

# **ATTACHMENT B**

<p><b>REDFERN PARK DRAFT PLAN OF MANAGEMENT</b></p>
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**Draft**  
**REDFERN PARK**  
Plan of Management

July 2006



*city of villages*



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## Preamble

### Recognition of Indigenous Australians

Council recognises the Gadigal People of the Eora Nation, are the traditional custodians of the land. It recognises and celebrates the rich culture and strong community values that Indigenous Australians continue to provide to the City of Sydney today, and acknowledges the Indigenous community's right to self-determination. (*City of Sydney Social Plan 2006*)

## I Introduction

### I.1 What is a Plan of Management

A Plan of Management is a document that identifies issues affecting public open space, and outlines how that open space is intended to be used, improved, maintained and managed in the future.

A Plan of Management is typically accompanied by a Landscape Master Plan that shows proposed on the ground changes to that open space.

## 2 Need for this Plan of Management

*The Local Government Act 1993* requires all Council owned or vested land classified as Community Land to be managed and used in accordance with a Plan of Management.

The current Plan of Management (PoM) for Redfern Park (*Clouston Consultants, June 1996*) was adopted by the former South Sydney Council in July 1996.

*The Local Government (Community Land Management) Amendment Act 1998* requires Plans of Management prepared before 1 January 1999 to be reviewed to ensure compliance with the amended legislation.

The review of the current PoM concluded that the document was still valid as the intention was to continue the management and use of the Park with a distinct sportsground, organised sport use for the Oval area and a passive recreation use for the northern Park area. The management of these categories was also considered to be consistent with the core objectives listed under 36 of the Act.

Since the adoption of the 1996 Plan of Management the Park has been subject to numerous studies to assist in determining the future use and development of the sporting oval facility at the Park.

A detailed architectural assessment was undertaken on the Oval in 2002 which concluded that the Oval infrastructure (buildings, light towers, facilities etc) was in a state of decline and would require demolition or substantial works to upgrade to an acceptable state.

South Sydney City Council established a multi-agency Task Force to oversee the planning and potential redevelopment of Redfern Oval. ISFM consultants, in association with Cox Richardson and Rider Hunt prepared a feasibility study which, through a consultative process, included an analysis of potential market usage, market planning, options for redevelopment, cost estimates, funding strategies and management options.

The progress of this study was delayed with the amalgamation of South Sydney Council and City of Sydney in February 2004 which resulted in Redfern Park being under the responsibility of the City of Sydney.

On 21 November 2005, City of Sydney Council resolved to endorse key design directions for the upgrade of Redfern Park. (**Appendix B**)

With these design directions resolved by Council it is considered opportune to also update the current adopted plan of management to ensure clarity in the future development, use and management of Redfern Park.



### 3 How this Plan Compares with the 1996 Plan of Management

This Plan differs from the 1996 PoM in a number of areas.

- The Plan is briefer and focuses primarily on the requirements of the Local Government Act 1993. The 1996 PoM contains comprehensive background information and analysis that although has been used as a reference has not been revisited in developing this Plan.
- Includes an updated Tree Management Plan (**Appendix C**).
- Heritage and cultural values derived from the 1996 Plan of Management and Otto Cserhalmi Partners have been integrated into this Plan of Management. Otto Cserhalmi Partners will be preparing a Conservation Reference Document which will include conservation strategies for heritage items at the Development Application stage of the Park redevelopment. A statement of Cultural Significance is included in **Appendix D**.
- Includes an updated illustrated Master Plan that reflects the principles contained in the Council Resolution 21 November 2005.

## 4 Consultation

The *Local Government Act 1993* requires that prior to final adoption the draft Plan of Management must be placed on public exhibition for a period of 28 days with a further 14 days during which submissions can be received. All submissions need to be considered and assessed prior to Council adopting the draft Plan of Management as a final document.

The development of the plan of management and master plan has been guided by the 21 November 2005 Council Resolution (**Appendix B**) as well as consultation sessions with the following stakeholders.

- South Sydney District Rugby League Football Club
- South Sydney Juniors Rugby League Club
- Redfern All Blacks Rugby League Club
- Open Up Redfern Park
- RedWatch
- PCYC
- Redfern Police
- Redfern Waterloo Authority
- Indigenous Land Corporation
- Redfern Aboriginal Authority
- Aboriginal Housing Company
- Metropolitan Local Aboriginal Land Council
- The Fact Tree
- The Settlement Youth Centre
- Alexandria Park Community School
- Green Square Public School
- Mt Carmel School
- Waterloo Neighbourhood Advisory Board
- Redfern Neighbourhood Advisory Board

## 5 Requirements of the Local Government Act 1993

This Plan of Management (PoM) has been prepared in accordance with the requirements of the *Local Government Act 1993*.

Requirements of the Local Government Act for the contents of a Plan of Management and where these are located in this Plan are listed in **Table I**.

TABLE I	
Contents of a Plan of Management required under the Local Government Act 1993	
Requirements of the Local Government Act 1993	How this Plan satisfies the Act
A description of the condition of the land, and of any buildings or other improvements on the land as at the date of adoption of the Plan of Management.	Refer to Section 13
A description of the use of the land and any such buildings or improvements as at the date of adoption of the Plan of Management.	Refer to Section 13
Categorisation of community land.	Refer to Section 11
Core objectives for management of the land.	Refer to Section 11.1 and 11.2
The purposes for which the land, and any such buildings or improvements will be permitted to be used.	Refer to Section 14
The purposes for which any further development of the land will be permitted, whether under lease or licence or other wise.	Refer to Section 14
A description of the scale and intensity of any such permitted use or development.	Refer to Section 14
Authorisation of leases, licences or other estates over community land.	Refer to Section 15
Performance Targets.	Refer to Section 16
A means for assessing achievements of objectives and performance targets.	Refer to Section 16

## 6 Area Covered by this Draft Plan of Management

Redfern Park is defined by its boundaries of Elizabeth, Redfern, Chalmers and Phillip Streets. (Figure 1)

Relevant land information details of Redfern Park is as follows:

TABLE 2				
Area	DP / Lot Information	Size (m <sup>2</sup> )	Classification	LEP Zoning (South Sydney LEP 98)
Redfern Park	Lot 1 DP 724757	48,169	Community Land	6(a) Local Recreation



Figure 1 Location context

## 7 Ownership

Redfern Park is owned by Council and classified as Community Land.

The original site of Redfern Park was proclaimed for the purpose of Public recreation on 10 November 1885 (Government Gazette 530 Folio 7218-19).

It was named as "Redfern Park" on 20 November 1885 (Government Gazette 557 Folio 7461).

Council was appointed Trustee under the *Public Parks Act* on 10 December 1885.

On 20 January 1978 pursuant to Section 37AAA of the *Crown Lands Consolidation Act, 1913*, Redfern and Alexandria Parks were vested in Council in fee simple subject to certain reservations and exceptions.

The Eleventh Schedule to the Government Gazette No.10 of 2 January 1978 states that the "area of land limited to the surface and to a depth of 20 metres below the surface."

## 8 History and Cultural Heritage

Redfern Park has experienced a long and rich history, from swampy land used for grazing to the creation of a formal park layout designed by the Civil Engineer Charles O'Neill in 1888. Prior to the laying out of the central axis, the cross paths and the oval a series of practice cricket wickets were erected in 1885 used by local clubs. Rugby was first played on Redfern Oval in 1888.

The formal landscaping included a fountain and urns donated by the prominent local resident John Baptist, of which the fountain survives today. A bandstand was erected on a mound in the centre of the park and a bowling green laid out. A cricket pavilion and a bowling pavilion, the latter designed by Varney Parkes, were built adjacent to the oval and a substantial kiosk built within the park. Of these features only the cast iron Baptist fountain survives today.

The planting began circa 1886, with as many plants as could be spared supplied by the Botanic Gardens. The surviving nineteenth century surveys show the perimeter walkways, which today retain mature fig trees. The planting preferences of the successive directors of the Botanic Gardens with the Port Jackson and Moreton Bay figs favoured by Charles Moore and the deciduous figs and Canary Island palms favoured by Joseph Maiden are both evident today. Redfern Park retains 'an extraordinary range of botanical species' including the palm avenues, paired palms and Norfolk Island pines marking the entrances and specimen trees such as a Magnolia<sup>1</sup>.

Further improvements were made in the early 1890s, with the elaborate gates with waratah motifs to the sandstone piers and the wrought iron work installed in 1891, the design of which that would later appear in technical student handbooks, demonstrating how the state emblem: the waratah should be employed.

The sporting uses of the oval alternated, with cricket in the summer and rugby in the winter. Local bands performed on Sundays in the bandstand. By 1917 the park contained a children's playground. At the end of the Great War carnivals were held in the park to raise funds and a substantial war memorial erected which survives today. Following the attack on Pearl Harbour in World War II zig-zag air raid trenches were constructed in the park. These were filled in at the end of the war and an anti-aircraft gun installed as a memorial.

During the 1950s a more substantial grandstand was erected, resulting the removal of the two sports pavilions dating from the 1890s, the mound and bandstand having previously been removed to increase the size of the oval. The kiosk was used as a baby health centre until a more permanent centre was built.

From 1888 when the formal layout of the park was commenced sporting activities have been confined to the southern end of the park. The northern end of the park was for passive recreation, with formal landscaping, the central axis containing the Baptist Fountain, extensive specimen plantings, seating and shaded perimeter walkways.

Prime Minister Paul Keating launched Australia's program for the International Year for the World's Indigenous People at Redfern Park on 10 December 1992. He delivered a speech that announced the government's intention to succeed 'in the test which so far we have always failed', and followed this speech with a year of negotiations to achieve the enactment of the *Native Title Act 1993* and the *Land Fund Act 1994*. Currently there is no memorial in the Park that recognises this major event.

The park is listed as a Heritage Item (No. 897) in the *South Sydney Local Environmental Plan 1998 (Amendment 3) Heritage* and falls within the Redfern Estate Conservation Area.

The Park is also included in the City's Significant Tree Register.

<sup>1</sup> Landarc P/L *Significant Trees: Public Parks and Reserves*, December 2005 p.105



## 9 Legislative Framework

This section comprises the Basis for Management for Redfern Park. It describes the legislative and policy framework applying to the Park.

### 9.1 Local Government Act 1993

Redfern Park is owned by the City of Sydney and classified as Community Land. Requirements of the Local Government Act for a Plan of Management for Community Land are shown in **Table 1**.

### 9.2 Zoning and Planning Controls

*The Environmental Planning and Assessment Act 1997* (EPA Act) establishes the statutory planning framework for environmental and landuse planning in NSW through State Environmental Policies (SEPPs and Local Environmental Plans (LEPs)).

*The South Sydney Local Environmental Plan 1998* zones the Redfern Park 6(a) Local Recreation Zone. The planning objectives of this Zone are listed in **Appendix A**.

The LEP sets out in general terms what types of developments and uses are permissible within the 6 (a) Zone and which activities or development requires development consent. Development and activities authorised in this Plan of Management need to be permissible and consistent with the zoning objectives of the *South Sydney LEP 1998*, or any updated planning instrument prepared by the City of Sydney.

Development or use activities requiring a Development Application will be assessed under the *Environmental Planning and Assessment Act 1997*. Impacts of proposed activities or development will be assessed under 79(c) of the *Environmental Planning and Assessment Act 1997*. The LEP also contains heritage provisions.

### 9.3 Redfern Waterloo Authority

The Redfern Waterloo Authority (RWA) was established under the *Redfern Waterloo Authority Act 2004* and became operational in January 2005.

Redfern Park is located within the area of the new Authority (**Figure 2**).

The Authority has the responsibility for revitalising Redfern - Waterloo through planning, development and urban renewal of the area and through the preparation and implementation of the Redfern Waterloo Plan. The Authority is the consent authority for State significant sites within its area.

Redfern Park was not designated as a State Significant Site at the time this PoM was being prepared.

With redevelopment activity it is expected that the Authority area will experience significant population increases of up to an additional 20,000 people over the next 10 years which will place demand on the existing open space network.

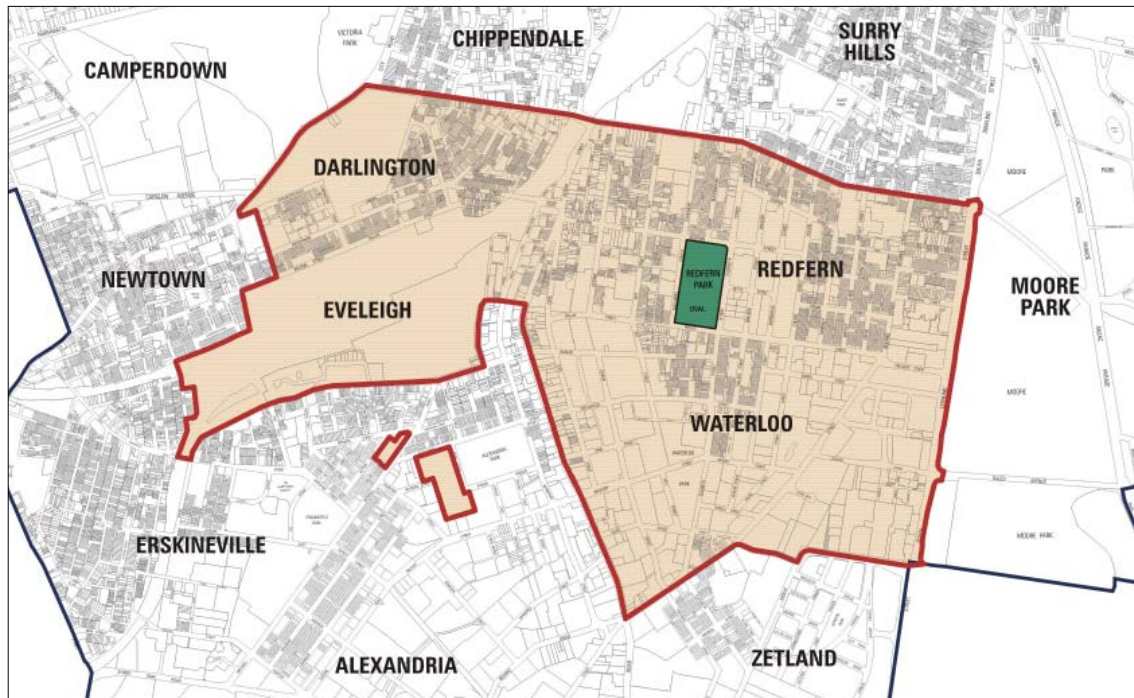


Figure 2 Redfern Waterloo Authority

#### 9.4 Other Relevant Legislation

##### **Companion Animals Act 1998**

The *Companion Animals Act 1998* aims to promote responsible animal ownership in NSW. Under the Act dogs in public places must be on lead under the effective control of a competent person, except in a declared off leash area. Dogs are prohibited within 10 metres of children's play areas, food preparation / consumption areas, and recreation areas where dogs are prohibited by the local authority. If a dog defecates in a public place, the owner must remove and dispose of it in a rubbish receptacle.

##### **Disability Discrimination Act 1992**

The *Disability Discrimination Act 1992* aims to eliminate, as far as possible, discrimination against people with disabilities in many areas, including access to premises.



## 10 Current Leases and Licences

There are no lease or licence agreements currently operable at Redfern Park.

The previous licence agreement held by the South Sydney District Rugby League Football Club expired in October 2005. The club currently uses the oval on a month to month agreement with the City of Sydney.

There is an anomaly with the current Early Childhood Centre located in Redfern Park since the 1950s in that there appears that no formal use agreement currently exists. This Early Childhood Centre is operated by NSW Department of Health and has been located in the Park since the 1950's.

Measures need to be undertaken to formalise the Early Childhood Centre use on Community Land with a lease or licence agreement as per the requirements of s.46 of the *Local Government Act 1993* if this use is to continue at Redfern Park.

It is however the preference for the Centre to be relocated out of the Park if an alternative location can be sourced.

## 11 Category of the Land under this Draft Plan of Management

It is a requirement of the *Local Government Act 1993* to categorise the subject land as per s.36 (4) of the Act.

Redfern Park has been categorised in accordance with the guidelines in the *Local Government Amendment (Community Land Management) Regulation 1999*.

In summary the proposed categories for this Plan of Management are as follows:

- Park
- Sportsground

This division of the park has been in place since the park was formally laid out in 1888. The delineation of these category types are shown in **Figure 3**.

The core objectives of these categories are described in **Sections 11.1** and **11.2**.



**Figure 3** Categories of the subject site

### **11.1 Core Objectives for Management of Community Land Categorised as a Park**

The Local Government Act establishes core objectives for all categories of community land. Council must manage the community land in accordance with the core objectives of the relevant category of land. Any Council objectives must comply with the core objectives established within the Act. The significance of the prescribed core objectives is to ensure that any activities or uses of the land are consistent with the core objectives for that category of land.

Categorised as a Park under s 36 (4) the core objectives of this category as per the Act are:

- a) To encourage, promote and facilitate recreational, cultural, social and educational pastimes and activities, and
- b) To provide for passive recreational activities or pastimes and for the casual playing of games, and
- c) To improve the land in such a way as to promote and facilitate its use to achieve the other core objectives for its management.

### **11.2 Core Objectives of Community Land Categorised as Sportsground**

Categorised as Sportsground under 36(4) the core objectives of this category as per the Act are:

- a) to encourage, promote and facilitate recreational pursuits in the community involving organised and informal sporting activities and games, and
- b) to ensure that such activities are managed having regard to any adverse impact on nearby residences (refer to **Section 12**).

## 12 Sportsground Use – Strategies to Reduce Impact on Neighbouring Residents

The sporting oval is categorised as a “Sportsground” as per s36(4) of the Local Government Act. As part of the objectives for this use category measures must be put in place to ensure that impact on neighbouring properties is kept to a minimum. It is anticipated that many of the amelioration measures will be included in the Conditions of Consent for the Park redevelopment or as conditions of use for event organisers. The following Table lists potential impacts and amelioration measures to be implemented to reduce impact.

TABLE 3	
Potential Impact / Issue	Amelioration Measures
Excessive hours of use	Sports ground use to occur between the hours of 7am - 11pm.
Loud amplified music / loudspeakers	Use conditions to meet current EP&A regulations.
Illegal parking in surrounding streets during event occasions	City ranger enforcement during events.
Lack of notification of upcoming events	Event organisers to provide at least one week notice of event to residents directly adjacent to Park.
Disturbance from light tower glare	Light towers to be elite training standard and to have anti-glare devices to minimise light spill to surrounding area. Use restricted to 11pm.
Limited community access to Oval for passive recreation	City to control booking/allocation of the oval/sport facilities. Oval area to be available for public use when not in use for training, sporting fixtures or events.

## 13 Description of Study Area and Current Permissible Activities

The legislation requires a description of the current condition and use of Redfern Park as per the following requirements:

TABLE 4

### Local Government Act 1993

Clause	Requirement
36 (3A) (a) (i)	Condition of the land, and of any buildings or other improvements on the land, as at the date of adoption of the Plan of Management.
36 (3A) (a) (ii)	The use of the land and any such buildings or improvements as at that date.

The following tables makes reference to the specific clauses in the legislation and provides a response to the requirements of the clause.

In providing an assessment of the current condition the following the following definitions have been used:

**Good** – new or well maintained

**Fair** – maintained but in need of repair

**Poor** – in need of major repair / demolition

For the sake of clarity these tables have been divided into northern Park area and the southern sporting Oval (Figures 4 and 5).





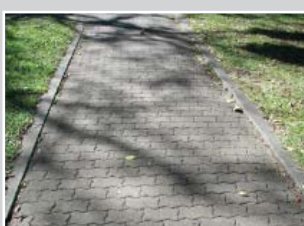
TABLE 5

### Description of Study Area and Current Permissible Uses

#### NORTHERN PARK AREA (refer to Figure 4)

Item	Description	Condition Clause 36(3A) (a) (i)	Current Use Clause 36(3A) (a) (ii)
Northern Park area (generally) 	Late 19th century public park containing culturally significant mature plantings, a fountain, formal paths and memorials.	Fair - Good	A number of organised community events have occurred from time to time in the Park including: <ul style="list-style-type: none"> <li>• Redfern/Waterloo Festival</li> <li>• Yabun Festival / Survival Day events</li> <li>• Music in the Park concerts</li> <li>• Carols in the Park</li> <li>• Anzac Day Memorial services</li> <li>• Citizenship ceremonies</li> </ul> Range of passive recreation uses, informal /casual games, structured playground use. Exercising of dogs on leash currently permitted.

NORTHERN PARK AREA (refer to Figure 4)			
Item	Description	Condition Clause 36(3A) (a) (i)	Current Use Clause 36(3A) (a) (ii)
<p>Early Childhood Centre with fenced play area</p> 	<p>Single storey brick construction with fenced play area and outdoor pergola.</p> <p>The current building is not considered to be of heritage significance.</p>	Fair	Purposes early childhood health. The centre has operated in the Park since the 1950s.
<p>World War One Memorial</p> 	<p>The War Memorial was installed at the end of the Great War 1914-18 "by the citizens of Redfern". The memorial consists of two statues, a digger and a seated woman reading a scroll. At the time of preparation of this PoM the sculptor has not been identified. Base of the memorial plinth is painted concrete.</p> <p>Soldier originally stood on a granite column that was removed (refer to photo at right).</p>	Fair	<p>Anzac memorial ceremonies</p> 
<p>Baptist Fountain</p> 	<p>The Baptist Fountain was donated to the park by prominent local resident and businessman John Baptist in 1889. The cast iron urns also donated by Baptist have been removed.</p> <p>The cast iron fountain with a bronze finish was probably manufactured at Coalbrookdale in England.</p> <p>Refurbished in 1993.</p> <p>Provides central focal feature for northern park area.</p>	Good	Park feature, amenity

NORTHERN PARK AREA (refer to Figure 4)			
Item	Description	Condition Clause 36(3A) (a) (i)	Current Use Clause 36(3A) (a) (ii)
Automatic Public Toilet 	Automatic Public Toilet installed in 1998.	Poor	Park amenity.  Currently not in operation due to damage.
Playground Area 	Playground constructed in 1998-9. Includes equipment, seating, shelters, softfall and tree planting.	Good	Childrens' play
Seats 	Range of timber slat seats recently installed.	Good	Park amenity
Lighting 	Energy Australia light standards.	Fair	Park amenity
Pavements 	Internal pathway system consists of predominantly of coloured concrete interlocking pavers.  Formal path layout is an important component of the heritage value of the Park. Entrances were marked by palms and Norfolk Island pines.	Good	Park amenity / pedestrian access



NORTHERN PARK AREA (refer to Figure 4)			
Item	Description	Condition Clause 36(3A) (a) (i)	Current Use Clause 36(3A) (a) (ii)
<p>Sandstone Boundary Wall</p> 	<p>Boundary treatment of sawn sandstone edge (400mm high) with flat coping installed in the 1970s.</p>	<p>Fair – good</p> <p>Some sections cracked / damaged.</p>	<p>Boundary definition of Park.</p>
<p>Redfern Street Gates</p> 	<p>Redfern Street Gates were installed in 1891 and bear the initials of the Park. The gates are wrought iron and the piers are sandstone that have been painted. Future works to the gates may include conservation of the metal and removal of paint from the stonework.</p>	<p>Fair - good</p>	<p>Historic element of park. Rarely used for vehicle entry.</p>
<p>Stone Mason Storage Depot</p> 	<p>Occupies a small fenced area on the north western corner of the Park. It is screened on its western side by trees and mostly contains a random selection of stone and associated masonry materials. It is currently not used as an operation depot.</p>	<p>Poor</p>	<p>It is currently not used as an operational depot. Occasionally used for storage of materials associated with maintenance of Park. Future use of this site to be reviewed.</p>
<p>Tree/Shrub Planting</p> 	<p>Mature fig trees around boundary and mature palm avenue along axial layout of park.</p> <p>Mature Fig and palm tree planting associated with Victorian era park design.</p> <p>Pairs of palms and Norfolk Island pines mark entrances.</p>	<p>Fair</p> <p>Tree Management Plan prepared. Health of trees is good in spite of past poor management practices (Appendix C).</p> <p>Strategies need to be implemented for tree replacements when existing trees approach senescence.</p>	<p>Contribute to park amenity and heritage significance.</p>



**NORTHERN PARK AREA** (refer to **Figure 4**)

Item	Description	Condition Clause 36(3A) (a) (i)	Current Use Clause 36(3A) (a) (ii)
<p>Grass Surface</p> 	<p>Level grass areas.</p> <p>The Park has traditionally contained level grassed areas with occasional specimen plantings.</p>	Good	Passive recreation, accommodates organised events such as community festivals, Children's Day etc
<p>WWII Cannon Monument</p> 	<p>WWII relic that forms a feature at the Redfern / Elizabeth Street corner of the Park.</p> <p>The installation of guns is typical of Australian parks. In contrast to the War Memorial that records the names of local servicemen, there is no connection evident between the gun and the park.</p>	Fair	Feature in park.












Figure 4 Northern Park area

TABLE 6

## Description of Study Area and Current Permissible Uses

## SPORTING OVAL (refer to Figure 5)

Item	Description	Condition Clause 36(3A) (a) (i)	Current Use Clause 36(3A) (a) (ii)
Reg Cope Grandstand Building 	Brick Construction with cantilevered roof structure. Includes spectator seating, players change rooms, gym, media boxes.	Poor: Repair work carried out to roof after 1999 hail storm. Remaining building fabric requires extensive repair and upgrade to meet BCA requirements.	Spectator seating, player amenities.  The Grandstand has also been used for public meetings.
Phillip Street Entry Gates / Toilets / Kiosk 	Brick construction single storey structure.	Poor	Toilets, patron entrance gates and kiosk facilities - rarely used.
Chalmers Street Toilets / Entry Gates 	Brick construction single storey structure.	Poor	Toilets, patron entrance gates.
Redfern Park Entry Gates / Kiosk / Toilets 	Brick construction single storey structure.	Poor - requires considerable upgrade.	Infrequent use for toilets, patron entrance gates.

SPORTING OVAL (refer to Figure 5)			
Item	Description	Condition Clause 36(3A) (a) (i)	Current Use Clause 36(3A) (a) (ii)
Oval Lighting Towers (x4) 	Four light towers of steel frame construction, over 30 years old.	Poor	Competition Rugby League, night training.
Rugby League Grass Playing Pitch 	Level grass pitch, competition size for Rugby League fixtures.	Good	Organised Sport, training, events and festivals
Raised grass mound spectator areas 	Raised earth mounds with grass cover.	Good	Spectator viewing.
Outdoor fixed seating areas 	Fixed plastic bucket seats.	Good - replaced and/or repaired after 1999 hail storm.	Spectator seating.
Irrigation borehole system 	Two bores located in oval area.	Good	Grounds maintenance / irrigation.



**SPORTING OVAL** (refer to **Figure 5**)




Item	Description	Condition Clause 36(3A) (a) (i)	Current Use Clause 36(3A) (a) (ii)
<p>Oval scoreboard entry building</p> 	<p>Brick structure. Rarely used entrance.</p>	<p>Poor - scoreboard is unusable.</p>	<p>Spectator facility.</p>
<p>Boundary fencing</p> 	<p>Perimeter chain wire, manproof fence.</p>	<p>Poor – repairs to breaches in fence regularly required.</p>	<p>Oval grounds security.</p>
<p>Retaining wall</p> 	<p>Concrete crib lock boundary retaining wall up to 4.5m high.  The retaining wall replaced earlier perimeter plantings.</p>	<p>Fair</p>	<p>Formation of current spectator mounds.</p>



Figure 5 Sporting Oval

## 14 Description of Proposed Future Development and Permissible Uses

The legislation requires a description of the future use and development/improvements that will be allowable in Redfern Park as per the following requirements.

TABLE 7

### Local Government Act 1993

Clause	Requirement
36 (3A) (b) (i)	Specify the purposes for which the land and any such buildings or improvements will be permitted to be used
36 (3A) (b) (ii)	Specify the purposes for which any further development of the land will be permitted, whether under lease or licence or otherwise.
36 (3A) (b) (iii)	Describe the scale and intensity of any such permitted use or development.

Under the Local Government Act uses and developments with land classified as community land must be consistent with the Park's categorisation (**section 11**) and the core objectives (**sections 11.1 & 11.2**) of each category.

The following table makes reference to the specific clauses in the legislation and provides a response to the requirements of each clause.

TABLE 8

### REDFERN PARK

#### Description of Proposed Future Development and Permissible Use

Item	The purposes for which the land and any such buildings or improvements will be permitted to be used Clause 36 (3A) (b) (i)	The purposes for which any further development of the land will be permitted, whether under lease or licence or otherwise Clause 36 (3A) (b) (ii)	The scale and intensity of any such permitted use or development Clause 36 (3A) (b) (iii)
<b>Northern Park</b> (refer to <b>Figure 4</b> )	Continue use for unstructured, informal recreation, childrens play, community events.	Development for the purposes of: reinforcing the heritage, visual and landscape character of the Park; providing an access and link to sporting oval; pathway links through and around the Park; providing amenities to facilitate use and enjoyment of the Park including but not limited to childrens play equipment, water features, seats, shelters, cafe/kiosk facilities and public toilets.	Refer to Masterplan.  Organised community park events to occur between hours of 7am – 11pm.

Description of Proposed Future Development and Permissible Use			
Item	The purposes for which the land and any such buildings or improvements will be permitted to be used Clause 36 (3A) (b) (i)	The purposes for which any further development of the land will be permitted, whether under lease or licence or otherwise Clause 36 (3A) (b) (ii)	The scale and intensity of any such permitted use or development Clause 36 (3A) (b) (iii)
<b>Early Childhood Centre</b>	Purposes of Early Childhood health and care.	Undertake strategy of removing building from Park if an alternative, appropriate site for the Early Childhood Centre can be located.	Refer to Masterplan.  <i>Note option to remove childcare building only if alternative site is located.</i>  If existing building to remain, no increase in building size or footprint is permitted.
<b>Stonemasons Depot Site</b>	Stone mason depot operation to demolished and returned to usable park area / facilities.	Development for the purposes of returning area to park use rather than operational depot.	Refer to Masterplan.  Depot area to be demolished and area to be consolidated back into Redfern Park. Site to provide park user amenities.
<b>Sporting Oval (refer to Figure 5)</b>	Organised sport – Junior and District level Rugby League competition and other team sports.  Rugby / sports team training.  Community events.  Rabbitohs football club training.  Coaching and league promotional activities.  Aboriginal Knockout Competition.  Activities to facilitate and promote sport and active lifestyles.  Allowance for six pre-season training and exhibition matches per calendar year.  School sports carnivals and the like.	Development for the purpose of conducting, promoting and facilitating organised sport, elite level sports training, promotion of unstructured recreation/ youth development and sporting activities.  Provision of amenities to facilitate use and enjoyment of the Park including kiosk facilities.  Development for the purposes of enclosing the oval for events and fixtures.	Oval use – 7 days a week from 7am – 11pm.  Refer to Masterplan.  Development to include: <ul style="list-style-type: none"> <li>• Provision of total ground capacity of up to 8,000 people.</li> <li>• Provision of facilities to allow use of the oval as Rabbitohs NRL Football Club's preferred training ground.</li> <li>• Provision of grandstand within footprint size of existing grandstand, and facilities to include up to the existing grandstand capacity with appropriate facilities including change rooms and open area seating.</li> <li>• Sports lighting (elite training standard).</li> <li>• Eight Rabbitoh pre-season training and exhibition matches per calendar year.</li> </ul>



### 14.1 Dog Management

Council may resolve in the future to designate parts of the Park as off leash as part of a development of a Companion Animal Plan for the City's open space network. It is recommended however that dogs be prohibited from the sports oval.

### 14.2 Park Ordinance Regulations

The City will adopt a co-operative flexible approach to possible activities that may occur within the Park as long as these activities are consistent with the designated categories and core objectives of the Park. A guiding principle will be that the safety and convenience of everyone using the Park must be respected will apply in all situations. In general, activities prohibited include any act that will cause inconvenience or injury to others and any act that may cause damage to the Park.

Activities that may be prohibited or require permission and approval from Council include but are not limited to:

- Driving or parking of vehicles in the Park;
- Camping/ staying overnight;
- Sale of goods/ services;
- Lighting of fires;
- Horse riding;
- Golf Practice;
- Organised events;
- Amplified music/ performances;
- Commercial filming;
- Drinking of alcohol.

Organised ballgames will be limited to the oval area only.

### 14.3 Advertising Signage and Sports Club Branding

It is recognised that sporting clubs sometimes rely on advertising and sponsorship as an income source. However *State Environmental Planning Policy No.64 - Advertising and Signage* places restrictions on advertising on land zoned open space.

To maintain visual amenity temporary advertising signage and structures in Redfern Park will be permitted in the sports oval area only subject to the following conditions:

- is displayed on match fixture / event days only and a maximum of three consecutive days will be permitted to cover weekend or long weekend sports carnival events;
- signage to directed for viewing by oval spectators only and shall not be overtly visible or intended to be displayed to surrounding street frontages;
- subject to Council approval temporary advertising may be displayed at Redfern Park when associated with upcoming community events and / or fixtures associated with the Park.

The erection of sports club logo / signage of oval licence holders will be considered subject to application and approval by Council.

Sports club logos should be designed to fit with the architectural form of the buildings and not obscure architectural details. Signage is to be of a high standard of materials, construction and purpose made for the proposed location.

## 15 Leases, Licences and other Estates

The *Local Government Act 1993* requires that any lease or licence of community land be authorised by a plan of management. Leases and licences formalise the use of community land by groups and organisations. Activities must be compatible with the LEP zoning of the land and provide benefits, services, or facilities for users of the land.

The maximum period for licences / leases on community land allowable under the Local Government Act is 21 years for purposes consistent with the categorisation and core objectives of the particular area of community land. Community land may only be leased or licensed if public notice is given as per the requirements of the Local Government Act.

Where a lease arrangement has been entered into with Council for community land, subleasing of the land must be in accordance with the requirements of section 47C of the Local Government Act.

Licences and leases for the use of Redfern Park for activities need to be permissible under this Plan of Management, *The South Sydney Local Environmental Plan 1998* (or any updated City of Sydney planning instrument), *The Local Government Act 1993* and pursuant to Development Consent if required.

This Plan of Management authorises the lease, licence or grant of any other estate over Redfern Park for purposes as outlined in the following table.

TABLE 9		
Type of arrangement authorised	Land and facilities covered	Purposes for which leasing/licensing will be granted
Licence	Sporting Oval and associated buildings and facilities	<p>Licences for the purposes of providing the South Sydney District Rugby League Football Club (Rabbitohs) training venue; licences for the purposes of playing and training junior and district level rugby league competition; licences for other team and school sports use.</p> <p>Licence to play eight pre-season/exhibition Rabbitoh fixtures per calendar year.</p> <p>Licence to provide home ground venue for Redfern based junior/district Rugby League Football Club (eg Redfern All Blacks).</p>
Lease	Early Childhood Centre, Redfern Park	Purposes of providing childhood health services.
Lease	Cafe / Kiosk facility	Lease to manage and operate park cafe / kiosk facility.
Grants of Estate	Redfern Park	<p>This Plan of Management allows Council to grant "an estate" over community land for the provision of public utilities and works associated with or ancillary to public utilities in accordance with the Local Government Act.</p> <p>Estates may also be granted across community land for the "provision of pipes, conduits, or other connections under the surface of the ground for the connection of premises adjoining the community land to a facility of the Council or other public utility provider that is situated on community land."</p>

The Council Resolution of 21 November 2005 (**Appendix B**) states that:

- (iv) *The facility is managed by the City of Sydney.*
- (v) *Accessibility to the community and sporting groups in a fair and equitable basis is maximised.*

This Council requirement will generally prohibit the issue of exclusive lease arrangements over the entire sporting oval and its facilities.

However secure and exclusive licence agreements will need to be provided for use of facilities for the purposes of and ancillary to training including but not limited to change room and gymnasium facilities, coaches office, sports training development facilities, and storage spaces. Similar arrangements will also need to be developed for licensee Clubs if exclusive use to storage spaces for their sports equipment is deemed required.

In managing the facility Council will issue block booking, seasonal licence agreements with defined hours of use to allow surety of access for sporting organisations as well as maximising the number of organisations and groups having the opportunity to use the facility.

Council management also needs to ensure effective utilisation and access equity is maintained, and overuse is avoided.

### 15.1 Short Term Casual Hire

Licences will be granted for casual events including, but not limited to the purposes listed in **Table 10**. These events may generally be held within the hours of 7am and 11pm.

TABLE 10		
Type of arrangement authorised	Land and facilities covered	Purposes for which leasing/licensing will be granted
Short Term Casual Use Licence	Northern Park area (refer to <b>Figure 4</b> )	Purposes of community events / festivals; Playing a musical instrument, or singing for fee or reward, picnics and private celebrations such as weddings and family gatherings, filming for cinema/ television, conducting a commercial photography session, public performance, engaging in trade or business , delivering a public address.
Short Term Casual Use Licence	Sporting Oval (refer to <b>Figure 5</b> )	Purposes of promoting active sport, playing organised sport, sports training, school sports, community events / festivals; Playing a musical instrument, or singing for fee or reward, picnics and private celebrations such as weddings and family gatherings, filming for cinema/ television, conducting a commercial photography session, public performance, engaging in trade or business, delivering a public address. Aboriginal Knockout Competition.

All short term casual hire will be in accordance with Section 116, 117 and 118 of the *Local Government (General) Regulation 2005*. However the Park may be used for civil emergency purposes when the need arises.

The *Local Government and Environmental Planning and Assessment Amendment (Transfer of Functions) Act 2001* transfers approvals formally required under section 68 of the Local Government Act to the Environmental Planning and Assessment Act. These transferred approvals include installing temporary structures on land.

Consequently casual use hire of the park/oval that includes the erection of temporary structures may require a Development Application.

To avoid excessive Development Applications being submitted for similar event types it is recommended that the City of Sydney either include park event use under the City's Exempt and Complying Development Schedule or prepare and submit as the Applicant a generic Development Application for up to 10 event occasions per calendar year over a three year period. The City can then issue consent to approved event organisers with conditions of use and operation. Examples of events could be Carols in the Park, and Yabun Festival etc. A traffic management plan will need to be submitted for all event Development Applications.

In assessing Redfern Park as a venue for events the City should apply the following criteria:

- The event should not result in physical damage to the Park
- The event should be available to all sections of the community
- The event should not result in a significant impact on adjoining residents;
- Organisers of the event should be responsible for cleaning up the site and repairing any damage that may occur.

Fees for short term casual bookings will be charged in accordance with Council's adopted Fees and Charges at the time.

# 16 Strategy and Action Plan

Section 36 of the Local Government Act requires that a plan of management for community land manages the land according to the objectives and methods set out below:

- a) the category of the land (refer to **section 11**),
- b) the objectives and performance targets of the plan with respect to the land,
- c) the means by which the council proposes to achieve the plans objectives and performance targets,
- d) the manner in which the council proposes to assess its performance with respect to the plan's objectives and performance targets.

The objectives and performance targets set out in the Table below are derived from the 1996 Redfern Park Plan of Management and Council Resolution 21 November 2005.

TABLE 11

## REDFERN PARK

Objectives and performance targets of the plan with respect to the land s.36(b)	Means by which Council proposes to achieve the plan's objectives and performance targets s.36(c)	Manner in which Council proposes to assess its performance with respect to the plans objectives and performance targets s.36(d)
<b>Urban Context</b> To maintain the Park as a vibrant and integral component in the visual and social and historic fabric of Redfern.	Re-establish the character of the Park on all street frontages over the full street block defined by Redfern, Elizabeth, Phillip and Chalmers Street by lowering spectator mounding, and establishing consistent and appropriate boundary tree planting to complete definition of street frontages of the Park.  Provide facilities and pathways through and around the Park that maintain its role as an attractive destination and thoroughfare in the locality.  Maintain and enhance the Park as a secure place in the locality through provision of upgraded lighting scheme.	Increased local use of the Park measured by survey and observation.
<b>Ownership and Tenure</b> To ensure that ownership, tenure and permitted use arrangements allow the widest possible community access to the Park and are orientated to mutually compatible recreational activities.	All future leases and licences to meet the requirements of <i>Local Government Act 1993</i> .  Investigate option to relocate Early Childhood Centre out of Redfern Park if suitable, accessible premises are located in the area.  City to control booking allocation of sports oval facility.	More extensive public use of all parts of the Park as measured by survey and observation.  Diversity and number of groups accessing and using the oval and park areas.

Objectives and performance targets of the plan with respect to the land s.36(b)	Means by which Council proposes to achieve the plan's objectives and performance targets s.36(c)	Manner in which Council proposes to assess its performance with respect to the plans objectives and performance targets s.36(d)
<p><b>Uses and Recreation</b></p> <p>To enhance opportunities for a balanced organised and unstructured recreational use of the Park.</p> <p>To optimise public access to all areas of the Park.</p> <p>That active and passive open space for the local community is maximised.</p> <p>Accessibility to the community and sporting groups in a fair and equitable basis is maximised.</p> <p>Retain two distinct halves of the park; one for passive recreation, the other for active recreation which were part of the original design.</p>	<p>Maintain range of organised and informal / unstructured activities in the Park.</p> <p>Seek to broaden the use and visibility of the sporting oval facilities to wider community.</p> <p>Provide improved facilities such as three phase power and water for the range of occasional events that occur within the Park so that these events may be accommodated without adversely affecting park values.</p> <p>Provide permanent toilet facilities that are robust in character with the Park and a design that discourages anti social activities.</p> <p>Seek alternative and viable locations for the Early Childhood Centre.</p> <p>Remove the stone mason depot and return to park use.</p> <p>Undertake audit of facilities ensure compliance with Council's Equitable Access Code and relevant Australian Standards.</p> <p>Sports oval and facilities to be managed by the City.</p> <p>Enforce dog management provisions as per requirements of Council's Companion Animal Management Policy.</p>	<p>Completion of Park redevelopment works.</p> <p>Increased diversity in use type and increased participation numbers as measured by survey and observation.</p>
<p><b>Sporting Amenities</b></p> <p>Provide high standard sporting and spectator facilities to accommodate junior/ district rugby league competition and other sports team codes and Rabbitohs team training.</p>	<p>Demolish existing grandstand, outbuildings, light towers and provide new grandstand facilities, player / training / spectator amenities, lighting to training standard as per approved master plan.</p> <p>Provide playing surface of a high standard for professional sport.</p> <p>Provision of facilities to allow the use of the ground as Souths NRL Football Club preferred training ground.</p>	<p>Completion of Park redevelopment works.</p> <p>Positive comments by sporting groups and users.</p>
<p><b>Access and Circulation</b></p> <p>To improve pedestrian access into the Park.</p> <p>To provide safe access for cyclists.</p>	<p>Remove excess / poorly aligned paths. Realign identified paths to better reflect pedestrian desire lines and intended axial layout.</p> <p>Re-establish a strong link between two portions of the Park and sporting oval to facilitate access.</p> <p>Improve pedestrian / cycle access to the Park across Elizabeth Street.</p> <p>Provide safe off road cycle access to Turner Street cycleway route.</p>	<p>Completion of Park redevelopment works that conform to all relevant Australian Standards and Codes for disability access.</p> <p>Minimum conflict between pedestrians and cyclists.</p>



Objectives and performance targets of the plan with respect to the land s.36(b)	Means by which Council proposes to achieve the plan's objectives and performance targets s.36(c)	Manner in which Council proposes to assess its performance with respect to the plans objectives and performance targets s.36(d)
<p><b>Traffic, Parking</b></p> <p>To provide vehicular circulation around the Park in a manner that ensures ease of pedestrian access in a safe environment, and respects the Parks physical structure and heritage character.</p>	<p>Maintain current traffic calming measures on Chalmers Streets.</p> <p>Investigate the feasibility to provide angle parking and traffic calming measures along Phillip Street frontage to increase parking capacity and slow down traffic adjacent to the Park.</p> <p>Ensure that maintenance and special event vehicular access to the Park will not result in inconvenience to park users or damage to the park.</p> <p>Ensure diligent enforcement of Council's parking restrictions through regular ordinance patrols during oval events.</p>	<p>Reduced volume of traffic in Phillip and Chalmers Streets and slower speeds as measured by survey.</p> <p>Minimum conflict between park users and service vehicles.</p>
<p><b>Cultural and Historical Significance</b></p> <p>Conserve the cultural significance of the designed cultural landscape of Redfern Park.</p> <p>Interpret the history of the design and use of the park for its future visitors and users.</p>	<p>Retain the surviving evidence of the original designed layout of the Park including the fountain, the central axis, the palm avenue, the perimeter planting and Redfern Street Gate and marked entrances.</p> <p>Reinstate missing landscape elements including perimeter planting and gate markers.</p> <p>Provide a more appropriate surrounding to the war memorial that provides for continued ceremonial use and reinstates the original configuration of the memorial.</p> <p>Provide a more appropriate surround to Baptist Fountain.</p> <p>Commemorate the use of the Park as a venue for the speech given by Prime Minister Keating in December 1992 celebrating the launch of the International Year of indigenous People (1993).</p> <p>Reflect Rabbitohs cultural and sporting connection to the Oval through commemorative fencing/gates or other appropriate artwork.</p> <p>Develop a long term conservation strategy for the built elements within the Park, including detailed maintenance requirements.</p>	<p>Completion of park redevelopment works.</p> <p>Completion of conservation works.</p> <p>Continued maintenance of individual heritage elements.</p> <p>Increased appreciation of the Park as measured by a park user survey and positive comments received by Council.</p>

Objectives and performance targets of the plan with respect to the land s.36(b)	Means by which Council proposes to achieve the plan's objectives and performance targets s.36(c)	Manner in which Council proposes to assess its performance with respect to the plans objectives and performance targets s.36(d)
<p><b>Landscape Character and Visual Quality</b></p> <p>To maintain and enhance the Victorian character of the northern park area.</p> <p>To establish a sense of unity between the sporting oval and the Park.</p> <p>To improve the visual quality of the sporting oval's external environment.</p>	<p>Re establish a strong link between two portions of the Park and sporting oval.</p> <p>Lower spectator mounding to allow views into the oval area.</p> <p>Review detailed planting treatments and lighting to improve the sense of security for park users.</p> <p>Upgrade the structure and surroundings of the existing historical features such as the entrance gates in Redfern Street and the surrounds of the war memorial.</p> <p>Tree planting strategy as recommended in Tree Management Plan to enhance landscape character of the Park and the neighbourhood including boundary planting of deciduous figs and enhancement of palm avenue on the central axis.</p> <p>Develop a consistent design vocabulary of park furniture, walls, paving, fencing etc appropriate to the Park's setting.</p> <p>Develop a co-ordinated signage strategy for the Park and its boundaries.</p> <p>Renovate understorey planting to reduce security problems and improve flower and colour characteristics.</p>	<p>Completion of Park redevelopment works.</p> <p>Increased appreciation of the Park as measured by a park user survey and positive comments received by Council.</p>
<p><b>Environmental Sustainability</b></p> <p>To maintain and enhance the health of trees in the Park.</p> <p>Park improvements to have regard for environmental sustainable design, resource use and maintenance.</p>	<p>Undertake tree surgery and soil treatments to those trees recommended in the Tree Management Plan.</p> <p>Incorporate energy efficiency and water reuse components and on site stormwater treatment in Park redevelopment and works.</p> <p>Establish new trees on Park boundaries.</p>	<p>Improved health of existing trees and successful establishment of new trees as measured by arborist's survey every five years.</p> <p>Completion of Park redevelopment works with environmental sustainable design features incorporated.</p>
<p><b>Management and Maintenance</b></p> <p>To provide a clean, well maintained Park.</p> <p>To ensure that the Park is a safe and secure place for its visitors both day and night.</p>	<p>Maintenance programs carried out in accordance with maintenance specifications.</p> <p>Seek specialist assistance to review lighting and park security to create well lit pathways through the Park to accommodate major night time movements and maintain daytime safety for park users.</p> <p>Clear low shrub growth at entrances to improve visibility and safety.</p>	<p>Positive comments received by Council.</p>

## 17 Masterplan

The master planning principles and related proposals encompass the major recommendations of the Plan of Management.

The master plan proposal (**Figure 6**) responds to the Council 21 November 2005 resolution and core objectives for community land as identified in the Act applying to Redfern Park.

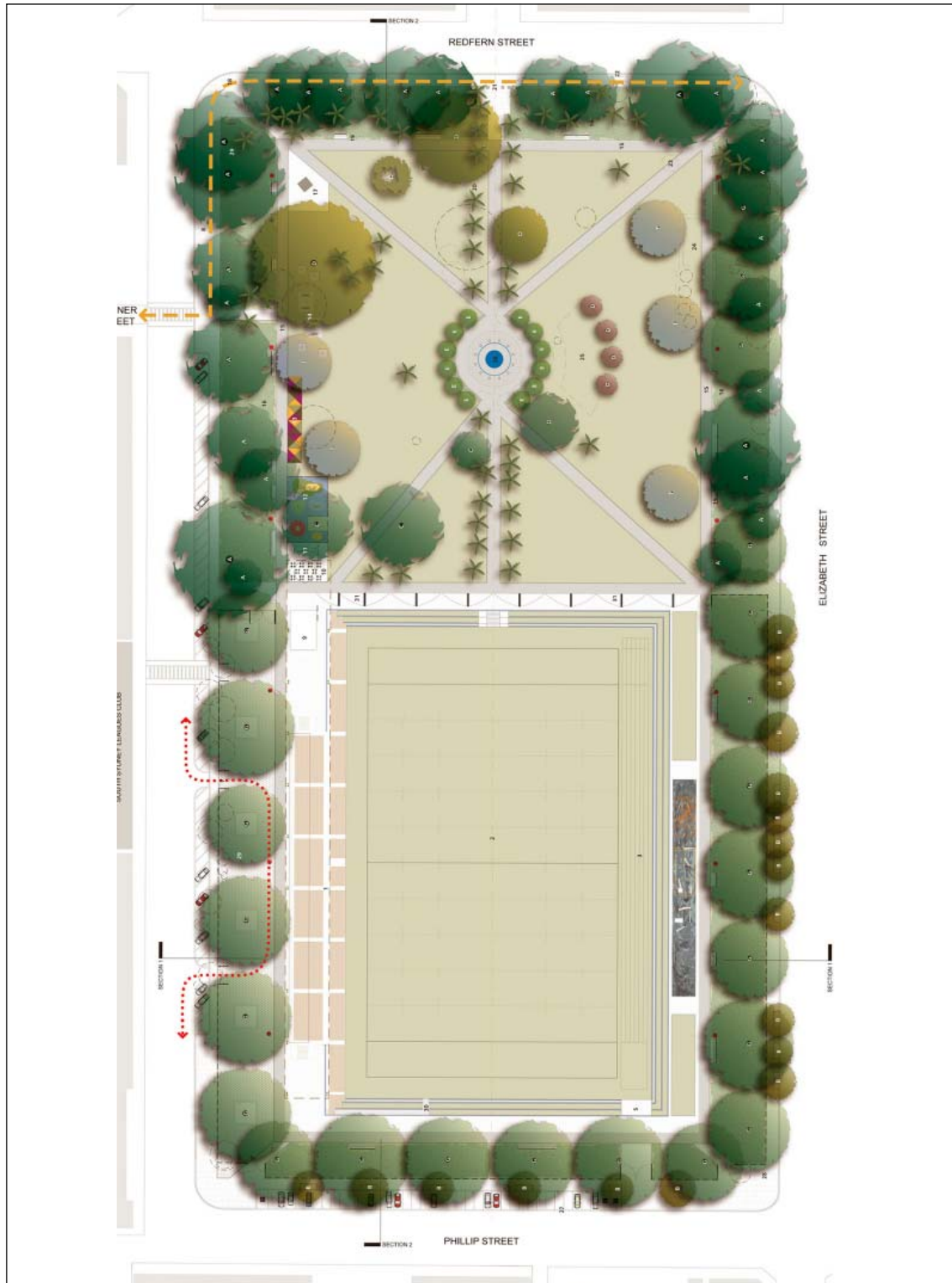


Figure 6 Masterplan proposal



**Figure 7** *Aerial perspective of Masterplan proposal*

## **18 Review of Plan of Management**

The Plan of Management will require regular review in order to be consistent with community values and changing circumstances.

The following review process is recommended:

- An annual review to assess progress and implementation of actions.
- A complete review and revision after 5 years.

## REFERENCES

- |  |  |
|--|--|
| <b>City of Sydney</b> (2005)                 | <i>Redfern Park - Oval Options Report</i>          |
| <b>Clouston Associates</b> (1996)            | <i>Redfern Park Plan of Management (Final)</i>     |
| <b>Clouston Associates</b> (1996)            | <i>Redfern Park Appendices (Final)</i>             |
| <b>Department of Local Government</b> (2000) | <i>Practice Note No.1 - Public Land Management</i> |



## APPENDIX A

### SOUTH SYDNEY LEP 1998

#### Zoning controls for Zone No 6(a) – the Local Recreation Zone

1) What are the objectives of the zone?

The objectives of Zone No 6 (a) are:

- a) to enable development of land for open space and recreational purposes, and
- b) to enable other ancillary or related development which will encourage the enjoyment of land zoned for local recreation, and
- c) to increase the provision and diversity of public open space and recreational land within the City of South Sydney to meet the needs of local residents, and
- d) to enhance the environmental quality of the City of South Sydney, and
- e) to encourage the use of natural drainage features to increase the availability of useable open space, and
- f) for land in the zone and within Green Square, in addition to the above, to ensure that development contributes to a sustainable, vibrant community, and reflects equal and integrated consideration of social, economic and environmental design issues.

2) What does not require development consent?

Any development identified in a plan of management adopted by the Council under the Local Government Act 1993 and which does not involve the creation of any gross floor area.

Development for the purpose of:

gardening; landscaping; public lighting.

Exempt development referred to in clause 10A.

3) What requires development consent?

Any development identified in a plan of management adopted by the Council under the Local Government Act 1993 and which involves the creation of any gross floor area.

Development for the purpose of:

child care centres; markets; places of assembly; recreation areas; recreation facilities; roads; temporary buildings.

Any other development not included in subclause (2).

Notes:

The consequences of carrying out development in this zone without development consent are the same as for carrying out prohibited development, unless the development is allowed to be carried out without consent by an Act, this plan or another environmental planning instrument. Clause 10 provides that such a development consent must not be granted unless the Council is of the opinion that the proposed development is consistent with the objectives of this zone.

## APPENDIX B

### Council Resolution – 21 November 2005

It is resolved that Council

- a) approve the preparation of a Concept Master Plan for Redfern Park with the following directions:
  - (i) That active and passive open space for the local community is maximised.
  - (ii) That the oval remains the spiritual home of Souths NRL football club by providing a playing surface of an appropriate standard for professional sport and suitable for all other levels of football including junior and school sport.
  - (iii) Provision of facilities to allow the use of the ground as Souths NRL football club's preferred training ground and subject to a Plan of Management and Development Application process, a ground for a limited number of pre-season training or exhibition matches
  - (iv) The facility is managed by the City of Sydney.
  - (v) Accessibility to the community and sporting groups in a fair and equitable basis is maximised.
  - (vi) Provision of a total ground capacity of up to 8,000 people with the opening-up of views and vistas into the oval from the adjacent streets and the northern end of Redfern Park.
  - (vii) Provision of a grandstand of modern design within the footprint size of the existing grandstand and facilities, to include up to the existing grandstand capacity with appropriate facilities, including change rooms; open area seating to be developed in the Master Plan.
  - (viii) Provision of adequate lighting to meet appropriate standards for training and ensuring adverse impacts on surrounding residents are minimised.
  - (ix) Enhanced community access and safety through removal of existing fencing and opening up of appropriate circulation routes linking the oval to the park and surrounding streets, with new fencing minimised to that necessary to ensure reasonable protection of the playing field. Council Staff are to investigate the possibility of new perimeter fencing of artistic and functional merit and designed by competition reflecting the Rabbitohs' cultural and sporting connection to Redfern Oval. Such commemorative fencing will be as unobtrusive as possible and incorporate large retractable openings at gates and other points on the perimeter. The day to day operation and management of the gates and openings is to remain in Council's control.
- b) Note that community consultation will be undertaken with all groups in preparation of a Concept Master Plan to be reported back to Council in mid 2006 for approval of public exhibition. A Plan of Management will be completed during the Development Application documentation period.

## APPENDIX C



**Draft**  
**REDFERN PARK**  
Tree Management Plan

August 2006







## EXECUTIVE SUMMARY

The Redfern Park Tree Management Plan (TMP) was prepared as part of a suite of Tree Management Plans for the City of Sydney's parks. The TMP forms part of the Redfern Park Plan of Management and informs the Masterplan.

A major focus of the TMP is to implement a program of tree removal and replacements that will reinforce the strategies recommended in the 2006 Masterplan.

The Tree Management Plan includes a survey of all of the existing trees within the Park (124 trees) and contains relevant heritage, environmental and arboricultural data relating to individual trees as well as distinct groups of trees such as the street tree planting around Redfern Oval.

A Safe Useful Life Expectancy (SULE) analysis of the tree population was prepared. From this assessment the following removal and replacement strategies were recommended:

- Staged removal and replacement of the boundary planting of Fig trees surrounding Redfern Park, over the next twenty years;
- Twenty seven (27) trees to be removed within the Park over the next five (5) years;
- Eleven (11) of these trees to be removed from within the Park during the Redfern Oval upgrade;
- Paperbarks in Elizabeth Street to be retained until a row of advanced Fig trees are planted within the boundary of Redfern Oval;
- Removal of the street trees in Chalmers Street during the Redfern Oval upgrade; and
- Removal of selected trees on Phillip Street during the Redfern Oval upgrade;

The Tree Management Plan recommends a series of improved techniques to ensure best practice tree monitoring and arboricultural maintenance.

Comprehensive management and maintenance requirements are to be incorporated into the Parks and Open Space contract specifications and include details relating to:

- Electronic databases;
- Disease monitoring;
- Pruning programmes;
- Soil improvements; and
- Nurturing of young trees



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## I INTRODUCTION

The Redfern Park Tree Management Plan was prepared by the City of Sydney as part of a suite of Tree Management Plans for Sydney City's parks. The Tree Management Plan forms part of the Redfern Park Plan of Management and informs the Masterplan which provides key design directions for the upgrade of Redfern Park.

### I.1 Purpose of the Redfern Park Tree Management Plan

The purpose of the Redfern Park Tree Management Plan is to develop proactive strategies for the effective management, maintenance and conservation of the Park's tree population and to determine any special requirements of the trees to be considered as part of the redevelopment and new Masterplan.

The aims are to:

- describe the special qualities of the Park's trees, their significance and the landscape character that they create;
- assess the health and condition of all existing trees;
- provide strategies for the long term removal/replacement of all of the Park's trees;
- to develop a consistent proactive management approach for the existing tree population; and
- to develop community awareness and acceptance of tree management issues including tree removal and replacement strategies and disease management.

### I.2 Scope of the Plan

The Redfern Park Tree Management Plan (TMP) focuses on the trees in Redfern Park and Redfern Oval. It includes a survey of all of the existing trees and contains relevant heritage, environmental and arboricultural data relating to individual trees as well as distinct groups of trees such as the street tree planting.

### I.3 Project Background

The City of Sydney recognises the significance of the trees within its parks as a part of the City's commitment to tree management. The preparation of Tree Management Plans for key parks, including Redfern Park, is a key priority for the City.

## 2 METHODOLOGY

### 2.1 Study Process

Preparation of the Redfern Park Tree Management Plan involved the mapping of the existing tree population within the Park and the surrounding streets and comprehensive studies of the issues that affect these trees.

Council's Tree Management Team conducted visual assessments from the ground, of each and every tree. The results of this assessment were recorded and tabulated into a Tree Assessment Schedule (Attachment 1). Field notes, observations and photographs were recorded during the assessment period and a Safe Useful Life Expectancy (SULE) analysis of the tree population was prepared. The assessment was compared to a previous tree survey conducted by an independent arborist in 1994, to assess the rate of change of the mature trees.

A soil study of Redfern Park conducted in November 1993 by the NSW Department of Agriculture together with a soil analysis report conducted by Sydney Environmental Soil Laboratory in 2006 were considered as part of the study process to determine how the soil conditions relate to the growth and longevity of the existing trees and to provide strategies for future planting.

A design analysis of the Park identified significant vistas and planting patterns and the general landscape character of the Park.

An historical perspective on past plantings in relation to viewing corridors and vistas was considered. Significant trees were identified individually and in group plantings.

The current arboriculture practices and tree management methods used by the City's Parks and Open Space Service Providers were assessed to identify any opportunities to improve the existing techniques.

Specific tree issues, such as inappropriate tree plantings, hazardous trees, poor performance and over-mature trees were documented and recommendations provided for remedial treatments and tree replacement strategies.



### 3 THE PARK

#### 3.1 Site Description

Redfern Park occupies an area of approx 4.5 hectares of land in Redfern, extending from Redfern Street in the north to Phillip Street in the south, between Elizabeth and Chalmers Streets. A dividing fence separates Redfern Park in the north from Redfern Oval in the south.



Figure 1 Site Plan

### 3.2 History

Redfern Park is over one hundred years old. An historical analysis prepared by Wendy Thorp in 1994 as part of the Redfern Park Plan of Management<sup>1</sup> indicated that the Park was designed and constructed during the 1880s as a typical Victorian pleasure ground that included ornamental gardens, cricket wickets, a bowling green and a bandstand. The park is a Crown Reserve and was dedicated for the purpose of public recreation in 1885.

### 3.3 Cultural Significance

Redfern Park has considerable cultural significance and aesthetic value and is representative of the Victorian era of landscape styles. As the manager of Redfern Park, it is Council's responsibility to ensure that the historic integrity and cultural significance of Redfern Park is retained.

### 3.4 Design Analysis

Redfern Park is one of Sydney's premier parks and is representative of a formal urban landscape.

The mature Figs (*Ficus* sp.) surrounding Redfern Park create a visually dominant design element and the central avenue of Date Palms (*Phoenix canariensis*) remains an historically significant vista. However the *ad hoc* planting of specimen trees in recent years has compromised the formality of the original design. The placement and species selection of the trees within the Park does not appear to have been guided by any well conceived design concept.

A major focus of the Tree Management Plan is to implement a program of tree removal and replacements that will reinforce the design strategies recommended in the 2006 Redfern Park Masterplan.

<sup>1</sup> Redfern Park Plan of Management - prepared by Clouston Associates, 1996.



Figure 2 2006 Redfern Park Masterplan

## **4 SOIL ASSESSMENTS**

### **4.1 1993 Soil Study**

In November 1993 Council of the City of South Sydney engaged the services of Mr Roy Lawrie, a soil chemist from the NSW Department of Agriculture, to analyse the soil conditions in Redfern Park and Redfern Oval and report on the constraints and opportunities in relation to the growth and longevity of the tree population.

The 1993 report indicated that Redfern Park was once a large swamp that had been subjected to considerable in-filling. The original soil profile was buried at least 1.5 metres below the surface with the thickest fill located beneath the spectator area of Redfern Oval.

Preliminary testing of the nutrient levels in the topsoil showed satisfactory conditions for plant growth, with limited compaction and satisfactory profile drainage. The surface soils were well supplied with phosphorous and potassium. Levels of organic matter (and hence nitrogen) were low, but adequate for the existing vegetation. The pH was low but not enough to affect plant growth.

### **4.2 2006 Testing and Analysis**

As part of the tree management strategy, a chemical and physical analysis of the soil within the root zones of the established trees was undertaken by Sydney Environmental and Soil Laboratory in June 2006.

The 2006 soil report indicates that the topsoil was found to have a generally good physical structure and acceptable permeability with some evidence of hydrophobic condition in lawn areas.

Recommendations for specific treatments to rectify minor deficiencies have been included in SESL's Soil Report.



## 5 THE TREES

### 5.1 Tree Survey

In order to gain a clear picture of the condition of the trees in Redfern Park, an inventory was prepared (Attachment 1: Tree Assessment Schedule). All of the trees were inspected and their locations, tree number and species documented on a Tree Location Plan (Appendix 2) and Tree Location Schedule (Appendix 3).

Graphic representations were prepared, indicating the projected Safe Useful Life Expectancy of each tree (Figure 3: SULE Analysis)

### 5.2 Analysis of Results

The data collected for the Redfern Park Tree Management Plan provides a valuable tool to analyse the numbers, distribution, age and the overall health and condition of the current tree population in Redfern Park (Attachment 1: Tree Assessment Survey).

The inventory indicates that there is currently a total of one hundred and twenty four trees (124) trees, over three (3) metres tall, located in Redfern Park. The total includes 26 different species.

Another five (5) species are located in the adjacent streets with ten (10) street trees in Chalmers Street, six (6) street trees located in Phillip Street and twelve (12) Paperbarks located in Elizabeth Street.

The findings indicate that Canary Island Date Palms and Deciduous Figs, planted circa 1900, are by far the two dominant species in the Park accounting for 26.6% and 17.7% respectively.

### 5.3 SULE Analysis

SULE is an acronym for Safe Useful Life Expectancy (Appendix 6: Sule categories). It is a system that was developed by Jeremy Barrell<sup>3</sup> in 1996, to assess tree life expectancy and how long trees can be expected to be retained safely and usefully near people.

In all situations safety has to be considered the absolute priority. Important secondary objectives are reasonable management costs and sustaining amenity. The priority when managing trees with a high hazard potential should be to reduce the risk to an acceptable level. This can be achieved by removing the tree, removing the targets or treating the tree.

A major role of trees in an urban environment is to provide visual amenity. Healthy trees have the potential to provide visual amenity in the future in a way that does not lead to injury/damage to people or property. Trees become less useful as maintenance costs become excessive and they begin to have a negative effect on amenity by interfering with better trees or inhibiting the establishment of new trees.

Mature and over-mature trees, particularly in stressful urban settings such as Redfern Park, have greatly reduced recuperative powers compared with younger trees. The SULE categories were estimated for each and every tree in Redfern Park (Figure 3).

Three (3) trees were assessed as having a Long SULE (ie. appeared retainable for more than 40 years). This represents 2.5% of the total population .

Eighty six (86) trees assessed as having a Medium SULE (ie. appeared retainable for up to 40 years). This represents 69% of the total population.

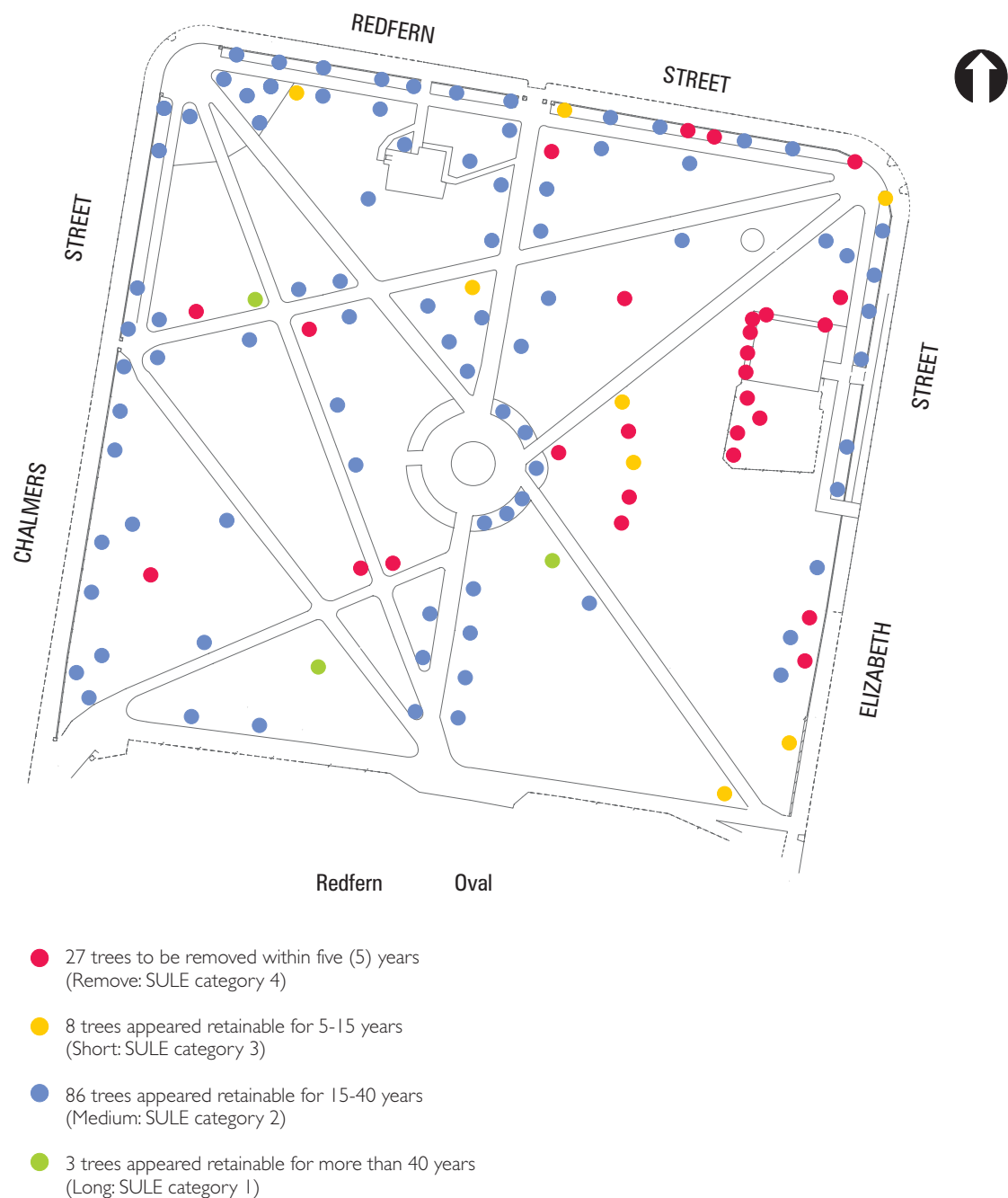
<sup>3</sup> Jeremy Barrell is a consulting arborist from Hampshire in the United Kingdom. He developed the concept of SULE as a method of systematically assessing trees on proposed development sites. In essence trees with the longest SULE would be the ones most worthy of retention.

Eight (8) trees were assessed as having a Short SULE (ie. appeared retainable for up to 15 years). This represents 6.5% of the total population.

Twenty seven (27) trees were assessed as being due for removal within the next five (5) years. This represents 22% of the total population.

**The SULE results indicate that 97.5% of the total tree population in Redfern Park will require removal/replacement within the next 40 years.** The various issues relating to extensive tree removals (eg. the public's sense of ownership of the park) will become critical with each passing decade.

The SULE categories for each of the trees in Redfern Park are included in the Tree Schedule (Attachment I).



**Figure 3** Safe Useful Life Expectancy (SULE) Analysis

#### 5.4 Significant Trees

Most of the trees in Redfern Park were planted c1900. These trees have been listed in the City of Sydney's Register of Significant Trees and where possible shall be preserved and protected. Registering these specimens raises awareness of their historical value and improves the quality of their management and their prospect for a longer life (Appendix 5: Significant Tree Locations).

The tree planting in Redfern Park has particular significance because it is the only park in the City of Sydney LGA to be predominantly planted with Deciduous Figs (Figure 1, *Ficus superba* var. *henneana*). This species is relatively rare within all of the city's parkland and is generally restricted to individual specimens. The trees should be recognized for their historic significance.



**Figure 4** Deciduous Fig (*Ficus superba* var. *henneana*)

## 6 TREE MANAGEMENT STRATEGIES

Redfern Park has an aging but culturally significant tree population that requires periodic monitoring as part of a programme of responsible tree management.

Tree management includes more than just tree maintenance. In addition to the usual remediation operations such as mulching, fertilizing and the pruning of dead limbs, it also includes strategies for the removal/replacement of dead trees, species selection of new/replacement planting, regular inspection of trees for disease and/or damage and selective removal of trees planted at very close spacing.

It is essential that tree management is integrated into the overall landscape planning, design and management framework for Redfern Park and that Council's various disciplines work together and coordinate their activities. In addition to landscape managers and arborists, it is imperative that landscape architects are involved in the process so that the aesthetic dimension of tree management is adequately presented and future planting designs are formulated to provide a coherent future landscape.

A detailed planting plan shall be prepared following the completion of the Redfern Park Masterplan. This plan shall be used to indicate the locations of all existing trees and to effectively guide the selection and placement of any future planting.

As the tree planting strategies for Redfern Park and Redfern Oval will have an enormous impact on the landscape for the next 100 years it is essential that the Redfern Park Tree Management Plan is ratified by Council and becomes an integral part of Council's Tree Management Policy, rather than the views of the then current landscape management officers.

Future tree management strategies must include a proactive maintenance program that includes a detailed monitoring and record-keeping system. As part of this record keeping system, the Tree Location Plan and Tree Assessment Schedule should be amended (on an annual basis or as required) to reflect any tree removals or replacements.

### 6.1 Health and Condition of the Existing Trees

Generally the health and vigour of the mature trees in Redfern Park appears to be good.

Many of the figs growing along the boundaries have had large branches removed. This remedial type of pruning has created epicormic shoots (weakly attached branches) along the remaining primary branches. Some of these trees may be structurally compromised before the determined useful life expectancy because the poorly attached epicormic branches may fail. Management of these trees requires pruning works to maintain their branch architecture in a safe manner while allowing the epicormic shoots to form part of the canopy.

A number of the existing trees growing in lawn areas have suffered basal injuries caused by heavy mowers and weed whippers. This type of damage which is evident on the thick-barked buttresses of many mature specimens, can allow the entry and development of decay fungi.

#### Trees 10-11 and 30-31

All four (4) of the Moreton Bay Figs (*Ficus macrophylla*) have been infested by Fig Psyllid in the past (Redfern Park Tree Survey 1994, Garry Clubley) although none appeared to be severely affected at the time of this assessment.



## Trees 28-29

Two (2) of the Deciduous Figs (*Ficus superba* var *Henneana*) on the Elizabeth Street boundary have been suppressed by adjacent tree plantings. This has resulted in poor structure and canopy development. They are unlikely to develop into well formed trees.



Aerial root from tree No.31 growing around the trunk of tree No.28.

Canopy has been suppressed and will never develop acceptable form.

Remove in the short term.

**Figure 6** Tree 28 in foreground with aerial root from tree 31 growing around trunk.

## 6.2 Management of the Existing Trees

Comprehensive requirements detailing improved techniques to ensure best practice tree monitoring and arboricultural maintenance are to be incorporated into the Parks and Open Space Contract Specifications.

Management of the mature trees within Redfern Park requires an initial mulching strategy to improve soil structure and reduce compaction and pruning works to reduce hazards (refer to Attachment I: Tree Assessment Schedule). This should then be followed by a proactive monitoring and maintenance regime.

Twenty seven (27) trees are recommended for removal within five (5) years based on their poor form, declining vigour, inappropriate location or suppression by other trees (SULE Analysis, Figure 3). None of the trees were identified as being so hazardous that they required immediate removal however approximately 22 trees were identified as requiring further detailed arboricultural assessment, including aerial inspections (Attachment I: Tree Assessment Schedule).

### Tree Monitoring

A qualified arborist shall inspect all mature trees on an annual basis and after any major storm event. Arborists undertaking the inspections to have a minimum AQF level 5 qualification in Arboriculture or a minimum of five (5) years arboricultural experience in assessing trees of a similar condition as approved by the City.

The site inspections shall include detailed monitoring of any pests and diseases including termite infestations. All relevant observations, data (including dated photographs) and recommendations shall be recorded and made available to the City's Tree Management Team.

The Tree Management Team shall use the information to update the Tree Assessment Schedule (Attachment I) and the Tree Location Plan (Appendix 2) to reflect any tree removals and/or amendments.

The City's Tree Management Team shall be consulted prior to any excavation for hardworks or services within the root zones of any trees within Redfern Park.

The City's Tree Management Team shall undertake periodic audits of the tree maintenance practices undertaken by the City's Service Providers to ensure that the trees are being managed in accordance with this Plan.

### **Tree Pruning**

Deadwood of 25mm or greater in diameter shall be removed from the crowns of all trees. All pruning work shall be carried out by a qualified arborist who has the appropriate qualification of Australian Qualification Framework (AQF) in Arboriculture level 3 and five (5) years industry experience as approved by the City.

Pruning methods and techniques shall be in accordance with the Australian Standard AS4373 1996 *Pruning of Amenity Trees*. A copy of this document must be available and held on site by the Contract Supervisor.

All pruning work shall be undertaken in accordance with the NSW Workcover Code of Practice for the Amenity Tree Industry (1998).

### **Mulching**

A 50-80mm layer of organic mulch (15-40mm, with no fines) shall be placed around the base of all trees to a distance of one (1) radial metre (except in the case of large fig trees where the mulch may have to extend to a greater distance). The mulch must comply with AS4454 *Composts, Soil Conditioners and Mulches*.

### **Fertilising**

An annual maintenance program of root plate remediation shall include aeration and soil improvement. Where trees show evidence of nutrient deficiency, a soil analysis and report shall be prepared by a soil scientist to identify the deficiency and provide the appropriate remedies.

### **Pests and Diseases**

The monitoring and control of pests and diseases shall be undertaken continuously with inspections including the following actions;

- Identification
- Assessment of damage
- Immediate action undertaken (if required)
- Reporting details

All inspections shall be undertaken by a qualified arborist with minimum AQF level 5 qualification in Arboriculture or demonstrated equivalent industry experience.

Natural predators and parasites shall be encouraged by retaining the fallen leaves within the mulched area around the base of the trees. This is a particularly effective method to help alleviate Fig Psyllid infestations.

Chemical control of Fig Psyllid is not recommended in this busy pedestrian environment.

### 6.3 Tree Removal/Replacement Strategies

In order to maintain a viable tree population in Redfern Park it is vital to plant new trees and to replant declining trees in a planned and managed way with the support of the community.

Many of the trees in Redfern Park were planted c.1900 and therefore are similar in size and maturity. It follows that a number of these trees may need to be replaced at around the same time. In some situations the trees have already ceased to contribute to the amenity of the Park and are compromising the amenity provided by trees of better health and condition (refer to SULE Analysis page 9).

An approximate time frame has been set for the removal/replacement of all of the trees in Redfern Park (Attachment 1: Tree Assessment Schedule). This will ensure that the visual loss is evenly distributed over time.

The development and implementation of tree removal and replacement strategies requires a consistent approach and commitment to planning. Long term planning is necessary when dealing with a landscape comprised of trees of a similar mature age, condition and heritage significance.

There are no pain-free approaches to tree removal and replacement. It is an emotive issue that may invoke community opposition and misunderstanding. Most people respond strongly to the removal of trees that are not dead and some groups in the community vehemently oppose tree removal whatever the justification (Hitchmough, 1989). However trees have a limited useful life and cannot be retained indefinitely. Many people will accept the need for tree replacement programs once they appreciate the issues involved.

The major factors that encourage the implementation of tree replacement programs in public open space include the concern for public safety and the maintenance of a high level of aesthetic return.

For the most part, tree removal in Redfern Park, will occur by natural attrition, except in situations where a tree or trees are posing a risk to public safety or compromise the amenity of other trees. However, it is inevitable that as the trees in Redfern Park become over-mature, they will need to be progressively removed and replaced. Sustained amenity can only be achieved by establishing a range of age classes (eg. young, semi-mature, mature and over-mature). This is a very important management tool that can be used effectively in Redfern Park if there is diligent record keeping relating to tree removals and replacements.

The City of Sydney has a duty, as the manager of Redfern Park, to ensure that the public are not exposed to unreasonable levels of risk from the mechanical failure of the trees within the Park. At the same time, there is an expectation to maintain the amenity provided by the existing tree population.

New and replacement planting shall be carried out in accordance with the design strategies included in the Draft Redfern Park Masterplan.

### 6.4 Removal and Replacement Strategy for the Park and Oval Trees

The current planting in Redfern Park consists predominantly of Fig trees along the street boundaries with an avenue planting of Palm trees lining the central N-S pathway and specimen trees spotted throughout the open space areas.

Many of the trees in the Park are approximately 80 – 100 years old and are in a state of decline. It is estimated that 97.5% of the trees will be removed within 40 years (SULE Analysis).

A number of trees growing inside the Park area have been identified with health or structural problems (Figure 3: SULE Analysis). Some of these trees will be removed during the proposed upgrade of Redfern Oval with others removed as required over the next five (5) years.

The evenly aged and spaced planting of the Fig trees around the street boundaries presents particular challenges when addressing methods of removal and replacement. There are three techniques that may be used:

- natural attrition - replace trees as they fail;
- selected removal - remove and replace every second or third tree or;
- block removal - remove blocks or sections of trees.

### **Natural Attrition**

This option allows for the removal of individual trees gradually, as their condition becomes critical. However, replacement of individual trees within avenues must be carefully considered. Where there is adequate light and space, this type of tree replacement may be successful. However generally it is not recommended due to the probability that the tree will perform poorly. The intense competition for light, water and nutrients under the canopies of the existing mature trees, compromises the form of the young trees, often resulting in irredeemably misshapen or stunted trees.

### **Selected Removal**

Selected removal is generally not successful for the same reasons as natural attrition. The gradual replacement of trees within avenues also creates problems of differential age and inconsistent canopy size.

### **Block Removal**

Block removal and replacement requires the removal of a number of trees at the one time and is the only technique that can successfully achieve the uniform appearance typical of avenue planting. While dramatic, this is the only known and accepted approach to create growing conditions that allow for the uniform and consistent habit characteristic of avenues.

Whilst block removal creates loss of amenity, in the short term, it is the only method available to overcome the difficulties of suppression and root competition associated with establishing young trees next to mature trees.

The Fig trees planted around the boundaries in Redfern Park are slowly declining and will probably reach a stage in about 30 years time when they will need to be removed to ensure the safety of Park users. When they are eventually removed there will be a period of about 20 years when the effect of the present boundary planting will be lost, if no action is taken in the interim.

Staged block removal of small groups of these Fig trees is the preferred technique to replace the boundary planting. It is possible to plant another row of Figs deeper into the Park on the Chalmers and Redfern Street boundaries to reduce the impact of the inevitable removal of the existing row of trees. The scaffold branches of the existing trees will need to be pruned away from the newly planted trees and the structural stability of the trees managed diligently until it is time for the trees to be removed.

This scenario is not an option along the Elizabeth Street boundary because of the present location of the Baby Health Centre and two very large Moreton Bay Figs (Figure 7) which are located inside the outer row of Figs. If the Baby Health Centre is relocated in the future, then additional trees could also be planted along this boundary.

### **Redfern Park Masterplan Design Strategies**

In accordance with the recommendations of the Redfern Park Masterplan seven (7) *Phoenix canariensis* (Date Palms) shall be transplanted from in and around the garden circling the Baptist Fountain to reinforce the central avenue.



**Figure 7** Moreton Bay Fig (*Ficus macrophylla*) Elizabeth Street boundary.

Eleven (11) trees in poor condition surrounding the existing Early Childhood Health Centre shall also be removed during the Redfern Oval upgrade.

Replacement trees can be grown off site, to a height of approximately 5-6 metres enabling the planting of advanced trees when the existing trees are removed.

It is envisaged that the replacement trees will take approximately three (3) years to be 'grown on' off site. Therefore it is envisaged that the first stage of the replacement planting can start in the year 2010.

The proposed removal and replacement strategy can be flagged now to so that when the time comes, the tree removals have been largely understood and accepted.

The general tree population within the boundaries will be replaced by natural attrition. There are sufficient numbers of specimen trees and palm plantings within the Park to sustain the visual amenity during any removal and replacement transition period.

## **6.5 Removal and Replacement Strategy for the Street Trees**

### **Elizabeth Street**

There are twelve (12) Paperbarks growing in the grass verge close to the kerb, along Elizabeth Street, outside the Redfern Oval boundary. There are no overhead powerlines and there has been minimal damage to the pavement at this stage. The trees appear to be in good condition though they are already starting to displace the kerb and gutter.

As these trees are currently considered to be in reasonable health and condition, there is an option to retain these trees until a row of Fig trees is planted and established within the boundary of Redfern Oval. The replacement Figs shall be planted at a minimum of eight (8) metre centres.

### Phillip Street

There are six (6) Paperbarks in the footpath in Phillip Street. These trees have been repeatedly lopped for power line clearance and their roots will continue to be a management problem causing damage to the pavement and kerb and gutter.

As the trees are in such poor condition, it is recommended that selected trees be removed during the Oval upgrade where affected by the construction works. The remaining trees shall be removed as soon as the replacement trees are planted within Redfern Oval. It is envisaged that the canopies of the proposed Fig tree planting within the Redfern Oval boundary will extend over the footpath eliminating the need for street tree replacement planting.

### Chalmers Street

Most of the Liquidambars growing adjacent to the Oval in Chalmers Street have extensive root girdling and reduced vigour. Several of these trees have been subjected to root pruning and there is evidence of decay in the root crown. One of the trees is growing under powerlines and has been repeatedly lopped.

As this species has a characteristically shallow root system and the structural integrity of the trees has been compromised by root pruning and root girdling, these trees shall be removed as part of the landscape works associated with the proposed Redfern Oval upgrade.

The Draft Redfern Park Masterplan recommends the planting of Fig trees within the Chalmers Street boundary behind the grandstand. It is envisaged that the canopies of the Fig trees will extend over the footpath thus eliminating the need to replant street trees along this section of the footpath.

## 6.6 Selection Criteria for Replacement Trees

Plant selection for public open space is a strategic process that addresses the long term. (Hitchmough, 1989). Trees define spaces, regulate light, induce scale and are indicators of season changes.

Selecting the most appropriate species and variety of tree for a particular location and function profoundly influences the quality of a design. (Arnold, 1980)

The selection criteria, for the trees to be planted in Redfern Park, is as follows:

Biological / Environmental	Aesthetic / Design	Functional
Climatic suitability	Ultimate size of plant canopies	Acceptable leaf/fruit fall
Tolerance of atmospheric pollution	Form and texture of plant canopies	Long lived
Tolerance of soil compaction	Predictable growth characteristics	Not prone to major limb shear
Low susceptibility to pests and disease	Deciduous versus evergreen	Low capacity to lift paving
	Colour of plant foliage	Low risk of becoming an environmental weed



The overriding landscape character of Redfern Park is that of the nineteenth century. It is therefore desirable that the size and form of the canopies of the trees selected for replacement planting reinforces the character of this period (refer to Attachment 2: Planting Plans for species selection). The selected trees will hopefully survive for over 100 years therefore sufficient space must be provided to permit the increase in size that will occur in the long term.

Based on the conceptual design proposed in the 2006 Redfern Park Masterplan, a detailed planting plan will be prepared identifying replacement tree locations and indicative species selection.

## **6.7 Management of Replacement Trees**

### **Stock Selection and Size**

Plant quality is most critical with long lived, large growing woody plants. Selection of quality stock is imperative to ensure the best chance of survival and to reduce the potential for growth defects. Select all stock using the Natspec Guidelines for Specifying Trees (Clark, 1996).

### **Site Preparation and Planting**

Planting of the nursery stock can be considered as the plant's final "potting on". Attention to planting detail is essential to maximize the chances of successful establishment of the new plant. (Appendix 7: Tree Planting Detail and Appendix 8: Tree Planting Specification). It is imperative that the diameter of the planting hole for all new or replacement trees shall be a minimum of 2-3 times the diameter of the root ball and no deeper than the root crown.

### **Regular Inspections**

Newly planted trees require more intensive maintenance than trees that are well established. A qualified arborist shall inspect young trees every twelve months (minimum) to ensure that potential structural defects are detected early, in time for appropriate formative pruning. Lift all tree canopies as required, to allow head clearance for pedestrians.

### **Watering**

Water all trees, as required, during the first two (2) years after planting. During dry summer conditions, new trees may need to be watered two to three times per week. At other times, watering might not be required for a month or longer. Provide temporary irrigation as required to maintain the trees in peak condition at all times by having the capacity to apply a summer weekly target application of 25mm of water (approximately 12 to 13 litres of water per square metre).

### **Tree Protection**

Install ornamental tree guards around all newly planted trees during the establishment phase (approx 2 years). Tree guards provide protection from casual acts of vandalism as well as accidental damage. Periodically inspect all trees fitted with tree guards for signs of chafing or constriction so that adjustments or removal of the guards can be carried out if necessary.

### **Formative Pruning**

Formative pruning is the selective pruning of a young tree to promote good form and branching structure. Formative pruning is most critical in the early stages of growth of a tree, in particular the first five to ten years. Limit pruning to the second or third year of growth, because newly planted trees need their leaves and shoot tips to provide food and substance to stimulate root production.

The goal in training young trees is to establish a strong trunk with sturdy well-spaced branches. Lateral branches contribute to the development of a sturdy well tapered trunk. These branches, known as temporary branches, help to protect the trunk from sun and mechanical injury while aiding with the tree's photosynthesis. Temporary branches should be kept short enough not to be an obstruction or compete with permanent branches.

Pruning shall be carried out in accordance with Australian Standard No 4373-1996 *Pruning of Amenity Trees*, by a skilled and experienced arborist, with a minimum Australian Qualification Framework (AQF) level 3.

### **Mulching**

Mulching is an alternative to turf around trees and its use eliminates the potential for mechanical damage caused by mowers and whipper snippers®, that may lead to the development of decay and cracking.

Mulching improves tree health and vigour and reduces competition between tree roots and turf. The presence of mulch around the base of trees aids in integrated pest management strategies (eg Fig Psyllid).

A 50-80mm layer of organic mulch shall be placed around the base of all newly planted trees to a distance of one (1) radial metre from the trunk in a concentric circle.

The mulch must comply with AS4454 - *Composts, Soil Conditioners and Mulches*.



## **7 IMPLEMENTATION, MONITORING AND REVIEW**

### **7.1 Implementation**

It is expected that the Redfern Park Tree Management Plan will be implemented over several decades, as the longevity of the existing trees is unknown. The Plan provides a framework by which tree removals and replacements may be guided and controlled.

The Tree Management Plan also provides operational guidance and detailed ground maintenance specifications. It is to be used as a dynamic and responsive document that may change when circumstances require it.

Any proposed changes to the Tree Management Plan should be assessed before they are implemented, to ensure that they are sympathetic with the overall objectives and do not have an adverse affect on the character of Redfern Park.

### **7.2 Monitoring and Review**

The success of the Redfern Park Tree Management Plan will require effective communication. Different disciplines such as engineering, landscape design, planning and landscape management will need to coordinate their activities.

Regular inter-departmental reviews should be conducted between those officers responsible for the programming, coordination and implementation of any works in Redfern Park. This includes those parties responsible for security, lighting, building maintenance, service installations, landscape maintenance or improvements and any new project work. All proposed works shall be related to the Tree Management Plan.

The Tree Planting Plan and the Tree Assessment Schedule shall be reviewed and/or amended on an annual basis to ensure that any changes are documented and any history relating to tree failures is monitored and recorded.

The Tree Management Plan shall be reviewed for its effectiveness on a regular basis.

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## APPENDIX I: Glossary of Terms

The following is a list of definitions relating to the terms and abbreviations that have been used in this report:

### Age Classes

- (I) Immature refers to a well established but juvenile tree
- (S) Semi mature refers to a tree at growth stages between immaturity and full size.
- (M) Mature refers to a full sized tree. Trees can have a Mature Age Class for > 90% of their life span.
- (O) Over mature refers to a tree showing symptoms of irreversible decline.

### Condition

Refers to the general form and structure of the scaffold (ie. trunk and major branches) It includes structural defects such as cavities, crooked trunks or weak trunk/branch unions and canopy skewness. Generally described as Good (G), Fair (F) or Poor (P).

### Critical Root Zone (CRZ)

Refers to a radial offset of five (5) times the trunk DBH measured from the centre of the trunk. Excavation within this area may seriously destabilize the tree. Fully elevated construction within this area is possible with specific root zone assessment.

### Diameter at Breast Height (DBH)

Refers to the tree trunk diameter at breast height (1.4 metres above ground level).

### Epicormic Shoots

Arise from adventitious or latent buds. These shoots often have a weak point of attachment. They are generally produced in response to stress in the tree.

### Hazard

Refers to anything with the potential to cause harm/damage to life or property.

### Health

Refers to a tree's vigour as exhibited by the crown density, leaf colour, presence of epicormic shoots, ability to withstand disease and the extent of dieback.

### Included/Inclusion-Stem/Bark

Refers to a genetic fault and potentially a weak point of attachment.

### Primary Root Zone (PRZ)

Refers to a radial offset of ten (10) times the trunk DBH measured from the centre of the trunk. Excavation is possible within one offset only within this area and subject to specific rootzone assessment.

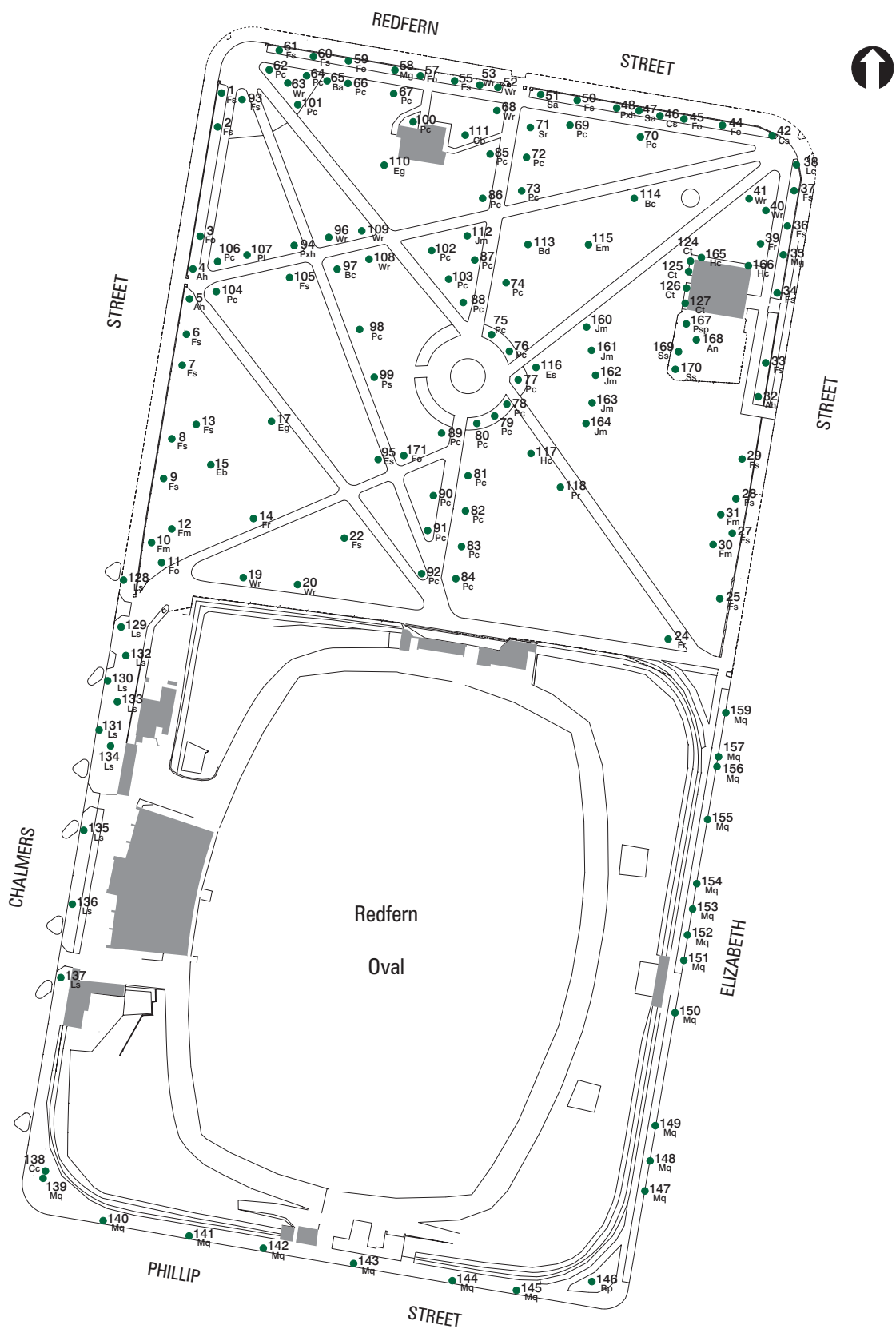
### Scaffold Branch

Is a primary structural branch of the crown.

### Senescence

Is the process of aging and death of trees.

APPENDIX 2: Tree Location Plan



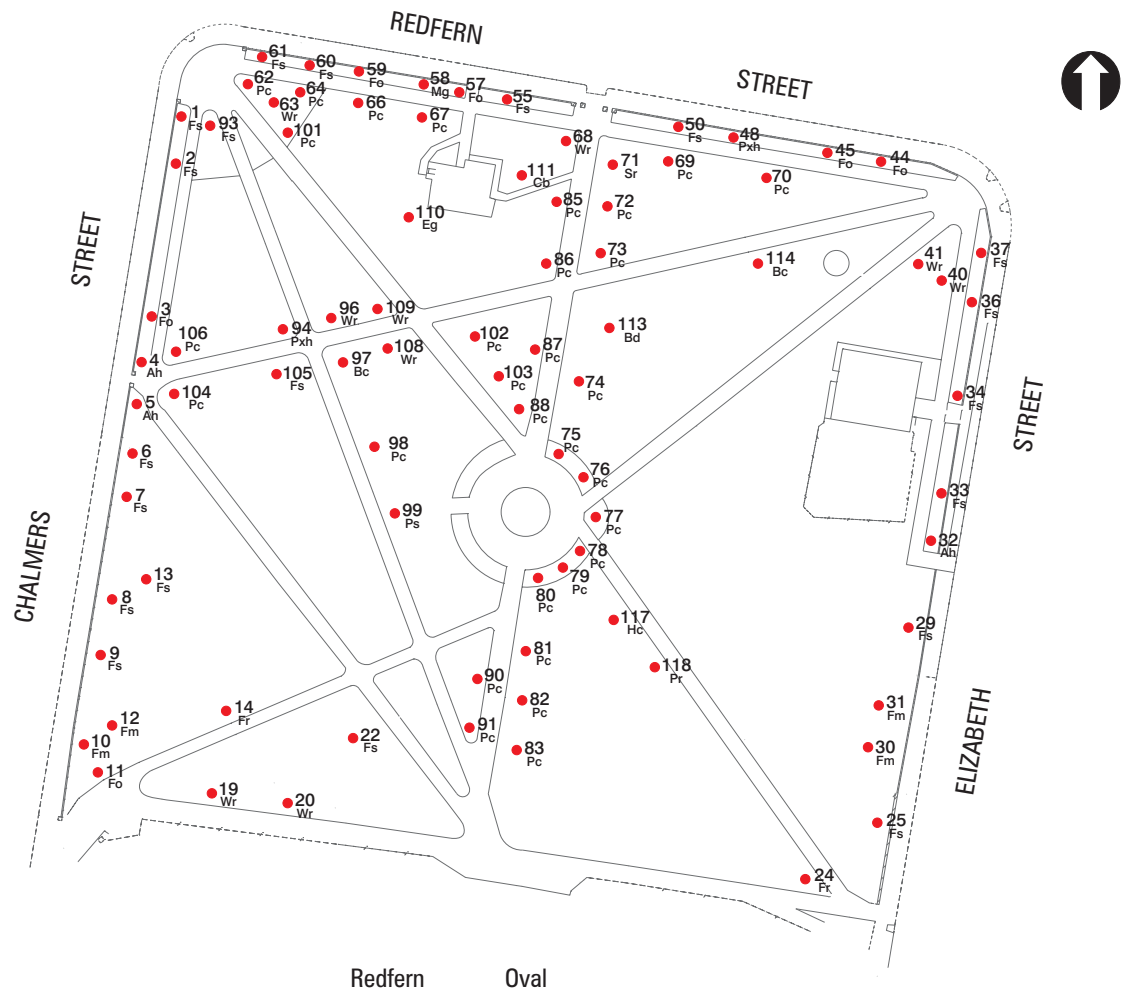
# APPENDIX 3: Redfern Park Tree Location Schedule

No.	Sym.	Botanical Name	Common Name	No	Sym	Botanical Name	Common Name
1	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	73	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
2	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	74	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
3	Fo	<i>Ficus obliqua</i>	Small Leafed Fig	75	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
4	Ah	<i>Araucaria heterophylla</i>	Norfolk Island Pine	76	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
5	Ah	<i>Araucaria heterophylla</i>	Norfolk Island Pine	77	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
6	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	78	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
7	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	79	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
8	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	80	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
9	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	81	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
10	Fm	<i>Ficus macrophylla</i>	Moreton Bay Fig	82	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
11	Fo	<i>Ficus obliqua</i>	Small Leafed Fig	83	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
12	Fm	<i>Ficus macrophylla</i>	Moreton Bay Fig	84	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
13	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	85	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
14	Fr	<i>Ficus rubiginosa</i>	Port Jackson Fig	86	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
15	Eb	<i>Eucalyptus botryoides</i>	Bangalay	87	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
17	Eg	<i>Eucalyptus globulus</i> ssp. <i>maidenii</i>	Maiden's Gum	88	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
19	Wr	<i>Washingtonia robusta</i>	Mexican Cotton Palm	89	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
20	Wr	<i>Washingtonia robusta</i>	Mexican Cotton Palm	90	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
22	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	91	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
24	Fr	<i>Ficus rubiginosa</i>	Port Jackson Fig	92	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
25	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	93	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
27	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	94	Pxh	<i>Platanus x hybrida</i>	London Plane Tree
28	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	95	Exs	<i>Erythrina x sykesii</i>	Coral Tree
29	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	96	Wr	<i>Washingtonia robusta</i>	Mexican Cotton Palm
30	Fm	<i>Ficus macrophylla</i>	Moreton Bay Fig	97	Bc	<i>Butia capitata</i>	Jelly Wine Palm
31	Fm	<i>Ficus macrophylla</i>	Moreton Bay Fig	98	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
32	Ah	<i>Araucaria heterophylla</i>	Norfolk Island Pine	99	Ps	<i>Phoenix sylvestris</i>	Indian Wild Date
33	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	100	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
34	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	101	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
35	Mg	<i>Magnolia grandiflora</i>	Bull Bay Magnolia	102	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
36	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	103	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
37	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	104	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
38	Lc	<i>Lophostemon confertus</i> 'Variegata'	Brush Box (variegated)	105	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig
39	Fr	<i>Ficus rubiginosa</i>	Port Jackson Fig	106	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
40	Wr	<i>Washingtonia robusta</i>	Mexican Cotton Palm	107	Pl	<i>Prunus laurocerasus</i>	Cherry Laurel
41	Wr	<i>Washingtonia robusta</i>	Mexican Cotton Palm	108	Wr	<i>Washingtonia robusta</i>	Mexican Cotton Palm
42	Cs	<i>Celtis sinensis</i>	Chinese Nettle Tree	109	Wr	<i>Washingtonia robusta</i>	Mexican Cotton Palm
44	Fo	<i>Ficus obliqua</i>	Small Leafed Fig	110	Eg	<i>Eucalyptus globulus</i> ssp. <i>bicostata</i>	Southern Blue Gum
45	Fo	<i>Ficus obliqua</i>	Small Leafed Fig	111	Cb	<i>Catalpa bignonioides</i>	Indian Bean Tree
46	Cs	<i>Celtis sinensis</i>	Chinese Nettle Tree	112	Jm	<i>Jacaranda mimosifolia</i>	Jacaranda
47	Sa	<i>Shinus areira</i>	Peppercorn Tree	113	Bd	<i>Brachychiton discolor</i>	Qld Lacebark
48	Pxh	<i>Platanus x hybrida</i>	London Plane Tree	114	Bc	<i>Butia capitata</i>	Jelly Wine Palm
50	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	115	Em	<i>Eucalyptus microcorys</i>	Tallowwood
51	Sa	<i>Shinus areira</i>	Peppercorn Tree	116	Exs	<i>Erythrina x sykesii</i>	Coral Tree
52	Wr	<i>Washingtonia robusta</i>	Mexican Cotton Palm	117	Hc	<i>Harpephyllum caffrum</i>	Kaffir Plum
53	Wr	<i>Washingtonia robusta</i>	Mexican Cotton Palm	118	Pr	<i>Phoenix rupicola</i>	Cliff Date
55	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	124	Ct	<i>Cupressus torulosa</i>	Bhutan Cypress
57	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	125	Ct	<i>Cupressus torulosa</i>	Bhutan Cypress
58	Mg	<i>Magnolia grandiflora</i>	Bull Bay Magnolia	126	Ct	<i>Cupressus torulosa</i>	Bhutan Cypress
59	Fo	<i>Ficus obliqua</i>	Small Leafed Fig	127	Ct	<i>Cupressus torulosa</i>	Bhutan Cypress
60	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	160	Jm	<i>Jacaranda mimosifolia</i>	Jacaranda
61	Fs	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig	161	Jm	<i>Jacaranda mimosifolia</i>	Jacaranda
62	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm	162	Jm	<i>Jacaranda mimosifolia</i>	Jacaranda
63	Wr	<i>Washingtonia robusta</i>	Mexican Cotton Palm	163	Jm	<i>Jacaranda mimosifolia</i>	Jacaranda
64	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm	164	Jm	<i>Jacaranda mimosifolia</i>	Jacaranda
65	Ba	<i>Brachychiton acerifolius</i>	Illawarra Flame Tree	165	Hc	<i>Harpephyllum caffrum</i>	Kaffir Plum
66	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm	166	Hc	<i>Harpephyllum caffrum</i>	Kaffir Plum
67	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm	167	Psp.	<i>Pyrus</i> sp.	Ornamental Pear
68	Wr	<i>Washingtonia robusta</i>	Mexican Cotton Palm	168	An	<i>Acer negundo</i>	Box Elder
69	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm	169	Ss	<i>Sapium sebiferum</i>	Chinese Tallowwood
70	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm	170	Ss	<i>Sapium sebiferum</i>	Chinese Tallowwood
71	Sr	<i>Syagrus romanzoffianum</i>	Queen Palm	171	Fo	<i>Ficus obliqua</i>	Small Leafed Fig
72	Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm				

## APPENDIX 4: Summary of Redfern Park Tree Population

Botanical Name	Common Name	Number
<i>Acer negundo</i>	Box Elder	1
<i>Araucaria heterophylla</i>	Norfolk Island Pine	3
<i>Brachychiton acerifolius</i>	Illawarra Flame Tree	1
<i>Brachychiton discolor</i>	Qld Lacebark	1
<i>Butia capitata</i>	Jelly Wine Palm	2
<i>Catalpa bignonioides</i>	Indian Bean Tree	1
<i>Celtis sinensis</i>	Chinese Nettle Tree	2
<i>Cupressus torulosa</i>	Bhutan Cypress	4
<i>Erythrina x sykesii</i>	Coral Tree	2
<i>Eucalyptus botryoides</i>	Bangalay	1
<i>Eucalyptus globulus ssp. maidenii</i>	Maiden's Gum	1
<i>Eucalyptus globulus ssp. bicostata</i>	Southern Blue Gum	1
<i>Eucalyptus microcorys</i>	Tallowwood	1
<i>Ficus obliqua</i>	Small Leafed Fig	6
<i>Ficus macrophylla</i>	Moreton Bay Fig	4
<i>Ficus rubiginosa</i>	Port Jackson Fig	3
<i>Ficus superba var. henneana</i>	Deciduous Fig	22
<i>Harpephyllum caffrum</i>	Kaffir Plum	3
<i>Jacaranda mimosifolia</i>	Jacaranda	6
<i>Lophostemon confertus 'Variegata'</i>	Brush Box (variegated)	1
<i>Magnolia grandiflora</i>	Bull Bay Magnolia	2
<i>Phoenix canariensis</i>	Canary Island Date Palm	33
<i>Phoenix rupicola</i>	Cliff Date	1
<i>Phoenix sylvestris</i>	Indian Wild Date	1
<i>Platanus x hybrida</i>	London Plane Tree	2
<i>Prunus laurocerasus</i>	Cherry Laurel	1
<i>Sapium sebiferum</i>	Chinese Tallowwood	2
<i>Syagrus romanzoffianum</i>	Queen Palm	1
<i>Shinus areira</i>	Peppercorn Tree	2
<i>Washingtonia robusta</i>	Mexican Cotton Palm	13
<b>Total</b>		<b>124</b>

# APPENDIX 5: Significant Tree Locations



Symbol	Botanical Name	Common Name
Ah	<i>Araucaria heterophylla</i>	Norfolk Island Pine
Bc	<i>Butia capitata</i>	Jelly Wine Palm
Bd	<i>Brachychiton discolor</i>	Qld Lacebark Tree
Cb	<i>Catalpa bignonioides</i>	Indian Bean Tree
Eg	<i>Eucalyptus globulus ssp. bicostata</i>	Southern Blue Gum
Eg	<i>Eucalyptus globulus ssp. maidenii</i>	Maiden's Gum
Fm	<i>Ficus macrophylla</i>	Moreton Bay Fig
Fo	<i>Ficus obliqua</i>	Small Leafed Fig
Fr	<i>Ficus rubiginosa</i>	Port Jackson Fig
Fs	<i>Ficus superba var. henneana</i>	Deciduous Fig
Hc	<i>Harpephyllum caffrum</i>	Kaffir Plum
Mg	<i>Magnolia grandiflora</i>	Bull Bay Magnolia
Pc	<i>Phoenix canariensis</i>	Canary Island Date Palm
Pr	<i>Phoenix rupicola</i>	Cliff Date
Ph	<i>Platanus x hybrida</i>	London Plane Tree
Wr	<i>Washingtonia robusta</i>	Mexican Cotton Palm

## APPENDIX 6: SULE Categories

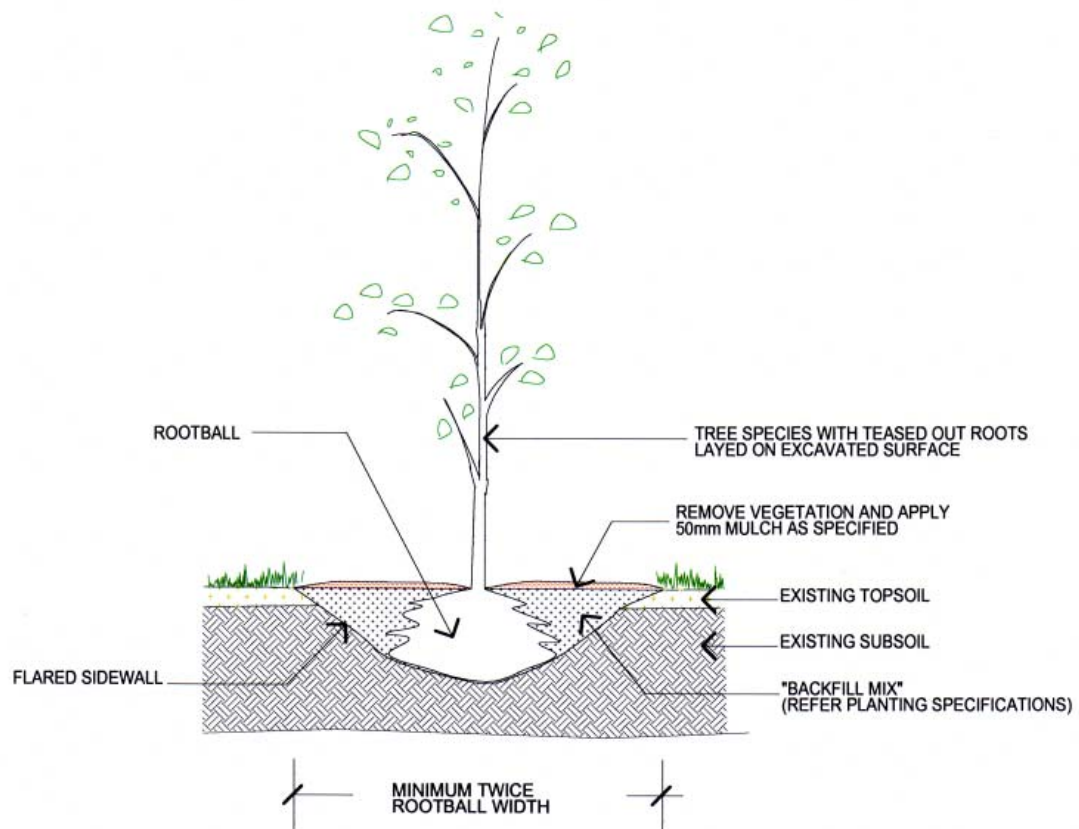
(After Barrell 1996, updated 01.04.2001)

The five categories and their sub-groups are as follows:

1. **Long SULE:** Trees that appeared to be retainable at the time of assessment for more than 40 years with an acceptable level of risk, assuming reasonable maintenance.
  - (a) Structurally sound trees located in positions that can accommodate future growth.
  - (b) Trees that could be made suitable for retention in the long term by remedial tree care.
  - (c) Trees of special significance for historical, commemorative or rarity reasons that would warrant extraordinary efforts to secure their long term retention.
  
2. **Medium SULE:** Trees that appeared to be retainable at the time of assessment for 15 - 40 years with an acceptable level of risk.
  - (a) Trees that may only live between 15 and 40 more years.
  - (b) Trees that could live for more than 40 years but may be removed for safety or nuisance reasons.
  - (c) Trees that could live for more than 40 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.
  - (d) Trees that could be made suitable for retention in the medium term by remedial tree care.
  
3. **Short SULE:** Trees that appeared to be retainable at the time of assessment for 5 - 15 years with an acceptable level of risk.
  - (a) Trees that may only live between 5 and 15 more years.
  - (b) Trees that could live for more than 15 years but may be removed for safety or nuisance reasons.
  - (c) Trees that could live for more than 15 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.
  - (d) Trees that require substantial remedial tree care and are only suitable for retention in the short term.
  
4. **Remove:** Trees that should be removed within the next 5 years.
  - (a) Dead, dying, suppressed or declining trees because of disease or inhospitable conditions.
  - (b) Dangerous trees because of instability or recent loss of adjacent trees.
  - (c) Dangerous trees because of structural defects including cavities, decay, included bark, wounds or poor form.
  - (d) Damaged trees that are clearly not safe to retain.
  - (e) Trees that could live for more than 5 years but may be removed to prevent interference with more suitable individuals or to provide space for new planting.
  - (f) Trees that are damaging or may cause damage to existing structures within 5 years.
  - (g) Trees that will become dangerous after removal of other trees for the reasons given in (a) to (f).
  - (h) Trees in categories (a) to (g) that have a high wildlife habitat value that with appropriate treatment, could be retained subject to regular review.
  
5. **Small, young or regularly pruned:** Trees that can be reliably moved or replaced.
  - (a) Small trees less than 5m in height.
  - (b) Young trees less than 15 years old but over 5m in height. Formal hedges and trees.
  - (c) Intended for regular pruning to artificially control growth.



## APPENDIX 7: Tree Planting Detail



**TREE PLANTING IN GRASS** NTS

## APPENDIX 8: Tree Planting Specifications

### Services

- Establish the location of all service lines before excavation
- Service lids, vents and hydrants to be left uncovered.

### Tree Planting

- Avoid planting in unsuitable weather conditions such as extreme heat, cold wind or rain. During hot weather ensure that the planting site is at field capacity.
- Thoroughly water rootballs before planting and immediately after planting. Prevent the rootballs from drying out during the planting phase.
- Remove topsoil.
- Remove subsoil to the depth of the rootball and two to three times the diameter of the rootball.
- Remove stones over 50mm diameter and heavy clay lumps.
- Remove tree from the container; lightly tease out the roots and use a sharp knife to prune the roots at the outside edge of the rootball. Place the tree into the planting making sure the root crown is at natural soil level.
- Backfill using "Backfill Mix" as specified and tamp gently. Do not cover the rootball.
- Water in thoroughly applying water directly to the rootball.
- Lay mulch to a nominal 50mm depth around the base of the tree. Mulch must comply with AS4454 Composts, Soil Conditioners and Mulches. Feather mulch away from the trunk at the root crown.
- Plants to be planted in locations indicated on the Planting Plan.

### Backfill Mix

- Sandy well drained mix to provide aeration at depth and nutritional as well as water holding capacity
- Some soil must be present to obtain the chemical properties required as sands do not have sufficient cation exchange capacity.
- Particle Size Distribution:

Size Fraction	% by Weight
>2mm	<5%
1-2mm	<10%
0.5-1mm	20-40%
0.25-0.5mm	30-50%
0.1-0.25mm	20-30%
<0.1mm	<10%
pH	5.5-6.8
EC 1:2	<1.0
Hydraulic Conductivity	20-50cm/hr
Exchangeable Na%	<5
Exchangeable K%	5-15
Exchangeable Ca%	65-75
Exchangeable Mg%	15-25
Organic matter	2-5% (nominally 10-20% by volume subject to testing)

## ATTACHMENT I: Tree Assessment Schedule



## ATTACHMENT 2: 2006 Soil Report



## APPENDIX D

### Assessment Criteria

Redfern Park fits into the first category of cultural landscapes set out in the World Heritage Criteria, the 'clearly defined landscape designed and created intentionally by man'.<sup>2</sup> The criteria for cultural landscapes are as follows:

- i. represent a masterpiece of human creative genius; or
- ii. exhibit an important interchange of human values, over a span of time or within a cultural area of the world, on developments in architecture or technology, monumental arts, town-planning or landscape design; or
- iii. bear a unique or at least exceptional testimony to a cultural tradition or to a civilization which is living or which has disappeared; or
- iv. be an outstanding example of a type of building or architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history; or
- v. be an outstanding example of a traditional human settlement or land-use which is representative of a culture (or cultures), especially when it has become vulnerable under the impact of irreversible change; or
- vi. be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance.

Whilst Redfern Park is not of World Heritage Significance, these criteria are still useful in considering the complex layering of tangible and intangible significances of the park.

### World Heritage Criteria

Criteria	Redfern Park Assessment	Level of Significance
Creative Genius	O'Neill's design, planting choices advocated by Moore & Maiden	State
Interchange of ideas	Colonial planning	Local
	Example used in teaching civics and citizenship, reconciliation and migration	National
Cultural Tradition	Sporting Use including Rabbitohs & Koori Knockout	State
Architectural ensemble or landscape	Botanical Species	State
	Late nineteenth century municipal park	State
Associated living tradition	ANZAC Day	Local
	Survival Day	State +
	Community Use including recreation, meetings and marches	Local +

The National Heritage Criteria are as follows:

- (a) the place has outstanding heritage value to the nation because of the place's importance in the course, or pattern, of Australia's natural or cultural history;
- (b) the place has outstanding heritage value to the nation because of the place's possession of uncommon, rare or endangered aspects of Australia's natural or cultural history;
- (c) the place has outstanding heritage value to the nation because of the place's potential to yield information that will contribute to an understanding of Australia's natural or cultural history;

<sup>2</sup> <http://www.deh.gov.au/heritage/worldheritage/criteria.html>

- (d) the place has outstanding heritage value to the nation because of the place's importance in demonstrating the principal characteristics of:
  - (i) a class of Australia's natural or cultural places; or
  - (ii) a class of Australia's natural or cultural environments;
- (e) the place has outstanding heritage value to the nation because of the place's importance in exhibiting particular aesthetic characteristics valued by a community or cultural group;
- (f) the place has outstanding heritage value to the nation because of the place's importance in demonstrating a high degree of creative or technical achievement at a particular period;
- (g) the place has outstanding heritage value to the nation because of the place's strong or special association with a particular community or cultural group for social, cultural or spiritual reasons;
- (h) the place has outstanding heritage value to the nation because of the place's special association with the life or works of a person, or group of persons, of importance in Australia's natural or cultural history;
- (i) the place has outstanding heritage value to the nation because of the place's importance as part of Indigenous tradition.

#### National Criteria

	Criteria	Redfern Park Assessment	Level of Significance
(a)	Course or Pattern of History	Redfern's Grant / Colonial planning	Local
		Creation of a municipal park	Local
		Improving the health and fitness of the workers and children of Redfern	Local
		Sporting use	State
(b)	Uncommon/Rare aspects	Botanical Species	State
(c)	Contribute to Understanding /Yield information	Textbook use of Australiana (main gates)	State
		Example used in teaching civics and citizenship, reconciliation and migration	National
		Potential evidence of Swamp and early improvements	Local
(d)	Principal Characteristics	Late nineteenth century municipal park and oval	State
(e)	Aesthetic Characteristics	O'Neill's design, planting choices advocated by Moore & Maiden	State
		Baptist Fountain – one of two examples in the state	State
(f)	Creative or technical achievement at a particular period	Transition from reliance on British manufacturing to local craftsmen and Australian motifs	State
		Use of Australian rainforest species and exotic palms	State
(g)	Community Association	Aboriginal Land Rights	National
		Community Protest	State
		Migrant meeting place	State
		ANZAC Memorial	Local
		Koori Knockout & community gathering	State



	Criteria	Redfern Park Assessment	Level of Significance
(h)	Association with life and works	Charles O'Neill	Potentially state
		Varney Parkes	Potentially local
		Redfern Aldermen, Mayors and Businessmen	Local
(i)	Importance in indigenous tradition	Survival Day	State

In addition there are the criteria used by the NSW Heritage Office for the State Heritage Register which have many similarities with the national criteria.

- a) an item is important in the course, or pattern, of NSW's cultural or natural history.
- b) an item has strong or special association in the life or works of a person
- c) an item is important in demonstrating aesthetic characteristics and/or a high degree of creative or technical achievement in NSW
- d) an item has strong or special association with a particular community or cultural group in NSW for social, cultural or spiritual reasons
- e) an item has potential to yield information that will contribute to an understanding of NSW's cultural or natural history.
- f) an item possesses uncommon, rare or endangered aspects of NSW's cultural or natural history.
- g) an item is important in demonstrating the principal characteristics of a class of NSW's cultural or natural places or cultural or natural environments.

#### NSW Criteria

	Criteria	Redfern Park Assessment	Level of Significance
(a)	Course or Pattern of History	Redfern's Grant / Colonial planning	Local
		Creation of a municipal park	Local
		Improving health and fitness of the workers and children of Redfern	Local
		Sporting Use including Rabbitohs & Koori Knockout	State
(b)	Association with life and works	Charles O'Neill	Potentially state
		Varney Parkes	Potentially local
(c)	Aesthetic Characteristics	O'Neill's design, planting choices advocated by Moore & Maiden	State
		Textbook use of Australiana (gates)	State
		Baptist Fountain – one of two examples in the state	State
(d)	Community Association	Community Protest	State
		Migrant meeting place	State
		ANZAC Memorial	Local
		Community sporting and recreational use.	Local
		Koori Knockout & community gathering	State
(e)	Yield Information	Evidence of Swamp /early improvements	Local
		Example used in teaching civics and citizenship, reconciliation and migration	National

	Criteria	Redfern Park Assessment	Level of Significance
(f)	Uncommon/Rare aspects	Botanical Species	State
(g)	Principal Characteristics	Late nineteenth century municipal park and oval	State

Redfern Park meets one or more of the Assessment criteria at a National Level.

This analysis shows that there are three principle types of significance:

- (1) The significance of the surviving late nineteenth century municipal park and oval layout by O'Neill, including the fountain, main gates, axis and mature planting;
- (2) The significance of the continued passive and active recreation use, including cricket and rugby/football, bowls, tennis and basketball, children's play and the use of the meeting place for migrants from the Middle East.
- (3) The third aspect of significance is the landscape of memory of events of significance to communities: commemorating war losses and protesting against involvement in war; achieving Aboriginal land rights and protesting against working conditions and Aboriginal Deaths in Custody.

This assessment has been undertaken using the available documentary record and by surveying the physical fabric, the methodology set out in James Semple Kerr's *The Conservation Plan*. It represents only the first step in assessing places of significance to Aboriginal and Torres Strait Island communities, identifying the place. A separate methodology for this type of assessment exists, which taps into oral traditions. The Australian Heritage Commission have prepared a guide 'Ask First' that sets out the steps in this process.

Consultation with migrant communities has also not been undertaken, the information regarding the significant of the place has been drawn from the Wattan project undertaken by the NSW Migrant Heritage Centre and Helen Armstrong's 'Mapping Migrant Memories: crossing cultural borders', *Journal of the Oral History Association of Australia*, No. 19, 1997, extracts from which can be found in the section on how our views of heritage are changing at [www.teachingheritage.nsw.edu.au](http://www.teachingheritage.nsw.edu.au)

### Statement Of Cultural Significance

The designed cultural landscape of Redfern Park is of cultural significance:

- (1) For its continued use, for over a century, for active and passive recreation by successive generations of local residents and their children and professional and amateur sporting clubs of the former Municipality of Redfern.

### Layout

The formal layout of the park, by the Scottish trained architect and civil engineer, Charles O'Neill remains evident today, including the subdivision between the active sporting uses to the south and the passive use of the 'ornamental grounds' to the north, retaining mature plantings of native and exotic species, the diagonal and perimeter walkways, the elaborate main gates, the central axis and the Baptist Fountain.

The park contained typical components of a late nineteenth century Australian municipal park: the fountain and main gates (which survive) and the now vanished urns, bandstand, kiosk and sports pavilions. The surviving elements, and the documentary record, provides evidence of the efforts and generosity of local businessmen and aldermen, particularly John Baptist (junior) and George W. Howe, in contributing to the creation of a park as an amenity for their municipality.

Whilst perimeter fig planting is typical of Sydney parks, the surviving mature planting is of both botanical and aesthetic significance for the layout, the range of specimen plantings, the use of rare Australian rainforest

species and exotic palms recommended by successive directors of the Botanic Gardens: Moore and Maiden. The mature plantings of Redfern Park are a well-known local landmark, particularly the fig tree perimeter and the tall palms and Norfolk Island pines marking entrances.

The location and size of the park, the position of the entrances and the surrounding street and lane layout, reflects the subdivision of William Redfern's 100 acre grant into the characteristic grid of colonial town planning. The archaeological record is likely to contain evidence of former uses and early improvements to the park.

The choice of designer; the overall layout of the park, forming an urban lung, the addition of a children's playground, and the surviving requests for use of the park by local amateur clubs, reflect attempts by Reverend Boyce and the Aldermen to introduce beneficial fresh air, sunlight, sport and active play into the daily life of the local workforce. Fitness has continued to be an importance aspect of the park's pattern of use, evidenced by children's holiday activities and National Fitness Camps.

Two surviving structures from the original scheme: the Baptist Fountain and the main gates show the transition from a reliance on British design and manufacturing towards an Australian identity. The main gates are a rare surviving example of the use of Australiana in both metalwork and stonework dating from the early 1890s, which became a textbook example.

## Use

Redfern Park continues to be of significance to local residents and the longstanding local migrant communities, reflecting its use both as a children's playground and as a meeting place for travelling 'hawkers' and later post war migrants from the Middle East. The park provides both a garden and a large outdoor meeting space in a suburb typified by small houses and yards.

As a memorial landscape Redfern Park is of significance to the local and broader aboriginal community as a landmark site in gaining Aboriginal rights. The place has a very high level of contemporary social value a site of assembly for protests and activism, particularly anti-war and land rights protests and is the site of the annual commemoration of the indigenous perspective on colonization: Survival Day / Invasion Day.

The war memorial and anti-aircraft gun and infilled air raid trenches record the war effort of the Redfern Municipality, a contribution marked by the annual ANZAC day ceremonies. The detail of the memorial contains iconography recognisably associated with the ANZAC tradition.

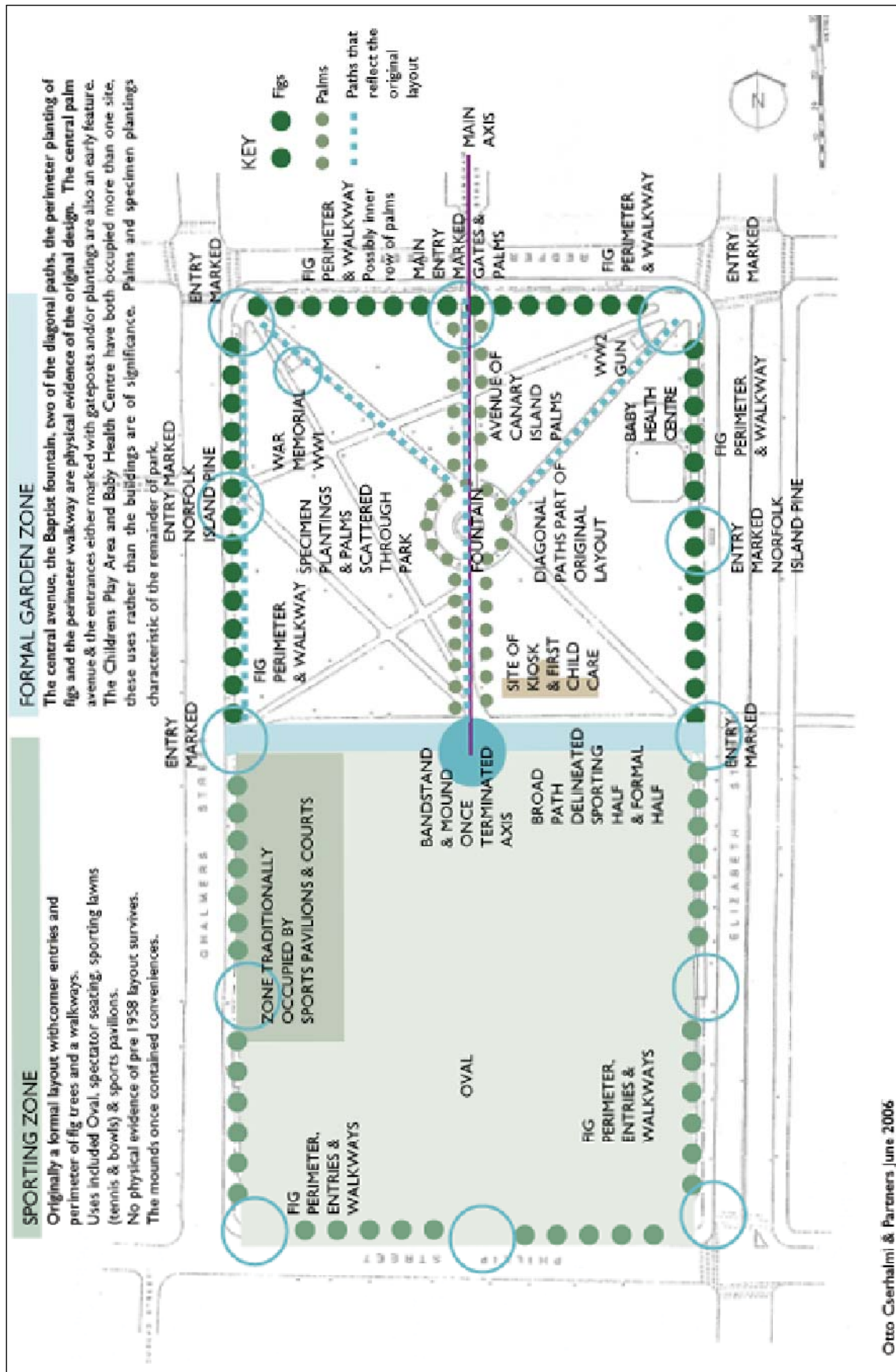
The Baby Health Clinic, associated with the adjacent public housing, is of significance as a community facility, marking the concern for children's health that had long been associated with housing reform in Sydney.

The surviving requests for use of the Redfern Oval reflect that the suburb of Redfern has a long history of fielding amateur and professional cricket and rugby/football teams, including Aboriginal teams, of a range of ages and grade. The changing sporting use of the park reflects both changing economic conditions and the emergence of Australian variants of games.

Throughout its life Redfern Park has been a municipal amenity, the documentary record reflects the wide range of recreational and sporting activities were once undertaken here including: tennis; lawn bowls; dog racing; baseball; basketball; draughts and performances by the municipal band.

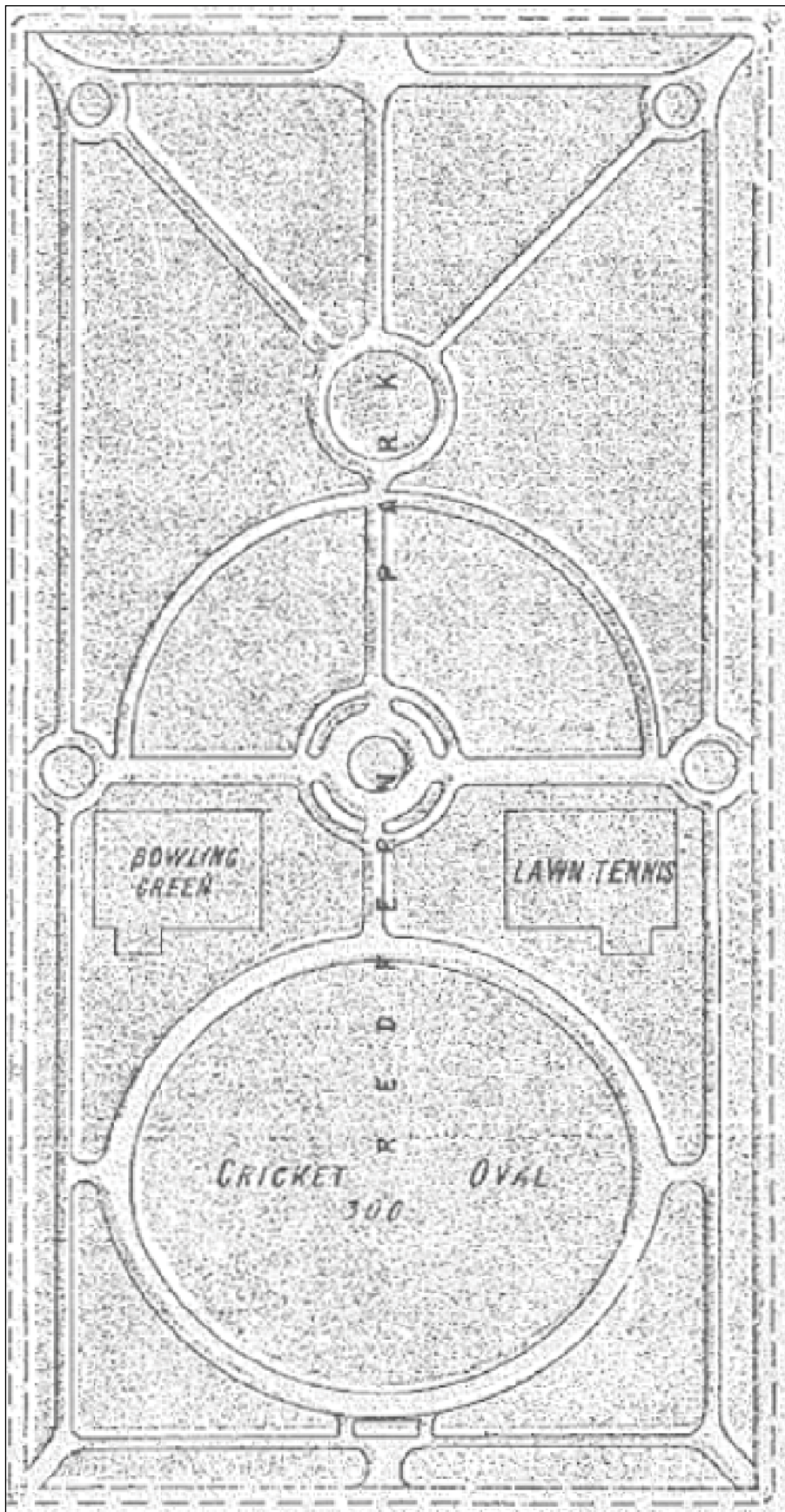
The place has a significant association with the Year of the World's Indigenous People and the then Prime Minister Paul Keating's speech recognizing the cause of Aboriginal dispossession. Redfern Park, and Keating's Redfern Park Speech, are both examples used in teaching Australians about civics and citizenship, reconciliation and migration at a state and a national level.

Redfern Park is home to the largest annual gathering of Aboriginal people in the state: the Koori Knockout, with other annual events also drawing large crowds of indigenous people.



Otto Cserhalmi & Partners June 2006





**Figure 9** Redfern Park layout designed by Charles O'Neill in 1888

## Significant Trees: Public Parks and Reserves

### SURVEY DATA SHEET

City of Sydney  
Register of Significant Trees

PHOTO REF: 22-2  
DATE: 12.05.05

#### PRECINCT 22: REDFERN & WATERLOO

### Redfern Park – Redfern Street, Elizabeth Street, Phillip Street and Chalmers Street, Redfern

#### Summary of scheduled items (cultural planting)

SCHEDULED ITEMS: ROW PLANTING/ FORMAL AVENUE & SINGLE SPECIMENS  
SIGNIFICANCE: CITY/ LGA

- 21 № Deciduous Figs (*Ficus superba* var. *henneana*).
- 4 № Moreton Bay Figs (*Ficus macrophylla*)
- 9 № Port Jackson Figs (*Ficus rubiginosa* f. *glabrescens* and f. *rubiginosa*)
- 3 № Norfolk Island Pines (*Araucaria heterophylla*)
- 1 № Queensland Lacebark (*Brachychiton discolor*)
- 1 № London Plane (*Platanus x acerifolia*)
- 1 № Indian Bean (*Catalpa speciosa*)
- 1 № American Bull Bay Magnolia (*Magnolia grandiflora*)
- 1 № River Red Gum (*Eucalyptus camaldulensis*)
- 1 № Maiden's Gum (*Eucalyptus globulus* subsp. *maidenii*)
- 1 № Swamp Mahogany (*Eucalyptus robusta*)
- 1 № unidentified species (*Erythrina* sp.)
  
- 29 № Canary Island Date Palm (*Phoenix canariensis*)
- 13 № Washington Palm (*Washingtonia robusta*)
- 2 № Date Palms (*Phoenix dactylifera*)
- 2 № Jelly Palms (*Butia capitata*)

#### Other tree and palm components/ associates

Queen Palms (*Syagris romanzoffianum*)  
Jacaranda (*Jacaranda mimosifolia*)  
Kaffir Plum (*Harpephyllum caffrum*)  
Hackberry (*Celtis occidentalis*)  
Peppercorn Tree (*Schinus areira*)

#### Statement of Significance

Redfern Park was dedicated as a park in 1885, in the same year as Erskineville Park and four years before the establishment of Alexandria Park. The park is scheduled in the *Local Environmental Plan (South Sydney Amending LEP 2000)* and classified by the National Trust of Australia (NSW). The park gates on Redfern Street were added in 1891 and further park embellishments including the Anzac memorial, avenue and most of the palm planting were later additions in 1919 and subsequent years during the Inter-War period (c.1915-1940). This park continues a similar thematic approach to other late nineteenth century parks throughout the City of Sydney LGA. The collection of significant trees displays botanical links with the Sydney Royal Botanic Gardens and the Directors, Charles Moore and J H Maiden.

The park boundaries were informally planted with predominantly native rainforest fig species sourced from the Illawarra region, north coast of NSW and south-eastern Queensland. This planting provided a very strong structural perimeter element surrounding the passive open space. There is no remaining boundary planting to Redfern Oval at the southern end of the park. This park, however has particular significance in being the only park in the City of Sydney LGA, and possibly the broader metropolitan region, to be planted predominantly with the Deciduous Fig (*Ficus superba* var. *henneana*). This species is relatively rare within all of the city's parkland, and is generally restricted to individual specimens within dominant rows and

avenues of Moreton Bay Figs (*Ficus macrophylla*) and Port Jackson Figs (*F. rubiginosa* f. *glabrescens* and *F. rubiginosa* f. *rubiginosa*). The Deciduous Fig tends to be somewhat smaller than these other species. In Redfern Park however, most of the Deciduous Figs have attained dramatic proportions and scale, particularly along the Chalmers Street and Redfern Street boundaries. Many of the park's Deciduous Figs are significant as individual specimens.

Furthermore, the Deciduous Fig has been integrated with a host of other native figs and rainforest species as well as some unusual broadleaf exotic species, including a range of palms. Together with the informal row planting, group clusters and individual specimens of mature Moreton Bay Figs (*Ficus macrophylla*) and Port Jackson Figs (*F. rubiginosa* f. *glabrescens*), the park has a visually dramatic quality and a distinctive landscape character. It is an eclectic and botanically significant collection and stands in contrast to the much simpler planting schemes of mixed figs in neighbouring Waterloo Park and Alexandria Park.

The site's aesthetic character is further strengthened by the extraordinary range of botanical specimens, particularly those planted during the early phases of the park's development. This park has one of the largest collections of Canary Island Date Palms (*Phoenix canariensis*) in the City of Sydney LGA. Other species of significance include tall accents such as the Norfolk Island Pines (*Araucaria heterophylla*) and Washington Palms (*Washingtonia robusta*) and large ornamentals such as Queensland Lacebark (*Brachychiton discolor*), London Plane (*Platanus x acerifolia*), Indian Bean (*Catalpa speciosa*), American Bull Bay Magnolia (*Magnolia grandiflora*) and an attractive, rarely planted *Erythrina* sp. (unidentified). Redfern Park also contains significant individual specimen Eucalypts such as River Red Gum (*Eucalyptus camaldulensis*), Maiden's Gum (*Eucalyptus globulus* subsp. *maidenii*) and Swamp Mahogany (*Eucalyptus robusta*).



Redfern Park/ Chalmers Street frontage – Moreton Bay Fig (*Ficus macrophylla*)  
[foreground] [Ref: 22-2]





Redfern Park [central pedestrian avenue] – Canary Island Date Palms  
(*Phoenix canariensis*) [Ref: 22-2]



Redfern Park/ Elizabeth Street frontage – mixed figs [foreground] [Ref: 22-2]