

---

**Sydney Harbour Federation Trust**

**Management Plan - Mosman No.6**  
Mosman Drill Hall Precinct

24<sup>th</sup> May 2006



**Australian Government**  
**Sydney Harbour Federation Trust**

---

# Table of Contents

<b>INTRODUCTION</b> .....	4
<b>COMMENCEMENT DATE</b> .....	5
<b>LAND TO WHICH THE MANAGEMENT PLAN APPLIES</b> .....	5
<b>AIMS OF THIS PLAN</b> .....	5
<b>RELATIONSHIP WITH THE TRUST’S COMPREHENSIVE PLAN</b> .....	6
<b>RELATIONSHIP WITH OTHER TRUST MANAGEMENT PLANS</b> .....	6
<b>RELATED POLICIES AND GUIDELINES</b> .....	6
<b>RELATIONSHIP WITH THE HEADLAND PARK DESIGN FRAMEWORK</b> .....	7
<b>STATUTORY PLANNING CONTEXT</b> .....	11
Commonwealth Legislation .....	11
State Legislation.....	12
Sydney Regional Environmental Plan No. 32 Sydney Harbour Catchment.....	12
Mosman Local Environmental Plan 1998 .....	12
<b>NON STATUTORY PLANNING STRATEGIES</b> .....	12
Sharing Sydney Harbour Access Plan .....	12
Mosman Bicycle Strategy 2005-2010.....	13
<b>PLANS PREPARED FOR NEIGHBOURING LANDS</b> .....	13
Sydney Harbour National Park Management Plan .....	13
Plan of Management for Rawson Park and Surrounds, 2001 .....	13
Plans made under the <i>Rural Fires Act 1997</i> .....	13
<b>SITE DESCRIPTION</b> .....	14
<b>SURROUNDING LANDS</b> .....	14
<b>SITE ANALYSIS</b> .....	15
Heritage Conservation.....	15
Landscape Character .....	20
Bush Land and Natural Values.....	20
Phytophthora cinnamomi.....	21
Bushfire Risk .....	21
Stormwater .....	22
Site Contamination .....	23
Hazardous Materials .....	24
Services .....	25
Compliance with the Building Code of Australia .....	25
Transport Management .....	25
Traffic, Parking and Access.....	25
Acoustic Impact.....	27
Light Pollution.....	27



---

<b>COMMONWEALTH HERITAGE VALUES .....</b>	<b>27</b>
<b>OUTCOMES .....</b>	<b>29</b>
Heritage Conservation.....	29
Adaptive re-use of the Drill Hall .....	30
Site design .....	30
Use of the Courts .....	31
Building design (Stage 2) .....	31
Access and Parking.....	32
Landscape Design.....	33
Stormwater .....	34
Water Sensitive Urban Design .....	34
Phytophthora cinnamomi.....	35
Remediation .....	36
Interpretation .....	36
<b>IMPLEMENTATION .....</b>	<b>37</b>
<b>FUTURE ACTIONS .....</b>	<b>41</b>
Unforeseen Archaeological Discoveries.....	41
Records of Intervention & Maintenance .....	41
Future Consultation .....	41
Aboriginal Consultation .....	41
Monitoring and Review of the Plan.....	41
<b>ACKNOWLEDGEMENTS: IMAGES.....</b>	<b>42</b>
<b>RELATED STUDIES .....</b>	<b>43</b>
<b>APPENDICES .....</b>	<b>44</b>



---

## Introduction

On 21<sup>st</sup> August 2003 the Minister for the Environment and Heritage approved a Comprehensive Plan for the seven harbour sites managed by the Sydney Harbour Federation Trust. The plan, which was prepared in accordance with the requirements of the *Sydney Harbour Federation Trust Act 2001*, sets out the Trust's vision for the harbour sites under its control.

A requirement of the Trust's Comprehensive Plan is that more detailed management plans are prepared for specific precincts, places or buildings. In addition to this the *Environment Protection and Biodiversity Conservation (EPBC) Act 1999* also requires the Trust to make plans to protect and manage the Commonwealth Heritage values of Commonwealth Heritage Places that it owns. The Mosman Drill Hall precinct is identified on the Commonwealth Heritage List as one of these places.

Accordingly, the purpose of this Management Plan is to guide the outcomes proposed in the Trust's Comprehensive Plan and to satisfy the requirements of Schedule 7A of the EPBC Regulations, 2000.

The Comprehensive Plan proposes the creation of a Headland Park that integrates Middle Head, Georges Heights and Chowder Bay. The Headland Park will unify all of the elements along the Middle Head ridgeline, from Rawson Park to Middle Head.

The vision for the park is a place where the area's rich natural and cultural heritage, including its early aboriginal and military occupation will be protected and interpreted and where access will be provided to areas that have long been inaccessible to most people.

The Trust has identified the creation of the Headland Park as one of its highest priorities. Its goals are to ensure that:

- The natural and cultural assets of Middle Head, Georges Heights and Chowder Bay are conserved;
- The bushland area is increased in size;
- A network of walking tracks is created that links the various former military precincts and other places of interest; and
- Existing facilities are adaptively reused for appropriate educational, community, recreational and commercial uses.

The Mosman Drill Hall precinct forms an important historic area within the proposed Headland Park, and the Trust's Comprehensive Plan proposes that:

- The Drill Hall should be conserved and adaptively reused;
- The existing lawn netball courts in the adjoining Rawson Park (under the care, control and management of Mosman Council) be relocated to the Mosman Drill Hall precinct; and
- The Trust investigate upgrading part of the courts to an indoor sports building in consultation with the local community.

The Trust engaged a firm of Architects and Planners, EDAW Gillespies, to prepare a master plan and to undertake an investigation into the site's suitability for sports facilities. The investigation, which includes two possible designs for the proposed



---

sporting facilities, has indicated how these could be accommodated within the constraints of the site. Both designs are included in this Management Plan as a staged development of the site.

The planning investigation was prepared in close consultation with Mosman Council, and its implementation is contingent upon Council providing the necessary funding and removing the existing courts in Rawson Park.

## **Commencement Date**

This plan was adopted by the Trust on 24 May 2006 and came into force on that date.

## **Land to which the Management Plan Applies**

The land covered by the Management Plan is shown by broken black edging on the plan at *Figure 1*. All of the land is included within Lot 2 DP 541799 and is in the ownership of the Sydney Harbour Federation Trust.

## **Aims of this Plan**

The aim of this Management Plan is to:

- Conserve and interpret the Commonwealth Heritage values of the Mosman Drill Hall precinct relating to its military occupation;
- Maximise public access;
- Facilitate the adaptive re-use of the former Drill Hall for appropriate uses;
- Facilitate the relocation of existing netball courts from Rawson Park to the Mosman Drill Hall precinct; and their replacement with a community sports training facility comprising outdoor hard-surfaced training courts and an indoor sports building; and
- Integrate the precinct with adjoining lands as part of a unified Headland Park.

In doing this it also aims to:

- Be consistent with Commonwealth Heritage Management Principles;
- Conserve and interpret the whole site as an historic precinct;
- Assist the conservation of the historic fabric of the Drill Hall by ensuring that it is adaptively reused in a manner consistent with the recommendations of the Conservation Management Plan (CMP);
- Provide opportunities and site interpretation for visitors to understand and appreciate the totality of the site's heritage;
- Encourage uses and activities that promote the use of sustainable modes of transport and ensure that traffic generated by the site's re-use has a minimal impact on the surrounding residential areas;
- Provide visitor facilities and amenities including parking and walking tracks;
- Realise the potential for easy access including access for the disabled;
- Regenerate and expand the bushland so that the sense of a 'green' gateway to Sydney Harbour is reinforced;
- Enhance views to and from the precinct;



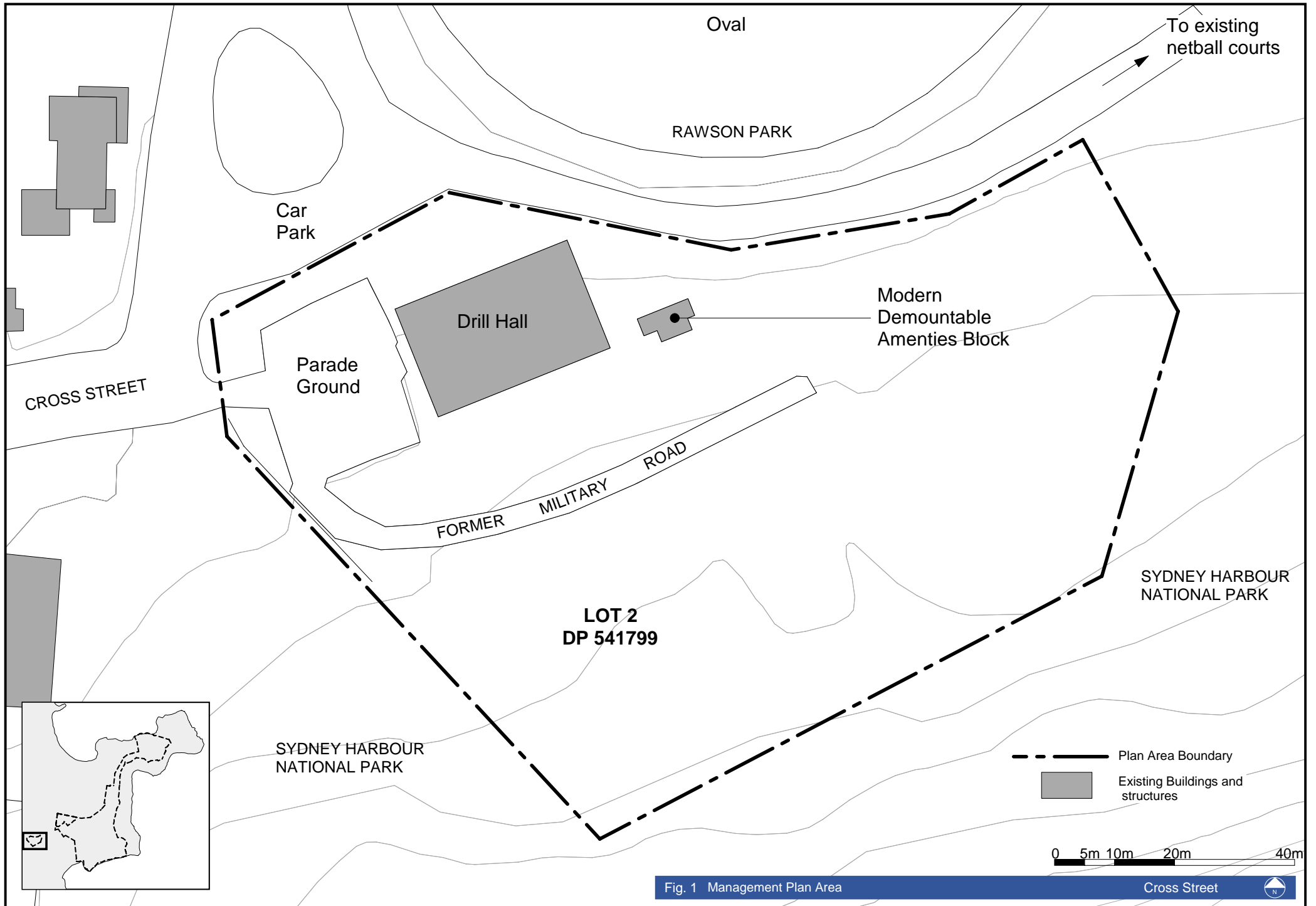


Fig. 1 Management Plan Area

Cross Street



- 
- Remediate site contamination and hazardous materials;
  - Protect adjacent bushland from the spread of *Phytophthora cinnamomi*;
  - Improve the quality of stormwater runoff; and
  - Apply the principles of Ecologically Sustainable Development (ESD).

## Relationship with the Trust's Comprehensive Plan

This Management Plan is the middle level of a three tiered comprehensive planning system developed to guide the future of the Trust's lands.

The other levels are:

- The Trust's Comprehensive Plan - this is an overarching plan that provides the strategic direction and planning context for all of the management plans; and
- Specific projects or *actions* - *actions* are defined in the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and are similar to the concept of *development* in the NSW planning legislation.

This Management Plan describes specific outcomes for the Mosman Drill Hall precinct. It interprets the Trust's Comprehensive Plan and guides its implementation by providing more explicit detail about the way the Drill Hall is adaptively reused and conserved, and how the site is used.

This Management Plan has to be interpreted in conjunction with the Trust's Comprehensive Plan, in particular the *Outcomes* identified in *Part 7* of the Trust's Comprehensive Plan and the *Objectives and Policies* in *Part 3*.

The *Outcomes* diagram in *Part 7* of the Trust's Comprehensive Plan for Middle Head, Georges Heights and Chowder Bay is reproduced at *Figure 2*.

The *Objectives and Policies* most relevant to this Management Plan are those relating to the conservation of cultural heritage and of the natural environment, access, the adaptive reuse of buildings, design approach, new buildings, transport management, water quality and catchment protection, bushcare, bushfire management, open space and recreation, sporting facilities, and contamination. These *Objectives and Policies* were addressed during the assessment of the site and are discussed in more detail in the relevant sections of this plan.

## Relationship with other Trust Management Plans

This Management Plan is the sixth to be prepared by the Trust for land within the Mosman Local Government Area. All of the Management Plans must be consistent with each other as well as any other plans for neighbouring lands.

## Related Policies and Guidelines

There are a number of overarching Policies and Guidelines foreshadowed in the Trust's Comprehensive Plan that will be developed over the lifetime of the Trust and that will also guide the development of the Headland Park. Current relevant policies are:



- 
- The Threat Abatement Plan for *Phytophthora cinnamomi* prepared by the Department of Environment and Heritage, 2002;
  - The Trust's draft Phytophthora Root-Rot Management Strategy and Best Practice Procedures for Bush Regeneration Activities;
  - The Trust's Leasing policy;
  - The Trust's Policy for the Leasing of Land and Buildings to Community Users; and
  - The Trust's draft Access policy.

This Management Plan has to be interpreted having regard for these policies.

## Relationship with the Headland Park Design Framework

There are six former Defence bases at Middle Head, Georges Heights and Chowder Bay. The transformation of these bases into a unified area of parkland requires consideration of all of the elements that make up the public domain. It also needs to satisfy expectations about public access to and enjoyment of the site, the conservation of its natural and cultural heritage and its integration with the harbour, the foreshore and the local neighbourhood.

The development of the design framework and the design treatment of each of its elements must be drawn from the heritage values and characteristics of the lands, rather than imposing an arbitrary new "design statement".

The design framework for the Headland Park is shown at *Figure 3*. It identifies all of the elements that make up the public domain, how they need to work together as a network of spaces and the principles that will guide their detailed design development within each of the Management Plan areas.

The elements of the public domain comprise:

- Precincts – areas with distinct characteristics by virtue of land uses or physical factors such as topography, building scale and form;
- Streets and Paths – the network of routes that provide access to and through the site for all modes – walking, cycling, public transport and private motor vehicles;
- Entries - to a precinct or significant public places;
- Significant Public Places – the destinations, the spaces used for gatherings, relaxation, ceremony or cultural or sporting activity;
- Landmarks – places, structures or natural features of public interest;
- Edges – the boundaries between precincts, the borders to parks and gardens, dramatic level changes, the interfaces between buildings and the public domain.

### Precincts

The terrain and its relationship to the harbour is the first and most fundamental consideration for all of these elements. It is the terrain that has given rise to the historic uses and it is its relationship to the harbour that makes these lands special.

The early fortifications located at the escarpment and the associated defence facilities on the knolls form identifiable precincts. These precincts include –





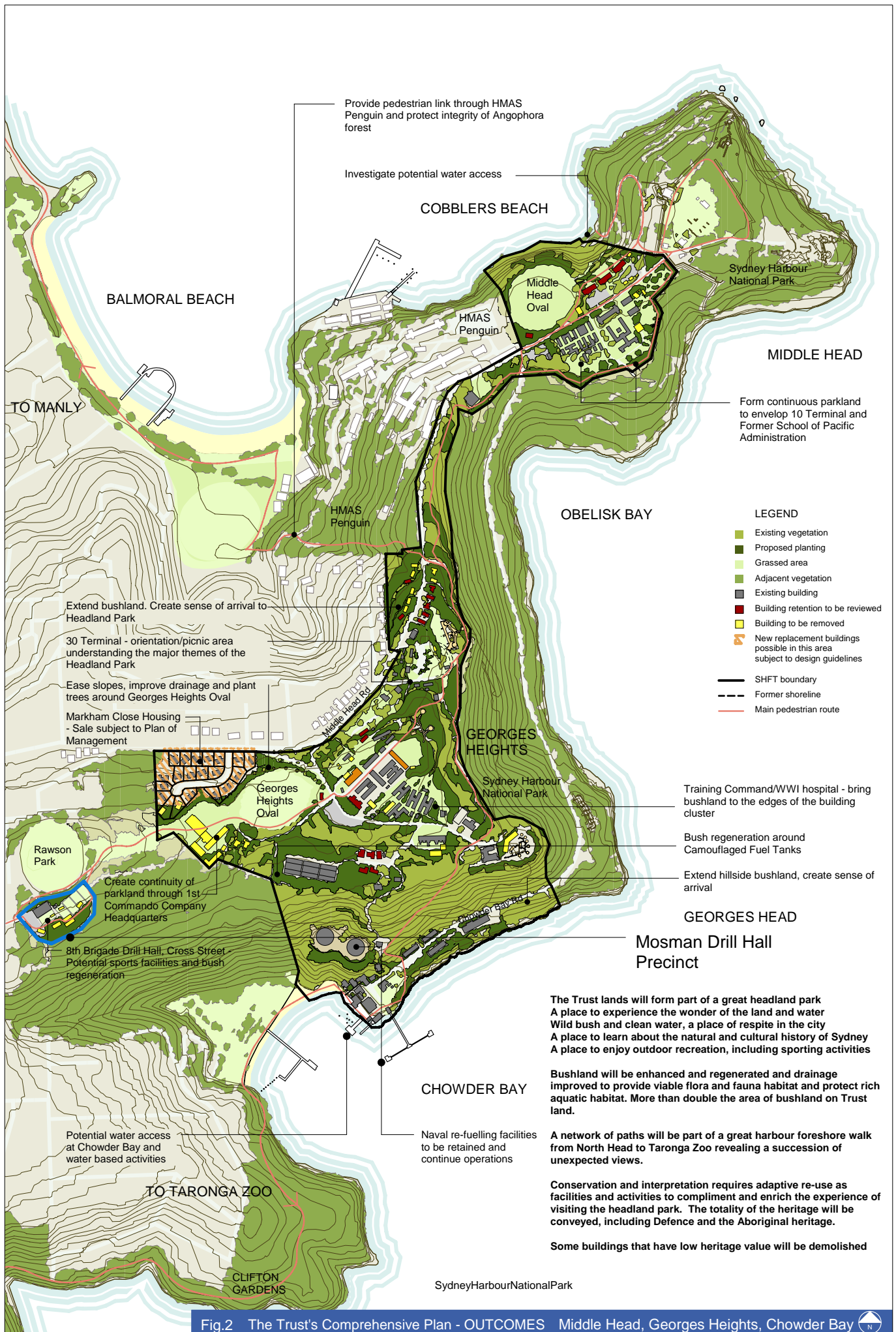
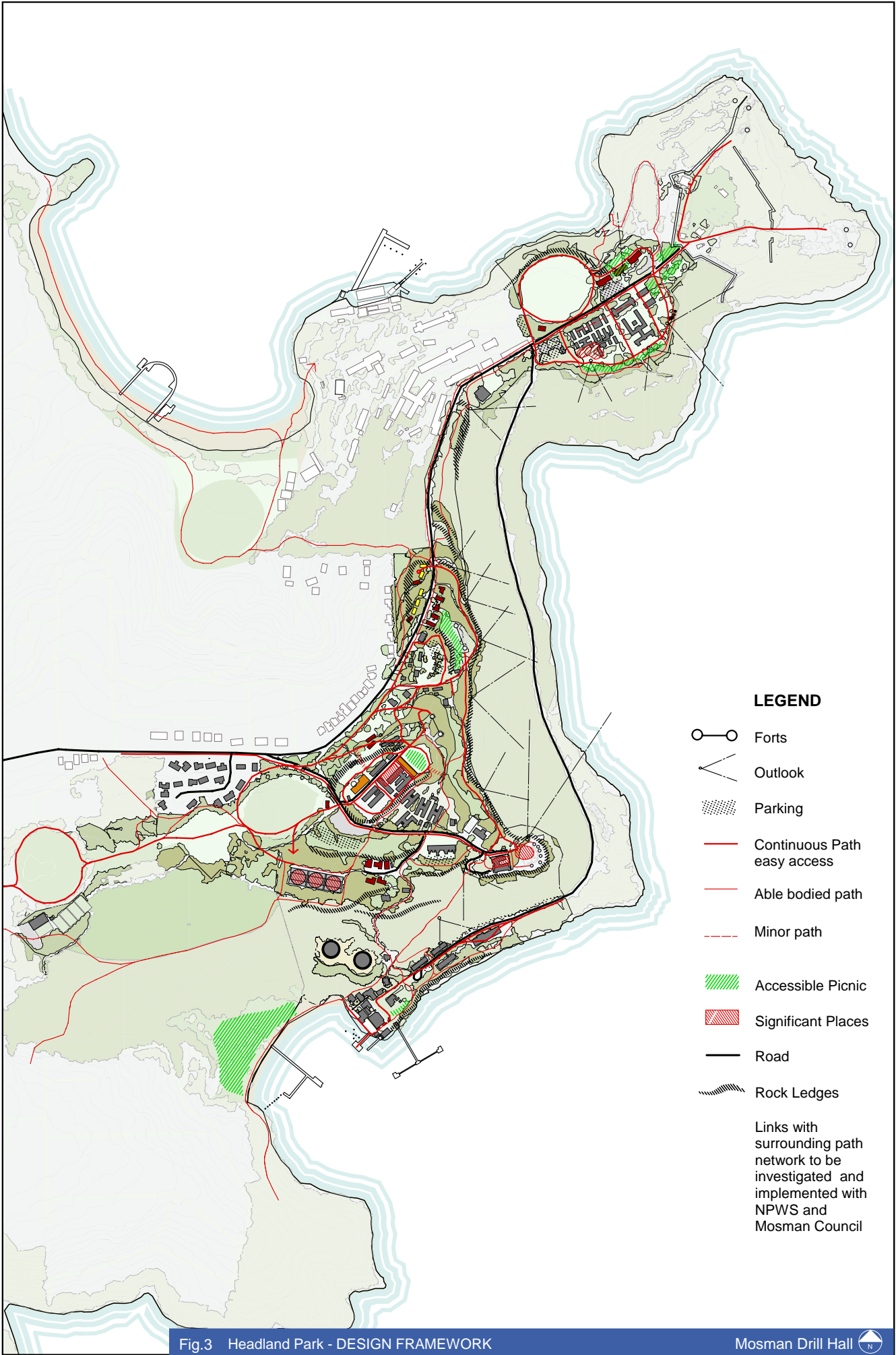












Fig.2 The Trust's Comprehensive Plan - OUTCOMES Middle Head, Georges Heights, Chowder Bay

Note: Buildings shown as yellow in the Mosman Drill Hall precinct were demolished in 2003



**LEGEND**

-  Forts
-  Outlook
-  Parking
-  Continuous Path easy access
-  Able bodied path
-  Minor path
-  Accessible Picnic
-  Significant Places
-  Road
-  Rock Ledges

Links with surrounding path network to be investigated and implemented with NPWS and Mosman Council

Fig.3 Headland Park - DESIGN FRAMEWORK



- 
- The Mosman Drill Hall and its parkland setting adjoining Rawson Park;
  - The former World War I Hospital precinct on the highest knoll at Georges Heights;
  - The former Gunners' Barracks (Officers' Mess) and fortifications at Georges Head;
  - The fortifications, sheds and barrack buildings at the spur terminating the Georges Heights plateau, before the ridge drops to Middle Head;
  - The Middle Head barracks; and
  - The cluster of buildings on the rock ledges at Chowder Bay.



**Figure 4:** 2002 – Front elevation of the Mosman Drill Hall, with part of the parade ground shown in the foreground. The hall was originally clad with corrugated iron that was fixed horizontally.

Generally, these precincts have an institutional - parkland character, with the buildings forming small-scale, civic spaces.

The open spaces on the saddles of the undulating plateau and the steep slopes also create distinct precincts. These include:

- The steep, wooded slopes below the escarpment;
- The plateau which is generally characterised by coastal heath and exposed rock ledges; and
- The institutional parkland areas of the former bases.

The Headland Park will form a succession of spaces from hill tops with a sense of openness and height above all the surrounding land – such as at the cairn at Rawson Park, through to more enclosed areas in the saddles and valleys and to places along escarpment edges. As the plateau narrows and winds towards the headland, these spatial experiences will vary – as the views into Middle Harbour unfold and gain equal prominence to the views to the outer harbour and the ocean.



---

The site forms a distinct parcel of land as it is separate from the Trust's other lands in Mosman and sits between the dense bushland of Sydney Harbour National Park and the formal open space of Rawson Park. This, combined with the site's relatively small area, and the simple coherence of the space it occupies, creates a clearly identifiable precinct within the Headland Park. This plan addresses the site's location between bushland and the sporting oval, by providing for a mix of bush regeneration and sporting facilities, in addition to the re-use of the Drill Hall. This is discussed further in the *Outcomes* section.

The parkland setting of the Drill Hall contributes to the appreciation of this significant heritage building and maintaining this character has been a central consideration in the planning for the site.

Avoidance of any adverse impacts on this harbour landscape is a particularly important objective of the design approach for this site. The natural setting of the site is to be protected and enhanced, and any new building must be designed to minimise its intrusion on the landscape, and the heritage values of the Drill Hall and its setting.

**Figure 5:** 2005 - Showing the former military road, the avenue of poplars and the precinct's park-like landscape.



Rawson Park, managed by Mosman Council, acts as a link between the site and the other Trust lands in Mosman. The Trust will work with Mosman Council and the NSW National Parks and Wildlife Service to achieve the vision of an integrated series of open spaces forming the Headland Park.

### Streets and Paths

The access network needs to provide clear and convenient access to and through the Headland Park. Each of the elements of the network will be designed to reflect its role and function, and the desire to create an unfolding sequence of experiences in response to the environment it passes through. The network consists of the following elements, as shown in *Figure 3*:



- 
- The approach roads adjoining and leading into the park – Middle Head Road, Chowder Bay Road and Suakin Drive;
  - Internal streets and laneways within each precinct (within the former bases);
  - A major pathway circuit that provides access for people with all levels of mobility and that links the significant public places, features and landmarks, the entry roads, car parks and local neighbourhood;
  - A minor pathway network providing more variety, intimacy and seclusion, and access for able-bodied walkers to limited areas within the bushland; and
  - The car parks and bus set down areas.

As a general principle cycling should not take place on walking paths, however cycling will be encouraged where it is safe and appropriate. To facilitate this, the Trust will consider designating some paths as shared pathways and providing a link with Mosman Council's bicycle path through Rawson Park which connects Balmoral Beach with Athol Wharf.

The Mosman Drill Hall precinct is located on the path of the former Military Reserve Road (the existing driveway), the route of which has been interpreted in the Trust's design approach. The driveway will be used as a pathway, connecting the site to the Rawson Park cairn, and then on to the Headland Park.

### Entries

It is proposed that there will be numerous “*Entry Points*” so that access opportunities are maximised and dispersed. This will accommodate people arriving from many different directions and by different modes of travel and will avoid concentrations of visitors.

Entries in the public domain will not usually be built structures. Rather, they will be spaces that serve as an entry and do not need to be given strong emphasis.

Given the location of the site at the westernmost point of the Headland Park, interpretative signage will be provided to assist visitors in their orientation and appreciation of the Headland Park as a whole.

### Significant Public Places

The Headland Park will have a range of public spaces offering a diversity of activities. These will include:

- Passive recreational areas for picnics and social relaxation;
- Areas for community sporting activities;
- Places of contemplation within a bushland setting or on the escarpment with spectacular views; and
- Small civic spaces defined by former defence buildings for community gatherings or simply watching the passers by.

They will form a series of experiences connected by the main pathway network. All of these spaces are located and chosen to enhance an understanding and appreciation of the natural environment and the succession of historical uses.

The understanding of the role that the Drill Hall played in the nation's defence will be conveyed through the adaptive reuse of the building and preservation of its setting, and



---

by establishing a path linking the site to the Trust's other former defence sites in Mosman. The Parade Ground in front of the Drill Hall will retain its open character and dimensions.

### Landmarks

Within each of the precincts, there are significant features that relate to the history or the natural beauty of the place. They are often beautiful or unusual structures, buildings or natural features that provide the focus in public places or points of interest along the way. The setting of these features will be designed to assist in a greater understanding and appreciation of their significance and the Headland Park as a whole.

The Drill Hall is the focal point of the precinct. The building will be conserved and adaptively reused, and its setting preserved.

### Edges

The precinct has three distinct edges formed by its interface with the Sydney Harbour National Park, Rawson Park Oval, and residences in Cross Street. With respect to the Sydney Harbour National Park, the primary consideration is the protection and enhancement of the downslope bushland by effective stormwater management and bush regeneration.

Revegetating the southern edge of the precinct will reinforce the relationship with the adjoining National Park, while the proposed training courts address the sporting use of Rawson Park. The new sports building will be designed to reference the Rawson Park grandstand, and its height minimised to reduce its visual intrusiveness.

It is proposed that the active uses within the precinct be located towards the eastern end of the precinct. This is to respect the Drill Hall's setting and to minimise visual and noise intrusion on nearby residents.

## **Statutory Planning Context**

### Commonwealth Legislation

All 'actions' on Trust land, undertaken by either the Trust or on behalf of the Trust, are controlled by the *Environment Protection and Biodiversity Conservation (EPBC) Act, 1999* as amended.

Section 26 of the EPBC Act protects all aspects of the environment on Trust land from actions taken either on the Trust's land or on adjoining land that may have a significant impact on it, while Section 28 protects the environment from any actions of the Trust, that may have a significant impact. The environment is defined to include:

- (a) ecosystems and their constituent parts, including people and communities; and
- (b) natural and physical resources; and
- (c) the qualities and characteristics of locations, places and areas; and
- (d) heritage values of places; and
- (e) the social, economic and cultural aspects of the matters mentioned in (a), (b) or (c) above



---

Section 341ZC of the Act requires the Trust to have regard for the Commonwealth Heritage values of a place before it takes an action and to minimise the impact that the action might have on those values. The *Commonwealth Heritage Values* section of this Plan describes the values of the site.

Section 341ZD of the Act requires the Trust to seek the advice of the Minister for Environment and Heritage before it takes an action that has, will have or is likely to have a significant impact on a Commonwealth Heritage Place.

### State Legislation

The *Sydney Harbour Federation Trust Act, 2001* specifically excludes any land owned by the Trust from the operations of state planning law. This includes State Policies (SEPPs) and Regional Environmental Plans (REPs) prepared by the State Government and Local Environmental Plans (LEPs) prepared by councils.

Notwithstanding this the Trust has prepared this plan so that it is consistent with both State and local plans. The relevant statutory plans are:

### Sydney Regional Environmental Plan No. 32 Sydney Harbour Catchment

This SREP applies to the whole of Sydney Harbour's waterways, the foreshores and entire harbour catchment. It provides a framework for future planning, development and management of the waterway, heritage items, islands, wetland protection areas and foreshores of Sydney Harbour. Under the SREP, the Mosman Drill Hall Precinct is included in the catchment area of Sydney Harbour. The planning principles of the SREP relevant to the site include:

- the appreciation of the role of Sydney Harbour in the history of the Aboriginal and European settlement,
- the recognition and conservation of the heritage significance of particular heritage items in and around Sydney Harbour,
- the conservation of the significant fabric, settings, relics and views associated with the heritage significance of heritage items, and
- development that is visible from the waterways or foreshores is to maintain, protect and enhance the unique visual qualities of Sydney Harbour.

### Mosman Local Environmental Plan 1998

The Mosman Drill Hall precinct is located within the Mosman Local Government Area. As the Mosman Drill Hall precinct is a 'deferred matter' under Mosman LEP 1998, Mosman LEP No.1, 1982, continues to apply. Under LEP No.1, 1982, the site is zoned for 'Defence' purposes.

## **Non Statutory Planning Strategies**

### Sharing Sydney Harbour Access Plan

The Sharing Sydney Harbour Access Plan (SSHAP) identifies a network of new and improved public access ways for pedestrians and cyclists, and waterway facilities for recreational watercraft.



---

The Mosman Drill Hall precinct is not specifically addressed under the SSHAP, however Mosman Council has received funding under the SSHAP to provide a cycleway linking Taronga Zoo Wharf with Balmoral Beach. The proposed route of this cycleway passes through Rawson Park in close proximity to the Mosman Drill Hall precinct.

#### Mosman Bicycle Strategy 2005-2010

Mosman Council recently adopted a Bicycle Strategy that identifies possibilities for linking the site with Council's cycling network.

### **Plans Prepared for Neighbouring Lands**

Plans and policies prepared by neighbouring land managers provide a context for this Management Plan. The following are particularly relevant.

#### Sydney Harbour National Park Management Plan

The Mosman Drill Hall precinct adjoins the Sydney Harbour National Park. The National Parks and Wildlife Service (NPWS) has prepared a Management Plan that applies to the whole of the Sydney Harbour National Park including Middle Head and Georges Head.

The Management Plan outlines general and specific objectives for the National Park with the overall strategy for the Park being the protection, and where necessary, restoration of the Park's natural vegetation, and the maintenance and adaptive reuse of important historic places.

High priority projects, that are relevant to the Trust's Headland Park, include the preparation of a weed control program, feral animal management at Middle Head and the preparation of a fire management plan.

#### Plan of Management for Rawson Park and Surrounds, 2001

The precinct adjoins the southwestern edge of Rawson Park. In 2001 Mosman Council commissioned Gutteridge Haskins and Davey Pty Ltd to prepare a plan of management for Rawson Park and Surrounds.

The Rawson Park plan of management recognises the need to successfully combine the varied recreational and community uses with the opportunity to appreciate the environmental, cultural and historic values of the park. Community consultation established that major changes in the management and use of the park were undesirable and that future uses should be determined in accordance with the heritage significance of Rawson Park.

The Rawson Park plan identifies the Mosman Drill Hall precinct as a possible location for complementary recreation facilities such as an improved netball facility. The plan also states that if alternative facilities are developed, the existing netball courts in Rawson Park should be removed and rehabilitated in accordance with a detailed landscape master plan.

#### Plans made under the *Rural Fires Act 1997*

There are two sub-plans of the NSW State Bush Fire Plan made under the *Rural Fires Act 1997* that apply to the Mosman local government area, including the Harbour Trust's





---

land and the adjoining Sydney Harbour National Park. The *Manly - Mosman District Bush Fire Management Plan 2000* deals with strategies to minimise bush fire risk such as hazard reduction. The *Manly - Mosman Bush Fire Operations Plan 2003* deals with the operational and management issues. Evacuation routes are determined under Local Emergency Disaster Plans.

The NSW National Parks and Wildlife Service has prepared a Fire Management Plan (FMP) for Sydney Harbour and Botany Bay National Parks. The aims of the FMP include the protection of life and property, coordination of fire management with other agencies, and management of fire regimes.

There is also a Bush Fire Prone Land Map prepared under Section 146(2) of the *Environmental Planning and Assessment Act 1979* (EP&A Act) that was approved by the NSW Rural Fire Service in 2003. This map identifies the site as a vegetation buffer zone, surrounded by areas of bush fire prone vegetation. Particular developments proposed on bush fire prone lands can trigger the need to conform to the requirements of *Planning for Bushfire Protection 2001* guidelines under the EP&A Act.

The Trust has completed an assessment of bushfire risk for its sites at Middle Head, Georges Heights and Chowder Bay and this assessment informed the preparation of this management plan. The Trust will also cooperate with other agencies in the implementation of plans prepared under the *Rural Fires Act 1997*.

## Site Description

The Mosman Drill Hall Precinct is approximately 1ha and is located on the ridge of Middle Head, one of the three headlands that define the entrance to Sydney Harbour. The site sits directly upslope from Chowder Bay and is positioned at the end of Cross Street, Mosman, a no-through residential street that provides the only vehicular access to the site.

The site contains two buildings: the historically significant Mosman Drill Hall and a relatively recent demountable amenities block. A number of demountable military buildings were removed by Defence in 2003. The former Parade Ground is located in front of the Drill Hall and a central roadway follows the alignment of the former military road. The site also contains remnant features such as the stone buttressed grease pit, stone retaining wall, building foundations and cultural plantings.

The site has an open grassed landscape interspersed with trees that includes an avenue of poplars lining the former military road. Its elevated position offers views across to the southern side of the harbour.

## Surrounding Lands

The site is at the westernmost point of the proposed Headland Park, and as such will form one of the entry points for pedestrians and cyclists.



---

To the immediate north is Rawson Park, which contains popular local sporting facilities. The key features of the Park are its sports oval and spectator pavilion; six lawn netball courts; the Scotland-Australia cairn; and a 37-space car park.

Sydney Harbour National Park encloses the southern half of the site, which acts to significantly screen the site from the harbour and forms an impressive bushland backdrop to the land.

The site is situated close to residences on Cross Street. The potential impacts of increased traffic visiting the site and noise and light impacts have been considered and are addressed in this Management Plan.

## **Site Analysis**

### Heritage Conservation

The Mosman Drill Hall precinct is recognised as being of great heritage significance. Its significance is derived from its:

- Role in the Harbour Defence system since 1871, when part of the Military Road connecting Bradleys Head and Middle Head was constructed on the northern edge of the site (and subsequently re-routed through the site); and
- Possession of one of the earliest Commonwealth Drill Halls erected in NSW to enable the military training of the Citizens' Military Forces.

### **Aboriginal Heritage**

In June 2004 the Sydney Harbour Federation Trust commissioned the Australian Museum to carry out an Archaeological Survey of Sydney Harbour Federation Trust Land at Middle Head, Georges Heights and Chowder Bay.

The results for the Mosman Drill Hall precinct showed no Aboriginal sites or objects on the surface and that the disturbance to the site made it highly unlikely that any Aboriginal material was present. The report recommends that no further survey work is necessary or warranted. However, due to the possible existence of sub-surface remains, where future earthworks occur, monitoring and detailed recording should be conducted by a qualified archaeologist.

### **European Occupation**

The Mosman Drill Hall Precinct was dedicated for defence purposes as part of the larger Middle Head and Georges Heights defence site, which was strategically placed to defend the approaches to Sydney Harbour. The military road that originally defined the northern edge of the precinct, allowing heavy artillery to be transported to Middle Head and Georges Heights, was completed in 1871.

#### **1884-1914**

The Mosman Drill Hall was erected in 1913 as one of five new Drill Halls in Sydney, and was one of the earliest erected in NSW by the Commonwealth Government to enable the military training of the Citizens Forces.

In 1913, the Drill Hall was erected adjacent to the original military road alignment. A separate ablutions block was erected to the east of the Drill Hall in early 1914. The early



---

military use of the building is unclear as is the use of the site for drill purposes, although everything appears to have been completed for use by August 1914, when war was declared.

### **1914–1918**

Drill Halls were an important part of the mobilization of troops as well as for recruitment and the training of militia, permanent troops and volunteer forces. Little is known of the physical changes, functions or historical associations during this period.

### **1918-1939**

Following the end of World War 1 in 1918, drill halls were classified as part of the Commonwealth property, for possible disposal or leasing. The Mosman Drill Hall was included in 1923 as part of the review of Army property. A specification for general repairs was prepared by 1924, indicating that the Mosman Drill Hall was to be retained by the Department of Defence.

Rawson Park Oval was developed by council in 1926 and this is thought to have led to the rerouting of the military road from the north of the Drill Hall site to the south of the Drill Hall (along the existing roadway through the precinct).

### **1939-1945**

By mid 1939 the Mosman Drill Hall precinct was occupied by the 17<sup>th</sup> Infantry Battalion. In May 1941 the recently formed 62 Searchlight Company based its main headquarters at the site.



**Figure 6:**  
*c1940s - The Mosman Detachment of the Australian Electrical and Mechanical Engineers (AEME) on parade in front of the Mosman Drill Hall.*

In 1942 nine tents and a corrugated galvanized iron shed (possibly a mess hall) were located below the road to the southeast of the Drill Hall. These were later replaced with three timber framed, corrugated galvanized iron clad P-type standard design huts.

A small corrugated galvanized iron shed was erected near the southeast corner of the Drill Hall. At the southwest corner of the Drill Hall a stone retaining wall was erected to increase the area available at the entrance to the site.



---

### 1945-Present

Following WW2 the Mosman Drill Hall precinct was home to a number of units. Between 1955 – 1960 the site was the base for the First Air Support Signal Unit. From 1960 the 17<sup>th</sup> Battalion training depot was located here before the precinct became the Headquarters 8<sup>th</sup> (Infantry) Brigade in 1982.



**Figure 7:** 1988 – Mosman Drill Hall, HQ 8<sup>th</sup> (Infantry) Brigade. Recruit induction and instructor evaluation.

Developments in the early post war years included the construction of a fourth corrugated galvanized iron-clad hut. In the 1960s the mess hall and ablutions block were removed and the Drill Hall was re-clad with vertically mounted Spandeck profile galvanized steel sheeting. The floor of the Drill Hall was concreted for vehicular use, and several small rooms were erected in the hall, including a kitchen, at unknown dates. A large metal-clad shed was constructed on the level area to the north of the building in 1996 and used as an armory for storage of Styer weaponry. Between October and December 1998 the HQ 8<sup>th</sup> Infantry Brigade vacated the Drill Hall and relocated to Timor Barracks, Dundas, which offered newer buildings and more efficient operational facilities.

### Heritage Listings

The Mosman Drill Hall precinct is listed as “The Headquarters 8th Brigade Precinct”, Historic Place No.105574 on the Commonwealth Heritage List (Place File No. 1/13/026/0031) and Historic Place No. 103292 on the Register of the National Estate. A Summary Statement of Significance for the Headquarters 8th Brigade Precinct is on the Australian Heritage Database – [www.deh.gov.au](http://www.deh.gov.au)

The site is also listed as part of the Middle Head and Georges Heights defence site listed on the *Commonwealth Heritage List* as Historic Place No. 105541 and on the Register of the National Estate as Historic Place No. 102619.

As of January 1<sup>st</sup> 2004, changes to the Commonwealth heritage legislation mean that the EPBC Act now regulates all actions relating to Commonwealth Heritage Places.



---

These controls are described in the section of the plan dealing with the Statutory Planning Context.

The Mosman Drill Hall precinct is also listed on Schedule 1 of Mosman LEP 1998 (Amendment No.1) - Heritage Conservation.



**Figure 8:**  
1990 - HQ 8<sup>th</sup>  
(Infantry) Brigade at  
the Mosman Drill Hall  
site preparing for  
'Exercise Silent  
Shadow'. At the time  
this photograph was  
taken, the 1930  
Military road deviation  
was unsealed. The  
building to the right is  
one of the WW2  
P-type huts that were  
demolished in 2003.

### **Conservation Management Plan**

In February 2005 a Conservation Management Plan (CMP) was prepared by Simpson Dawbin Architects and Heritage Consultants. The CMP identifies items of significance (see *Figure 9*) and provides a set of policies and recommendations to guide future development of the Drill Hall and the precinct, which are summarised below:

#### *Conservation and Upgrading:*

- All elements of high significance should be preserved and / or restored
- All elements of some significance should be preserved / restored / reconstructed or adapted within the new site design.
- Intrusive elements (such as the modern demountable amenities block) should be removed.
- The Drill Hall should be upgraded to meet current standards of OH&S with respect to public access, staff amenities and services whilst causing minimal impact on identified significant elements of the building.

#### *Setting and Boundaries:*

- Development within the immediate vicinity of the Drill Hall that may adversely impact upon the significance of the site is to be restricted.

#### *Compatible Uses:*

- The primary use of the Drill Hall should be a sporting or recreational facility that does not subdivide or detract from the existing interior space.





**A EXTERNAL ITEMS**

- A1 Parade Ground
- A2 Kerbs and Gutters
- A3 Driveway
- A4 Flagpole tabernacle
- A5 Embankment
- A6 Stone Bank
- A7 Stone retaining wall to north boundary
- A8 Pathway to north doors
- A9 Concrete slab (1996 armoury)
- A10 Stone buttressed wall (grease pit)
- A11 Pit
- A12 Paths
- A13 Mound to south of Drill Hall
- A14 Stone Step (to old map room)
- A15 Demountable ablutions
- A16 Ramped access to east door
- A17 Dish drain to east and north of Drill Hall
- A18 Fire hydrant stand pipe south of Drill Hall
- A19 Concrete base
- A20 Elevated mound (Former BBQ area)
- A21 Stone base
- A22 Formation of former military road
- A23 Entry Signage

**B LANDSCAPE ELEMENTS**

- B1 Group of Oleanders south of parade ground
- B2 Oleander front of building
- B3 Oleander rear of building
- B4 Brush box to east of building
- B5 Poplars to north boundary
- B6 Avenue of Poplars to driveway
- B7 Eucalyptus south of driveway
- B8 Radiata pines, north boundary
- B9 Palms to south of Drill Hall

- |   |   |
|---|---|
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #C85130; border: 1px solid black;"></span> High Significance | <span style="display: inline-block; width: 15px; height: 15px; background-color: #4CAF50; border: 1px solid black;"></span> Little Significance |
| <span style="display: inline-block; width: 15px; height: 15px; background-color: #FFEB3B; border: 1px solid black;"></span> Some Significance | <span style="display: inline-block; width: 15px; height: 15px; background-color: #C8E6C9; border: 1px solid black;"></span> Intrusive           |



Fig. 9 Cultural Heritage Analysis



- 
- Alterations or additions to the exterior of the Drill Hall should not compromise the integrity or form of the building.

*Access and Security:*

- The parade ground is suitable for use as the primary parking area, while the area to the south of the Drill Hall may be used for overflow parking.
- Disabled access should be provided to the Drill Hall.
- Effective security lighting should be provided.

*Services and Amenities:*

- Existing services should be recorded prior to removal.
- New facilities such as toilets, washrooms and kitchen facilities should not adversely impact the heritage significance of the site or Drill Hall.
- New amenities should be located within the annexed section of the Drill Hall or in a purpose designed building located separately to the Drill Hall, and which has minimal impact on the Drill Hall or precinct.

*Landscape:*

- Retain the military character of the precinct within the vicinity of the Drill Hall.
- Use of low maintenance materials.

*Interpretation:*

- Interpretative elements should be incorporated into the site to ensure that the significance of the site and the Drill Hall is evident to future users
- The interpretation strategy is to be integrated with other related sites at Georges Heights and Middle Head.



**Figure 10:** 1992 - HQ 8<sup>th</sup> (Infantry) Brigade, Regimental 'Dining-in night' at the Fromelles Club. The Fromelles Club was located in one of the three WW2 P-type huts sited in the grounds of the Mosman Drill Hall. It was demolished in 2003.



---

## Archaeological Assessments

The Simpson Dawbin Conservation Management Plan identifies several items with potential for archaeological investigation. These include the:

- Stone Buttressed Wall (grease pit and ramps)
- Bank to south of Parade Ground
- Mound to the south of Drill Hall
- Pits, footings and steps in the area of former buildings.

The Trust is not considering undertaking any exploratory archaeological excavation at this stage, however, ground disturbance in the areas identified as having archaeological sensitivity must be undertaken in accordance with the archaeological principles outlined in the NSW Heritage Office Archaeological Guidelines.

## Landscape Character

The extent of open lawn, the institutional Drill Hall building, parade ground, and perimeter security fencing is characteristic of a military site. The Drill Hall is a dominant feature of the site, especially when viewed from Cross Street. Remnant elements such as former building pads and walls and the avenue of mature Poplars are unique landscape elements that give a visual link to the past history and uses - see *Figure 11*. Its setting on the ridgeline of Middle Head, with its proximity to Rawson Park Oval and the National Park lends a unique and special ambience to the site. Materials used within the Drill Hall and the landscape are simple, such as stone, asphalt and corrugated steel.

## Bush Land and Natural Values

The Mosman Drill Hall Precinct retains very few natural values due to a long history of modification and disturbance. The entire site is grassed, with the exception of the bitumen parade ground and driveway and various small concrete paths around the Drill Hall and Amenities Block.

Within the site itself are a variety of introduced and native species, most notably a distinctive avenue of *Populus nigra* along the driveway, several healthy specimens of *Lophostemon confertus*, a grove of *Pinus sp.* and several large *Eucalyptus smithii* specimens - see *Figure 11*. The *Populus nigra* and *Pinus sp.* are identified as having some heritage significance. None of the species identified within the site are classified as endangered. The Trust is mindful of the site's proximity to the neighbouring National Park and the natural values it contains.

In April 2003 the Sydney Harbour Federation Trust commissioned Conacher Travers Environmental Consultants to conduct a Flora Study of Sydney Harbour Federation Trust's land and Sydney Harbour National Park at Middle Head / Georges Heights. The study area did not cover the Mosman Drill Hall precinct or that part of the National Park directly adjoining the site. However the survey did look at bushland to the south of the former No.1 Commando Complex which is likely to be of a very similar composition to that found in the vicinity of the site.

The bushland found here is predominantly Kunza / Monotoca / Allocasurina distyla / Banksia integrifolia Closed Scrub. The structure is of closed scrub with a canopy cover of 80% and a height ranging from 6-8m where Allocasurina dominate to 5-12m where





**LEGEND**

- Tree in good condition
- Tree in average condition
- Tree in poor condition
- Shrub
- Grassed embankment
- Sandstone retaining wall
- Perimeter chainwire fence
- Vehicular/pedestrian path
- Informal pedestrian path
- Vehicular access point

**TREE SPECIES**

- 1 Lophostemon confertus
- 2 Ficus hillii
- 3 Populus nigra
- 4 Eucalyptus smithii
- 5 Pinus sp.
- 6 Eucalyptus nicholi
- 7 Populus deltoides
- 8 Erythrina sp.



Fig. 11 Landscape Analysis

---

Angophora dominates as the canopy species. Exotic weed invasion is highest along margins surrounding disturbed areas.

In May 2001 the Sydney Harbour Federation Trust commissioned Conacher Travers Environmental Consultants to conduct a Fauna Study of similar areas covered in the subsequent Middle Head / Georges Heights Flora Study. While the study did not directly cover the bushland to the south of the site, there were a number of findings and recommendations that would very likely apply to this area. The management options that were proposed to enhance fauna habitat in the area included:

- Investigation of an appropriate fire regime for the area with an inter-fire interval of 6-7 years;
- Management of the hydrology to reduce the amount of disturbance and pollution of drainage lines on and leading into the bushland areas;
- Construction of nest boxes due to lack of available hollows for species such as Powerful Owls and Glossy Black Cockatoos;
- Regenerating native bush on the site; and
- Instigate exclusion and trapping programs for feral animals such as foxes, rabbits and feral cats.

#### Phytophthora cinnamomi

Dieback related to the root-rot fungus *Phytophthora cinnamomi* has been listed as a key threatening process under the *Environment Protection and Biodiversity Conservation Act 1999* and Department of Environment and Heritage has prepared a *Threat Abatement Plan* to guide actions by Commonwealth agencies to prevent the spread of this disease and to limit its effects on vulnerable or endangered native species.

Sampling and analysis carried out on Trust and National Park lands at Georges Heights and Middle Head have confirmed the presence of *Phytophthora cinnamomi* in this landscape. As such, it is possible that the pathogen is present in the precinct although no site specific sampling has been carried out to date. Should *Phytophthora* be present, the presence of well maintained vegetation (grass) cover will adequately limit any potential spread of the pathogen that may occur due to erosion or foot contact.

However, in accordance with its *Phytophthora Management Strategy*, site specific testing will be carried out prior to disturbance of the site for site development. Results of this testing will be used to develop a site-specific risk based management strategy to minimise the introduction or spread of *Phytophthora* at the precinct.

#### Bushfire Risk

A draft Bushfire Management Plan (BMP) was produced by Conacher Travers Environmental Consultants in January 2004 to describe the strategies by which the Sydney Harbour Federation Trust can meet its fire management obligations in Middle Head / Georges Heights.

In relation to the Mosman Drill Hall precinct, the main findings of the BMP were that a 2 - 4m asset protection zone is to be maintained around the perimeter of the site to protect the chain wire fence and to protect occupants, visitors, capital assets, cultural and natural heritage assets and adjoining property from bush fires and fire suppression



---

activities. Acceptable fuel management methods for this zone include slashing, mowing and selective fine fuel removal. However, the BMP does not cover future proposals and states that these changes will need to be assessed on a site-by-site basis.

The future site design involves the removal of the chain wire fence and the possible installation of new facilities such as outdoor sports courts and an indoor sports building. The regeneration of new areas of bushland adjacent to the existing National Park is also to form part of the new works. These new works will have implications from a bushfire risk management viewpoint. Appropriate measures, such as implementing fuel-reduction strategies, will be put in place to manage the risk of bushfire reaching the precinct and adjoining lands.

The Trust will engage specialist consultants to undertake a review of the BMP which will provide updated recommendations that are more specifically tailored to the proposed future use of the precinct.

### Stormwater

Stormwater management at the site is particularly important due to its proximity to Sydney Harbour National Park.

In 2004, Storm Consulting Pty Ltd prepared a stormwater management plan for the Georges Heights, Chowder Bay and Middle Head areas. The purpose of this was to identify the stormwater issues on the sites, and to establish objectives and a plan of implementation for stormwater management practices to deal with these issues. The main objectives set out in the stormwater plan are to protect and enhance the existing environment by means of water sensitive design principles such as source controls, conveyance controls and discharge controls.

The use of the Mosman Drill Hall precinct for military purposes has had significant impacts on the site hydrology and pollution levels: these issues will need to be addressed within any future development of the site.

At present, some of the stormwater runoff from Cross Street and Rawson Park drains through and across the precinct before discharging through a number of outlets to Sydney Harbour National Park. This runoff could contain potential pollutants such as litter, sediment, heavy metals, hydrocarbons, and nutrients from fertilisers and organic matter. The results of this drainage flow through the site and into the National Park are evident with a large amount of weed growth occurring along the precinct's southern boundary. See *Figure 12*.

The Stormwater Management Plan suggests that the following measures be incorporated into any future design for the site:

- Rainwater collection devices for roof runoff be installed for the Drill Hall and be incorporated into any future buildings;
- Natural drains and bioremediation trenches be introduced; and
- Control of discharge into the National Park, including consolidation of drainage to one outlet by diversion of all stormwater to a single infiltration / treatment area.

The site of the existing lawn netball courts at Rawson Park is affected by poor drainage. The relocation of the courts to the Mosman Drill Hall precinct is contingent upon the







**LEGEND**

- Priority rainwater collection
- Existing drainage lines
- ➔ Existing stormwater flows from site
- - - - - Recommended natural drain/bioremediation trench
- Recommended infiltration trench
- ▶ Stormwater runoff

Fig. 12 Stormwater Considerations

---

site's rehabilitation and integration with the adjoining bushland and the proposed ridge-top park linking Rawson Park and Georges Heights.

### Site Contamination

In 1999, PPK – Environment and Infrastructure, was engaged to conduct a two-stage contamination assessment and geotechnical study of Defence lands to be transferred to the Trust, including the Mosman Drill Hall precinct. The purpose of this assessment was to provide information regarding contamination on the lands so that the potential uses and initial requirements and costs for remediation could be determined.

The site's Defence use was generally limited to training, administration, minor vehicle maintenance and fuel and chemical storage. Based on these uses, PPK identified the following potential sources of contamination:

- A small pad near the south-western boundary of the site was used for vehicle servicing, greasing and lubrication. Potential contaminants associated with this activity are petroleum hydrocarbons, Polycyclic Aromatic Hydrocarbons (PAHs) and heavy metals.
- A former incinerator located at the north-eastern corner of the site may have provided ash or other wastes that were subsequently disposed to land. Potential contaminants include PAHs, heavy metals, petroleum hydrocarbons, or other unknown chemicals.
- The garden shed that was formerly located to the north of the Drill Hall was used to store fuels, oils, paints and solvents. Potential contaminants are petroleum hydrocarbons, PAHs, heavy metals and Volatile Halogenated Compounds (VHCs).
- Fill that may have been brought and placed on the site could potentially contain contaminants including heavy metals, PAHs, petroleum hydrocarbons, PCBs, asbestos or other unknown chemicals.
- Existing or former building footprints, where pesticides may have been used for termite control, or where lead paint or asbestos building materials may have discharged to soils. Potential contaminants are pesticides, lead and asbestos.

Sampling and analysis carried out by PPK confirmed elevated concentrations of PAHs and metals (arsenic, cadmium, lead and zinc) in soils, exceeding EPA-endorsed guidelines. Metals marginally exceeded guidelines, indicating potential toxicity to plants. PAHs exceeded soil quality guidelines applicable for use of the site as 'parklands and open space' and may require remediation prior to the site's use for these purposes. PPK recommended that this comprise of removal and disposal of the identified 'PAH hotspots'. The report also recommended that further investigation and validation be carried out beneath structures that are demolished or removed.

In 2003, Defence carried out works on the site which consisted of:

- Removal of demountable buildings;
- Excavation and offsite disposal of surface soils containing building rubble and debris within the footprints of these buildings, and restoration of these areas with clean imported topsoil and re-turfing;



- 
- Excavation and disposal of fill within the retaining walls of the vehicle servicing area;
  - Removal of office partitioning within the Drill Hall; and
  - Removal and disposal of minor rubbish and wastes on the site.

In July 2004 the Trust commissioned a non-statutory audit of the precinct under the *Contaminated Land Management Act 1997*. The audit, undertaken by Environ Australia provides an independent review of what investigation or remediation remains necessary before the land is suitable for parkland/ open space use. In summary:

- The auditor agreed that where buildings are demolished or removed, investigation and validation for potential contaminants is to be carried out within the building footprints.
- The auditor considered that the 'hot spot' removal strategy proposed by PPK was not an appropriate remedial approach, due to the limited PAH data. It was recommended that further assessment of soils containing elevated PAHs be carried out to adequately characterise their nature and extent, and remediation if necessary based on these results.

A hazardous materials (asbestos and lead paint) audit of buildings was also recommended, however this was carried out in 2002, as discussed in the following section.

In response to the audit, in 2006 the Trust commissioned URS Australia Pty Ltd to undertake a Supplementary (Phase II) Environmental Site Assessment that documents the requirement and scope for remediation.

### Hazardous Materials

In June 2002, Hibbs & Associates carried out a hazardous materials survey of buildings and structures remaining within the precinct. For the purposes of this survey, 'hazardous materials' included asbestos products, synthetic mineral fibre (SMF) materials, lead based paint systems, electrical components containing the class of compounds known as polychlorinated biphenyls (PCBs) and stored dangerous goods and chemicals.

This survey identified:

- Asbestos cement materials present in many locations of the then existing buildings, including the Drill Hall. Generally, the identified asbestos materials were noted to be in a stable condition and do not present a significant asbestos related health risk.
- Synthetic Mineral Fibre (SMF) batt insulation beneath the metal roofs of the former demountable buildings.
- PCB capacitors in the light fittings in the Drill Hall.
- Lead based paint systems in a number of localised areas of most buildings, most notably on external timberwork. These paint films were noted to show signs of peeling and deterioration.

Asbestos and SMF materials associated with and underneath the former demountable buildings were removed when the Department of Defence demolished these buildings in 2003.



---

## Services

In March 2002 PPK Consulting undertook a detailed survey in order to establish the extent and condition of site services. The study looked at water, fire services, electricity, telecommunications, sewerage, stormwater, gas and fuel services.

Site services were generally adequate and only several minor upgrades were recommended. However, further examination may be required if an indoor sports facility is provided on the site.

## Compliance with the Building Code of Australia

Given the uncertainty regarding the specific future use of the Drill Hall, an assessment to determine the need and consequently the nature and extent of works necessary to achieve compliance with the Building Code of Australia (BCA) has not been undertaken.

Compliance with BCA will be addressed when a use for the hall is determined, taking into account the requirements of the end user.

## Transport Management

In 2003 the Trust commissioned Maunsell Australia Pty Ltd to prepare a Transport Management Plan (TMP) for the Trust's lands at Middle Head, Georges Heights and Chowder Bay, excluding the Mosman Drill Hall precinct. While the precinct was not included in the study area, the broad recommendations of the TMP are pertinent to how the Trust will manage transport issues at the Mosman Drill Hall precinct.

The TMP identifies measures to minimise reliance on access by private motor vehicles and to maximise access by public transport, walking and cycling. The TMP also considers the cumulative impacts of the development of Trust lands and neighbouring sites such as HMAS Penguin, Sydney Harbour National Park and local sporting facilities.

Consultation with key agencies such as HMAS Penguin, National Parks and Wildlife Service, Mosman Council and State Transit was integral to the development of the plan.

General recommendations relevant to the Mosman Drill Hall precinct include the:

- Installation of bicycle facilities including bicycle storage;
- Installation of consistent public transport directional signage and timetable information; and
- Provision of consistent pedestrian directional signage and information similar to signs currently provided by the Trust.

## Traffic, Parking and Access

As part of the EDAW Gillespies planning investigation, Christopher Stapleton Consulting Pty Ltd was engaged to carry out a traffic and parking analysis (contained in Appendix 1 of the EDAW Gillespies Report). This involved an analysis of:

- Existing traffic conditions and a review of the potential cumulative impact of the traffic generated by the proposed use of the site;
- The number of car parking spaces that would need to be provided within the precinct to meet potential demand and to ensure that there is no additional intrusion of parking into local streets; and
- A review of existing public transport links, bicycle paths and pedestrian links.



---

The analysis was based on the following assumptions:

- The pattern of use for the proposed outdoor courts will remain the same as that for the existing courts (even with the proposal to provide fewer courts);
- The indoor court is likely to attract more users than an outdoor court;
- Netball practice does not generally occur at the same time as other sporting activities (such as rugby and cricket practice);
- Activities at the Drill Hall are unlikely to attract more than 40 participants, and would mostly occur during afternoons, evenings and weekends.

Christopher Stapleton Consulting completed two traffic and parking surveys in May 2004. These surveys were conducted on a Saturday and a weekday afternoon to gauge the respective traffic and parking conditions that could typically be expected for match days and practice days. The consultant also examined the schedule of bookings for sporting activities at Rawson Park and had discussions with park users.

The consultant used this information to estimate existing parking demand for each activity over different daily time periods for the course of an entire year (for example, the estimated parking demand ranged from 116 cars for Mosman Rugby Club matches, to 7 for school netball practice). On the basis of this analysis, the consultant was able to estimate a baseline figure of current parking demand and the number of days per year where parking currently spills onto local streets.

The consultant then estimated the additional parking demand that would result from the proposed uses for the precinct, with the aim of calculating the amount of parking that would need to be provided on-site to maintain the same level of parking that currently occurs on local streets.

As the outdoor courts replace existing courts in Rawson Park, it has been assumed that the existing pattern of use will continue (generating between 7 and 22 cars per training session). The consultant estimated that additional parking demand would be a maximum of 20 cars per session for the Drill Hall and 13 cars per session for the proposed indoor sports building. The parking demand generated by each of these uses will often occur at different times.

To find the optimum number of parking spaces that would need to be provided on-site to meet the potential additional demand, three different scenarios (for 15, 23 or 30 parking spaces) were tested. The consultant recommends that the provision of a 23 space car-park on-site, within the existing hard-surfaced area of the parade ground, would be adequate to meet the likely demand, thus ensuring that no additional parking would spill onto local streets.

The consultant also advised that a 22-space over-flow parking area could be provided to the immediate south of the Drill Hall to cater for occasional special events. To manage potential parking impacts, the consultant recommends that the timing of large events for 120 or more people should be scheduled not to coincide with other local activities.

The consultant's analysis concluded that the traffic conditions at the intersection of Cross Street and Bradleys Head Road were within the bounds of acceptable conditions (as defined by the RTA) and that the capacity of this intersection would be able to absorb the potential additional traffic flow (particularly given that the traffic flows





---

generated by sporting activities and the re-use of the Drill Hall would generally be staggered over time).

In January 2006 the Trust commissioned specialist traffic consultant Chris Hallam and Associates to undertake a review of the methodology and findings contained in Christopher Stapleton's traffic and parking analysis. Hallam's review has confirmed that the original analysis is reasonable and reflective of the likely situation – in particular: the external traffic implications of the proposal are acceptable and the proposed 23 parking spaces plus additional overflow area provides adequate parking capacity for almost all likely event situations. Hallam recommends ongoing monitoring of the site's use, particularly with respect to the use of the overflow parking area.

### Acoustic Impact

In February 2006 the Trust commissioned Dick Benbow and Associates Pty Ltd to undertake a Noise Impact Assessment of the Mosman Drill Hall Precinct. As part of this study a detailed noise survey was undertaken at potentially affected residential premises close to the site. Reasonable noise limits were established to protect the acoustic amenity of surrounding residences. These limits set the noise design objectives that activities at the Mosman Drill Hall Precinct would need to be able to satisfy. The ability of the proposed uses to meet the objectives was then assessed through extensive 'worst case scenario' noise modelling.

The noise impact assessment has found that the construction of 1 – 2 m high earth berms and a restriction on the use of buildings to before 10pm would ensure that noise emissions would comply with relevant guidelines and would not impact on the amenity of nearby residences.

### Light Pollution

As part of their planning investigation, EDAW Gillespies examined the issue of potential light spill that may be generated by the proposed use of the site. EDAW Gillespies found that the floodlights on Rawson Park Oval currently emit a substantial level of light at night that is very likely to be visible from the residences in Cross Street and surrounding areas. As the proposed outdoor sports courts are not to be lit at night, these will not result in any increase in light levels. The only lighting that would be proposed in the new scheme would be general low-level safety landscape lighting to footpaths and car parking areas.

The Drill Hall and any new indoor sports building would need to be lit internally, however the orientation of windows in a north-south direction would minimise any light spillage towards residential areas.

## **Commonwealth Heritage Values**

The EPBC Act provides that a place has Commonwealth Heritage value if it meets one of the criteria prescribed in the Regulations. The following statement of Commonwealth Heritage Values is derived from the 2005 CMP by Simpson and Dawbin. The statement demonstrates that the site meets several of the criteria specified in the EPBC Regulations, 2000.



---

The primary sources of significance for the place are:

1. The historical significance of the Mosman Drill Hall precinct is closely related to the development of the larger Middle Head / Georges Heights defence site. This is evidenced by the existing driveway that follows the alignment of the former military road which used to link the defence sites. The role of the Drill Hall was essentially the recruitment and training of troops, who would then be deployed to bases elsewhere in Australia or to serve their country in times of conflict. The history of the building and the site also traces the history and activities of the various military units that trained and served there, including the 17<sup>th</sup> and 18<sup>th</sup> Battalion; 8<sup>th</sup> Brigade; and Signals and Searchlight Units. (*Criterion a*)
2. The spectacular location of the site on a ridge top with views across the harbour and its surroundings of native bushland and established landscape of Rawson Park create a setting of high aesthetic significance and scenic value. The Drill Hall is unpretentious with no aspirations or architectural embellishment, however it expresses a robust and utilitarian character, consistent with its origins as a military facility constructed within severe time and cost constraints. Military discipline and ritual symbolism are reflected in the order and austerity of the place. (*Criterion e*)
3. The site remains a tangible link with the volunteer contribution of the citizen soldiers during the inception of military forces of an emerging nation. The history of the Drill Hall has traced the development of the Citizens Military Forces and National Service training in response to the nation's defence in times of war. Many members of the Mosman community were recruited to the military and undertook training at this site. (*Criterion g*)
4. The construction of the Drill Hall is important in demonstrating past building methods. The riveted steel framing and the simple composite assembly of the trusses reflects the availability of materials and technology of the period. This building was the only example of steel framing in a 'Type 2' Drill Hall, otherwise the use of corrugated iron cladding and the 100' by 50' floor plan plus annex was representative of this building type. (*Criterion f*)
5. The Drill Hall has become a rare example of its type in recent years and has survived the progressive demolition of Drill Halls throughout Australia but especially in city areas under pressure of real estate development. Mosman is the only 'Type 2' Drill Hall remaining in NSW, and is one of the few buildings in any location to have retained its form and setting relatively intact. (*Criterion b*)
6. The Drill Hall is a representative example of a 'Type-2' Drill Hall design of 1913. In spite of individual variations in structure and layout, the Drill Hall retains the essential features of this once common military training facility which formerly existed in a number of Sydney suburban locations and country centres (*Criterion d*).



---

## Outcomes

The key outcomes for the site are to:

- Conserve and interpret the site's heritage values through the conservation and adaptive reuse of the Drill Hall;
- Find uses for the Drill Hall that helps its conservation and that are sympathetic to its simple, institutional form and the need to open up the site to the public;
- Facilitate the relocation of existing lawn courts and their replacement with hard-surfaced outdoor training courts and an indoor sports building;
- Enhance public access to the site through the provision of new pathways and parking;
- Connect the previously closed military base to the surrounding ridge-top parklands and adjacent urban areas, but without diminishing its sense of place as an institutional, campus-like precinct;
- Connect it as part of the sequence of civic centres along the plateau, formed by the former military bases; and
- Repair the edges adjoining bushland by improving drainage, regenerating and expanding bushland areas.

The Trust engaged landscape architects EDAW Gillespies, in association with Choi Ropiha Architects, to undertake the concept design and an investigation into the feasibility of providing sporting facilities at the precinct. The key planning, transport, environmental, heritage and landscape outcomes were synthesised to produce two site designs, which are included in this plan as development stages (shown at *Figures 13 and 14*). The staged approach will allow sports facilities to be gradually upgraded as funding becomes available. The key elements of the stages are:

- Stage 1 - Proposes the adaptive re-use of the Drill Hall, five hard-surfaced outdoor courts, and possible new toilet/change-room facilities.
- Stage 2 - Proposes replacing two of the outdoor courts with a new indoor sports building.

### Heritage Conservation












The Mosman Drill Hall Precinct is recognised as being of great heritage significance, and these heritage values will be protected, conserved and interpreted. This includes the conservation of the Drill Hall and its setting, the Parade Ground, the historic military road alignment and significant landscape features of the site.

The use of the site as an area of community use and public active open space is compatible with conserving the heritage values of the Drill Hall and the place as it enables the retention of the open landscape, the building setting and the dominant historic elements of the site's military past. The Drill Hall will be conserved and adaptively reused for appropriate activities such as local events, performances and sports training.

The scale and form of any new buildings or additions on the site will have to respect the heritage values of the place.



# LEGEND

-  EXISTING TREES TO BE RETAINED
-  EXISTING TREES TO BE REMOVED
-  PROPOSED TREES
-  PROPOSED BUSH REGENERATION
-  GRASSED AREA
-  REINFORCED GRASS AREA
-  ASPHALT
-  EXPOSED AGGREGATE CONCRETE
-  DECOMPOSED GRAVEL CARPARK
-  ALL WEATHER SPORTS SURFACE
-  RETAINING WALLS
-  DRAINAGE SWALE
-  BALL PROOF FENCING
-  INTERPRETIVE SIGNAGE LOCATIONS
-  SITE BOUNDARY
-  BICYCLE RACK
-  EARTH BERM / MOUND

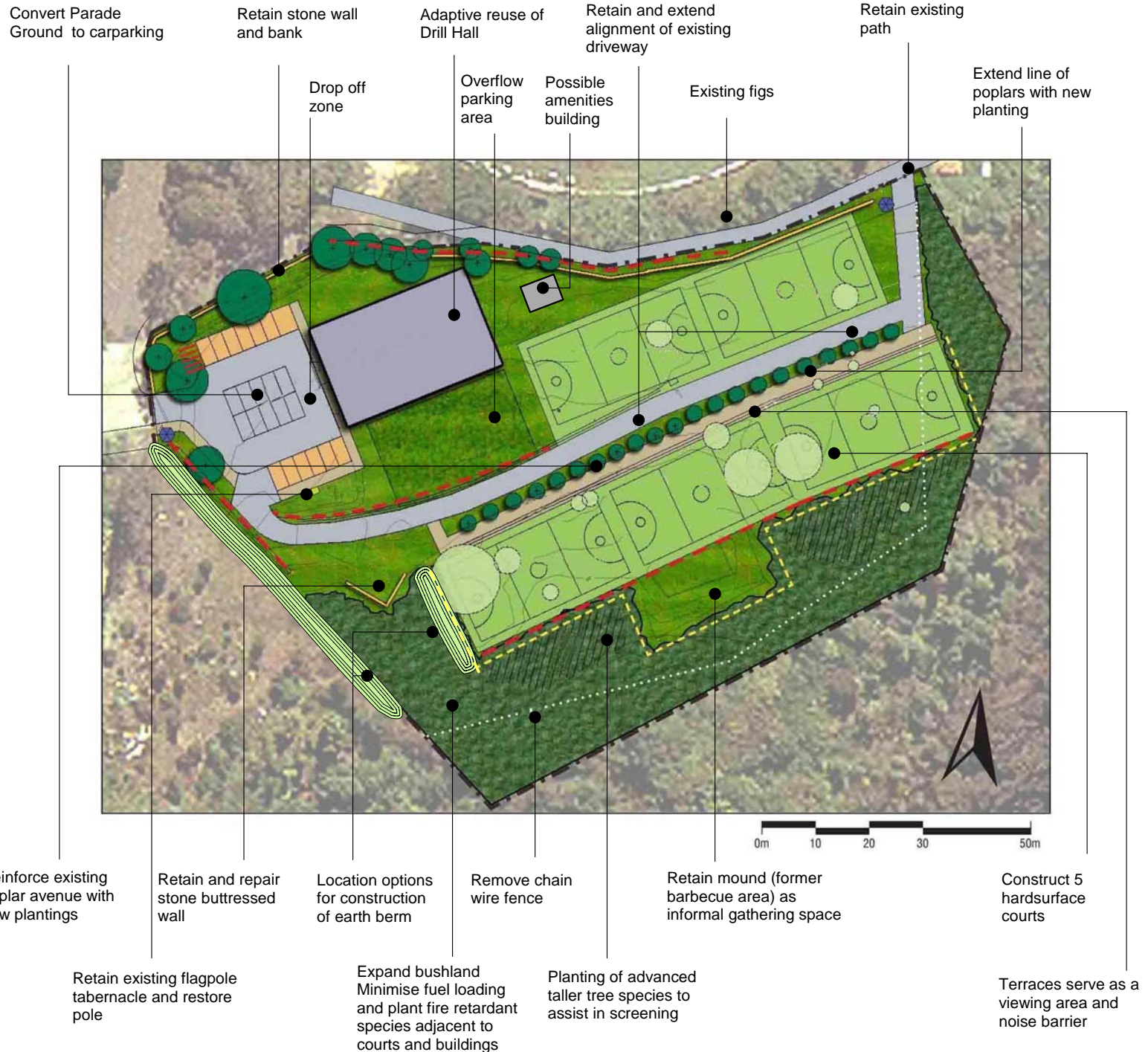


Fig. 13 Outcomes Stage 1



# LEGEND

-  EXISTING TREES TO BE RETAINED
-  EXISTING TREES TO BE REMOVED
-  PROPOSED TREES
-  PROPOSED BUSH REGENERATION
-  GRASSED AREA
-  REINFORCED GRASS AREA
-  ASPHALT
-  EXPOSED AGGREGATE CONCRETE
-  DECOMPOSED GRAVEL CARPARK
-  ALL WEATHER SPORTS SURFACE
-  RETAINING WALLS
-  STEPS
-  DRAINAGE SWALE
-  BALL PROOF FENCING
-  INTERPRETIVE SIGNAGE LOCATIONS
-  SITE BOUNDARY
-  BICYCLE RACK
-  EARTH BERM / MOUND

Convert Parade Ground to carparking

Retain stone wall and bank

Adaptive reuse of Drill Hall

Retain alignment of existing driveway

Retain existing path



Reinforce existing poplar avenue with new plantings

Retain and repair stone buttressed wall

Location options for construction of earth berm

Remove chain wire fence

Retain mound (former barbecue area) as informal gathering space

Construct 3 hardsurfaced courts

Retain existing flagpole tabernacle and restore pole

Expand bushland  
Minimise fuel loading and plant fire retardant species adjacent to courts and buildings

Planting of advanced taller tree species to assist in screening

Terraces serve as a viewing area and noise barrier

Fig. 14 Outcomes Stage 2

---

### Adaptive re-use of the Drill Hall

The Drill Hall will need to be adaptively re-used and occupied to facilitate its conservation and public use. Future uses will need to satisfy criteria relating to public benefit, heritage conservation, traffic generation, parking requirements and transport needs, environmental impact, noise emissions, service and infrastructure constraints, BCA requirements and the *Objectives and Policies* set out in Section 3 of the Trust's Comprehensive Plan.

The general principles that will underlie the selection of uses will be their compatibility with:

- Maintaining the heritage values of the place;
- Responding to the place and providing a positive contribution to the people's enjoyment and understanding of the place and its heritage;
- Environmental, public access and amenity considerations (such as noise and light impacts); and
- Managing transport demand.

Use of the Drill Hall will not be permitted after 10pm, and this will be reinforced through leasing conditions.

In accordance with the CMP, alterations or new additions should be strictly limited and controlled to ensure that there is no loss of significant fabric. The integrity and volume of the interior space should not be compromised by inappropriate development or fitout within the building. The existing fabric of the Drill Hall may need to be assessed in terms of acoustic insulation during its refurbishment.

New amenities, such as toilet facilities, wash rooms and tea rooms may be provided in a discreet location within the annexe section of the Drill Hall. Alternatively, a separate purpose-built amenities building (to replace the existing intrusive demountable amenities block) could be provided in a location that has minimal impact on the Drill Hall and its setting. If however the existing demountable amenities block adjacent to the Drill Hall is retained it would be provided with a more sympathetic external treatment.

The primary use for the Drill Hall should be as a sporting or recreation facility which utilises the available volume of the interior without subdivision or disintegration of the existing space. The CMP identifies a range of uses and activities that would be suitable for the Drill Hall, such as: indoor practice courts; meeting hall; performing arts; exhibition space; and arts & crafts workshops and display.

### Site design

The east-west geometry of the Drill Hall, the central poplar avenue, and remnant roadway establishes a framework for the positioning of the outdoor courts and new building. The courts are to be aligned along the east-west axis either side of the central roadway, minimising the impact of benching the courts into the slope. This siting will also assist in the capture of the stormwater from the hard-surfaced courts, directing runoff to a retention swale within the site. The courts and new building are sited as far to the east of the site as possible reducing impacts on the amenity of local residents and allowing a generous curtilage to the Drill Hall. This siting allows the prominence of the poplars and



---

roadway to be retained while also relating to the active sporting use of the adjoining Rawson Park.

The existing road access and alignment will be retained. A legible pedestrian network of paths that serve to both access the site facilities and connect through to the wider landscape of the Headland Park will be established. The roadway will provide pedestrian access to each of the new courts as well as connecting through to adjacent park areas via the existing pathway alongside Rawson Park. A line of landscape terraces alongside the roadway will provide a seating edge between the courts, as well as serving as an acoustic barrier. The management of noise emissions will also be aided by the construction of an earth berm (1-2m high) either near the western edge of the outdoor courts or along the western perimeter of the precinct boundary.

Whilst much of the new activity envisaged is sports related, the proposal is balanced by allowing the naturalistic setting of the Sydney Harbour National Park to extend well into the site and yet retain much of the historic fabric. In this way the precinct will be integrated with the Headland Park.

### Use of the Courts

It is intended that the proposed courts are to be for practice and training purposes, similar to the current pattern of use of the existing courts at Rawson Park. The dimensions of the outdoor courts would make them suitable for sports such as netball and basketball. The use of the outdoor courts will be limited to daylight hours, and no lighting is to be provided. The use of amplified sound systems in outdoor areas will not be permitted. The indoor court will be able to be used in the evenings, and will be suitable for a range of sports, including netball, indoor hockey, basketball and wheelchair basketball. The Trust will reinforce restrictions on outdoor lighting, sound systems, and the use of the courts through leasing conditions.

### Building design (Stage 2)

The concept design for the proposed indoor sports building has been prepared by architects Choi Ropiha in response to the key site constraints. The key principles guiding the siting and design of the building are the retention of existing views from public places (including Sydney Harbour, Clifton Gardens and Rawson Park); the protection of heritage values of the Drill Hall and its setting; and maintaining the amenity and existing harbour vistas of neighbouring residences. The development of the building would be in place of two of the five outdoor courts constructed in Stage 1. Appendices 1-3 show more detail of the proposed building.

The siting of the indoor sports building places it on the high part of the eastern side of the site. This siting allows a generous curtilage to the Drill Hall, a separation of approximately 40 metres, and allows for views from Rawson Park Oval between the buildings to the harbour. To reduce its physical bulk and visibility, the design proposes partially burying the building into the embankment, which will minimise the height and the extent of visible façade. The floor level proposed is RL 91.0 and is set 5.0m below the top of the adjacent ridgeline at Rawson Park Oval. The maximum height of the proposed building is at RL100.5, which is below the highest point of the Drill Hall (approximately RL 102.5).



---

Views into the site from Sydney Harbour and Clifton Gardens will be maintained. The siting and design of the building will allow it to be screened by the regeneration of bushland on the southern side of the building. This is to be assisted by the planting of taller native tree species such as *Angophora costata*, *Eucalyptus botryoides*, and *Corymbia maculata*, in combination with gentle mounding in the bush regeneration areas.

The existing vistas from the Cross Street residences out to the south-east over the bushland towards the harbour will be preserved by the proposed siting of the building. As a minimum, the siting of the building should not extend beyond 32 metres from the northern site boundary to ensure that existing views are not impeded.

The visual, acoustic and light pollution impacts of the proposed building will be minimised by its remote siting from local residents and the use of appropriate sound-proofing building materials. In addition to this, the primary openings in the building face southward, perpendicular to the direct line of sight of nearby residents, which will significantly lessen any potential acoustic impacts. The use of the indoor sports building will not be permitted after 10pm, and this will be reinforced through leasing conditions.

The proposed building would provide a clear span large enough to accommodate a single multi-purpose sports court and change facilities. The court's dimensions would enable practice for sports including indoor netball, wheelchair basketball and indoor hockey. The southern façade is designed to open up to the outdoor courts through the use of operable doors. This will provide a good connection between indoor and outdoor courts, separated by the terraced seating area. The northern façade facing Rawson Park would be glazed allowing views into and through the building from the existing Rawson Park pedestrian pathway.

The visual impact of the building will be lessened by using cladding in dark materials. This will help to minimise any contrast with the surrounds as well as reducing its visibility when viewed from a distance.

Balanced natural lighting to the building is proposed by using a translucent cladding for part of the roof, the walls or both. This will reduce the demands for internal lighting thereby reducing energy consumption.

Given its proximity to bushland, the indoor sports building will be adequately fire proofed and the use of alternative fire management strategies such as sprinklers utilising collected stormwater will be investigated.

Prior to progressing with the 'Stage 2' development of the site, relevant studies (such as those dealing with noise; traffic and parking; design; and service infrastructure) will need to be reviewed to ensure that potential impacts and management issues associated with the new building are considered in the light of the most up-to-date information.

### Access and Parking

Christopher Stapleton Consulting recommends that a parking area and drop-off zone be provided on the parade ground and an overflow parking area also be provided on-site to accommodate occasional special event parking.





---

The parade ground will be adapted for use as a car park in a manner that is consistent with the CMP. This will allow the potential parking demand to be accommodated on-site, thereby maintaining the existing level of on-street parking on Cross Street. The parade ground car park will provide 23 parking spaces, including 1 space for people with a disability.

The car park is to be configured to allow drop off at the entry to the Drill Hall. The pavement surface is to be asphalt directly in front of the Drill Hall, forming a defined forecourt and reflecting the dimensions of the historic parade ground, with parking bays to the side to be surfaced with decomposed granite as a permeable and softer finish.

To the immediate south of the Drill Hall an area of reinforced turf (comprising permeable concrete pavers set amidst grass) will be used as an overflow parking for special events. This area will be accessed via the existing driveway.

The nature of the precinct's potential trip generators and the existing pattern of use of Rawson Park Oval means that parking demand and traffic generation will be able to be staggered over time (the peak demand times for community uses in the Drill Hall, practice games on the precinct's courts, and competition sports at Rawson Park Oval will not generally coincide). As such, there is the potential to coordinate the timing of these respective activities as an important tool for managing parking and traffic impacts on local streets.

Monitoring of the site's traffic and parking generation will be carried out to enable the ongoing management of any issues that may arise.

### Landscape Design

The existing military character of the site, particularly the open lawn setting of the Drill Hall will be retained, while the bushland edges will be expanded.

Significant trees within and adjacent to the site that are important from either a historical or ecological point of view are to be retained and incorporated into the new landscape design. Protective fencing is to be installed to these trees during the construction process. Landscape elements to be retained include: the Brush Box to the east of the Drill Hall; the poplars along the northern boundary; the avenue of poplars along the driveway (other than for the two southernmost poplars that are to be removed to allow for the construction of the training courts); and the pines along the northern boundary.

The selection of new plant species is to be based upon those species identified as suitable in the Conacher Travers Flora Study. A ball-proof fence will need to be installed to the south of the outdoor training courts to prevent balls from continually entering into the National Park. This will be located to minimise visual intrusion.

To minimise bushfire risk, the revegetated edges will comprise fire retardant plant species. Site landscaping will also be informed by the recommendations contained in the planned review of the Bushfire Management Plan.



---

## Stormwater

Vegetated swales, infiltration trenches and a consolidated outlet area are proposed for the site. This will allow the capture and treatment of stormwater flowing from Rawson Oval, Cross Street and from within the site before it enters the National Park. The detailed design and layout of these stormwater management devices will need to be investigated by a hydraulic engineer, however conceptually they may be in the following locations:

- Along the northern and western site boundaries to collect water at its source from Rawson Park Oval and Cross Street (in consultation with Mosman Council);
- Along the southern edge of the proposed outdoor courts; and
- Along the northern edge of the existing central driveway (the former military road).

Other methods that will be employed in managing stormwater include maximising permeable surfaces in parking areas and the installation of tanks to collect rainwater from the roofs of the Drill Hall and the indoor sports building.

## Water Sensitive Urban Design

The principles of Water Sensitive Urban Design (WSUD) are to be incorporated into the redevelopment of the Mosman Drill Hall precinct to achieve water quality, water conservation and ecological objectives. Effective integration will require the application of concepts on a catchment wide basis. The key concepts to be applied are:

- *Source controls* – removal or mitigation of the pollutant source, and on-site rainwater use;
- *Conveyance controls* – applied during the conveyance of stormwater to bushland, streets or channels;
- *Discharge controls* – applied at the point where water leaves the site or the catchment;
- *Natural systems planning* – applied to the entire area. Natural systems planning recognises essential hydrological and ecological functions of watercourses, wetlands and native vegetation.

A number of measures are available to achieve stormwater management objectives by applying these concepts in the redevelopment of the Mosman Drill Hall precinct.

<b>Concept</b>	<b>Issue</b>	<b>Application within the precinct</b>
Source Controls	Street sweeping and landscape maintenance	Roads and organic matter are a source of many pollutants. Sweeping and maintenance will be part of the on-going management of the site.
	Rainwater tanks	The use of rainwater for toilet flushing, irrigation etc will reduce water use and stormwater flow peaks.
	Rainwater detention gardens	Applied to intercept sheet and concentrated flows. This will reduce flows and reduce scouring and erosion in bushland areas. It will also improve stormwater quality by controlling the dispersal of nutrients downslope.



	Pit pollution control traps	Investigate their installation at various locations to remove gross pollutants and hydrocarbons.
	Stormwater Collection	Investigation of options for collection of stormwater from paved areas for reuse.
Conveyance controls	Water sensitive road design	Investigate the installation of buffer strips and bioretention swales, particularly along up-gradient edges of hard-surfaced areas. These measures will reduce run-off velocities and reduce contaminant transport to receiving waters.
Discharge controls	Stormwater Collection	Divert flows to collection areas for possible reuse. This will assist in reducing velocities of run-off on areas down slope and reduce contaminant transport to receiving waters.
Natural systems planning	Weed removal and revegetation with native species	This will improve water retention and site amenity.
	<i>Phytophthora cinnamomi</i>	Reduce nutrient impact to bushland areas. Reduce ponding and concentrated stormwater flows.
	Dieback areas	Regenerate to reduce erosion, water retention and amenity. To be carried out in parallel with a strategy for controlling <i>Phytophthora cinnamomi</i> .

### Phytophthora cinnamomi

The Trust's Phytophthora Management Strategy will be implemented, key components of which are shown in the following table. In addition, testing for Phytophthora will be undertaken prior to any civil works commencing.

<b>Risk of spread or introduction by –</b>	<b>Management Strategy</b>
Bush regeneration activities	Implementation of best practice hygiene procedures for bush regeneration or related activities; Soil and plant materials to be sourced from appropriately certified suppliers.
Water flows and increased surface water nutrients	Introduce stormwater measures so that flows are remediated to approach the natural condition in bushland areas, or direct flows away from bushland; Reduce nutrient impact to bushland areas, by remediating nutrient and contaminant sources or nutrient removal.
Walkers	Introduction of a Phytophthora community education program; Walking track design that limits the potential for spread by walkers, including: <ul style="list-style-type: none"> <li>– Integrated drainage controls;</li> <li>– Clean crushed sandstone capping;</li> <li>– Mulched edges;</li> </ul> Confine walkers to tracks in bushland areas.



Construction/ earthworks/ landscaping activities	<p>Implement hygiene protocols for personnel, machinery and tools;</p> <p>Soil and plant materials to be sourced from Phytophthora-free certified suppliers, or low risk sources;</p> <p>Use only well composted, soil-free mulch.</p>
--	--

### Remediation

A hazardous materials removal and abatement program is to be carried out for the Drill Hall, in conjunction with, or prior to building refurbishment works. The following works are required:

- Removal, or repair and management, of remaining asbestos cement building materials, and removal of asbestos cement fragments from beneath the Drill Hall building.
- As the number of PCB containing capacitors identified in light fittings of the Drill Hall was small, these are to be removed and appropriately disposed.
- Removal or abatement of deteriorating lead-based paint systems located mainly on the outside of the Drill Hall.

Access to the sub-floor space of the Drill Hall should be restricted unless asbestos cement fragments in this area are removed.

In the opinion of the site auditor, while PAH concentrations in soil exceeding relevant guidelines have been identified, there is not sufficient data to confirm the requirement for remediation. The 2004 Site Audit confirmed the following investigation, and where required, remediation requirements:

- Investigation/ validation of soils within former building footprints, and remediation depending on the results.
- Further systematic investigation of soils where elevated PAH concentrations have been reported, and remediation if necessary based on the results.

The URS Australia Draft Supplementary (Phase II) Environmental Site Assessment provides further detailed information regarding the remediation of site contamination.

### Interpretation

One of the primary objectives of the Trust, in conserving the heritage values of its lands and opening them up to public access, is to convey their rich natural and cultural heritage in a meaningful, relevant and engaging way to the general public.

The Trust is preparing an Interpretation Concept Plan for the Headland Park which will provide recommendations as to how the Trust can best communicate the significant values of the park site and setting to the public.

The development of public open days, events, exhibitions, guided tours, school holiday programs and publications will all be considered as part of the interpretive program, which will need to appeal to the general public, casual passers-by, overseas tourists, school students and special interest groups.



---

For the Mosman Drill Hall precinct, all phases of the site's previous occupation and use will be interpreted, focusing in particular on the site's role in the evolution of Australia's defence system.

The methods of interpretation will include, but not be restricted to:

- External interpretive signage to convey the site's past military use, especially the heritage values of the Drill Hall and the former military road;
- An internal interpretive display covering previous uses of the Drill Halls. For example the display may include images and text depicting the mobilisation of troops, as well as the recruitment and training of militia, permanent troops and volunteer forces;
- External orientation and way-finding signage will be provided to help visitors appreciate and understand the Headland Park as a whole. Walkers and other users of Rawson Park Oval will be encouraged to move into the Park via the path to Training Command;
- Guided activities for tourists, school students and other specialist interest groups;
- Events and Open Days;
- Visitor information brochure and site map; and
- Oral History research programs.

### Implementation

Priorities for implementation have been determined in a manner consistent with *Part 11* of the Trust's Comprehensive Plan.

The following table summarises the outcomes to be achieved through the implementation of this Management Plan. The table identifies individual elements of the project and prioritises those elements in a manner consistent with those priorities identified in the Comprehensive Plan. The relevant sections of the Management Plan and supporting studies which detail each element are also included in the table as a quick reference point.





**Implementation and Action Plan**

	<b>Outcomes</b>	<b>Elements</b>	<b>Priority</b>	<b>Relevant Management Plan or Supporting Study (in addition to the Cross Street Drill Hall Precinct Planning Report and the Park Design Concept)</b>
Public Domain	<p>Increased Public access - pedestrian links, facilities for cyclists, disabled access, parking</p> <p>Improvements to landscape / public facilities</p>	<ul style="list-style-type: none"> <li>▪ Provide pedestrian, disabled and vehicular access to and within the site.</li> <li>▪ Reuse the Parade Ground as a car-parking area, with a drop-off zone at the entry to the Drill Hall.</li> <li>▪ Provide one parking space for people with a disability.</li> <li>▪ Provide a reinforced turf area directly to the south of the Drill Hall for overflow parking during special events.</li> <li>▪ Provide clear and accurate information on available public transport services.</li> <li>▪ Pedestrian and cyclist links (where appropriate) to the Headland Park and adjacent urban areas.</li> <li>▪ Integrate the site with adjoining parkland by removing fencing and creating continuity of landscape treatment.</li> <li>▪ Bush regeneration and screen planting.</li> <li>▪ Provision and / or upgrade of on-site services.</li> <li>▪ Provision or upgrade of public facilities such as toilets, lighting, bicycle parking rails and picnic areas.</li> <li>▪ Possible removal of demountable amenities block</li> </ul>	<p>High</p> <p>High</p> <p>High</p> <p>High</p> <p>High</p> <p>High</p> <p>High</p> <p>High</p> <p>High</p> <p>High</p>	<ul style="list-style-type: none"> <li>▪ Conservation Management Plan</li> <li>▪ Review of Traffic and Parking</li> <li>▪ Conservation Management Plan</li> <li>▪ Conservation Management Plan</li> <li>▪ Bushfire Management Plan</li> <li>▪ Flora Study</li> <li>▪ Fauna Study</li> <li>▪ Conservation Management Plan</li> <li>▪ Site Services Survey</li> <li>▪ Conservation Management Plan</li> <li>▪ Conservation Management Plan</li> </ul>



	Outcomes	Element	Priority	Relevant Management Plan or Supporting Study (in addition to the Cross Street Drill Hall Precinct Planning Report and the Park Design Concept)
	Improved Environmental Conditions	<ul style="list-style-type: none"> <li>▪ Remediation of contaminated land and hazardous materials in public areas.</li> <li>▪ Conservation of existing bushland and extension of bushland where possible.</li> <li>▪ Comply with asset protection from bushfire threats.</li> <li>▪ Introduce management controls to minimise the risk of the spread of <i>Phytophthora Cinnamomi</i>, including testing prior to undertaking civil works.</li> <li>▪ Control run off from the site by developing vegetated swales, infiltration trenches and a consolidated drainage outlet.</li> <li>▪ Construction of earth berm acoustic barrier</li> </ul>	<p>High</p> <p>High</p> <p>High</p> <p>High</p> <p>High</p> <p>High</p>	<ul style="list-style-type: none"> <li>▪ Contamination Report</li> <li>▪ Hazardous Materials Survey</li> <li>▪ Site Audit Report</li> <li>▪ Supplementary Site Assessment</li> <li>▪ Flora Study</li> <li>▪ Fauna Study</li> <li>▪ Bushfire Management Plan</li> <li>▪ Bushfire Management Plan</li> <li>▪ Threat Abatement Plan</li> <li>▪ Stormwater Management Plan</li> <li>▪ Noise Impact Assessment</li> </ul>
Building & Site Uses, New Building and Adaptive Reuse I	New Sporting Facilities	<ul style="list-style-type: none"> <li>▪ Subject to Mosman Council: funding; removing the existing courts in Rawson Park; and rehabilitating the site of the existing courts; provide: <ul style="list-style-type: none"> <li><b>Stage 1</b> - Five outdoor hard-surfaced courts</li> <li><b>Stage 2</b> - An indoor sports building to replace two of the outdoor courts constructed in Stage 1.</li> </ul> </li> </ul>		



	<b>Outcomes</b>	<b>Element</b>	<b>Priority</b>	<b>Relevant Management Plan or Supporting Study (in addition to the Cross Street Drill Hall Precinct Planning Report and the Park Design Concept)</b>
Heritage Conservation and Interpretation	Conservation and adaptive reuse	<ul style="list-style-type: none"> <li>▪ Conservation and adaptive reuse of the Drill Hall</li> <li>▪ Significant site features restored and interpreted including: Parade Ground; driveway; stone buttressed wall; and flagpole and tabernacle.</li> <li>▪ Landscape improvements that respond to and convey the site's natural and cultural heritage.</li> <li>▪ Preparation and presentation of interpretative material and signage in public domain areas.</li> </ul>	<p>High</p> <p>High</p> <p>High</p> <p>Medium</p>	<ul style="list-style-type: none"> <li>▪ Conservation Management Plan</li> <li>▪ Conservation Management Plan</li> <li>▪ Conservation Management Plan</li> <li>▪ Conservation Management Plan</li> </ul>



---

## Future Actions

### Unforeseen Archaeological Discoveries

Archaeology includes: buildings, structures, objects and relics, landscapes and other remains, both above and below the ground. All of these items have enormous potential to contribute to our knowledge of the place by revealing information about how people lived and worked there. All relics are protected by Commonwealth legislation and the intentional uncovering of relics, without a permit, is forbidden.

Appropriate provisions will be included, in leases for the site and in any contracts for works to be undertaken, requiring that in the event that relics are unintentionally uncovered, work must cease in the area where the relics were found and the Trust immediately informed. The Trust will arrange for an archaeologist with the appropriate experience to visit the site and undertake an assessment before determining the appropriate course of action.

### Records of Intervention & Maintenance

The Trust is proposing to use the inventory sheets as the starting point for establishing an ongoing record for each of the site's buildings and structures. This will enable all relevant information relating to a building or structure (eg its history, statement of significance, conservation policies, leasing arrangements, etc) to be available for reference in one document.

### Future Consultation

Community consultation and communications is critical to the implementation of this plan. The community includes the broad community, special interest groups, non-government organisations and Local, State and Commonwealth Governments.

The Trust has been consulting with these groups since its inception and will continue this process in accordance with the *Consultation and Communications Objectives and Policies* set out in *Part 3* of the Trust's Comprehensive Plan.

### Aboriginal Consultation

Ongoing consultation with the aboriginal community will take place through the Trust's Aboriginal Issues Committee and in accordance with the *Aboriginal Heritage Objectives and Policies* set out in *Part 3* of the Trust's Comprehensive Plan.

### Monitoring and Review of the Plan

During the implementation, this plan will be continuously monitored in terms of its objectives and consistency with the Commonwealth Heritage management principles.

**At least once in every 5 year period after the plan's adoption the plan will be reviewed in accordance with Section 341X of the EPBC Act, 1999 as amended. The review will assess whether the plan is consistent with the Commonwealth management principles in force at the time.**



---

## Acknowledgements: Images

### *Front Cover*

1. c1940's, The Mosman Detachment of the Australian Electrical and Mechanical Engineers (AEME) on parade in front of the Mosman Drill Hall.

Source: Mess Album, HQ 8<sup>th</sup> (Infantry) Brigade, Timor Barracks, Dundas.

2. 2002, Mosman Drill Hall sign showing the parade times of the HQ 8th (Infantry) Brigade.

Source: Ron Mason.

3. 2003, The Mosman Drill Hall and its parkland setting.

Source: Ron Mason.

### *Figure 4*

2002, The Mosman Drill Hall with parade ground in the foreground.

Source: Ron Mason.

### *Figure 5*

2005, The former Military Road and natural setting of the site.

Source: Ron Mason.

### *Figure 6*

c1940's, The Mosman Detachment of the Australian Electrical and Mechanical Engineers (AEME) on parade in front of the Mosman Drill Hall.

Source: Mess Album, HQ 8<sup>th</sup> (Infantry) Brigade, Timor Barracks, Dundas.

### *Figure 7*

1988, HQ 8<sup>th</sup> (Infantry) Brigade recruit induction and instructor evaluation, Mosman Drill Hall.

Source: Mess Album, HQ 8<sup>th</sup> (Infantry) Brigade, Timor Barracks, Dundas.

### *Figure 8*

1990, HQ 8<sup>th</sup> (Infantry) Brigade at the Mosman Drill Hall site preparing for 'Exercise Silent Shadow'

Source: Mess Album, HQ 8<sup>th</sup> (Infantry) Brigade, Timor Barracks, Dundas.

### *Figure 10*

1992, HQ 8<sup>th</sup> (Infantry) Brigade, Regimental 'Dining-in night' at the Fromelles Club, Mosman Drill Hall site.

Source: Mess Album, HQ 8<sup>th</sup> (Infantry) Brigade, Timor Barracks, Dundas.





---

## Related Studies

Australian Museum Business Services, 2004, Archaeological Survey of Sydney Harbour Federation Trust Land at Middle Head, Georges Heights, and Chowder Bay.

Christopher Hallam and Associates, 2006, Review of Traffic and Parking Analysis, Cross Street Drill Hall, Mosman.

Conacher Travers Environmental Consultants, 2001, Comprehensive Fauna Survey of Interim Sydney Harbour Federation Trust Land and National Parks and Department of Defence Land at Georges Heights and Middle Head.

Conacher Travers Environmental Consultants, 2003, Flora Study of Sydney Harbour Federation Trust Land and National Parks and Wildlife Service Land at Middle Head-Georges Heights.

Conacher Travers Environmental Consultants, 2004, Draft Bush Fire Management Plan Middle Head-Georges Heights-Chowder Bay

Dick Benbow and Associates, 2006, Noise Impact Assessment Report for Sydney Harbour Federation Trust, Mosman Drill Hall Precinct.

EDAW Gillespies, 2005, Cross Street Drill Hall Precinct Planning Report

Environ Australia, 2004, Site Audit Report – Cross Street, Mosman

Hibbs & Associates, 2002, Hazardous Materials Survey Former Headquarters 8<sup>th</sup> Brigade, Cross Street, Mosman

Maunsell Australia Pty Ltd, 2003, Transport Management Plan for Middle Head – Georges Heights and Chowder Bay.

PPK Environment and Infrastructure, 1999, Final Draft Stage 1 Contamination Assessment and Geotechnical Study, Defence Sites at Middle Head, Georges Heights, Chowder Bay and Mosman;

PPK Environment and Infrastructure, 2001, Final Draft Stage 2 Contamination Assessment and Geotechnical Study, Defence Sites at Middle Head, Georges Heights, Chowder Bay and Mosman;

PPK Environment and Infrastructure, 2001, Summary Report, Stage 2 Contamination Assessment and Geotechnical Study, Middle Head, Georges Heights, Chowder Bay and Mosman Defence Sites;

PPK Environment and Infrastructure, 2002, Site Services Survey - Middle Head, Georges Heights and Chowder Bay, Stages 2 & 3 – Location of Services;

Simpson Dawbin Architects and Heritage Consultants, 2005, Mosman – Cross Street Drill Hall – Conservation Management Plan

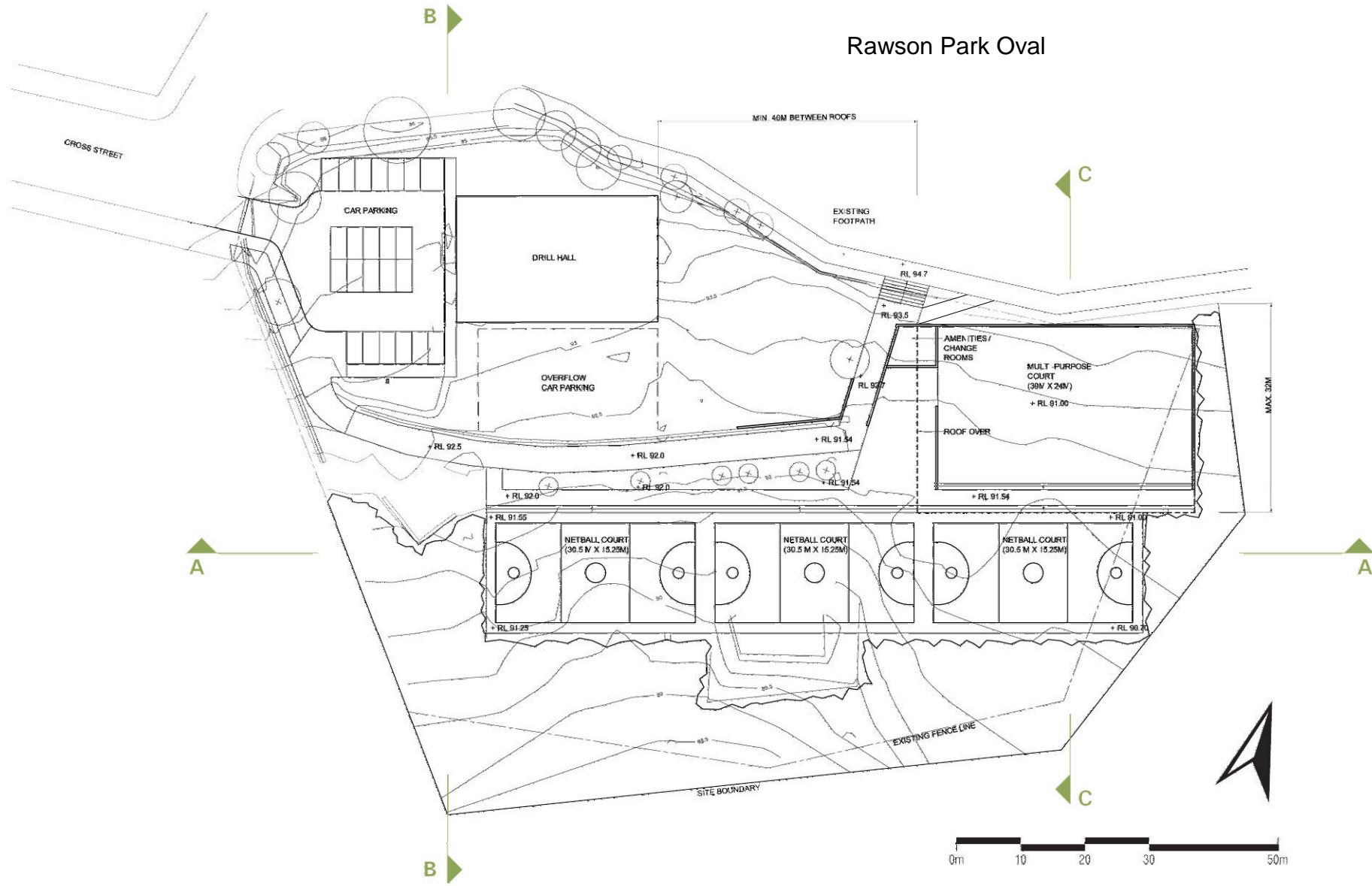
URS Australia, 2006, Draft Report - Additional Phase II Environmental Site Assessment – Cross Street Drill Hall Precinct – Mosman, NSW



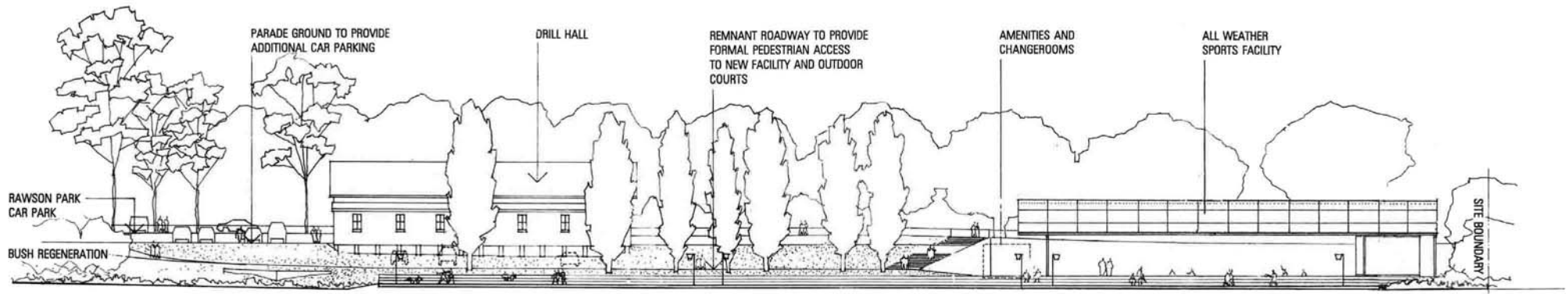
---

## Appendices

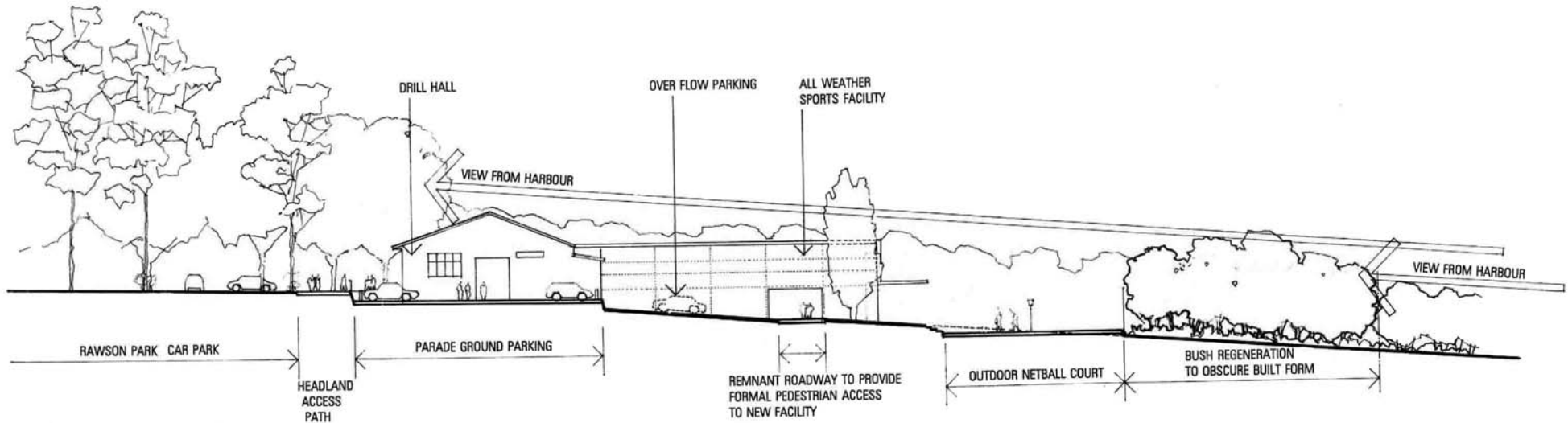




Sydney Harbour National Park

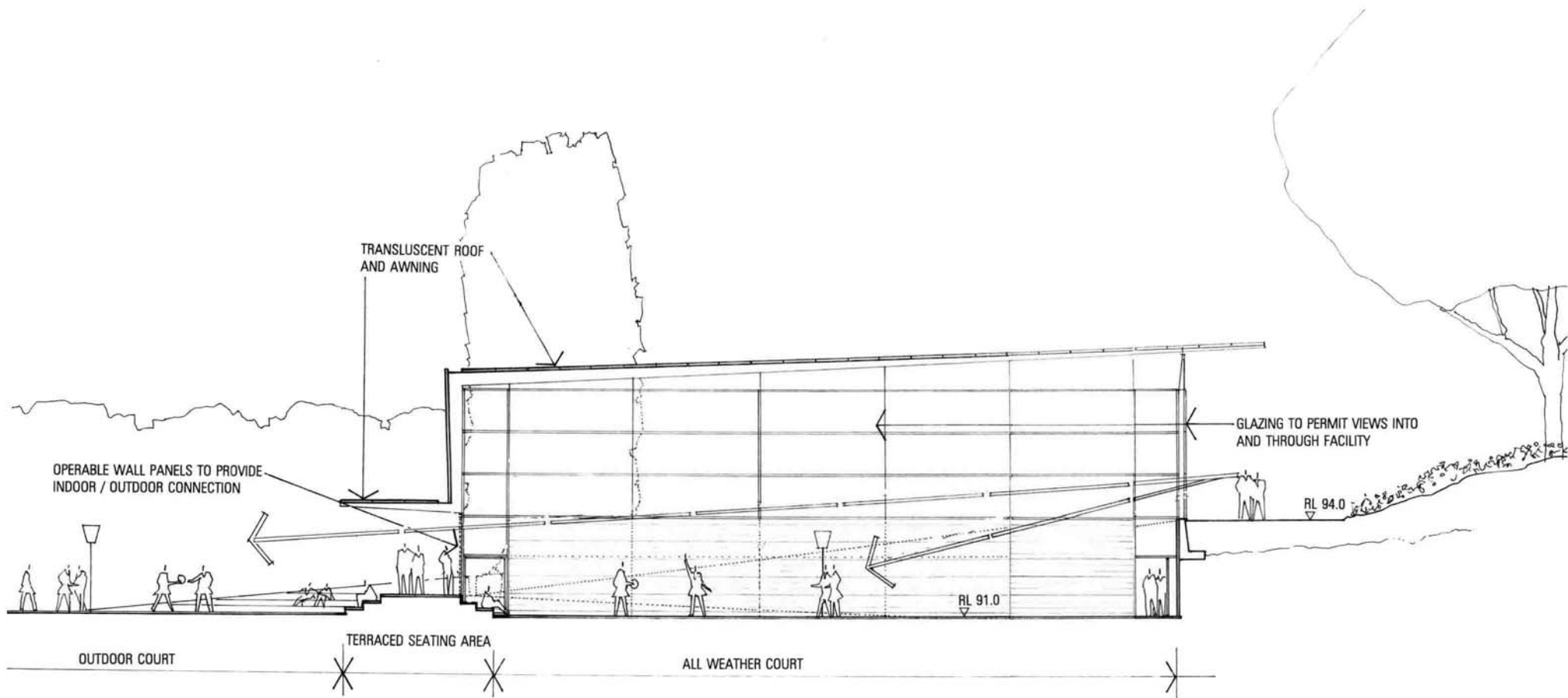


Site Long Section (AA)



Site Cross Section (BB)





Site Cross Section (CC)

