

1 Introduction

This Environmental Assessment (EA) accompanies a major project application on behalf of Redfern-Waterloo Authority (RWA), for a Concept Plan for the redevelopment of North Eveleigh. The Concept Plan proposes an integrated solution for the whole site and provides for a mix of residential, commercial, retail and cultural uses, adaptive reuse of heritage buildings, appropriate access and car parking provision, and landscaping treatment of the public domain.

This EA provides the following details to assist the Department of Planning (DoP) with an assessment of the Concept Plan, as detailed in the Director-General's Environmental Assessment Requirements as set out in a letter dated 17 March 2008:

- Background to the site.
- Description of the site in respect to its regional and local context;
- Description of the proposed Concept Plan; and
- Review of the Concept Plan with respect to the general and key assessment criteria, including:
 - Relevant statutory and policy planning provisions;
 - Identified key issues;
 - Draft Statement of Commitments;
 - Suitability of the site and the social, economic and environmental impacts of the proposal; and
 - Development contributions and public benefits to be provided with the development.

The document has been prepared in accordance with Part 3A of the *Environmental Planning and Assessment Act 1979* (EP & A Act). The primary purpose of this application is to obtain Concept Plan approval for the broad land use distribution and development parameters contained in this submission.

1.1 Background

1.1.1 Background to the North Eveleigh Redevelopment Project

Formerly known as the Eveleigh Carriage Workshops, the North Eveleigh site functioned as a carriage workshop for almost 100 years and was integral to the development of the surrounding suburbs. In 1989 railway operations ceased and since that time the site has been used for the storage of railway carriages, machinery and a range of moveable items.

In 2005, the NSW Government (NSWG) established the Redfern-Waterloo Authority (RWA) to facilitate the renewal and revitalisation of parts of Redfern, Waterloo, Darlington and Eveleigh. Within those suburbs, eight strategic sites were identified and a new planning framework was proposed under the *Redfern – Waterloo Built Environment Plan (Stage One) (BEP)* to guide redevelopment and investment to create jobs, housing, public infrastructure and community facilities. The BEP was the subject of extensive community consultation and endorsed by Cabinet. *State Environmental Planning Policy (Major Projects) 2005* was subsequently amended to identify the eight strategic sites as State significant sites (SSS) and in doing so

the planning and urban design controls outlined in the BEP were gazetted as the statutory planning controls applicable to those sites. The North Eveleigh site is identified as one of the eight key strategic sites in the *SEPP (Major Projects)* and as such is a State significant site in Schedule 3 of the SEPP.

The current proposal builds on the ideas, planning and urban design framework outlined in the BEP. It seeks to provide an integrated design solution which, achieves sustainability, responds to metropolitan planning objectives, supports and strengthens the Redfern Town Centre, is compatible with surrounding development, and creates a synergy with the Australian Technology Park. For 100 years the Eveleigh Railway Yards provided a vital source of employment and was integral to the sustainability of the Redfern – Waterloo community. Redevelopment offers the opportunity to enliven the site and reintegrate it back into the community.

1.1.2 Site History

In 1855 the first railway line was constructed linking Sydney to Parramatta. The line divided an earlier land grant which was subsequently purchased for the construction of the Eveleigh Workshops in 1879. In 1880 construction started on the south side of the rail corridor. On the northern side, the North Eveleigh Rail Yard, the first buildings (in 1883), were large stores at the Macdonaldtown end of the site.

Between 1884 and 1887 the fan of rails was laid and the Car and Wagon Workshops and the Paint Shop and Locomotive (later Mechanical) Engineer's Office on Wilson Street were completed. In 1886, the second Eveleigh Station was built. It was renamed Redfern Station in 1906 when Sydney Terminal was completed. Residential development of the area proceeded around the railway workshops, stimulated by the need for worker's housing.

During the 1900s various modifications to the North Eveleigh Rail Yard were made including the removal of internal traversers and the construction of external ones, the erection of the Blacksmiths' Shop in 1907, construction of additional repair and painting shops and facilities for signalling, lighting, driver training, laboratories and staff amenities.

By the 1980s the northern component of the Eveleigh Railway Workshops had reached its full capacity. The site was closed in 1988 as the Chullora and Clyde railway workshops were able to take up the work previously performed at Eveleigh.

In 2002 Railcorp submitted an application to redevelop the site to South Sydney Council. The application was subsequently withdrawn by the State Rail in 2003, due to lack of support from the Council. Significant developments since the closure of the Railway Yards include:

- Establishment of Yaama Dhiyaan café and hospitality and construction training centres in the refurbished former Canteen and Carpenters building, North Eveleigh in late 2006.
- Development of CarriageWorks (Contemporary Performing Arts Centre) in the Carriage Workshops, North Eveleigh in January 2007.
- Viewing platform and pedestrian entrance structure off Wilson Street opposite the CarriageWorks opened in January 2007.

- Community markets proposed within the Blacksmiths' Workshop. A development application has recently been approved by RWA.
- Proposed pedestrian and cycle bridge being designed to connect North Eveleigh to Redfern Railway Station, the Redfern Town Centre and the Australian Technology Park.
- Design concepts for the upgrade of Redfern Station to improve pedestrian access.
- RailCorp's planning and preparation for the relocation of electrical infrastructure from within the North Eveleigh site, the installation of a new substation and work depot in the south-western corner of the site and a new access road directly adjacent the railway track on the southern periphery of the site.
- The North Eveleigh Dive Alignment. This is for a future underground rail connection planned by RailCorp from the Main West Line into the Sydney CBD. It extends along the southern boundary of the site.

1.1.3 Redfern-Waterloo Authority

As discussed, the Redfern-Waterloo Authority (RWA) was established by the NSW Government on 17 January 2005. It is responsible for revitalising Redfern, Waterloo, Eveleigh and Darlington through urban renewal, improved human services and job creation. North Eveleigh is within the operational area of RWA and is one of its 8 strategic sites. As such RWA is significantly involved in providing direction for the land's future development. While the site is currently owned by RailCorp it has been declared surplus to its needs. RailCorp's Emergency Services Unit and moveable heritage located on the site will be relocated in the near future, with moveable heritage to be relocated to its proposed Rail Heritage Centre at Thirlmere.

1.1.4 Design Competition

In August 2007, RWA invited four leading architectural firms to prepare urban design proposals for the site in a Design Competition. The purpose of the competition was to select the highest quality architectural and urban design solution to inform the preparation of a Concept Plan for the eastern and western portions of North Eveleigh.

While the Design Competition related only to the eastern and western portions of the site, entrants were requested to develop an integrated response to the entire site taking into account the CarriageWorks, the proposed markets at the Blacksmith's Shop and the Yaama Dhiyaan café and hospitality and construction training centres. The Design Brief which informed the Competition required a concept which was consistent with the *Redfern-Waterloo Built Environment Plan (Stage One)*.

The RWA appointed an independent Urban Design Panel comprising industry specialists to judge the competition and select the preferred entry. Bates Smart won the competition. Its design has been refined to be the subject of this Environmental Assessment, and which now includes the Carriage Workshop and Blacksmiths' buildings. The site will be transferred to RWA for future sale and development.



1.2 Project Aims and Objectives

Redevelopment of the North Eveleigh site will be a major catalyst for the long term revitalisation of the Redfern – Waterloo Area and will complement other significant initiatives which have been undertaken by the RWA.

Key objectives of the Concept Plan design include:

- Creation of a high quality and vibrant residential, cultural, and business precinct with a strong sense of place, and distinct identity;
- Development which responds to the character of the surrounding residential, railway, and high technology / business park uses;
- Provision for a network of public open space that responds to the character of the site, heritage buildings, and spaces;
- Respect for the heritage character and values of the site and retention / adaptive reuse of heritage items identified in Schedule 3 of the Major Projects SEPP as well as certain items of historical interest;
- Building typologies which reinforce a precinct with a distinct character and typology;
- Provision for a range of dwelling types and flexible commercial / educational uses;
- Provision of legible access to and through the site, an interconnected street network, and a high reliance on public transport;
- Attainment of sustainable development principles through building design and maximum use of public transport; and
- Introduction of a range of initiatives for the conservation of water and energy, provision for community facilities, and affordable housing.

1.3 Statutory Planning Process to Date

To date, RWA has prepared a Preliminary Environmental Assessment (PEA) and preliminary Concept Plan for the site. In accordance with the *Environmental Planning & Assessment Act 1979 (EP&A Act)* and associated guidelines, a PEA was submitted to the Department of Planning (DoP) on 18 January 2008 to enable the Director-General to prepare environmental assessment requirements to inform the preparation of the Environmental Assessment for the redevelopment of North Eveleigh.

On 13 March 2008, the Minister for Planning agreed that the development proposal for North Eveleigh be considered as a Major Project under Part 3A of the EP&A Act.

Given the size and complexity of the proposal, the Minister for Planning also authorised submission of a Concept Plan for the site. The Concept Plan will enable key site parameters associated with land use, infrastructure delivery to be resolved up front, with subsequent detailed stages being submitted for approval progressively.

On 17 March 2008, the Department of Planning (DoP) issued final Director-General's Environmental Assessment Requirements (DGEARs) for the site for preparation of a Concept Plan. The DGEARs are provided in **Appendix E**.

1.4 Director General's Environmental Assessment Requirements

The following table provides a summary of the Director-General's Environmental Assessment Requirements issued by the Department of Planning on July 2007 and identifies where each requirement has been addressed in the Environmental Assessment:

Table 1 – Director General Assessment Requirements

Requirement	Response
General Requirements.	
The Environmental Assessment (EA) must include:	
An executive summary.	Included in this report
A thorough site analysis including site plans, aerial photographs and a description of the existing and surrounding environment.	See Section 3.0
Description of the site, including cadastre, title details, existing easements (including sewer mains, and/or encumbrances) and the surrounds.	
A thorough description of the proposed development, including details of the proposed layout, built form, land uses, size and scale of the main components of the development, FSR, height (AHD).	See Section 4.0
Details of the methodology used for the calculation of the FSR in accordance with the relevant Environmental Planning Instruments (EPI).	See Section 5.2.1
An assessment of the environmental impacts of the project with particular focus on the key assessment requirements specified above and a table outlining how these key assessment requirements have been addressed.	See Section 6.0
An assessment of the potential impacts of the project and a draft Statement of Commitments, outlining environmental management, mitigation and monitoring measures to be implemented to minimise any potential impacts of the project.	See Section 8
A description of the measures that would be implemented to avoid, minimise, mitigate, offset, manage, and/or monitor the impacts of the project.	See Section 8
Demonstration as to how the development, when completed, will achieve the objectives and provisions of the relevant EPI'S.	See Section 5.0
The following plans, architectural drawings, diagrams and relevant documentation shall be submitted: An existing site survey plan drawn at an appropriate scale illustrating: <ul style="list-style-type: none"> ■ the location of the land, boundary measurements, area (sq.m) and north point; ■ the existing levels of the land in relation to buildings and roads; ■ location and height of existing structures on the site; and ■ location and height of adjacent buildings and private open space. ■ all levels to be to Australian Height Datum. 	Submitted with the Environmental Assessment See Appendix F and Appendix G
A Site Analysis Plan must be provided which identifies existing natural elements of the site (including all hazards and constraints), existing vegetation, footpath crossing levels and alignments, existing pedestrian and vehicular access points and other facilities, slope and topography, utility services, boundaries, orientation, view corridors and all structures on neighbouring properties where relevant to the application (including windows, driveways, private open space, etc).	See Section 3.0

Requirement	Response
A locality/context plan drawn at an appropriate scale should be submitted indicating: <ul style="list-style-type: none"> significant local features such as parks, community facilities and open space and heritage items; the location and uses of existing buildings, shopping and employment areas; traffic and road patterns, pedestrian routes and public transport nodes. 	See Section 3.0
Architectural drawings at an appropriate scale illustrating: <ul style="list-style-type: none"> the location of any existing building envelopes or structures on the land in relation to the boundaries of the land and any development on adjoining land; indicative floor plans, sections and elevations of the proposed buildings; indicative elevations and sections. accessibility requirements of the Building Code of Australia and the Disability Discrimination Act for the site; the height (AHD) of the proposed development in relation to the land; the level of the lowest floor, the level of any unbuilt area and the level of the ground; any changes that will be made to the level of the land by excavation, filling or otherwise, 	See Appendix A
Visual aids such as 3 dimensional rendering should be used to demonstrate visual impacts of the proposal and architectural composition, in particular having regard to siting and design, bulk and scale relationships, appropriate relationship with the heritage fabric of the building(s) on site and in the surrounding area.	See Appendix B
Stormwater Concept Plan - illustrating the concept for stormwater management; Geotechnical Report - prepared by a recognised professional which addresses the effects an Railcorp's facilities and corridor, assesses the risk of geotechnical failure on the site and identifies design solutions and works to be carried out to ensure the stability of the land and structures and safety of persons;	See Appendix Y
View Analysis - Visual aids such as a photomontage must be used to demonstrate visual impacts of the proposed building envelopes in particular having regard to the siting, bulk and scale relationships from key areas;	See Section 6.3.4 and Appendix B
Landscape plan - illustrating treatment of open space areas on the site, screen planting along common boundaries and tree protection measures both on and off the site where applicable.	See Appendix C
Shadow diagrams showing solar access to the site and adjacent properties at summer solstice (Dec 21), winter solstice (June 21) and the equinox (March 21 and September 21) at 9.00 am, 12.00 midday and 3.00 pm. Plans/elevations and shadow diagrams are to be provided demonstrating the impacts of the proposal within the site and on adjoining sites, including additional overshadowing.	See Appendix D
A signed statement from the author of the Environmental Assessment certifying that the information contained in the report is neither false nor misleading;	Included in Environmental Assessment
A quantity surveyors cost estimate report to verify the capital investment value of the project, calculated in accordance with the definition of 'CIV' in accordance with SEPP Major Projects (2005) - this definition should be quoted in the OS letter/report; and	See Appendix X
A conclusion justifying the project, taking into consideration the environmental impacts of the proposal, the suitability of the site, and whether or not the project is in the public interest	See Section 9

Requirement	Response
The Environmental Assessment (EA) must address the following key issues:	See Section 5.0
<p>Relevant EPI'S, Policies and Guidelines to be addressed</p> <p>Planning provisions applying to the site, including permissibility and the provisions of all plans and policies including:</p> <ul style="list-style-type: none"> SEPP (Major Projects) 2005 Schedule 3, The Redfern-Waterloo Authority Sites Standard Instrument (Local Environmental Plans) Order 2006 SEPP (Building Sustainability Index: BASIX) 2004 SEPP 55 - Remediation of Contaminated Sites SEPP 65 - Design Quality of Residential Flat Development Draft SEPP No. 66 - Integration of Land Use and Transport SEPP (infrastructure) 2007 Sydney Metropolitan Strategy (and any relevant draft or endorsed Subregional Strategy) The <i>Redfern-Waterloo Built Environment Plan (Stage One)</i> Provision of public infrastructure having regard to the Redfern Waterloo Authority Contributions Plan Provision of affordable housing in accordance with the Redfern Waterloo Authority Affordable Housing Contributions Plan Nature and extent of any non-compliance with relevant environmental planning instruments, plans and guidelines and justification for any non-compliance 	
<p>Land Use</p> <ul style="list-style-type: none"> Demonstrate suitability of proposed land uses in the context of the surrounding area. In determining the final proposed land uses, including location of and access to each use, maximise opportunities having consideration for the proximity of the university. 	See Section 6.0
<p>Built Form / Urban Design</p> <ul style="list-style-type: none"> The proposal must be capable of exhibiting design excellence in accordance with the provisions contained in Schedule 3, Part 5, Clause 22 of the SEPP Major Projects (2005) - The Redfern-Waterloo Authority Sites. Location of plant equipment to minimise the visual and acoustic impacts. Demonstrate that the proposed buildings will satisfy the requirements of SEPP 65 - Design Quality of Residential Flat Development. Provide street level connections between the proposed development and Wilson Street. 	See Sections 5.0 and 6.0
<p>Environmental and Residential Amenity</p> <ul style="list-style-type: none"> Address solar access, acoustic privacy, visual privacy, view loss and wind impacts and achieve a high level of environmental and residential amenity. The proposal must demonstrate that the proposed siting of buildings does not have unacceptable level of impacts on overshadowing, privacy and views of buildings within the site and on adjoining sites. 	See Section 6.0 and Appendix B, D and T



Requirement	Response
<p>Safety / Public domain I Landscaping</p> <ul style="list-style-type: none"> ■ Demonstrate how the proposed building envelopes, building design and treatment of the public domain will: <ul style="list-style-type: none"> - maximise safety, security and public surveillance within the public areas including disabled access and car park access. Specific regard should be given to the Department of Planning's Guideline; Crime prevention and assessment of development applications, 2001; - Address linkages within and between other public domain spaces, including Redfern train station; - Ensure access for people with disabilities; - minimise potential for vehicle and pedestrian conflicts. ■ Provide an arborist's report to assess the condition of existing trees proposed to be removed and methods of protection during construction. ■ Provide landscaping plan in particular for the public domain. 	See Section 6.0 and Appendix N, O and C
<p>Car parking / Traffic Impacts (Construction and Operational)</p> <p>Demonstrate the provision of sufficient on-site car parking for the proposal having regard to local planning controls and RTA guideline. The EA shall also provide a Traffic Impact Study prepared in accordance with the RTA's Guide to Traffic Generating Developments, considering traffic generation, any required road/intersection upgrades, access, loading dock(s), car parking arrangements, measures to promote public transport usage and pedestrian and bicycle linkages. The Traffic Impact Study shall address and assess:</p> <ul style="list-style-type: none"> ■ traffic generation including daily and various peak traffic movements, determining and identifying modal split targets for peak periods, and the increase in the level and type of traffic associated with the proposal; ■ impacts and resultant upgrades to street parking, the road network including laneways, arterial roads, intersections, signage and road capacity resulting from the project; cumulative impacts of adjoining and adjacent developments, where appropriate; ■ measures to be implemented to mitigate any impacts identified; ■ any required upgrading of roads and improvement works to ameliorate impacts associated with the development and the proposed source of associated funding; ■ cumulative impacts on the local and subregional area including the future development by University of Sydney, and develop a traffic network model to determine impact(s); ■ details of public transport accessibility and strategies to encourage public transport patronage, including pedestrian and cyclist flows; links to Redfern Railway Station and the future bridge link; connections to existing cycle network(s); ■ details of provisions for service and delivery vehicles movements/loading; ■ vehicular access, car parking location and bicycle arrangements, and detail proposed access points. ■ details of adequate emergency vehicle access. 	See Section 6.0 and Appendix H
<p>Ecologically Sustainable Development (ESD)</p> <p>Detail how the development will incorporate ESD principles in the design, construction and ongoing operation phases of the development.</p>	See Section 6.0

Requirement	Response
<p>Heritage</p> <ul style="list-style-type: none"> ■ Identify any items of European (including rail) heritage significance and provide a heritage impact statement in accordance with the Heritage Manual (NSW Heritage Office & DUAP 1996). Specifically, the design and form of the proposal needs to respond, and assess any impacts on the character of the surrounding conservation area and nearby heritage items. The Heritage Impact Statement should address: <ul style="list-style-type: none"> - the impact of the proposed demolitions on the significance of the subject heritage item as a whole (as a group of buildings with related uses); and - take into consideration the relevant provisions of the Conservation Management Plan (CMP) and any other relevant conservation framework and principles. ■ Identify whether the site has significance to Aboriginal cultural heritage and where applicable prepare an independent Archaeological report in accordance with the <i>Draft Guidelines for Aboriginal Cultural Heritage Impact Assessment & Community Consultation, DEC, July 2005</i>. ■ The proposal must have regard for the character of the Golden Grove Conservation Area, as listed in the South Sydney LEP with particular consideration to development along Wilson Street. 	See Sections 5.0 and 6.0 and Appendix C, N and O
<p>Rail Impacts</p> <ul style="list-style-type: none"> ■ Address noise and vibration impacts from adjacent rail activates, including mitigation and monitoring measures where appropriate, consistent with guidelines published by Rail Corp including <i>Interim Guidelines for Applicants - Consideration of Rail Noise and Vibration in the Planning Process and Interim Guidelines for Councils - Consideration of Rail Noise and Vibration in the Planning Process</i>. ■ Address the impact(s) of the proposed North Eveleigh Dive Alignment (future underground rail connection), along the southern boundary of the subject site. ■ Identify the existence of any existing RailCorp services (such as pipes and Tables) and structures within the development area by initiating the appropriate service searches, Where RailCorp services exist, an agreement must be made with RaiCorp regarding the accommodation of the services. ■ Address impacts on geotechnical and structural stability and integrity of Railcorp's facilities and corridor. ■ Demonstrate that access to Railcorp's facilities for maintenance purposes is retained. 	See Section 6.0 and Appendix R, T and U
<p>Social and Economic Impact Assessment</p> <ul style="list-style-type: none"> ■ Identify cultural, social and residential opportunities that will be provided to support the development of a sustainable community within the broader Redfern -Waterloo area. Address social impacts of the proposal. ■ The Plan must address long term social sustainability issues and address impacts on community safety, the local community impacts, and measures to ensure the minimisation of crime and antisocial behaviour. ■ Address impacts on the Aboriginal and European community within Redfern. ■ Address the economic impact of the proposal and include an investigation into the impact upon the retail, commercial and residential industry within the locality and have regard to the hierarchy of centres in the relevant regional and sub-regional strategy. 	See Section 6.0 and Appendix V and W
<p>Staging</p> <p>Include details regarding any proposed staging of the development.</p>	See Section 6.0
<p>Dedication</p> <p>Details of any proposed dedication of open space and roads to Council / ownership and maintenance proposals of the public domain.</p>	See Section 6.0

Requirement	Response
<p>Drainage and Flooding</p> <ul style="list-style-type: none"> Address drainage/flooding issues associated with the development/site, including: stormwater, drainage infrastructure and incorporation of Water Sensitive Urban Design measures. Address the issue of managing the downstream impacts of stormwater on Sydney Water's stormwater network, including a stormwater management system and the capture and reuse of rainwater. Explore non-potable water supply sources, including onsite recycling of grey water, rainwater and stormwater harvesting. Address stormwater and drainage impacts on rail corridor. 	See Section 6.0 and Appendix Y.
<p>Contamination</p> <p>The EA is to demonstrate compliance that the site is suitable for the proposed use in accordance with SEPP 55.</p>	See Section 6.0 and Appendix I and J
<p>Utilities</p> <p>In consultation with relevant agencies, address the existing capacity and requirements of the development for the provision of utilities including staging of infrastructure works.</p>	See Section 6.0 and Appendix Y and Z.
<p>Consultation</p> <p>Undertake, in accordance with the <i>Department's Major Project Community Consultation Guidelines October 2007.</i></p>	See Section 2.0

- WSP Environmental – Site Auditor
- Institute for Sustainable Future – ESD (energy and water)
- SMEC Australia Pty Ltd – Contamination
- Hill PDA – Economic Impacts
- Warren Smith and Partners– Hydraulic Services
- Bassett Consulting Engineers – Electrical and Telecommunications
- WT Partnership – Quantity Surveyor

1.5 The Proponent and Project Team

This Concept Application and Environmental Assessment has been prepared on behalf of the RWA, the proponent of the project. The North Eveleigh site is within the RWA Operational Area for which the Authority has jurisdiction.

The study consultant team for the project includes:

- Bates Smart – Concept Designer and Urban Design
- Urbis – Planning
- Weir and Phillips – Heritage
- Parsons Brinckerhoff – Transport and Traffic
- Archaeological and Heritage Management Solutions – Archaeology
- Turf Design Studio and Jeppe Aagaard Anderson (TDS +JAAA) – Landscape
- Landscape Matrix Pty Ltd – Arborist
- Jeffrey and Katauskas Pty Ltd – Geotechnical
- Redfern-Waterloo Authority – Social Impact Assessment and Consultation
- Morris Goding – Accessibility Consulting Access
- Windtech – Wind
- Acoustics Dynamics – Acoustics
- Robert Bird Group – Structural Engineer
- Steve Watson and Partners – BCA
- Whelans Insites – Survey

