

January
2009

Barangaroo Part 3A Modification Report



HEADLAND PARK AND NORTHERN COVE



Harbour Foreshore Authority



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STATEMENT OF VALIDITY

Submission of Environmental Assessment

Prepared under Part 3A of the *Environmental Planning
and Assessment Act 1979*

Environmental Assessment prepared by

Name	Nicola Gibson
Qualifications	Bachelor of Arts Graduate Diploma in Urban & Regional Planning MPIA, CPP
Address	MG Planning Pty Ltd Suite 11, 340 Darling Street BALMAIN NSW 2041
In respect of	Barangaroo Headland Park and Northern Cove

Applicant & Land Details

Applicant name	Todd Murphy
Applicant address	Sydney Harbour Foreshore Authority 66 Harrington Street The Rocks NSW 2000
Lot No, DP	Refer Table 1 in report

Environmental Assessment	An environmental assessment is attached
---------------------------------	---

Statement of Validity	I certify that I have prepared the contents of the environmental assessment in accordance with the Director-General's Requirements dated 30 June 2006 and Department of Planning letter dated 4 September 2008, and that to the best of my knowledge, the information contained in the environmental assessment is neither false nor misleading.
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Signature



Name

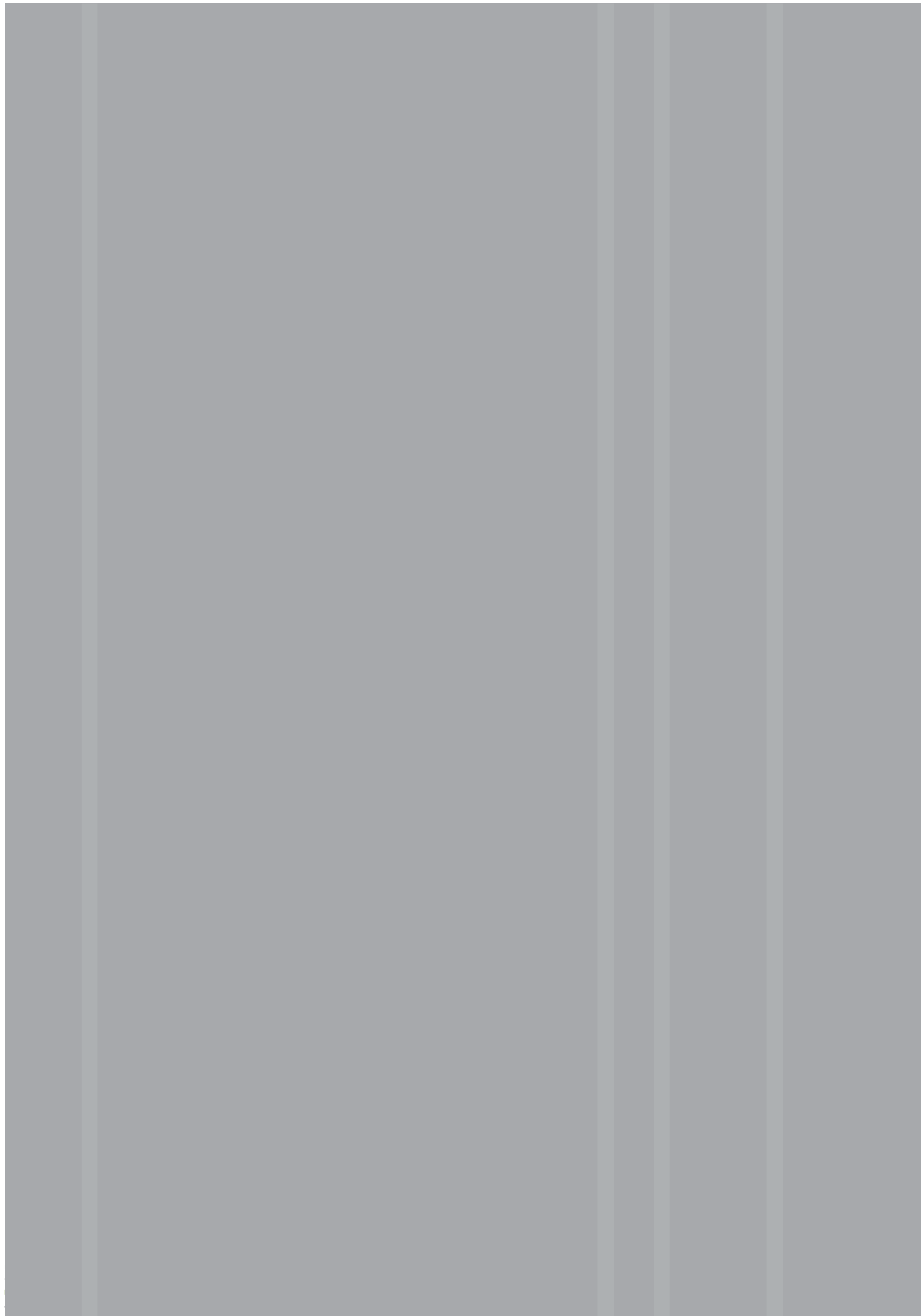
Nicola Gibson

Date

14 January 2009

GLOSSARY

Approved Concept Plan	The Concept Plan approved by the Minister on 9 February 2007
DECC	Department of Environment and Climate Change
DGR's	Director-General's Environmental Assessment Requirements
EA	Environmental Assessment
EDH	East Darling Harbour (now Barangaroo)
EOI	Expression of Interest
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
ESD	Ecologically Sustainable Development
Foreshore Authority	Sydney Harbour Foreshore Authority
GFA	Gross Floor Area (refer Section 2.2.1 for details)
HIS	Heritage Impact Statement
LEP	Local Environmental Plan
m	metre
m ²	square metres
Major Projects SEPP	State Environmental Planning Policy (Major Projects) 2005
The Minister	The Minister for Planning
Modification	The modification proposed to the Approved Concept Plan pursuant to Section 75W of the EP&A Act
MoT	Ministry of Transport
SEPP	State Environmental Planning Policy
Terms of Approval	The terms of approval issued by the Minister for the Approved Concept Plan
RFDP	Request for Detailed Proposals
RTA	Roads and Traffic Authority
Section 170 Register	A register of the heritage assets of a government agency established under Section 170 of the <i>Heritage Act 1977</i>
TAWG	Barangaroo Transport and Access Working Group
TMAP	Transport Management and Accessibility Plan
TMAP	Transport Management and Accessibility Plan



EXECUTIVE SUMMARY

In 2005 the New South Wales Government announced its intention to renew the Barangaroo site as a new harbour precinct, providing both an extension of the city's commercial centre and a significant new headland park for the people of Sydney. In October 2007 the Minister for Planning approved a Concept Plan for the site which provides for 11 hectares of foreshore parkland together with a mix of commercial, tourist, retail, residential and community uses.

In November 2008 the Minister for Planning, the Hon Kristina Keneally, announced the establishment of a new authority to oversee and manage the \$2.5 billion redevelopment of Barangaroo. The Barangaroo Delivery Authority will bring together the required expertise to manage the design and construction of the site and ensure the delivery of Barangaroo in a coordinated and financially responsible manner.

The Concept Plan dedicates the western and northern halves of Barangaroo to parkland and public open space, including a new major Headland Park and Northern Cove to be located at the northern end of the site. In accordance with the Minister's Terms of Approval for the development of Barangaroo, a more naturalised design for the northern headland is now proposed which is intended to better reflect the natural headlands and bays which are characteristic of Sydney Harbour. The modified design for the Headland Park and Northern Cove will require the following changes to the Approved Concept Plan:

- With the enlargement of the Northern Cove there will be a need for the new street referred to as "Globe Street" to turn towards Hickson Road rather than continue northwards around the headland. It will also necessitate the removal of Block 8 and part of Block 7;
- The building up of the headland to achieve a more naturalised form and the enlarged cove will require the demolition of three items which are listed on Sydney Ports and Sydney Water Section 170 Heritage Registers — the Sydney Ports Harbour Control Tower, the MWS&DB Sewage Pumping Station and the sandstone seawall along the north-western edge of the site.

It is also proposed to amend the Statement of Commitments in the Approved Concept Plan to allow for minor procedural changes and to address issues arising from this modification.

In light of these changes, the Authority is now seeking the Minister's approval to modify the Approved Concept Plan under Section 75W of the *Environmental Planning and Assessment Act 1979* ("the EP&A Act").

The proposed modification will not impact on the relationship of the public domain to the urban area or on the distribution of land uses. The western and northern halves of the site will remain parkland and public open space. In fact, the extension of the northern cove and the removal of Block 8 and part Block 7 will result in an increase in the overall amount of parkland to be provided on the site.

Similarly, the proposed new foreshore promenade will remain in place, with the enlarged northern cove providing greater opportunity for people to experience the water's edge.

In terms of the urban structure, the re-routing of Globe Street does not significantly impact on the distribution of land uses. Similarly, in traffic terms the removal of Globe Street between Barangaroo south and the headland park and its public car park is unlikely to materially alter the distribution of traffic accessing the site. However, the concept of the Globe Street axis being retained in some form, for example, as a lightweight bridge, floating dock, pontoon or other device, across the northern cove will be explored as part of the detailed design phase.

The three heritage items to be removed to allow for the built up headland are listed on agency section 170 registers and, in the case of the MWS&DB Sewage Pumping Station, in the Sydney Local Environmental Plan 2005. None of the items is listed on the State Heritage Register. Archival recording, storage and/or possible re-use within the parkland of the items is proposed. With respect to the Harbour Control Tower, the Sydney Ports Corporation has advised that it does not object to its removal provided that it only occurs after it has found suitable alternative locations for the equipment currently operating from the tower and operational staff have been relocated.

With the removal of Block 8 and part of Block 7, there will be a small reduction in the overall amount of floorspace of approximately 18,800m². However, this is considered acceptable given that:

- their removal will allow an enlarged northern cove and will open up views from Millers Point;
- the reduction in floorspace represents less than 5% of the total floorspace permissible on the site.

An assessment of the impact of the changes arising from the reconfigured northern headland is provided in Chapter 6 of the report and additional commitments to address specific issues have been included in the Statement of Commitments at Chapter 7. However, the opportunity to create an iconic headland park and an enlarged harbour inlet as proposed in this modification is considered any impacts that may result.

1. INTRODUCTION

1.1 Purpose of Report

The Barangaroo site, located on the western fringe of Sydney's CBD, is a major initiative of the New South Wales Government which will see the area redeveloped as a new harbour precinct, providing both an extension of the city's commercial centre and a significant new headland park for the people of Sydney.

The Concept Plan for the site was approved by the Minister for Planning ("the Minister") in February 2007. It provides for 11 hectares of foreshore parkland together with a mix of commercial, tourist, retail, residential and community uses.

The Concept Plan dedicates the western and northern halves of Barangaroo to parkland and public open space. The proposed Headland Park and Northern Cove will be located in the northern part of the site and "will create an iconic place that reflects its prominent location in the string of harbour headlands that include, among many others, Mrs Macquarie Point, Ballast Point, Balls Head and Goat Island" ("Barangaroo Consolidated Concept Plan 2007", Sydney Harbour Foreshore Authority, p.72).

Figure 1. Site Location



The Minister's *Terms of Approval and Modifications* for the Concept Plan included specific conditions requiring further detailed design for the northern headland and northern cove as follows:

B1. Public Domain — Northern Headland

- (1) *Noting the jury report recommendations on the competition winning design scheme, further detailed design plans for the northern headland are to be provided to the Department prior to or concurrently with the lodgement of the first project application for major public domain works. These are to be to the written satisfaction of the Director General.*
- (2) *The plans identified in (1) above are to address the following requirements and objectives:*
 - (a) *the reinstatement of a headland at the northern end of the site with a naturalised shape and form including a build up of height and a generous landscaped connection to physically link Clyne Reserve, to allow direct pedestrian access from Argyle Place and appreciation of the landform of the former headland;*
 - (b) *encourage pedestrian permeability along the foreshore, with links to Hickson Road, Argyle Place, Towns Place and "Globe Street";*
 - (c) *ensure adequate viewing of the park from "Globe Street" to enhance security while limiting vehicular access into and through the park;*
 - (d) *a welcoming aspect when approaching the northern headland from the south along "Globe Street" and Hickson Road, in landform, materials, accessibility and view lines;*
 - (e) *public safety through the day and night considering surveillance, lighting, planting and materials; and*
 - (f) *the impact on and the treatment of the Sewage Pumping Station.*
- (3) *The above redesign may include provision of a public car park within the headland.*

B2. Public Domain — Northern Cove

- (1) *Noting the jury report recommendations on the competition winning design scheme, further detailed design plans for the Northern Cove located opposite Munn Street are to be provided to the Department prior to or concurrently with the lodgement of the first project application for major public domain works. These are to be to the written satisfaction of the Director General.*
- (2) *The plans identified in (1) above are to address the following requirements and objectives:*
 - (a) *an enlargement of the water intrusion; and*
 - (b) *a greater naturalised shape, form and edges including treatment surrounding the cove.*

In accordance with these requirements the Sydney Harbour Foreshore Authority ("the Foreshore Authority") has been recently progressing the more detailed design for the northern part of the Barangaroo site. As a result, a more naturalised design for the Headland Park and an enlarged Northern Cove are now proposed which are intended to better reflect the natural headlands and bays which are characteristic of Sydney Harbour. The modified design for the Headland Park and Northern Cove will require the following changes to the Approved Concept Plan:

- With the enlargement of the Northern Cove there will be a need for Globe Street to turn towards Hickson Road rather than continue northwards around the headland. It will also necessitate the removal of Block 8 and part of Block 7;
- The building up of the headland to achieve a more naturalised form and the enlarged cove will require the demolition of three items which are listed on Sydney Ports and Sydney Water Section 170 Heritage Registers — the Sydney Ports Harbour Control Tower, the MWS&DB Sewage Pumping Station and the sandstone seawall along the north-western edge of the site.

It is also proposed to amend the Statement of Commitments to allow for minor procedural changes and to address issues arising from this modification.

In light of these changes, the Authority is now seeking the Minister's approval to modify the Approved Concept Plan under Section 75W of the *Environmental Planning and Assessment Act 1979* ("the EP&A Act").

The Director-General of the Department of Planning issued Environmental Assessment Requirements ("DGRs") for the Concept Plan on 7 July 2006, a copy of which is provided at Appendix 1. In relation to the proposed modification, the Department of Planning advised by letter dated 4 September 2008 that these requirements do not need amendment however the Environmental Assessment for the modification should pay particular attention to the following issues:

- Urban design, development controls and land uses;
- Transport and access;
- Streetscape and public domain;
- Heritage;
- Social and community.

A copy of the Department's letter is provided at Appendix 2.

This report includes the following information relevant to the project and as set out in the EA Requirements:

- A Statement of Validity of the environmental assessment;
- An executive summary;
- A description of the proposed modifications to the approved Concept Plan;
- The existing planning provisions applying to the site, including the permissibility of the proposed modification and how it will achieve planning objectives;
- Justification for undertaking the proposed modification, including consideration of the suitability of the site and whether the project is in the public interest;
- Assessment of the environmental impacts and key issues and proposed mitigation and management of any adverse impacts; and
- Amendments to the Statement of Commitments reflecting the changed proposal and associated environmental management and mitigation measures.

The project team for the preparation of this environmental assessment for the modification has comprised:

Proponent	Sydney Harbour Foreshore Authority
Urban Planning	MG Planning Pty Ltd
Traffic and Transport	Masson Wilson Twiney
Landscape	Context
Urban Design	Conybeare Morrison International
Modelling and Montages	Arterra
Heritage	City Plan Heritage
Remediation Strategy	ERM

1.2 Site and Surrounds

1.2.1 Site Overview

Barangaroo is located on the north western edge of the Sydney Central Business District, bounded by Sydney Harbour to the west and north; the historic precinct of Millers Point for the northern half, The Rocks and the Sydney Harbour Bridge approach to the east; and bounded to the south by a range of new development dominated by large CBD commercial tenants. It has a 1.4 kilometre harbour foreshore frontage, with an eastern street frontage to Hickson Road.

Figure 2. Barangaroo Site



The Barangaroo site has been extensively and regularly modified over time to meet the changing requirements of trade and commerce for the city, and the changing technologies for cargo handling. The hardstand apron visible today was constructed in stages from the 1960s as a response to containerisation of shipping cargo. In the process the original Millers Point headland was cut away and the shore sheds that had defined the site as a 19th and 20th century harbour port were demolished. The site today therefore provides little physical connection to either its natural or industrial past. The site contains only one landscaped area (Munn Street Park) located to the north of Dalgety's Bond Store.

Most recently, much of the site has been cleared of buildings in preparation for its redevelopment.

The site's legal description and ownership are shown in Table 1 and Figure 3.

Table 1. Legal Description and Ownership

Legal Description	Land Ownership
Lot 1 DP 876514	Marine Ministerial Holding Corporation
Lot 2 DP 876514	Sydney Ports Corporation
Lot 3 DP 876514	Sydney Harbour Foreshore Authority
Lot 4 DP 876514	Sydney Ports Corporation
Lot 5 DP 876514	Sydney Harbour Foreshore Authority
Lot 6 DP 876514	Marine Ministerial Holding Corporation
Lot 7 DP 43776	Crown (Gov. Gaz. 30.7.1982 Fol 3503)
Lot 100 DP 838323	The Maritime Services Board of NSW
Lot 7 DP 869022	The State of New South Wales
Lot 6 DP 869022	Marine Ministerial Holding Corporation

Figure 3. Cadastral Details



1.2.2 The Site

The site of the Headland Park is surrounded by water to the north and west and occupies an area of approximately 3.5 hectares situated at the northern tip of the Barangaroo Precinct. The site lies immediately adjacent to the curtilage of the relocated Moores Wharf and the sandstone cliff of Millers Point which rises approximately 18m above.

The northern-most part of the shoreline originally jutted into the harbour to the west forming a headland with a large hill on the point. However, today the headland has been largely removed. Behind the site today there is a large sheer cliff; originally the rocky landscape would have joined the shoreline much less dramatically. Nearby Balls Head and Berry Island Reserve are comparable to the topography of the original shoreline.

The Headland Park site is now a vast, gently sloping hard stand apron (RL+2.4 to +3.2), having been created through cutting of the indigenous sandstone landform, filling and construction of sea walls and concrete decking. Since the demolition of large-scale storage sheds related to cargo operations in early 2008, few physical elements remain on site.

View from Balls Head, Waverton



View from East Balmain



View looking north from Clyne Reserve



View of Clyne Reserve from Dalgety Road



View looking south from Harbour Control Tower



2. BACKGROUND

2.1 International Urban Design Competition

Following the NSW Government's announcement of its intention to launch and commit to the Barangaroo Project, an international urban design competition was held during 2005 and 2006 that provided a forum to debate the possibilities of renewal at Barangaroo. The Competition comprised two stages with the proposal by Hill Thalys Architecture + Urban Projects, Paul Berkemeier Architects and Jane Irwin Landscape Architecture being judged the winning scheme.

The Competition jury noted with respect to the winning scheme:

The scheme is grounded in a unique vision for 'completing the western edge of the city' by creating:

- *a new civic boulevard connecting East Darling Harbour to Walsh Bay and King Street Wharf;*
- *a grand harbourside park along the entire length of the waterfront; and*
- *a vibrant new commercial quarter integrated with the CBD.*

In developing the scheme beyond its current concept the Jury recommends that the following elements be integrated in the next phase of the project:

- *a natural headland form which touches the water at the northern end of Barangaroo;*
- *a large northern cove located directly behind the headland to further define the headland; and*
- *a larger intervention of the southern cove, located north of Napoleon Street.*

The winning Competition entry and the jury's comments have been addressed in the subsequent concept planning and approval processes.

2.2 The Planning Framework

On 27 March 2006 the Minister advised that the Barangaroo site was to be considered a potential State significant site for inclusion in Schedule 3 of State Environmental Planning Policy (Major Projects) 2005 and confirmed the project as a Major Project subject to Part 3A of the EP&A Act.

In accordance with Section 75F of the EP&A Act, on 7 July 2006 the Director-General of the Department of Planning issued the requirements for the preparation of a study to justify nomination of the site as a State Significant Site and for the Environmental Assessment to accompany a Concept Plan for the Project.

In October 2006, the Foreshore Authority submitted the State significant site study, the Concept Plan and Environmental Assessment to address the Director-General's requirements.

On 9 February 2007 the Minister approved the Concept Plan for the site and on 12 October 2007 the land was rezoned to facilitate its redevelopment via an amendment to Schedule 3 of the Major Projects SEPP. A copy of the Minister's Terms of Approval is included at Appendix 3.

2.2.1 The Approved Concept Plan

The Approved Concept Plan provides definition to the project principles and establishes the detailed planning framework which will be used by the Minister to assess future development proposals within the Barangaroo site.

The Terms of Approval for the Concept Plan contemplate:

- An urban structure, including the public domain, street pattern and the development block patterns within the mixed use zone;
- 11 hectares of foreshore promenade and public domain, including a new Headland Park at the northern end of Barangaroo;
- A mixed use development involving a maximum of 388,300m² of gross floor area¹ (GFA) within the mixed use zone comprised of:
 - (a) a maximum of 97,075m² (or 25%) and a minimum 58,245m² residential GFA²;
 - (b) a maximum of 50,000m² GFA for tourist uses³;
 - (c) a maximum of 39,000m² GFA for retail uses⁴;
 - (d) a minimum of 2,000m² GFA for community uses⁵.
- The mixed use zone being developed in eight development blocks, each within an approved building envelope;
- New Northern Cove and Southern Cove insertions;
- Restricted car parking for the commercial (office) use; and
- An underground car park at the northern end of Barangaroo to ensure community access to the Headland Park.

¹ 'Gross floor area' means "the sum of the floor area of each storey of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4m above the floor, and includes:

- (a) the area of a mezzanine within the storey, and
- (b) habitable rooms in a basement, and
- (c) any shop, auditorium, cinema, and the like, in a basement or attic, but excludes:
- (d) any area for common vertical circulations, such as lifts and stairs, and
- (e) any basement:
 - (i) storage, and
 - (ii) vehicular access, loading areas, garbage and services, and
- (f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and
- (g) car parking to meet any requirements of the consent authority (including access to that car parking), and
- (h) any space used for the loading or unloading of goods (including access to it), and
- (i) terraces and balconies with outer walls less than 1.4m high, and
- (j) voids above a floor at the level of a storey or storey above.

² 'Residential' uses include residential accommodation, multi-unit housing, residential flat buildings, seniors housing, shop-top housing and boarding houses, as defined in SEPP (Major Projects) 2005.

³ 'Tourist' uses include backpackers' accommodation, bed and breakfast accommodation, hotel accommodation and serviced apartments, as defined in SEPP (Major Projects) 2005. Serviced apartments are only permitted to be included in the 'tourist uses' GFA if they are in single ownership and are not strata titled (refer to Condition B6(1) of the Barangaroo Concept Plan Determination.

⁴ 'Retail' uses include food and drink premises, retail premises, markets and pubs, as defined in SEPP (Major Projects) 2005.

⁵ 'Community' uses include child-care centres, community facilities, educational establishments, entertainment facilities (other than cinemas and amusement centres), information and education facilities (major, outdoor and indoor) as defined in SEPP (Major Projects) 2005.

Figure 4. Approved Concept Plan



The urban design structure for Barangaroo provides for the creation of major new parklands on the harbour edge of which there are three types: the Headland Park, the Playfields and the Urban Waterfront. The Approved Concept Plan identifies the following objectives for the parklands:

- Create a continuous foreshore parkland that defines the western edge of the city, supports public life, and provides a variety of recreation and tourism opportunities.
- Create a new interface and relationship between the land and the water.
- Provide a variety of landscape types and experiences;
- Provide the capability of retaining and treating stormwater before it flows into the harbour.

As noted above, the Approved Concept Plan also outlines further modifications that will be required prior to or concurrently with the lodgement of the first project application for major Public Domain Works. These include the further design of:

- the Headland Park;
- the Northern Cove to enlarge the water body and achieve a more naturalised shape; and
- the Southern Cove to enlarge and activate the cove edge,.

2.2.2 Part 3A Modification June 2008

In June 2008 the Authority submitted an application under Section 75W of the EP&A Act for the Minister's approval to modify the Approved Concept Plan to allow additional commercial floorspace on Blocks 2, 3, 4 and 5. An additional 50,000m² to 120,000m² GFA is being sought which will be accommodated within the Block Envelopes provided for under the Minister's Terms of Approval.

The Modification Application for the additional commercial floorspace was publicly exhibited from 16 July to 15 August 2008. A total of 64 submissions were received during the exhibition period. In response to the issues raised in submissions, the Foreshore Authority prepared a Preferred Project Report which was submitted to the Department of Planning in October 2008 and is currently under consideration.

The subject Part 3A Modification Application for the Headland Park and Northern Cove does not impact on the changes being sought in the June 2008 Part 3A Modification Application.

2.2.3 Schedule 3 of SEPP (Major Projects) 2005

To provide a statutory planning framework for the Barangaroo Project, Barangaroo was designated as a State Significant Site and rezoned for mixed use and public domain purposes through amending Schedule 3 of SEPP (Major Projects) 2005. A copy of the relevant provisions is provided at Appendix 4.

The key planning controls for Barangaroo under the SEPP include:

- Zoning of the site to part RE1 Public Recreation and part B4 Mixed Use;
- Stipulation of maximum building heights and maximum GFA for buildings;
- Provisions relating to the achievement of design excellence and heritage conservation.

Figure 5. Parklands under Approved Concept Plan



Figure 11.4 – Parklands

Note 1: Detailed design objective of northern cove is to enlarge the water intrusion and provide greater naturalised shape, form and edges

Note 2: Detailed design objective of southern cove is to enlarge water intrusion east of "Globe Street".

Note 3: Detailed design objective of northern headland is to reinstate a headland with a naturalised shape and form physically linked to Clyde Reserve. Design may include a public carpark.

Legend

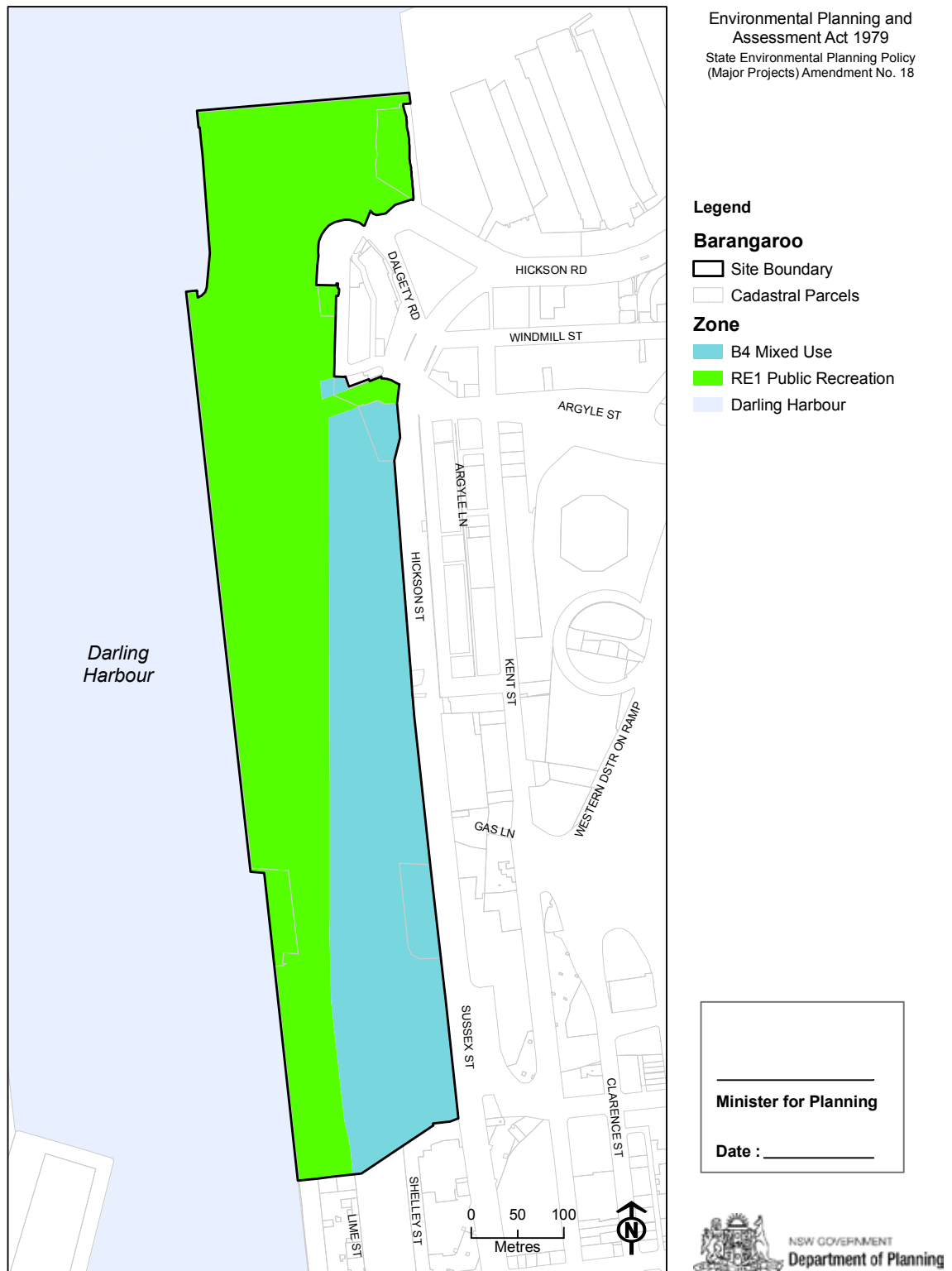
- Site boundary
- The Parklands:
- Headland Park
- Playfields
- Urban Waterfront
- Pedestrian connection to Clyde Reserve (subject to detailed design)

scale 1:5000

0 25m 100m 200m



Figure 6. Zoning under Major Projects SEPP



2.3 Recent Activity

2.3.1 Demolition

The four large storage sheds located on the site were demolished by Cardinal Project Services in 2008. Independent monitoring of the demolition works was undertaken to ensure compliance with requirements set by the Department of Planning, Department of Environment and Climate Change and Department of Health. The Department of Planning has also confirmed it is satisfied with the demolition work methods, following site visits during 2008.

2.3.2 Stage 1 Development Offering

The Stage 1 development offering will grant development rights to a company or consortia for:

- The design, development and marketing of Development Blocks 1, 2, 3 and 4,;
- The design and development of Public Domain, including the Southern Cove, and waterfront parklands and foreshore promenade adjoining Development Blocks 1, 2, 3 and 4;
- The delivery of infrastructure to support Development Blocks 1 to 4 and adjoining Public Domain;
- The remediation of land comprising Development Blocks 1 to 4 and adjoining Public Domain, the Southern Cove, Development Block 5 (and adjoining Public Domain) and possibly certain parts of Hickson Road.

A shortlist of companies has been announced to be considered to develop and build the project. The three consortia are:

- Lend Lease and Westpac Corporation
- Brookfield Multiplex
- Mirvac Projects; Leighton Projects; Nakheel PJSC; and Macquarie Property Development and Finance

These consortia have been invited to prepare more detailed design and development proposals and a preferred consortium will be selected in late 2009.

2.3.3 Expression of Interest for the Public Domain

The Foreshore Authority intends to call for EOIs for the design of the public domain from urban design, architecture and landscape companies. The public domain design EOI is the first part of a two-part selection process. The second stage will involve a Request for Proposals from short-listed teams.

Figure 7. Stage 1 Development Offering



2.4 Consultation

The Foreshore Authority has consulted and sought feedback from a range of Government departments and authorities in relation to the proposed amendments to the Concept Plan. Those organisations include the Ministry of Transport, the Roads and Traffic Authority and the Sydney Ports Authority. Details of the consultation are provided in Table 2 below.

Table 2. Consultation with Government Agencies

Organisation	Date/Correspondence	Issues/Discussion	Foreshore Authority response
Roads and Traffic Authority	26 August 2008 Email to RTA	Traffic summary report prepared by Masson Wilson Twiney and forwarded through to RTA.	No comment required — note sent for introductory briefing purposes.
	3 September 2008 Telephone discussion between MWT and RTA.	The proposal and the traffic implications were discussed. RTA did not note any concerns.	Nil
Ministry of Transport	22 August 2008 Email to MoT	MoT advised that RTA should be contacted.	Nil
Sydney Ports Consultation	Meeting held with Sydney Ports 28 August 2008	Meeting held with the Sydney Ports Corporation where the possible removal of the Sydney Harbour Control Tower was discussed.	Nil
	Emailed received 12 September 2008	Confirmation received from the Sydney Ports Corporation that the Sydney Harbour Foreshore Authority has carried out adequate consultation for the proposed modification. Endorsement for the removal of the Harbour Control Tower was obtained provided it is clearly referenced that the <i>"removal of the HCT will be after Sydney Ports has found suitable alternative locations for the equipment currently operating from the tower and staff have been relocated."</i>	Accepted

As per commitments 99 and 101 in the Statement of Commitments, the Foreshore Authority will continue to consult with the local community about the proposed changes to the Concept Plan. Both the Millers Point Community Resident Action Group and Barangaroo Community Watch will be offered briefings on the proposed amendments early in the public exhibition period.



3. PROPOSED MODIFICATIONS

3.1 Proposed Modification

Under the Minister's Terms of Approval for the Approved Concept Plan, both the Headland Park and the Northern Cove are to be subject to further detailed design plans. Conditions B1 and B2 of the Terms of Approval state as follows:

B1. Public Domain — Northern Headland

- (1) *Noting the jury report recommendations on the competition winning design scheme, further detailed design plans for the northern headland are to be provided to the Department prior to or concurrently with the lodgement of the first project application for major public domain works. These are to be to the written satisfaction of the Director General.*
- (2) *The plans identified in (1) above are to address the following requirements and objectives:*
 - (a) *the reinstatement of a headland at the northern end of the site with a naturalised shape and form including a build up of height and a generous landscaped connection to physically link Clyne Reserve, to allow direct pedestrian access from Argyle Place and appreciation of the landform of the former headland;*
 - (b) *encourage pedestrian permeability along the foreshore, with links to Hickson Road, Argyle Place, Towns Place and "Globe Street";*
 - (c) *ensure adequate viewing of the park from "Globe Street" to enhance security while limiting vehicular access into and through the park;*
 - (d) *a welcoming aspect when approaching the northern headland from the south along "Globe Street" and Hickson Road, in landform, materials, accessibility and view lines;*
 - (e) *public safety through the day and night considering surveillance, lighting, planting and materials; and*
 - (f) *the impact on and the treatment of the Sewage Pumping Station.*
- (3) *The above redesign may include provision of a public car park within the headland.*

B2. Public Domain — Northern Cove

- (1) *Noting the jury report recommendations on the competition winning design scheme, further detailed design plans for the Northern Cove located opposite Munn Street are to be provided to the Department prior to or concurrently with the lodgement of the first project application for major public domain works. These are to be to the written satisfaction of the Director General.*
- (2) *The plans identified in (1) above are to address the following requirements and objectives:*
 - (a) *an enlargement of the water intrusion; and*
 - (b) *a greater naturalised shape, form and edges including treatment surrounding the cove.*

To this end, the Foreshore Authority has undertaken further work with the assistance of Context Landscape Design and Conybeare Morrison International Pty Ltd, on the detailed design of the Headland Park and Northern Cove. As a result, a more naturalised design for the Headland Park and an enlarged Northern Cove are now proposed, the details of which are discussed in Chapter 5. The modified design for the Headland Park and Northern Cove will require the following changes to the Approved Concept Plan:

- With the enlargement of the Northern Cove there will be a need for Globe Street to turn towards Hickson Road rather than continue northwards around the headland. It will also necessitate the removal of Block 8 and part of Block 7;
- The building up of the headland to achieve a more naturalised form and the enlarged cove will require the demolition of three items which are listed on Sydney Ports and Sydney Water Section 170 Heritage Registers — the Sydney Ports Harbour Control Tower, the MWS&DB Sewage Pumping Station and the sandstone seawall along the north-western edge of the site.

It is also proposed to amend the Statement of Commitments to allow for minor procedural changes and to address issues arising from this modification.

Figure 8. Barangaroo Public Domain Plan showing Modified Northern Headland



Figure 9. Modified Northern Headland



3.1.1 Headland Park and Northern Cove

As noted above, the new proposal for the northern headland favours a more naturalistic shape based on the natural headlands which characterise Sydney Harbour. The proposal involves raising the terrain in a naturalistic form from the sea wall up to Clyne Reserve and Merriman Street. The curve of the Headland Park will extend to an enlarged northern cove at the southern end of the headland.

An underground car park will be concealed under the park. The car park entry would be located on Dalgety Road with pedestrian access from both Dalgety Road and Merriman Street.

Figure 10 shows the reconfiguration of the Headland Park and Northern Cove. Further details regarding the landscape vision and design for the Headland Park and Northern Cove are provided in the Landscape Statement prepared by Context at Appendix 5 and A3 plans at Appendix 10.

The key differences between the northern headland concept under the Approved Concept Plan and that proposed under this Modification Application are shown below.

Figure 10. Comparison of Approved Concept Plan and Proposed Modification

Approved Concept Plan



CCP Design Proposals — Not to Scale

Current Proposal



Current Design Proposals — Not to Scale
(indicative only)

It is important to note that the configuration shown here is indicative only. The final configuration of the Headland Park and Northern Cove is subject to further design refinement by the successful public domain tenderer in liaison with the Foreshore Authority.

3.1.2 Removal of Heritage Items

The reconfiguration of the northern headland as proposed will require the demolition of three heritage items:

1. the MWS&DB Sewage Pumping Station listed in Sydney LEP 2005 and on the Sydney Water and Sydney Ports Section 170 Heritage Registers;
2. the sandstone seawall listed on the Sydney Ports Section 170 Heritage Register; and
3. the Sydney Ports Harbour Control Tower listed on the Section 170 Heritage Register.

None of these items are listed on the State Heritage Register. An addendum to the Heritage Impact Statement that accompanied the Approved Concept Plan addressing the potential heritage impacts of the subject proposed modifications is provided at Appendix 6 and discussed in Section 6.5.

As discussed in 2.4, the Foreshore Authority has consulted with the Sydney Ports Corporation regarding the demolition of the Harbour Control Tower. The Sydney Ports Corporation has advised that it does not object to the removal of the tower provided that it only occurs after it has found suitable alternative locations for the equipment currently operating from the tower and operational staff have been relocated.

3.1.3 Re-alignment of “Globe Street”

The enlargement of the northern cove and the creation of the elevated headland will require Globe Street to turn towards Hickson Road south of the cove instead of heading northward around the headland. This is shown in Figure 11. Justification for, and the implications of, this change are discussed in Chapters 5 and 6.

3.1.4 Modification to Blocks

The Approved Concept Plan provides for the eastern section of the Barangaroo site to be developed as a new mixed use precinct, divided into a series of development blocks (Blocks 1 to 8). The proposed expanded northern cove will extend into the area currently designated as Block 8 and part of Block 7 under the approved scheme and under the Major Projects SEPP (Amendment 18). The Approved Concept Plan currently allows for the following:

- Block 8 — 5,800m² GFA for tourist uses
- Block 7 — 28,000m² GFA for a mix of residential, retail, community and business uses, with a minimum of 22,500m² of residential (no minimum specified for other uses).

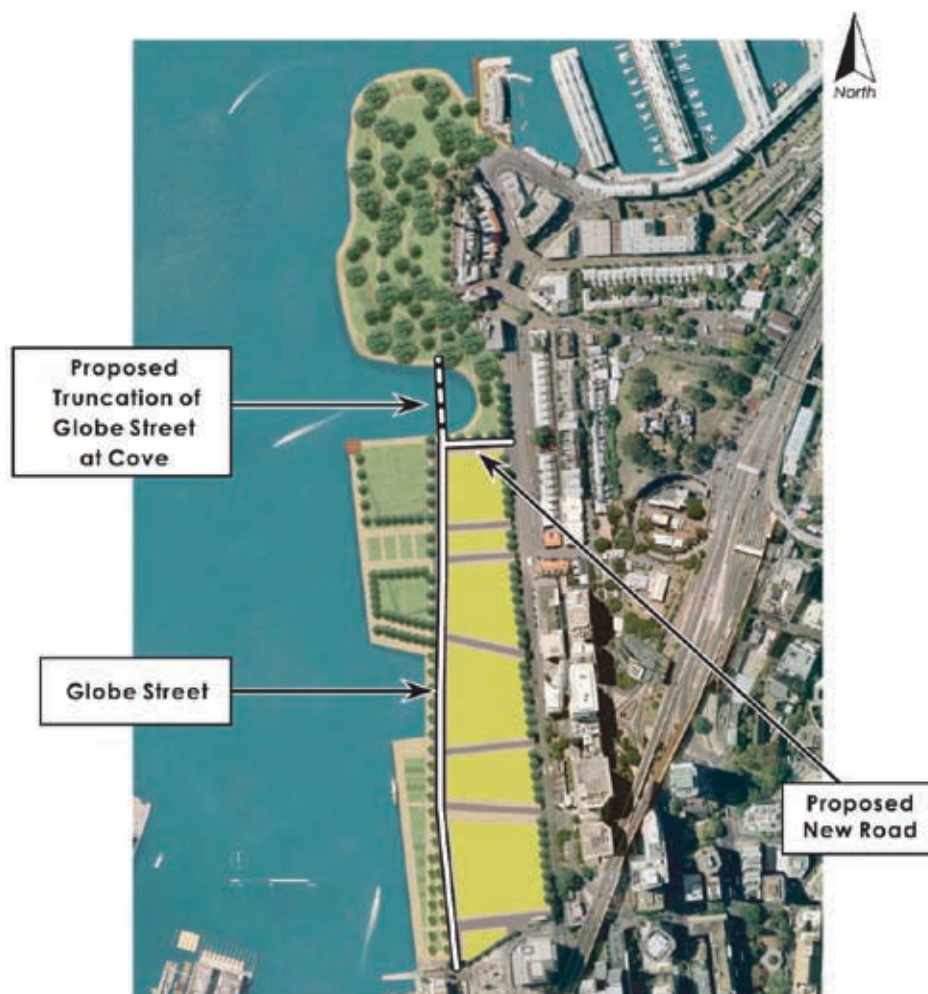
To accommodate the new Northern Cove it will be necessary to modify the Approved Concept Plan to remove Block 8 and part of Block 7. The proposed amendment is shown in Figure 12.

The total amount of floorspace remaining for Block 7 will be 15,000m². The revised distribution of floorspace for Block 7 is proposed as follows:

Table 3. Redistribution of maximum permitted GFA and land use on Block 7

Block Area (m ²)	Max GFA per block (m ²)	Max GFA (m ²)			
		Business	Residential	Retail	Community
5,960	15,000	0	14,000	250	750

Figure 11. Change to Globe Street



The removal of Block 8 and part of Block 7 to accommodate the enlarged northern cove will correspondingly result in a reduction in the total site GFA of 388,300m² provided for under the Approved Concept Plan to 369,500m² which equates to a 5% decrease in the overall floorspace. With respect to the proposed modification for the increased commercial floorspace, the removal of Block 8 and part Block 7 will reduce the overall maximum permissible GFA to 489,500m² or a 4% decrease in the total floorspace.

The revised development blocks based on the two modifications i.e. the commercial floorspace modification and the northern headland/northern cove modification, is shown in Figure 12.

3.1.5 Statement of Commitments

Some minor changes are proposed to the Statement of Commitments in the Approved Concept Plan. These minor changes are procedural only and are intended to allow for the preparation of separate plans/strategies as applicable so that works can commence in stages.

A number of other changes are proposed to address issues arising from the proposed modification. The modified Statement of Commitments is provided in Chapter 7 with text to be deleted shown as struck through, new text shown in bold.

3.2 Determination of Future Applications

In accordance with the Minister's Terms of Approval for the Concept Plan, development with a capital investment value of less than \$5 million (other than development for the purpose of open space) is subject to Part 4 or Part 5 of the EP&A Act, whichever is applicable. This is likely to include demolition works, site preparation and the like. Major projects on the site however will continue to be determined in accordance with Part 3A of the EP&A Act.

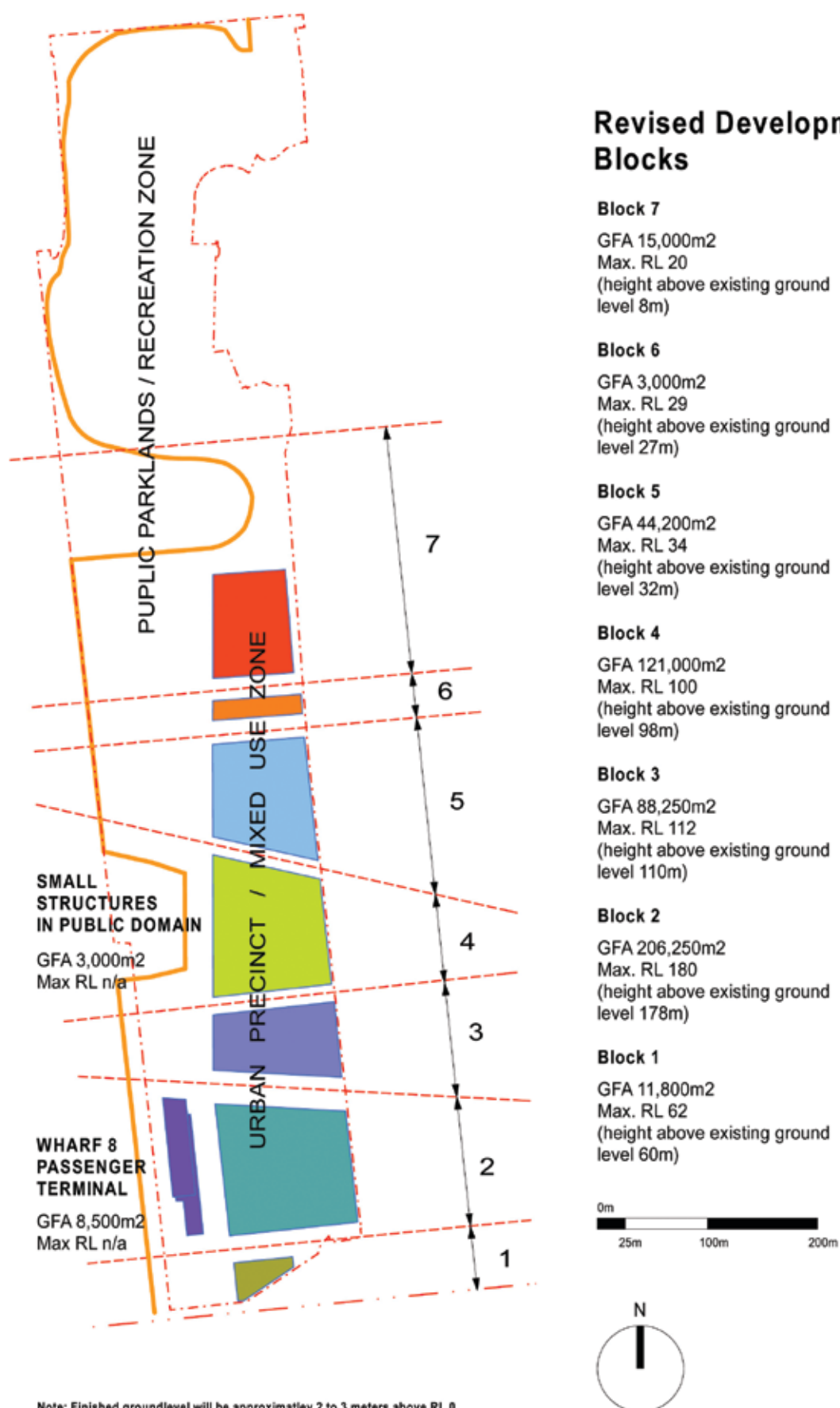
3.3 Proposed Changes to Terms of Approval

To allow for the reconfiguration of the Headland Park and Northern Cove, a number of conditions stipulated in the Terms of Approval will need to be correspondingly amended (text to be deleted shown as struck through, new text shown in bold). The following table shows the proposed changes needed to accommodate this subject public domain modification however for ease of comprehension it does not show the changes proposed as a result of the commercial floorspace modification (June 2008). These changes are being considered separately as part of the Preferred Project Report.

3.4 Major Projects SEPP

No changes are required to the Major Projects SEPP to facilitate the modification.

Figure 12. Revised Development Blocks



Note: Finished groundlevel will be approximately 2 to 3 meters above RL 0

Proposed Changes to Minister's Terms of Approval (Incorporating both June 2008 Part 3A Modification and Part 3A Modification — Northern Headland/Northern Cove)

Terms of Approval issued by Minister	Proposed Modification
<p>A1. Development Description</p> <p>Concept approval is granted only to the carrying out of the development solely within the Concept Plan area as described in the document titled "East Darling Harbour State Significant Site Proposal, Concept Plan & Environmental Assessment (Volume 1 & 2)" prepared by JBA Urban Planning Consultants & SHFA (dated October 2006) including:</p> <ol style="list-style-type: none"> (1) A mixed use development involving a maximum of 388,300m² GFA, comprised of: <ol style="list-style-type: none"> (a) a maximum of 97,075m² (or 25%) and a minimum of 58,245m² (or 15%) residential GFA; (b) a maximum of 50,000m² GFA for tourist uses; (c) a maximum of 39,000m² GFA for retail uses; and (d) a minimum of 2,000m² GFA for community uses. (2) Approximately 11 hectares of new public open space/public domain, with a range of formal and informal open spaces serving separate recreational functions and including a 1.4km public foreshore promenade. (3) A maximum of 8,500m² GFA for a passenger terminal and a maximum of 3,000m² GFA for active uses that support the public domain within the public recreation zone. (4) Built form design principles, maximum building heights and GFA for each development block within the mixed use zone. (5) Public domain landscape concept, including parks, streets and pedestrian connections. (6) Alteration of the existing seawalls and creation of a partial new shoreline to the harbour. (7) Retention of the existing Sydney Ports Corporation Port Safety Operations and Harbour Tower Control Operations including employee parking. 	<p>A1. Development Description</p> <p>Concept approval is granted only to the carrying out of the development solely within the Concept Plan area as described in the document titled "East Darling Harbour State Significant Site Proposal, Concept Plan & Environmental Assessment (Volume 1 & 2)" prepared by JBA Urban Planning Consultants & SHFA (dated October 2006) and as amended by Barangaroo Part 3A Modification Report — Headland Park and Northern Cove (dated September 2008) including:</p> <ol style="list-style-type: none"> (1) A mixed use development involving a maximum of 388,300m² GFA, comprised of: <ol style="list-style-type: none"> (a) a maximum of 97,075m² (or 25%) and a minimum of 58,245 m² (or 15%) residential GFA; (b) a maximum of 50,000m² GFA for tourist uses; (c) a maximum of 39,000m² GFA for retail uses; and (d) a minimum of 2,000m² GFA for community uses. (2) Approximately 11 hectares of new public open space/public domain, with a range of formal and informal open spaces serving separate recreational functions and including a 1.4km public foreshore promenade. (3) A maximum of 8,500m² GFA for a passenger terminal and a maximum of 3,000m² GFA for active uses that support the public domain within the public recreation zone. (4) Built form design principles, maximum building heights and GFA for each development block within the mixed use zone. (5) Public domain landscape concept, including parks, streets and pedestrian connections. (6) Alteration of the existing seawalls and creation of a partial new shoreline to the harbour. (7) Retention of the existing Sydney Ports Corporation Port Safety Operations and Harbour Tower Control Operations including employee parking.
<p>A2. Development in Accordance with Plans and Documentation</p> <ol style="list-style-type: none"> (1) The following plans and documentation (including any appendices therein) are approved as part of the Concept Plan: <ol style="list-style-type: none"> (a) East Darling Harbour State Significant Site Proposal Concept Plan and Environmental Assessment (Volume 1) and Appendices (Volume 2) prepared by JBA Urban Planning Consultants Pty Ltd on behalf of Sydney Harbour Foreshore Authority and dated October 2006. (2) The following Preferred Project Report including a revised Statements of Commitment are approved: <ol style="list-style-type: none"> (a) Response to Department of Planning and Revised Statement of Commitments prepared by JBA Urban Planning Consultants Pty Ltd on behalf of Sydney Harbour Foreshore Authority and dated January 2007. 	<p>A2. Development in Accordance with Plans and Documentation</p> <ol style="list-style-type: none"> (1) The following plans and documentation (including any appendices therein) are approved as part of the Concept Plan: <ol style="list-style-type: none"> (a) East Darling Harbour State Significant Site Proposal Concept Plan and Environmental Assessment (Volume 1) and Appendices (Volume 2) prepared by JBA Urban Planning Consultants Pty Ltd on behalf of Sydney Harbour Foreshore Authority and dated October 2006; (b) Barangaroo Part 3A Modification Report — Headland Park and Northern Cove (Volume 1) and Appendices (Volume 2) prepared by MG Planning Pty Ltd on behalf of the Sydney Harbour Foreshore Authority and dated September 2008. (2) The following Preferred Project Report including a revised Statements of Commitment are approved: <ol style="list-style-type: none"> (a) Response to Department of Planning and Revised Statement of Commitments prepared by JBA Urban Planning Consultants Pty Ltd on behalf of Sydney Harbour Foreshore Authority and dated January 2007, except as amended by the Barangaroo Part 3A Modification Report — Headland Park and Northern Cove dated September 2008.

Terms of Approval issued by Minister	Proposed Modification
<p>(3) In the event of any inconsistencies,</p> <p>(a) the revised Statement of Commitments in (2) prevails to the extent of any inconsistency in the plans and documentation identified in (1), and</p> <p>(b) the modifications of the Concept Plan approval identified in Part B & C Schedule 2 prevail over the documentation listed in (1) and (2) above.</p>	<p>(3) In the event of any inconsistencies,</p> <p>(a) the revised Statement of Commitments in (2) prevails to the extent of any inconsistency in the plans and documentation identified in (1), and</p> <p>(b) the modifications of the Concept Plan approval identified in Part B & C Schedule 2 prevail over the documentation listed in (1) and (2) above.</p>
<p>A4. Determination of Future Applications</p> <p>The determination of future applications for development is to be generally consistent with the terms of approval of Concept Plan No. 06_0162 as described in Part A of Schedule 1 and subject to the modifications of approval set out in Parts A, B & C of Schedule 2.</p>	<p>A4. Determination of Future Applications</p> <p>(1) The determination of future applications for development is to be generally consistent with the terms of approval of Concept Plan No. 06_0162 as described in Part A of Schedule 1 and subject to the modifications of approval set out in Parts A, B & C of Schedule 2, except as provided in (2) below.</p> <p>(2) In accordance with Section 75P(1)(b) applications for the demolition of the Sydney Ports Harbour Control Tower, the MWS&DB Sewage Pumping Station and the sandstone seawall on the western edge of the Headland Park are to be determined under Part 4 of the EP&A Act.</p>
<p>B1. Public Domain — Northern Headland</p> <p>(1) Noting the jury report recommendations on the competition winning design scheme, further detailed design plans for the northern headland are to be provided to the Department prior to or concurrently with the lodgement of the first project application for major public domain works. These are to be to the written satisfaction of the Director General.</p> <p>(2) The plans identified in (1) above are to address the following requirements and objectives:</p> <p>(a) the reinstatement of a headland at the northern end of the site with a naturalised shape and form including a build up of height and a generous landscaped connection to physically link Clyne Reserve, to allow direct pedestrian access from Argyle Place and appreciation of the landform of the former headland;</p> <p>(b) encourage pedestrian permeability along the foreshore, with links to Hickson Road, Argyle Place, Towns Place and “Globe Street”;</p> <p>(c) ensure adequate viewing of the park from “Globe Street” to enhance security while limiting vehicular access into and through the park;</p> <p>(d) a welcoming aspect when approaching the northern headland from the south along “Globe Street” and Hickson Road, in landform, materials, accessibility and view lines;</p> <p>(e) public safety through the day and night considering surveillance, lighting, planting and materials; and</p> <p>(f) the impact on and the treatment of the Sewage Pumping Station.</p> <p>(3) The above redesign may include provision of a public car park within the headland.</p>	<p>B1. Public Domain — Northern Headland</p> <p>(1) Noting the jury report recommendations on the competition winning design scheme, further detailed design plans for the northern headland are to be provided to the Department prior to or concurrently with the lodgement of the first project application for major public domain works. These are to be to the written satisfaction of the Director General.</p> <p>(2) The plans identified in (1) above are to address the following requirements and objectives:</p> <p>(a) the reinstatement of a headland at the northern end of the site with a naturalised shape and form including a build up of height and a generous landscaped connection to physically link Clyne Reserve, to allow direct pedestrian access from Argyle Place and appreciation of the landform of the former headland;</p> <p>(b) encourage pedestrian permeability along the foreshore, with links to Hickson Road, Argyle Place, Towns Place and “Globe Street”;</p> <p>(c) ensure adequate viewing of the park from “Globe Street” to enhance security while limiting vehicular access into and through the park;</p> <p>(c) ensure adequate surveillance of the park to enhance security while limiting vehicular access into and through the park;</p> <p>(d) a welcoming aspect when approaching the northern headland from the south along “Globe Street” and Hickson Road, in landform, materials, accessibility and view lines;</p> <p>(e) public safety through the day and night considering surveillance, lighting, planting and materials; and</p> <p>(f) the impact on and the treatment of the Sewage Pumping Station.</p> <p>(3) The above redesign may include provision of a public car park within the headland.</p>



4. DIRECTOR-GENERAL'S REQUIREMENTS

The Director-General of the Department of Planning issued the Environmental Assessment Requirements (DGR's) for the Concept Plan in July 2006 (refer Appendix 1). In relation to the proposed modification, the Department of Planning has advised by letter dated 4 September 2008 that these requirements do not need amendment however the Environmental Assessment for the modification should pay particular attention to the following issues:

- Urban design, development controls and land uses;
- Transport and access;
- Streetscape and public domain;
- Heritage;
- Social and community.

Table 4 provides a summary of the individual matters listed in the DGR's and where these are addressed in the report or supplementary material. It should be noted that as the modification is only concerned with the reconfiguration of the northern headland and northern cove, a number of the DGR's are not applicable to this modification.

Table 4. Assessment against Director-General's Requirements

Item	Environmental Assessment Requirement for Concept Plan	Modification Report/Previous Environmental Assessment Report/Comments
General Requirements		
1	Executive summary	Executive summary p. viii
2	A description of the overall concept, its likely components and any stage of the development including: <ul style="list-style-type: none"> ■ description of the site, including cadastre and title details; ■ design, subdivision layout; and ■ project objectives and need (if relevant); 	Chapter 3
3	An assessment of the environmental impacts of the project, with particular focus on the key assessment requirements specified below and in Schedule 1	Chapter 6
4	A statement on the validity of the environmental assessment, the qualifications of person(s) preparing the assessment and that the information contained in the environmental assessment is neither false nor misleading.	p. v
Part A — Heads of Consideration		
5	Suitability of the Site	Chapter 5
6	Likely environmental, social and economic impacts	Chapter 6
7	Justification for undertaking the project	Chapter 5
8	The public interest.	Chapter 5

Item	Environmental Assessment Requirement for Concept Plan	Modification Report/Previous Environmental Assessment Report/Comments
Part B — Relevant EPIs and guidelines to be addressed		
9	Planning provisions applying to the site including permissibility and the provisions of all plans and policies	Section 6.1
10	Nature and extent of non-compliance with specified EPIs	N/A
11	Consideration of alternatives to the proposal	Chapter 5
Part C — Key Issues to be Addressed		
	Requirements of the Department and other agencies are as follows:	
12	<i>Urban Design, development controls and land uses</i>	
	The methodology and justification for selecting the configuration of the EDH proposal, mix of land uses and the density of development should be outlined.	Section 6.2, Barangaroo Headland Park Design Strategy Review (Appendix 7)
	Key matters to be addressed include an analysis of existing bulk and scale of surrounding development, landmark buildings, density, heights, topography, streetscape, shadows, view corridors, connectivity, street address, open space, vegetation, traffic management and road hierarchy.	As above
	A suitable urban design response should be developed in compliance with BASIX principles, in particular siting and orientation of buildings and solar access. Appropriate development controls should be established, including density, building heights, footprints, entry points, public domain, private open space and car parking. Crime prevention principles, as outlined in the NSW Police publication "Crime Prevention Through Environmental Design" (CPTED) are to be adopted	N/A
13	<i>Transport and Access</i>	
	The environmental assessment needs to satisfactorily address the following transport, traffic, access and car parking provision issues as set out below.	Section 6.3, Transport Report (Appendix 8)
	Existing and future transport networks, traffic generation and circulation, car parking	Section 6.3, Transport Report (Appendix 8)
	Provision of public transport — bus, rail and ferry	Section 6.3, Transport Report (Appendix 8)
	Tourist coach facilities and cruise ship berthing	Section 6.3, Transport Report (Appendix 8)
	Potential to accommodate future specialist transport services — including capacity to incorporate light rail (e.g. along Hickson Rd or other major roads within the site) and/or boutique tourist services like trolley buses, which perform a secondary transport role. Pedestrian and cycle access within and to the site, connecting with all transport services and to key locations outside the site — such as the Rocks/Millers Point, Wynyard and King Street Wharf/Darling Harbour, utilising the harbour foreshore.	Section 6.3, Transport Report (Appendix 8)
	Pedestrian connection to heavy rail services and the major bus interchange at Wynyard.	Section 6.3, Transport Report (Appendix 8)
	Compliance with relevant RTA, Council, AMCORD requirements, standards, controls, and guidelines — including the preparation of a comprehensive Transport Management and Accessibility Plan (TMAP) for the site.	Section 6.3, Transport Report (Appendix 8)

Item	Environmental Assessment Requirement for Concept Plan	Modification Report/Previous Environmental Assessment Report/Comments
14	Sydney Ports Corporation	
	Consultation with Sydney Ports regarding the Corporation's requirements for Passenger Vessel operations, Harbour Control and Moore's Wharf Marine Operations and security plans is to be carried out and addressed in concept plan. Passenger terminal facility must comply with operational security requirements of the <i>Maritime Transport & Offshore Facilities Security Act 2003</i> . The layout of the passenger terminal needs to provide for a Cleared Zone and a Land Side Restricted Zone.	Sections 2.4, 3.1.2
15	Streetscape and Public Domain	
	The environmental assessment needs to satisfactorily:	
	Explore the relationship of urban public spaces and their adjoining built form, and how the urban public spaces will be useable	Sections 6.2 and 6.4, Barangaroo Headland Park Design Strategy Review (Appendix 7)
	Demonstrate the hierarchy and purpose of street patterns on the site and the scale relationship between streets, footpaths and buildings	As above
	Consider the relationship between the public domain and the ground floor uses of all buildings on the site	Refer urban design analysis in Section 6.2 and Barangaroo Headland Park Design Strategy Review (Appendix 7)
	Detail the links, connections and access conditions between the site and its surrounds and how the proposed connections will function	Sections 6.2, 6.3.5, 6.4
	Demonstrate how the public domain will be safe during times of low usage at night	Section 6.4.3
	Consider the need to introduce harbour water on the site as part of a public domain strategy	Section 3.1
	Detail how the foreshore promenade is configured, how it interacts with adjoining land uses, both open space and built form and what relationship it has with the harbour;	Section 3.1, 6.2, 6.4, Barangaroo Headland Park Design Strategy Review (Appendix 7)
	Detail the inclusion of parks and public plazas suitable for open air events including festivals, major civic events and markets	No change
16	Heritage	
	A heritage impact statement should be prepared in accordance with NSW Heritage Office guidelines. The statement should assess the impacts of the application on the adjacent Millers Point Heritage Precinct and any significant components of the site.	Section 6.5, Addendum Report to Heritage Impact Statement (Appendix 6)
17	Social and Community	
	The environmental assessment should address: recreation needs along with community facilities; the integration of new and existing communities, including access to employment opportunities and community facilities; housing diversity and affordability (e.g. key worker housing); and access to retail facilities, employment and transport.	Section 6.6
18	Contamination	
	Contamination and geotechnical issues associated with the EDH proposal should be identified and addressed in accordance with SEPP55 and other relevant legislation and guidance.	Section 6.1.1

Item	Environmental Assessment Requirement for Concept Plan	Modification Report/Previous Environmental Assessment Report/Comments
19	<i>Drainage and Stormwater Management</i>	
	The environmental assessment should address drainage and stormwater management issues, including: on site detention of stormwater; water sensitive urban design (WSUD); and drainage infrastructure.	Section 6.7
20	<i>Utilities Infrastructure</i>	
	The environmental assessment should include details of how the development proposal will be satisfactorily serviced for utility services such as the supply of water, sewerage, stormwater, gas, electricity and telephone services and comply with the requirements of any public in regard to the connection to, relocation and/or adjustment of the services affected by the EDH redevelopment.	Section 6.7
21	<i>Community Consultation</i>	
	The environmental assessment should document all community consultation undertaken to date or discuss the proposed strategy for undertaking community consultation. This should include any contingencies for addressing any issues arising from the community consultation and an effective communications strategy.	Section 2.4
22	<i>Development Staging</i>	
	The issue of development staging should be clearly addressed in detail.	Sections 3.2 and 6.8
23	<i>Planning Agreements and/or Developer Contributions</i>	
	The environmental assessment should address and provide the likely scope of a planning agreement and/or developer contributions between the proponent, Council and other agencies for matters such as community, regional and local infrastructure, public transport provision, social infrastructure and facilities etc either on site or the LGA.	No change
Part D – Statement of Commitments		
24	Proposed mitigation and management of residual impacts	Chapter 7
25	A draft Statement of Commitments detailing measures for environmental management and mitigation measures and monitoring for the project.	Chapter 7
26	General Environmental Risk Analysis (in relation to all components of the concept) Notwithstanding the above key assessment requirements, the Environmental Assessment must include an environmental risk analysis to identify potential environmental impacts associated with the project, proposed mitigation measures and potentially residual environmental impacts after the application of proposed mitigation measures. Where additional key environmental impacts are identified through this environmental risk analysis, an appropriately detailed impact assessment of the additional key environmental impacts must be included in the Assessment.	No change from Approved Concept Plan

Item	Environmental Assessment Requirement for Concept Plan	Modification Report/Previous Environmental Assessment Report/Comments
Consultation Requirements		
27	<p>You should undertake an appropriate and justified level of consultation with relevant following parties during the preparation of the Environmental Assessment:</p> <p>Agencies</p> <ul style="list-style-type: none"> City of Sydney Council Transport Agencies, including: RTA; Ministry of Transport; Sydney Ferries Corporation; STA; and RailCorp NSW Maritime Authority Sydney Ports Corporation Department of Housing NSW Heritage Office Department of Environment and Conservation Department of Commerce (Government Architect) Utilities and Emergency Services, including: NSW Police Service; NSW Fire Brigades; Sydney Water; Energy Australia; and Telstra Corporation Limited <p>Public</p> <ul style="list-style-type: none"> Any relevant community meetings already established and timetabled; and Any additional meetings proposed by the local member or other relevant group. <p>Peer Review Requirements</p> <ul style="list-style-type: none"> List any components of the Environmental Assessment to be independently peer reviewed prior to submission. 	Section 2.4



5. JUSTIFICATION

As noted in Chapter 3, under Conditions B1 and B2 of the Minister's Terms of Approval for the Approved Concept Plan, both the Headland Park and the Northern Cove are to be subject to further detailed design plans. This more detailed design work is to achieve, amongst other matters, the following objectives:

- the reinstatement of a headland at the northern end of the site with a naturalised shape and form including a build up of height and a generous landscaped connection to physically link Clyne Reserve, to allow direct pedestrian access from Argyle Place and appreciation of the landform of the former headland; and
- an enlargement of the northern cove to achieve a greater naturalised shape, form and edges.

In further advancing the concept for the Headland Park and Northern Cove to achieve a more naturalistic outcome, the Foreshore Authority has worked with Context Landscape Design and Conybeare Morrison International Pty Ltd, to develop a more naturalistic shape inspired by the original shoreline as well as the other headlands of Sydney Harbour.

As noted in the addendum to the Heritage Impact Statement (Appendix 6) prepared by City Plan Heritage, examination of the landform and foreshore configurations of the site reveals that the natural form of the headland remained largely intact up until the late 1830s with very few structures on it. However, by 1843 a number of manmade wharves are evident around the headland and the western shorelines of the site.

As shown in Figure 13, the 1836 shoreline configuration of the land as an early settlement outline showing a clearly articulated headland will help to form the starting point for the proposed new 'natural' landform.

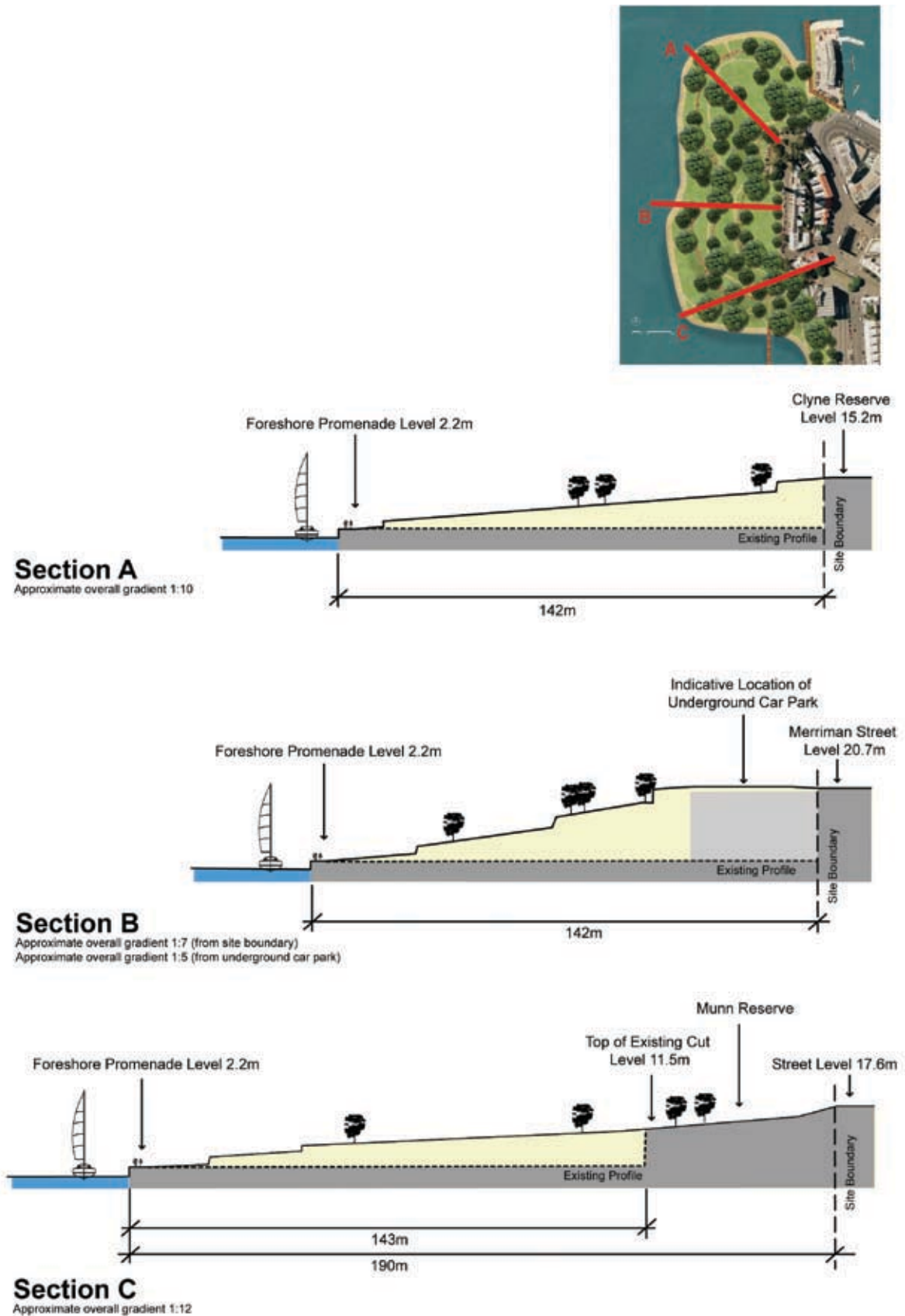
Figure 13. Evolution of the Barangaroo foreshore and headland



Figure 14. 1888 Birds Eye view of Barangaroo showing significant development and port activities in the harbour and the subject site.



Figure 15. Indicative Sections



The more naturalised headland form is reflected in the topography of other Sydney Harbour headlands, particularly those of surrounding promontories such as Balls Head, Berry Island, Yurabin Point, Peacock Point, Blues Point and Goat Island. The aim is for the northern headland to complete this ring of prominent harbour headlands and islands.

The proposal for the northern headland therefore aims to raise the terrain in a naturalistic form from the seawall up to Clyne Reserve and Merriman Street. This substantial increase in the elevated landscape will allow for magnificent panoramic views of the harbour as well as numerous framed views from the park to the water. When viewed from the water or its neighbouring harbour parklands, this natural headland will improve the integration of the new open space into its harbour context.

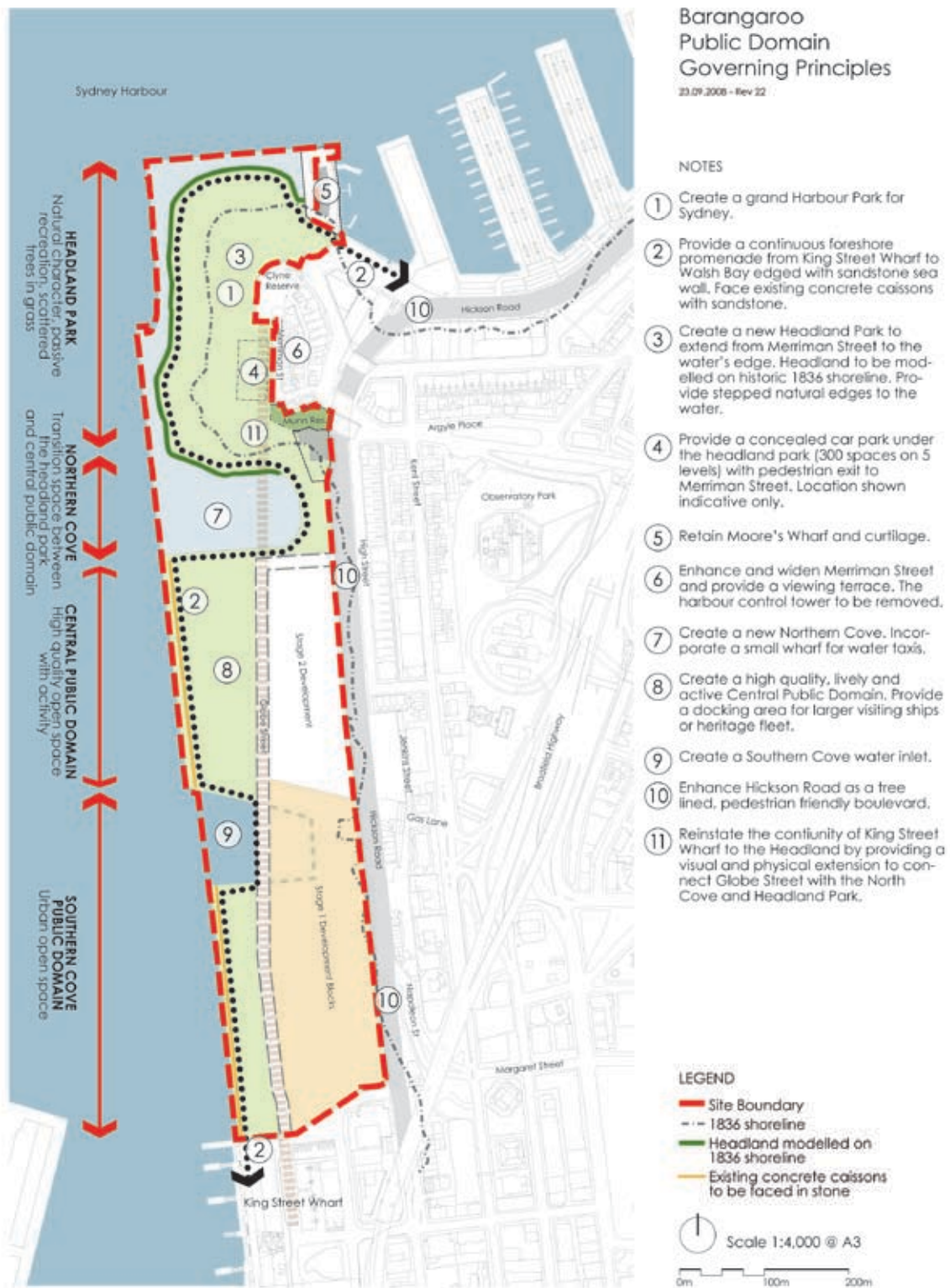
This proposal also further develops the physical link suggested in the Approved Concept Plan by reinstating the historic topography of Millers Point. By removing Globe Street in this location, the proposal strengthens the pedestrian connection between the Headland Park and the adjacent elevated plateau around Argyle Place and The Rocks.

To achieve the enlargement of the water intrusion and a more naturalised shape, form and edge treatment, the Foreshore Authority is also proposing to create a generous cove at the southern end of the Headland Park which will extend closer to Hickson Road. As noted in the addendum report to the Heritage Impact Statement the new configuration of the northern cove will emphasise the reinstated historic natural landform of the Headland whilst acting as a transitional element between the natural harbour side and the manmade side of Sydney Harbour. Provision of a small wharf for water taxis and other watercraft will allow easy access from water to the Barangaroo site thus improving its appreciation of historic and cultural significance by the wider public.

Bringing the water close to Hickson Road will also allow for sweeping views across the harbour from this major thoroughfare.

A series of governing principles are proposed to guide the future design of the Headland Park and Northern Cove to ensure that the key elements of the Approved Concept Plan are retained while still allowing for a more strongly delineated natural headland. These governing principles are shown in Figure 16.

Figure 16. Governing Principles for Public Domain



The removal of Block 8 and part of Block 7 to accommodate the enlarged cove will only have a minor impact on the overall GFA of the Barangaroo site. However, with the enlargement of the Northern Cove toward the east, Block 7 will become a significant site as it will be seen as a 'front door' to the site from the water. The "Barangaroo Headland Park Design Strategy Review" prepared by Conybeare Morrison (provided at Appendix 7) has therefore made recommendations with respect to the massing and articulation of this block which are discussed in Chapter 6.

With the removal of Block 8 and part of Block 7 to accommodate the expanded Northern Cove, there will be a reduction in the overall amount of floorspace of approximately 18,800m². However, this is considered acceptable given that:

- their removal will allow an enlarged northern cove and will open up views from Millers Point;
- the reduction in floorspace represents less than 5% of the total floorspace permissible on the site.

The proposed modification to the Headland Park and Northern Cove will result in a number of changes to the Approved Concept Plan. These are:

- a modest reduction in the amount of floorspace that can be developed on the Barangaroo site through the removal of Block 8 and part of Block 7;
- the realignment of Globe Street to allow for the enlarged northern cove. Globe Street is instead proposed to link up with Hickson Road south of the northern cove;
- the removal and archival recording of three heritage items listed on agency section 170 registers.

An assessment of the impact of these changes is provided in Chapter 6 however overall it is considered that the opportunity to create an iconic headland park and an enlarged harbour bay as proposed in this modification will greatly outweigh any impacts that result.



6. ENVIRONMENTAL ASSESSMENT

This section provides an assessment of the environmental impacts of the proposed northern headland modification to the Approved Concept Plan. This assessment is confined to matters which are impacted by the proposed changes and does not address impacts that are not affected by the proposed modification.

6.1 PLANNING CONTROLS AND POLICIES

6.1.1 State Planning Controls and Policies

The only planning controls that apply to the site are those in Part 12 of Schedule 3 of the SEPP (Major Projects) 2005 and other relevant SEPPs apart from SEPP No. 1 — Development Standards. SEPP (Major Projects) 2005 provides that no other environmental planning instruments apply to the Barangaroo site.

State Environmental Planning Policy (Major Projects) 2005

As discussed in Chapter 2, Part 12 of State Environmental Planning Policy (Major Projects) 2005 contains the primary planning controls for the Barangaroo site.

The land affected by the proposed modification is predominantly zoned RE1 Public Recreation although the area in the vicinity of Blocks 7 and 8 is zoned B4 Mixed Use. The proposed extension of the public domain into this area as a result of the northern cove expansion is permissible within the B4 Mixed Use zone and therefore a rezoning to facilitate this change is not required.

The Major Projects SEPP also specifies the maximum GFA that can be accommodated on each block. As this is a maximum figure, the reduction in GFA arising from the removal of Block 8 and part of Block 7 is permissible and does not require amendment of the SEPP (refer Figure 12, Chapter 3).

In general, the proposed modification is consistent with the provisions in the Major Projects SEPP.

State Environmental Planning Policy No. 55 — Remediation of Land

State Environmental Planning Policy No. 55 — Remediation of Land (SEPP 55) provides a Statewide planning approach to the remediation of contaminated land by consideration of whether the land is contaminated and, if it is contaminated, whether it can be made suitable for the proposed purpose.

In accordance with the requirements of SEPP No 55 and to inform the preparation of the Barangaroo Concept Plan, Environmental Resources Management (ERM) undertook environmental and geotechnical investigations between 2006 and 2007 (June 2007).

ERM undertook additional site investigation works at Barangaroo between February and May 2008 (report date July 2008) to address data gaps remaining after the previous June 2007 assessment, in order to characterise the location and nature of impacted fill, soil and groundwater present on the site.

ERM have also undertaken preliminary sediment screening investigations of the harbour seabed adjacent to the existing wharves at Barangaroo (report date August 2008).

A draft Remedial Action Plan for Barangaroo has been prepared by ERM based upon the results of the Environmental Site Assessment Reports completed by ERM in June 2007, July 2008 and August 2008.

A Generalised Remediation Strategy providing a summary of the key issues and strategies is provided at Appendix 9.

Contaminated materials have been identified within the Park due to historical filling and reclamation activities, but groundwater has been shown to be only marginally impacted and to require no remediation.

In accordance with ESD principles, the contamination within the fill materials can be managed in situ by ensuring the fill materials are capped so that users of the Park have no exposure to the contaminants and by implementation of a long-term Environmental Management Plan.

Where development works on the Park require removal of fill materials, they are required to be classified. Materials that meet criteria for open space land use are able to be used in any location on the Park, materials that are classified as "General Solid Waste" can be placed into the engineered containment cell to be constructed on the Park, but materials classified as "Restricted Solid Waste" or "Hazardous Waste" are required to be disposed off-site into a landfill licensed to receive the appropriate class of waste.

The requirements of SEPP 55 will be achieved by implementation of the programs of site assessment, remediation and validation, which will be subject to endorsement by the NSW Environment Protection Authority and by a site auditor, who will ensure, firstly, that the implementation of these programs will make the Park suitable for the proposed open space land use, and, secondly, at the completion of the remedial works and validation program, that the Park is suitable for this use.

City of Cities — A Plan for Sydney's Future (Metropolitan Strategy)

City of Cities — A Plan for Sydney's Future (the Metropolitan Strategy) was released in December 2005 and sets the Government's vision for the future of the Sydney Metropolitan Region 25 years into the future. The Metropolitan Strategy has as its key aims enhancing livability, strengthening economic competitiveness, ensuring fairness (in access to jobs, services and lifestyle opportunities), protecting the environment and improving governance.

A specific action under the Metropolitan Strategy is to plan for the development of a waterfront city park at East Darling Harbour (now Barangaroo). The Metropolitan Strategy notes as follows:

East Darling Harbour is on the western edge of Sydney's central business district. It is a 22 hectare site with a 1.75 kilometre long foreshore. In 2006, the stevedoring leases on East Darling Harbour expire, opening up a unique opportunity to revitalise this part of the city. The site will be developed as commercial, residential and open space.

The renewal of East Darling Harbour will include half of the site being developed into a waterfront city park, with 1.75 kilometres of foreshore access. This is equivalent to building a second Hyde Park, located right on the Harbour's foreshore. The park will incorporate a foreshore walkway, completing the NSW Government's project to build a continuous foreshore walk from Woolloomooloo to Anzac Bridge, totalling 14 kilometres, substantially greening the western edge of Sydney City.

The proposed northern headland modification will provide for an enhanced Headland Park and Northern Cove for Barangaroo and is therefore consistent with this action under the Metropolitan Strategy.

6.1.2 Other Policies

Sustainable Sydney 2030

The City of Sydney has recently released its Sustainable Sydney 2030 vision and strategic plan for public comment. Sustainable Sydney 2030 contains the following vision for Sydney:

Green, Global, Connected City

- *Green with a modest environmental impact, green with trees, parks, gardens and linked open spaces, green by example and green by reputation.*
- *Global in economic orientation, global in links and knowledge exchange, global and open-minded in outlook and attitude.*
- *Connected physically by walking, cycling and high quality public transport, connected 'virtually' by world-class telecommunications, connected to communities through a sense of belonging and social well being, and connected to other spheres of government and to those with an interest in the City.*

The northern headland modification is consistent with the vision and strategic directions contained in Sustainable Sydney 2030 in that it provides for an iconic Headland Park on the Sydney Harbour foreshore which will complement other green headlands and parklands along the harbour foreshore. It will form part of the foreshore link which both the City of Sydney and NSW Government are aiming will ultimately provide a continuous foreshore connection from Anzac Bridge to Woolloomooloo. As well as retaining the pedestrian and cycle links provided for under the Approved Concept Plan the proposed modification also strengthens the pedestrian connection between the Headland Park and the adjacent elevated plateau around Argyle Place and The Rocks.

The proposed modifications to the Concept Plan are therefore consistent with the City of Sydney's Sustainable Sydney 2030 vision and strategic directions.

6.2 Urban Design

The urban design structure for Barangaroo is established under the Approved Concept Plan and is fundamentally characterised by the creation of major new parklands on the harbour edge, widening to the north and which define an eastern 'wedge' that is the mixed use or urban development precinct. The key features of the urban structure are:

- the parklands which contain the major new city park on the historic headland (Headland Park);
- a series of smaller scale squares and parks that are the focal points for activity or views from surrounding streets;
- a hierarchy of streets which vary in function and prominence;
- the creation of a new foreshore promenade which forms part of the 14 kilometre foreshore walk that reaches from Anzac Bridge in the west to Woolloomooloo in the east;
- the combination of land use and built form which will provide a critical mass of people focused on key places and streets;
- the location of higher density development towards the southern end of the site, linking into existing higher density development at King Street Wharf and the western edge of the City;
- a reduction in the scale of development towards the northern end of the site, where built form meets the Headland Park.

A range of uses is proposed to be accommodated within the proposed mixed use precinct, including business, residential, tourist/visitor, retail and community uses.

The proposed modification will not impact on the relationship of the public domain to the urban area or on the distribution of land uses. The western and northern halves of the site will remain parkland and public open space. In fact, the extension of the northern cove and the removal of Block 8 and part Block 7 will result in an increase in the overall amount of parkland to be provided on the site.

Similarly, the proposed new foreshore promenade will remain in place, with the enlarged northern cove providing greater opportunity for people to experience the water's edge.

As discussed in Chapters 3 and 5, the change in the configuration of the Headland Park and the enlarged northern cove will necessitate the re-routing of the street, referred to as "Globe Street" under the Approved Concept Plan. In terms of the urban structure, the re-routing of Globe Street does not significantly impact on the distribution of land uses. The only impact is an increase in the amount of parkland on the headland with the removal of the road in this location.

The impact of the proposed modification in terms of the urban design has been addressed in the "Barangaroo Headland Park Design Strategy Review" prepared by Conybeare Morrison (provided at Appendix 7). The review identifies several key strategies that should guide the formation of the headland and its relationship to the rest of the city. These include:

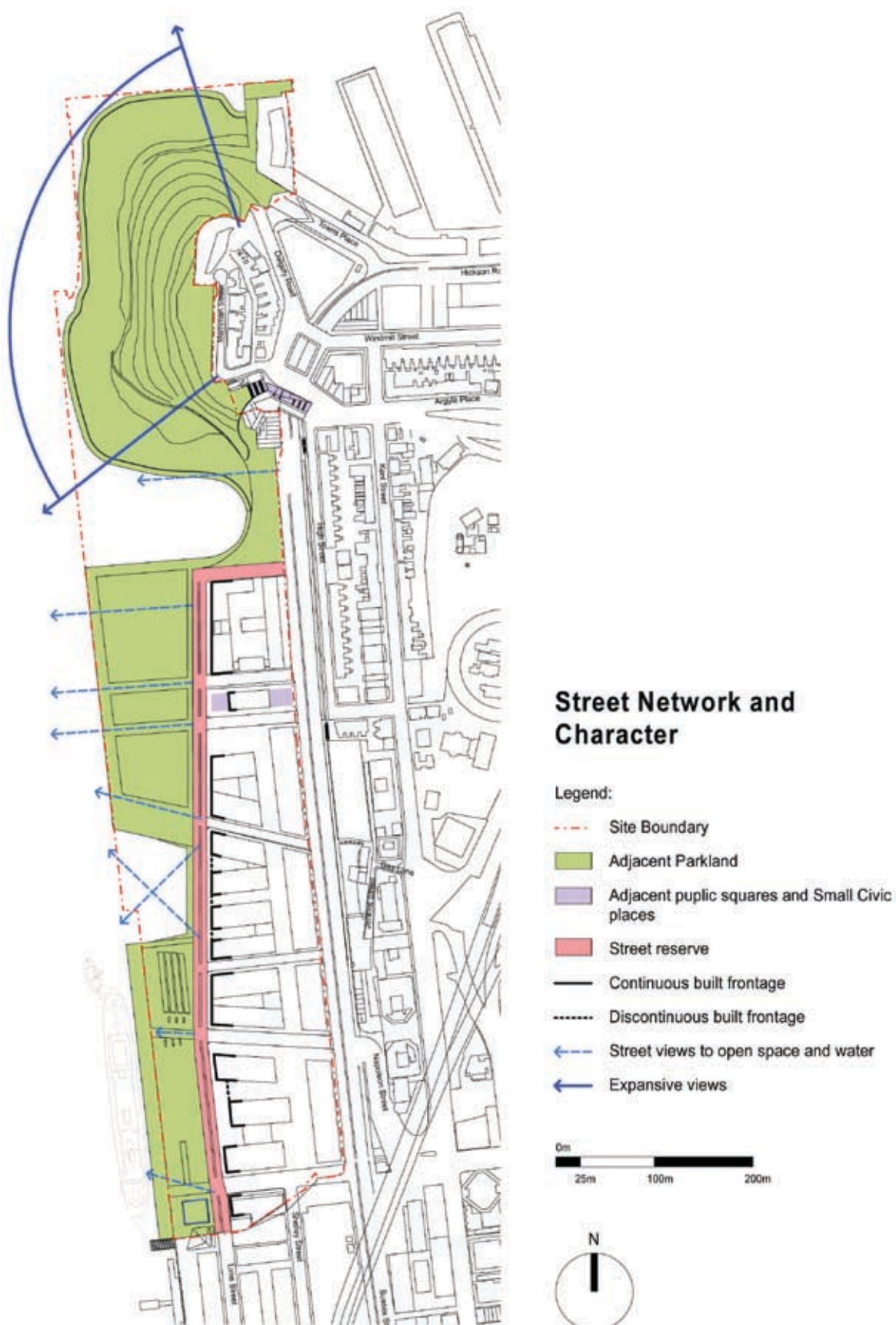
- Defining the headland shoreline as a distinct edge.
- Retaining a large footprint for the headland park.
- Extension of the Northern Cove eastward to Hickson Road.
- Maintaining the continuity of the Globe Street axis through the site and across the Northern Cove.
- Reinforcing the identity of the Northern Cove as a transition between a natural shore and urban edge.
- Redefining the footprint of Block 7 by introducing a partial street/waterfront edge at the Observatory Hill axis.
- Creating of a 'Welcoming Gesture' in the headland park built around the notion of exposing a portion of the sandstone cut.

The revised governing principles for the northern headland and northern cove as well as the overall public domain for Barangaroo are shown in Figure 16 in Chapter 5.

In terms of Globe Street, the review suggests that the continuity of the axis could be retained although this need not be in the form of a road to achieve the urban structure objectives for the site. Options could include a lightweight bridge, floating dock, pontoon or other device that could also run into the headland and form an armature with which to generate a response to the sandstone 'cut' of the headland. This concept of continuing the axis of Globe Street will be explored in the later detailed design phase.

It also recommends that Globe Street needs to be terminated at a significant point along Hickson Road which also provides a visual reference between the site and the urban fabric to the east. Globe Street should turn 90 degrees toward Hickson Road at the location of the 'Observatory Hill axial connection'; effectively becoming two streets — Globe Street running north/south and Globe Street east/west aligned with the Observatory dome.

Figure 17. Street Network and Character



The review also notes that with height restrictions of 4 storeys imposed on Block 7 and its new identity as a 'front door' to the site, it is important that the street walls of Block 7 are virtually continuous around the site. Some articulation allowing views into interior areas of the block, capitalising on the site's unique position, and providing a further definition of building mass will need to be provided in the design.

The recommendations in the Barangaroo Headland Park Design Strategy Review have been incorporated into the revised Statement of Commitments at Chapter 7 and will also be used to guide prospective tenderers on design objectives for the Public Domain EOI.

6.3 Transport and Access

The transport implications of the proposed public domain modification have been considered in the Transport Report prepared by Masson Wilson Twiney, provided at Appendix 8. The following is a summary of the key impacts of the proposed changes on traffic and access.

6.3.1 Traffic Generation

The Transport Report notes that the proposed modification will result in a small reduction in activity on the site with the removal of Block 8 and part of Block 7. It estimates that the number of commercial employees would reduce by approximately 37, the number of residents would reduce by 150 persons and there would be other workforce reductions as a result of the removal of Block 8.

As a result the broad planning estimates of person trip movements do not materially alter as a consequence of the changes proposed. The Transport Report indicates a minor reduction in traffic generation due to the reduction in floorspace.

6.3.2 Parking

With respect to parking, there would be a minor reduction in the required parking provision, with a reduction of some 77 car spaces for the residential development and a further 23 car spaces for the hotel. The site's modified road network would result in a reduction in on-street spaces of around 10%. However, it should be noted that the proposal under the Approved Concept Plan to rationalise parking along Hickson Road would not change, with the current situation of all-day car parking converting to short stay only.

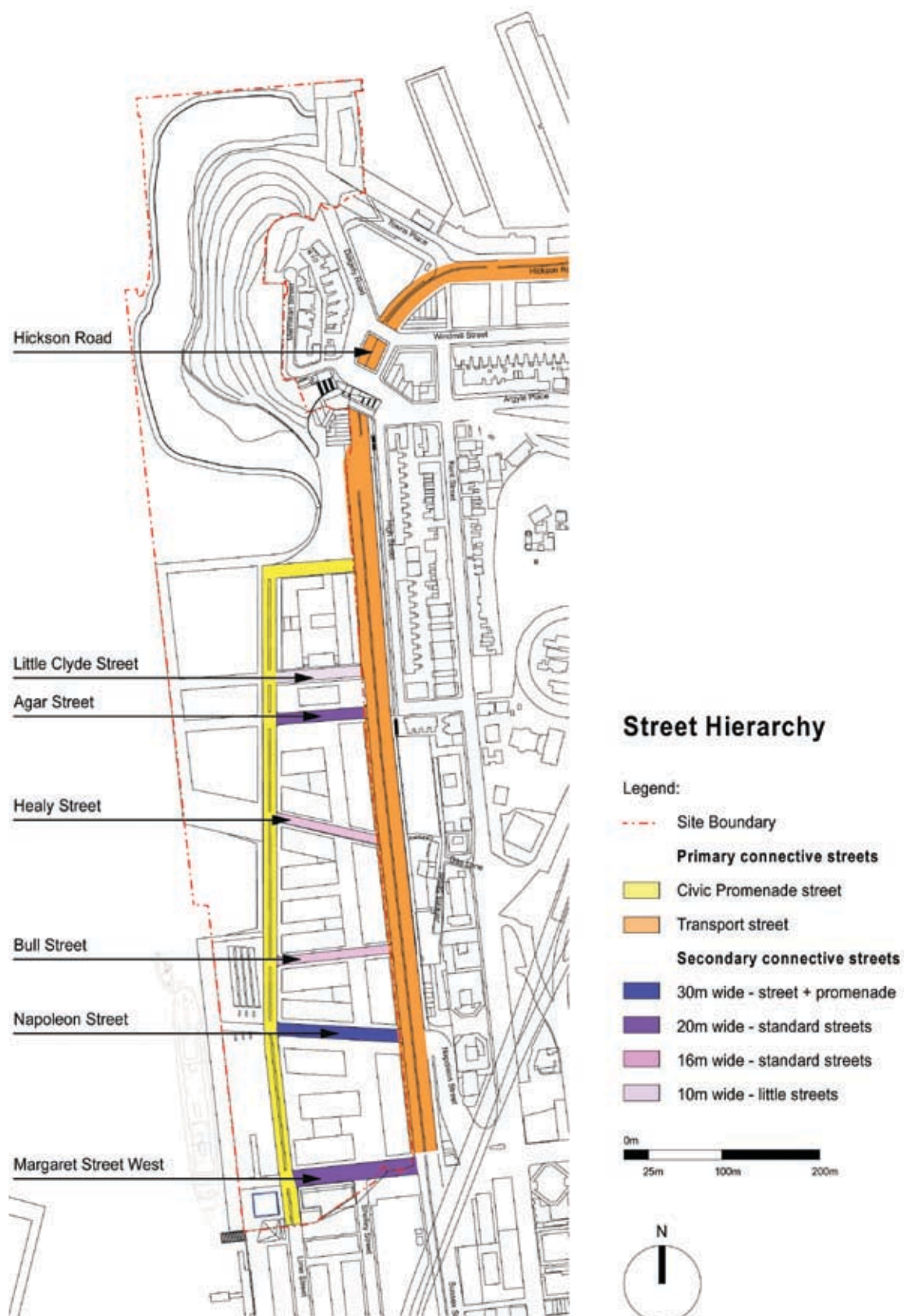
6.3.3 Proposed Road Network

The changes proposed to the internal road network under this public domain modification are:

- Globe Street would be truncated at a point approximately halfway along the parallel High Street. At this point it would connect with Hickson Road via an east-west road link at a proposed T-intersection ("New Road");
- the proposed Munn Street (an east-west road connecting Globe Street and Hickson Road) would be removed from the scheme;
- the proposed section of Globe Street, from New Road around to the vicinity of Towns Place would be removed from the scheme.

These changes are shown in Figure 18.

Figure 18. Revised Street Hierarchy



Access to the headland car park would remain via Towns Place.

The Transport Report notes that the loss of the connection between Barangaroo south and the headland park and its public car park is unlikely to materially alter the distribution of traffic accessing the site. Sussex Street and Margaret Street/Napoleon Street will remain the preferred approach routes for most site traffic and traffic accessing the park from the south will use Hickson Road, which would have been the preferred route even with Globe Street in place primarily due to the Hickson Road layout and function.

6.3.4 Public Transport

The proposed public domain modification would still be supported by the concepts developed in the Barangaroo Bus Service Strategy. The detail of bus turnaround and layover arrangements would need to take account of the modified local road network within the site however the opportunity is available to use Globe Street and New Road as a turnaround facility, with layover on Hickson Road.

6.3.5 Pedestrian and Cycle Facilities

The distance of the foreshore promenade will increase around the edge of the northern cove with its expansion. Overall there would be a modest increase in distance and the final alignment is subject to more detailed design in later stages.

The opportunity for a lightweight bridge, floating dock, pontoon or other device crossing the northern cove is also to be explored through the detailed design phase.

6.4 Streetscape and the Public Domain

6.4.1 Public Domain

The Approved Concept Plan establishes the public domain framework for Barangaroo comprising five types of public domain open space including:

1. The Foreshore Promenade
2. The Parklands
3. Squares and Civic Places
4. Streets Primary and Secondary
5. Pedestrian Connections

The Approved Concept Plan identifies three types of parklands: The Headland Park, the Playfields and the Urban Waterfront. Together, they form the large 'wedge' of public domain on the foreshore.

With respect to the Headland Park, the Approved Concept Plan notes that:

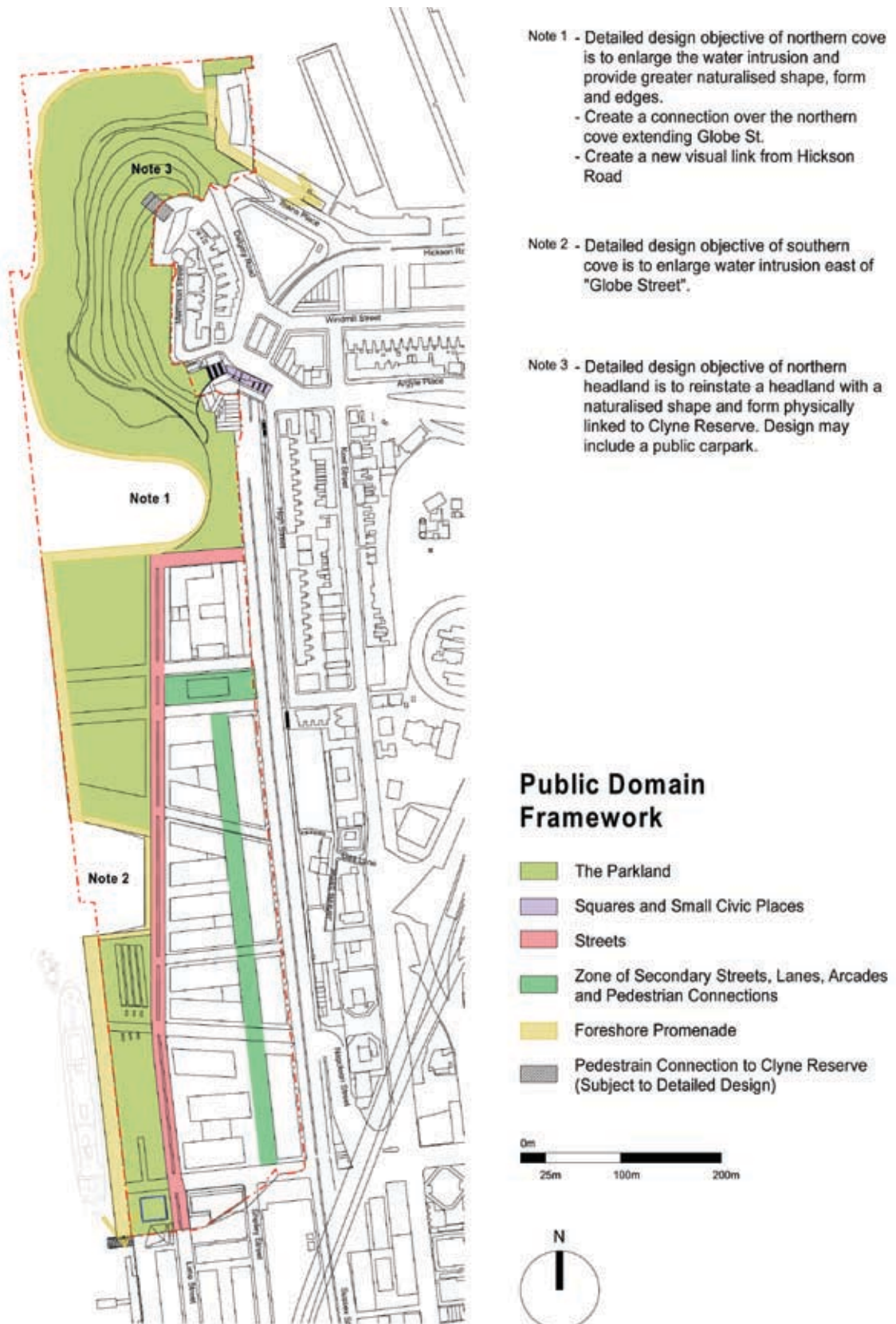
The Headland Park will complete the archipelago of green headlands that define Sydney's western harbour... The landscape of the park will take its cues from the family of surrounding promontories ... The future design of the park will include forms that interpret the pre-existing built forms and shoreline.

The following public domain objectives are established for the Headland Park:

- The Headland Park will be set out between the view line of Dalgety Street and the edge of the new Munn Street steps.
- The Park will have an organic geometry that interprets in a contemporary way the more naturalistic landforms of other headland parks.
- The topography will create protected and sheltered microclimates.
- Raised areas will be available for public gatherings and celebrations, and for broad views over the harbour and foreshores.
- The Headland Park will have a variety of internal pathways for free circulation and for connecting into the Foreshore Promenade.
- The water's edge will be articulated — re-admitting water — to create a more natural and interesting edge.

As noted elsewhere in this report, the Headland Park and Northern Cove have now been reconfigured to more closely reflect these public domain objectives. From a public domain perspective, these changes are consistent with the Approved Concept Plan.

Figure 19. Revised Public Domain



6.4.2 Streetscape

The Approved Concept Plan proposes a hierarchy of new streets and new lanes that provide access and permeability into and within the site. There are two primary streets serving this network: (1) the new north-south local road (Globe Street); and (2) the existing street of Hickson Road.

The Approved Concept Plan also provides for a series of pedestrian and cycleway connections which will not only provide for connectivity within the various activities on the site but also will allow for dramatic vistas to the harbour and new waterfront parks. Of particular relevance is the objective to provide for pedestrian connection between the northern headland and Clyne Reserve to allow direct pedestrian access from Argyle Place and appreciation of the landform of the former headland.

As noted elsewhere in this report, the reconfigured Headland Park and Northern Cove will result in the realignment of Globe Street. The impact of this realignment in both urban design and traffic terms has been assessed in Sections 6.2 and 6.3.

Pedestrian and cycleway connections will be retained and enhanced with the proposed modification. This includes improving the pedestrian access between the Headland Park and Millers Point and allowing for greater pedestrian interaction with the harbour through the enlarged Northern Cove.

6.4.3 Crime and Public Safety

The Approved Concept Plan has been designed in accordance with the principles of Crime Prevention through Environmental Design (CPTED). The Statement of Commitments also requires that any development is undertaken in accordance with CPTED principles, to be demonstrated as part of any future development or project applications.

Although the reconfigured headland involves the removal of Globe Street in this part of the site, the modified headland still provides the opportunity for surveillance and activation. In particular, Merriman Street and the residences to the east will now directly front the parkland. Under the Approved Concept Plan this area was disconnected from the parkland, sitting above the cliff on the eastern side of the proposed Globe Street. This disconnection between Millers Point and the parkland meant that there was no surveillance and that the park itself was essentially isolated from the existing community. The proposed modification will bring the landform up to Merriman Street, providing for better integration of Millers Point with the park and allowing for direct connection and surveillance.

Previous design for headland park under Approved Concept Plan.
Note disconnection between Millers Point and Parkland.



Proposed modified design for the parkland which provides
for integration of Millers Point and the park.



A range of alternative measures to minimise crime and ensure public safety will be required. Such measures are detailed in the principles of the “Crime Prevention Through Environmental Design”. These include:

The Barangaroo site must be designed to take into account the principles of CPTED. These principles include:

- **Surveillance** — The attractiveness of crime targets can be reduced by providing opportunities for effective surveillance, both natural and technical. From a design perspective, ‘deterrence’ can be achieved on the Barangaroo site by:
 - providing clear sightlines from neighbouring properties on Merriman, Bettington, Mons and Hickson Streets into the public domain;
 - providing clear views for vehicles on Hickson Street through the site to the Northern Cove;
 - providing a wide foreshore pathway and open public spaces with clear sightlines throughout the public domain;
 - using the change in levels from the foreshore to Merriman Street levels to allow for open views;
 - effective lighting of pathways and open space areas;
 - minimising the use of shrub planting and ensuring clear landscaping beneath fig trees so as not to provide offenders with a place to hide or entrap victims;
 - use of electronic surveillance equipment.
- **Access Control** — Physical and symbolic barriers can be used to attract, channel or restrict the movement of people. By making it clear where people are permitted to go or not go, it becomes difficult for potential offenders to reach and victimise people and their property. Effective access control can be achieved by creating:
 - well designed and inviting pathways that channel and direct pedestrians into target areas, such as along the foreshore and into certain areas of the headland slopes;
 - public spaces which attract, rather than discourage people from gathering by providing usable spaces, seating, focal points and interpretative points.
- **Territorial reinforcement** — Community ownership of public space sends positive signals. Places that are well cared for and well used reduce opportunities for crime and increase risk to criminals. Territorial reinforcement can be achieved on the site through:
 - design that encourages both Sydney locals and tourists to gather in the public space and to feel some responsibility for its use and condition;
 - installation of community art projects;
 - design with clear transitions and boundaries between the public domain and private space;
 - clear design cues on how the space is intended to be used, eg delineation of pedestrian and cyclist paths, picnic space, active recreation space.
- **Space management** — Popular public space is attractive, well maintained and well used space. Linked to the principle of territorial reinforcement, space management ensures that space is appropriately utilised and well cared for. Space management strategies include:
 - activity coordination for children and adults;
 - events within the park possibly including summer outdoor cinemas, art displays, street performances and sports events;
 - site cleanliness and maintenance;
 - rapid repair of vandalism and graffiti;
 - rapid removal or refurbishment of decayed physical elements.

The CPTED principles will be followed during the detailed design of the park as provided for in the Statement of Commitments.

6.5 Heritage

A report by City Plan Heritage has been prepared to address the potential heritage impacts of the proposed modifications. This report is an addendum to the Heritage Impact Statement that accompanied the Approved Concept Plan.

6.5.1 Heritage Items

The Barangaroo site is not individually listed as a heritage item under any statutory instrument. However, five Heritage Items are located within the subject site in the vicinity of the Headland Park/Northern Cove. A number of other Heritage Items and a Conservation Area are located off site but in the general vicinity.

The heritage items on the site and in the vicinity of the Headland Park and Northern Cove are shown in Table 5 and Figure 20 below.

Table 5. Heritage Items located within Barangaroo

Heritage Item	Listing
Heritage Items within the site	
MWS&DB Sewage Pumping Station	<ul style="list-style-type: none"> Sydney LEP 2005 Sydney Water Section 170 Register Sydney Ports Section 170 Heritage Register
Harbour Control Tower (Ports Operation and Communications Centre)	<ul style="list-style-type: none"> Sydney Ports Section 170 Heritage Register
Sandstone Seawall	<ul style="list-style-type: none"> Sydney Ports Section 170 Heritage Register
Dalgety's Bond Store	<ul style="list-style-type: none"> State Heritage Register NSW Maritime Authority Section 170 Heritage Register Sydney LEP 2005
Moores Wharf	<ul style="list-style-type: none"> NSW Maritime Authority Section 170 Heritage Register
Heritage Items/Conservation Areas in the vicinity of the site	
Merriman Street Terraces	<ul style="list-style-type: none"> State Heritage Register Sydney LEP 2005
High Street Terraces	<ul style="list-style-type: none"> State Heritage Register Sydney LEP 2005 Department of Housing Section 170 Register
Palisade Hotel	<ul style="list-style-type: none"> State Heritage Register Sydney LEP 2005
Munn Street Terraces	<ul style="list-style-type: none"> State Heritage Register Sydney LEP 2005
Millers Point Conservation Area	<ul style="list-style-type: none"> State Heritage Register Department of Housing Section 170 Register Sydney LEP 2005

Figure 20. Physical Heritage



6.5.2 Impact of Proposed Modification on Heritage Items

The proposed modification to the Headland Park and Northern Cove will require the removal of three heritage items. An assessment of the impact of the removal of the items is provided in the Addendum Report at Appendix 6 and is summarised below.

MWS&DB Sewage Pumping Station

The Sewage Pumping Station will need to be relocated or completely removed as it is located at the edge of build up of the new natural landform. The need to relocate or remove the Sewage Pumping Station altogether was anticipated in the Approved Concept Plan. The 2007 Heritage Impact Statement undertaken for the Approved Concept Plan indicated that:

There is some detrimental impact from the demolition or burial of the structure. The ability to interpret the technical significance of the place as a part of the Bondi Sewer Outfall system is able to be demonstrated, interpreted and consequently appreciated through other actions in more appropriate locations. This structure is not the defining element of the reformed sewer system and without introduced information the cultural value of the place is not apparent. While the building is a reasonably well handled example of this type of building incorporating typical details popular architectural styles of the time it is not an excellent example of the Queen Anne style of architecture. Therefore the loss of heritage value is considered to be minor and acceptable as the associated cultural values may still be appreciated through more appropriate actions in more evocative locations and that better examples of the Queen Anne style of architecture exist elsewhere. ("East Darling Harbour Concept Plan Heritage Impact Statement" City Plan Heritage, 23 March 2007, pp.34–35)



Sewage Pumping Station

The Addendum Report notes that the retention of the Sewage Pumping Station in-situ would “create an awkward setting within the desired generously landscaped pedestrian link to the Headland as well as extensive foundation work for the protection of its structural integrity” (p.10).

Harbour Control Tower

The Sydney Ports Harbour Control Tower was constructed in 1973. It is listed on the Sydney Ports Section 170 Register for its role as the first tower being constructed in over 150 years after the European settlement in Sydney Harbour. The Statement of Significance provided in the Sydney Port Corporation Heritage Inventory (2004) identifies the Control Tower as “evidence of the long process of establishing visual control and guidance over maritime operations for the Port of Sydney”. Its significance relates primarily to its role as a symbol of efforts associated in building a tower for visual control of Sydney Port rather than any aesthetic or technical significance.

The Addendum Report includes an assessment of the significance of the tower in relation to other similar types of towers, including the South Head Signal Station, Nobbys Signal Station, Sydney Airport Control Tower and Sydney Tower. The report concludes that:

It is clear that the Harbour Control Tower does not stand out within the towers itemised here in terms of historical, technical and aesthetic qualities. Therefore its conservation and retention within the new configuration of the Northern Headland Park where it will be a detracting element in the naturalised landform is not warranted. The historical associations of the Barangaroo site is largely intangible and its future interpretation will not be affected by the demolition of the Control Tower. (p.14)



Harbour Control Tower

Sandstone Seawall

The seawall is listed on the Sydney Ports s170 register as being of significance for its association with the growth of wharf facilities and expansion of the western side of the city, and as a surviving example of works associated with early efforts of the Sydney Harbour Trust to develop standardised wharfage for the Port of Sydney. It is also listed for its presence as a “key feature which has been fixed in the landscape since c.1913 in tracing the evolution of the modern shape of Darling Harbour and Millers Point”.

The Addendum Report notes that retention of the seawall will prevent the realisation of the proposal to recreate a new natural landform if retained in situ and as such its removal is warranted. However, it is proposed to re-use the sandstone blocks as part of the future public domain works and the Statement of Commitments has been amended accordingly.



Sandstone Seawall

Other Heritage Items

There will be no adverse impact on other heritage items in the vicinity of the Headland Park and Northern Cove, including Moores Wharf and the Millers Point Conservation Area. Instead, the new design will significantly enhance the setting for other heritage items in the vicinity with the provision of a more naturalised headland form and an enlarged water body. The removal of Block 8 and part of Block 7 will open up views from the Millers Point Conservation Area to the harbour and the removal of Globe Street from the headland will allow for better integration between the historic Millers Point and the parklands.

The Addendum Report concludes that the new design improves and enhances the landform, setting, water edges and naturalised shape of the Barangaroo site thus creates consistency along the main waterway of Sydney Harbour.

6.5.3 Mitigative Measures

The Addendum Report makes a number of recommendations to ensure appropriate interpretation of the heritage items as follows:

- Prior to making a decision for the removal of the MWS & DB Sewage Pumping Station from the site, the feasibility of relocating the building elsewhere to a more suitable location within the site should be investigated.
- If the Pumping Station cannot be relocated within the site, incorporate the interpretation actions for the Sewage Pumping Station (if decided to be removed from the site) and the Harbour Control Tower as part of the Interpretation Strategy for the whole Barangaroo site that was submitted with this project application. The strategy guides the future interpretation of the place's development history and will be developed further at an appropriate stage(s) of the project for implementation.
- Archival documentation of the Pumping Station and the Control Tower should be carried out for future reference in accordance with the NSW Heritage Branch's guidelines for the documentation of heritage places of local significance prior to commencement any demolition works.

The requirement to investigate the feasibility of relocating the Pumping Station to elsewhere on the site and to prepare an Interpretation Strategy are already provided for under the Statement of Commitments in the Approved Concept Plan (Nos 48 and 61). However, the Statement of Commitments has been amended to reflect the other recommendations.

6.6 Community

The Approved Concept Plan makes extensive commitments towards the development of Barangaroo as a quality living and working environment accommodating a range of facilities benefiting the social, health, cultural and recreational needs of the existing and future communities. To this end, it sets out the following objectives:

- A high quality living and working environment in which the health and wellbeing of the working, residential and visiting populations are met.
- New benchmarks as an urban area that supports good health outcomes through the provision of opportunities for active recreation, availability of healthy food and access to health and lifestyle services.
- A high level of cultural amenities for visitors, workers and residents.
- A recreational environment of regional significance attracting visitors, while meeting the needs of workers and residents.

A wide range of initiatives are provided for under the Approved Concept Plan to achieve these objectives. A summary of these initiatives is provided in Table 6. The table also provides an assessment of the ramifications of the proposed modification for the Headland Park/Northern Cove in relation to these initiatives.

Overall, the proposed modification will provide for an enhanced parkland experience for residents, workers and visitors alike. The new headland will strengthen the visual and pedestrian connections between the Headland Park and the elevated plateau around Argyle Place and The Rocks. It will provide a focal point for a range of cultural and recreation activities, particularly centred on the harbour experience and panoramic views offered by the site. The enlarged Northern Cove will enable greater connection between the site and the water. The naturalised configuration of both the headland and the bay will provide an alternative recreational experience than that provided by the more urban public open space to the south.

With the removal of part of Block 7 to accommodate the expanded Northern Cove, there will be a reduction in the overall amount of residential floorspace of approximately 13,000m². However, this is considered acceptable given that:

- the removal of Block 8 and part of Block 7 will an enlarged northern cove and will open up views from Millers Point;
- the reduction in floorspace represents less than 5% of the total floorspace permissible on the site.

Table 6. Assessment of Impact of Modification on Social/Community Provisions under Approved Concept Plan

ACCESS AND MOBILITY As a new mixed use and open space precinct Barangaroo will provide new methods of access and connection within the site and between the site and the rest of the city and the harbour.	
Provision under Approved Concept Plan	Impact of Headland Park/Northern Cove Modification
50% of site publicly accessible open space	Consistent.
New streets and lanes to provide a variety of pedestrian/ vehicle circulation routes and provide legible connection to city	Urban structure will continue to provide for variety of legible pedestrian/vehicle circulation routes
1.4 kilometre foreshore promenade to run length of site	Consistent.
Variety of edge conditions along foreshore	The reconfigured northern cove will enhance the experience of water and the harbour
New streets to be aligned to provide water vistas	Significant new water vistas will be provided across the northern cove from Hickson Road
New promenade street ("Globe Street") to define the western edge of the urban precinct and act as a frame to the new parklands and the harbour edge.	Globe Street will still define the edge of the urban precinct but will turn east and connect with Hickson Road south of the northern cove. Recognising the importance of original urban structure "gesture" provided by Globe Street it is proposed that the axis of Globe Street will continue through the site but not necessarily in the form of a road. (Refer discussion in Chapters 3 and 5 for further detail)
New public transport bus routes can be incorporated into the scheme.	Traffic Report by Masson Wilson Twiney indicates that modification will not impact on ability to deliver Barangaroo Bus Servicing Strategy. Bus turnaround and layover arrangements will need to take account of the modified local road network however the opportunity is available to use northern end of Globe Street as a turnaround facility, with layover on Hickson Road.
City of Sydney's Cycle Plan routes can be extended along Globe Street, foreshore promenade, Headland Park, and along the east-west streets	Provision is still made for pedestrian and cycle routes along Globe Street, foreshore promenade, Headland Park and east west streets.
Public parking to be provided on all public streets and underground public parking facility be provided at the Headland Park.	Consistent.
Existing Sydney Ports Corporation employee parking numbers will be retained on site.	Reconfiguration of Headland Park and Northern Cove will require demolition of Harbour Control Tower. Sydney Ports has requested that the tower not be demolished until it has found suitable alternative locations for the equipment and staff have been relocated

CULTURAL

Barangaroo has the potential to complement the harbourside cultural industries precinct extending from Woolloomooloo to Darling Harbour. An energetic cultural environment within Barangaroo is proposed with an emphasis on the harbour's edge, significant public art, well designed spaces for cultural events, people gathering, and informal interaction.

Provision under Approved Concept Plan	Impact of Headland Park/Northern Cove Modification
Flexible outdoor venues for city-scale events and activities to be provided	Consistent
Public art to be a defining part of the site and establishing Barangaroo as an iconic destination	Consistent. Design for Headland Park and Northern Cove will incorporate public art and will provide opportunity to retain some of the memory of the quarrying and stevedore activities of the headland through landscape.

SOCIAL

Social infrastructure in Barangaroo has the potential to provide a quality living and working environment in which the health and well being of workers, residents and visitors are met. This can be achieved through a flexible mix of services, spaces and facilities to accommodate changing needs for social support over time.

Multipurpose community hub and childcare facilities.	Consistent
Provision of linkages between adjacent communities to enable easy access to programs and services.	Consistent
Re-establishment of physical and social connections which have been severed in recent history, opening this foreshore area up to the larger community, and providing a great social gathering place for the city.	Consistent. Removal of Globe Street from Headland Park will enable closer integration between park and Millers Point.
A harbour foreshore walk and cycle path linking King Street Wharf with Millers Point and on to Walsh Bay and Circular Quay.	Consistent

RECREATION

Barangaroo will contribute to a recreational environment of national significance attracting visitors while meeting the needs of workers and residents. Use of the harbour edge and open space systems to provide exceptional recreational experiences will be a key feature of this.

A harbour foreshore walk and cycle path linking King Street Wharf with Millers Point and on to Walsh Bay and Circular Quay.	Consistent.
Provision of an active sports area to accommodate sports such as soccer, touch football, social workout/training sites along with multifunctional courts for hard court games.	Consistent
A mix of open space, cultural spaces and community facilities which will allow individual cultural based recreational activities to become part of the way the area is experienced.	Consistent

HOUSING

The location of the site on the edge of the CBD, closely linked to existing transport networks, services and facilities offers the opportunity for housing to be developed in a highly sustainable location... Barangaroo has the potential to contribute to the delivery of housing in an environmentally and socially sustainable manner, consistent with the requirements of the Metropolitan Strategy. The location of housing in the Concept Plan proposal reflects the need to activate the northern part of the site, provide an element of passive security and introduce a lower scale of development adjoining the Millers Point low rise residential community.

Provision under Approved Concept Plan	Impact of Headland Park/Northern Cove Modification
Up to 100,000m ² of residential floor space, potentially accommodating up to 1,600 new residents in 750 dwellings.	Refer discussion in Chapter 5 regarding justification for reduction in floorspace.
An amount set aside for intermediate housing to support a socially sustainable community at Barangaroo through a mix of housing opportunities.	Consistent

HEALTH

Barangaroo can support good health outcomes through the provision of opportunities for active recreation, healthy food outlets and access to health and lifestyle services. This will be achieved in an environment where active lifestyle and healthy food choices are accessible and affordable for residents, workers and visitors.

Key areas of delivery include fresh food retail areas, active sports facilities and a walk/bicycle link along the foreshore.	Consistent
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6.7 Impact on Services

6.7.1 Current Availability of Utility Services

The current availability of services to the site and the need for any upgrading or extension of services to accommodate the future development was considered in detail in the Approved Concept Plan and continue as a part of the project development. The key findings were:

The Barangaroo infrastructure strategy for utility services can accommodate a 'business as usual' approach, which is considered to be a worst case scenario in terms of site demands. It should be noted that the site's sustainability solutions, currently under development, will reduce demands on infrastructure considerably when compared to a business as usual approach.

The infrastructure strategies are summarized below for each utility.

	Existing infrastructure	Initial infrastructure strategy	Impact of removing block 8 & part block 7
Sewer	<p>There is a substantial network of Sydney Water mains crossing the site draining to one of two sewer pumping station located within the site boundary.</p> <p>Sydney Water have recently advised that due to recently completed sewer and stormwater separation in the catchment the sewer system now has spare capacity.</p>	<p>New gravity sewer mains are proposed across the site connected to the existing pump stations or additional pump stations.</p>	<p>The reduction in GFA will reduce flows to sewer.</p> <p>The projects commitment to reduced flows to sewer and an integrated water recycling strategy remains.</p>
Electricity	<p>The site is currently supplied by one of the last remaining 5kv supplies in the CBD</p>	<p>The initial strategy was to provide a new power supply fed by the Darling Harbour Zone sub station.</p> <p>Further assessment has determined that the City North substation behind Kings Street Wharf has the capacity to supply the full site demands. The City North sub station will be complete late 2009 early 2010.</p>	<p>The decreased GFA will reduce the demand on this utility.</p> <p>The projects commitment to integrated solutions to energy efficiency and reduced greenhouse gas emissions remains.</p>
Stormwater	<p>There are a series of storm water pipes draining Hickson Road and the external catchment through the Barangaroo site directly to the Harbour.</p> <p>The existing site storm water system is currently at or slightly under capacity.</p>	<p>It is not anticipated that major augmentation to the stormwater infrastructure will be required due to the fact that the development will result in an overall reduction in impervious area compared to the existing state.</p>	<p>The decreased GFA and larger cove will further increase the pervious area of the site again reducing demand.</p> <p>The projects commitment to an integrated water recycling strategy and WSUD remains.</p>
Gas	<p>There is currently a low pressure gas main on the western side of Hickson Road and a high pressure main located at the corner of Sussex and Napoleon Street.</p>	<p>The low pressure main could have the capacity to supply the residential; development only.</p> <p>The high pressure main could supply the site if the load was sufficient. This upgrade could be carried if co generation was one of the solutions for the site.</p>	<p>The decreased GFA will reduce the demand on this utility.</p> <p>The projects commitment to integrated solutions to energy efficiency and reduced greenhouse gas emissions remains.</p>
Telecommunications	<p>There is limited telecommunication infrastructure currently supplying the site.</p> <p>There are various Telstra lines along Hickson Road and Dalgety Road and Optus and Vodaphone equipment shelters located near the Hickson Rd boundary at Wharf 4.</p>	<p>The increased Telstra service would be a minimum impact but broadband, Optic, 3G and Wi Fi will require developer contribution.</p> <p>A major upgrade is required for the initial proposal.</p>	<p>The decreased GFA will reduce the demand on this utility.</p> <p>The projects commitment to major upgrade of service remains.</p>

6.7.2 Impact of Proposed Modification on Stormwater

An assessment of stormwater services was undertaken by Lincolne Scott Australia Pty Ltd and accompanied the original Concept Plan (*East Darling Harbour Infrastructure Report*, October 2006). A Water Sensitive Urban Design Strategy was also prepared as part of the Approved Concept Plan (*East Darling Harbour Development Water Sensitive Urban Design Strategy*, Ecological Engineering, September 2006).

A detailed stormwater catchment study and stormwater service upgrades have not yet been determined. However, the Lincolne Scott report noted that the site *will undergo a complete refurbishment of stormwater infrastructure that will capture as much stormwater from the site and surrounds for reuse as possible with discharge to Sydney Harbour for overflow purposes following treatment.*

As noted above, the Statement of Commitments provides for the preparation of an Integrated Water Management Plan. This Plan will address water demand management, wastewater management and stormwater management and include:

- investigation of a “fit-for-purpose” approach to alternative sources of water for substitution of potable mains water for non-potable use. In line with BASIX (and extending to commercial properties), water efficient appliances and fixtures are to be used for potable water demand management throughout the development.
- an investigation of schemes to manage wastewater from the residential and commercial buildings as a resource, with wastewater treated and recycled as an alternate source of non potable water, especially with regard to public open space irrigation.
- investigation of the feasibility of on-site treatment of stormwater from external catchments at Millers Point, to national best practice standards. Opportunities to integrate the design of Water Sensitive Urban Design (WSUD) elements (such as detention ponds) into the public domain, parks and built form are to be explored.

The proposed stormwater strategy provided for under the Approved Concept Plan, including the commitment to WSUD for the site, remain unchanged with this modification.

6.7.3 Impact of Proposed Modification on Services

Whilst the site is currently serviced for electricity, gas, sewer, water, stormwater and telecommunications, the infrastructure in most cases will not be adequate to provide for the new development and major upgrades have been proposed.

Recent discussions with Energy Australia have confirmed surety of energy supply from the City North network to the whole Barangaroo site, regardless of demand reductions that may be achieved through sustainability initiatives thus providing the highest surety of supply and back-up supply for the site. Furthermore Energy Australia have indicated they will have a flexible view to site negotiations should highly sustainable and innovative solutions be forthcoming from the Stage 1 Request for Detailed Proposals (RFDP) process, currently underway.

The proposed modification will not adversely impact on the provision of services. The removal of Block 8 and part of Block 7 will mean a reduction in floor space and therefore will reduce the demand on utility services proportionally.

The reconfigured northern headland will not change service provision in this area as provided for under the Approved Concept Plan.

To minimise the need for amplification and extension of services, both water and energy conservation are key elements in the renewal of the site. This is reflected in the Statement of Commitments which makes provision for the preparation of:

- Utility Services Infrastructure Plan
- Integrated Water Management Plan and Guidelines,
- Potable Water Demand Management Plan,
- Wastewater Management Plan and
- Stormwater Management Plan.

The Utility Services Infrastructure Plan is to address:

- infrastructure requirements for integrated water management, including stormwater treatment, as determined through the preparation of the Integrated Water Management Plan;
- Type, extent and location of utility services (power, gas, water, sewer, stormwater, communications) consistent with the ESD principles and other commitments in Statement of Commitments;
- Coordinated response to infrastructure design and delivery on the site and consideration of infrastructure benefits to the adjoining precincts.

The site's sustainability strategies and technical solutions for infrastructure, currently under development, will target an integrated and holistic precinct wide solution, which will reduce demands on infrastructure considerably when compared to a business as usual approach. The proposed modification to the Concept Plan will have a proportional reduction in infrastructure demands; however the project's commitment to the Statement of Commitment requirements and exemplary sustainability outcomes for Barangaroo's infrastructure remains unchanged.

6.8 STAGING

Given the scale and complexity of the proposed redevelopment of Barangaroo it is envisaged its delivery will entail a 10 to 15 year timeframe. Expressions of Interest from prospective proponents were called for Stage 1 of the project which will comprise Blocks 1 to 4 including the adjacent public domain. A short list of consortia has been since announced and invited to respond to a request for detailed proposals.

The process for the design of the Public Domain (Headland Park), and the establishment of a cohesive urban identity and design language for all the Public Domain, will follow a similar two stage process. The Foreshore Authority will call for EOIs for the design of the public domain from urban design, architecture and landscape companies. Once short listing has occurred a Request for Proposals will be undertaken.

In addition to the EOI Process and RFP Process for the Public Domain, the Foreshore Authority proposes the following arrangements will be undertaken in connection with the delivery of the further stages of Barangaroo Project:

- **Residual Development Rights Offerings** — the balance of the development rights, namely Blocks 5 to 7 (and adjoining Public Domain) will be the subject of future public offerings. It is anticipated that the successful proponents for these Blocks will be responsible for delivery of the associated infrastructure, streetscape and Public Domain.
- **Innovation EOI** — a call for EOIs relating to 'innovation' to invite proposals for activation of the Public Domain predominantly between the Northern and Southern Coves.

The Authority will ensure that the Headland Park is delivered in an efficient and timely manner.

7. STATEMENT OF COMMITMENTS

The Approved Concept Plan includes a Statement of Commitments which details a range of measures to be undertaken by the Foreshore Authority and other agencies to ensure the development of Barangaroo achieves the objectives set out in the report. The Statement of Commitments is in addition to the Minister's Terms of Approval for the development.

The Statement of Commitments is proposed to be amended to accommodate some minor changes which are procedural only and are intended to allow for the preparation of separate plans/strategies as applicable so that works can commence in stages. Other changes are proposed to address specific impacts of the Modification, as discussed in Chapter 6.

The modified Statement of Commitments is provided in Table 7 (text to be deleted shown as struck through, new text shown in bold).

Table 7. Revised Statement of Commitments

Subject	Commitments	Timing
Design Excellence Strategy	<ol style="list-style-type: none"> 1. A Design Excellence Strategy/Strategies that clearly articulates a process to achieve quality in both the private built form and/or the detailed design of the public domain (streets, pedestrian connections, parks and squares) is to be prepared. 2. The Design Excellence Strategy may include the preparation of site specific design guidelines, articulate a process(es) for the conduct of design competitions for major developments and the design of public open spaces, and/or establish a competitive tender process for individual development site(s). 3. A Technical Working Group is to be established to prepare the Design Excellence Strategy. The membership of the Working Group is to be determined by the proponent team and the Barangaroo Taskforce (under its terms of reference dated 26 November 2006). 4. The Terms of Reference for the Technical Working Group is to be consistent with the requirements for preparation of the Design Excellence Strategy specified in this Statement of Commitments and are to be endorsed by the Barangaroo Taskforce. 5. The Design Excellence Strategy is to be submitted by the Working Group to the Barangaroo Taskforce. The Barangaroo Taskforce will report to the IPCC on relevant matters as recommended by the proponent team and Working Group. The proponent will report to the Sydney Harbour Foreshore Authority (SHFA) Board on recommendations from the Working Group. 6. Following endorsement, the Design Excellence Strategy is to be made publicly available in a manner to be determined by the Barangaroo Taskforce. 	<p>To be submitted to the Barangaroo Taskforce prior to the lodgement of any development- application/project application relating to buildings or to the establishment of the public domain, other than for demolition or early/site preparation work and remediation.</p>

Subject	Commitments	Timing
Provision and Financing of Social and Physical Infrastructure	<p>7. The following Implementation Plans will be prepared for the site as a whole and/or for specific components or stages of the project:</p> <ul style="list-style-type: none"> Public Domain Plan; Transport Management Plan & Access Plan; Community & Social Plan; and Utility Services Infrastructure Plan. <p>8. The Implementation Plans are to:</p> <ul style="list-style-type: none"> Verify the scope and accurately cost all of the social and physical infrastructure needed to support the proposed development. Identify the relevant requirements for timing and staging of provision of that facility, service or physical infrastructure. Identify any relevant Government agency policy initiatives that will need to be in place to deliver specific outcomes. Provide details with respect to the funding mechanism(s) for delivery of the identified infrastructure. Provide sufficient detail to enable the proponent to enter into planning agreements with developers, relevant Government agencies, the City of Sydney Council and/or the Minister for Planning if and as required, to collect contributions for the provision of infrastructure either through a cash contribution or works-in-kind or both. 	To be submitted to the Barangaroo Taskforce prior to the lodgement of any development-application/project application other than for demolition or early/site preparation work and remediation
	<p>9. Technical Working Groups are to be established to prepare the Implementation Plans. The membership of the Working Groups is to be determined by the proponent team and the Barangaroo Taskforce (under its terms of reference dated 26 November 2006), and may include or consult with representatives from the Sydney Harbour Foreshore Authority, Department of Planning, City of Sydney Council, State Transit Authority, Sydney Ferries Corporation, Railcorp, Sydney Ports, NSW Maritime, Department of Housing, NSW Roads and Traffic Authority, Sydney Water and/or other infrastructure providers as is determined appropriate.</p> <p>10. Terms of Reference for the Technical Working Groups are to be consistent with the requirements for preparation of the Implementation Plans specified elsewhere in this Statement of Commitments and are to be endorsed by the Barangaroo Taskforce. The Barangaroo Taskforce will report to the IPCC on relevant matters as recommended by the proponent team and Working Groups. The proponent will report to the SHFA Board on recommendations from the Working Groups.</p> <p>11. The Implementation Plans may be updated throughout the development of the project. Following endorsement, the Implementation Plans are to be made publicly available in a manner to be determined by the Barangaroo Taskforce.</p>	
Public Domain Plan	<p>12. The Public Domain Plan/Plans referred to at Commitment 7 is to include the following as generally described in the Concept Plan:</p> <ul style="list-style-type: none"> An introductory explanation for the types, hierarchy, interrelationships of spaces, and the appropriateness of these spaces to the end users of the public domain. A new Headland Park. Waterfront parks and squares. A foreshore promenade. An informal sports playfield. A north-south pedestrian promenade street. 	To be submitted to the Barangaroo Taskforce prior to the lodgement of any development-application/project application other than for demolition or early/site preparation work and remediation.

Subject	Commitments	Timing
Public Domain Plan...continued	<ul style="list-style-type: none"> An internal street system that 1) defines development blocks, 2) provides for the easy flow of people and vehicles, 3) acts as a comfortable stage for activity and human interaction, 4) creates a distinctive address for each new development building, and 5) creates a connection between Hickson Road and the harbour edge. On-street bicycle lanes to create a route utilising Napoleon Street, the Napoleon Street extension, and the proposed Globe Street. An off-street cycle route within the Headland Park to link between proposed Globe Street and Hickson Road (north). Shared use of the pedestrian promenade street by bicycles. 	
	<p>13. The Public Domain Plan/Plans is to provide design details with respect to the following:</p> <ul style="list-style-type: none"> Indicative levels in the parks, edge conditions of parks and pedestrian connections through parks. Materials and planting. Safe and convenient walking routes and facilities. Street furniture. Design standards for the road network (dimensions, materials, drainage), kerb parking and loading spaces, crossings, cycling and taxi facilities, including bicycle parking facilities). All extensions to the existing road network within the Barangaroo site are to comply with the geometric requirements of the RTA road design guide. The mix of parking/loading/other kerb controls. Design requirements/guidelines for integrated water management/water sensitive urban design consistent with the Integrated Water Management Plan referred to at Commitment 22. Design requirements and details relating to the recreational facilities as referred to at Commitment 18. Requirements for a public parking structure of up to 300 car spaces in the Headland Park area. <p>14. The Public Domain Plan is to incorporate a Public Art Strategy.</p> <p>15. In addition to the general matters specified at Commitment 8, the Public Domain Plan is to address:</p> <ul style="list-style-type: none"> The future ownership and maintenance of parks. The feasibility, both conceptually and financially, of establishing the elevated Headland topography. 	
Transport Management & Access Plan	<p>16. The Transport Management & Access Plan (TMAP) referred to at Commitment 7 is to be prepared following:</p> <ul style="list-style-type: none"> An assessment of the area wide traffic impacts of the development on the Sydney CBD road network using the RTA's PARAMICS traffic model (including the effects of changes to the bus service network). The preparation of the TMAP or equivalent to investigate the following: <ul style="list-style-type: none"> (a) a cohesive street network connecting land use components and local roads within and to CBD streets and regional roads; (b) the method by which traffic estimation figures are generated; 	To be submitted to the Barangaroo Taskforce prior to the lodgement of any development application/project application other than for demolition or early/site preparation work and remediation.

Subject	Commitments	Timing
Transport Management & Access Plan... continued	<ul style="list-style-type: none"> (c) identification of public transport service opportunities and constraints with a view to encouraging a high level of travel by public transport, walking and cycling; (d) likely traffic impacts on local and regional intersections — including the key junctions for buses on Clarence at Market Street, York at Market Street, and Napoleon at Margret Street; (e) identification of local and regional infrastructure improvements; (f) the timing of traffic and public transport infrastructure improvements so they are in line with the staged development of the Barangaroo site. <p>The PARAMICS model is to be used in an iterative manner during the preparation of a TMAP or equivalent to test:</p> <ul style="list-style-type: none"> (a) impact on traffic operation of changes to pedestrian movements and volume configurations; (b) different bus access strategies; and (c) variations in traffic generation estimates (depending on the relative attractiveness of pedestrian, rail, and bus access). <p>The outcomes of the area wide traffic impact modelling are to form part of the consideration of the physical road transport infrastructure to be addressed in the preparation of the TMAP.</p>	
	<p>17. The Transport Management & Access Plan is to consider and address the following matters:</p> <ul style="list-style-type: none"> ■ Design and construction of a traffic signal controlled intersection at Sussex Street/Napoleon Street, to facilitate the main point of vehicular entry into the development site intersection (to RTA requirements). ■ The feasibility of future specialist transport services to the site (including light rail, boutique tourist bus services, river metro route) and the need to protect possible future alignments for these services. This is to include a possible future light rail system with appropriate reservation of road space on Hickson Road. ■ Off-site improvements that will facilitate pedestrian and cycle access between the site, Wynyard Railway Station, Millers Point, the Rocks, Circular Quay and Dawes Point. This is to include consideration of pedestrian links to existing bus services and the potential for grade separated connections between the site/Hickson Road and Wynyard Station, which will meet pedestrian desire lines and provide physical linkages to the adjoining residential area of Millers Point, which will facilitate easy access to and regular use of services, facilities and public spaces at Barangaroo by existing local communities. Consideration of off-site pedestrian improvements is only where those improvements can be demonstrated to positively improve the amenities of the proposed development and its connections to surrounding developments. Consideration of more general public domain improvements for the benefit of the wider CBD is not required. ■ Options for the extension/amendment of bus services. Initial options include extensions to services from QVB, and east-west bus link (Erskine Street, Wynyard Street and Regimental Square) and services which currently terminate at Wynyard. This is to include consideration of the need for any off-site traffic works to provide for improved east-west bus movements relating to servicing of the site. 	

Subject	Commitments	Timing
	<ul style="list-style-type: none"> Any options for extended bus services to the site will be subject to endorsement by the Ministry of Transport (MOT), State Transit Authority (STA) Services will be progressively provided in line with the staged development of Barangaroo. Bus stops and access, including the location of bus stops along Hickson Road, and any relocation of existing stops. Provision of off-road layover facilities for buses and for coach drop off and parking, including the need for on-street tourist coach parking facilities at the northern end of the site (in Hickson Road and Munn Street). Provision of passenger wharf facilities, including at least one public ferry wharf with appropriate landside facilities adjacent to the site. The role of this commuter/tourist/recreational wharf, and possible adjustments to ferry services is to be the subject of consultation with Sydney Ferries/MOT/NSW Maritime/Sydney Ports Corporation. Feasibility of creating a westward extension of Grosvenor Street to Kent Street and provision of two way vehicular access on Kent Street. Re-alignment and/or retention of Margaret Street along the southern boundary of the site and land use implications of such changes. Desirability of replacing existing all day (10 hour) on-street parking in Hickson Road by parallel shorter term parking. 	
Community & Social Plan	<p>18. The Community & Social Plan/Plans referred to at Commitment 7 is to include the provision of the following facilities within the Barangaroo site:</p> <p>Social</p> <ul style="list-style-type: none"> A multi-purpose facility designed to accommodate a range of community programs. The facility will have the capacity to accommodate an innovative mix of functions and tenancies, including complimentary commercial concessions, and with the potential to respond to changing social needs. A minimum of two long day-care and early learning centres. <p>Health</p> <ul style="list-style-type: none"> A range of outdoor spaces, linkages and facilities designed to enable active recreation including walking/jogging, informal team sports, outdoor exercise, court games, and non-motorised water sports. A range of outdoor spaces, structures and/or buildings for relaxation, social interaction and passive recreation. <p>Cultural</p> <ul style="list-style-type: none"> Consideration of floor space for cultural industries and or cultural industries development. This may be achieved in conjunction with the development of community infrastructure. A flexible outdoor venue for city scale cultural events. <p>Recreation</p> <ul style="list-style-type: none"> A harbour foreshore walk/cycle path linking King Street Wharf with Millers Point. Active sports areas and associated toilet, change and shower facilities. A regional play space with an innovative, engaging mix of facilities and environmental features to function as a major destination for families. 	To be submitted to the Barangaroo Taskforce prior to the lodgement of any development application/project application other than for demolition or early/site preparation work and remediation.

Subject	Commitments	Timing
Community & Social Plan... continued	<ul style="list-style-type: none"> Public open spaces immediately adjacent to residential areas designed to allow a range of passive recreation activities attractive to residents and regional visitors. Well-designed pedestrian linkages allowing easy and safe access to recreational spaces and facilities from commercial and residential areas within East Darling Harbour and from Millers Point, Walsh Bay, Kent Street, and King St Wharf. <p>19. Design requirements and details relating to the facilities noted at Commitment 18, and in particular to the health and recreation facilities are to be incorporated into the Public Domain Plan.</p>	
Utility Services Infrastructure Plan	<p>20. The Utility Services Infrastructure Plan/Plans referred to at Commitment 7 is to include and provide details in relation to the following within the Barangaroo site:</p> <ul style="list-style-type: none"> Infrastructure requirements for integrated water management, including stormwater treatment, as determined through the preparation of the Integrated Water Management Plan referred to at Commitment 22; Type, extent and location of utility services (power, gas, water, sewer, stormwater, communications) consistent with the ESD principles and other commitments incorporated within this Statement of Commitments; Coordinated response to infrastructure design and delivery on the site and consideration of infrastructure benefits to the adjoining precincts. <p>21. As part of the preparation of the Utility Services Infrastructure Plan:</p> <ul style="list-style-type: none"> Further investigations are to be undertaken with respect to the existence of any services (such as pipes and cables) and structures within the Barangaroo site. Consultation with Railcorp is to be undertaken on this issue. Locations for electricity sub-stations and transformers are to be examined. No sub-stations or transformers are to be placed in above ground public domain areas, but instead installed underground or in-buildings. Appropriate investigations are to be undertaken to ensure that the impact on safety, integrity and operation of NSW rail network — through the development's effect on traction (electrical) power supply on the operation of current City underground rail network — is appropriate. 	To be submitted to the Barangaroo Taskforce prior to the lodgement of any development application/project application other than for demolition or early/site preparation work and remediation.
Integrated Water Management Plan & Guidelines Potable Water	<p>22. An Integrated Water Management Plan/Plans is to be prepared for future development. The Integrated Water Management Plan is to incorporate a Water Demand Management Plan, Wastewater Management Plan and Stormwater Management Plan. The public domain and infrastructure provision requirements identified in the Integrated Water Management Plan are to be incorporated into the Public Domain Plan and/or Utility Services Infrastructure Plan as relevant.</p>	To be prepared prior to/ concurrently with the preparation of the Public Domain Plan and Utility Services Infrastructure Plan, and submitted to the Barangaroo Taskforce prior to the lodgement of any development application/project application other than for demolition or early/site preparation work and remediation.

Subject	Commitments	Timing
Demand Management	23. The Water Demand Management Plan/Plans is to include an investigation of possible schemes to reduce potable water demand through source substitution. A "fit-for-purpose" approach to alternative sources of water for substitution of potable mains water for non-potable use will be used to scope the Plan. In line with BASIX (and extending to commercial properties), water efficient appliances and fixtures are to be used for potable water demand management throughout the development	
Wastewater Minimisation	24. The Wastewater Management Plan/Plans is to include an investigation of schemes to manage wastewater from the residential and commercial buildings as a resource, with wastewater treated and recycled as an alternate source of non-potable water, especially with regard to public open space irrigation.	
Stormwater Management	25. The Stormwater Management Plan/Plans is to include an investigation of the feasibility of on-site treatment of stormwater from external catchments at Millers Point, to national best practice standards. Where feasible, harvested stormwater is to be used to meet non-potable demand. Stormwater leaving the EDH site will be treated to national best practice standards as a minimum, specifically reducing average annual loads of total suspended solids by 80% and nutrients by 45%. In addition, litter and gross pollutants are to be removed from stormwater running into the harbour. Opportunities to integrate the design of Water Sensitive Urban Design (WSUD) elements (such as detention ponds) into the public domain, parks and built form are to be explored	
Housing Strategy	<p>26. A Housing Strategy is to be prepared that:</p> <ul style="list-style-type: none"> Identifies the preferred mix of housing opportunities defined by price, dwelling type and dwelling size. Incorporates intermediate housing tenure options. Sets a suitable intermediate housing component as a proportion of total housing provision. Includes a range of mechanisms to subsidise the development of the intermediate housing component. Retains land provided for intermediate housing in Government ownership with leases up to 99 years. <p>27. A Technical Working Group is to be established to prepare the Housing Strategy. The membership of the Working Group is to be determined by the proponent team and the Barangaroo Taskforce (under its terms of reference dated 26 November 2006).</p> <p>28. The Terms of Reference of the Technical Working Group is to be consistent with the requirements for preparation of the Housing Strategy specified in this Statement of Commitments and endorsed by the Barangaroo Taskforce.</p> <p>29. The Housing Strategy is to be submitted by the Working Group to the Barangaroo Taskforce. The Barangaroo Taskforce will report to the IPCC on relevant matters as recommended by the proponent team and Working Group. The proponent team will report to the SHFA Board on recommendations from the Working Group.</p> <p>30. Following endorsement, the Housing Strategy is to be made publicly available in a manner to be determined by the Barangaroo Taskforce.</p>	To be submitted to the Barangaroo Taskforce prior to the lodgement of any development application/project application for development within the Mixed Use Zone other than for demolition or early/site preparation work and remediation.

Subject	Commitments	Timing
Marketing and Promotion Strategy	<p>31. A Marketing and Promotion Strategy/Strategies is to be prepared to promote Barangaroo's and the broader Sydney region's development opportunities to international companies, investors and property brokers. The Strategy will cover the lifespan of the redevelopment and focus on attracting investment from outside the Sydney region and State. The Strategy will emphasise the unique attributes of the site such as the lifestyle and workforce skills available in this urban waterfront precinct.</p>	To be submitted to the Barangaroo Taskforce prior to the lodgement of any development application /project application for development within the Mixed Use Zone other than for demolition or early/site preparation work and remediation .
	<p>32. A Technical Working Group is to be established to prepare the Marketing and Promotion Strategy. The membership of the Working Group is to be determined by the proponent team and the Barangaroo Taskforce (under its terms of reference dated 26 November 2006).</p> <p>33. The Terms of Reference of the Technical Working Group is to be consistent with the requirements for preparation of the Retail Marketing and Promotion Strategy specified in this Statement of Commitments and endorsed by the Barangaroo Taskforce.</p> <p>34. The Marketing & Promotion Strategy/Strategies is to be submitted by the Working Group to the Barangaroo Taskforce. The Barangaroo Taskforce will report to the IPCC on relevant matters as recommended by the proponent team and Working Group. The proponent team will report to the SHFA Board on recommendations from the Working Group.</p> <p>35. Following endorsement, the Marketing & Promotion Strategy is to be made publicly available in a manner to be determined by the Barangaroo Taskforce.</p>	
Retail Management Plan	<p>36. A Retail Management Plan is to be developed to guide and encourage the right mix of retail that will establish EDH as a distinctive retail precinct. The Plan will outline innovation management strategies, foster design leadership, and encourage originality and differentiation.</p> <p>37. The Retail Management Plan is to be drafted to adapt to retail trends and changes over time by having in place a set of coordinated retail management guidelines for the site that will refresh the offerings, yet ensure consistency of vision and connection between the office and residential blocks, while maintaining an appropriate mix and market positioning of the Barangaroo retail precinct.</p> <p>38. The Retail Management Plan is to include the opportunity for ephemeral retailing events, such as markets and festivals, which are consistent with the overall retail image or brand of the precinct.</p> <p>39. A Technical Working Group is to be established to prepare the Retail Management Plan. The membership of the Working Group is to be determined by the proponent team and the Barangaroo Taskforce (under its terms of reference dated 26 November 2006).</p> <p>40. The Terms of Reference of the Technical Working Group is to be consistent with the requirements for preparation of the Retail Management Plan specified elsewhere in this Statement of Commitments and endorsed by the Barangaroo Taskforce.</p> <p>41. The Retail Management Plan is to be submitted by the Working Group to the Barangaroo Taskforce. The Barangaroo Taskforce will report to the IPCC on relevant matters as recommended by the proponent team and Working Group. The proponent team will report to the SHFA Board on recommendations from the Working Group.</p> <p>42. Following endorsement, the Retail Management Plan is to be made publicly available in a manner to be determined by the Barangaroo Taskforce.</p>	To be submitted to the Barangaroo Taskforce prior to the lodgement of any development application /project application for development within the Mixed Use Zone other than for demolition or early/site preparation work and remediation .

Subject	Commitments	Timing
Parking & servicing	<p>43. Off-street bicycle parking and shower facilities are to be provided within buildings in line with City of Sydney Council Code rates.</p> <p>44. All on-site parking areas should conform to the requirements of AS2890.1:2004.</p> <p>45. The following maximum car parking rates shall apply to future development within the site:</p> <p>Commercial Uses — 1 space/600m² GFA</p> <p>Residential — 1 bedroom unit — 1 space/2 units 2 bedroom unit — 1.2 spaces/unit 3 bedroom unit — 2 spaces/unit</p> <p>Other Uses — City of Sydney Council rates</p> <p>Passenger Terminal — subject to a future traffic report based on demand estimates</p> <p>46. All building servicing and loading facilities will be in line with City of Sydney Council code rates.</p> <p>47. All service/delivery areas will conform to the requirements of AS2890.2: 2002 subject to driveways complying with the City of Sydney requirements.</p>	At the stage of any relevant development or project application.
Heritage Sewer Pump Station	<p>48. A further study is to be undertaken to examine the potential for relocation and adaptation of the sewer pump station structure on the Barangaroo site. There will be an archival recording of the structure prior to any possible demolition or relocation. The archival recording will be prepared in accordance with the NSW Heritage Office Guidelines.</p> <p>48A Removal of the Pumping Station will be carried out carefully in blocks and systematic order as such to allow reconstruction elsewhere rather than disposal of its fabric. An appropriate methodology should be developed to minimise loss of significant fabric during removal.</p>	At the stage of any relevant development or project application relating to the sewer pump station structure.
Dalgety's Bond Store	<p>49. A Conservation Management Plan (CMP) will be prepared by an appropriately experienced and qualified heritage practitioner for the Dalgety's Bond Store in accordance with the NSW Heritage Office Guidelines and in consultation with the NSW Heritage Office. Any proposal for major alterations and additions to the building site will be guided by the CMP.</p>	At the stage of any development or project application relating to the Dalgety's Bond Store.
Views to Millers Point Conservation Area	<p>50. Future development within the Barangaroo site is to retain views to Observatory Hill Park from public spaces on opposite foreshores; and to retain a panorama from Pyrmont Park around to the Harbour Bridge as seen from Observatory Hill Park, and as shown within the Concept Plan by the photomontage images included in the Heritage Impact Statement prepared by City Plan Heritage</p>	To be demonstrated/assessed as part of any relevant development/project application.
	<p>51. Future development within the Barangaroo site is to provide adequate view corridors over and between new built form to maintain the key attributes of views from Millers Point. The key attributes to be retained are:</p> <ol style="list-style-type: none"> 1) views to significant tracts of the water, 2) the junction of Darling Harbour and the Harbour proper, 3) the opposite foreshores, 4) panoramic qualities of existing views, and 5) the most distinctive views to landmark structures, <p>All the above are shown within the Concept Plan and illustrated by the photomontage images included in the Heritage Impact Statement prepared by City Plan Heritage.</p>	To be demonstrated/assessed as part of any relevant development application/project application.

Subject	Commitments	Timing
Grafton Bond Store (Sandstone Wall)	52. Future development within the Barangaroo site is to retain the ability to appreciate the Millers Point headland and the roofscape of terrace houses throughout Millers Point when viewed from public spaces on opposite foreshores. The detailed design of future development within Barangaroo should ensure a relationship between new built form and existing structures and design details within Millers Point Conservation Area. Consultation is to be undertaken with NSW Heritage as part of the detailed project Application Stage.	To be demonstrated/assessed as part of any relevant development application/project application.
	53. An appropriately experienced and qualified heritage practitioner will be engaged to prepare Advice and a Schedule of Conservation Works that will guide the conservation of the sandstone wall on the eastern side of Hickson Road as part of the construction of any proposed pedestrian bridge across Hickson Road. The Advice and Schedule of Conservation Works will inform the design of the proposed Hickson Road bridge and, in particular, how it meets the wall, and shall include conservation works to the palisade fence, sandstone piers and plinth, the cutting wall, the existing High Street steps (southern end), in-filled steps (northern end), and the substation at the southern end. Any new fence elements shall be sympathetic to the existing significant fence fabric.	At the stage of any development or project application relating to the construction of the proposed pedestrian bridge across Hickson Road
Moreton's Hotel	54. A Conservation Management Strategy (CMS) will be prepared by an appropriately experienced and qualified heritage practitioner for the Moreton's Hotel in accordance with the NSW Heritage Office guidelines and in consultation with the NSW Heritage Office. The CMS will provide specific guidelines and conservation policies for the implementation and construction of any pedestrian walkway running through (with owner's consent) or alongside the Hotel, but will not address the whole Moreton's Hotel site.	At the stage of any development or project application relating to Moreton's Hotel.
Munn Street Terraces	55. A Heritage Impact Statement (HIS) will accompany any application for works to Munn Street or in the vicinity of the Munn Street Terraces. That HIS will include an assessment of how the development proposed satisfies the following Principles: <ul style="list-style-type: none"> ■ The design of the building proposed adjacent to the west of the Terraces will be sympathetic in bulk and scale and retain a reasonable level of amenities for the occupants of the Terraces. ■ Works to Munn Street will retain and conserve the front verandas, other building elements of significance along the southern frontage and the remnant cross walls and floors from the demolished terraces attached to the western elevation. ■ Works to Munn Street will retain and conserve significant landscape elements associated with the former street and the Terraces, such as the sandstone retaining walls and fences. 	At the stage of any development application/project application relating works to Munn Street or in the vicinity of the Munn Street Terrace.
Moore's Wharf Building	56. A Conservation Management Strategy (CMS) should be prepared for the Moore's Wharf Building in accordance with the NSW Heritage Office Guidelines if a change of use or activity is proposed that requires substantial alteration to the place. The CMS will provide guidelines for the adaptive reuse of the building, which will be implemented in association with any development application for the building. The CMS will also suggest other appropriate uses in addition to the current use for Ports Security administration, particularly uses related to harbour activities.	At the stage of any development application/project application relating to the Moore's Wharf building.

Subject	Commitments	Timing
Sandstone Seawall	<p>57. An appropriately experienced and qualified heritage practitioner will be engaged to prepare Advice and a Schedule of Conservation Works that will guide the conservation of the majority of the sandstone seawall section that will be retained, subject to its condition, at the north-western end of the wharves.</p> <p>57. The sandstone blocks from the seawall will be re-used as part of the future public domain works.</p>	At the stage of any development application/project application relating to the sandstone seawall.
Palisade Fence and HighSteps (High Street)	<p>58. The proposed pedestrian bridges over Hickson Road will include conservation works to the palisade fence, sandstone piers and plinth, the cutting wall, the existing steps (southern end), in-filled steps (northern end), and the substation at the southern end. The conservation works will be implemented through preparation and adoption of a Schedule of Conservation Works. Any new fence elements will be sympathetic to the existing significant fence fabric. An appropriately experienced and qualified heritage practitioner will be engaged to provide advice on the construction of the pedestrian bridge, how it meets the wall, and the conservation of the wall.</p>	At the stage of any development application/project application relating to the proposed bridges over Hickson Road.
Port Operations and Communications Centre (Harbour Control Tower)	<p>59. Any proposal for change to the Harbour Control Tower itself will be guided by the thorough assessment of the structure's significance. Any required conservation policies will be formalised in a Conservation Management Strategy format. Heritage buildings will be provided with a curtilage deemed appropriate in any CMP prepared for that heritage item. CMPs for relevant heritage items should include the whole of the site and reference and acknowledge heritage items outside that site which may be impacted by any proposal.</p> <p>59 Interpretation actions for the Harbour Control Tower are to be included in the Interpretation Strategy for the whole site.</p>	To be assessed at the stage of any development application/project application relating to the Harbour Control Tower.
Archaeology	<p>60. An appropriately experienced and qualified heritage practitioner or archaeologist will be engaged to prepare an Archaeological Assessment and Management Plan (AAMP) in consultation with relevant stakeholders and statutory authorities, including the NSW Heritage Office. The AAMP will identify areas of archaeological potential and provide guidelines and strategies for the management of the archaeological resource. If significant seawalls and former wharf structures are identified through the archaeological assessment and excavation processes then their conservation and interpretation within the site will be investigated. Having regard to the condition and significance of any archaeological remains uncovered, any highly significant remains will be incorporated into further stages of development with an appropriate level of interpretation. Depending upon the recommendations of the AAMP, significant archaeological deposits may be 1) uncovered and displayed in situ, 2) recorded and removed with possible display or use for interpretation/public art, or 3) recorded and re-buried with above surface interpretation. If any identified archaeological relics are found, work will be stopped and the Heritage Council of NSW will be notified immediately.</p>	Prior to the lodgement of the first development application/project application involving surface disturbance.

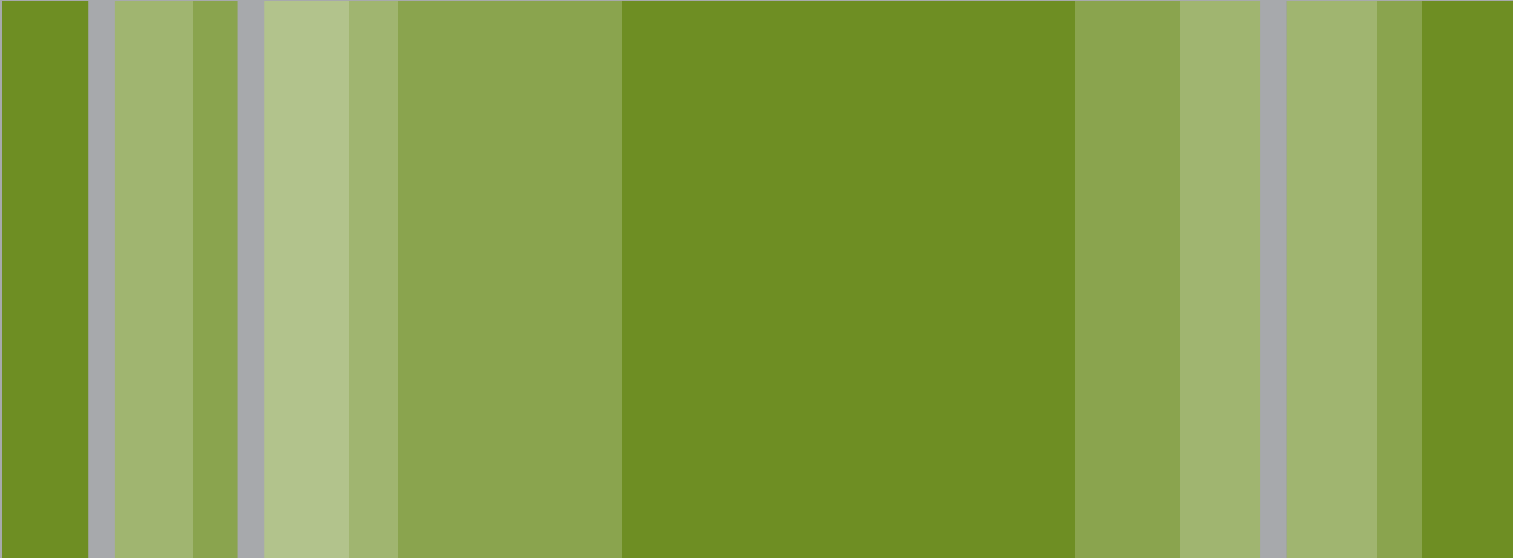
Subject	Commitments	Timing
Interpretation	<p>61. An appropriately experienced and qualified heritage practitioner will be engaged to prepare an Interpretation Plan for the whole Barangaroo site in accordance with the NSW Heritage Office Heritage Interpretation Policy. The Plan will explore various cultural, social and environmental themes related to the site including, but not limited to:</p> <ul style="list-style-type: none"> ■ The natural landscape ■ Aboriginal history ■ Manipulation of the landscape ■ Maritime industry, trade and commerce ■ Labour, workers and social movements ■ Archaeology <p>The plan will make recommendations for:</p> <ul style="list-style-type: none"> ■ Public Art ■ Naming ■ Interpretive Signage and Installations ■ Display of Archaeological Deposits ■ Built Form Strategies <p>The plan will also include strategies for:</p> <ul style="list-style-type: none"> ■ Staged Implementation ■ Ownership ■ Identification of Responsible Stakeholders ■ Future Maintenance 	Prior to commencement of any works on the site including any demolition or excavation works.
Archival Recording	<p>62. The proponent will undertake an Archival Recording of the whole Barangaroo site prior to works being undertaken. The archival recording is to be prepared in accordance with NSW Heritage Office Guidelines.</p>	Prior to commencement of any works on the site including any demolition or excavation works.
Supervision and Advice	<p>63. An appropriately qualified and experienced heritage professional is to be engaged to provide advice in the preparation of any proposal and to supervise in the undertaking of approved works to places or structures of heritage significance.</p>	Prior to lodgement of any future applications and throughout works.
ESD	<p>64. There is to be an environmental focus on strategies for Water, Energy, Micro-Climate, Environmental Quality/Amenity, Landscape, Transport, Waste and Materials for the development. Each building on site will achieve the primary benchmark of a "5 star" standard of Commercial: Green Star 5 star, and Residential: Green Star Residential score >60, and each development will be required to demonstrate how it satisfies each of the following Key Performance Indicators for each of the ESD focus areas referred to below.</p>	ESD report to be lodged with each relevant development application/project application.
Water	<p>65. There is to be a 35% reduction in Potable Water Consumption compared to a standard practice development and a 40% reduction in flow to sewer compared to a standard practice development</p>	To be demonstrated/assessed as part of each relevant development/project application.
Energy	<p>66. There is to be a 35% reduction in Greenhouse Gas Emissions compared to a standard practice development. 20% of power is to be purchased from low impact, renewable sources or alternatively there should be a 20% reduction in GHG emissions through carbon offsets. The purchase of renewable energy should be at World Best Practice level.</p>	To be demonstrated/assessed as part of each relevant development/project application.

Subject	Commitments	Timing
Micro Climate	67. Key public open spaces (parks and squares) are to receive direct sunlight in mid-winter.	To be demonstrated/ assessed as part of each relevant development/ project application.
Landscape	68. Primarily non-invasive plant species are to be used on the site.	As above.
Transport	69. Ensure that there is sufficient public transport to achieve points under the public transport credit for Green Star Rating Tools for commercial buildings and a future Green Star Tool for residential buildings.	As above.
Waste	70. Centralised recycling areas are to be provided in all buildings and 100% of waste bins for public use are to allow for waste separation.	
Wind	71. Wind tunnel modelling and verification of proposed treatments will be carried out at the building design application stage due to the significant exposure of the site to the southerly and westerly winds. Any development proposal for the southern portion of the site should be subjected to a wind tunnel study, carried out in accordance with the procedures outlined in industry recognised guidelines such as the Australasian Wind Engineering Society Quality Assurance Manual.	Wind report to be lodged with each relevant development application/ project application.
Geotechnical and Environmental Site Remediation	<p>72. Further site investigations and assessments will be undertaken prior to a Remedial Action Plan (RAP) being prepared. The RAP may be prepared in stages that follow the progressive redevelopment of the site and development blocks. The RAP will address a range of known existing site conditions.</p> <p>73. A Technical Working Group is to be established to oversee the preparation of the RAP. The membership of the Working Group is to be determined by the proponent team and the Barangaroo Taskforce (under its Terms of Reference dated 26 November 2006). The Terms of Reference of the Technical Working Group are to be consistent with this Statement of Commitments and endorsed by the Barangaroo Taskforce.</p> <p>74. The RAP is to be submitted by the Working Group to the Barangaroo Taskforce. The Barangaroo Taskforce will report to the IPCC on relevant matters as recommended by the Working Group. The Project Team will report to the SHFA Board on recommendations from the Working Group.</p> <p>75. Following endorsement, the RAP is to be made publicly available in a manner to be determined by the Barangaroo Taskforce.</p>	To be submitted to the Barangaroo Taskforce prior to the lodgement of any development application/project application involving surface disturbance.
Residential Amenities	<p>76. Building Types: In terms of the classifications under the Residential Flat Design Code (RFDC) , generally the residential buildings on the Barangaroo site are to consist of Row Apartment, Courtyard Apartment, Slab (Block), Tower and Hybrid building types.</p> <p>77. Building Heights, Floor Space Ratios and Setbacks: All building heights and setbacks are to comply with the development block envelope controls contained within the Concept Plan.</p>	To be demonstrated/ assessed in any relevant development application/ project applications for residential development.

Subject	Commitments	Timing
	<p>78. Building Depth: The maximum building depth, as measured from glass-to-glass excluding balconies, is limited to 18m. In Row Apartment, Courtyard Apartment and Slab (Block) types 15m glass-to-glass is preferred.</p> <p>79. Building Separation: Building separations should have regard to separation distances set out in the RFDC. Where smaller separation distances are provided consistent with the Concept Plan urban design envelopes, the amenities, privacy and solar access to existing and proposed dwellings and the public domain need to be adequately considered.</p> <p>80. Landscape Design: Generally, landscape spaces for future residents of Barangaroo will be in the form of roof terraces and balconies. All private landscape design should be consistent with the design principles set out on pp46–47 of the RFDC. Due to the frontage of the extensive new harbour-side park, the proposed street tree planting and the adjacency to the city centre, there is no requirement for deep soil planting within blocks.</p> <p>81. Apartment Mix: Housing across the Barangaroo site should provide a variety of types, sizes and configurations. Flexible live/work housing types are highly appropriate for the city centre fringe location.</p> <p>82. Solar Access: Living rooms and private open spaces for at least 70 % of apartments in a development should receive a minimum of 3 hours direct sunlight between 9 a.m. and 3 p.m. in mid-winter. For up to 30 % of dwellings, 2 hours is required (excluding south-facing units).</p> <p>83. Single Orientation Apartments: Apartment buildings should aim to maximise cross ventilation. The number of single aspect apartments with a southerly aspect (SW-SE) should be limited to a maximum of 10 % of the total units proposed. Developments which seek to vary from the minimum standards must demonstrate how site constraints and orientation prohibit the achievement of these standards and how energy efficiency is addressed.</p>	
Acoustic	<p>84. All future development application/project applications will be required to include a Noise Impact Assessment & Mitigation Measures report. All noise emissions from a building's plant and equipment are to be at levels complying with the recommendations of the NSW EPA Industrial Noise Policy. When setting noise emission limits for each site, the cumulative impact of noise emissions from all the sites in the fully developed precinct shall be taken into account.</p> <p>85. Any future traffic management plans will incorporate strategies that minimise transportation noise levels associated with vehicle movements.</p> <p>86. To prevent negative impacts resulting from the ordinary operation of the passenger terminal and other community facilities, the envelope of buildings constructed within Barangaroo should be designed to limit sound intrusion from these noise sources. Typical noise levels in occupied spaces adjacent to these noise sources during peak usage periods should comply with the recommended noise levels in AS2107.</p>	Noise Impact Assessment and Mitigation Measures report to be submitted with all relevant development application/project applications.

Subject	Commitments	Timing
	<p>87. Plans of management developed for noise generating community facilities shall contain measures that seek to balance the use of these facilities with the amenities of nearby potentially sensitive land uses. 88. Where deemed appropriate, the facades of new residential and commercial buildings along Hickson Road should be designed to reduce traffic noise levels in occupied spaces in accordance with the levels recommended in AS 2107.</p> <p>89. Noise emissions from patrons within proposed licensed premises will be assessed during development approval against Liquor Administration Board Guidelines and appropriate plans for managing patrons' arrival/departure developed.</p> <p>90. All future development application/project applications will be required to include a Construction Management Plan incorporating measures for managing construction noise and vibration emissions including time limits on audible construction activities.</p>	
Built Form	<p>91. The built form of each development block will follow the Design Principles, Design Requirements, and Development Controls as set out in Part B. Final designs for each development block will be prepared by development partners who will be subject to the Design Excellence Strategy.</p>	To be demonstrated/assessed as part of any development application/project application for commercial use.
Commercial Uses	<p>92. All future development applications for commercial uses will be required to address how the proposal:</p> <ul style="list-style-type: none"> ■ Compliments, connects with and extends the commercial activity of the existing Sydney CBD; ■ Contributes to the character of Barangaroo as a unique business address; ■ Offers opportunities for major corporate tenants; ■ Where appropriate includes a mix of support related commercial and retail offerings such as convenience retail, personal services, cafes, bars and health and recreation facilities; ■ Enhances and encourages walking and cycling and connectivity to public transport services; ■ Provides a clear interface to the public domain and includes publicly accessible open space or pedestrian connections and arcades within the private development. 	To be demonstrated/assessed as part of any development application/project application for commercial use.
Sydney Ports Consultation	<p>93. Sydney Ports Corporation shall be consulted on all aspects of the Barangaroo redevelopment that affect the operation of the Wharf 8 Passenger Terminal, any additional passenger terminal, the harbour control tower and the harbour safety function in the Moore's Wharf building, including potential use of the new harbour inlet by non-motorised recreational craft.</p> <p>93A The Harbour Control Tower will not be removed until the Sydney Ports Corporation has found suitable alternative locations for the equipment currently operating from the tower and staff have been relocated.</p> <p>94. Sydney Ports Corporation shall be consulted on the detailed exclusion zone requirements for the Wharf 8 Passenger Terminal at future project application stages of development.</p>	Subject to consultation with Sydney Ports.

Subject	Commitments	Timing
	<p>95. The operation of the Wharf 8 Passenger Terminal will continue uninterrupted during its temporary relocation while the final new building is constructed and during the relocation back to the existing location in the new facilities.</p> <p>96. Moores Wharf and the Harbour Control Tower will be fenced off for security purposes prior to future public access on site.</p> <p>97. Sydney Ports and NSW Maritime shall be consulted regarding any proposals associated with Port Operational Requirements that result in the extension of structures alongside or over water into Sydney Harbour.</p> <p>98. Future car parking for the Wharf 8 Passenger Terminal will be provided consistent with the current car parking provisions for the facility, and subject to the needs of the future terminal.</p>	
Ongoing Consultation and Information	<p>99. Ongoing consultation with Government agencies including City of Sydney Council (Strategic Planning Department, Community Services and Programs Unit and Recreation and Community Services Unit), Department of Housing NSW, NSW Maritime, Railcorp, Sydney Ports, NCOSS, private landowners, and community stakeholders will take place according to established planning and development approval procedures.</p> <p>100. NSW Maritime will be consulted in relation to the following:</p> <ul style="list-style-type: none"> ■ Any proposal that has the potential to impact upon navigational safety. ■ The potential to expand ferry and charter boat operations within the redevelopment site. ■ On-going maintenance of seawalls, launching and berthing facilities. ■ Proposed encroachments into NSW Maritime's land at Darling Harbour. ■ The development of the proposed coves and inlets which will become part of the navigable waters of Sydney Harbour. ■ Other issues which will inevitably arise from the interface with NSW Maritime's land. ■ Port security matters. <p>101. Further consultation and information sessions will be held as necessary to communicate the redevelopment process and to ensure all stakeholders have the opportunity to keep up to date on the progress of the redevelopment.</p>	Ongoing.
CPTED	102. All future development is to be designed in accordance with the principles of the Crime Prevention Through Environmental Design.	To be demonstrated/ assessed as part of any relevant development/ project application.
Construction	103. An Environmental and Construction Management Plan will be required as part of any future development on the site.	To be provided with any relevant development/ project application.
Headland	104. The future detailed design of the Headland Park including the northern cove, Globe Street and adjacent Block 7 shall be in accordance with the key strategies outlined in the "Barangaroo Headland Park Design Strategy Review" prepared by Conybeare Morrison (September 2008).	To be demonstrated as part of any project application which relates to the Headland Park and surrounds.



Harbour Foreshore Authority