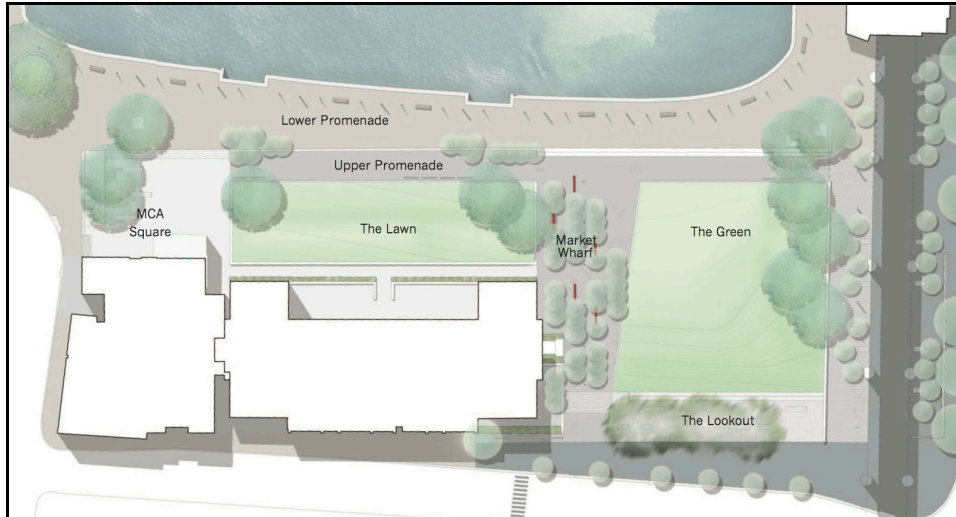


ENVIRONMENTAL ASSESSMENT REPORT PROJECT APPLICATION

WEST CIRCULAR QUAY, THE ROCKS/CIRCULAR QUAY PUBLIC DOMAIN LANDSCAPE & UPGRADE WORKS



NOVEMBER 2010

PREPARED FOR



PREPARED BY



**sk design Town
Planning
& Urban Design**

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STATEMENT OF VALIDITY

This Environmental Assessment report has been prepared and submitted under Part 3A of the *Environmental Planning and Assessment Act 1979* (as amended) by:

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Project Application

Applicant Land Property Management Authority – SHFA
NSW Government Architect's Office
Address SHFA - 66 Harrington Street, The Rocks, NSW 2000
Project Site: West Circular Quay, The Rocks/Circular Quay, NSW 2000.
Proposal: Landscape & Upgrade Works to the Public Domain

Statement

I certify that I have prepared the contents of the Environmental Assessment in accordance with the Environmental Planning and Assessment Act and Regulation. To the best of my knowledge, the information contained in this Environmental Assessment is true and is not materially misleading.

Signature



Name Stephane Kerr, Director **sk design**
Date 10 November 2010

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EXECUTIVE SUMMARY

This Environmental Assessment report is prepared for the Land & Property Management Authority – Sydney Harbour Foreshore Authority (the Authority) as landowner and applicant for the proposed landscape and upgrade works to the public domain of West Circular Quay in Circular Quay/The Rocks NSW 2000.

Circular Quay enjoys an international reputation as a major visitor destination, the City of Sydney's principal transport interchange, and a public destination point to the CBD, The Rocks and Circular Quay precincts. Circular Quay is supported by excellent infrastructure, services and entertainment/events in catering for capacity pedestrian flows and gatherings. The proposed works will further upgrade the Circular Quay infrastructure and facilities to current day standards whilst providing improved access and accessibility to the precinct's amenity and many services.

This Major Project Application seeks the Minister for Planning's consent for landscape and upgrade works to West Circular Quay (WCQ). The works will coincide with the approved expansion of the Museum of Contemporary Art building also in West Circular Quay. The proposed works are the first stage in the overall upgrade of the Circular Quay precinct as envisaged by the draft Circular Quay Masterplan. The Project is accompanied by Project plans prepared by the NSW Government Architect's Office.

The Authority is the principal landowner and has coordinated the development of this Project through the Circular Quay Steering Committee, which includes Sydney City Council, Museum of Contemporary Art, Sydney Opera House, and the NSW Government Architect's Office. The project has been developed in close consultation with key surrounding stakeholders including Sydney Ports, NSW Maritime, Railcorp, NSW Heritage Office, AMP, The Rocks Chamber of Commerce, and Sydney Harbour Business Alliance.

All relevant considerations under the Environmental Planning & Assessment Act 1979, State Policies and Regional Plans, the Authority's policies, and the City of Sydney Council's strategy *Sustainable Sydney 2030* are addressed in this Environmental Assessment report. The proposed landscape and upgrade works will comply with relevant environmental planning instruments and guidelines. The WCQ Project will provide a significant economic catalyst to Sydney's gateway at Circular Quay, will provide equitable and accessible public domain facilities, and will attract a significant visitor catchment to Circular Quay and The Rocks.

This Environmental Assessment report concludes that the proposed landscape and upgrade works to West Circular Quay are worthy to be granted consent under Part 3A of the EP&A Act.

1. INTRODUCTION

1.1 Overview – Project Summary

The Land & Property Management Authority - – Sydney Harbour Foreshore Authority (referred to as LPMA – SHFA, or the Authority seeks the Minister’s consent to the Major Infrastructure Project for the proposed public domain landscape and upgrade works of West Circular Quay (WCQ) in The Rocks/Circular Quay.

The Authority is the principal landowner and has coordinated the development of this Project through the Circular Quay Steering Committee, which includes Sydney City Council, MCA, Sydney Opera House, and the NSW Government Architect’s Office.

The Authority has also committed to, and commenced, close consultation with key surrounding stakeholders including Sydney Ports, NSW Maritime, Railcorp, Botanic Gardens, NSW Heritage Office, National Trust, AMP, The Rocks Chamber of Commerce, Sydney Harbour Business Alliance.

1.2 Major Project status & Director General’s Requirements

On 13 July 2010, the delegate of the Director-General NSW Department of Planning declared with respect to the proposed public domain upgrade of West Circular Quay:

“As delegate of the Director-General, I have formed the opinion that the proposal is a ‘Major Project’ as described under Schedule 2, Clause 10 of the State Environmental Planning Policy (Major Development) 2005, being development with a capital value of more than \$5 million within the area identified on Map 9, and is therefore a project to which Part 3A of the Act applies for the purpose of Section 75B of the Act.”

On 12 August 2010, the Director-General issued his ‘Requirements’ for the *Public Domain Upgrade Works – West Circular Quay, The Rocks (MP 10_0104)*.

A copy of both the Director-General’s declaration and ‘Requirements’ are found at **Appendix A**, and an EA reference point responding to DGRs as follows:

Director General Requirement	Project Response
EPIs, policies & guidelines: <ul style="list-style-type: none"> SEPP (Major Development) 2005 SEPP 55 Remediation of Land SREP Sydney (Harbour Catchment) 2005 Sydney Harbour Foreshores & Waterways DCP 2005 NSW State Plan, Sydney Metro Strategy, and Sydney City Subregional Strategy Any non-compliances with EPI's 	Refer to EA: <ul style="list-style-type: none"> section 4.2 section 4.7 section 4.4 section 4.5 section 4.6 No non-compliances identified
Public Domain: <ul style="list-style-type: none"> Open space, public domain, linkages Public access opportunities to/along foreshore 	EA section 3 <i>The Proposed Development</i> , Site Analysis at Appendix B, Project plans at Appendix C.
Landscape Design Plan: <ul style="list-style-type: none"> Tree impact assessment Earthworks Hierarchy of spaces Pathways – details, levels, edges Plant species Drainage and watering systems Materials and finishes Retention of kerbs, gutters & trees Street furniture Lighting Public Art Signage 	EA section 3 & Appendix C <ul style="list-style-type: none"> Appendix J Appendix S Appendix R Appendix R
Visual Impact and Views	Before and after photomontages at EA Appendix D
Heritage & Archaeology assessment	EA section 6.2 & Appendix G
Ecological Sustainable Development	EA section 4.18, 6.6, & Appendix L
Servicing the Site	EA section 3.2 (section 11) and 6.3
Waste Management	EA section 6.8
Construction, Air, Noise & Odour	EA section 6.8
Site Contamination & Management	EA section 4.7 & Appendix M, N & O

Director General Requirement	Project Response
Temporary Structures	EA section 6.8
Climate Change – NSW Coastal Planning Guideline.	EA section 4.10 & Appendix P
Consultation	EA section 5.

1.3 Project Team

The project team for the West Circular Quay landscape and upgrade of the public domain includes the following: -

Applicant:	LPMA - SHFA
Project Managers	LPMA – SHFA
Landscape Architects:	NSW Government Architect's Office
Town Planners:	sk design
Quantity Surveyors:	Wilde and Woollard
Signage & Interpretation:	Deuce Design
Heritage and Archaeology:	NSW Government Architect's Office
Water Sensitive Urban Design:	Equatica
Accessibility Consultant:	Morris-Goding Accessibility Consultants
Lighting:	NSW Government Architect's Office
Flood Risk Consultant:	gbaCOASTAL Pty Ltd
Site Remediation:	Sydney Environmental & Soil Lab

1.4 Capital Investment Value

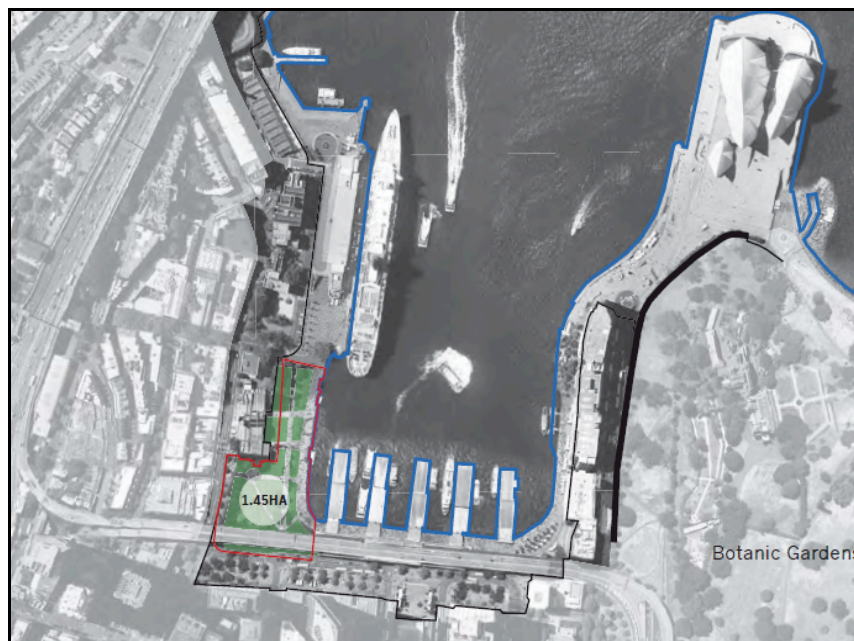
The proposed WCQ landscape and upgrade of the public domain attracts a capital value of \$8.5 million. The proposed works therefore fall within with Clause 10 of the State Environmental Planning Policy (Major Development) 2005 (requiring development to have a capital value of more than \$5 million). A copy of the Quantity Surveyors cost estimate, by *Wilde and Woollard*, is found at EA report **Appendix F**.

2. THE SITE

2.1 Site Location and Context

West Circular Quay (WCQ) is bounded to the north by Argyle Street and the Overseas Passenger Terminal, to the west by George Street (undercroft owned by Railcorp - Circular Quay Railway structure) adjoining the footpath, to the south by Alfred Street, and to the east by the Circular Quay/Sydney Harbour waterways.

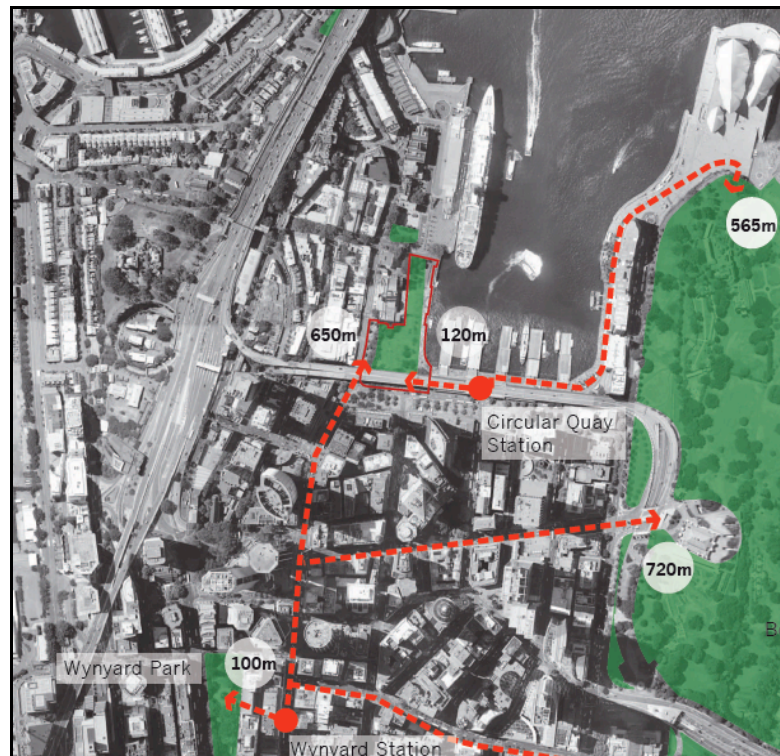
WCQ covers an area of approximately 1.45 hectares and includes First Fleet Park, the west foreshore paved promenade of Circular Quay, landscape garden areas around the existing MCA, and the pedestrian footpath under the Cahill Expressway. Adjoining the Project site, the MCA has approval for a six level building addition in the northeastern corner of the site. The WCQ project upgrade of the public domain includes the MCA Square.



West Circular Quay Project Site (source GAO)

Surrounding Transport & Access: WCQ is located in close proximity to key transport interchanges. First Fleet Park is 150 metres from Circular Quay Railway Station and the Circular Quay ferry terminals, and within 650 metres of Wynyard Railway Station. A highly used pedestrian promenade is located on the Harbour edge and provides a continuous foreshore walk extending from the Opera House in the east to Dawes Point in the west. The promenade is approximately eleven metres wide along this section of the Quay.

Although there are a number of smaller pedestrian paths, they are indirect and visually obscured, bisecting valuable lawn and park areas. Densely planted garden beds define these routes and limit visual access to and from the site.



Transport Connections (source GAO)

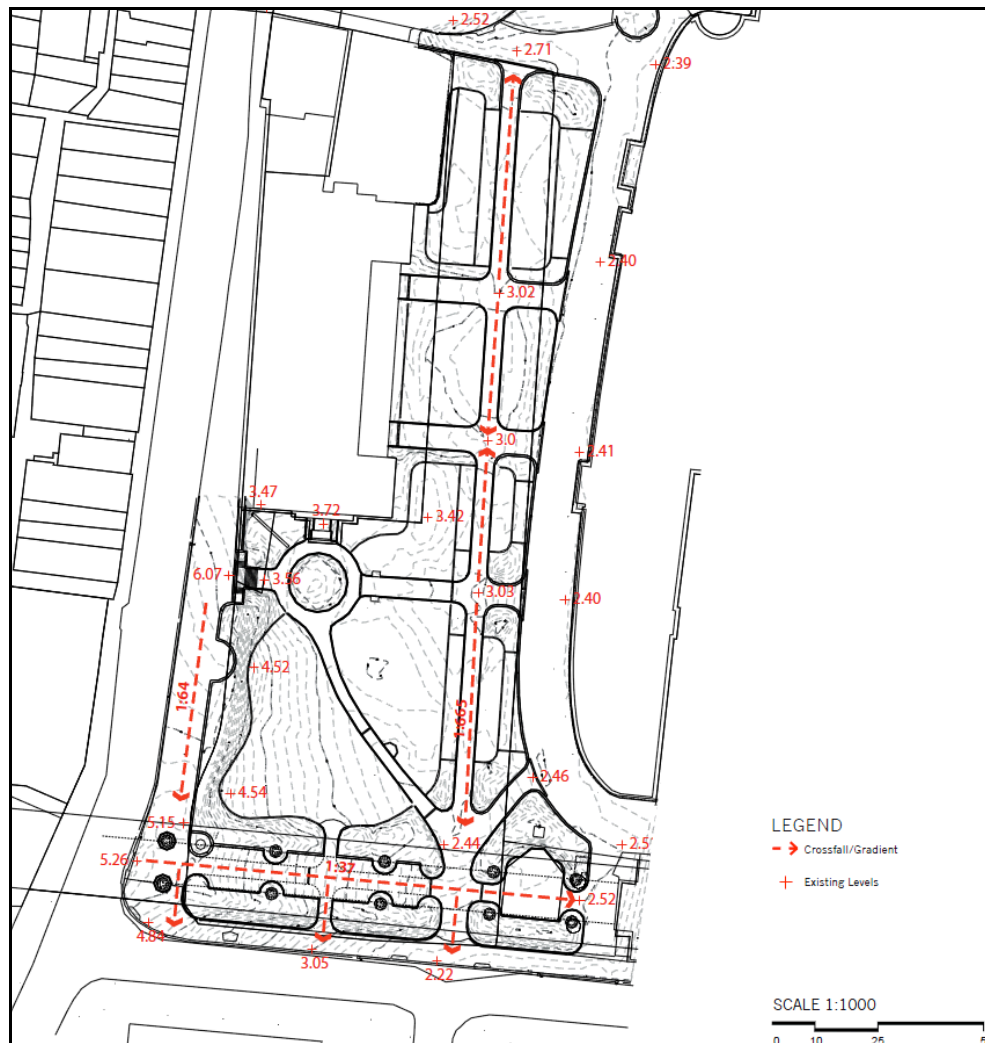
A north south pedestrian path connecting Alfred Street to Argyle Street is located on the alignment of Pitt Street and at a slightly higher level from the foreshore promenade. This path is bisected by two east west paths that connect to the existing MCA building. A centrally located path with a densely planted central circular garden bed connects to George Street via a series of steps. In the southeastern corner of the site a diagonal path connects to a path under the Cahill Expressway. An additional diagonal path connects from the Alfred Street and Pitt Street intersection to the stone stairs on George Street.

The Alfred Street footpaths under the Cahill Expressway are the only existing routes to George Street that meet access standards, and provide an all weather pedestrian link between the Quay and The Rocks.

Existing built form: The WCQ site includes the MCA building, a nine storey building with frontage to George Street and Circular Quay. The MCA is a draft item in the Sydney Harbour Foreshore Authority Section 170 register. On the northern end of the existing MCA building is an open-air car park. This is the location of the approved six level addition to the MCA building. The northern western portion of the site contains The Rocks Police Station building. On the southern perimeter of the site is the Cahill Expressway and railway bridge. A small 'money exchange' kiosk is located underneath the Cahill Expressway, but has been abandoned and the land returned to the Authority.

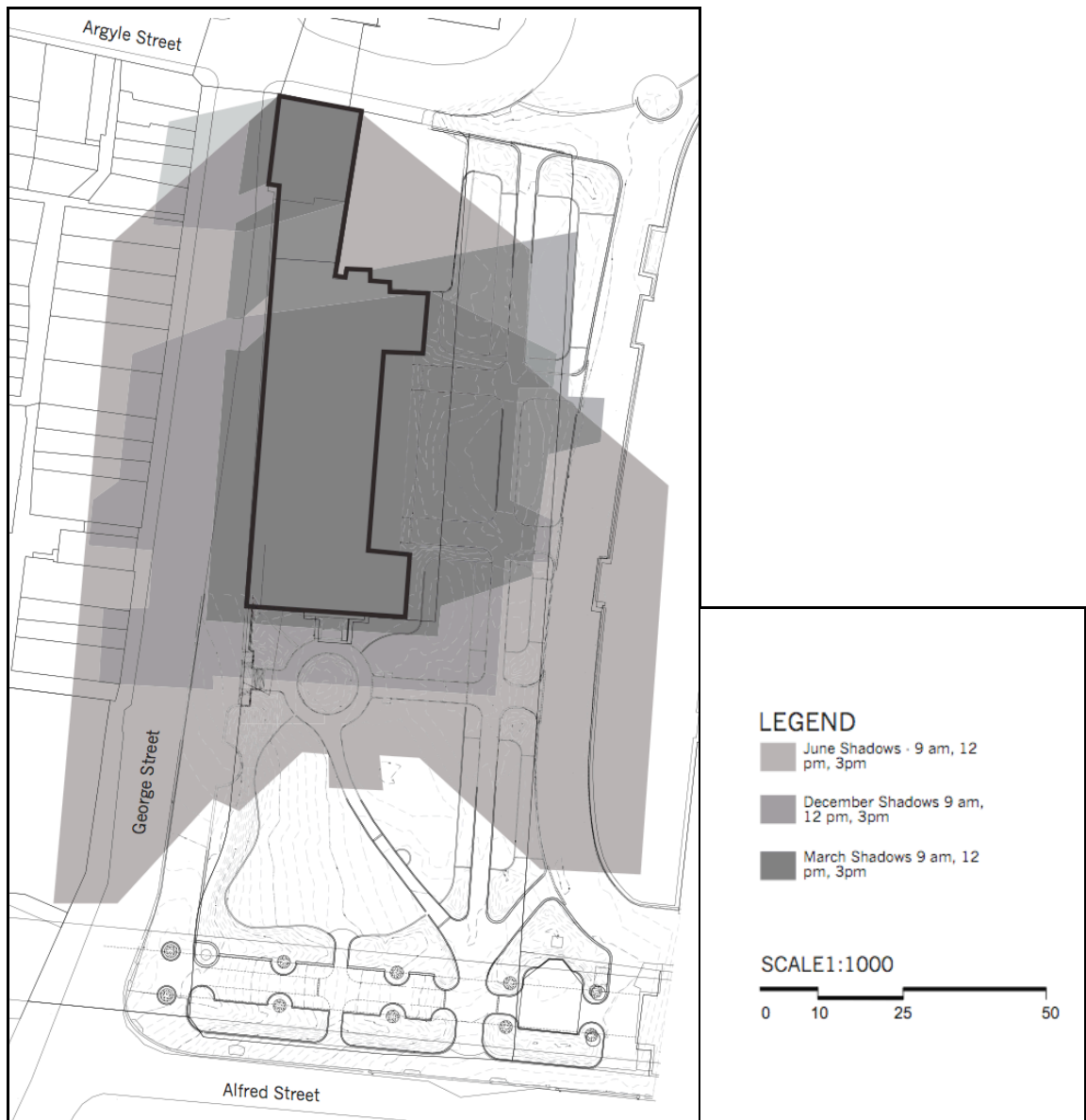
Landform and topography: WCQ is located on the interface of what would have been a naturally occurring ridge of Hawkesbury sandstone and mud flats, adjacent to a freshwater stream, later renamed the Tank Stream. Successive developments since colonial times have raised levels and created the Circular Quay seawall we see today. This seawall has been reconfigured many times over the years. A stone retaining wall dating from the 1988 Bicentenary defines the western boundary of First Fleet Park and George Street footpath. The steepest section of the park (approximately two and a half metres level difference) is located on the southwest corner of the MCA.

The central parkland areas are generally flat, with a uniform level change of approximately half a metre between these areas and the foreshore walk and parkland. There is a gentle (2.7 %) grade along Alfred Street, whilst a much steeper grade (13%) occurs along Argyle Street from the Overseas Passenger Terminal to George Street.



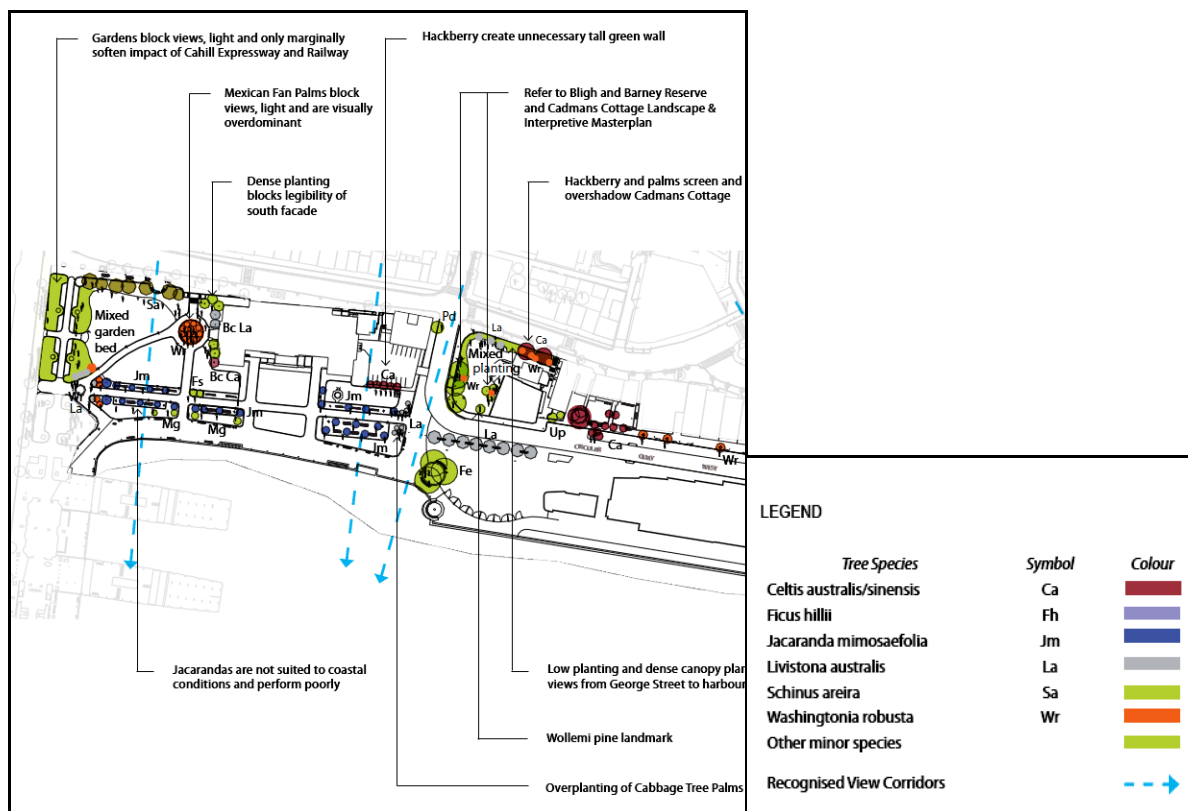
Existing Levels (source GAO)

Solar access: The majority of the First Fleet Park and WCQ foreshore enjoys good solar access all year round. Winter sun is a great attraction for visitor use of the park. A study undertaken by Gehl associates for the City of Sydney noted that First Fleet Park had high levels of usage on both summer and winter weekdays (753 activities in summer and 703 activities in the winter). This is marked contrast to nearby parks such as Wynyard Park which has significantly lower usage rates in winter largely due to lack of sun (876 activities in summer; 171 activities in winter). Central zones of the park are shaded seasonally to varying degrees by the MCA building. Park spaces on the eastern edge of the MCA building have afternoon shade year round.



Existing Shadow Levels (source GAO)

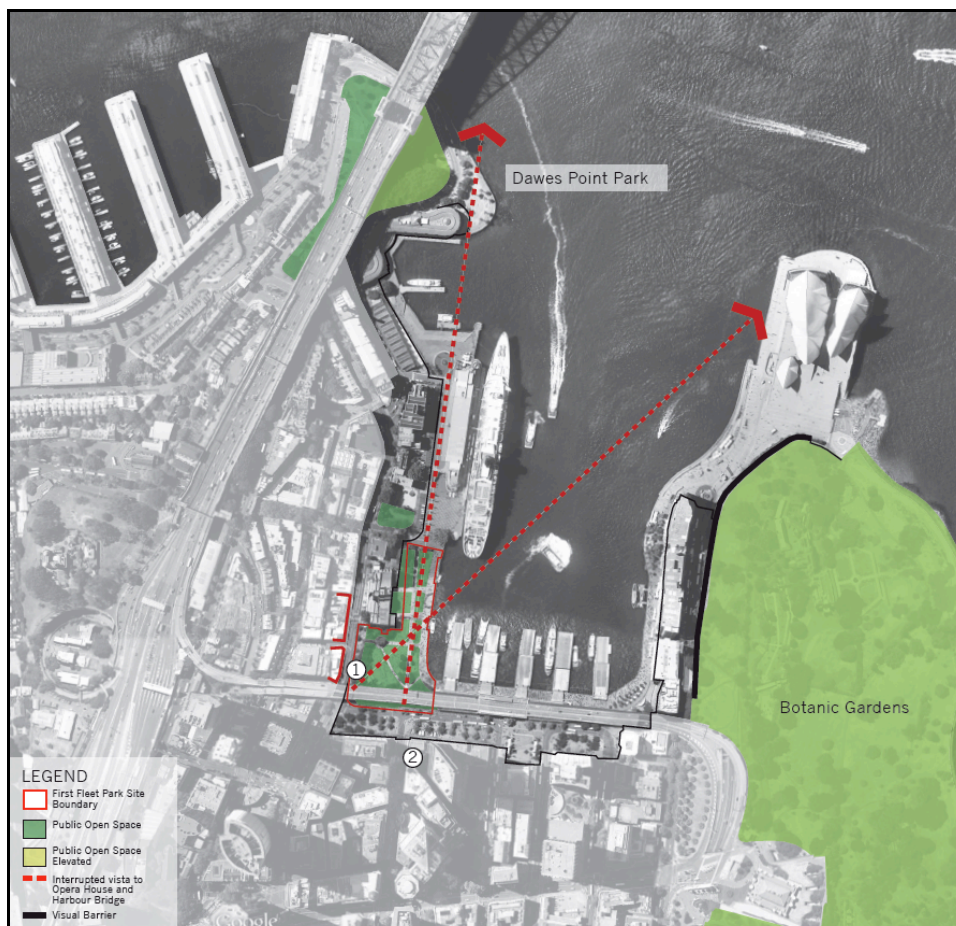
Existing vegetation: Existing tree planting comprises a mixed palette of native and non-native species of varying ages and maturity. Currently there are eight large pepper trees (*Schinus areira*) in garden beds adjacent to George Street. These trees are listed as scheduled 2 cultural items on the City of Sydney's Register of Significant Trees, and are in fair condition. A large India Rubber Fig (*Ficus elastica*) is located outside but adjoining the north eastern boundary of the site area.



Extract: Existing Plantings (source SHFA draft Tree Masterplan)

A number of additional trees were planted in 1988 as part of the bicentenary upgrade works to the park. These plantings include Jacarandas (*Jacaranda mimosaeifolia*) and Evergreen Ashes (*Fraxinus griffithii*) adjacent to the Quay. Some of these specimens are extremely deformed due to salt and wind exposure. Mexican Fan Palm (*Washingtonia robusta*) and Cabbage tree palms (*Livistona australis*) are grouped in garden beds on the north eastern corner of the MCA and in First Fleet Park. There are 2 mature Native Hackberry (*Celtis australis*) on the southern edge of the MCA building. Scattered smaller trees and shrubs are located within garden beds adjoining lawn areas including Ivory Curl trees (*Buckinghamia celsissima*) and Cycads (*Macrozamia communis*).

Views: Views from George Street to Circular Quay and the Opera House are filtered by tree planting and dense shrub vegetation. A circular planting bed located adjacent to the southern side of the MCA contains dense palm planting which obstructs views to and from the stairs leading to George Street. There are currently distant views to the Harbour Bridge from the Circular Quay promenade. However views to The Rocks are largely obstructed by tree, palm and shrub plantings. The capturing of views to the water and national landmarks (SHB, Opera House and Circular Quay), while maintaining views back to The Rocks from Circular Quay, is a significant heritage issue. The register of the National Estate notes that an opportunity exists to improve key views, including enlarging the vista of the park and Harbour from George Street and culminating in the view to the Opera House. The National Trust nomination of the site to the State Heritage Register notes that the existing peppercorn trees have partially obscured the views to and from the water.

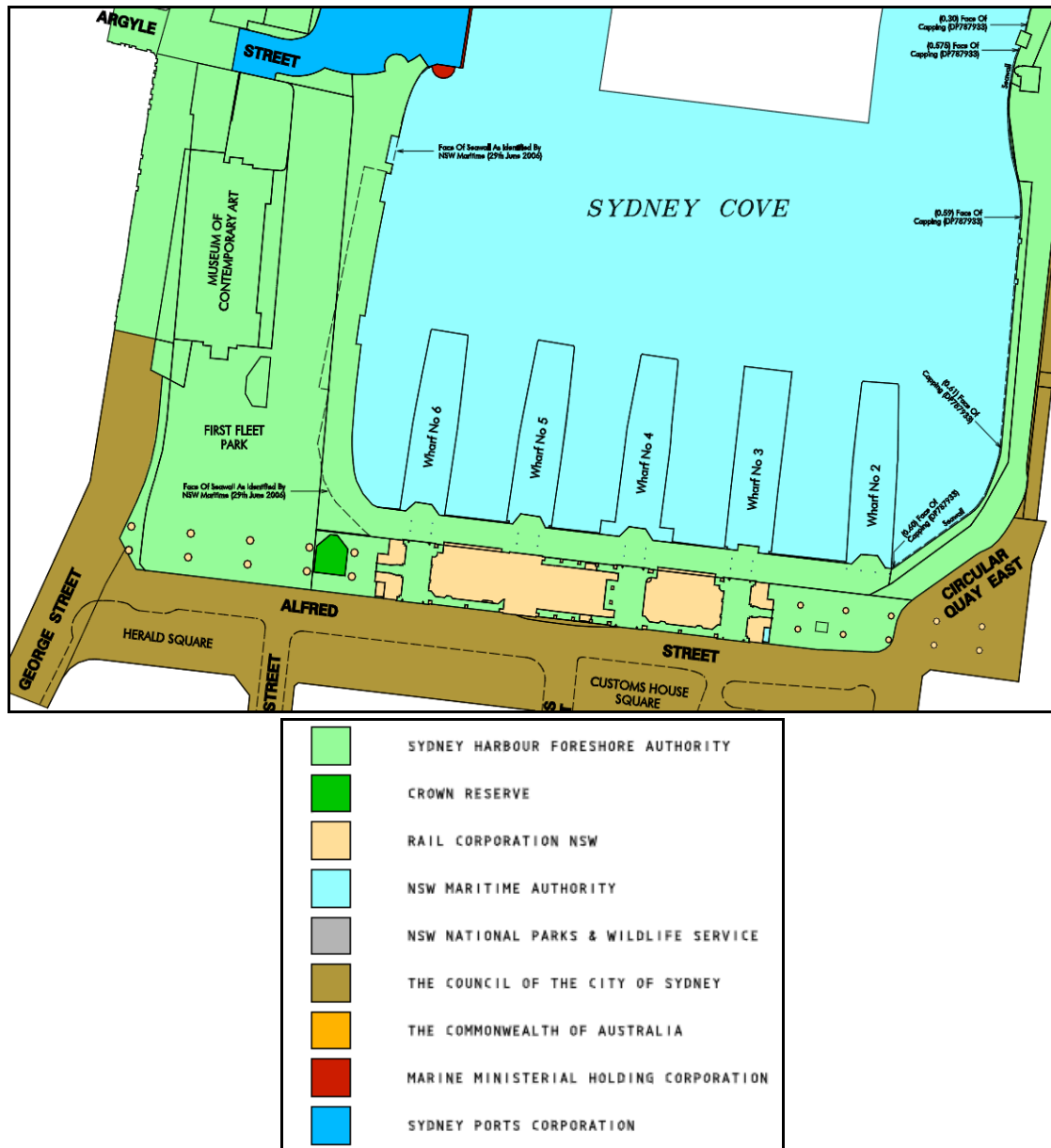


Existing Views (source GAO)

Site Analysis Plan: A Site Analysis of the WCQ site and context prepared by the NSW Government Architect's office incorporating site location, pedestrian and transport networks, views, public domain materials fixtures and furniture, and landscaping, is found at **Appendix B**.

2.2 Land Ownership and Legal Description

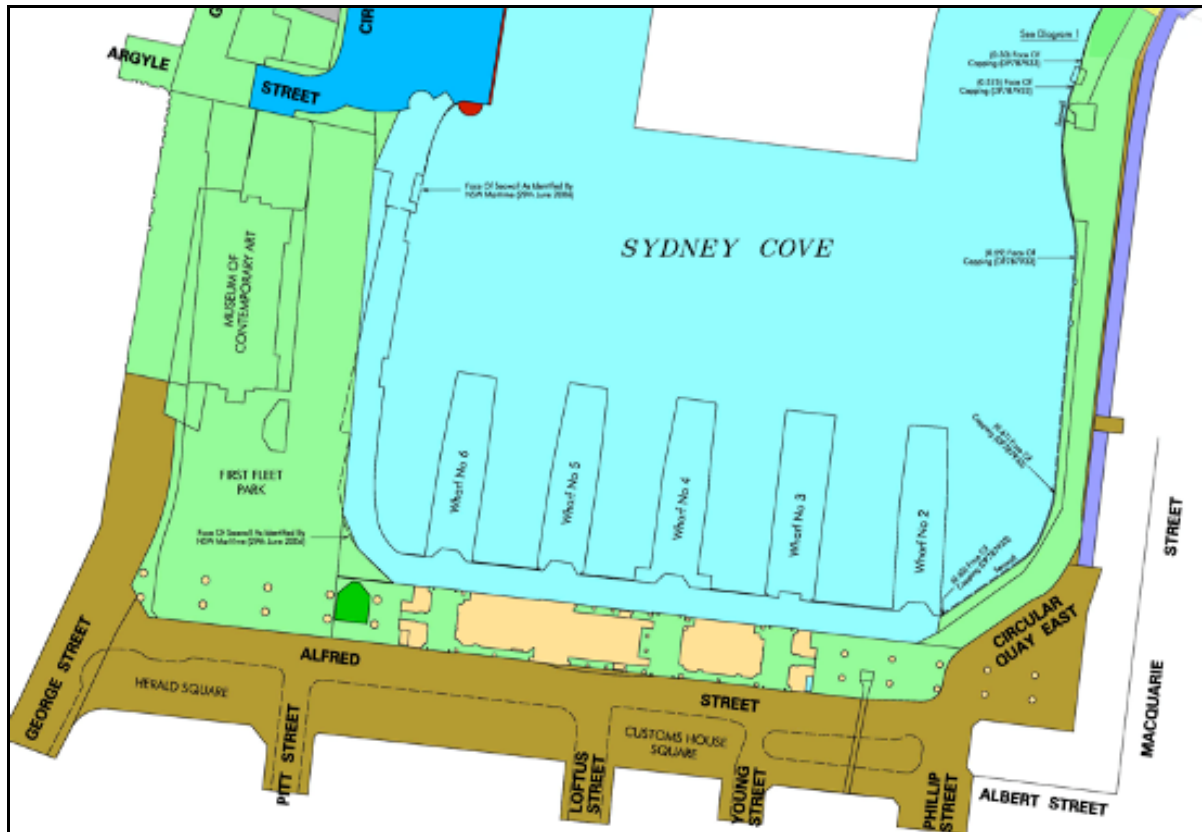
At ground level, the Authority owns the Project site with the exception of the pylons under the Cahill Expressway which belong to NSW Rail Corporation.



Ground Level - West Circular Quay – Land Ownership

The Ground level landownership map above has since been amended (11 May 2010) with the transfer of the small Crown Reserve – R100213 (eastern end under Cahill Expressway and north of Pitt Street), containing a small ticketing and information booth, from the Department of Lands to the Authority. Below Ground level, a portion of the east foreshore and seawall, including the Harbour Masters Steps and the Commissioners Steps, fall within the jurisdiction of NSW Maritime.

Below Ground level, the land ownership jurisdictions alter slightly, with a portion of the east foreshore and seawall (including the Harbour Masters Steps and the Commissioners Steps) belonging to the NSW Maritime Authority.



Below Ground Level - West Circular Quay – Land Ownership

The Project affects the following property allotments:

Owned by Sydney Harbour Foreshore Authority

- Lot 21 in Deposited Plan 787906 – land adjacent to east of the MCA building
- Lot 3 in Deposited Plan 544167 - paved area to the east of the MCA
- Lot 3 in Deposited Plan 796811 - land adjacent to the west of the MCA building
- Lot 4 in Deposited Plan 787934 - land adjacent to the circular quay seawall
- Lot 21 in Deposited Plan 787906 – land adjacent to east of the MCA building
- Lot 3 in Deposited Plan 544167 - paved area to the east of the MCA
- Lot 3 in Deposited Plan 796811 - land adjacent to the west of the MCA building
- Lot 4 in Deposited Plan 787934 - land adjacent to the circular quay seawall
- Lot 16 DP 787934 (money exchange building which has been transferred to SHFA)
- Lot 15 DP 787934 (small portion of land opposite Alfred Street)
- Lot 14 DP787934 (small portion of land opposite Alfred Street)
- Lot 1 DP 544167 (associated with Lot 3 below)

- Lot 2 DP 544167 (associated with Lot 3 below)
- Lot 16 DP 787934 (Argyle Street)
- Lot 3 DP 787934 (Argyle Street)
- Lot 1 DP 796811 (associated with Lot 3 below)
- Lot 2 DP 796811 (associated with Lot 3 below)

Owned by Railcorp

- Railway Piers – Government Railways Act 1965
- Lot 2005 in DP788428 for “Welcome Wall” site – adjacent to George Street west footpath

2.3 Site Conditions and Project Opportunities

Based on the site’s existing conditions described under EA section 2.1 above, the WCQ Project design is therefore influenced by the following key site conditions and opportunities:

- WCQ contains highly valued green spaces, directly adjacent to Sydney’s most important foreshore promenade.
- WCQ has a rich history and contains archaeological remnants of some of Australia’s earliest buildings.
- The current configuration of public open space in WCQ includes lawn areas and dense garden beds bisected by pedestrian paths. The existing walls, barriers and garden beds create a series of disparate spaces, which limit optimal use and obstruct pedestrian movement.
- Views from George Street to the Circular Quay foreshores and waterways and to the Sydney Harbour Bridge are obscured by tree and dense shrub planting. Similarly, existing tree plantings conceal public views of the historic buildings in The Rocks precinct thereby concealing public awareness of the precinct location.
- Existing pedestrian paths are indirect and convoluted. This is evident by the frequent pedestrian short cuts across lawns and barriers.
- The paved area under the Cahill Expressway is dark and uninviting.
- The Circular Quay foreshore promenade contains a variety of inconsistent public domain surfaces, materials, furniture and fittings.

3. THE PROPOSED DEVELOPMENT

3.1 Design Objectives and Rationale

This Project proposal seeks the Minister for Planning's consent for landscape and upgrade works to the public domain of West Circular Quay in The Rocks/Circular Quay precinct. The proposed works are summarised in the following list of 'Project Objectives'. Formal Project plans prepared by the NSW Government Architect's office also accompany this submission at **Appendix C**.

Project Objectives

- Create a unified public domain rather than a series of separate and disparate spaces.
- Open up local views to and from The Rocks and long views and vistas to the Opera House, Sydney Harbour Bridge and Circular Quay.
- Create clear and generously scaled pedestrian paths to Alfred Street and George Street.
- Retain a portion of the site as a place of respite in the city.
- Create a park structure that is informed by the history of the site.
- Interpret the heritage significance of the Project site.

3.2 Detailed Design

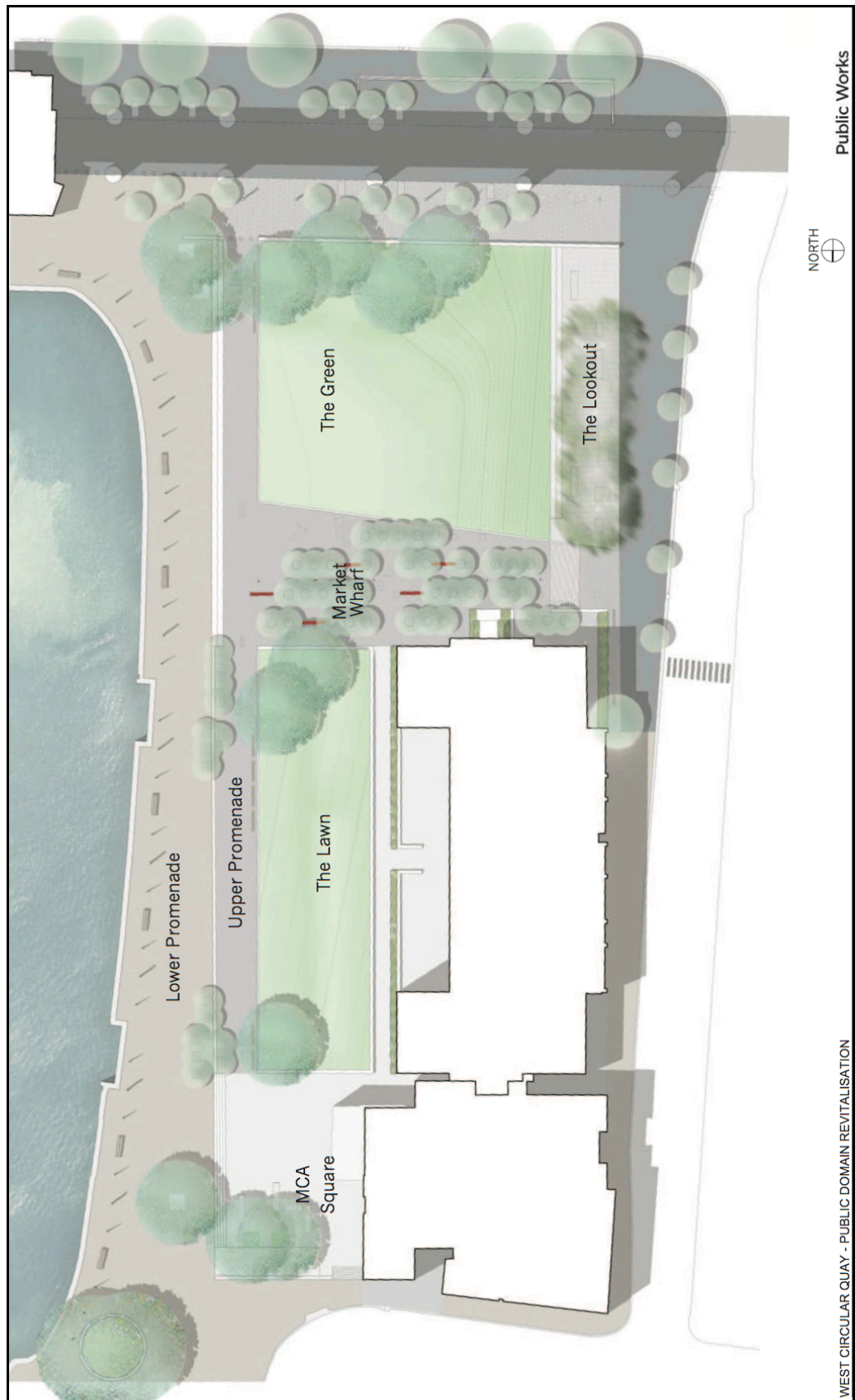
The design of the WCQ Project is based on 12 key design elements & principles:

1. Create a unified space

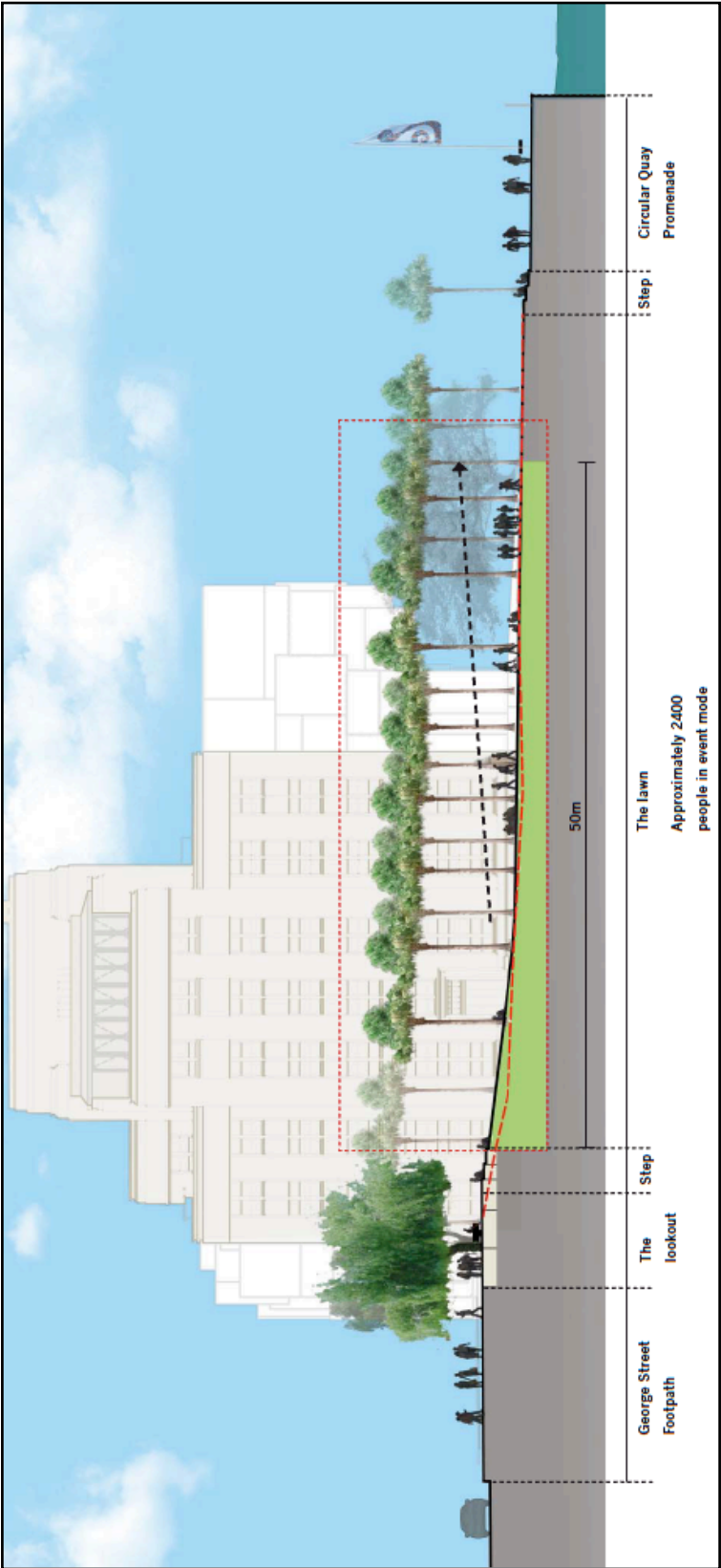
The existing garden beds, pathways and low walls surrounding 'First Fleet Park' will be removed to create a consolidated lawn area approximately 12% larger than the existing lawn spaces. The proposal removes existing walls, planting and barriers along the George Street and Alfred Street edges. Level changes are resolved through the creation of a graded lawn or green, which acts as an informal amphitheatre.

A linear space, '*The Lookout*', will be located along the George Street footpath edge. This area will provide on-grade access from the adjoining footpath and a shaded visitor platform affording Harbour views. A series of shallow steps will lead to the lawn. A seating wall is located along the Cahill Expressway edge of the lawn.

A new square and consolidated lawn space is located along the eastern frontage of the MCA, providing opportunities for picnicking, public gathering, and public art.



Plan: West Circular Quay Public Domain Plan (source GAO)

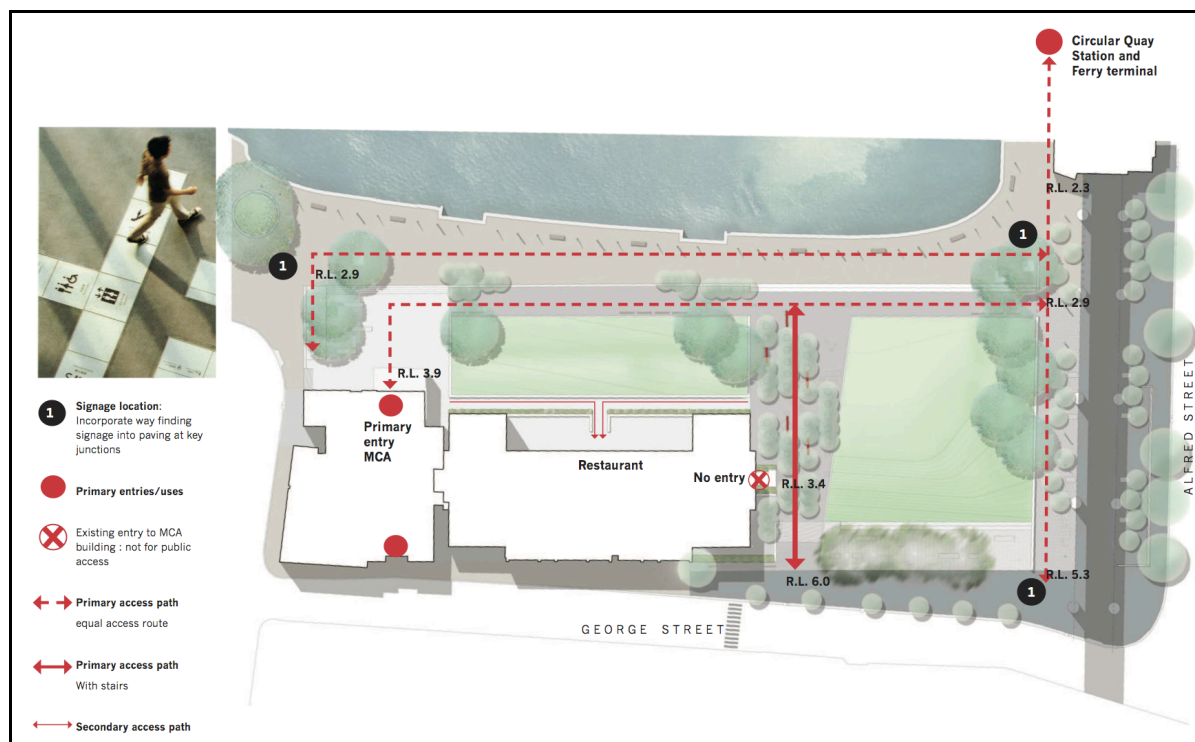


**Cross section from George Street through First Fleet Park
Section: West Circular Quay Public Domain Plan (source GAO)**

2. Create clear and generous links to The Rocks, George and Alfred Streets

Two generous east-west pathways will link the Circular Quay foreshore and public transport interchange (ferries, trains, buses) with The Rocks. The first link is an eight metre wide path on the alignment of the Cahill Expressway. This path provides a covered and accessible route to the George Street and Alfred Street intersection, being the gateway to The Rocks. An open paved plaza under the Cahill Expressway will supplement access for pedestrians from Alfred and Pitt Streets to The Rocks.

The second access route is located parallel to the southern façade of the MCA. This path generally reflects the original alignment of George Street leading to the historic position of Queens Wharf, a key shipping port for early settlers. This path, referred to as the *Market Wharf*, will act as a primary route to The Rocks as well as an informal plaza which can also accommodate temporary market stalls. A regular grid of native Cabbage Tree palms (*Livistona australis*) is proposed in *Market Wharf* and arranged to frame views to and from The Rocks. A reconfigured straight aligned staircase is proposed in the northwest corner of the park to George Street. These stairs are generously proportioned to optimise visual and physical access.



Precinct Links (source GAO)

The second access route requires the removal and replacement of the existing sandstone steps connecting George Street footpath to the WCQ promenade. Initially this pathways was related to the use of the Wharfage Hall (southern wing of the MSB building).

A path was later added leading diagonally across the park to the station. The original composition of the park included not only the staircase from George Street, but also a secondary sandstone staircase along the pathway below the palm grove. This second staircase was covered over and partly removed during fill and levelling activities in the 1980s. The heritage significance of these stairs is addressed under EA **Appendix G**.



George Street steps

The new stair connecting Market Wharf with George Street is realigned to improve access along the major pedestrian spine. The creation of a clear sight line between the promenade and George Street will improve orientation and pedestrian flow through the site.



New Stair connection between George Street footpath and WCQ Promenade

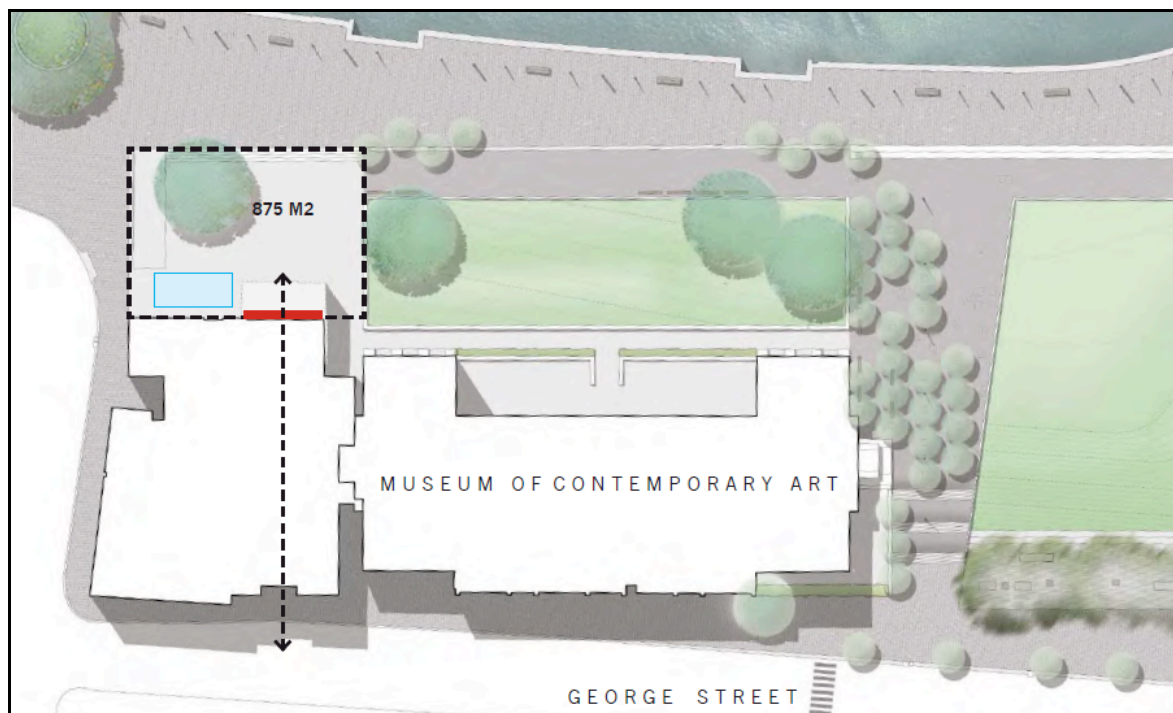
The removed sandstone material will be stored and recycled for other public domain repairs/maintenance or new projects.

The main north south foreshore promenade is retained. The secondary Pitt Street extension pathway is repositioned further to the east to allow the park to extend towards the Quay. This path will connect Alfred Street to the proposed MCA Square and foyer and provide an accessible route to the MCA entrance.

Generously proportioned shallow “bleacher” type steps are located along the edge of this path and the promenade. These steps will provide both public access, as well as serve as an informal gathering and seating area with outlook over Circular Quay.

3. Create a square at the MCA entry

A paved public square is located at the primary entry to the MCA building. The Square will accommodate seating, informal gatherings and temporary exhibits and displays. A permanent interpretation of the historic Colonial Docks (which were originally located here) will be located close to the building frontage.



MCA Square (source GAO)

4. Retain and locate landmark trees to preserve views and provide shade

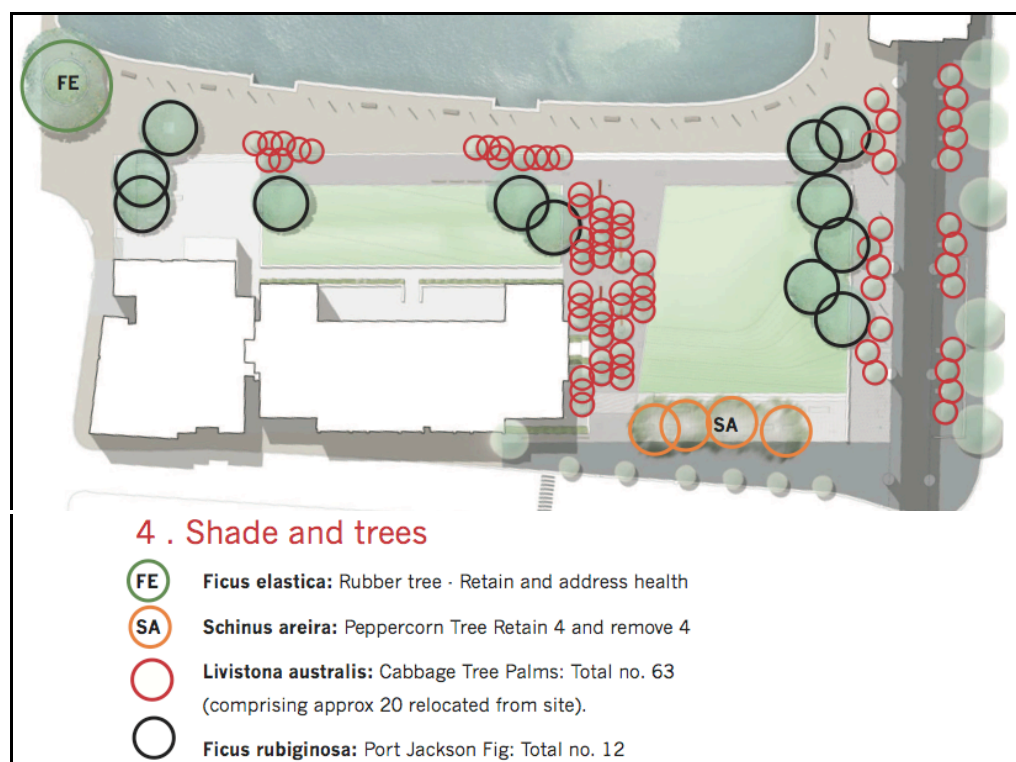
A judicious tree planting strategy for the WCQ site will balance the competing needs of shade and public views and will result in an increase of tree plantings within WCQ. A refined palette of plantings is proposed utilising native species that will perform well within site conditions, and will complement the site context.

Port Jackson Figs (*Ficus rubiginosa*) are proposed along the foreshore lawns to provide year round shade whilst maintaining under canopy views.

Two specimens will be located in paved spaces as landmark trees, complementing the existing Indian Rubber Tree. Figs will also be located at the southeast corner on the promenade and northeast corner of *MCA Square*. Figs will be supplemented by clustered plantings of native Cabbage Tree palms (*Livistona australis*) in paved areas at *Market Wharf* and along the southern pathway edge of the lawn adjoining the Cahill Expressway. The palms will provide filtered shade whilst allowing for views across Circular Quay. It is proposed to reuse and transplant existing Cabbage Tree palms where possible.

There are currently eight large pepper trees (*Schinus areira*) in garden beds adjacent to George Street. Although these trees are listed as scheduled 2 cultural items on the City of Sydney's Register of Significant Trees, four specimens are to be removed to accommodate the proposed widened path adjacent to the Cahill Expressway and to enhance key views.

Existing Jacaranda (*Jacaranda mimosifolia*) and Evergreen Ash (*Fraxinus griffithii*) are proposed for removal to improve public views. Some of these specimens are extremely deformed due to wind exposure. The mature Celtis (*Celtis australis*) on the southern edge of the MCA building are to be removed to accommodate the *Market Wharf* proposal and to re-establish the 'building in the round' view of the original Maritime Services building.



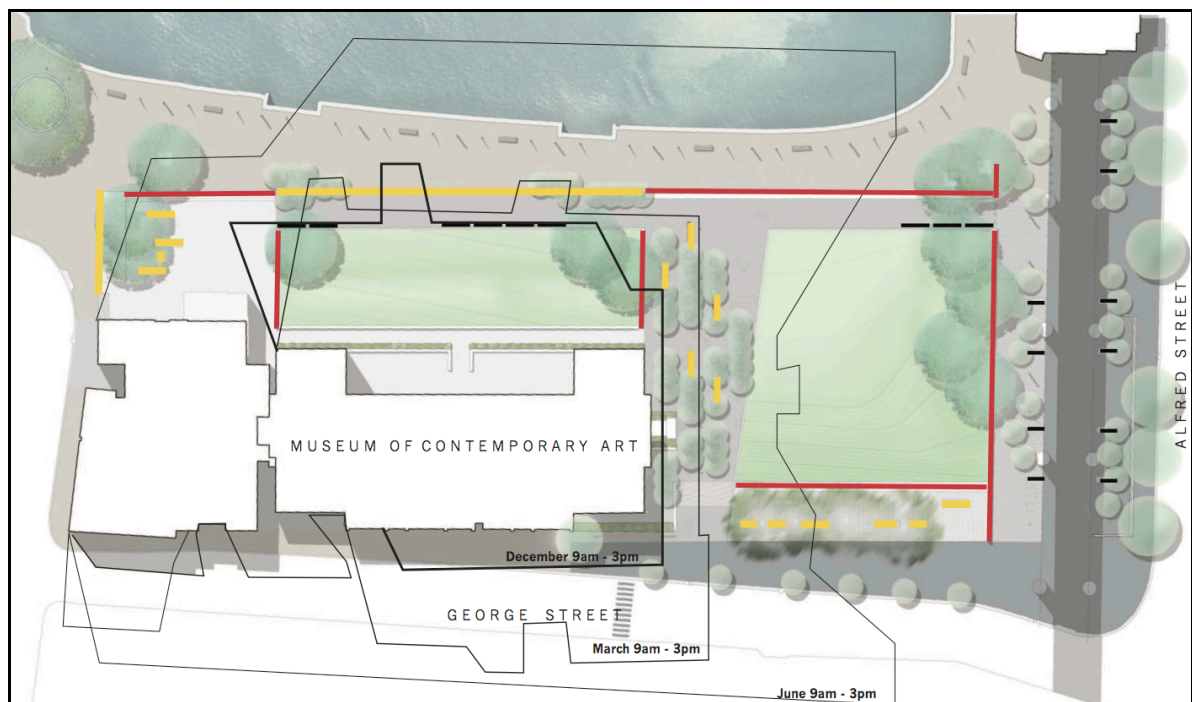
Landscape Plantings (source GAO)

An 'Arboricultural Assessment and Impact Report, prepared by *Landscape Matrix P/L*, accompany this Project Application and is found at EA report **Appendix J**.

5. Create a generous provision of informal and formal seating

The proposal incorporates informal and formal seating options catering for both summer shade and winter sun conditions. Seating will replicate the existing benches used in East Circular Quay in a number of locations, and will include a combination of benches and seating with backrests. Locations will include key pathways, the *Market Wharf* and in the paved area under the Cahill Expressway. Custom bench seats are proposed at *MCA Square* and *The Lookout*.

Appropriately proportioned walls and steps will provide informal seating areas. On the southern side of the site, a low seat wall will extend the length of the lawn. Between the promenade and the *MCA Square*, a low retaining wall and precast concrete seat with backrest will provide a generous seating overlooking the Harbour. Lawn areas will provide informal seating and picnicking year round.



- Informal seating
- Formal seating
- Custom seating

Seating Plan (source GAO)

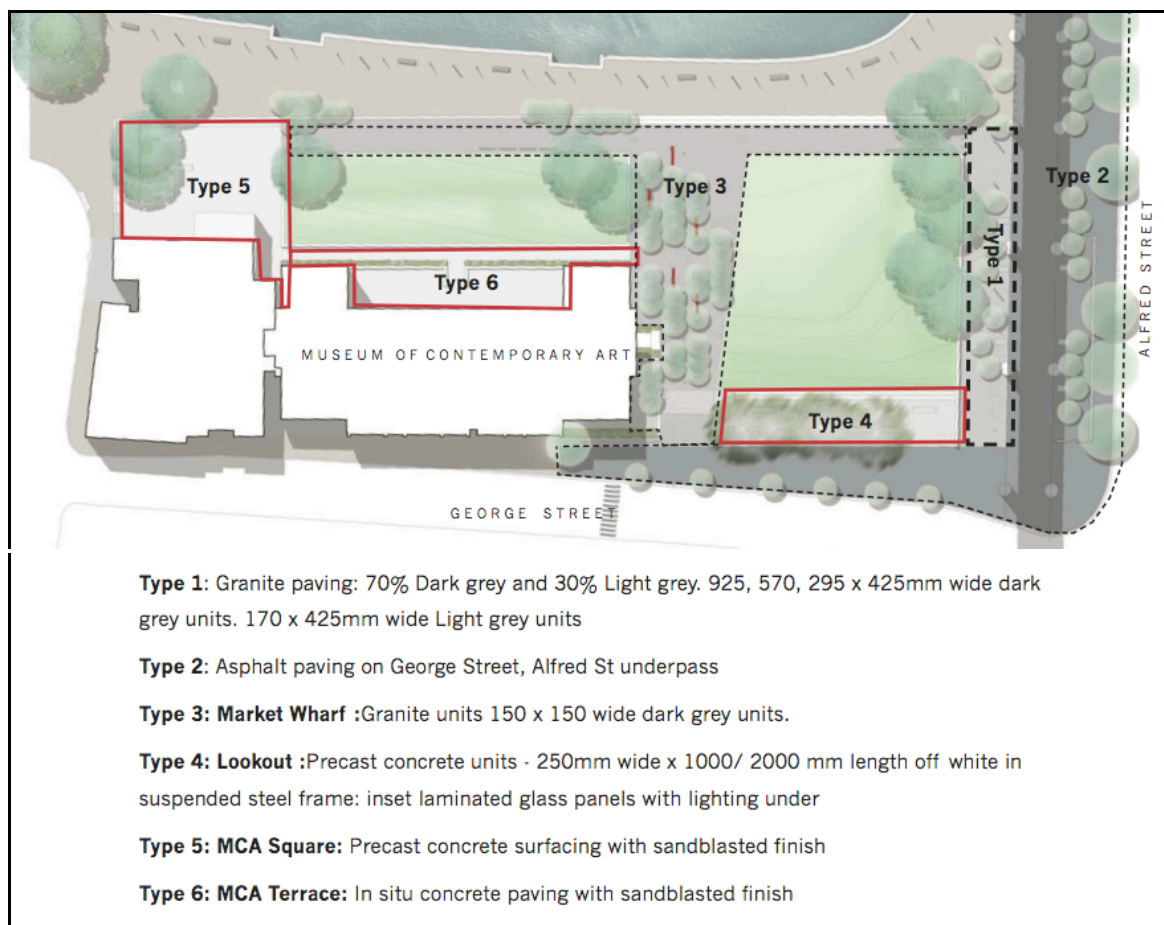
6. Create a unified and coherent ground plane

Paving will be upgraded to reflect the significance of the site, with subtle variations responding to key spaces and park zones. Paving has been selected for long-term durability and maintenance.

Existing brick paving to the WCQ Promenade will be retained. Minor regrading and matching brick paving will be laid to the interface with new works. The *Market Wharf* and upper level paths will be paved with natural stone paver sets in grey tone, to subtly demarcate the zone and address durability requirements for servicing access.

At *The Lookout* and *MCA Square*, paving will be precast and insitu concrete, to create a distinct character. At *The Lookout* where existing trees are to be preserved, modular precast paving units will be incorporated into a suspended structural frame to minimise impacts on the tree roots. This paving will be interspersed with interpretive panels.

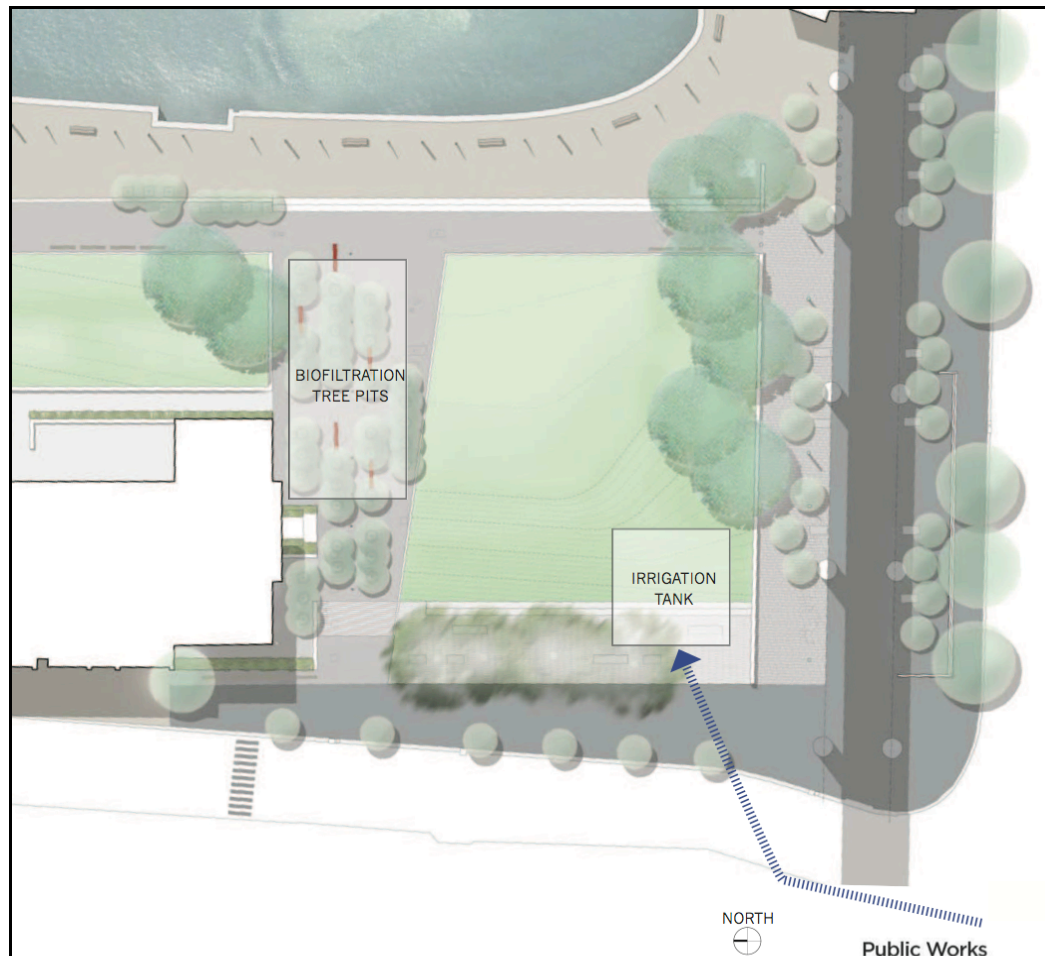
Under the Cahill Expressway and along George and Argyle Streets, paving is ultimately proposed to be natural stone. However as a Stage 1 implementation the paving will be asphalt 'footpath' mix to City of Sydney paving standards.



Paving Typology (source GAO)

7. Incorporate opportunities to harness stormwater for reuse and improve water quality

The Project will include a comprehensive stormwater strategy to provide a stored resource of water for irrigating the park and washing down pavements. The proposal will redirect stormwater from George Street into a gross pollutant trap, through a secondary filtration system and into a stormwater storage tank located under the sloping lawn. This stored water will be supplemented by filtration tree pits, which will collect and filter stormwater from surface runoff.



Stormwater and Irrigation (source GAO)

8. Provide lighting that fulfils the requirements of safety whilst allow for opportunities to enjoy the night time experience of key Harbour landmarks

Existing public domain lighting will be upgraded under the following key principles:

- Ensure safe lighting levels are provided on primary pedestrian routes.
- Ensure lighting does not unnecessarily impede the nighttime experience of the key Harbour landmarks, the Opera House and Sydney Harbour Bridge.

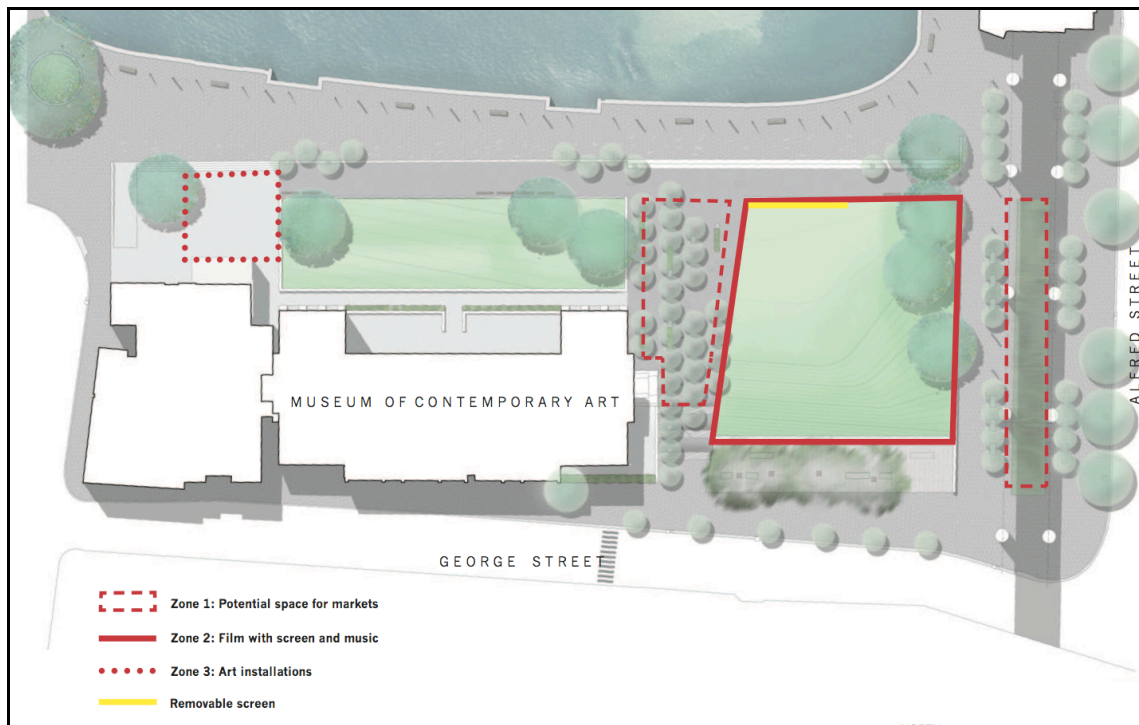
- Minimise upward light–spill.
- Balance lighting requirements and minimise the numbers of lighting columns.
- Illuminate key features including interpretative elements in the *MCA Square*, *The Lookout* and *Market Wharf*.
- Maximise energy efficiency.

New column lighting will be provided along the *Market Wharf*. Existing light fittings will be retained.

9. Create a layout that can accommodate events and festivals

The new park structure will allow for a variety of temporary activities and events. The gently graded lawn amphitheatre provides an ideal location for outdoor cinema and stage performances. Three phase power outlets will be provided in discreet locations. The *Market Wharf* is designed to accommodate temporary market stalls.

The Authority's 'Outdoor Events Policy' & 'Technical Manual' 2009 addresses the management and operation of all outdoor events at this location (policy referral as 'First Fleet Park'). Furthermore, the majority of the Authority's events qualify as 'Exempt Development' under the provisions of SEPP (Major Development) 2005, Schedule 8, and/or SEPP (Temporary Structures) 2007.



Outdoor Events and Art Installations (source GAO)

10. Provide opportunities for heritage interpretation

Interpretive elements will be located at *The Lookout* incorporating detailed explanatory text and images related to the 1788 to 1812 colonial period and with a particular focus on early occupants and historic activities and indigenous references. These stories will be conveyed within paving, walls and seating elements.

The *Market Wharf* will be designated as a lower priority interpretation area, with general text and signage to evoke historical overlays.

Existing artifacts will be removed, relocated to another site or repositioned in the public domain area. For example, Robert Klippel's sculpture 'The Beacon' will be relocated to another site. The First Fleet Memorial Park plaque, the Governor Phillip sculpture, and the Commissariat Stores foundation stone will also be repositioned to the *Market Wharf* area and opposite the MCA building. The Rocks Canopy will be removed.

An Interpretative Overlay, prepared by *Deuce Design*, accompanies the Project application (EA **Appendix R**). This strategy focuses on interpretation opportunities in two key areas - at the *Lookout* and the *Market Wharf*.



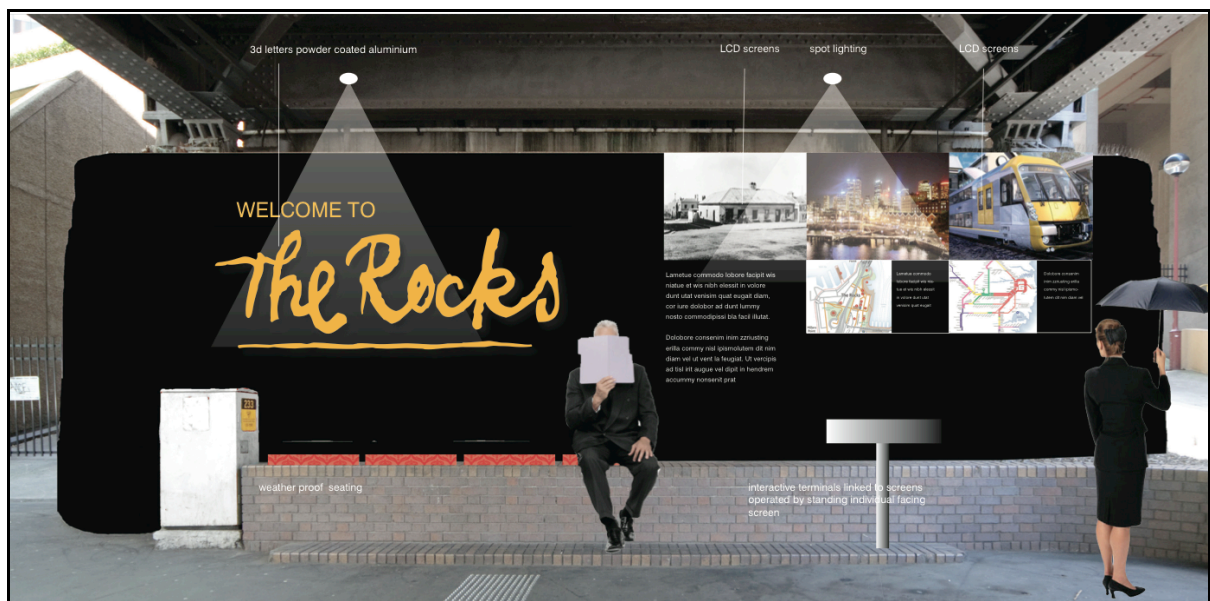
Locations for Interpretation (source GAO)

11. Create a “Welcome Wall” to The Rocks precinct

A “Welcome Wall” is proposed facing the George Street west footpath and serving as a welcome, wayfinding, and interpretive entrance to The Rocks precinct. The “Welcome Wall” will utilise the existing east facing support wall of the Circular Quay Railway structure above. The wall lies within the ownership of Railcorp and this proposal has the support of both Railcorp and Transport NSW.

The wall will be painted black or a rich brown colour. The “Welcome to The Rocks” message is created from 3D letters mounted onto the wall surface. A series of interactive LCD screens will feature multi-media content which communicate the heritage of the area, the dynamic contemporary nature of the precinct, wayfinding maps to help navigate pedestrians to and through the area, and an interactive transport information service. The wall screen will be directed from a terminal mounted in front of the existing wall. Spotlights suspended from the CQ Railway structure above will provide specific illumination to the wall and is designed in accordance with relevant Australian Standards including AS1158.3.1:2005. The low brick wall in front of the “Welcome wall” will be used for seating. No third party advertising will be installed on the wall.

The siting of the Welcome Wall is in direct alignment with the pedestrian pathway running under the Circular Quay Railway structure (from the central Circular Quay promenade and public transport interchange). The wall is setback from the George Street carriageway, and sited next to the George Street footpath junction with a lights managed pedestrian crossing. The “Welcome Wall” is the ideal location to introduce and give address to the entrance of The Rocks precinct.

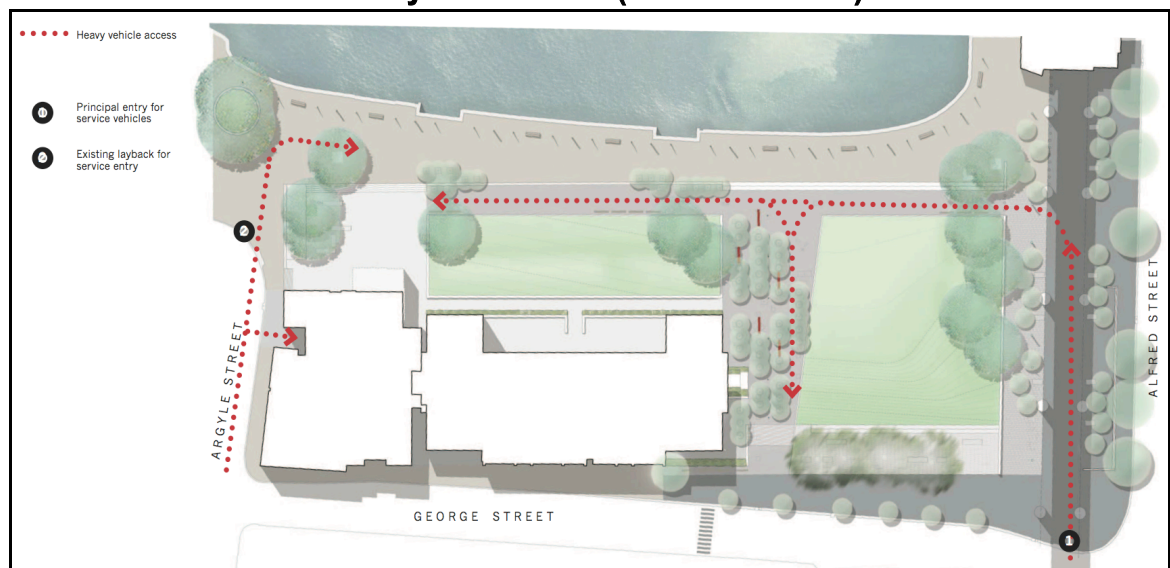


12. Servicing

The Project works will allow for truck access to the southern side entry of the MCA and to the sewage pump-out wells. All pits associated with these wells will be located within the paved *Market Wharf* area. Sewer induct vents will be incorporated into the proposed steps to George Street.



Utility Services (source GAO)



Service Delivery Routes (source GAO)

3.3 DEVELOPMENT PHASING

Subject to the Minister's consent being granted for this Project, the Authority intends to coordinate, carry out and complete the WCQ public domain upgrade works to coincide with the approved expansion of the MCA building.

It is expected the Project will be delivered in a single staged construction period of 6 months, commencing mid 2011 with completion to coincide with the expansion of the MCA building.

4. ENVIRONMENTAL PLANNING INSTRUMENTS & GUIDELINES

4.1 ENVIRONMENTAL PLANNING & ASSESSMENT ACT 1979

The relevant ‘Environmental Planning Instruments’ (EPI’s) and policies/guidelines, against which this Project is prepared and assessed, are listed below: -

- State Environmental Planning Policy (Major Development) 2005
- Sydney Cove Redevelopment Authority Scheme (SCRA)
- Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005
- Sydney Harbour Foreshores and Waterways Area DCP 2005
- NSW Plan, Sydney Metro Strategy, Sydney City Subregional Strategy
- State Environmental Planning Policy 55 – Remediation of Land
- Sydney City Council – Sustainable Sydney 2030
- The draft Circular Quay Masterplan
- NSW Coastal Planning Guideline: Adapting to Sea Level Rise
- SHFA Outdoor Events Policy 2009 and Technical Manual 2009
- SHFA Signage Policy 2009 and Technical Manual 2009
- SHFA The Rocks Lighting Policy 2009
- SHFA Commercial Outdoor Seating Policy 2007
- SHFA Public Art Policy 2010
- SHFA Tree Policy 2010; draft Tree Master Plan The Rocks/CQ 2010
- Sydney Streets Design Code; Register of Significant Trees Vol3
- SHFA Sustainability Policy 2009

Part 3A of the EP&A Act includes:

- development under the State Significant Development SEPP, gazetted on 25 May 2005 which was amended on 1 August 2005 to be the Major Project SEPP
- State government infrastructure projects likely to significantly affect the environment, previously assessed under Division 4, Part 5 under an order by the Minister issued on 1 August
- any other projects, plans or programs declared in an Order by the Minister.

This EA report concludes this Project to be permissible with the Minister for Planning’s consent, and to be consistent with the provisions of the relevant planning instruments, which are described in detail in this report section. This EA report also addresses important social and environmental conditions including economic benefits and reputation of the NSW State and of Circular Quay as a site of State and international significance.

4.2 STATE ENVIRONMENTAL PLANNING POLICY (MAJOR DEVELOPMENT) 2005

Part 3A of the EP&A Act 1979 includes:

- Development under the State Significant Development SEPP, gazetted on 25 May 2005 which was amended on 1 August 2005 to be the Major Project SEPP

The SEPP came into force on 25 May 2005 and was updated as recently as 23 April 2010. The SEPP is relevant to Sydney Harbour Foreshore sites and includes the public domain of Circular Quay West.

This project refers to clause 6 of the SEPP:

6 Identification of Part 3A projects

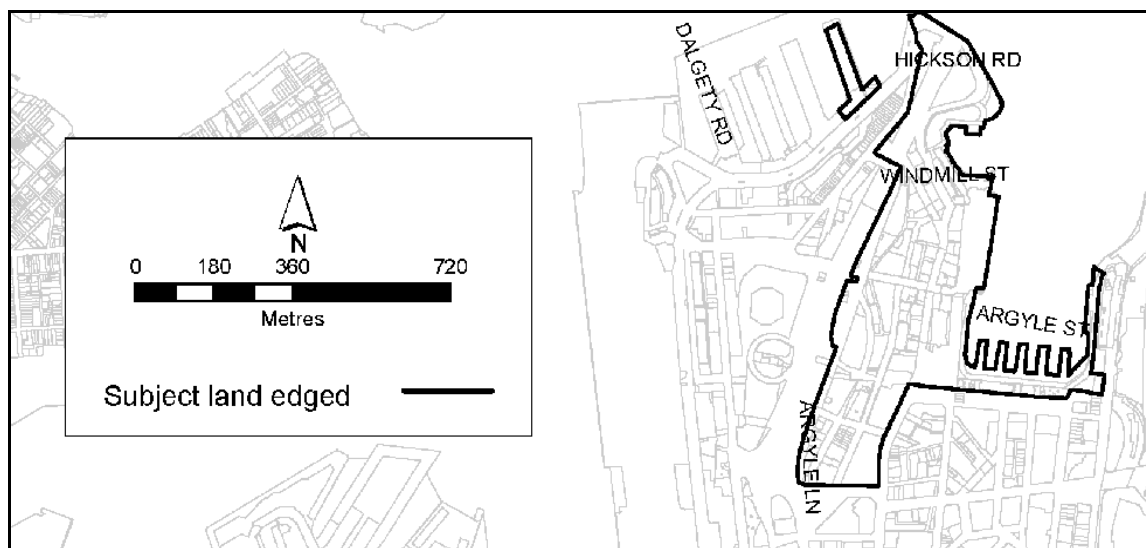
- (1) Development that, in the opinion of the Minister, is development of a kind:
 - (a) that is described in Schedule 1 or 2, or

and to Schedule 2 of the SEPP:

10 Sydney Harbour Foreshore Sites:

- (1) Development (with a capital investment value of more than \$5 million) in the areas identified on Map 9 to this Schedule.

Circular Quay and The Rocks are identified under Map 9 Schedule 2 (renumbered by the SEPP to Map 2 Schedule 3) – see map extract below.



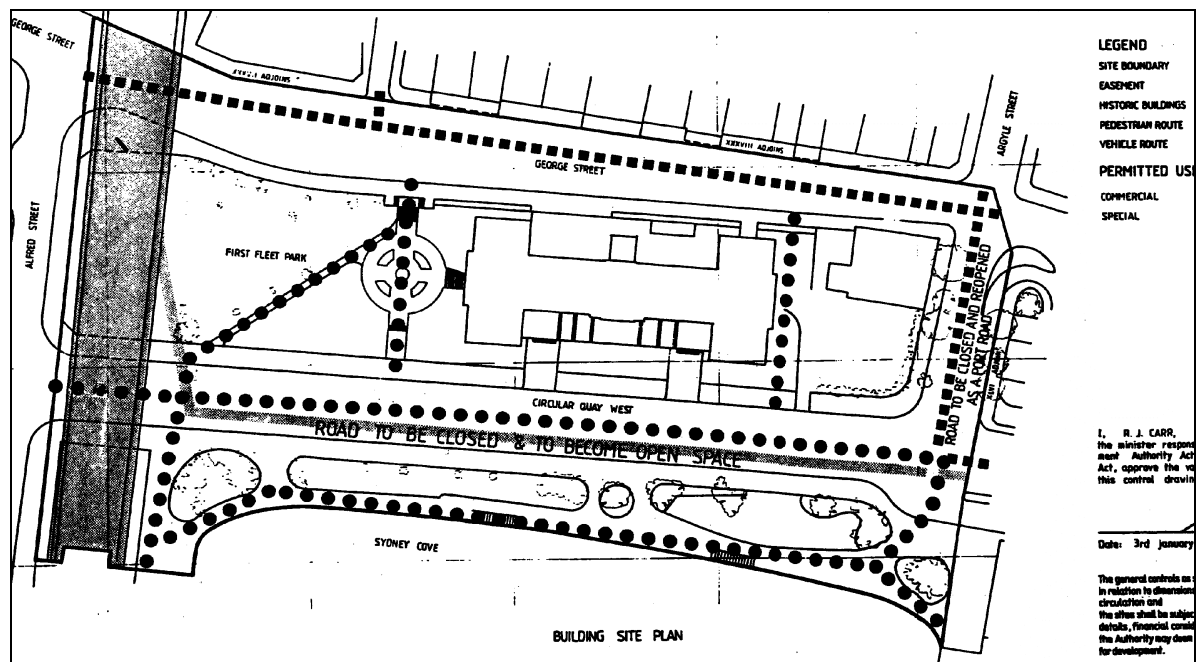
Sydney Harbour Foreshore Sites (source SREP Major Development)

This submission contains a 'Preliminary Estimate Summary' for the proposed works, prepared by *Wilde and Woollard*, Quantity Surveyors, Asset Planning and Management Services (copy at **Appendix F**). The QS report confirms a Project capital investment value of \$8.5 million.

4.3 SYDNEY COVE REDEVELOPMENT AUTHORITY SCHEME (SCRA)

The SCRA Scheme plan XXXIX-A(1), adopted on 3 January 1986 by the former Minister for Planning and Environment the Hon R J Carr, establishes the land use permissibility of the WCQ site. The 'K2 Building Site Control Drawing Key Map' provides a definition for "Special" uses which includes (but not limited) the following:

3. "Special" uses are deemed to include Utility Services, Public Open Space and Other Amenities, Open Space, Tourist and other Information Services, Ceremonial Places, Exhibition Areas, Areas Set Aside for Entertainment, and Recreational Facilities, and the Like."



Source: SCRA Scheme

The proposed Project works are therefore concluded as permissible uses subject to consent.

4.4 SYDNEY REGIONAL ENVIRONMENTAL PLAN (SYDNEY HARBOUR CATCHMENT) 2005

4.4.1 SREP Provisions

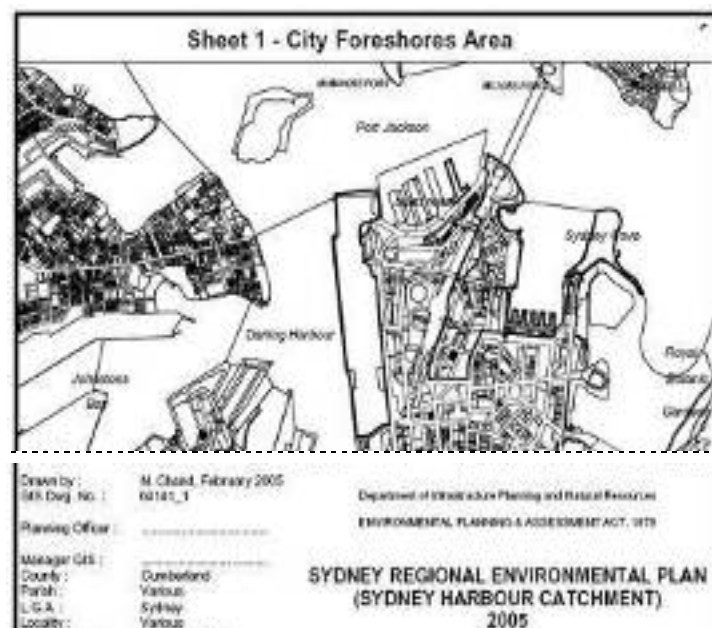
The site is subject to the provisions of the SREP, which is a consolidation of the existing SREP 22 & 23, SEPP 56, and the Sydney Cove Redevelopment Scheme instruments. The SREP provides controls on the Foreshores and Waterway area including strategic foreshore sites, and sets out the relevant “matters for consideration” to be addressed in the development of relevant foreshores and waterways (clauses 17 to 23). These matters have been considered and are considered to be compliant with regards to the proposed WCQ Project.

The proposed WCQ public domain works satisfy the following relevant SREP *Aims*:

Cl. 2(a) to ensure that the catchment, foreshores, waterways and islands of Sydney Harbour are recognised, protected, enhanced and maintained:

- (i) as an outstanding natural asset, and
- (ii) as a public asset of national and heritage significance, for existing and future generations,
- (b) to ensure a healthy, sustainable environment on land and water,
- (c) to achieve a high quality and ecologically sustainable urban environment,
- (d) to ensure a prosperous working harbour and an effective transport corridor,
- (e) to encourage a culturally rich and vibrant place for people,
- (f) to ensure accessibility to and along Sydney Harbour and its foreshores,

The SREP identifies Circular Quay/The Rocks as a Strategic Foreshore Site:



Extract: SREP (Sydney Harbour Catchment) 2005

Neither the WCQ Project site, nor any of the proposed works, is affected by any zoning identified under the SREP Zoning Map. The WCQ project site adjoins, but does not affect, Circular Quay waterway zoned *W1 Maritime Waterways*.



Zoning Map (source SREP Sydney Harbour Catchment)

The SREP does **not** identify WCQ under any of the following categories:

- Land use zones;
- Special purposes;
- SREP Heritage items. Note, the SREP identifies the *1.Ferry Wharves* as a “Heritage Item” within Sydney Harbour. The proposed WCQ public domain works adjoin, but do not affect, the ‘Ferry Wharves’;
- Wetland Protection Area; or
- Critical Habitats Area.

4.4.2 Minor Development:

The majority of the Project works qualify as ‘Minor Development’ under the Schedule 3 criteria of the SREP, as follows: -

6 Temporary structures

- (1) The erection of a temporary structure for a period of not more than 60 days, whether consecutive or not, in any period of 12 months.
- (2) In this clause, temporary structure includes a booth, tent or other temporary enclosure (whether or not part of the booth, tent or enclosure is permanent), and also includes a mobile structure.

7 Development within the public domain

- (1) The provision and use of outdoor seating or tables or street furniture (such as benches, bollards, public artwork installations, street lights, telephone kiosks and tree surrounds) on a footpath, or in a plaza or other public place.
- (2) The use of the public domain for temporary purposes (such as the conduct of a festival, performance or promotion or the exhibition of artwork) for a period of not more than 30 days, whether consecutive or not, in any period of 12 months.
- (3) The construction of an access way for pedestrians or vehicles and any associated works.

Those Project components that do qualify as ‘Minor Development’ include all outdoor seating and furniture, lighting, public artwork and interpretations, lighting, café kiosk, redesigned public footpaths and access way for service vehicles, and the use of the Market Wharf and MCA Square for temporary markets/events.

Those Project components that fail to qualify as ‘minor development’ include the removal and replacement of trees, new landscaping, the installation of the water tank under First Fleet Park.

Clause 29(3) does not require proposals for *minor development* to be referred to the Foreshores and Waterways Planning and Development Advisory Committee.

Clause 41 does not require the preparation of any Master Plan for *minor development*.

4.4.3 Matters for consideration:

Under SREP Clause 20, the following matters are required to be considered by the consent authority before granting consent to development: -

Clause	Compliance	Project Response
Clause 21 - Biodiversity, ecology and environmental protection	YES	The proposal will not have any adverse impacts on the biodiversity or ecology of WCQ.
Clause 22 - Public access to, and use of, foreshores and waterways	YES	The WCQ public domain upgrade is designed to provide improved pedestrian passage between The Rocks and Circular Quay foreshores, through improved pedestrian desire lines and destination points, a consistent use of public domain materials and landscaping, and accessible pedestrian gradients.
Clause 23 - Maintenance of a working Harbour.	YES	The proposed works will not obstruct ferry access and charter boat berths to the Circular Quay waterways, or the navigation of liners entering or leaving the Overseas Passenger Terminal.
Clause 24 - Interrelationship of waterway and foreshore uses	YES	The proposed works are specifically designed to provide a superior and interactive relationship between The Rocks and the Circular Quay foreshores through the consistent use of public domain materials and landscaping, and provision of gradients that are accessible for persons with a disability.
Clause 25 - Foreshore and waterways scenic quality	YES	The proposed works will significantly improve the scenic quality between waterways and foreshores through design objectives to overcome existing site constraints, and the application of a consistent palette of public domain materials and furniture. The works will promote The Rocks and Circular Quay's unique reputation as a major international destination.

Clause	Compliance	Project Response
Clause 26 - Maintenance, protections and enhancement of views.	YES	The proposed works are designed to re-arrange existing landscape elements in order to improve public Harbour views to and from Circular Quay, The Rocks and across to the Sydney Opera House.
Clause 27 - Boat storage facilities	YES	The proposed WCQ public domain upgrade will not impede or obstruct any existing boat storage facilities or wharves within Circular Quay waterways.
Foreshores and Waterways Planning and Development Advisory Committee	YES	The landscape upgrade of foreshore public domain is not a listed category of development under Schedule 2 of the SREP. Consequently no referral to the Committee is required.

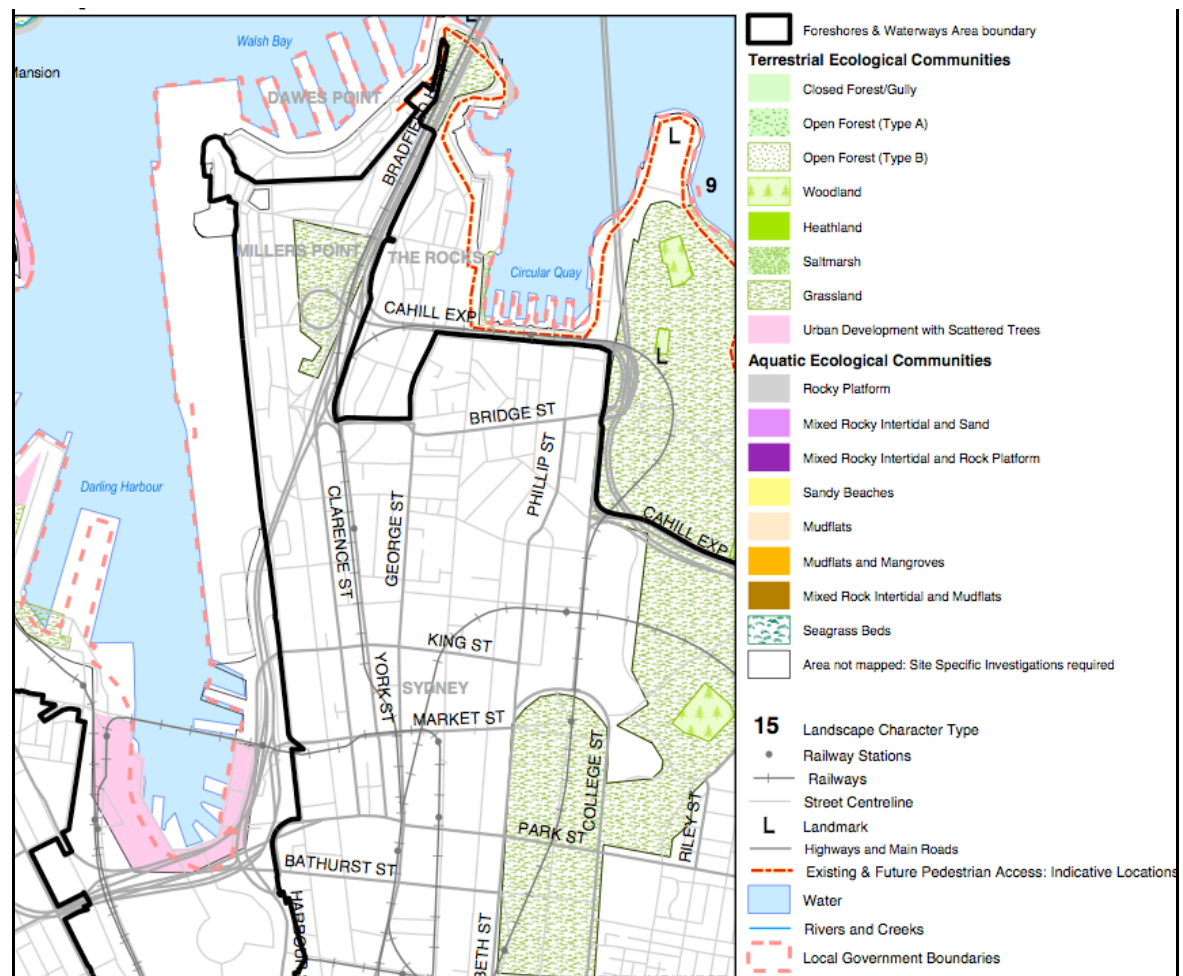
4.5 SYDNEY HARBOUR FORESHORE AND WATERWAYS AREA DEVELOPMENT CONTROL PLAN 2005 (THE DCP)

As the site is identified in the “Foreshores and Waterways Area” in SREP (Sydney Harbour Catchment) 2005, the controls of the DCP apply to this Project. The DCP includes aims and performance criteria in relation to Ecological or Landscape Assessment, and Design Guidelines for development within the area.

The Ecological or Landscape Characters plan identifies ‘*Existing & Future Pedestrian Access: Indicative Locations*’ running north south along the WCQ foreshores. The proposed WCQ public domain landscape upgrade complements the only defined DCP intention for this precinct. The WCQ project boundaries do not contain any *Terrestrial or Aquatic Ecological Communities*.

**Sydney Harbour - Foreshores and Waterways Area Development Control Plan:
Ecological Communities and Landscape Characters**

Map 8



Source: DCP for SREP (Sydney Harbour Catchment) 2005

None of the DCPs *Landscape Character Type* applies to the Circular Quay waterways and foreshores.

Section 2 of the DCP addresses the *General Aims*. The proposed WCQ works satisfy the following relevant aims:

2.2 General Aims

The overall purpose of the performance criteria is to conserve biological diversity within and around Sydney Harbour and its tributaries. Within this context, criteria have been devised to ensure that:

- ecological communities, particularly those which form wildlife habitats, are protected and where feasible enhanced;
- development is sited to retain native vegetation.....;
- development is accompanied by revegetation; and

Section 4 of the DCP addresses *Design Guidelines for Water-Based and Land/water Interface Developments*. The WCQ Project satisfies the following relevant DCP objectives and requirements under this section:

- public access to waterways and public land is maintained and enhanced;
- congestion of the waterway and foreshore is minimised;
- conflicts on the waterway and foreshore are avoided;
- the development does not interfere with navigation.....;

Section 5 of the DCP addresses *Design Guidelines for Land-Based Developments*. The WCQ Project satisfies the following relevant DCP objectives and requirements under this section:

5.2 Foreshore Access:

The Harbour, Parramatta River and their tributaries, are for everyone's enjoyment and public access to the foreshores is fundamentally important. Foreshore access is to be encouraged and wherever possible, public access to and along the foreshore including the inter-tidal zone should be secured or improved.

Most desirable are foreshore links joining public open spaces or access points.

Section 5.5 of the DCP addresses **Signage**. The proposed WCQ upgrade works limit signage to regulatory and wayfinding signage, and satisfy the relevant DCP guidelines:

5.5 Signage

Signs can be obtrusive but they are often necessary and, if done imaginatively, can enliven a scene. A consistent series of signs, using a unified graphic style and construction and siting principles, should be used in particular areas to indicate all the public open spaces along the waterway.

DCP Section 5.6 Plantings addresses guidelines for landscaping. The WCQ landscape upgrade works satisfy the following relevant guidelines: -

- appropriate species from those found in the surrounding landscape should be incorporated;
- endemic native species should be used in areas where native vegetation is present or has the potential to be regenerated;
- exotic species that have the potential to spread into surrounding bushland should be avoided;
- existing mature trees should be retained where possible and incorporated into the design of new developments;
- a landscape plan is to be submitted with any land-based development proposal showing existing and proposed changes in contours, surface and sub-surface drainage, existing trees to be retained and removed, measures to protect vegetation during construction, and proposed planting including species and common names.

The WCQ Project includes the retention, removal and replanting of a number of existing trees within the First Fleet Park area and perimeter to George Street footpath. These are addressed in detail under EA report section 3.2 *Detail Design*, sub-section 4. *Retain and locate landmark trees to preserve views and provide shade*.

A refined palette of plantings is proposed utilising native species that will perform well within site conditions, as well as complement the site context. Tree replanting will include Port Jackson Figs (*Ficus rubiginosa*) proposed in the lawn, and native Cabbage Tree palms (*Livistona australis*) proposed in paved areas. An Arboricultural report, addressing the protection of existing trees during construction, accompanies this EA report and is found at **Appendix J**.

4.6 NSW STATE PLAN, SYDNEY METROPOLITAN STRATEGY AND THE DRAFT SYDNEY CITY SUBREGIONAL STRATEGY

4.6.1 The NSW State Plan

The *NSW State Plan 2010 - Investing In A Better Future* was released by Kristina Keneally MP, Premier of NSW, and Minister for Redfern Waterloo, and by Linda Burney MP, Minister for the State Plan, and Minister for Community Services.

The proposed landscape upgrade of WCQ complements the following key **‘Priorities’** of the NSW State Plan: -

- **Clean Energy** - a new priority and targets to increase the supply and uptake of clean energy and to support clean energy and green jobs
- **Quality of Life** - a new priority to grow our cities and regional centres as functional and attractive places to live, work and visit

and the following relevant **‘Target’**: -

Grow cities and centres as functional and attractive places to live, work and visit

- Maintain or improve the ranking of our cities and regional towns in ‘quality of life’ surveys

The proposed WCQ public domain upgrade complements the following relevant **‘Priorities’** of the NSW State Plan:

Green State (Chapter 5)

Secure sustainable supplies of water and use our water more wisely

- Increase water recycling from 15 billion litres per year in 2005 to 70 billion litres of water per year by 2015
- Save 145 billion litres of water per year by 2015, representing almost a 25% reduction from Sydney’s projected water demand in that year

Comment: The Project incorporates a comprehensive stormwater strategy to provide a stored resource of water for irrigating the park and washing down pavements. The proposal will redirect stormwater from George Street into a gross pollutant trap, through a secondary filtration system and into a stormwater storage tank located under the sloping lawn of First Fleet Park.

Stronger Communities (Chapter 6)

Promote our parks

Demand for urban parklands is strong and continues to grow, and each year in NSW more than 55 million visits are made to National Parks and urban parklands such as the Botanic Gardens and the Western Sydney Parklands.

We will continue to encourage community use of our parks through:

- improved facilities within existing parklands including Centennial Park and Parramatta Park
- improving access to parks and reserves to facilitate more exhibitions, festivals, cultural and recreational events across NSW
- upgrading the system of walking tracks in Sydney Harbour, the Blue Mountains and Royal National Parks
- involving the community in revising the Sydney Harbour National Park Plan of Management to improve public access and enjoyment of the Harbour.

Comment: The Project increases the existing WCQ urban parkland by 12%, and substantially improves the park's services and facilities including access and accessibility, marketing of the foreshores and surrounding The Rocks/Circular Quay precincts, heritage and archaeological interpretations, opportunities for a variety of community events, and an improvement to public enjoyment, access and visitation to the Circular Quay foreshores.

4.6.2 The Sydney Metropolitan Strategy

The *Metropolitan Strategy - City of Cities – A Plan for Sydney's Future*, predicts that Sydney's population is anticipated to grow by 1.1 million people between 2004 and 2031, from a current population of 4.2 million to 5.3 million by 2031. The Strategy provides a long-term plan for Sydney's continuing economic growth while balancing social and environmental impacts.

Paramount to its' key *Seven Strategies*, the Strategy promotes “6. *Fair Access to Housing, jobs, services and open space*”.

The Strategy states that the quality of life in a community is also a function of the cultural activities available to its population. Open space is an essential ingredient in defining a sense of community place, whether it is provided for residential and working environments or tourist destinations. Consequently, the provision of high quality open space and passive/active recreational facilities is instrumental in defining the important elements in community life.

Under the Strategy's ***Parks and Public Places*** report, the WCQ project will satisfy the following relevant strategic aims and objectives:

F1.2 – Improve the Quality of Regional Open Space

F3.1 – Improve Sydney's Major Sporting and Cultural Event Facilities

The upgrade of the WCQ public domain will ensure accessibility for all pedestrians between the Circular Quay and The Rocks precincts, through the provision of safe, direct and satisfactory pedestrian footpath gradients. The project will overcome existing site constraints to provide continuous, and accessible open space for passive and active recreational uses including temporary events. Furthermore, the upgrade of the WCQ public domain will provide all visitors, residents and workers with a high quality open space regional park.

Under the Strategy's **Environment & Resources** report, the WCQ project will satisfy the following relevant strategic aims and objectives:

E2.1 - Improve Health of Waterways, Coasts and Estuaries (Embed stormwater and catchment objectives and targets)

E3.2 - Achieve Sustainable Use of Water (Recycling is an integral part of the Metropolitan Water Plan.

E3.3 - Use Energy Efficiently and reduce Greenhouse Intensity of Energy Supply (e.g. by improving energy and water efficiency installing water saving devices).

The Project proposes a stored resource of water for irrigating the park and washing down pavements. The proposal will redirect stormwater from George Street into a gross pollutant trap, through a secondary filtration system and into a stormwater storage tank located under the sloping lawn.

4.6.3 Sydney City Draft Subregional Strategy

The Metropolitan Strategy focuses on Subregional strategies with the intention of translating the Strategy to a local level. The *Sydney City Draft Subregional Strategy* was released in July 2008 and specifically targets key planning initiatives and targets for the City of Sydney jurisdiction.

Under the 'Key Direction' of '*6.Improve the Quality of the Built and Natural Environment While Decreasing the Sub-Region's Ecological Footprint*', the draft Sub-Regional Strategy supports the proposed upgrade works of this project with the following statement:

- Continue to promote water-sensitive urban design and to implement water recycling and reuse schemes in the subregion's parks and public places.
- Public access around the Harbour foreshores and the quality of the Harbour environment will continue to be improved.

The proposed landscape upgrade of the WCQ precinct satisfies the State-wide and Sydney City objectives of the Metropolitan Strategy by creating a quality open space catering to a variety of cultural and community requirements, and towards promoting sustainable water sensitive energy efficiency.

4.7 STATE ENVIRONMENTAL PLANNING POLICY 55 – REMEDIATION OF LAND

Under the *State Environmental Planning Policy No 55—Remediation of Land*, clause 7 requires the consent authority to consider: -

- (1) A consent authority must not consent to the carrying out of any development on land unless:
 - (a) it has considered whether the land is contaminated, and
 - (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and
 - (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.

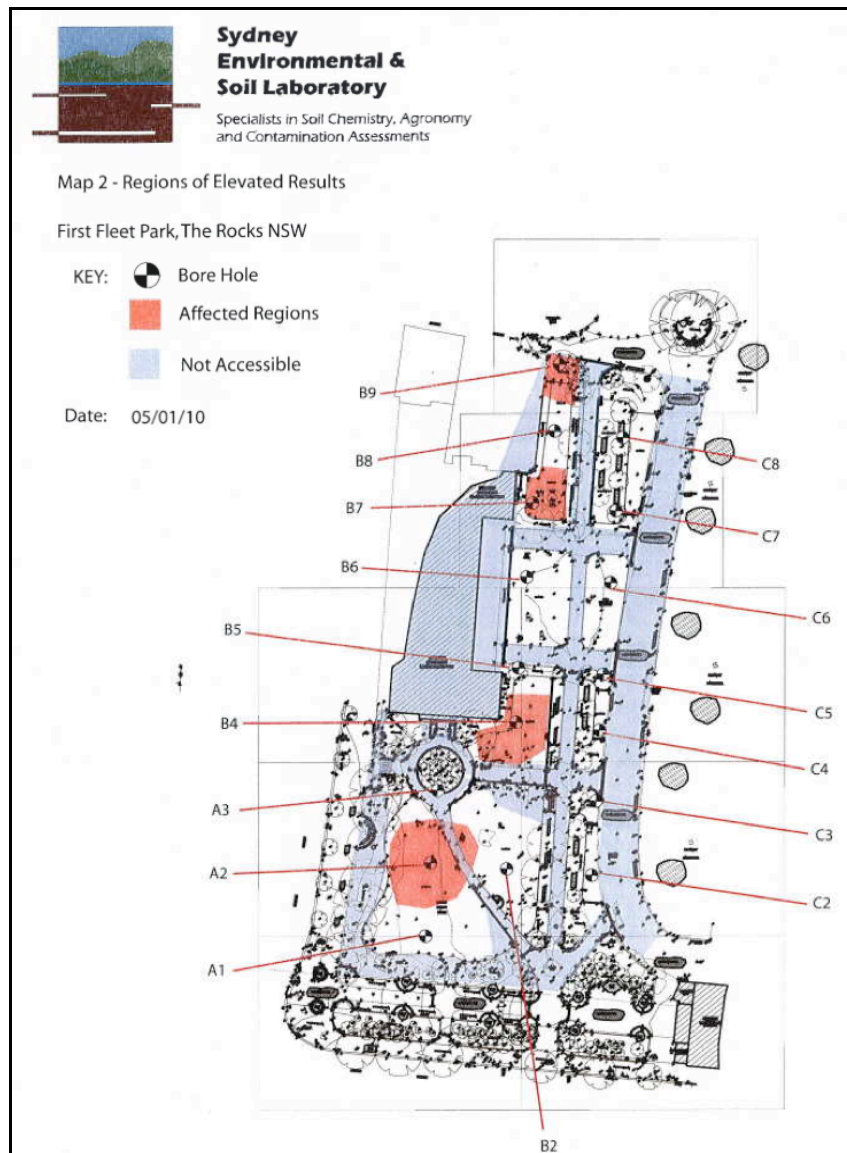
Should the land be contaminated, the consent authority must be satisfied that the land is suitable in a contaminated state for the proposed use. If the land requires remediation to be undertaken, to make the land suitable for the proposed use, the consent authority must be satisfied that the land will be remediated before the land is used for that purpose.

4.7.1 Phase 2 Site Investigation

A Detailed Phase 2 Site Investigation of the WCQ site was conducted by Sydney Environmental & Soil Laboratory Pty Ltd (Specialists in Soil Chemistry, Agronomy and Contamination Assessments) in February 2010. A copy of the Phase 2 summary is found at **Appendix M** of this EA report.

The investigation concludes that PSI indicated levels of heavy metal, Benzo(a)pyrene (BaP) and Polycyclic Aromatic Hydrocarbon (PAH) contaminants exceed the adopted thresholds (HIL or EIL) at four locations within the CQW site – the surface topsoil materials at locations B7 and B9 and the subsurface soil materials at A2 and B4 contain elevated contaminants (see map overleaf). The investigation concludes:

It is the recommendation of SESL that these isolated areas may be removed from site under the guidance of a site-specific Remedial Action Plan (RAP) or maintained on site under the guidance of a site specific Environmental Management Plan (EMP). Based on this Phase 2 DSI, SESL consider the site suitable for the current open space landuse, subject to the implementation of a Remedial Action Plan (RAP) or Environmental Management Plan (EMP). A Site Validation Report (SVR) shall be carried out to ensure success of the RAP if adopted.



Source: Sydney Environmental & Soil Laboratory Pty Ltd Phase 2 Investigation

4.7.2 Environmental Management Plan

The Authority has in place an 'Environmental Management Plan for SHFA Public Domain' (copy found at **Appendix N**). The EMP relates to the management of potential environmental and health risks associated with contaminated fill materials that may have been used to establish parts of the Authority's public domain. This EMP assist the Authority in:

- managing the public domain so that users of these facilities, including members of the public and maintenance workers, are protected; and
- ensuring the environment is protected during normal use of the public domain and during any works that may be required.

The principal elements of the EMP are:

- assigning responsibilities for implementation of the EMP;
- protection of the health of users of the public domain by ensuring maintenance of the clean surface cover to prevent exposure to contaminants that may be present in fill materials at depth;
- protection of the health of maintenance workers when the surface cover is disturbed by works;
- ensuring contaminated or potentially contaminated fill materials encountered during maintenance works are disposed of properly or are replaced at depth beneath the restored surface cover; and
- maintaining records of inspection of the integrity of the surface cover and of maintenance works.

4.7.3 Specific Site Management Plan

A Specific Site Management Plan (SMP) has been prepared *by Sydney Environmental & Soil Laboratory* and supplements the EMP described above. A copy of the SMP is found at **Appendix O**.

This SMP manages SHFA staff, contractors and public risk associated with the identified contaminants at the assessment site under current landuse practices and throughout the construction program.

The SMP has been prepared to manage the potential risks to human health and the environment posed by subsurface levels of Benzo(a)pyrene (BaP) and total Polycyclic Aromatic Hydrocarbons (PAH) for the current and proposed uses of the WCQ site. BaP and PAHs were identified at two locations during the Detailed Site Investigation (DSI).

The SMP addresses issues including hazard assessment, soil management options, and monitoring and review of the site.

4.8 SYDNEY CITY COUNCIL – SUSTAINABLE SYDNEY 2030

Sustainable Sydney 2030 is the City of Sydney Council's vision for a green, global and connected city by 2030. Green with a minimal environmental impact; global with a thriving economy and world-class facilities and services; connected by integrated transport and a sense of community. The strategic document is divided into strategic directions addressing *10 Targets*, *5 Big Moves*, *10 Strategic Directions for Sustainable Sydney*, and *10 Project Ideas*. These directions form a framework for action, each reflecting the aspirations and qualities the City is building on.

The Project WCQ public domain upgrade and landscaping complements all of these strategic directives and are summarised below.

Ten Targets: The WCQ Project is relevant to the following of the Sustainable Sydney '10 Targets for 2030':

- **Target 2:**

By 2030, the City will have capacity to meet up to 100 per cent of electricity demand by local electricity generation and 10 per cent of water supply by local water capture.

Project response: The WCQ Project includes a 150-200 kL storage tank located under First Fleet Park which will meet approximately 85-90% of the park's estimated irrigation demands.

- **Target 7**

By 2030, at least 10 per cent of City trips will be made by bicycle and 50 per cent by pedestrian movement.

Project response: The WCQ landscape upgrade will contribute to a safer and more inviting public domain environment for pedestrian commuters and visitors.

- **Target 9**

By 2030, every resident in the City of Sydney will be within a three minute walk (250m) of continuous green links that connect to the Harbour Foreshore, Harbour Parklands, Moore or Centennial or Sydney Parks.

Project response: The WCQ landscape upgrade will provide a safer, more accessible, and more enticing public domain environment for Sydney's residents.

5 Big Moves: The WCQ Project is relevant to the following of the Sustainable Sydney '5 Big Moves:

Big Move 3 – A liveable green network

Sydney Harbour Foreshore

- Provide Sydneysiders and visitors with a continuous 15 kilometre foreshore walk from Glebe to Rushcutters Bay connecting many of the City's cultural attractions and destinations such as the Fish Markets and the Circular Quay weekend markets.

Project response: The WCQ Project reinforces and upgrades the continuous Circular Quay public domain, providing improved and equitable pedestrian access not only to immediate destinations within The Rocks and Circular Quay, but also to neighbouring foreshore locations east and west of the precinct, including Botanic Gardens, Dawes Point, Walsh Bay and Darling Harbour.

Big Move 4 - Activity Hubs as a focus for the City's Village communities and transport

Harbour

- Encourage a focus for cultural activities around Walsh Bay, and a foreshore connection between Circular Quay and Darling Harbour, and investigate opportunities for the regional cultural infrastructure project as a Hub catalyst.

Project response: The WCQ Project upgrades the foreshore connection between Circular Quay and Darling Harbour. It also maintains the cultural and community focus of the precinct by continuing to provide opportunities for various community and cultural activities at *MCA Square* (art displays and exhibitions), *Market Square* (community markets), and *The Lawn* (community events and performances).

10 Strategic Directions for Sustainable Sydney: The WCQ Project is relevant to the following of the Sustainable Sydney '10 Strategic Directions':

Direction 2 - A leading environmental performer

Objective 2.2

Reduce waste generation and stormwater pollutant loads to the catchment.

Project response: The WCQ Project will seek to reuse existing building materials and relocate removed tree species. The WCQ Project includes a stormwater storage tank located under First Fleet Park to meet approximately 85-90% of the park's estimated irrigation demands. The Project will include a detailed Waste Management Plan to avoid stormwater pollutant loads onto the Harbour.

Direction 4 - A City for pedestrians and cyclists**Objective 4.1**

Develop a network of safe, linked pedestrian and cycle paths integrated with green spaces throughout both the City and inner Sydney.

Project response: The WCQ Project upgrades the public domain to safe and equitable standards whilst providing direct connections to the Circular Quay and the Rocks precinct.

Direction 5 - A lively, engaging City Centre**Objective 5.1**

Strengthen the City's public domain identity and create more places for meeting, rest and leisure.

Action 5.1.1: Plan for a north-south central spine in the City Centre connecting three new squares at Circular Quay, Town Hall and Central; with priority for public transport, cycling and pedestrians

Project response: The WCQ Project provides a variety of public domain areas for recreational, cultural and community activities. The public domain upgrade facilitates safe, convenient and accessible pedestrian and cyclist connections to surrounding public transport interchanges at Circular Quay (ferry, train, bus and taxi) and along George Street (bus and taxi).

Direction 7 - A cultural and creative City**Objective 7.1**

Encourage the appreciation and development of Aboriginal and Torres Strait islander cultural heritage and its contemporary expression.

Objective 7.2

Support cultural activity, participation and interaction.

Project response: The proposed *Lookout* connecting the George Street footpath to the First Fleet Park *Lawn*, will provide historic interpretations incorporating detailed explanatory text and images related to the 1788 to 1812 colonial period and with a particular focus on references to the Indigenous history of interaction and meetings on the site.

10 Project Ideas: The WCQ Project is relevant to the following of the Sustainable Sydney '10 Project Ideas':

Idea 2. Three City Squares

Circular Quay could be renewed as a new harbour gateway to the City with the design of a new public square with better access and views to the water.

Project response: The WCQ landscape upgrade will open up public views to the Circular Quay waterways as well as iconic foreshore destinations including Sydney Opera House, Sydney Harbour Bridge and the Overseas Passenger Terminal.

Idea 4. Eora Journey

a response to the strong call from the Indigenous community and broader community to celebrate and share the story of the world's oldest living culture through a cultural walk from Redfern to the harbour.

and

Idea 5. Cultural Ribbon

The Cultural Ribbon will identify walking trails with historic landmarks and interpretation and attractions. These include:

- Circular Quay with the Museum of Contemporary Art;

Project response: The proposed *Lookout* will provide interpretive and detailed explanatory text and images related to the 1788 to 1812 colonial period and with a particular focus on references to the Indigenous history of interaction and meetings on the site. The *MCA Square* will also provide interpretations and attractions relating to the arts including historic interpretations.

Idea 6. Harbour to Bay

Ten main pathways have been proposed for further investigation to create the green network. They aim to allow people to move easily around their neighbourhood from Village to Village, between major attractions and cultural institutions and the universities, the City Centre and the lively Village main streets.

Main green corridors

- Sydney Harbour Foreshore
- Circular Quay to Botany Bay

Project response: The WCQ maintains and upgrades a continuous foreshore pedestrian link connecting the Sydney Harbour Foreshores including Botanic Gardens, Dawes Point, Walsh Bay and Darling Harbour.

Idea 6. Green Transformers**Change Strategies**

- Pursuing, in the management of Council land, the use of irrigation systems that integrate the re-use of storm water.

Project response: The WCQ Project includes a 150-200 kL storage tank located under First Fleet Park which will meet approximately 85-90% of the park's estimated irrigation demands.

Conclusion:

The *Sustainable Sydney 2030* strategic directions are now our framework for action, with each reflecting the aspirations and qualities the City is building on. The WCQ Project complements and facilitates many of the strategic directions pursued by the City of Sydney Council's vision, and has included direct consultation with the City of Sydney in the preparation of this Application.

4.9 DRAFT CIRCULAR QUAY MASTERPLAN

The proposed WCQ Project is the first stage of proposed works to the revitalisation of the Circular Quay precinct as envisaged by the 'draft Circular Quay Masterplan' (the draft Masterplan), currently being finalized for the Authority by Hassell and the NSW Government Architect's Office. The draft Masterplan covers the foreshore area from the Opera House steps to Dawes Point Park and includes Circular Quay Railway Station. The draft Masterplan pursues the following key objectives:

- Recognise and enhance Circular Quay's iconic status as a gateway to the Sydney CBD.
- Coordinate projects that are underway or approved and investigate synergies to deliver an integrated outcome.
- Develop a holistic grand vision for the future of the precinct, including potential development milestones in the short, medium and long-terms.
- Develop an urban design strategy that references pedestrian access within the precinct, views and visual connections from within precinct and surrounding areas as well as connectivity with the city.

The draft Masterplan's vision for Circular Quay is to create:

- a place of many places which allows for a diversity of experiences
- a place to gather and celebrate and a place for everyday
- an integrated transport hub
- a place which celebrates the history and culture of the site
- and a place connected to the harbour.

The draft Masterplan includes the following design objectives for Circular Quay West:

2. MCA Square

A new paved public forecourt is proposed at the primary entry to the MCA building. The square is to accommodate seating, informal gatherings and opportunities for temporary exhibits and displays. A Port Jackson Fig is located on the northeastern corner of the square, diagonally opposite the existing Indian Rubber Fig.

3. First Fleet Park

The proposal removes existing walls, planting and barriers along the George Street and Alfred Street. Level changes are resolved through the creation of a graded lawn or green, which acts as an informal amphitheatre with prospect to the Opera House and Circular Quay.

A consolidated area of lawn space is located along the frontage of the MCA, providing opportunities for picnicking and gathering while maintaining opportunities for public art displays.

A generous access route is located parallel to the southern façade of the MCA. This path acts as a primary route to The Rocks as well as an informal plaza, with the potential to accommodate temporary uses such as market stalls. A regular grid of Cabbage Tree palms is proposed in Market Wharf. The palm arrangement allows for unimpeded views to and from The Rocks.

The draft Masterplan also includes a development Staging program. The 'Short Term Program' includes: -

- Restore connections and extend parkland at First Fleet Park
- Undertake MCA refurbishment and extension

This proposed project upgrade and landscaping of the WCQ public domain therefore complements, and is consistent with, the draft Circular Quay Masterplan. A whole of Government workshop, between relevant Government authorities, is scheduled before the end of 2010 to rollover and continue the WCQ Project towards the whole Circular Quay precinct.

4.10 NSW COASTAL PLANNING GUIDELINE: ADAPTING TO SEA LEVEL RISE

The NSW Coastal Planning Guidelines was adopted by the NSW Department of Planning in August 2010, and provides guidance on how sea level rise is to be considered in land use planning and development assessment in coastal NSW. The Guideline promotes ecologically sustainable development (ESD) and encourages a precautionary approach to land use planning and development assessment in light of potential sea level rise impacts in coastal areas.

The term ‘coastal areas’ includes bays and estuaries and is therefore relevant to the Sydney Harbour/Circular Quay waterways. The Guideline adopts the NSW sea level rise planning benchmarks in the NSW Sea Level Rise Policy Statement (2009). The NSW sea level rise planning benchmarks are an increase above 1990 mean sea levels of 40cm by 2050 and 90cm by 2100.

An ‘Extreme Water Levels and Sea Level Rise’ assessment, prepared by *gbaCOASTAL Pty Ltd*, Consulting Engineering, accompanies this project application and a copy is found at **Appendix P**. The report concludes:

“The NSW Government has recently developed benchmarks for sea level rise along the NSW coast for the years 2050 and 2100 of 0.4 and 0.9 m respectively, relative to 1990 levels. These increments track predicted scenarios developed by the Intergovernmental Panel on Climate Change in the ““median” ” to ““high” ” range. They also make allowance for regional tectonic movements (DECCW, 2009a and 2009b).

It follows that a design still water levels in Circular Quay for 50 and 100 years planning periods would not be expected to exceed RL1.9 and RL 2.4 m AHD respectively.

Wave runup at the seawall will result in transient water levels which exceed still water levels. However, wave action at West Circular Quay is due primarily to ferry wash, but these or any other craft are unlikely to be operating at such times of extreme weather and water levels.

It is considered that the current seawall crest level of RL 2.4 would remain serviceable in relation to extreme water levels and sea level rise for the next 50 to 100 years.”

This project complements the strategic recommendations of the NSW Coastal Planning Guidelines by maintaining (and upgrading) existing foreshore and waterway access and amenity of the Circular Quay precinct. In particular:

“Maintaining foreshore access and amenity, open space and protecting coastal environments

Strategic planning should address and accommodate the effects of sea level rise on public foreshore access and coastal assets such as reserves, recreation areas or natural areas.”

Notwithstanding the Extreme Water Levels and Sea Level Rise’ conclusion of minimal risk, this project satisfies the following relevant Guideline ‘*planning criteria for development in coastal risk areas*’:

1. The project avoids and minimises exposure to immediate coastal risks.
2. The project maintains and provides for the safety of residents, workers or other occupants on-site from risks associated with coastal processes.
3. The project does not adversely affect the safety of the public off-site from a change in coastal risks as a result of the public domain upgrade of WCQ.
4. The project does not increase coastal risks to properties adjoining or within the locality of the site.
5. Infrastructure, services and utilities on-site will continue to maintain their function and achieve their intended design performance.
6. The project does not prevent natural coastal processes including those associated with projected sea level rise.
7. The project does not impact upon coastal ecosystems.
8. The existing WCQ foreshore/waterfront access, and its amenity, is maintained.

4.11 SHFA OUTDOOR EVENTS POLICY 2009

OUTDOOR EVENTS TECHNICAL MANUAL 2009

The Project maintains the use of those existing WCQ sites identified as *First Fleet Park* and the *MCA Lawn* for a variety of events including temporary markets and community events - public ceremonies, entertainment, art, and cultural exhibitions.

The Authority's *Outdoor Events Policy* and the associated *Technical Manual* were amended as recently as 2009. The Policy documents tools (acceptable uses, available services, appropriate structures, and event management and operations) for outdoor event applications for the Authority's precincts including The Rocks and Circular Quay. The Technical Manual specifically identifies First Fleet Park and the MCA Lawn with details on specific events specifications and events criteria.

4.10.1 Outdoor Events Policy 2009

Policy Objectives: The continued use of the WCQ precinct for a variety of temporary events satisfies the following relevant Policy 'Objectives':

- Provide an equitable system for the public access and use of the Authority's public domain
- Recognise and maintain the public domain's special qualities of cultural, recreational, social and/or heritage significance
- Ensure that proposed events are compatible with identifiable locations, and their intended day-to-day functions
- Ensure the appropriate management, maintenance, and repair of the public domain
- Encourage activities and events that contribute colour and life to The Authority's public domain
- Provide relevant Authority contact details for the carrying out of an event.
- Ensure that proposed events do not compete directly with any stakeholder business or conflict with any Authority sponsorship.

Public Events: The Policy encourages **Public Events** (events that are open to the public and free of any entry charge), such as cultural events, public markets, festivals and performances. The Authority gives preference to events that:

- Are of interest or benefit to the general public
- Attract broader audiences to the proposed public domain site
- Facilitate maximum access by the general public
- Are of broad cultural or social significance
- Do not detract from the qualities of the public domain site, e.g. visual/physical impact of large structures, estimated patronage levels, potential property damage, and any impacts on the site's cultural, heritage or social significance.

The proposed upgrade of the WCQ public domain satisfies these objectives. Notwithstanding, the majority of these events also qualify as ‘Exempt Development’ under current State policies including the SEPP (Major Development) 2005 and the *SEPP (Major Development) 2005*, and the *SEPP (Temporary Structures) 2007*.

4.10.2 Outdoor Events Technical Manual 2009

Standards & criteria: Future events carried out within the WCQ foreshore including *The Lawn*, *Market Wharf* and *MCA Square*, will be required to satisfy the following relevant Technical Manual’s general *Standards and Criteria*:

Licence agreement:

All proposed events shall obtain an Authority Event Licence Agreement.

General setting:

All temporary event structures shall:

- Be confined to the event site area outlined on the site map
- Be structurally sound and erected in accordance with manufacturer’s specifications and relevant Australian Standards
- Be secured in a manner that prevents them from collapsing or being dislodged by wind or adverse conditions. Structures not capable of withstanding extreme wind conditions must be removed as soon as it becomes apparent that such conditions are likely to develop, or as directed by the Authority
- Not be attached to any building or tree for stability
- Be generally limited to 7 metres in height
- Be weighted for stability on the grass by use of water or concrete weights. The use of pegs and stakes is strictly prohibited

Pedestrian access:

- Events shall not obstruct general public access to harbour foreshores and pedestrian links as identified on the site maps, unless specifically agreed to by the Authority.

Outdoor Events Technical Manual – relevant sites

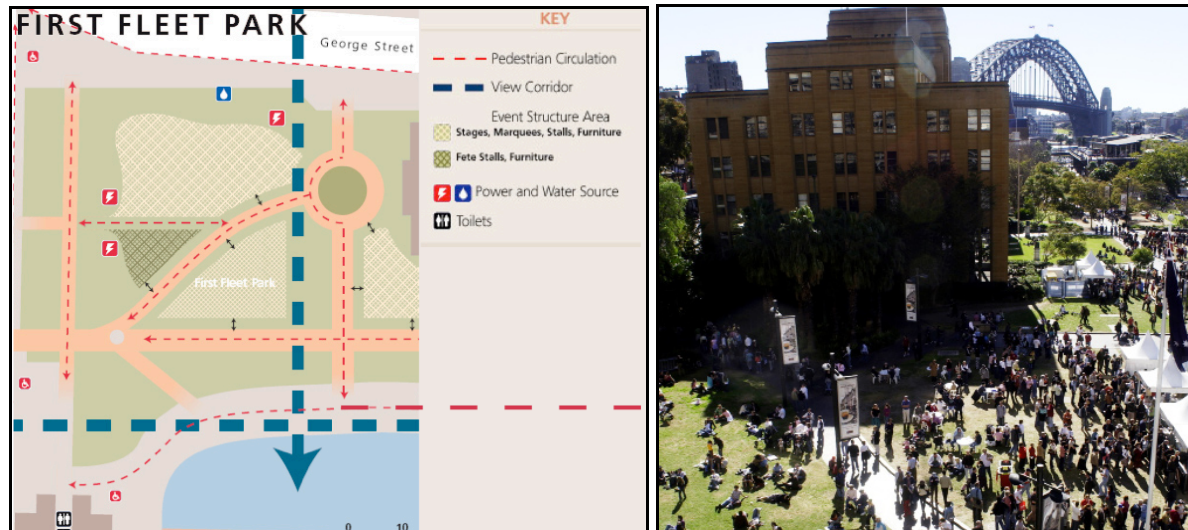
The existing WCQ precinct includes *First Fleet Park* and *MCA Square* as outdoor event sites listed by the Outdoor Events Technical Manual:

Assessment under existing SHFA Technical Manual Outdoor Event sites

The following assessment addresses the WCQ sites proposed for temporary events in their current condition and as addressed by the SHFA Outdoor Events Technical Manual 2009:

A) First Fleet Park

First Fleet Park is one of the three turfed (grass) open spaces in The Rocks, and is highly used for passive leisure by visitors and workers on a daily basis. The Park is situated between the MCA and the Circular Quay transport interchange, and adjoins the waterfront promenade along the edge of WCQ. This Park has both paved and grassed areas and includes pedestrian north-south and east-west links which offer panoramic views of the Sydney Opera House, Harbour Bridge and Circular Quay.



Source: SHFA Outdoor Events Technical Manual 2009

The Technical Manual recognises appropriate functions for First Fleet Park:

Place for performances, including:

- Commercial events
- Corporate launches
- Filming and photography
- Commercial events

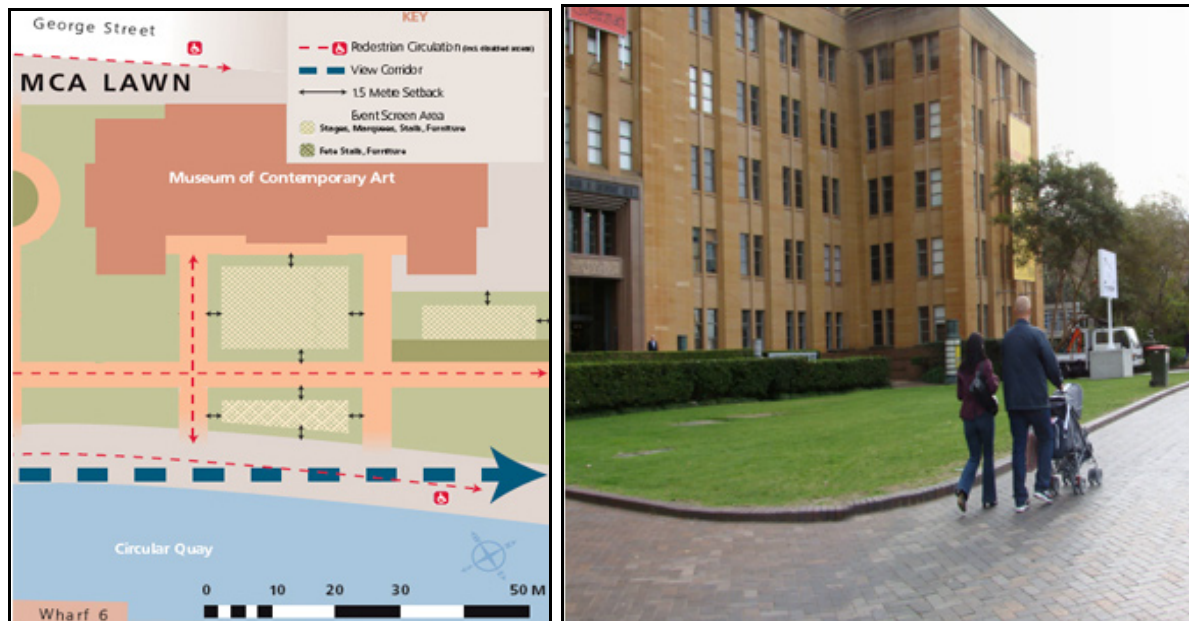
First Fleet Park enjoys the following facilities & services:

- Surface: Grass turf and brick paved or gravel pathways.
- Power Supply: 32 amp 3 phase, 15 amp 3 phase.
- Toilets: Under the Cahill/Railcorp building including disabled facilities.
- Pedestrian access (disability) from George Street and WCQ promenade.
- Vehicular access: From Alfred, George and Argyle Streets Parking: Limited metered parking along George Street (no disabled parking spaces are available).

Conclusion: The WCQ site at First Fleet Park is therefore recognised as a suitable venue for temporary events. The site is suitably supported by services and facilities, and enjoys the precedent of hosting many past temporary events.

B) MCA Lawn

The *MCA Lawn* is divided into an east and west lawn and is situated in front of the MCA adjacent to west Circular Quay. This public domain site offers panoramic views Circular Quay, Sydney Opera House and Harbour Bridge.



Source: SHFA Outdoor Events Technical Manual 2009

The Technical Manual recognises appropriate functions for MCA Lawn:

Place for performances, including:

- Public and community events
- Corporate launches
- Filming and photography
- Commercial events

The MCA Lawn enjoys the following facilities & services:

- Surface: Grass turf and brick paved or gravel pathways.
- Toilets: Under the Cahill/Railcorp building including disabled facilities.
- Pedestrian access (disability) from George Street and WCQ promenade.
- Vehicular access: From Alfred, George and Argyle Streets Parking: Limited metered parking along George Street (no disabled parking spaces are available).

Conclusion: The WCQ site comprising *MCA Lawn* is recognised as a suitable venue for temporary events. The site will be increased, and not dissected, under the WCQ Project and will continue to be supported by services and facilities. MCA Lawn enjoys the precedent of hosting many past temporary events.

4.12 SHFA THE ROCKS SIGNAGE POLICY 2009

The Authority adopted *The Rocks Signage Policy* in 2009. This Policy includes guidelines for the planning, design and installation wayfinding signage in The Rocks and WCQ precinct, being signage that refers to directional information to assist visitors moving through The Rocks to known destinations.

The Project includes a palette of regulatory and wayfinding signage to be introduced into the WCQ public domain. An “Interpretive Concept Design” for the current ‘First Fleet Park’, described in this Project as *The Green* and *Market Wharf*, has been prepared by Deuce Design and accompanies this EA report at **Appendix R**. The concept design proposes the following interpretation zones and components:

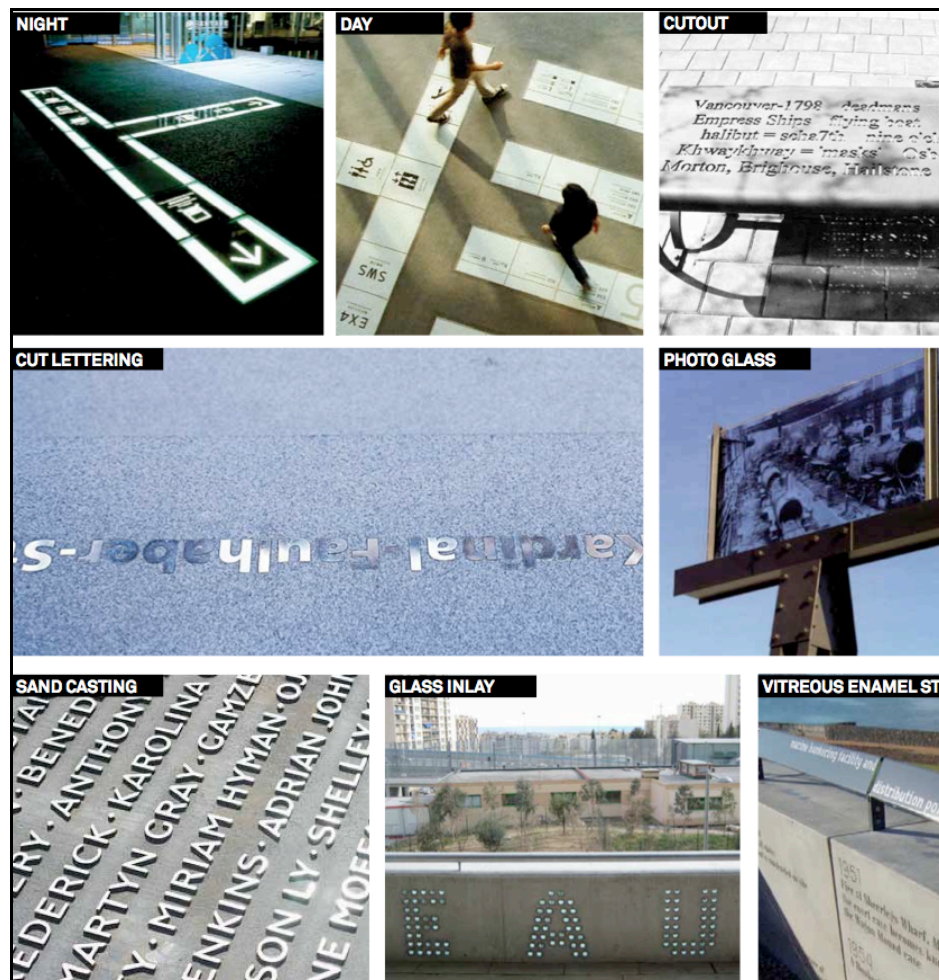
Zone 1: Market Wharf

As the main thoroughfare and gathering point, the Market Wharf performs as the symbolic thoroughfare activating and connecting George St with the Circular Quay promenade. This location provides an opportunity to address the historic significance of the site through text incorporated in custom seating elements, and the relocation of significant heritage items such as the Governor Phillip bust and the Commissariat Stone.

Zone 2: The Lookout

The lookout deck provides the perfect opportunity to reveal the historic significance of the site. Visitors and locals will engage with the site differently. The site will be unobtrusive to frequent visitors while at the same time being compelling for first-time visitors and tourists. The lookout has the potential to convey the following themes:

- A ‘place for the people’. A place to communicate and connect. A new meeting point that represents the ‘hustle and bustle’ of the former heart of the colony
- Social interaction (market, wharves, demography of early community)
- The role of women (Mary Reiby)
- References to the Indigenous history of interaction and meetings on the site.



Project Interpretation Panel

General Wayfinding

The Authority adopted *DPWS/Circular Quay Signage Masterplan* (July 2002) provides design guidelines for regulatory, wayfinding and commercial identification signage along the central Circular Quay promenade.

The Project includes a palette of regulatory and wayfinding signage including:

- in-ground directional; signage indicating accessible paths of travel;
- the relocation of emergency signage on the Cahill Expressway as a consequence of the removal of the 'Smart-pole'; and
- a "Welcome Wall" to The Rocks precinct (at the undercroft of the Circular Quay structure facing George Street footpath west) portraying general wayfinding information, interpretive displays, and an interactive 1300 Railcorp information service on relevant transport services (refer to EA report section **3.2 Detailed Design** – sub section 12 *Create a "Welcome Wall" to The Rocks precinct* on page 30 for further details).

The wayfinding signage proposed by this Project complements and conforms with the Policy's 'General' and 'Wayfinding' provisions:

3.1 General signage provisions

- | | |
|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy 1 | Signage is to respond to the heritage significance of The Rocks precinct, including consistency with Burra Charter principles relating to the introduction of new materials into an historically significant area. |
| Policy 2 | Signage is not to replicate past styles but is to be a contemporary interpretation of traditional signage and of the highest standard in design and fabrication. The Authority supports innovation to deliver unique and effective signage outcomes. |
| Policy 3 | Signs are to complement the overall character of the precinct or locality, as well as the historic character of the building or place. |
| Policy 4 | Signage fixings are to be designed to be unobtrusive, robust and reversible i.e. capable of being removed without damage to historically significant fabric. |
| Policy 5 | Proposals for new or additional signage are to be considered in terms of the cumulative impact of all signage on the building or place. |
| Policy 6 | Signage design is to consider persons with disabilities, especially those with vision or mobility impairments. (See the Australian Standard 1428.2, 1992 Design for Access and Mobility Part 2). |
| Policy 7 | Third party advertising is not permitted on any permanent signage. |
| Policy 8 | Third party advertising is permitted on public event promotional signage only where the third party is a sponsor of the event. |
| Policy 9 | English should be the primary language for all signage text but to assist tourism small secondary non-English text may also be used. |

3.3 Wayfinding signage provisions

- | | |
|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy 1 | Wayfinding information is to be clearly identifiable as such and be part of a recognisable system that reinforces an overall corporate identity or 'brand' for The Rocks. Signage is also to be coordinated with existing and proposed strategies for neighbouring districts such as Sydney City, Walsh Bay and Circular Quay. |
| Policy 2 | Wayfinding signage is to be hierarchical so that information can be presented in a logical and systematic 'point-to-point' network, which recognises and responds to the following sequence. <ul style="list-style-type: none"> ➤ External approach to The Rocks. ➤ Arrival at The Rocks. ➤ Proceed to primary destinations in The Rocks. ➤ Proceed to secondary destinations in The Rocks. ➤ Arrive at final destination. ➤ Leaving The Rocks. |

3.3 Wayfinding signage provisions

- | | |
|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Policy 3 | Wayfinding information on finger signs and directional totems is to identify streets, laneways and public places, heritage and archaeological sites, attractions classified as experiential, publicly accessible amenities, generic symbols for major activities such as food, beverage and shopping, and directions to external precincts immediately adjacent to The Rocks. |
| Policy 5 | Temporary wayfinding signage to destinations within The Rocks precinct is limited to publicly accessible events or activities staged by the Authority for directions to temporary public venues and amenities. |
| Policy 6 | Interpretive signage may be integrated with wayfinding signage where opportunities arise. |
| Policy 7 | Interactive screens may be located at key entry points into The Rocks and major nodal places within The Rocks for the purpose of providing a range of visitor information services including: <ul style="list-style-type: none">➤ 'What's on' events and other activities to supplement the services of the Sydney visitor centre➤ 'Where to' information to assist visitors to find required destinations➤ Interpretive information to be accessed throughout The Rocks➤ A broader range of information than printed maps can offer. |

This assessment concludes that the proposed WCQ Project signage components comply with the general policy criteria contained in *The Rocks Commercial Signage Policy 2009* and accompanying *Technical Manual 2009*.

4.13 SHFA THE ROCKS LIGHTING POLICY 2009

The Project incorporates upgrade and new lighting to the WCQ precinct - refer to details under EA report section 3, sub-section 8 *The Proposed Development* of this EA report. This includes new column lighting along the *Market Wharf*. An upgrade of lighting is proposed to existing fixtures and pole mounted fittings under the Cahill Expressway and along the Circular Quay promenade. The light poles along the promenade will be realigned further into the promenade so that light spill into the Harbour is eliminated and thus more effectively used for pedestrian movements. Retained and new light fixtures will adopt the City of Sydney's energy efficient LED lighting subject to the trials currently being carried out by Council.

The Authority adopted the *Rocks Lighting Policy* in 2009. Whereas the policy is specific to The Rocks (as opposed to Circular Quay), this Project addresses its Concept Lighting Design to all regulatory standards in achieving the following relevant Policy objectives: -

1.1 Objectives of the Lighting Policy

- to improve the illumination of The Rocks at night to ensure public safety, public enjoyment, architectural appreciation, and night-time entertainment
- to establish continuity with the city while reinforcing and emphasising the unique quality of The Rocks, its buildings, structures and places with simpler and more finely scaled light fittings
- to rationalise and unify the public lighting types throughout The Rocks to establish a coherent identity, and to enable efficiencies in planning, implementation, management and maintenance
- to provide best practice guidelines for exterior lighting design
- to implement high environmental lighting standards in order to: -
 - use most efficient lights possible while ensuring all standards are met
 - prevent an increase in 'sky glow', which affects the clarity of astronomical observations
 - conserve energy and minimise the unnecessary emission of greenhouse gases
 - implement the use of green energy where possible.
- to promote a glare-free environment for traffic and pedestrians, and adjacent residents and building occupants, while complying with Australian Standards for horizontal light levels
- to utilise the latest technology for effective conversion of light into illumination
- to create an acceptable aesthetic appearance for night-time illumination and lighting infrastructure during daylight hours
- to ensure navigational safety in the maritime context of Sydney Harbour.

Under Policy section *Policy B3: Lights of parks, open spaces and natural elements*:

- To emphasise prominent locations within The Rocks by the lighting of trees and natural landscape elements.
- To create an informal contrast to the built environment by the illumination of trees and open spaces.
- To create special effects by the lighting of tree canopies and foliage in selected locations.
- To use lighting techniques designed to minimise light spill by focusing on the trunk and underside of the tree canopy.
- To minimise the use of pedestrian luminaires by maximising the ambient illumination of landscape elements.

Under Policy section *4.0 General techniques and standards*:

- Compliance with Australian Standard in AS/NZS 1158 3.1: 2005 Pedestrian Area (Category P) Lighting
- For pedestrian bridges and underpasses, increased levels of illumination are required to overcome the inherent security constraints associated with these structures and to reduce vandalism.

A report on '*West Circular Quay - External Lighting – Investigation and Concept Design*' has been prepared by the NSW Government Architect's Office and accompanies this EA report at **Appendix S**. The report seeks to achieve the following objectives to service the proposed upgrade of WCQ:

- a) determine the most applicable lighting standards to the WCQ area;
- b) test existing lighting with relevant standards;
- c) propose a method of lighting to achieve the project design goals; and
- d) compliance with relevant standards including AS1158.3.1:2005.

The GAO 'Lighting' report makes the following recommendations:

1. The pole-mounted spheres extend all around Circular Quay and the Opera House and have become somewhat iconic, providing a motif for the area, in particular at night. It is recommended that the fittings be retained, but upgraded to the more effective 'Bennelong' fittings (refer to the data sheet included in the Appendix). These fittings, if located along the centreline of a path, could adequately light a path 17 metres wide. Consideration should be given to locating the fittings further from the water's edge, as has been done at Circular Quay East.

2. The lighting under the railway line is perfectly adequate and can be retained as long as there are no clashes with the proposed hanging gardens, etc. Consideration may be given to removing or switching off the violet lights given the energy consumption and minimal effectiveness.
3. The new Market Wharf footpath from George Street to the promenade on the south side of the MCA will need to be lit to Category P2 of AS1158.3.1. Included in this is the requirement for some vertical illumination at face level. This will require the use of some pole-mounted light fittings. This could be achieved by the use of more ‘Bennelong’ fittings or some other fitting to be selected. In addition, it is recommended that consideration be given to using LED lights located within handrails to provide illumination of footpaths and in particular ramps and steps (refer to the data sheet for the ledpod50 system included in the Appendix)
4. The above items are necessary to comply with the standards. Consideration should be given to additional lighting to enhance the overall appearance of the area. With a stated aim being to improve the views of the Opera House and harbour, and additional lighting should be selected with an aim of minimising glare, i.e. the actual light source should not be visible. Recommended measures include inground uplighting of significant trees. This has the dual benefit of highlighting the trees at night but also removing potentially oppressive shadows. This has been done to good effect at circular Quay East and other nearby areas. Concealed lighting within the new seats to be provided is also a recommended measure. This will have the effect of drawing people to the seats and present them as refuges.
5. If archaeological digs are to be included in the area, these can be sealed and lit using fibre optic lighting whereby the light sources are installed outside the protected area and light is transmitted to the areas via fibre optic tubes.
6. It should be noted that the type of lighting proposed above involves tightly controlled lighting with minimal light spill. Compliance with *AS4282 – Control of the obtrusive effects of outdoor lighting* will be achieved and there will be no interference with the navigational requirements of vessels on the harbour/quay.
7. It is further noted that the City of Sydney Council is currently undertaking trials of LED outdoor light fittings and it is possible to incorporate any recommendations of this trial into the final design for this project.

This assessment concludes that the proposed WCQ Project Lighting Design components comply with the relevant policy criteria contained in *The Rocks Lighting Policy 2009*.

4.14 SHFA COMMERCIAL OUTDOOR SEATING POLICY 2007

The Project incorporates informal and formal seating options catering for both summer shade and winter sun conditions – (refer to details under Design Principle 5 under section 3 *The Proposed Development* of this EA report). Seating will replicate the existing benches used in East Circular Quay at specific WCQ locations, and will include a combination of benches/backrests. Locations will include the promenade, key pathways, the *Market Wharf* and in the paved area under the Cahill Expressway. Custom bench seats are proposed at the *MCA Square* and at *The Lookout*. Appropriately proportioned walls and steps will provide informal seating areas. On the southern side of the site, a low seat wall will extend the length of the lawn. Between the promenade and the *MCA Square*, a low retaining wall and precast concrete seat with backrest will provide generous seating overlooking the Harbour. Lawn areas will provide informal seating and picnicking year round.

The Authority adopted the Policy for *Commercial Outdoor Seating Areas in the Rocks and Circular Quay* in 2007. Whereas the policy is largely aimed at encouraging appropriate forms of seating and atmosphere for outdoor commercial/dining experiences and opportunities, the principles of the Policy also have relevance to the provision of public outdoor seating within the public domain.

The Policy aims to ensure that the character and activation of The Rocks and Circular Quay is enhanced by the inclusion of outdoor seating. The relevant Policy objectives adopted and adhered to in the WCQ Project design and location of upgraded and new public domain seating arrangements include:

- outdoor seating areas are used to enliven the promenades, streetscape and back areas of The Rocks and Circular Quay,
- seating areas complement each other, encourage design excellence and a consistent high standard of presentation,
- outdoor seating areas will be deferential to the heritage of The Rocks, allowing streetscape, buildings and courtyard spaces to remain the dominant visual elements in the landscape.
- safety is promoted through consistent design standards and application.

The Technical Manual does not provide any specifications for general (non commercial) seating in the public domain and therefore does not apply to this Project.

This assessment concludes that the proposed WCQ Project outdoor public seating elements comply with the general policy criteria contained in *SHFA Commercial Outdoor Seating Policy 2007*.

4.15 SHFA PUBLIC ART POLICY 2010

The Project is designed to accommodate public art displays within the *MCA Square* (fronting the foreshore of the extended MCA building) as well as interpretive displays within *The Lookout*.

The Authority adopted the *Public Art Policy* in 2010. The Policy principles and objectives have relevance to the WCQ public domain upgrade for the elements relating to public art and interpretive displays, in particular the following:

- Ensure excellence of public art
- Require original, innovative art that reflects contemporary art practice
- Ensure the creation of art that will contribute to the animation, enhancement, enjoyment or understanding of its context
- Ensure that art is appropriate to the significance and character of its location and that both art and site mutually benefit from their association and interaction
- Encourage and ensure a diverse range of art in keeping with the unique qualities of the Authority's diverse precincts
- Enhance the design and functionality of the public domain
- Ensure robust, durable art that will retain its quality and integrity over time
- Ensure that all future public art projects are procured and managed in accordance with this Policy.

This assessment concludes that the proposed WCQ Project public art and interpretation components comply with the relevant policy criteria contained in *SHFA Public Art Policy 2010*.

4.16 SHFA TREE POLICY 2010

SHFA DRAFT TREE MASTER PLAN - THE ROCKS & CIRCULAR QUAY 2010

ARBORICULTURAL ASSESSMENT AND IMPACT REPORT

A detailed description of existing plantings is found under EA report section 2.1 *Site Location & Context*. The WCQ Tree Planting strategy includes the following: -

- a) Planting of Port Jackson Figs (*Ficus rubiginosa*) along the foreshore lawns to provide year round shade whilst maintaining under canopy views. Two specimens will be located in paved spaces as landmarks trees, complementing the existing Indian Rubber Tree. Figs will also be located at the southeast corner on the promenade and northeast corner of *MCA Square*.
- b) Planting of native Cabbage Tree palms (*Livistona australis*) at *Market Wharf* and along the southern pathway of *The Lawn* adjoining Cahill Expressway.
- c) Removal of four of the existing eight large Pepper Trees (*Schinus areira*) in garden beds adjacent to George Street. These specimens impact on key public views to Circular Quay, and need to be removed to accommodate the proposed widened path adjacent to the Cahill Expressway.
- d) Removal of existing Jacaranda (*Jacaranda mimosifolia*) and Evergreen Ash (*Fraxinus griffithii*) to improve public views to Circular Quay foreshores. Some of these specimens are extremely deformed due to wind exposure. The mature Celtis (*Celtis australis*) on the southern edge of the MCA building will be removed to accommodate the *Market Wharf* and to re-establish the 'building in the round' view of the original Maritime Services building.

4.16.1 SHFA Tree Policy 2010

The WCQ Tree Planting Strategy has been developed in consideration of the *SHFA Tree Policy 2010*, and responds to the following relevant key Policy objectives:

Tree Policy	Project Response
1. Governance	
1.3 SHFA will manage the removal of existing trees and the planting of new trees to ensure relevant stakeholders have the opportunity for comment.	YES: The Tree Strategy component of the WCQ Project will be placed on exhibition for public comment.
1.4 SHFA will manage emergency situations where life or property is at immediate risk, by ensuring public safety takes precedence in tree removal determinations.	YES: The Tree Strategy component of the WCQ Project includes the removal of certain specimens that are in poor health and present a risk to public safety.

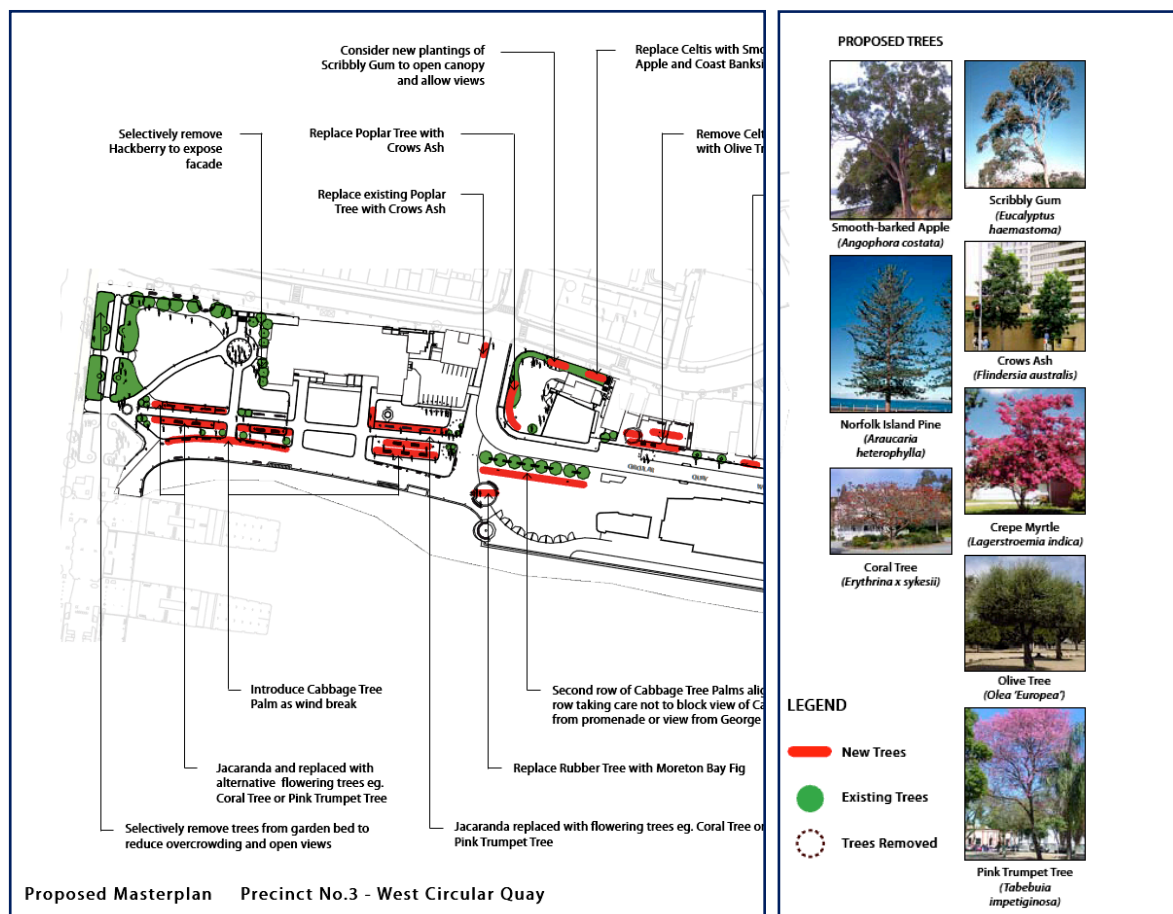
Tree Policy	Project Response
3. Planning and Design	
3.2 SHFA will be mindful of the impact of trees on important view corridors and vistas within the public domain.	YES: Those trees proposed for removal will accommodate a re-landscaping of the WCQ public domain and to open up important public views to the Circular Quay waterways as well as open up visual; destination lines between Circular Quay and The Rocks.
3.3 SHFA will utilise endemic, native or exotic plant material as appropriate to location and function.	YES: The new WCQ tree plantings include endemic and native species.
3.4 SHFA will continue to enrich the diversity of species across the precincts to improve native wildlife habitat.	YES: The WCQ Plan focus on endemic Fig and Palm species that will provide native wildlife food sources & nesting sites
3.5 SHFA will locate and plant trees being mindful of potential future impacts on in-ground and overhead utility services, vehicle and pedestrian sight lines, building and other infrastructure.	YES: The WCQ Tree Strategy is designed to accommodate the location and access requirements of utility facilities and vehicle service requirements.
4. Community Consultation	
4.1 SHFA will consult when appropriate with the community on proposals to remove or relocate trees within the public domain.	YES: The Tree Strategy component of the WCQ Project will be placed on exhibition for public comment.
4.2 SHFA will consult with the community when appropriate on new planting proposals within the public domain, particularly those trees that will have a direct impact on tenants or adjoining landowners.	YES: The Tree Strategy component of the WCQ Project will be placed on exhibition for public comment.
5. Maintenance	
5.4 SHFA may support: <ul style="list-style-type: none"> • The removal of trees considered within the normal property development approval process. • The removal of trees that are damaging footpaths and creating unacceptable hazards for pedestrians, where there are no feasible abatement strategies. • The removal of trees that are damaging or likely to damage essential in-ground services, where there are no feasible abatement strategies. 	YES: The trees proposed for removal: - <ul style="list-style-type: none"> • form part of this Part 3A Major Project application; • are for reasons including removal of damaged specimens, infringement upon the re-landscaping of the WCQ precinct, and the opening up important public views; and • will be replaced with an increase in Project tree plantings within the WCQ precinct.

Tree Policy	Project Response
<p>5.5 SHFA will not support:</p> <ul style="list-style-type: none"> • The removal of trees to provide or improve views from either tenancies or private adjoining lands. • The removal or pruning of trees to reduce the inconvenience of native animal habitat that might be considered annoying or disruptive. • The removal or pruning of trees to reduce or eliminate inconvenience of fruit or leafdrop, however in special circumstances the Authority may agree to the removal of fruit before it drops and becomes a nuisance. • The altering of soil levels within the canopy drip line of a tree. • The removal of trees to facilitate the construction of hoardings or other construction based impacts. 	<p>YES: None of the trees will be removed for those reasons listed as unacceptable by SHFA.</p>
<p>Planned removals The planned removal of trees will be managed by a normal development application process to the relevant consent authority. Key documentation requirements for an application include:</p> <ul style="list-style-type: none"> • A report from a suitably qualified arborist detailing the current condition of the tree or trees, pending impacts and recommendations for removal arising. • Statement of Environmental Effects (SEE) describing the reasons for the removal and defining the actions intended to replace the trees or ameliorate the site. • Heritage Impact Statement (HIS) describing the impacts where the tree is either significant in its own right or contributes to a heritage setting and defining the actions intended to replace the trees or ameliorate the site. 	<p>YES: The WCQ Project, including the removal and replanting of trees, is accompanied by: -</p> <ul style="list-style-type: none"> • Arboricultural report (Appendix J) • This EA report (which has the equivalent effect as an SEE report); • A Heritage Impact Statement under EA section 6.2

4.16.2 SHFA Draft Tree Master Plan - The Rocks & Circular Quay 2010

The proposed WCQ Tree Planting Strategy is designed to complement the *SHFA draft Tree Masterplan for The Rocks & Circular Quay* prepared by *Phillips Marler* in March 2010, (see plan below) in particular with the following landscape strategies:

- Selectively remove trees from garden bed (along north edge of Cahill expressway) to reduce overcrowding and open views
- Selectively remove Hackberry to expose south MCA façade
- Introduce Cabbage Tree Palm as wind break to *Market Wharf*
- Remove Jacarandas and replace with alternative flowering trees



Extract source: SHFA draft Tree Masterplan for the Rocks & Circular Quay

The W+CQ Plans are generally in accordance with the Tree Policy 2010 provisions. The plans generally reflect the intent of the Tree Master Plan for The Rocks and Circular Quay 2010 being mindful that the Master Plan refers remediation of the existing layout and not a major reconfiguration as currently proposed. In this respect, the project plans supersede the Master Plan.

4.16.3 Arboricultural Assessment and Impact Report

An Arboricultural Assessment and Impact Report addressing the WCQ Project, prepared by Landscape Matrix Pty Ltd, accompanies the Project Application and is found under EA **Appendix J**. The report identifies a total of 179 trees have been identified/assessed for this report with the most common species being *Livistona australis* (Cabbage Tree Palm), *Phoenix roebelenii* (Pigmy Date Palm), *Jacaranda mimosifolia* (Jacaranda), *Washingtonia robusta* (Mexican Fan Palm) and *Macrozamia spp.* (Cycad).

The report: -

- concludes that none of the trees assessed for the report are listed individually as a threatened species under the NSW *Threatened Species Conservation Act 1995* or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*;
- identifies a number of trees with exhibited severe suppression and atypical form due to exposure to salt laden winds or proximity to other trees/structures;
- addresses an assessment of the potential impacts on transplanting and retaining on-site existing trees, the transplanting off-site of the 13 *Washingtonia robusta* (Mexican Fan Palm), and the retention of the 4 mature Pepper trees; and
- provides recommended measures to minimise the impacts on the trees including specific measures with respect to protection of the 4 Pepper Trees.

4.17 SYDNEY STREETS DESIGN CODE – CITY OF SYDNEY COUNCIL AND REGISTER OF SIGNIFICANT TREES VOL.3 – CITY OF SYDNEY

The *City of Sydney Street Tree Master Plan* identifies precinct 2. The Rocks and Millers Point.

Council's Code relates primarily to streets. They confirm that the existing Hackberry tree *Celtis australis* along the eastern side of George Street is a preferred tree. The existing London Plane tree *Platanus sp* along the north side of Alfred Street is a preferred species and is to be retained. Therefore the Project plans comply with the City of Sydney's Tree Master Plan.

In respect of the City of Sydney's Significant Tree Register 2005, the Pepper trees *Schinus ariera* along the George Street frontage are listed with some discussion as to the potential earlier plantings of this species. There is no evidence that trees of any species were planted in this location prior to the major redevelopments of the 1950's and later Bicentenary works. Photographic records suggest the Pepper trees were planted during the 1970's at the earliest. Four of the Pepper trees will be retained for shade and amenity. The four trees closest to Alfred Street will be removed to accommodate on grade access between Circular Quay central and George Street in The Rocks, and to provide on grade access from the George Street pavement to 'The Lookout'.

4.18 SHFA SUSTAINABILITY POLICY 2009

In March 2009, the Authority adopted a 'Sustainability Policy' which responds to the *M2008-28 Sustainability Policy for NSW Government* and includes a variety of key targets relating to carbon neutrality, reducing carbon emissions, recycling or composting waste, and reducing potable water consumption.

Relevant to the WCQ Project, are the following Policy 'Target':

- Utilising harvested rainwater in all Authority parks by 2010.

Comment: A report by *equitica* on Water Sensitive Urban Design (WSUD) (refer to EA report section **6.6** and **Appendix L**) calculates future WCQ irrigation demands at 4,980 kL/year. The report results conclude that it is possible to meet approximately 85-90% of the park's irrigation demands from treated stormwater, equivalent to 4,230-4,480 kL/year. A tank size of 150-200 kL would be required to meet approximately 85-90% of the estimated irrigation demands. A storage tank could be located under the First Fleet / *The Green* park and constructed of concrete or modular plastic cells

- Diverting from landfill for recycling and composting 80% of waste generated from Authority occupied buildings, construction activities, public domain, and events by 2010.

Comment: The project seeks to reuse existing materials (such as sandstone) and to transplant those tree plantings no longer required for the WCQ Site to other sites (refer to EA report section **4.16** and **Appendix J**).

5. CONSULTATION

5.1 RESPONSE TO OTHER GOVERNMENT SUBMISSIONS

The Director-General's Requirements include copies of four (4) submissions received from other Government Authorities. A response to the key issues, and subsequent meetings held with those Authorities, is addressed below: -

5.1.1 RAILCORP

By letter dated 6 August 2010, Railcorp has requested that the Project prepares a Construction Traffic Management Plan to address pedestrian, cycle and safety access during construction, and to ensure safe access to the Circular Quay Station.

Project Response:

The Authority has met with Railcorp's Deputy Director-General for Strategy and Stakeholder Involvement regarding the Project. The WCQ Project shall maintain continuous public foreshore access at all times, with the exception of construction period when the foreshore promenade itself is being upgraded. A Traffic Management Plan will be prepared in consultation with Railcorp and other neighbouring Government authorities once consent is granted to the project and prior to commencement of construction. The WCQ construction works are intended to coincide with the expansion works to the MCA building so as to minimise any inconvenience upon the public and the public domain.

5.1.2 NSW MARITIME

By letter dated 3 August 2010, NSW Maritime has sought for: -

1. Consultation regarding the Harbour Masters and Commissioners Steps.
2. Details regarding sediment controls to ensure no sediment enter waterway or drainage system.

Project Response:

Construction and Waste Management is addressed under EA report section 6.8 and includes measures to prevent sediments from entering the waterway and drainage system.

The Authority and NSW Maritime are undertaking a review of infrastructure and maintenance issues with respect to the Circular Quay promenade and wharves to develop and agreed approach and prioritisation of works. This will address issues related to the WCQ project and interface with the Harbour Masters' and Commissioners' Steps.

5.1.3 SYDNEY PORTS

By email dated 30 July 2010, Sydney Ports has requested the Project to address:

1. Potential construction impacts upon OPT operation – ship and non-ship days, temporary events, and traffic & pedestrian management.
2. Potential navigational impacts from proposed lighting.

Project Response:

Construction and Waste Management is addressed under EA report section 6.8. The proposed WCQ works will be contained south of Argyle Street and consequently envisages minimal construction impacts upon the foreshore section of OPT or the operation of ship days or temporary events.

The Project's 'External Lighting – Investigation and Concept Design' report (EA report section 4.13 and **Appendix S**), confirms that lighting is not anticipated to impact upon OPT navigation.

5.1.4 CITY OF SYDNEY COUNCIL

By letter dated 2 August 2010, Sydney Council has requested the Project address various key design issues and matters, which are addressed in the table below. A meeting was also held between the project team and officers of the City of Sydney Council (Bridget Smyth, Michael Harvey, Laurie Johnson and Lisa Murray) on 6 September 2010 and additional matters also addressed in the table below: -

Project Response:

Council Issue	Project Response
1. EA report to address Key Issues discussed between Council-SHFA-GAO in October 2009 including: <ul style="list-style-type: none"> • Masterplan context: Ensure Project is part of precinct-wide Masterplan including MCA, upgrade of wharf structures, and potential closure of Alfred Street. 	Project context with draft Circular Quay Masterplan addressed under EA section 4.9
<ul style="list-style-type: none"> • Improved sightlines and safety from Alfred & George Streets 	EA report section 3. <i>The Proposed Development</i> .
<ul style="list-style-type: none"> • Remove barriers between Alfred street and 1st Fleet Park 	EA report section 3. <i>The Proposed Development</i> subsection 2.
<ul style="list-style-type: none"> • Improve access between The Rocks and George St 	EA report section 3. <i>The Proposed Development</i> subsection 2.

Council Issue	Project Response
<ul style="list-style-type: none"> Meaningful public art and heritage interpretation 	EA report section 3. <i>The Proposed Development</i> subsection 3 and 10.
<ul style="list-style-type: none"> Improve connection Museum – park 	EA report section 3. <i>The Proposed Development</i> subsection 3.
<ul style="list-style-type: none"> Energy efficient lighting 	EA report section 4.12 and Appendix S
<ul style="list-style-type: none"> Provide seating, after bubbler, shade 	EA report section 3. <i>The Proposed Development</i> subsection 4.
<ul style="list-style-type: none"> Provide skate-able elements along park 	N/A: Council has since verbally retracted this requirement (meeting 6 September 2010)
<ul style="list-style-type: none"> Flexible space for range of activities 	EA report section 3. <i>The Proposed Development</i> subsection 3.
<ul style="list-style-type: none"> Endemic plant species 	EA report section 3. <i>The Proposed Development</i> subsection 4 & EA section 4.16
<ul style="list-style-type: none"> Way finding for visitors 	EA report section 4.12
<ul style="list-style-type: none"> Low-level commercial activities are located along inactive edges (avoid free standing). 	EA report section 6.5 <i>Commercial Activities & Events</i> .
2. Public Domain: Details on materials & construction details for footways.	EA report section 3. <i>The Proposed Development</i> subsection 4, section 6.3, 6.4, 6.8, Project plans at Appendix C .
3. Landscape Design: <ul style="list-style-type: none"> Pre-development Tree Impact Assessment report (detailed tree schedule) 	Arboricultural Impact at EA report section 4.16, 4.17 and Appendix J .
4. Ecologically Sustainable Development (ESD): Harvesting City stormwater system.	EA report section 6.6 <i>ESD</i> .
5. Event Servicing: <ul style="list-style-type: none"> EA to address how will events such as cinemas be serviced on-site? 	EA report section 3 sub-section 9, and section 4.11
6. Other matters: <ul style="list-style-type: none"> Liaise with Council on design of new/replacement driveways or pedestrian ramps. 	Ongoing liaison with City of Sydney Council.
7. Other matters raised at Council meeting with LPMA/GAO on 6 Sept 2010	

Council Issue	Project Response
<ul style="list-style-type: none"> Interpretation opportunities to address the Gadigal people of the Eora nation, including indigenous interaction with the former docks, Aboriginal mariners and Diggers. 	EA report section 3 sub-section 10
<ul style="list-style-type: none"> Retro-fitting of existing lighting fixtures. 	EA report section 4.13 & Appendix S
<ul style="list-style-type: none"> Opening of views from George Street and Cahill undercroft to Circular Quay waterways. 	EA report Appendix D
<ul style="list-style-type: none"> Provision of adequate shade through new planting species. 	EA report section 3 sub-section 4

A full Project briefing was given by the Authority and GAO to the Councilors of the City of Sydney Council on 1 November 2010. Council officers have since advised the Authority that “in principle” the City of Sydney is supportive of the plans to rejuvenate First Fleet Park Circular Quay and that the Project will complement the City's Sydney 2030 vision for Circular Quay to be renewed as a harbour gateway to the City with the design of a new public square with better access and views to the water. Council has requested further project detail including matters such as heritage assessment, public domain levels, details of trees, seating, material of paving, location of the terrazzo map, and opportunity for Indigenous interpretive artwork. These items are addressed within the Environmental Assessment report and accompanying documentation.

5.2 OUTCOMES OF CONSULTATION STRATEGY

The Authority manages the **Circular Quay Steering Committee** to coordinate planning and delivery of public domain improvements in the precinct. The Steering Committee comprises representatives from: -

- City of Sydney Council – Monica Barrone, Chief Executive Officer
- Museum of Contemporary Art – Liz Ann McGregor, Chief Executive Officer
- Sydney Opera House – Richard Evans, Chief Executive Officer; Maria Sykes, Director of Tourism & Visitor Operations
- NSW Government Architect's Office – Peter Mould, NSW Government Architect & General Manager
- Sydney Harbour Foreshore Authority – Debra Dawson, Director The Rocks and Circular Quay; Di Talty, Director Strategic Development.

The principal objective of the Steering Committee is to consolidate and integrate existing and future projects within the Circular Quay and The Rocks precincts across several State and Local Government agencies, and to deliver a quality public domain that reflects the significance of Circular Quay/The Rocks as Australia's national gateway.

The WCQ Project has been developed in close consultation with the Museum of Contemporary Art in order to consolidate a consistent and coordinated approach to landscape and public domain treatment and finishes, and to coordinate construction timeframe with the expansion of the MCA building.

Feedback from stakeholder consultation:

The project has also developed through consultation with key surrounding stakeholders including Sydney Ports, NSW Maritime, State Rail, Railcorp, Botanic Gardens, NSW Heritage Office, National Trust, AMP, The Rocks Chamber of Commerce, Sydney Harbour Business Alliance. On 31 August 2010, the Authority and GAO gave a presentation to the key stakeholders of The Rocks/Circular Quay. No negative feedback or recommendations were received from any of the stakeholders.

6. ENVIRONMENTAL ASSESSMENT – KEY ISSUES

6.1 LANDSCAPE PROJECT PRINCIPLES

The 'Project principles' for the WCQ public domain and landscaping upgrade were independently compiled by the Authority, MCA and the City of Sydney Council, and generally resulted in a united view on the form and function the Project needed to demonstrate. The following is a combination of those agreed principles that influenced the Project design:

Functionality – public recreation

- Emphasise the principal role of First Fleet Park and area outside the MCA as a green place for lunchtime worker gathering and passive recreational pursuits.
- Provide planting for winter sun and summer shade.
- Provide ample hardstand areas for promenades and pathways being mindful of intense use during major event periods.
- Continue formal seating opportunities along the promenade to watch the passing pedestrian parade and Harbour activities and located for minimal obstruction to pedestrian circulation.

Functionality – public entertainment

- First Fleet Park and the promenades to support the broader Circular Quay precinct as a major venue for state significant events.
- Event activities within First Fleet Park will continue to cater for a temporary mobile large format video screen, and located/watched with the Harbour as a backdrop. Fixed in ground power outlet is the only requirement for this facility.
- Busking will remain along CQ promenade.
- Event activities will continue to cater for temporary community and corporate events, and public art exhibits, as per the SHFA Outdoor Events Policy.
- Existing sewer and water connections under the Cahill undercroft are available for major event portable toilet facilities.
- Banner poles to be retained along promenade.
- Banner poles within First Fleet Park are to be retained for visual activation but may be relocated to minimize the impact on views to the Harbour.

Functionality – commercial

- Provide a food and beverage kiosk type operation to service First Fleet Park, ensuring it is ancillary to the parks public recreation role.

Connectivity – physical links

- Broaden the currently constricted pedestrian path links from the Circular Quay promenade to George Street in The Rocks.
- Reduce or eliminate topographical constraints such as stairs and walls that restrict or encumber freedom of movement around the CQ promenade and between the CQ promenade and George Street.
- Manage the balance of hard and soft areas to ensure high wear desire lines do not appear in turf areas.
- Reconsider the current duplicated path (Pitt Street extension), parallel to the waterside promenade, to maximise parkland opportunities and the width of the CQ promenade.
- Expand the connectivity between Alfred Street, the Cahill Undercroft and First Fleet Park for ease of pedestrian movement but being mindful that the existing brick wall is primarily for security control during the cruise ship season.
- Maintain security protection along Argyle Street east for the Overseas Passenger Terminal as a major cruise liner destination.
- Accommodate public connections to the MCA, through both existing major entry and proposed relocated entry within new northern wing.
- Disability access to all areas is essential.

Connectivity – visual links

- Improve visual connectivity from the CQ promenade to the heritage facades along George Street in The Rocks.
- Improve visual connectivity from Alfred Street to the Harbour.
- Maximise visual outlook from First Fleet Park to the Harbour, the Harbour Bridge, and the Sydney Opera House.

Heritage

- The most important phase and the focus of interpretation will be the second phase from 1788 to 1812. Sydney Cove settlement – hospital wharf, first allotments along eastern side of George Street, (Isaac Nichols, Mary Reiby) first marketplace and construction of the Commissariat Stores - the pre Macquarie period when the site was first subdivided.
- Interpret the first contact between settlers and indigenous people.
- Historically, the stairs and path from George Street directly east to Circular Quay (existing alignment) is one of the earliest recorded connections.
- Early European historical alignments including the 'Pitt St/Market St extension' and the alignment of George St do not need to be physically realised but can be addressed through interpretation and visual cues.

- Recapture the MCA as a public building 'in the round', such that its' eastern and southern elevations are clearly legible.
- The commemorative Bicentenary terrazzo installation to be retained but may be relocated.

Planting Character

- First Fleet Park will need to carefully balance soft and hard finishes to accommodate its passive role, its connectivity role and its event role. Plant material can draw from both native and exotic sources, suited to the local climate but with a focus on longevity and survivability.

Environmental Sustainability

- Investigate alternative power sources for lighting and other electrical items as both an interpretive and environmentally desirable outcome.
- Seek opportunities for water collection and recycling to minimise potable water requirements for park irrigation and public domain wash down needs.
- Planting species selection needs to be mindful of low water availability.
- The selection of hard materials should be mindful of embedded energy and recyclable value.
- Incorporate environmental sustainability principles generally into maintenance and management outcomes.

6.2 HERITAGE & ARCHAEOLOGY

The *First Fleet Park – The Rocks Conservation Management Strategy* recognizes the following heritage elements within the WCQ precinct.

- First Fleet Park is listed on the Sydney Harbour Foreshore Authority Register under section 170 of the Heritage Act 1977 NSW (Listing number 4500324).
- First Fleet Park is listed as “Cahill expressway space, George Street, The Rocks” register of the National Estate (RNE- place ID no: 2119). The site is recognised as a component feature of The Rocks Conservation Area on the RNE listing no 2255, (registered 21 October 1980).
- The City Circle Railway Bridge is a listed item on the State Heritage Register.
- The Foreshore Authority has recently sought to list the archaeological remains within the parklands on the State Heritage Register. This application is currently before the Heritage Council awaiting determination.
- Cast iron fence and posts around Circular Quay seawall are listed on both the Authority’s 170 Register and State Heritage Register Number 01572...

A Statement of Heritage Impact, prepared by the NSW Government Architect’s Office, accompanies this Project Application and is found at **Appendix G** of this EA report. In the Executive Summary, the report states and concludes:

“The key heritage values associated with this site are related to the site’s historical development, the extant evidence of this in the archaeological record and its historic use as an area of public open space on Sydney Cove.

The proposed development will retain the site as a public open space as a continuation of its historic use; retain important archaeological resources on the site; retain important historic views and spatial relationships; reinstate lost historic views; retain important cultural artifacts on the site; and interpret the history and heritage of the site.

The proposed landscaping and upgrading works of the public domain at West Circular Quay as described in the SOHI **will not have an adverse impact** on the heritage significance of West Circular Quay.”

The report details and summarises the elements of heritage and archaeological significance belonging to the West Circular Quay precinct. The report also makes a number of key ‘recommendations in relation to ‘general’ and ‘archaeological’ matters, and includes ‘requirements associated with Heritage listings’. These recommendations are listed as follows: -

7.1 RECOMMENDED MITIGATION MEASURES

General

- Undertake the work in accordance with the project documentation produced by GAO.
- Undertake all work to a high standard – this includes good quality materials and workmanship.
- Ensure all tradesmen are briefed about the heritage significance of the site, particularly the archaeological resource. This is particularly important during excavation to protect the extant archaeology.
- Prepare archival recording of the site prior to any works commencing on site.

Action required – Engage a subconsultant to prepare an archival recording of the site in accordance with Heritage Branch, Department of Planning requirements, and submit to SHFA and the Heritage Branch, Department of Planning library.

Archaeology

- Prepare an Archaeological Management Plan for the southern area of the site, similar to that prepared for the northern area of the site (C&L_MCA:AMP). This document will include detailed management and mitigation measures, including:
 - o Issues regarding location of trees to avoid areas of known archaeological potential
 - o Where archaeological remains are found, cover remains with geotextile fabric as a root barrier for long term protection against root growths

Action required – Engage a subconsultant to prepare an Archaeological Management Plan for the southern area of the site

7.2 REQUIREMENTS ASSOCIATED WITH HERITAGE LISTINGS

As this development is being determined by the Department of Planning under Part 3A Major infrastructure and other projects of the *Environmental Planning and Assessment Act 1979*, standard approvals are not required. Nonetheless, as part of the assessment process in this system, copies of this documentation will be forwarded to the NSW Heritage Council and the City of Sydney for their comment for consideration by the Minister.

Action required – None

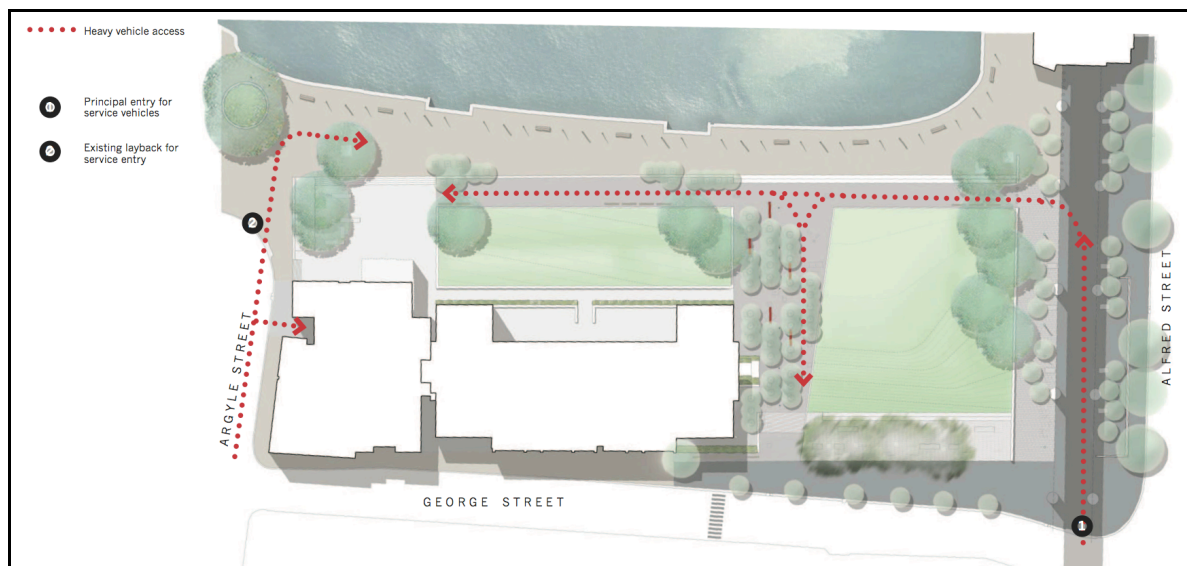
6.3 PEDESTRIAN AND SERVICE ACCESS

Pedestrian connections: The Project seeks to upgrade the public domain pedestrian connections by: -

- improving access from First Fleet Park and Circular Quay West to The Rocks;
- creating unimpeded access from Alfred Street to First Fleet Park and beyond;
- creating a pedestrian network that also works in tandem with the network of streets and lanes in The Rocks; and
- removing unnecessary barriers, edges and clutter to allow for unimpeded pedestrian access.

Service vehicles: The Project seeks to maintain and upgrade service vehicle access and connections through: -

- Pitt Street over Alfred Street and through the Cahill undercroft. This connection will be managed through controlled access (bollards) and will provide service vehicle access to the Cahill undercroft, the WCQ promenade and the existing southern entry to the MCA building. Access is also designed for vehicles to the sewage pump out wells south of the MCA building. Sewer induct vents will be incorporated into the proposed steps, whilst a new sewer educt vent is to be located amongst Cabbage Palm plantings; and
- the existing Argyle Street entrance (barrier controlled) connecting to the West Circular Quay roadway and providing service vehicle access to the WCQ promenade and the extended MCA building (under construction).



Pedestrian Connections (source GAO)

Security Access: The Project seeks to maintain and upgrade security management and connections to the Overseas Passenger Terminal and along the George Street footpath promenade (*The Lookout*) towards the MCA building will be maintained and provided through the following devices:

- a) Retractable bollards from the Pitt Street vehicle service crossover through the Cahill undercroft. These bollards will be lowered during pre-programmed service vehicle access
- b) Heavy duty seating fixtures to *The Lookout*; and
- c) Retention of the access barriers along Argyle Street (east of George Street) to the OPT site



Security Access (source GAO)

6.4 ACCESSIBILITY

An “Access Review” report prepared by *Morris-Goding Accessibility Consulting*, accompanies this Project and is found at **Appendix H** of this EA report. The report assesses the project design to ensure that ingress and egress, paths of travel, and circulation areas comply with the Australian Standard AS 1428 series and the Commonwealth Disability Discrimination Act (DDSA).

The report concludes that the WCQ design has accessible paths of travel that are continuous throughout, and demonstrates an appropriate degree of accessibility, and that compliance with statutory requirements can be readily achieved.

The report makes a number of ‘Recommendations’, which are agreed to and contained within the Project’s ‘Statement of Commitments’ (refer to EA report section 9). These include the following: -

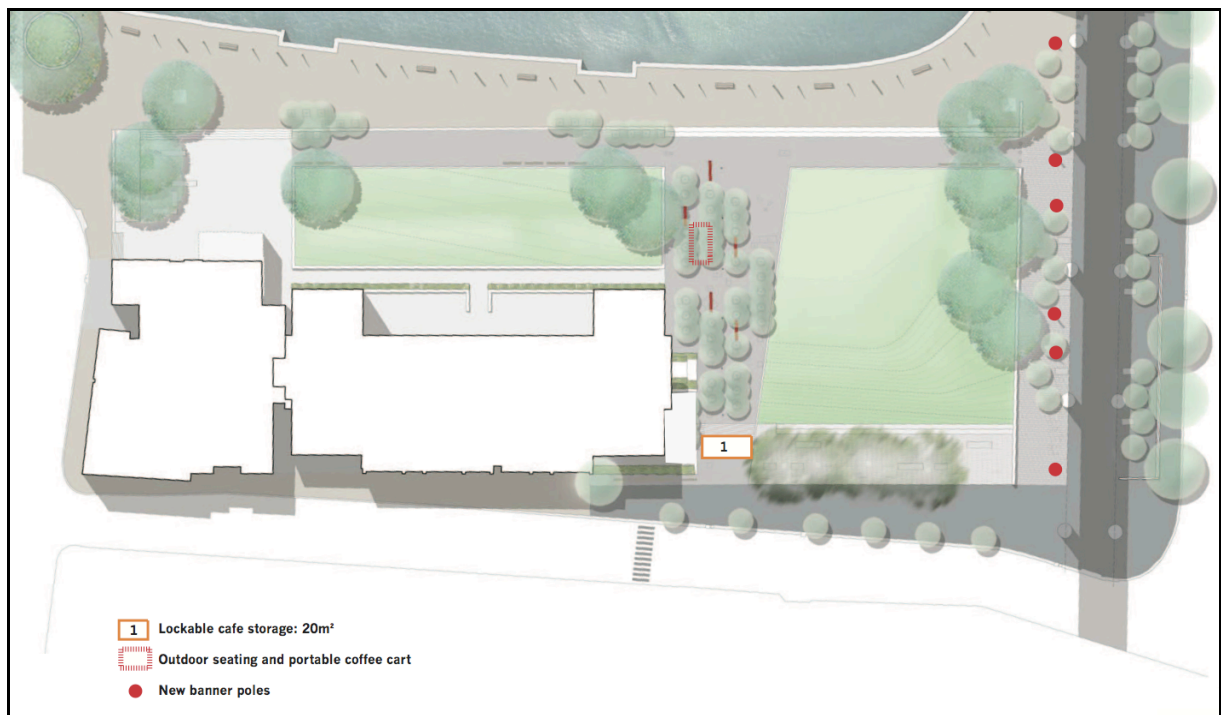
1. George Street Access – stairs connecting to *Market Wharf*
 - (i) This stair will need to be upgraded to cater for people with ambulant disability by the inclusion of handrails in accordance with AS1428.1.
 - (ii) Tactile Ground Indicators will need to be provided at the stair in accordance with AS1428.4.
2. Park Furniture
 - (i) There will need to be compliant rest seating areas at convenient locations throughout the park area.
 - (ii) Objects near the pedestrian footpaths such as rubbish bins, grates, shall be of a colour that provides a contrast with their background and has a luminance factor of not less than 30%, compliant with AS1428.1.
3. Signage
 - (i) The signage on the site must include way finding, interpretation and identification of accessible connection points, location of MCA entry and continuous accessible paths of travel for wheelchair access
 - (ii) Signage must include international logo for the disabled, directional arrow, raised text and Braille.

The ‘Access Review’ also makes recommendations for MCA building access. This is a matter for compliance by the MCA in its extension of the existing MCA building as addressed under the separate Major Project approval 08-0064 granted by the Minister for Planning on 26 June 2009

6.5 COMMERCIAL ACTIVITIES & EVENTS

The new park structure will allow for a variety of temporary activities and events. The gently graded lawn amphitheatre provides an ideal location for outdoor cinema and stage performance. Three phase power outlets will be provided in discreet locations. The *Market Wharf* is designed to accommodate temporary market stalls, community and corporate events.

Commercial activities proposed by this Project include a coffee cart site within the *Market Wharf* area – close to the south façade boundary of the existing MCA building. The cart is removable and will be stored underneath the reconfigured stairs connecting to George Street, at the termination of each day trade.



Commercial activities & utilities - Market Square (source GAO)

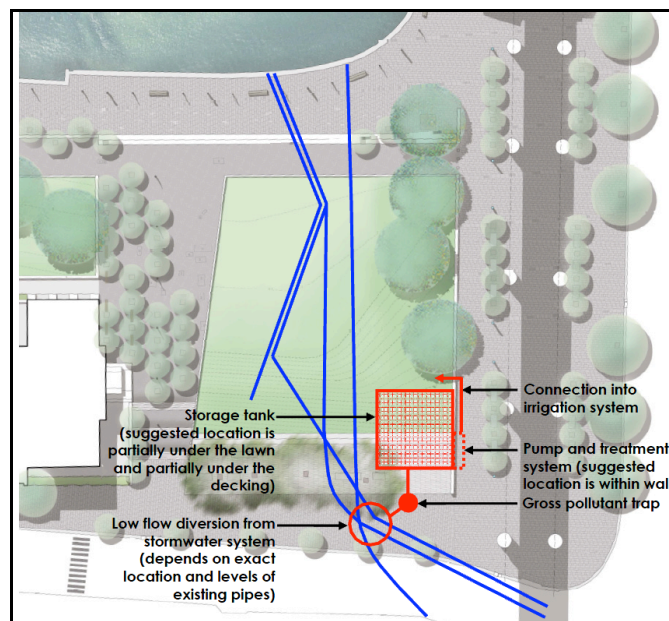
EA report section 4.11 demonstrates that the proposed temporary events for the WCQ area either comply with the existing SHFA *Outdoor Events Policy & Technical Manual 2009*, or qualify as 'exempt development' in accordance with the provisions of the SEPP (Major Development) 2005 and the SEPP (Major Development) 2005, and the SEPP (Temporary Structures) 2007.

6.6 ECOLOGICAL SUSTAINABLE DEVELOPMENT - WATER SENSITIVE URBAN DESIGN MEASURES

The Project includes a comprehensive stormwater strategy to provide a stored resource of water for irrigating the WCQ park components and washing down pavements. The proposal is to redirect stormwater from George Street into a gross pollutant trap, through a secondary filtration system and into a stormwater storage tank located under the sloping lawn (*The Green*). This stored water will be supplemented by filtration tree pits, which will collect and filter stormwater from surface runoff.

A Water Sensitive Urban Design (WSUD) Concept for the WCQ Project, prepared by *equatica*, accompanies this EA report and is found at **Appendix L**. WSUD aims to ensure that design and development is constructed and maintained so as to minimise impacts on the natural water cycle, and focuses on the urban water cycle (potable water, wastewater, and stormwater). The *equatica* report:

“Calculates future WCQ irrigation demands (using Sydney Water’s “WaterRight” gardens tool) at **4,980 kL/year**. The report has undertaken water balance modeling to assess the potential for stormwater harvesting to supply future irrigation demands at West Circular Quay. Results are shown below, indicating that it should be possible to meet approximately 85-90% of the park’s irrigation demands from treated stormwater, equivalent to 4,230-4,480 kL/year. A tank size of 150-200 kL would be required to meet approximately 85-90% of the estimated irrigation demands. A storage tank could be located under the First Fleet / *The Green* park and constructed of concrete or modular plastic cells.

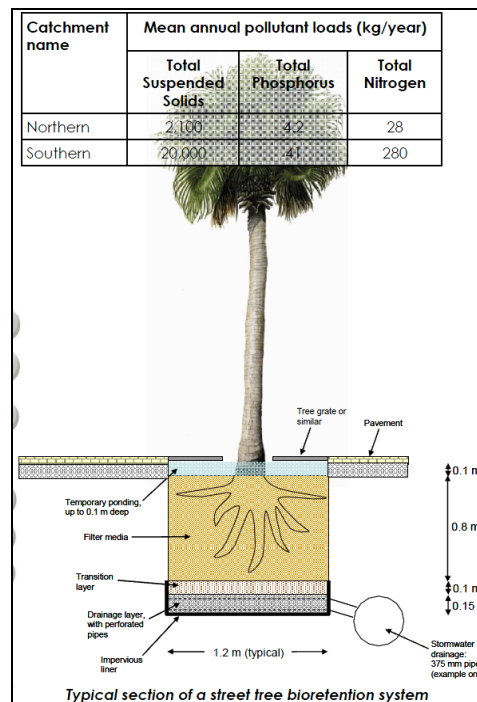
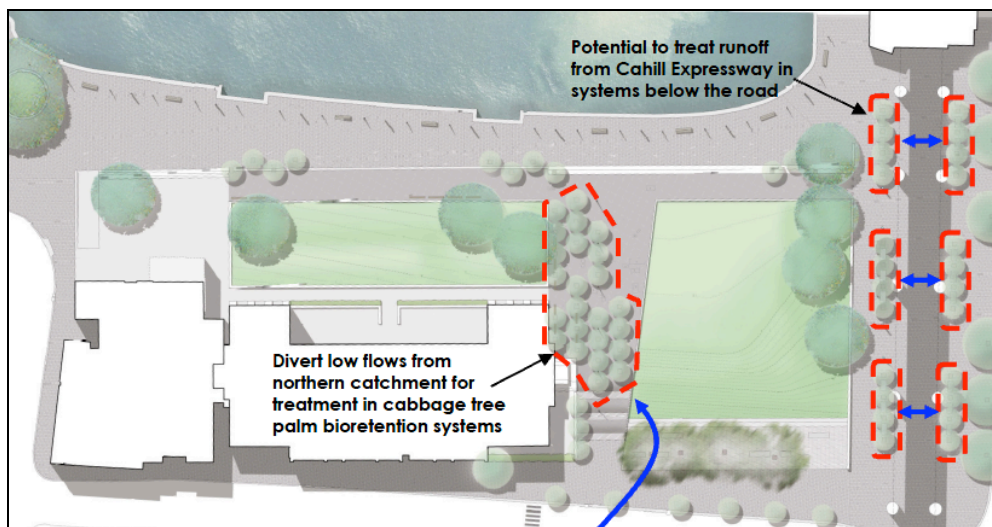


Extract: Water Sensitive Urban Design Concept design information (source *equatica*)

The **equatica** report also addresses the potential for stormwater treatment as part of the WCQ landscaping. The report concludes that:

“Stormwater is a significant source of pollutants flowing in to Sydney Harbour, and that stormwater treatment at WCQ can help to reduce these pollutant loads.”

“There is space within the park (assuming levels can be resolved) to treat the northern catchment to best practice. The preferred option is to construct new tree pits within the park as bioretention systems. The cabbage tree palms proposed for the park should be ideal within bioretention systems, as they like well drained soils and lots of water.”



Extract: Water Sensitive Urban Design Concept design information (source *equatica*)

6.7 UTILITIES

The WCQ site contains a variety of existing utility services including sewer, electrical and stormwater pipes and traps. This WCQ Project addresses the retention and/or relocation of those utilities as follows: -

- a) **Stormwater:** Two significant stormwater catchments drain through First Fleet Park from George Street to Sydney Harbour. The southern catchment is approximately nine hectares and includes southern George Street, Harrington Street, Gloucester Street and Grosvenor Street. The northern catchment is less than one hectare and includes a portion of George Street. A series of stormwater pipes are located in an east west alignment, draining to Sydney Harbour. There are also a series of small stormwater catchments draining the MCA building and its surrounds directly into the Harbour. The piped extension to the original Tank Stream alignment passes through the southeastern corner of the park. The Tank Stream (converted to a culvert in 1857) effectively drains the Sydney central business district, and is well below the surface of the park.

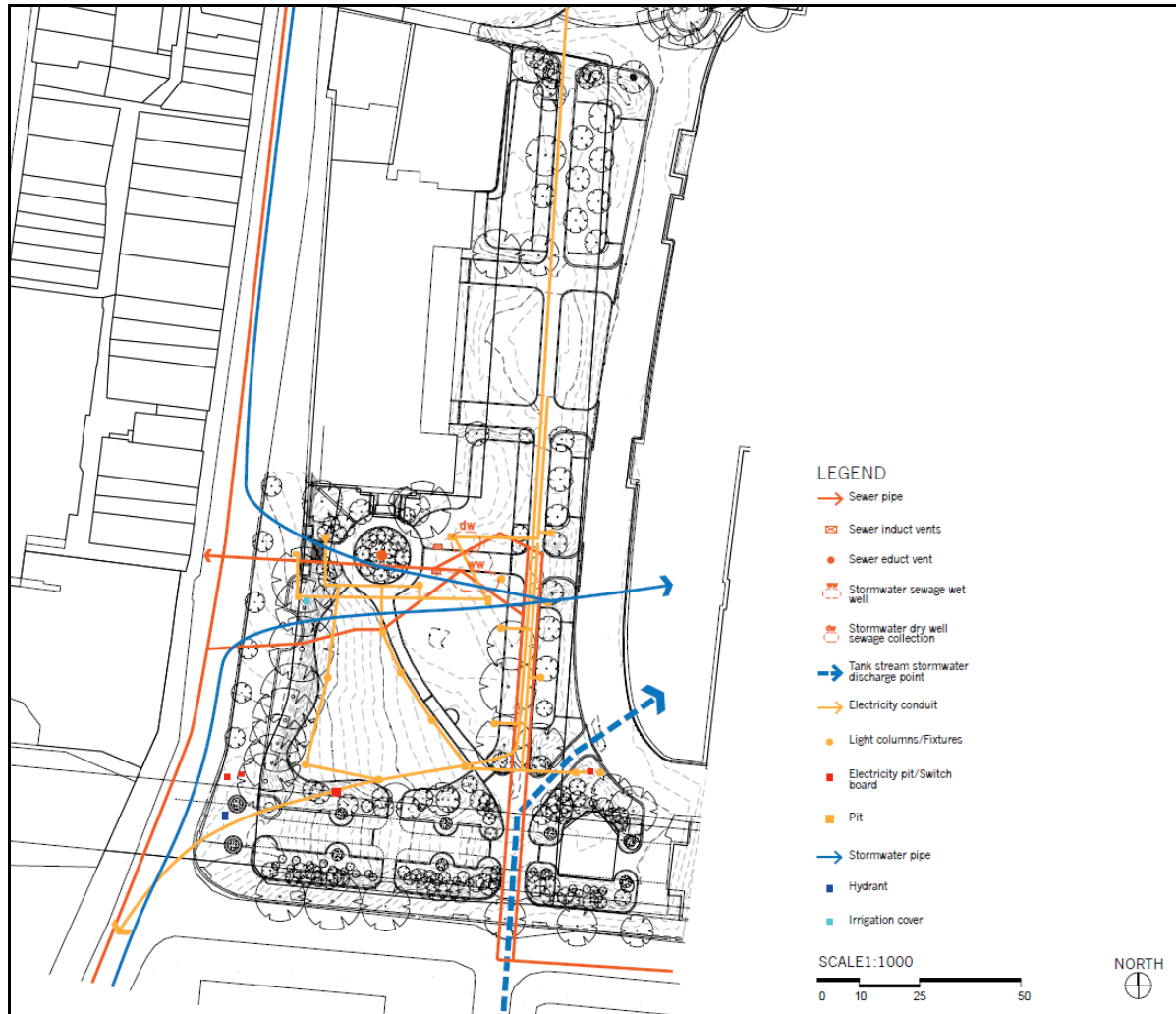
The stormwater pipe traversing First Fleet Park will be altered to allow for the harvesting of stormwater for irrigation and other purposes associated with the WCQ public domain facilities – refer to ESD proposal under EA report section 6.6 *Ecological Sustainable Development*.

- b) **Sewer:** Sewage pumping station 16, constructed in 1943, is located under the park and adjacent to the southeastern edge of the MCA building. The pumping station is operational and services the CBD. It incorporates a dry well station, “wet” sewage collection well, dry pumping machinery well and associated valve chambers. The dry well is ventilated by induct and educt vents. Induct vents are housed within two sandstone pedestals adjacent to the main path. The educt vent (a tall pipe) is located within the circular palm grove in the northwestern corner of First Fleet Park. The pumping station requires emergency service access by tankers as required. A number of chamber access hatches are located in lawn areas and paths. The depth of this pipe work is unknown. The Project allows for the retention of the existing sewer pipes under the First Fleet Park/*The Lawn*.

The WCQ Project allows for truck access to the southern side entry of the MCA and to the sewage pump out wells. All pits associated with these wells will be located within the paved *Market Wharf* area. Sewer induct vents will be incorporated into the proposed steps adjoining the *Market Wharf* area, whilst a new sewer educt vent is to be located amongst Cabbage Palm plantings.

- c) **Electrical:** Electrical conduits servicing CCTV and light columns are located under lawn areas and existing pathways. A north south electrical conduit runs under the existing pathway in front of the MCA building.

The Project allows for the retention of the north-south electricity cables along the WCQ foreshores, as well as access to the existing electricity pits along the southern portion of Cahill Expressway proposed as a pedestrian connection between Circular Quay and The Rocks.



WCQ - Existing Utility Services (source GAO)

The WCQ construction program shall incorporate close liaison with all relevant Utility authorities in defining specific access requirements to existing infrastructure.

6.8 CONSTRUCTION & WASTE MANAGEMENT

The Authority commits to the preparation of a Construction Management Plan to be submitted to the Certifying Authority prior to the issue of a Construction Certificate. Notwithstanding, the Authority commits to adopting the following construction management, erosion, waste and sediment control measures during construction to mitigate any adverse environmental and waste impacts: -

Air Quality:

- Water sprays, sprinklers and water carts employed to dampen stockpiles, work areas and exposed soils to prevent dust emissions.
- Materials likely to generate dust will be transported to or from site under cover and dampened to prevent dust from being picked up and transported by wind.
- Program and process for cleaning relevant access roads.
- Construction practices not to be carried out when the wind velocity exceeds 10 m/second average over a 10-minute period.

Conditions relating to Water Pollution Control Measures:

- During construction, soil erosion and sedimentation control measures will be installed in all areas disturbed and affected by construction activities to prevent silt and sediment from leaving the construction site and reaching the Harbour. All construction phase erosion and sediment control measures will be provided and installed in accordance with the City of Sydney Council, and the Department of Environment, Climate Change and Water requirements.
- All stormwater drainage pits within and downstream of the construction site will be fitted with sediment filters composed of sand-filled filter bags/socks and block spacers. These will be kept in place and maintained until completion of all construction work around each drainage pit.
- Geotextile fence or hay bale intercepts provided around stormwater pits during construction.
- Soil adhering to truck wheels will be prevented from leaving the site by the use of a truck shaker grid and a truck wheel wash. These will be located at the exit roadway so that all trucks leaving the site may be inspected and cleaned before leaving the site.
- Water used in the truck wheel wash will be recycled by directing it to a sedimentation tank to allow the settlement of sediments. Sediment will be collected from the sediment tank and scraped off the shaker grid and the truck wheel wash itself.
- All drainage outlets (new and existing) to the Harbour will be fully enclosed with a floating turbidity barrier. These will be kept in place and maintained for the entire construction period.

- Stormwater runoff within the site will be directed to sumps for collection and pump-out. This water will contain silt and suspended soil particles, which must be removed before discharge from the site. Site runoff will initially be pumped from the sumps to a sedimentation chamber where sediments will be allowed to settle. The water will then pass through a filter medium into a pump chamber. This pump will direct the water to the existing trunk drainage system.
- At each work area along the foreshore a boom and silt curtain will be placed in the waterway over the full length of the work area, to prevent debris and disturbed sediment from being disbursed into the waterway.
- All construction debris accidentally dropped into the waterway will be contained between the boom and the foreshore, and will be removed.
- New drainage systems around, through and from disturbed areas will connect with existing natural drainage lines in a manner to ensure that souring is prevented.

Toxic Pollution Control:

- Concrete wastes or washing from concrete mixers, concrete pumps and bituminous plant will be carried out off site. There will be no machine cleaning on-site.

Waste Disposal:

- Disposal of all solid, liquid, and gaseous wastes in accordance with statutory local and contractual requirements.
- Inclusion of ablution facilities within site compound and connected to existing sewerage system.
- On-site holding bins to collect and contain builder waste. Non-bio-degradable solid waste such as broken concrete, glass, asphalt or wood shall be disposed of at any licensed landfill site. There will be no burying of this material on-site.
- Any excavated spoil to be transported and disposed at approved locations by the City of Sydney Council, and carried in a manner to meet environmental requirements.
- Liquid contaminants may be diluted with water to a level of quality acceptable in the sewer system, or be stored in approved vessels for disposal at approved locations.

Environmental Management System:

- Air, water and noise monitoring to be carried out during the construction process.
- Auditing to verify that environmental activities and practices comply with Environmental Management System requirements.
- Contact details to be addressed (notice) on-site and complaint handling process to address oral complaints, objections or adverse comments during the construction program.

- Training of employees and subcontractors on importance of environmental protection.
- Emergency procedures on site to cover actions should any catastrophic event take place.

Bare Earth Surfaces

- Keeping bare earth surfaces during construction activity by spraying water from water trucks or hand-held hoses.

Constructed Surfaces

- The regular collection of rubbish from site into skips for disposal to approved waste depots. Construction surfaces will be swept regularly.
- Skips for the collection of rubbish will be located in areas with suitable truck access. They will be kept covered to prevent dust (and other rubbish) from being picked up and conveyed by wind.

7. THE SUITABILITY OF THE SITE FOR DEVELOPMENT

The WCQ site is suitable for the proposed Project, for reasons including:

- WCQ serves as public open space of international and regional significance;
- The WCQ public domain is supported by the SCRA Scheme, Sydney Metropolitan Strategy, Sydney Harbour Foreshore & Waterways Area Development Control Plan 2005, and the draft Sydney City Subregional Strategy;
- The WCQ public domain successfully caters to a significant catchment of Sydney residents, workers, and to visitors alike; and
- The WCQ Project is a coordinated strategic design solution developed through consultation with key surrounding stakeholders including SHFA, the NSW Government Architect's Office, Sydney Ports, NSW Maritime, Railcorp, Botanic Gardens, NSW Heritage Office, National Trust, AMP, Sydney Opera House, The Rocks Chamber of Commerce, and the Sydney Harbour Business Alliance.

8. THE PUBLIC INTEREST

The public interest is best served by the orderly and economic use of land for purposes permissible under the relevant planning regime and predominantly in accordance with the prevailing planning controls. The proposed upgrade and landscaping of the WCQ precinct will benefit the public interest through the: -

- production of a consistent and coordinated urban design and landscape treatment throughout the whole Circular Quay precinct;
- upgrade of the public domain to equitable, accessible and safe standards as prescribed by Building Code of Australia, and relevant Australian Standards;
- removal of existing landscape constraints of WCQ by providing direct and safe pedestrian connections between Circular Quay and The Rocks;
- upgrading existing outdoor public furniture and fittings to current standards;
- opening up public vistas of the Circular Quay waterways and surrounding prominent buildings including the Sydney Opera House and the MCA;
- provision of site interpretation incorporating current and past uses, acknowledgment of heritage, indigenous and archaeological significance;
- providing a variety of community, arts and crafts, entertainment, and corporate event opportunities;
- coordinating construction works with the expansion of the MCA building; and
- providing a significant economic catalyst to Sydney's international Circular Quay gateway, and which will attract a significant visitor catchment to Circular Quay and The Rocks precincts.

9. STATEMENT OF COMMITMENTS

The Director-General has requested, pursuant to section 75F(6) of the *Environmental Planning and Assessment Act 1979*, that the subject Environmental Assessment includes a Draft Statement of Commitments. In accordance with Part 3A of the EP&A Act the Authority and NSW Government Architect's Office make the following commitments to manage and minimise potential impacts associated with the upgrade and landscaping of the WCQ public domain.

9.1 Building Code of Australia and Australian Standards:

Compliance with all relevant BCA requirements and Australian Standards.

9.2 Legislative Requirement:

All relevant licences and approvals to be obtained prior to, and during, construction.

9.3 Site Management:

Compliance with responsibilities, procedures and methods contained within the Specific Site Management Plan (SMP) by *Sydney Environmental & Soil Laboratory*.

9.4 Accessibility:

Recommendations contained within Accessibility report by *Morris Godding Accessibility Consultants* including:

a) Regulatory

- Compliance with the Australian Standard AS 1428 series and the Commonwealth Disability Discrimination Act (DDSA).

b) George Street Access – stairs connecting to *Market Wharf*

- The stairs connecting *Market Wharf* to George Street will be upgraded to cater for people with ambulant disability by the inclusion of handrails in accordance with AS1428.1.
- Tactile Ground Indicators will be provided at the stair in accordance with AS1428.4.

c) Park Furniture

- Compliant rest seating areas shall be located at convenient locations throughout the park area.
- Objects near the pedestrian footpaths such as rubbish bins, grates, shall be of a colour which provides a contrast with their background and has a luminance factor of not less than 30%, compliant with AS1428.1.

d) Signage

- The signage on the site will include way finding, interpretation and identification of accessible connection points, location of MCA entry and continuous accessible paths of travel for wheelchair access.
- Signage will include international logo for the disabled, directional arrow, raised text and Braille.

9.5 Heritage and Archaeology:

Compliance with the recommendations contained within the 'Heritage & Archaeology Assessment' report prepared by the *NSW Government Architect's Office*.

9.5 Arboriculture:

Compliance with the recommendations contained within the 'Arboricultural Assessment and Impact Report' prepared by *Landscape Matrix Pty Ltd*.

9.5 Lighting:

Compliance with the recommendations contained within the 'External Lighting' report prepared by the *NSW Government Architect's Office*.

9.6 Hours of Construction:

Hours of construction will be limited to 7am to 6pm Monday to Friday and 7am to 4pm on Saturdays, with no work on Sundays or public holidays.

9.7 Construction & Waste Management:

The Authority commits to the preparation of a final Construction Management Plan to be submitted to the Certifying Authority prior to the issue of a Construction Certificate, which will address the following activities: -

- Construction staging
- Noise, dust and vibration management
- Traffic and parking management
- Pedestrian management
- Erosion and sediment control
- Waste generation and management

10. CONCLUSION

This Major Project Application seeks the Minister for Planning's consent for landscape and upgrade works to the public domain of West Circular Quay in The Rocks/Circular Quay precinct. These works will coincide with the construction of the approved expansion of the Museum of Contemporary Arts building, adjoining the Project site.

The WCQ Project will provide a significant economic catalyst to Sydney's gateway at The Rocks and Circular Quay, whilst catering to and encouraging significant pedestrian and visitor catchments to the precinct. This Project will contribute to the reactivation and upgrade of the whole Circular Quay precinct as a major worker, resident, family and visitor destination. The project will highlight and orientate pedestrians to the key and iconic destinations within The Rocks and Circular Quay precincts in a manner that is accessible, safe, comfortable and attractive.

The Project has been developed in close consultation with key surrounding stakeholders including Sydney Ports, NSW Maritime, Railcorp, NSW Heritage Office, AMP, The Rocks Chamber of Commerce, and the Sydney Harbour Business Alliance.

The Project is designed to have minimal adverse environmental impacts and construction impacts, which will be managed through the project's Waste and Construction Management Plan.

All relevant considerations under the Environmental Planning & Assessment Act 1979, State Policies and Regional Plans, the Authority's policies, and the City of Sydney Council's strategy *Sustainable Sydney 2030*. The proposed landscape and upgrade works is concluded to comply with and complement relevant environmental planning instruments, policies, guidelines and strategies.

This Environmental Assessment report concludes that the proposed landscape and upgrade works to West Circular Quay is worthy to be granted consent under Part 3A of the EP&A Act.