses, including open space,* *(e) pedestrian, cycle and vehicle access and circulation networks,* *(f) parking provision,* *(g) subdivision pattern,* *(h) infrastructure provision,* *(i) building envelope and built form controls,* *(j) heritage conservation,* *(k) site remediation,* *(l) open space provision, its function and landscaping,* *(m) opportunities for the provision of public art.*	
Clause 28 - Built environment design principles and masterplans Council is to take into consideration the following before granting development consent:	
(a) has been designed to reinforce and protect the local topography and setting, and	√ The building takes advantage of the site's relatively flat characteristics and therefore respects the topographical setting of the locality.
(b) reinforces and enhances the streetscape and character of the locality, and	√ A high quality building design will be presented to O'Riordan Street.
(c) is compatible with the scale and design of neighbouring development, and	√ The height, bulk and scale of the project are consistent with or less than that envisaged (and permitted). Upon redevelopment of neighbouring properties, a cohesive streetscape will be provided.
(d) has been designed with adequate provision for the intended occupants, and those in the vicinity of the site of the proposed development, in terms of: (i) privacy, and (ii) access to sunlight, and	√ The design of the project has had regard to maintaining existing levels of amenity to adjoining and adjacent properties. No adverse environmental impacts are envisaged.
(e) has been designed to be energy efficient in terms of natural: (i) lighting, and (ii) ventilation, and (iii) heating and cooling, and	√ Refer ESD Report, **Appendix I**.
(f) establishes and enhances the public domain, and	√ Appropriate public domain improvements are proposed (refer Landscape Plan, **Appendix G**).
(g) has been designed so as to preserve predominant view lines and vistas enjoyed from parks, reserves, roadways, footpaths and other areas of the public domain, and	√ There are no significant views or vistas over the site from the surrounding public domain.

LEP 1998 clause	Compliance
(h) encourages complementary land uses and activities.	√ The project will not preclude redevelopment of adjoining and adjacent properties in the future for appropriate land uses.
Clause 39 – Contaminated land Council is not to grant consent to development if the land is not suitable for its intended use.	√ Section 8.3.4 addressed contamination and compliance with SEPP 55 (technical reports are included at **Appendix H**).
Clause 49 – Transport Tunnels Council is not to grant consent to development on the site without consultation with the Rail Infrastructure Corporation	√ The zones of influence for the airport railway tunnel cross the north-western corner of the site (refer site survey plan, **Appendix C**). The basement excavation will be approximately 2.5m deep at its closest point with the tunnel. Further information in respect of this issue is contained in the Geotechnical Investigation Report prepared by Douglas Partners (**Appendix J**) and the Electrolysis Testing Advice by Corrosion Control Engineering (**Appendix K**). RailCorp was consulted prior to lodgment of this PA (refer Section 6.0 and **Appendix B**).

8.4 Compliance with relevant DCPs

The following development control plans (**DCPs**) are relevant to the site and project:

- South Sydney Development Control Plan 1997: Urban Design including Precinct G: Special Precinct No. 9 – Green Square (**DCP 1997**)
- Green Square Affordable Housing Development Control Plan (**GSAHDCP**)
- South Sydney Development Control Plan No. 11 – Transport Guidelines for Development (**DCP 11**)
- City of Sydney Access Development Control Plan 2004 (**Access DCP**)

An assessment of the project's compliance with the relevant provisions these DCPs follows.

8.4.1 DCP 1997 including Part G: Special Precinct – Green Square

DCP 1997 is the prevailing DCP applying to the site. Part G: Special Precinct – Green Square applies to the Green Square Urban Renewal Area (and therefore applies to the site). Part G: Special Precinct – Green Square, Clause 2.3 states:

> *Where there is an inconsistency between Part G: Special Precinct – Green Square and other controls of South Sydney DCP 1997, the provisions of Part G: Special Precinct – Green Square shall prevail, as far as they apply to the Green Square Urban Renewal Area.*

Table 8 summarises the relevant guidelines in DCP 1997 and assesses the compliance of the project. It demonstrates that the project is generally compliant and that the following variations are minor and reasonable in the circumstances:

Landscaping – DCP 1997 (Part E, Section 1.5) requires the provision of landscaping at natural ground level on not less than 25% of the site. 5.3% of the site is to be landscaped at the ground level. This non-compliance is reasonable given that:

- The project generally complies with the more relevant Industrial Development controls in DCP 1997 (Part F, Section 3.1.2) which require:
  - 100m^2 of recreation space for sites having an area of 1,000m^2 or more (and 540m^2 is proposed)
  - A maximum site cover of 60% (62.5% is proposed).
- These industrial development controls should prevail over the generic landscaping control.
- A landscaped recreation space is to be created on the proposed Level 2 roof terrace.

- Landscaping is proposed along the side and front boundaries, including a grove of Melaleucas at the end of the driveway providing a green back drop (refer to the Landscape Plan by Tract).
- The existing street trees will be retained/replaced (including the street tree in the location of the proposed southern driveway which will be replaced).
- At the ground level, a 750mm landscape setback accommodating Casuarinas with low native groundcover is proposed along the western, northern and southern boundaries. Although slightly narrower than the 1m requested by the City of Sydney, the proposed boundary landscaping will effectively enclose the site with landscape planting.
- The ground floor processing requirements of the ARCBS, fire egress requirements and the swept path dimensions of a 19m articulated truck preclude the provision of additional planting.

Site cover – DCP 1997 (Part F, Section 3.1.2) required that buildings do not occupy more than 60% of the site area. The proposed building occupies 62.5% of the site area. This non-compliance is reasonable given that:

- Only 2.5% additional site cover is proposed, making the departure a very minor one that will not be discernable.
- The large landscaped recreation space on proposed Level 2 will provide a usable outdoor recreation space for employees, creating a setting conducive to a pleasant working environment.
- The proposal has an appropriate scale and complies with the other DCP 1997 controls that predicate bulk and scale (being FSR and height).
- DCP 1997 Part G: Special Precinct – Green Square (Section 3.2.3) states a maximum site coverage control of 55% for commercial buildings and 70% for mixed use buildings (there is no site coverage control stated for industrial buildings). The proposed site cover of 62.5% is appropriate as it is mid way between with commercial and mixed use controls.
- The City of Sydney has not raised an objection to the proposed minor variation from the 60% site coverage control.

Table 8 - Compliance with DCP 1997

Element	Control	Proposal/Compliance
Part B – Urban Design Principles		
Section 2 – Reinforce and protect the City's urban form		
Setting	Buildings preserve and reinforce specific areas of high visibility, ridgelines and landmark locations including gateways and nodes, maintain and enhance views and vistas from the Public Domain.	√
Linear elements	Buildings reinforce existing positive block and street patterns by maintaining and defining street alignments.	√
	Development reinforces edges and block and street patterns of the City, and provides a variety of accessible open spaces to expand the open space networks.	√
Section 3 – Enhance the City's Urban Villages, Public Spaces and Pedestrian Networks		
	Buildings reinforce and enhance character of the urban villages (Surry Hills) and help create variety of urban spaces.	√
Section 4 – Design for a sustainable, healthy environment		
	Development is designed for ecological sustainability, is sensitive to & responds to environmental capacity of the area.	√ Refer ESD Report, **Appendix I**.
Part C – Public Domain		
	Southern Industrial Public Domain Plan.	√ Street tree planting along O'Riordan St is retained.
	6m setback to O'Riordan Street, excluding industrial development.	***N/A*** Part G, which requires a 2.4m setback, prevails
Part D – Social Planning Criteria		
Access	Development is designed to maximise access for occupants and the general public where appropriate.	√ Appropriate access to the site has been provided and which includes access for people with disabilities.
	Developments provide active frontages which are friendly to streetscape & create linkages with the broader community.	√ An active street frontage is provided to O'Riordan Street.
	Buildings are developed to a human scale.	√ The proposed building maintains a human scale and is only 4 storeys in height (6 storeys permitted).

Element	Control	Proposal/Compliance
Cultural issues	Development relates to the capacity of existing community infrastructure, including roads, public transport and open space systems to cater to increased demands.	√ A new substation is proposed in the north-eastern corner of the proposed building, addressing O'Riordan Street. Other utility services available to the site including electricity, sewer, telecommunications, gas and stormwater may require some augmentation, but it is not anticipated that the proposal will have an adverse impact on the provision or availability of these services. √ The site is well located to take advantage of numerous public transport options.
	Development to ensure that appropriate community infrastructure is available within the development or locality.	√ See above.
Cumulative impacts & trade offs	Development takes into account cumulative impacts of past development activity and does not exacerbate existing negative social impacts or issues.	√ No negative social impacts are likely to arise
Economic issues	Development promotes the social and economic conditions of the local community.	√ Increased working population will provide new customers for local shops.
Security	Urban design measures are included into all developments to maximise security.	√ 24 hour occupation of the site will increase surveillance.
	Public domain improvements are designed to cater for security and prevent crime.	√ See above.
Part E – Environmental Design Criteria		
Section 1 – Site planning		
Site analysis	Detailed site analysis drawings required.	√ An extensive site analysis has been undertaken by BVN (Section 4.0 and Design Report, **Appendix D**).
Site layout	Is to take into account the outcomes of the site analysis undertaken above.	√ Noted.
	Midblock connections provided on large redevelopment sites (>5000m^2) and on sites with street frontages greater >100m.	***N/A*** The site has a frontage of 76.8m. Also a new road is proposed to north of the site.
Public open space	The provision and design of public open space responds to the Urban Design Principles in this DCP and the Public Domain Improvement Plan.	√ Dedication of public open space on the site is not required.
Private open space	The private open space has sufficient area and dimensions to enable recreational use, landscaping and service functions	√ Internal and external breakout spaces and terraces are proposed.

Element	Control	Proposal/Compliance	
Landscape	Preserves existing landscape elements.	√	Refer Landscape Plan, **Appendix G**.
	Landscape Plan required.	√	Refer to the above comment.
	The landscaped area provided comprises a minimum of 50% soft/porous landscaping.	√	Refer to the above comment.
	Landscaping is provided at natural ground level on not less than 25% of the site.	***x***	5.3% of the site is to be landscaped at the ground level. See justification above.
Parking, access and servicing	The design of parking, access and servicing areas complies with DCP No. 11 Transport Guidelines for Development.	√	Refer Section 8.4.2 and Traffic Report (**Appendix L**)
	Car-parking is provided below street level.	√	Car parking is provided within an excavated basement.
	Parking areas are ventilated in accordance with the BCA and AS 1668. Where adequate natural ventilation cannot be provided the car-park must be mechanically ventilated.	√	Refer BCA Assessment Report, **Appendix M**.
	The design of garbage collection areas complies with Council's Waste Management Code.	√	Refer WMP, **Appendix N**.
Stormwater drainage	Stormwater and drainage plan required demonstrating compliance with Council's Stormwater Code.	√	Refer Hydraulic Services Report and Plans **Appendix O**.
Site facilities	Garbage facilities comply with Council's waste management policies. All development provides garbage storage area within the site and adjacent to a lane or street frontage, space for the storage of recyclable goods within the curtilage of each dwelling or in a central location in the case of larger developments. Disposal of trade waste is to be by commercial contract.	√	Refer WMP, **Appendix N**.
Section 2 – Building form and appearance			
FSR	Maximum FSR of 2:1 – 3:1	√	An FSR of 1.84:1 is proposed.
Height	Maximum 18 metre building height	√	A maximum building height of 16.250 metres is proposed.
Setbacks	A min. 4.0m setback from all street frontages is required for all development types to provide adequate space for landscaping, visual and acoustic privacy, sunlight penetration and safety requirements.	***N/A***	As the site is within Green Square (refer below), a setback to O'Riordan Street of 2.4 metres (plus dedication) is required.
	A min. 6m setback to O'Riordan Street is required for all development excluding industrial development.		
	Buildings conform to the rear building setback of adjoining buildings at ground and upper levels.	√	
	Rear setbacks are provided to enhance the public domain.	√	
Façade treatment	Reflectivity on the facades of new buildings does not exceed a threshold increment level of 20%.	√	

Element	Control	Proposal/Compliance
Section 4 – Amenity		
Visual and acoustic privacy	Where buildings abut major roads, railway lines or other uses that emit high levels of noise, they incorporate noise reduction devices. Noise sensitive areas are located away from the source and protected by appropriate design and screening devices such as fences or walls. Where appropriate, individual buildings and groups of buildings are located to act as barriers to the noise.	√ No residential (ie noise sensitive) uses are proposed.
	Electrical, mechanical or hydraulic equipment or plant do not create an offensive noise, as defined in the Noise Control Act, at the boundaries of any development at any time.	√ Refer Noise and Vibration Impact Report, **Appendix P**.
	Noise attenuation between different classes of buildings complies with the Local Government Approvals (Regulations) 1993.	√ Refer Noise and Vibration Impact Report, **Appendix P**.
Safety and security	Development has an 'active' street frontage where appropriate.	√ Building entry and design activate the street.
	Lighting to all pedestrian paths is provided between public and shared areas, parking areas and building entries.	√ Noted and will comply.
	Underground parking areas incorporate security systems such as intercoms to discourage intruders.	√ Security access to basement only.
Security devices	- are sympathetic to the scale and architectural style of the host building or site and the street in which they are sited - are to be permeable and transparent - provide views out of the premises. - do not dominate facades. - do not obscure architectural features on the host building or adjacent buildings. - do not reduce ambient lighting from shop-front to footpath.	√ Able to comply.
Fire regulations	Fire safety standards of new buildings comply with the BCA	√ Refer BCA Assessment Report and Fire Engineering Strategy, **Appendix M**.
Section 5 – Energy efficiency		
Energy efficient site layout & design	For large development proposals which involve work of a value of $500,000 or greater, Council requires an Energy Performance Report to ensure the criteria & controls for energy efficient development are accounted for in the design.	√ Refer ESD Assessment, **Appendix I**).
	Solar access reaching principal living area windows and to a minimum of 50% of the private open space is maintained for at least two hours, between 9am and 3pm at the winter solstice (21 June).	***N/A*** Non-residential use proposed .

Element	Control	Proposal/Compliance	
	New development does not create any additional overshadowing where solar access is less than two hours between 9am and 3pm at the winter solstice. This control does not apply to windows on a side boundary or only separated from a side boundary by a passageway.	√	Refer Shadow Diagrams in the Design Report, **Appendix D**.
	Where overshadowing occurs, detailed shadow diagrams are to be prepared to show shadows at 9am, 12 midday and 3pm as of June 21, March/September 21 and December 21.	√	See above.
	Buildings are orientated and the layout is organised to benefit from cooling easterly/northeasterly summer breezes.	√	
	Windows and openings are located in line with each other, and where possible, in line with prevailing breezes.	√	See above.
	Ventilation of buildings is achieved by permanent openings, windows, doors or other devices, which have an aggregate opening or openable size of not less than 5% of the floor area of the room.	√	
Building construction	Demolition and construction management plan (including erosion and sedimentation) required.	√	Refer CMP, **Appendix Q** & Bulk Earthwork Excavation Plan (Volume 2).
	No rainforest timbers or timbers cut from old growth forest used.	√	Able to comply.
Part F – Design Criteria for Specific Types			
Section 3 – Industrial Development			
Controls	Buildings do not occupy more than 60% of the site area.	***x***	62.5% proposed. See justification above.
	Sites >1,000m^2 provide minimum 100m^2 landscaped open space for passive recreational use by works	√	540m^2 proposed (Level 2 terrace)
Part G – Special Precinct No. 9 – Green Square			
Section 3 –Urban Framework			
Part 3.1 Public domain			
Street hierarchy and transport	Setback of 2.4 metres to O'Riordan Street required.	√	2.4m proposed.
	Footpath widths should be maximised to allow for comfortable pedestrian movement and tree planting.	√	The footpath is to be extended to the building line.
	Streets are to be planted with trees appropriate in character to reflect the street hierarchy and in accordance with Council's Street Tree Masterplan.	√	Existing street trees are retained (except for one siting in the footprint of the new driveway).
	Continuous paths of travel to be provided.	√	Refer Access Review, **Appendix R**.
Open space	Public open space requirements or landscape setbacks are shown on Maps 3 and 4.	√	The site is not identified on the maps requiring the provision of public open space or landscape setbacks.

Element	Control	Proposal/Compliance
Landscape character and design	Landscape plan required and to be consistent with the vision for Green Square.	√ Landscape Plan, **Appendix G**.
	High quality landscaping is to be provided including devices such as planting indigenous trees species, landmark sculptural elements, pavement design and other appropriate elements.	√ Landscape Plan, **Appendix G**.
	Landscape design is to be compatible with flood risk.	√
	A minimum 500mm for soil planting beds above car parking is to be provided.	√
	Pervious paving is to be used for all low traffic and pedestrian areas.	√
	Drainage and irrigation is to be provided to all planted areas on podiums.	√
Waterways & stormwater man'nt	The post development peak flows from development n Green Square must not exceed the corresponding pre-development peak flow.	√ Refer Hydraulic Services Report and Plans, **Appendix O**.
	The design of all streets, public domain elements and impervious paved and landscaped surfaces must reflect current best practice WSUD.	√
	OSD in the form of stormwater tanks is incorporated as required.	***N/A*** Sydney Water and City Council have advised that there is no requirement for OSD (refer correspondence, **Appendix F**.
	The types of pollutants, estimated pollutant loadings and level of pollutant retention should reflect current best practice.	√ Pollution control pits are proposed. Refer Hydraulic Services Report and Plans, **Appendix O**
	Flood Study required. – Development to comply with relevant flood levels. – All sensitive equipment and services located above the flood planning level. – Overland flow paths and other stormwater management systems designed to protect personal safety. – Development is to provide a flood management system that incorporates a combination of overland flow paths and covered flowpaths and conveys the existing 1% AEP and larger flows within acceptable limits of flood hazard.	√ Refer Flood Study, **Appendix S**.

Element	Control	Proposal/Compliance
	– Development shall ensure that: - discharges are controlled in a manner that does not create adverse impacts on flood levels upstream - dimensions, alignments and grades of flow paths are such that flood risk and hazards are acceptable - there are no adverse impacts for properties downstream - compensatory are proposed works if required.	
Part 3.2 Built form		
FSR	Maximum ranging between 2:1 and 3:1	√ 1.84:1 proposed.
Height and scale	Maximum building height of 18 metres.	√ 16.25m proposed.
	Building forms are to respond to the surrounding urban context in terms of envelopes, relationship to site features, adjoining development, streets and open spaces.	√
	Building types are required to form an integral part of the urban fabric of Green Square and contribute to the physical definition of the street network and the hierarchy of public and semi public spaces and streets.	√
	Buildings are: - scaled in relation to the width of the street - continuous with uniform setbacks that define the street edge - generally built to the perimeter of sites to form enclosed court yards - designed to achieve human scale through the articulation of form, modeling and proportion.	√
Building type and envelopes	Development generally utilises the block edge courtyard form of development.	√
	Buildings are built to the street edge to reinforce and define important street edges and corners whilst allowing for a range of private and public spaces to be created.	√
	Appropriate building types are selected to complement the desired future character of neighbourhoods.	√
	Where new buildings are taller than existing buildings by one to three storeys, the new buildings act as infill building and maintain and reinforce existing alignments dictated by surrounding buildings.	√
	Height and bulk is distributed on the site so as to ensure there is no significant loss of amenity to adjacent buildings and public streets and spaces and is broken up or consolidated according to the existing context and to provide interest to the street.	√

Element	Control	Proposal/Compliance	
	Buildings adjacent to heritage items or a conservation area must be of such a height to provide a transition that will achieve appropriate scale between the buildings and either the heritage item or the buildings within the conservation area.	√	
Site coverage	Maximum site coverage based on predominant building type is 55% for commercial and 70% for mixed use.	√	62.5% proposed.
Building interface	The interface of buildings responds to the alignment of adjacent development, the existing built form and the pattern of the streetscape.	√	
	Buildings contribute to the streetscape character and integrate new development with the public domain.	√	
	Buildings maximise ground level activities and provide a family of entrances along major streets and pedestrian oriented spaces.	√	
Building design	Buildings: - are modulated both in plan and elevation and articulated to express the building's distinct elements and functions; - recognise and architecturally respond to unique streetscape characteristics to achieve dramatic and picturesque visual effects	√	
	Building facades incorporate punctuated walls, decorative features, rhythm and texture, variations in setbacks and vertical and horizontal articulation.	√	
	Facades are designed to provide architectural definition to important street corners and other significant points within the overall built form.	√	
	Roof forms incorporate elements to create interesting roofscape & skyline. Alternative roof forms are encouraged.	√	
Noise and vibration amelioration	Buildings are both designed and constructed taking into full account the requirement for effective sound insulation against external noise. Development is to comply with the relevant sections of the BCA and Australian Standards.	√	Refer
Parking	Refer to DCP 11 for relevant rates (maximum provision of parking is expressed with the exception of service vehicles).	√	Refer to Section 8.4.2 and Traffic Report, **Appendix L**.
	At least 10% of the parking provision is to be set aside for visitor parking.	√	97 spaces proposed including 9 for visitors (9.3%)

8.4.2 DCP 11 - Transport Guidelines for Development

Table 9 sets out the relevant requirements of DCP 11 (as amended by as amended by DCP 1997 – Part G: Special Precinct No. 9 – Green Square). It shows that the proposed car and service vehicle parking complies with the relevant controls. To achieve compliance with the bicycle parking requirements in DCP 11 additional bicycle parking for 10 visitors will be provided near the building entrance (to Council's specifications).

8.4.3 Access DCP

Compliance with the Access DCP is addressed in the Access Report, prepared by Morris Goding Accessibility Consulting (**Appendix R**). The executive summary of the Access Report states:

The Access Review Report is a key element in the design development of the commercial building located at 17 O'Riordan Street, Alexandria and is an appropriate response to the AS1428 series, Building Code of Australia (BCA), and ultimately the Commonwealth Disability Discrimination Act (DDA).

Morris-Goding Accessibility Consulting has prepared the Access Report to provide advice to maximize reasonable provisions of access for people with disabilities with regards to the entire development. The development has been reviewed to ensure that ingress and egress, paths of travel, circulation areas, car parking and toilets comply with relevant statutory guidelines.

In general, the development has accessible paths of travel that are continuous throughout. In line with the reports recommendations, the proposed development has demonstrated an appropriate degree of accessibility. The Development Application drawings indicate that compliance with statutory requirements, pertaining to site access, common area access, accessible parking and accessible sanitary facilities, can be readily achieved. The recommendations in this report are associated with detailed design. These recommendations should be addressed prior to construction certificate.

The main issues that have risen from the access review include:

(i) In general, the accessible toilets need to be enlarged to comply with AS1428.2, in accordance with City of Sydney Council Access DCP 2004.

(ii) The provision of 3800mm wide accessible car bays, in accordance with City of Sydney Council Access DCP 2004.

Table 9 - Compliance with DCP 11 - Office and commercial development (as amended by DCP 1997 – Part G: Special Precinct No. 9 – Green Square)

DCP 11 requirement	Allowed/required spaces (based on GFA of 13,548m^2)	Proposed spaces
Car parking		
1 space per 125m^2 of GFA (increased to 1 space per 80m^2 of GFA	Max 108 spaces (potentially increased to 169 spaces)	97 spaces
10% dedicated to visitors	Max 10 visitor spaces	9 visitor spaces
2% of total parking for disabled	Min 2 accessible spaces	3 accessible spaces
Service spaces		
1 car/motorcycle space plus 1 per 4,000m^2 GFA (first 20,000m^2) then 1 per 8,000m^2 GFA, 50% for trucks	1 car/motorcycle space 3 service spaces (1.5 spaces) for trucks	1 x 19m semi trailer 10 x blood delivery van spaces
Bicycle parking		
1 bicycle space per 20 staff	20 spaces (based on day shift of 400 employees)	10 spaces + 10 visitor spaces at the O'Riordan Street entry

Table 10 - Section 94 calculations

Development type	GFA	GFA/employee (Figure 4.10 of the CP)	Estimated employees
High tech industrial building			
Generic	13,548m^2	37.4m^2	362 employees[6]
Contribution @ $1,994.44/employee			*$721,987.28*
Less credit for existing warehouse use			
Modern Industrial Building - wholesale/retail	6,000m^2	73.6m^2	82 employees
Contribution credit @ $1,994.44/employee			*($163,544.04)*
Contribution due			**$558,443.24**

[6] The number of future employees calculated in accordance with Figure 4.10 of the CP (362 employees) is generally in accordance with the approximate maximum number of ARCBS employees working the main day shift (400 employees) (refer Section 7.10).

8.4.4 Green Square Affordable Housing DCP

The Affordable Housing DCP applies to the site as it is located within the area defined as Green Square. As the project is not exempt from the provision of affordable housing pursuant to Clause 27Q of LEP 1998, affordable housing (1% of the total floor area) or a contribution in lieu of such provision is required.

The monetary contribution for non-residential development is $39/m^2$ (at 8 July 2008) of total floor area[7]. A TFA of 16,489m^2 is proposed which will result in a contribution of $643,071 (subject to any CPI changes).

8.5 Development Contributions Plan 2006

According to this Contributions Plan, the site is in the Southern Precinct and a contribution of $1,994.44 per worker is applicable (as at 24 April 2008 on Council's website).

Using the GFA/employee rates in Figure 4.10 of the Contributions Plan (and applying a credit for the existing workforce on the site), **Table 10** estimates that a contribution with a value of **$558,443.24** may be payable.

Notwithstanding the above, Section 2.14 (Policy on Merit Exemptions to Development Contributions) of the Contributions Plan states that developments which provide a **distinct community benefit on a not-for-profit basis** including but not limited to: fire stations, police stations or police shopfronts, ambulance stations and the like are exempt from the levying of contributions.

The ARCBS is a subsidiary of the Australian Red Cross Society. It is a not for profit organisation which is jointly funded by Federal and State Governments and certainly provides a vital and distinct community benefit.

As such it is considered appropriate that the project be exempt from the payment of a Section 94 contribution.

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7 Pursuant to Part 1.4 (Definitions) of the GSAHDCP:

Total floor area *means the total of the areas of each floor of a building. The area of each such floor is taken to be the area within the outer face of the external enclosing walls, but excluding:*

(a) Columns, fins, sun control devices, awnings, and other elements, projections or works outside the general lines of the outer face of the external walls (other than balconies comprising the minimum area required by Council and excluding any additional area), and

(b) The maximum ancillary car parking required by the Council and any associated internal vehicular and pedestrian access to that car parking; and

(c) Space for the loading and unloading of goods.

8.6 Access, transport and traffic

A Traffic Report has been prepared by Masson Wilson Twiney (**Appendix L**). The summary and conclusions of the report state:

(a) The proposed development is for a 13,514m^2 (sic) *GFA commercial/industrial development which is to be purpose built for the Australian Red Cross Blood Service.*

(b) The building would have three usable levels plus one basement level for parking.

(c) Access for service vehicles is provided via separate entry and exit driveways.

(d) A separate combined entry and exit driveway is proposed for car park access.

(e) It is proposed to provide 97 parking spaces. This provision is in accordance with the limit set by the Green Square DCP.

(f) The proposed on-site parking provision and internal layout are considered to be satisfactory.

(g) The proposed development is expected to generate approximately 100 vph (including trucks servicing the site).

(h) Analysis indicates that the nearby intersections would continue to operate in a manner similar to that which presently applies.

(i) It is recommended that the car park access operate with left and right turn entry but left turn exit only.

Overall, it is concluded that traffic and parking aspects of the proposal would be satisfactory.

8.7 Energy efficiency

SBE has prepared an ESD Report for the project (**Appendix I**). Proposed energy efficiency measures described in the ESD Report to be implemented or investigated during the detailed design stage include:

- Glazing and shading appropriate to façade orientation
- Insulation
- Purchase of green power
- Minimise demand for mechanical heating, cooling and ventilation and use of energy efficient for the required mechanical plant
- Solar hot water heating
- Photovoltaic electricity generation

- Energy efficient light fittings
- Energy and water metering and monitoring
- Water efficient tapware, toilet cisterns, showerheads and dishwashers
- Rainwater tank (10,000 litres) for water storage and re-use (toilet flushing, irrigation and car wash bay). Water flushed through the building's regular fire hydrant tests will be directed to the storage tank
- Water retention strategy (including a water balance study)
- Water sensitive urban design (where possible), planting of drought tolerant native species in the landscaped areas and use if an efficient irrigation system (supplied by the rainwater tank)
- Maximised natural day-lighting penetration to office and administration spaces
- Glare control
- Co-location of printers and copiers where possible
- Green house gas emissions abatement strategy (including site selection, encouraged use of public transport, preparation of a TAG, bicycle facilities and dedicated parking for efficient vehicles)
- Waste management
- Use of low embodied energy materials where possible
- PVC minimisation
- Specification of insulation with zero Ozone Depleting Potential
- Provision for future change
- Staff interaction
- Building user's guide

The ESD Report demonstrates that the project includes measures to reduce the impact of the development on the environment, and in particular the greenhouse gas emissions from its construction and operation.

8.8 Noise and vibration

Acoustic Logic Consultancy has prepared a Noise and Vibration Impact Report for the project (**Appendix P**).

Part A of the report assesses the potential impact of traffic, aircraft and rail noise and vibration on the acoustic amenity of the project. It assesses vibration levels generated by train movements within the tunnel of the Airport and East Hills Railway which runs underground next to the site. Vibration results have been used to predict internal noise and vibration levels within the future development. If necessary, appropriate indicative noise/vibration attenuation treatments have been

recommended to prevent regenerated noise levels and tactile vibration from exceeding the specified levels.

External noise intrusion has been assessed within the development in accordance with the relevant Australian Standards requirements. As the building comprises concrete roof construction, the main noise path requiring assessment is via glazing and doors. The glazing assemblies and external doors required to exclude traffic and aircraft noise have been recommended based on noise levels measured to comply with the internal noise objectives recommended in the Australian Standards requirements.

Part A concludes that:

> *This report provides the results of an assessment of traffic, rail and aircraft noise intrusion into the proposed Commercial development at 17 O'Riordan Street Green Square. Noise assessment objectives for noise emissions from the subject site have also been determined. Ambient noise and vibration levels were measured and the results used to determine treatments required for compliance with relevant Australian Standards requirements for internal noise and vibration levels.*
>
> *Provided the recommendations documented in Section 6 of this report are implemented noise and vibration levels will comply with the criteria nominated in this report. Vibration measurements conducted on site indicate that vibration attenuation measures are not required in order to:*
>
> *(a) Ground vibration levels at the site were measured to be only barely above ambient levels. Consequently, the vibration levels in the completed building would be clearly within acceptable vibration limits for normal office and laboratory tenancies.*
>
> *(b) Comply with project requirements for reradiated noise levels within the future building.*

Part B of the Noise and Vibration Impact Report provides a preliminary assessment of noise and vibration impacts on surrounding properties (including potential noise emissions from process equipment, mechanical services plant and equipment and vehicle movements). Noise emissions during the demolition, excavation and construction phase of the project have also been identified and assessed as part of the study.

The conclusion to Part B states:

> *This report provides the results of an assessment of the potential impact of noise and vibration emissions arising from the construction and operation of the proposed commercial development located at 17 O'Riordan Street, Green Square on the surrounding properties.*

Noise from by traffic movements generated by the proposed development will have no audible effect on existing levels of noise.

Noise emissions from the proposed operations and plant associated with the proposed development will comply at all times. The noise and vibration emissions from construction activities taking place on the site will be managed in accordance with the recommendations of this report.

8.9 Geotechnical

Douglas Partners has prepared a Preliminary Geotechnical Investigation for the project (**Appendix J**). This report addresses the following issues:

- Excavation
- Excavation support
- Temporary ground anchors
- Groundwater
- Foundations:
  - Spread footings
  - Stiffened raft slabs
  - Piles
- Effects of the development on the railway tunnel.

In relation to the last point, and as required by the DGRs, the Preliminary Geotechnical Investigation:

The airport railway tunnel is located near the north-western corner of the development site. The exact depth of the tunnel is not currently known. The basement excavation will be approximately 2.5 m deep at its closest point with the tunnel. Survey information provided by the client indicates that the basement excavation and piling works are expected to be outside both the Zone 1 and Zone 2 areas as defined by RailCorp.

If the development scheme changes so that excavation or construction within the Zone 2 area is proposed then additional analysis of soil stresses and the effects of slabs and piles on the tunnel may need to be undertaken once accurate dimensions are known, preferred footing arrangements have been determined and design footing loads have been estimated. This should ideally be undertaken using a finite difference or finite element software package such as FLAC.

8.10 Stormwater

Whipps Wood Consulting has prepared a Hydraulic Services Report and Plans for the project (**Appendix O**). The report notes that the proposed stormwater system will consist of the following:

- A piped downpipe system
- Piped stormwater system
- Rainwater reuse tank (10,000 litres)
- Pollution Control pits (By Ecosol)
- Overland Flow Path

The Stormwater system will be split into two systems with two discharge points. The first system is the rainwater reuse system in which a single downpipe will be collected to discharge into the rainwater tank which will be used for irrigation. The rainwater tank then overflows and is connected to the stormwater system. The stormwater system is collected and directed down both sides of the building. The water is then treated by a pollution control pit (Ecosol RS4300) and discharged to the proposed kerb entry pits via gravity. The Stormwater system will be sized using a 1 in 20 year storm event.

Sydney Water and Sydney City Council have advised that there is no requirement for OSD (refer to pre-lodgement correspondence from Sydney Water and the City of Sydney).

8.11 Flooding

A Flood Study has been prepared by Cardno (**Appendix S**). The executive summary to the Study states:

This report assesses the stormwater extent and behaviour for the proposed redevelopment….

Hydraulic modelling was undertaken for the 1% Annual Exceedance Probability (AEP) event and the Probable Maximum Flood (PMF) to determine the flood behaviour in the vicinity of the subject site and to assess the impact of the proposed development. Relevant Council development conditions with respect to flooding were also assessed…

A hydraulic model of the subject site and adjoining area was development in SOBEK, a linke one- and two-dimensional modelling system that models flood flow behaviour. The base model was development for a previous study, 'Flood Mitigation Options Green Square Town Centre' *(Draft, 2008, Connell Wagner and Cardno Lawson Teloar). This model was amended to incorporate the existing site survey and proposed development details received from the client.*

Three scenarios were modelled:

1. *Existing site layout for 1% AEP event,*
2. *Proposed development layout for 1% AEP event,*
3. *Proposed development for PMF event.*

The SOBEK flood modelling for the 1% AEP and PMF event demonstrate that the proposed development satisfies Council's Development Conditions. Specifically, the proposed development:

- *does not adversely affect flood behaviour upstream or downstream up to the 1% AEP event,*
- *has floor levels above the Flood Planning Level (adopted as 1% AEP plus 500mm freeboard) and PMF,*
- *has a basement entry level above the FPL and PMF,*
- *does not imperil the safety of persons in the immediate vicinity.*

Several items are identified to be incorporated into the detailed design phase, including:

- *External opening to the basement to be above he 1% AEP + 0.5m freeboard and PMF level,*
- *Flood compatible materials to be used below the FPL,*
- *Building to be structurally designed to withstand flood forces up to the PMF level,*
- *Utility services are to be flood proofed to the FPL or the PMF, whichever is the higher.*

8.12 Waste management

A WMP has been prepared by J D MacDonald (**Appendix N**). It considers the operational stage of development.

The WMP addresses:

- General and recyclable waste including:
  - administrative areas
  - warehouses
  - medical laboratory waste
- External collection of waste:
  - operations centre
  - waste caretaker
- Waste equipment recommendations:

- Two x $3m^3$ skip-type containers for general waste; and
- Two x $3m^3$ skip type containers for recyclable waste;

A dedicated refuse storage area is to be located adjacent to the loading dock area for the storage of all waste generated. A nominated private waste contractor will collect all waste on a twice-weekly collection cycle from the loading dock area accessed off O'Riordan Street. The WMP shows that the design of all waste handling equipment and holding areas will meet Council Codes, BCA, Australian Standards and statutory requirements. All medical waste will be collected as required by an approved medical waste contractor.

Waste generated during the construction/demolition stage is considered in the CMP.

8.13 Lighting

Up-lighting of the O'Riordan Street elevation is proposed. All lighting will be designed, at the detailed design phase, to ensure that it complies with Australian Standard AS4282 on "The Control of the Obtrusive Effects of Outdoor Lighting".

8.14 Construction Management

A CMP has been prepared by Buildcorp (**Appendix Q**) addressing:

- Waste generated during the construction/demolition stage
- Traffic control plan
- Waste management plan
- Site establishment plan
- Stormwater and sediment control plan

8.15 Utilities

A new substation is proposed in the north-eastern corner of the proposed building, addressing O'Riordan Street. It will contain two 1,500 KVA transformers plus space for future provision of a third transformer.

Due to the requirement to provide power in case of emergency for a minimum 96 hour period, two in-ground diesel tanks (35,000L each) will be installed as well as a diesel generator and a 2,000L day tank on the roof of the building. A potable water supply tank (150,000L), sprinkler tank (350,000L), hydrant tank (288,000L), rainwater tank (10,000L) and untreated sewerage storage tank (120,000L) will be installed in the basement.

Other utility services available to the site including electricity, telecommunications, sewer and gas may require some augmentation, but it is not anticipated that the project will affect the availability of these services.

8.16 BCA compliance and fire engineering

A BCA Assessment Report has been prepared by Blackett Maguire + Goldsmith (**Appendix M**). The report summarises the key building characteristics as follows:

- BCA Classification:
  - Class 5 Commercial Offices
  - Class 7a Car parking
  - Class 7b Storage
  - Class 8 Laboratory
  - Rise in Storeys of 4
- Type A construction (large isolated building)
- 12.05 metres effective height
- Climate zone 5 (Section J of the BCA)

The report provides a number of recommendations which will ensure that the project will comply with the relevant provisions of the BCA.

A Fire Engineering Strategy has been prepared by Raw Fire (**Appendix M**). It states that:

This Fire Safety Strategy document highlights the proposed alternative solutions to achieve compliance with the performance requirements of the Building Code of Australia 2008 (BCA).

The innovative development of this building results in a number of non-compliances with the prescriptive Deemed-to-Satisfy (DTS) provisions of the BCA. This document outlines the scope of work for the future fire engineering analysis, sets down the basis on which analysis will be undertaken as agreed by the stakeholders and proposes a trial design for further evaluation. This will occur through the formalised approval process incorporating a Fire Engineering Brief (FEB) report and then a Fire Engineering Report (FER) in preparation for submission for a Construction Certificate (CC).

The documents will be updated throughout the fire engineering brief and report process to keep an accurate account of the discussions and agreement between the design team and the relevant authorities.

1.1 OBJECTIVES

The objective of this assessment is to develop a fire safety system, which satisfies the performance requirements of the BCA whilst maintaining an acceptable level of life safety, protection of adjacent property and adequate provisions for Fire Brigade intervention. At a community level, fire safety objectives are met if the relevant legislation and regulations are complied with. As stated in the BCA "A Building Solution will comply with the BCA if it satisfies the Performance Requirements"

9.0 DRAFT STATEMENT OF COMMITMENTS

The following draft statement of commitments (**Table 11**) sets out the measures proposed by the proponent to manage and minimise the potential impacts arising from the project.

Table 11 - Draft statement of commitments

Subject	Commitment	Timing
1. General	The development will be constructed generally in accordance with the EAR prepared by Robinson Urban Planning Pty Ltd (and accompanying consultant reports) and the Architectural, Landscape Hydraulic Services and Bulk Earthwork Excavation Plans listed at Table 1 of the EAR.	During and after Construction
2. Contamination and remediation	Environmental assessment works will be completed and an appropriate remediation strategy (if required) will be completed to ensure that the site is remediated to a level suitable for the proposed ARCBS use. Taking into account the findings and recommendations of Douglas Partners and ERM, the following phases of contamination investigations are proposed: Phase II Completion of Phase II investigation (upon vacation of the site by the existing tenant) Phase III RAP - If remediation is required preparation of an RAP Phase IIII Validation of RAP	Prior to construction
3. Public domain works (including street trees) and onsite landscaping	Public domain works will be completed within the footpath of O'Riordan Street, as illustrated on the Landscape Plan by Tract Consultants (Drawing No. 9208009 LD SK 02, dated 27 June 2008). Existing street trees to be retained will be protected during demolition and construction. One new street tree, to Council's specification, will be planted to replace the existing street tree to be removed. Planting will include endemic species wherever possible and to the satisfaction of the Director General.	During to construction Detailed design phase
4. Land dedication	The area of the 2.4m front setback to O'Riordan Street will be dedicated to the City of Sydney.	Upon completion of construction
5. Affordable Housing	A monetary contribution towards the provision of affordable housing will be paid based on the non-residential development contribution rate of \$39/m^2 of TFA (at 8 July 2008). Based upon a proposed TFA of 16,489m^2, a contribution of \$643,071 will be paid by the proponent.	Prior to construction
6. Traffic and transport	A car parking strategy will be prepared considering a range of management initiatives including: – The use of car share schemes – Preparation of a Travel Access Guide (**TAG**) – Provision of bike storage and amenities (comprising at least 10 basement employee spaces and 10 visitor spaces near the O'Riordan Street entry) – Flexible working arrangements which enable staff to avoid congested morning and afternoon peak periods	Prior to occupation
7. ESD	The recommendations of the ESD Report, by Sustainable Built Environment, will be implemented.	During and after to construction

Subject	Commitment	Timing
8. Noise and vibration	The recommendations of the Noise and Vibration Impact Report (Part A and Part B), by Acoustic Logic Consultancy, will be implemented.	Prior to and during construction
9. Hazardous goods	Prepare a Preliminary Hazard Analysis of the building and ARCBS use (if deemed necessary by the DoP).	Prior to occupation
10. Construction management	The Construction and Demolition Environmental Management Plan, by Buildcorp, will be implemented. A Traffic Management Plan for the demolition and construction phase will also be prepared.	Prior to and during to construction
11. Waste management	The recommendations of the Waste Management Plan, by J D McDonald, will be implemented.	After construction
12. Geotechnical	The recommendations of the Geotechnical Investigation, by Douglas Partners, will be implemented.	Prior to and during to construction
13. Water	A detailed water balance will be prepared for the project outlining measures that would be implemented to minimise the use of water, waste water predictions and measures that would be implemented to treat, reuse and/or dispose of water.	Prior to construction
14. Flooding	The recommendations of the Flood Study, by Cardno, will be implemented.	Prior to and during construction
15. Air quality	A management plan will be prepared to ensure that appropriate air quality measures are implemented to protect air quality during and after construction.	Prior to and during construction
16. BCA and Fire Engineering	The recommendations of the Preliminary BCA Assessment, by BM+G, and Fire Engineering Strategy, by RawFire, will be implemented.	Prior to construction
17. Consultation with utilities providers	The requirements of any public authorities will be complied with (e.g. Telstra, Energy Australia etc) in regard to the connection to, relocation and/or adjustment of the services affected by the proposed subdivision. Any costs in the relocation, adjustment or support of services shall be the responsibility of the Proponent. Details of compliance with the requirements of any relevant public authorities are to be submitted prior to the issue of a Construction Certificate.	Prior to construction
18. Utility works	Service authorities will be consulted prior to the physical on-site works commencing to ascertain lead times and correct termination locations. All termination works will be completed in accordance with design engineers' specifications and instructions and will be undertaken by suitably licensed contractors. Any termination works that impact on adjoining owners will be notified and will be undertaken out of hours to minimise impact.	Prior to construction
19. Lighting	Up-lighting of the O'Riordan Street elevation will be designed to comply with Australian Standard AS4282 on "The Control of the Obtrusive Effects of Outdoor Lighting".	Prior to construction

10.0 CONCLUSION

The development of a four storey building for the processing of blood and blood products, distribution, blood testing, tissue typing and research laboratories, warehousing, ancillary office/administration and staff amenities functions for the Australian Red Cross Blood Service (**ARCBS**) at 17 O'Riordan Street, Alexandria offers the following significant benefits:

- Implementation of the relevant objects of the EP&A Act by:
  - promoting the **social** welfare of the community through the provision of a new and improved facility for the ARCBS ensuring that they can provide safe, high quality blood products and related services for the population of NSW and ACT;
  - promoting the **economic** welfare of the community through the provision of approximately 500 jobs, making a significant contribution to the employment targets for Green Square Urban Renewal Area (being 14,000 jobs by 2031 as set out in the Metropolitan Strategy for Sydney, Draft City of Sydney Subregional Strategy and Sustainable Sydney 2030);
  - protecting the **environment** and promoting **ESD** by incorporating energy efficiency into the design and future operation of the project.
- Provision of a purpose built facility to meet the current and future expansion needs of the ARCBS, consolidated into one facility. The site is particularly suitable for this given its proximity to the Airport, Sydney CBD, major hospitals and the regional road network enabling a more superior service and improved efficiency in the collection and distribution of blood and related products.
- A safe and secure facility for ARCBS, designed to operate 24 hours a day even in the event of a disaster. This is paramount to the successful operations of the facility and the well being of the people relying on its important service of supplying blood to the population of Australia.
- Balanced with the project's contribution to the economy, the proposal includes energy efficiency measures and it will not adversely affect the amenity of adjoining and nearby land uses including the nearby conservation area.
- Consistency with all relevant SEPPs and LEP 1998 (including permissibility in Zone No. 10(d) Mixed Uses "d" Zone).
- General compliance with DCP 1997.
- A high standard of contemporary architectural and landscape design with high quality and durable external materials and finishes.
- Encouragement of alternate forms of transport given the site's excellent access to public transport (trains and buses), the constrained provision of on site car parking (consistent with DCP 11) and bicycle parking facilities and amenities (including lockers and showers).

In light of the significant merits and the absence of any significantly adverse environmental effects, the project is considered worthy of the Minster's consent.