

# Rose Bay Centre

## Public Domain Improvement Plan

Note: The concept plans contained within the Public Domain Improvements Plan for the Council owned car parks (element *3.1 Dover Rd/Ian St* and element *3.2 Ian St/Pannerong Reserve*) and all proposals that relate to the Council owned car parks have been deleted from the adopted plan.

ADOPTED 26 July 1999



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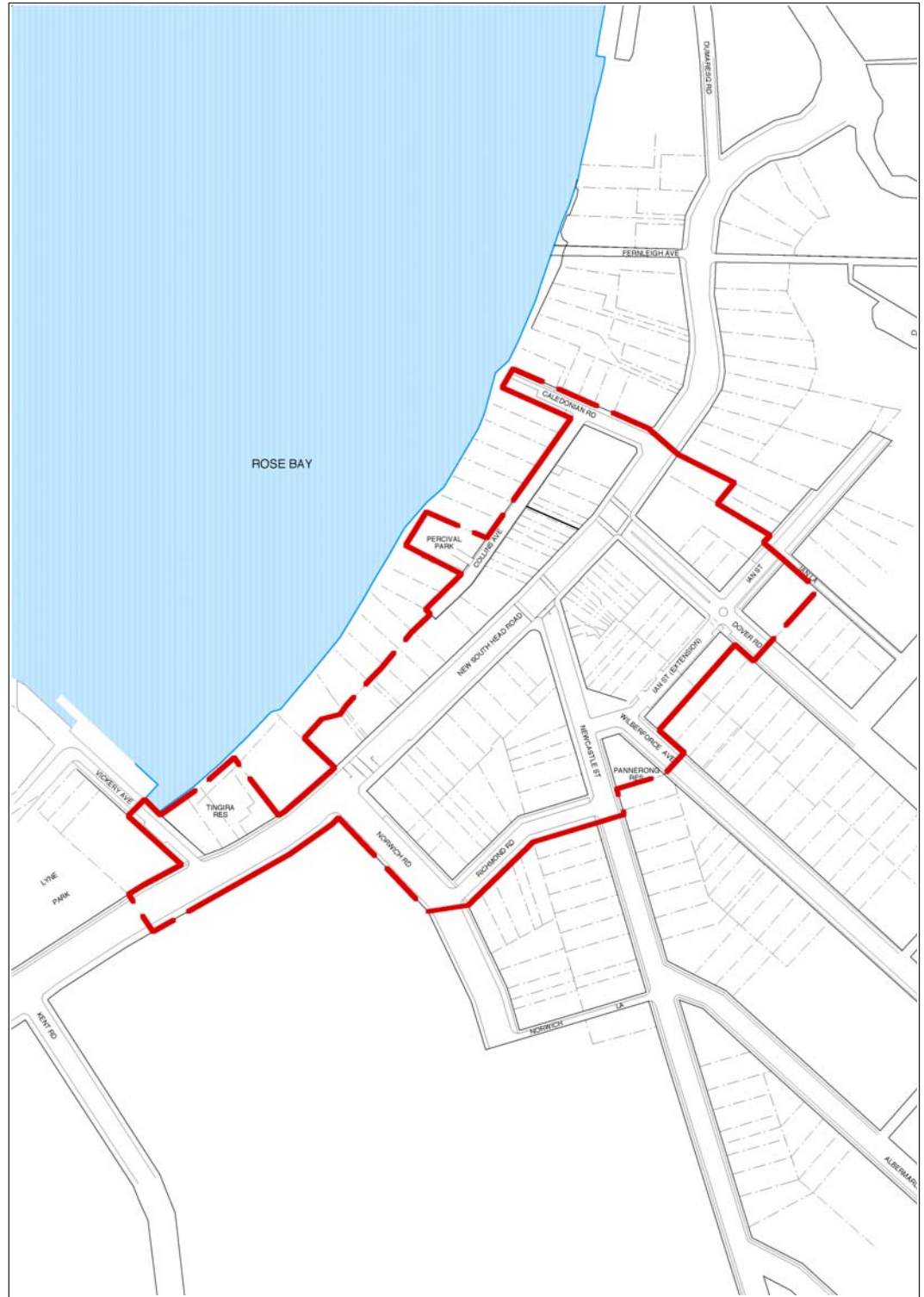
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**LOCATION PLAN**  
- Area to which this Public  
Domain Improvements Plan  
applies



PART

1



# Introduction

## PART 1

The Rose Bay Centre Public Domain Improvements Plan is part of the outcomes of the urban design study which also produced the Rose Bay Centre Development Control Plan. The urban design study involved considerable analysis of existing conditions, including current streetscape improvements, in order to provide appropriate design responses.

A community reference group was formed, with representatives from the Chamber of Commerce, the RSL, local residents, Council staff and Rose Bay ward Councillors. The consultants worked with the reference group at a series of workshops, and through a public meeting open to the general community. Information from the urban design study and input from the reference group was consolidated to form guidelines for the Development Control Plan and Public Domain Improvements Plan.

This Plan nominates a series of interrelated streetscape, square and park projects, which can be incrementally implemented. The project plans are conceptual only; they seek in each case to illustrate the overriding design requirements, rather than show design solutions. Each project merits being treated as a special place in the Rose Bay Centre, and should be followed up as a design project.

The Streetscape Design Manual, which forms Section 7 of this document, provides technical input for public domain elements such as street furniture, planting and paving. The Manual addresses existing as well as future streetscape projects. It is intended to provide guidance for costing and construction, and to establish a consistent grade of quality. It should not be seen as a substitute for good detailed design.

The Streetscape Design Manual will be useful for:

- council officers and consultants, in designing streetscape works;
- developers, in understanding the design requirements for streets; and,
- the general public, in understanding the principles and standards of design in the public domain.

Funding options for the various improvements detailed in this plan may include the lease of public lands (such as outdoor eating, florists, advertising and the like); a Rose Bay Area Improvements Rate, to be levied on all commercial rate payers in the Centre; and Section 94 charges on new developmen. It is considered appropriate that funding be derived from a combination of all of these sources.





# PART 2

# Public Domain Strategy



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**2.1** STREET TREE PLANTING

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**2.2** STREET FURNITURE + PAVING

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**2.3** PEDESTRIAN AMENITY

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# Public Domain Strategy

## PART 2

The public domain is the part of the Rose Bay Centre which is not privately owned, and which is accessible to the public. In certain cases private land may become part of the public domain system, such as where building setbacks create a forecourt to the street. The Public Domain Improvements Plan considers public streets, parks and squares in the Rose Bay Town Centre. The streets, parks, and squares form recreation space and a focus for community activity.

### Objectives

The following objectives for public domain design reinforce the aims and objectives set out in the Development Control Plan.

- ▶ To retain and enhance the village quality of Rose Bay.
- ▶ To improve the physical connection between the Rose Bay Centre and the harbour foreshore.
- ▶ To create a memorable image for Rose Bay Centre, which includes the harbour.
- ▶ To provide a high level of pedestrian amenity and create improved public spaces for community focus.
- ▶ To consider the needs of people with access difficulties in design of the public domain.
- ▶ To improve traffic and parking management and reduce vehicle/pedestrian conflicts.
- ▶ To introduce stormwater management measures to control localised flooding, and to reduce the impact of stormwater outlets on the environmental quality and amenity of the foreshore.

## 2.1

## STREET TREE

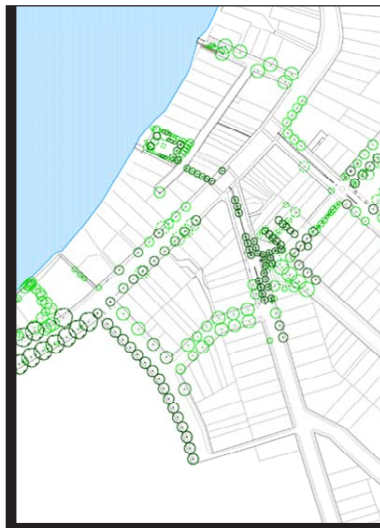
## PLANTING

## Principles

- ▶ Street tree planting can improve legibility in the urban environment by reinforcing the hierarchy of streets and enhancing sense of place. Placement of trees affects light and shadow, colour and views, which contributes to the quality of pedestrian experience. Trees also contribute to environmental quality in many ways.
- ▶ Trees planted at regular intervals along the street edge can create a strong linear space, and create a more intimate pedestrian environment by providing separation between the footpath and traffic. The effectiveness of tree planting as a space defining element will depend on the size of trees relative to the width of streets and height of adjoining buildings.
- ▶ The location of tree planting in the shopping areas will be determined by the width of streets and the presence of awnings. The main retail areas of New South Head Road, Dover Road, and Newcastle Street are defined by a built edge with awnings over the footpath, restricting the opportunity for planting.
- ▶ Discontinuous awnings at the western end of New South Head Road, where future development is likely to occur, will allow establishment of a regular line of trees, on both sides of the street. It is important to achieve a regular spacing of trees to reinforce the formality of the New South Head Road streetscape.
- ▶ Opportunities for planting have been included in the median and proposed square in Newcastle Street. It will become a green street with an intimate scale, and a formality created with regular spacing of trees and formal geometry of medians.
- ▶ The high quality of street tree planting already in Caledonian Road and Richmond Road contributes to the leafy quality of the Rose Bay Centre at the transitional edges. Supplementing existing tree planting at these edges will enhance the character and highlight the change in spatial character as one enters the main retail area.

## STREET TREE STRATEGY

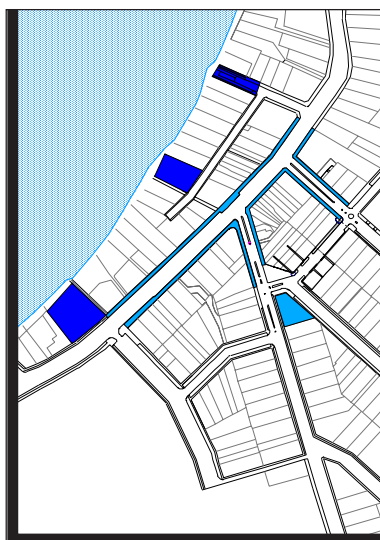
light green - Existing trees  
dark green - New street trees



## 2.2 STREET FURNITURE & PAVING

### Principles

- ▶ While buildings and trees are the dominant structuring element of streets, other urban elements such as paving, lighting, furniture, information signage etc, can be used to create a particular image in urban areas. A limited palette of paving and furniture will establish a design language and a grade of urban quality to unify the public domain.
- ▶ Paving treatments, street furniture, and lights can be used to define the Rose Bay Centre and to distinguish it from surrounding streets and other centres. Furniture and lighting selected for the street system should establish a design language that unifies the Rose Bay Centre. Different, specially designed furniture and lighting, and public art may be used in the squares and parks, in order to create special places in the public domain.
- ▶ Street furniture should be robust, attractive and fit for purpose. Attention to quality and functionality will create a comfortable and engaging environment for pedestrians.
- ▶ The placement and density of furniture and lights should provide an appropriate level of amenity while avoiding clutter. Street furniture provides the detail of the streetscape, which should not compete with structuring elements such as buildings and trees.
- ▶ A range of street furniture, concrete unit pavers and stone setts, has been used in recent upgrading of New South Head Road and parts of Dover Road. Selection of furniture and details of paving are considered in the *Streetscape Design Manual*.
- ▶ Outdoor furniture associated with cafes, restaurants and hotels contributes to the image of the public domain, and should be considered together with other street furniture.



#### STREET FURNITURE

light blue -  
Restoration Seat,  
Bromax Bin Surround

dark blue -  
CMP7 Park Seat



#### LIGHTING

yellow - Pole Light :  
Windsor Luminaire

orange - Specially selected  
range of lights and furniture  
to suit individual designs

blue - Car park lights on 9m  
high poles

## 2.3

## PEDESTRIAN AMENITY

**Principles**

- ▶ Attention to the geometry of street design plays an important part in reinforcing the urbanity and formality of the public domain. A consistent and strong geometry for streets, medians and traffic management structures should reinforce the linear space set up by the built form.
- ▶ Streets should be safe, convenient and comfortable pedestrian environments. They should cater to the needs of all users, including people with access difficulties- people with prams, in wheelchairs, with walking difficulties, sight or hearing impaired, or intellectually handicapped.
- ▶ A continuous path of travel, unimpeded by physical obstructions and which is part of the general pedestrian system, is desirable along the footpath, in order to cater for people with mobility disabilities. A clear separation between roadway and pedestrian areas is necessary for egibility and safety on streets with a continuous flow of traffic, particularly for vision impaired people.
- ▶ Pavement width should allow for comfortable walking, unimpeded by obstacles. The placement of street furniture should provide adequate amenity without causing clutter or interrupting the major pedestrian flows and views.
- ▶ Design for pedestrian amenity should maximise the actual and perceived sense of safety in the public domain. Active use of all spaces should be encouraged, particularly at night.
- ▶ Avoid creating secluded areas where surveillance is limited, such as garden beds with shrubs which inhibit visibility. Provide high levels of lighting in carparks, lanes and at the interface between buildings and streets. Identify safe pathways through the provision of good lighting, maximum casual surveillance and minimal concealment opportunities.

# PART 3

# Urban Projects

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ROSE BAY CENTRE PUBLIC DOMAIN

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~~3.1~~ DOVER ROAD / IAN STREET (NOT ADOPTED)

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~~3.2~~ IAN STREET / PANNERONG RESERVE (NOT ADOPTED)

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3.3 PERCIVAL PARK

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3.4 NEW SOUTH HEAD ROAD - TRANSITION AREA

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3.5 NORWICH ROAD

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3.6 TINGIRA RESERVE

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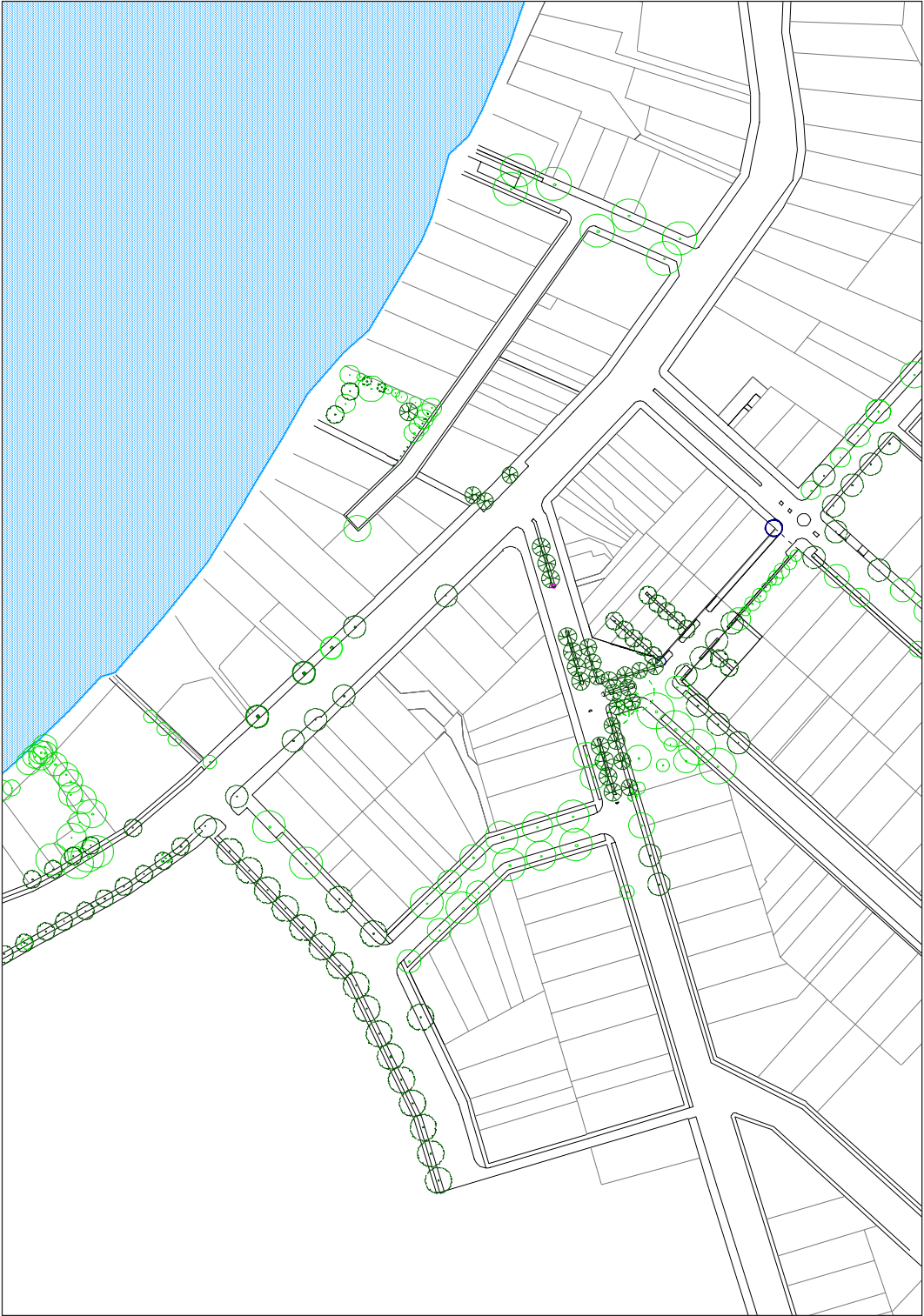
3.7 CALEDONIAN ROAD

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# Urban Projects

## PART 3



ROSE BAY CENTRE  
PUBLIC DOMAIN

3.1

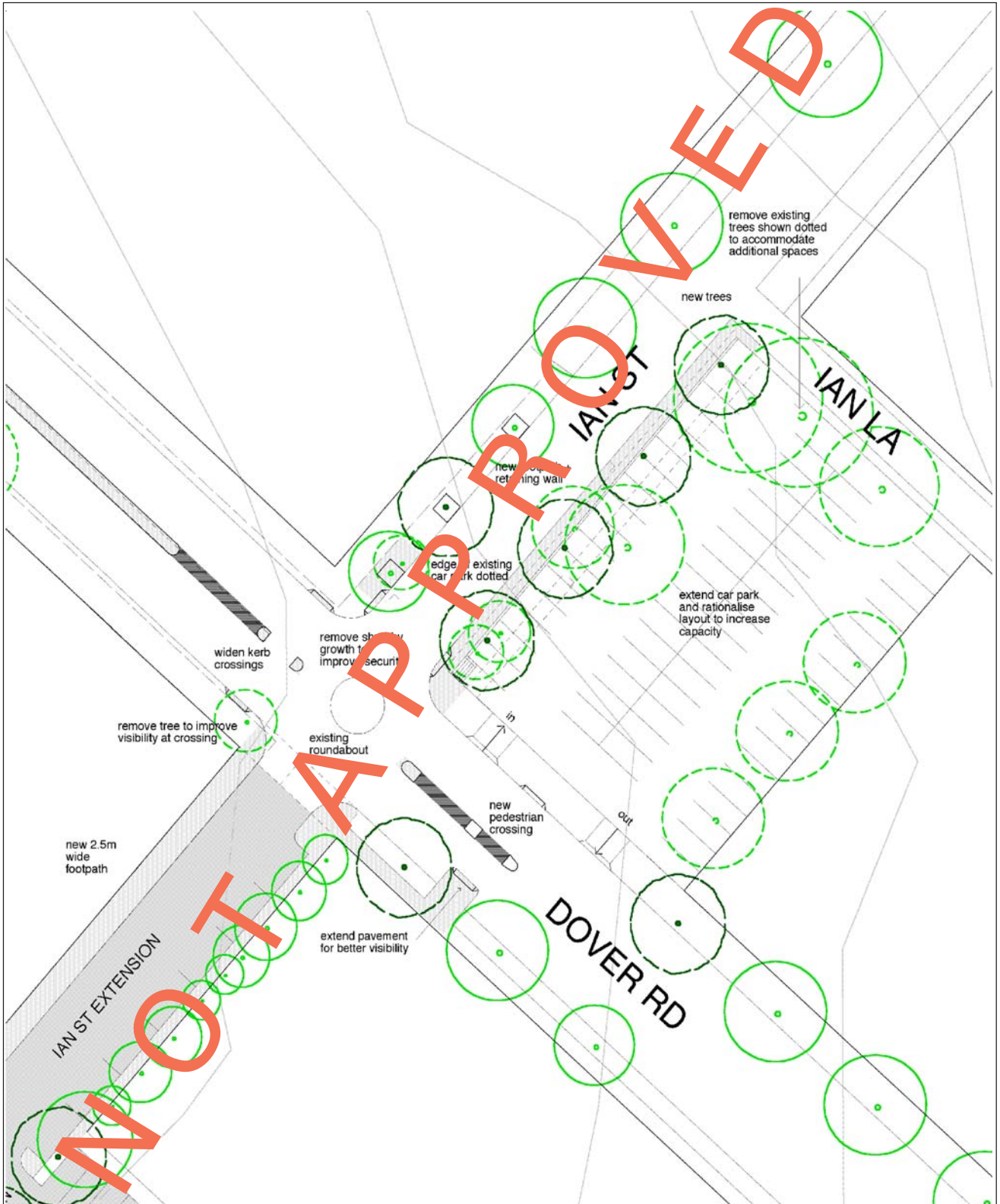
DOVER ROAD /

IAN STREET

- Extend carpark to north with a retaining wall in place of existing bank, and reorganise layout to provide eight new spaces.
- Replace existing tree planting along carpark edge. Remove low growth to improve security. Reinforce planting along northern edge.
- Improve pedestrian crossings at roundabout.
- Increase width and length of median in Dover Road.

**GENERAL LEGEND**

light green	existing trees (solid)
	remove trees (dotted)
dark green	new trees
light grey	new footpaths/paving
mid grey	new carriageway
yellow	community facility



3.2

IAN STREET /

PANNERONG

RESERVE

- Extend Ian Street to connect Dover Road and Newcastle Street, to provide new footpath and carriageway.
- Reorganise existing carpark to improve circulation and pedestrian amenity.
- Reconfiguration of Wilberforce Avenue intersection creates a square on Newcastle Street.
- New building and shade structure along carpark edge. Refer to Section 6.7.3 of the Rose Bay Centre Development Control Plan.

NOT APPROVED

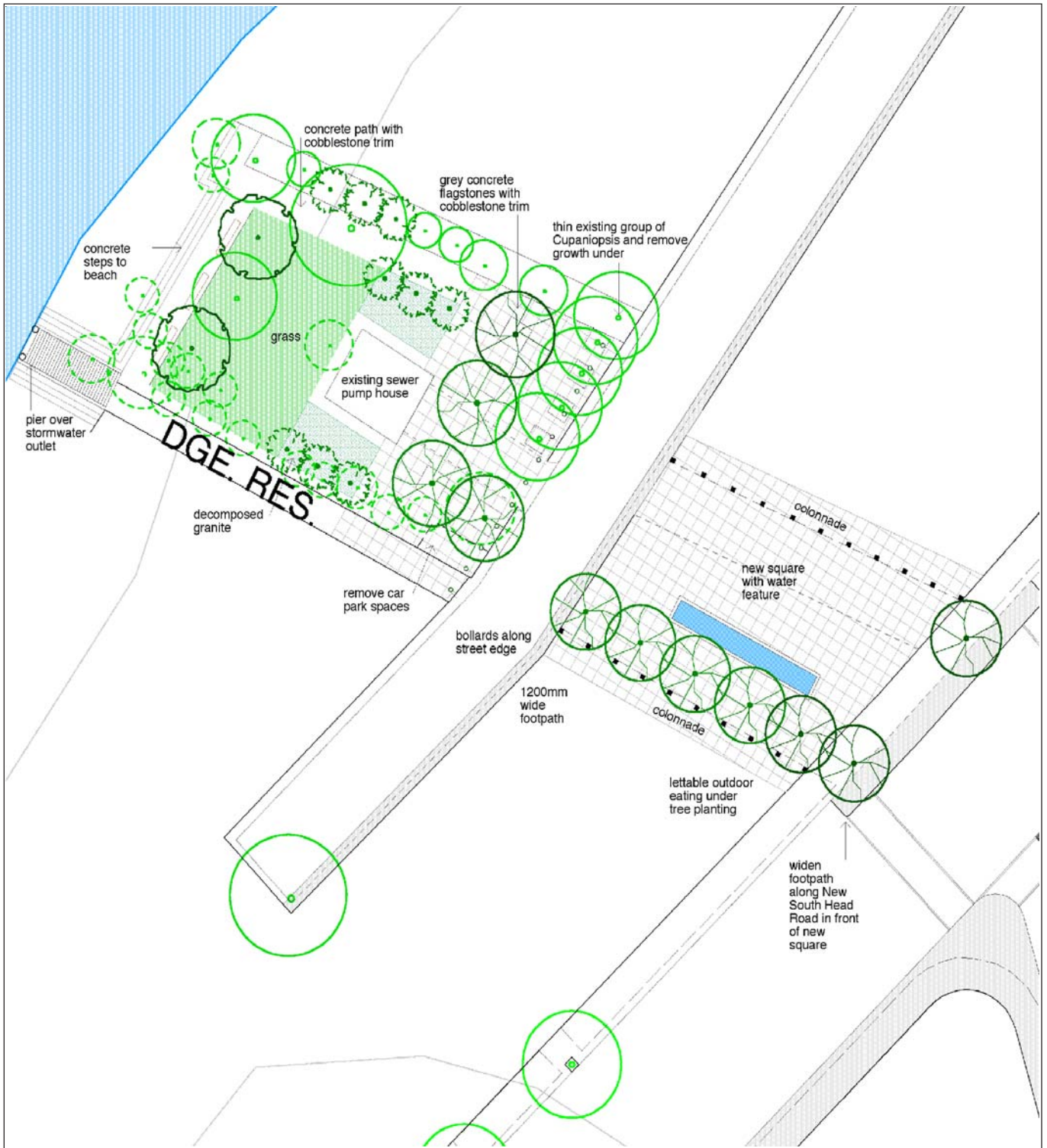




## 3.3

**PERCIVAL PARK /  
NEW SQUARE**

- Remove low shrubby growth in Percival Park to open up views of harbour and improve security.
- Improve seating area adjacent to beach; provide steps to water.
- Cover stormwater outlet with jetty and steps.
- Pave street side of Percival Park to extend square.



## 3.4

## NEW SOUTH HEAD

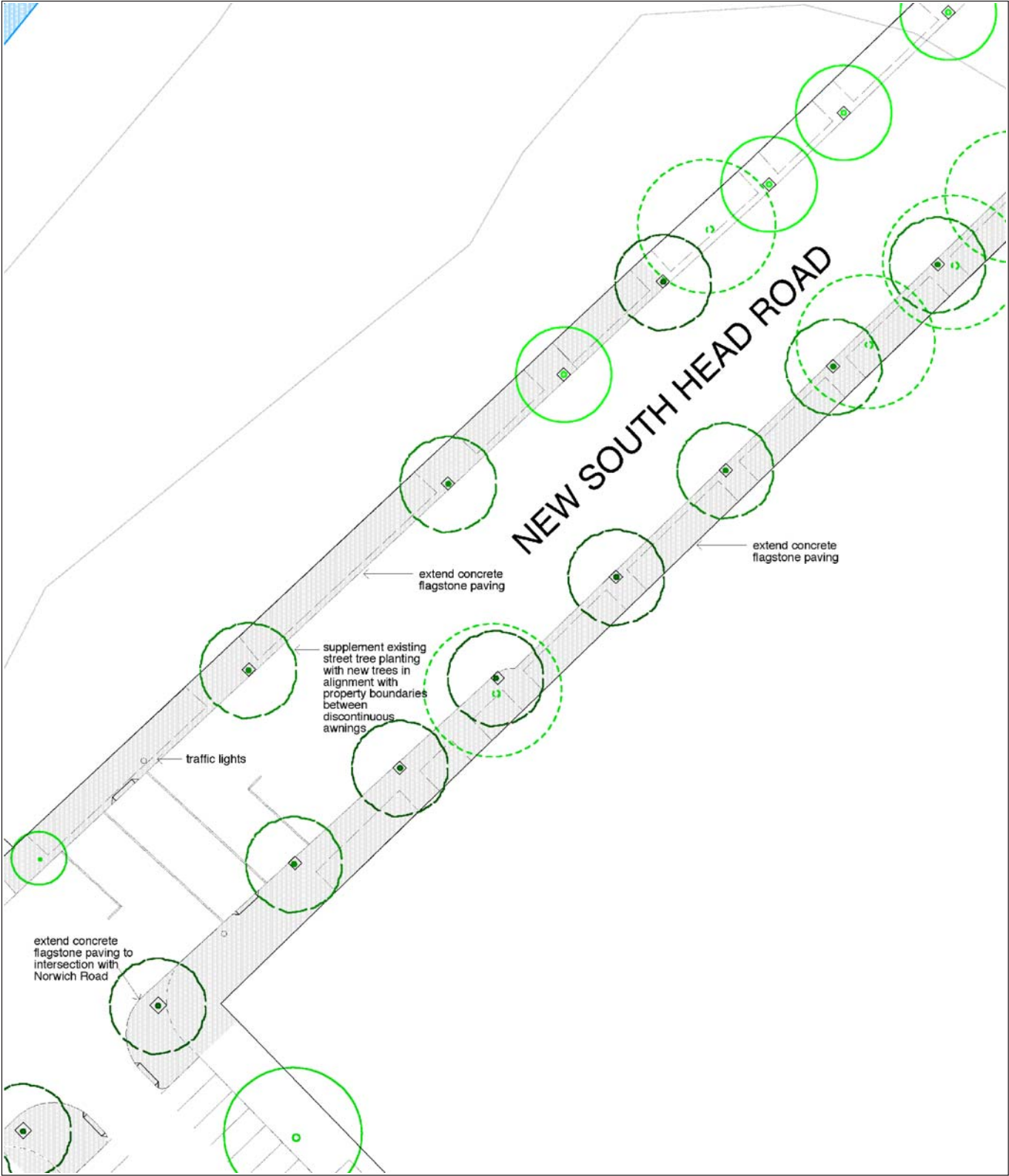
## ROAD -

## TRANSITION AREA

This area provides a transition from residential and parkland to the Rose Bay Centre.

- Extend planting of *Harpulia* to provide visual connection with recreation and leisure areas south of centre, and to reinforce the threshold.

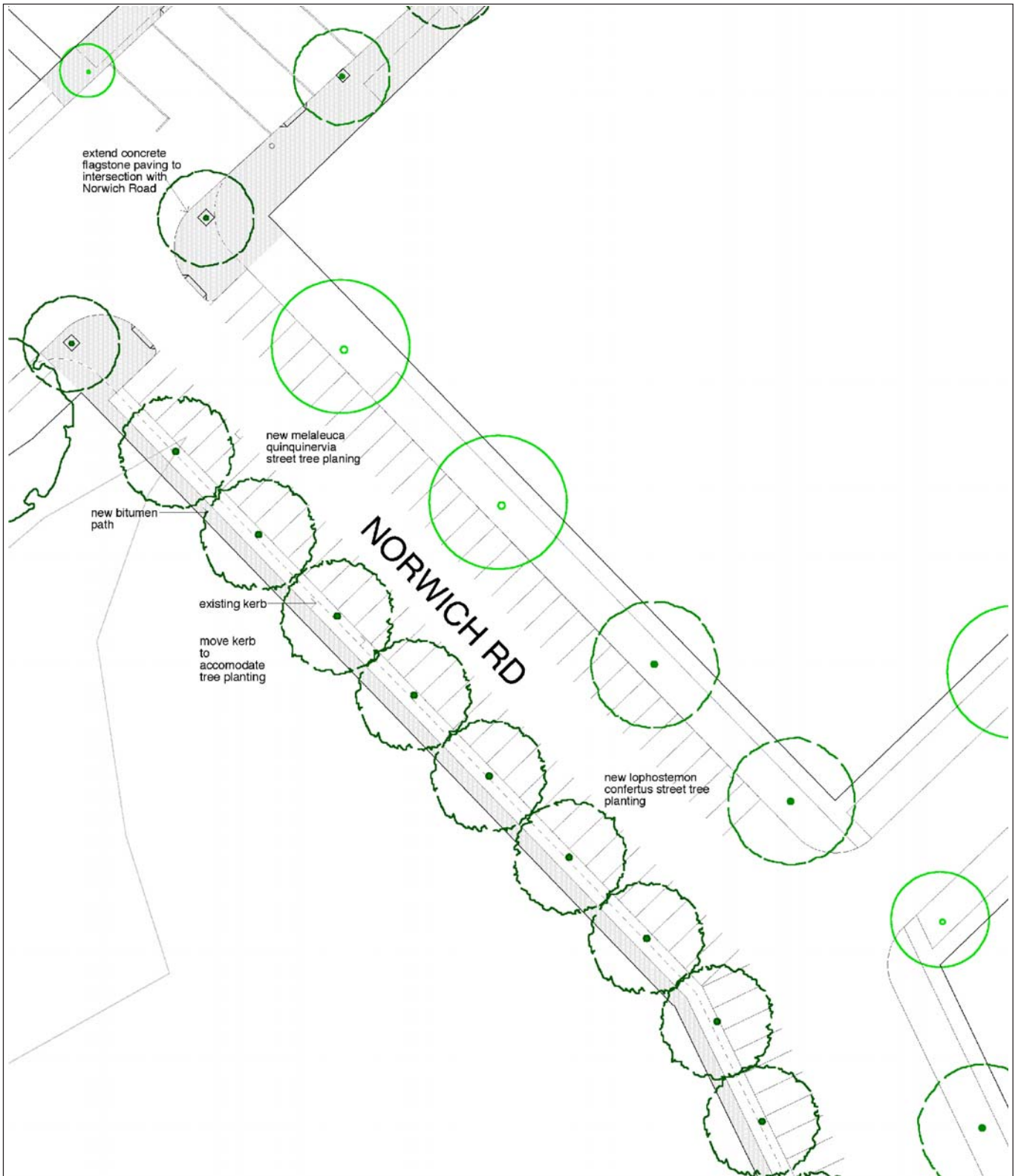




## 3.5

## NORWICH ROAD

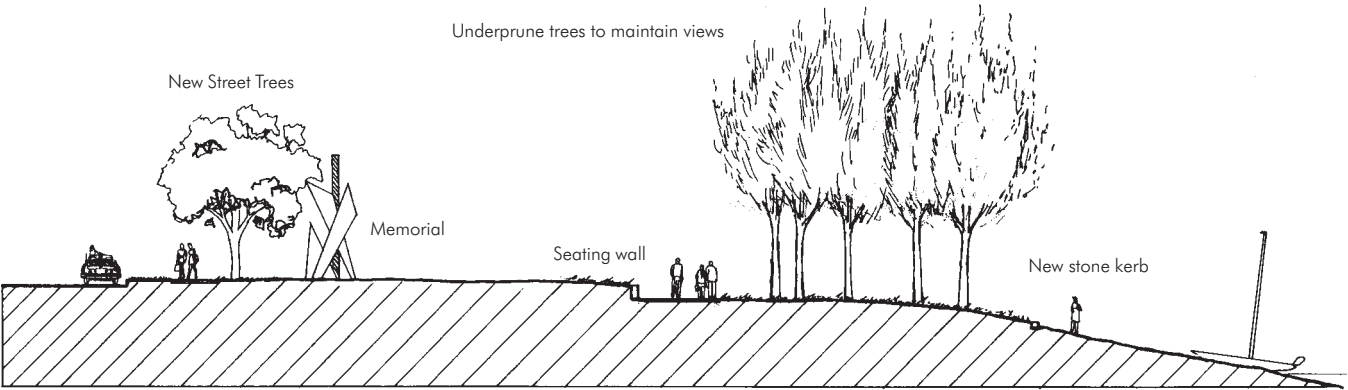
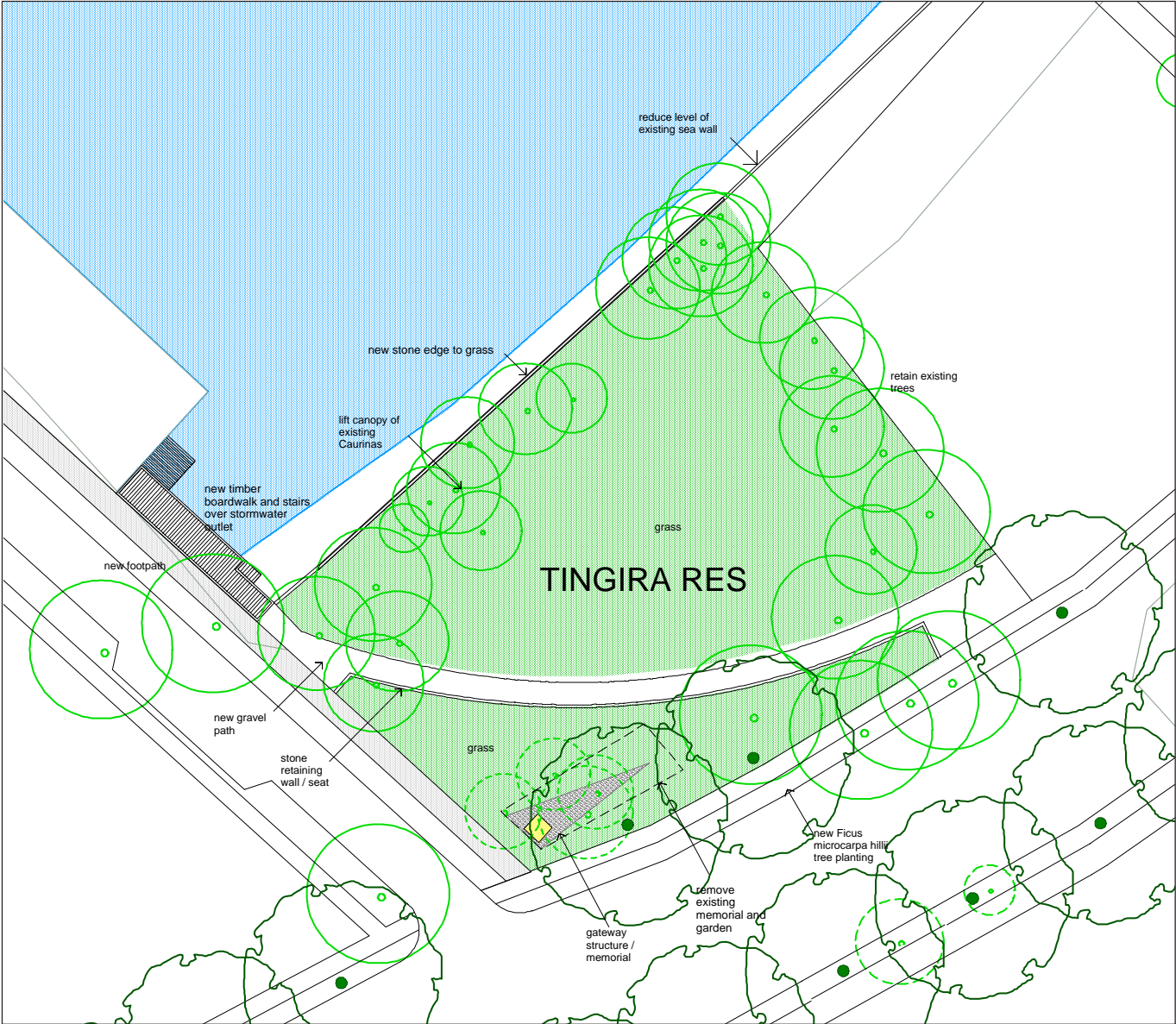
- Narrow entrance to Norwich Road to improve pedestrian environment.
- Extend verge on western side to improve access and allow street tree planting.
- Reinforce street tree planting along eastern side.



## 3.6

## TINGIRA RESERVE

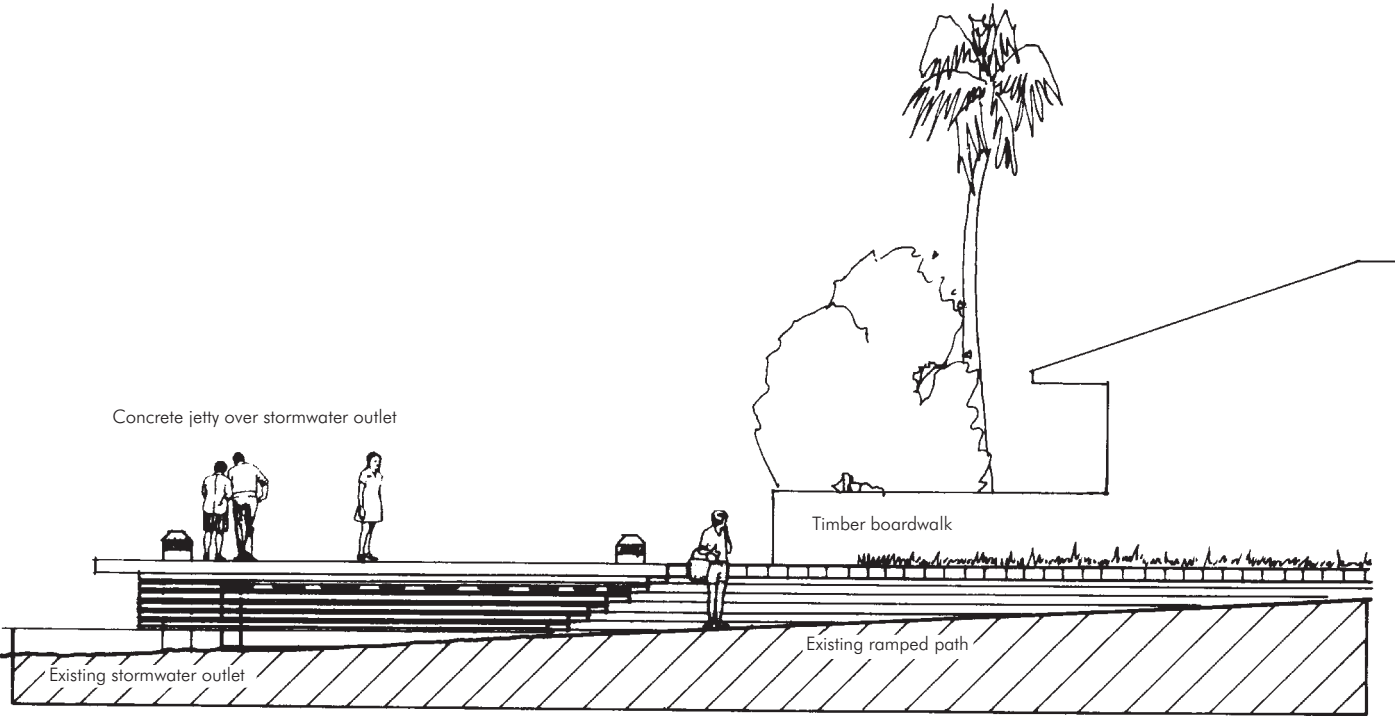
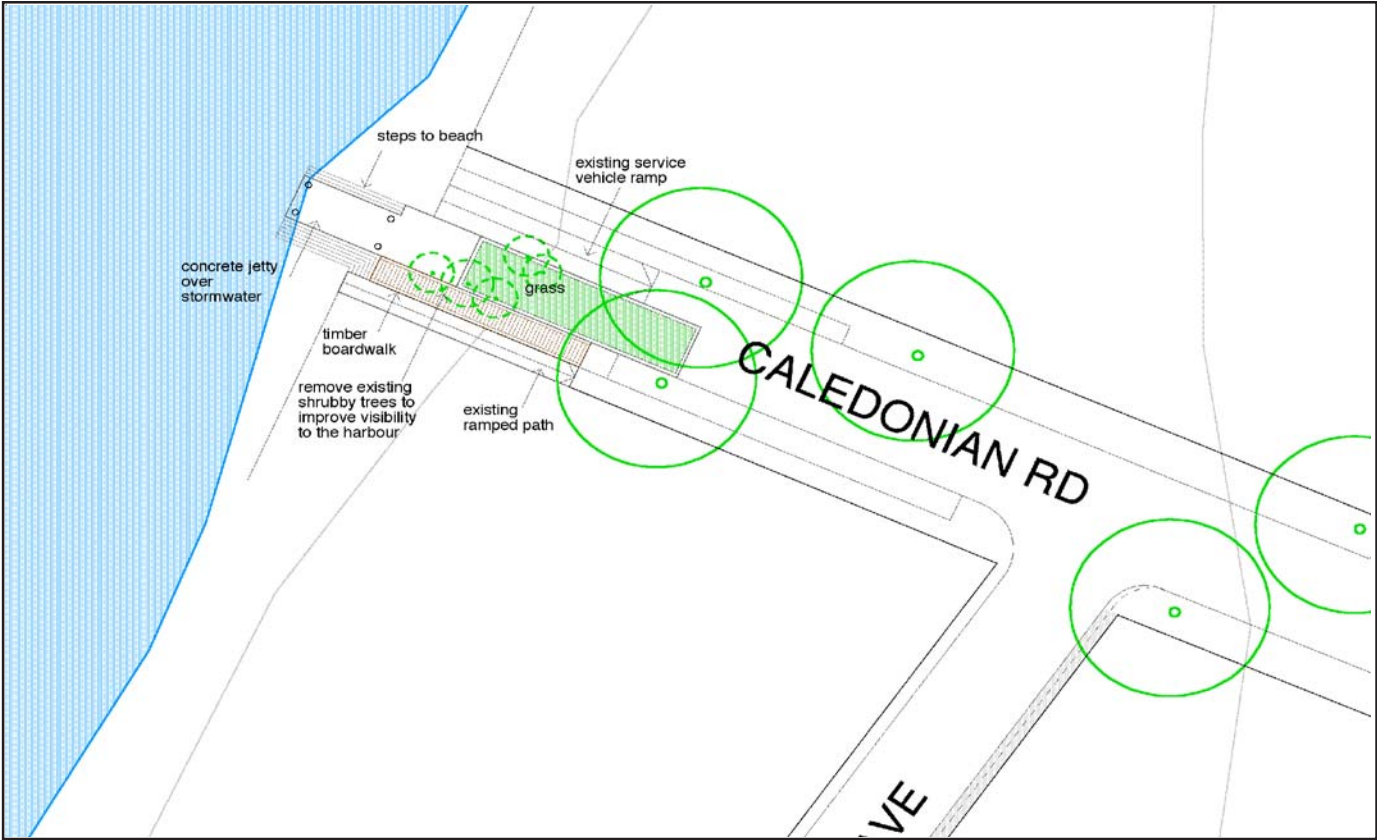
- Formalise pedestrian connection through park with a wide path that divides space into upper and lower areas.
- Lift canopy of existing Casuarinas to provide views to harbour.
- Replace existing memorial with a specially designed artwork / memorial, appropriate to this threshold position.
- Stone edge between grass and beach, continued in front of Wintergarden site.
- Reinforce threshold to the Rose Bay Centre with tree planting of *Ficus microcarpa hillii*.



## 3.7

## CALEDONIAN ROAD

- Remove small trees to open up views from public domain.
- Extend platform over stormwater outlet; provide steps to water.







# PART 4

# Access & Circulation

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**4.1** PEDESTRIAN ENVIRONMENT AND SAFETY

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**4.2** TRAFFIC

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**4.3** PUBLIC TRANSPORT

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# Access & Circulation

## PART 4

### Objectives

The access and circulation objectives within the Rose Bay Centre are as follows:

- ▶ To improve the pedestrian environment.
- ▶ To create a safer pedestrian environment by reducing the speeds of motor vehicles, upgrading the general amenity of the area with streetscape designs, improved lighting, and considering security in planning pedestrian networks.
- ▶ To improve links to car parking areas for vehicles and pedestrians.
- ▶ To improve traffic circulation around the Centre and to assist the search path for available parking.
- ▶ To rationalise existing public transport services.

## 4.1

**PEDESTRIAN  
ENVIRONMENT  
& SAFETY**
**Principles**

- ▶ Improve pedestrian crossing facilities in Dover Road on either side of the roundabout.
- ▶ Incorporate a 2.5 metre wide pedestrian path along the western side of the Ian Street extension to provide safe pedestrian access between Dover Road and Wilberforce Avenue, and to the carparking areas.
- ▶ Provide footpath extensions at the intersection of Norwich Road with New South Head Road to facilitate crossing.
- ▶ Provide refuge islands at the proposed reconfiguration of Wilberforce Avenue and Newcastle Street junction to create a threshold to the Centre, and to facilitate pedestrian crossing
- ▶ Encourage the creation of a new square in the immediate vicinity of Worth Arcade to improve pedestrian access and provide a strong visual link from the Centre to the foreshore.
- ▶ Widen the footpath on the east side of Collins Avenue.
- ▶ Improve street lighting and landscaping of footpaths, particularly along the proposed Ian Street extension, to enhance pedestrian safety at night.

**PEDESTRIAN STRATEGY**

orange - Mitigated potential  
pedestrian and vehicle  
problem areas

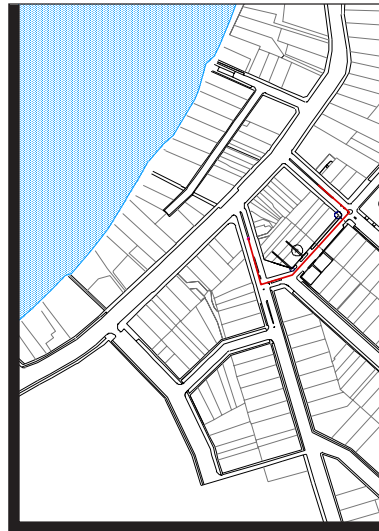
red - Improvements to  
pedestrian access



## 4.2 TRAFFIC

### Principles

- ▶ Extend Ian Street to connect Dover Road with Wilberforce Avenue along the southern prolongation of Ian Street. This street link will permit entry to and exit from Dover Road.
- ▶ Provide traffic calming devices on the approach to the Centre in Newcastle Street, Wilberforce Avenue and Dover Road. These are generally footpath widenings and/or medians with tree planting which narrow the carriageway to alert motorists that they are approaching the Rose Bay Centre. These devices will be located to minimise impact on kerbside parking and residential access driveways.
- ▶ Rearrange the parking configuration between Dover Road and Wilberforce Avenue to permit improved circulation. Displaced parking will be replaced (refer Section 5.)



### TRAFFIC STRATEGY

red - Improve circulation for traffic searching for available parking

## 4.3

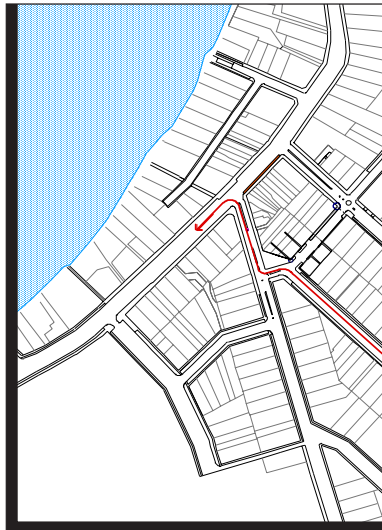
## PUBLIC TRANSPORT

## Principles

- ▶ Retain existing taxi rank
  - Retain existing taxi rank opposite the Rose Bay Hotel in Dover Road.
- ▶ Rationalise bus routes
  - The route along Wilberforce Avenue should be reviewed in the context of its need and consideration given to either removing the service or relocating its route to Newcastle Street or Albemarle Avenue.

PUBLIC TRANSPORT  
STRATEGY

red - Bus route conflict with  
90° parking possibly  
relocated to Albemarle Street



# PART 5

# Parking Strategy

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**5.1** PARKING MANAGEMENT

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**5.2** FUTURE PARKING DEMAND

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# Parking Strategy

## PART 5

### Objectives

The objectives for parking in the Rose Bay Centre are as follows:

- ▶ To retain on-street parking as far as possible.
- ▶ To improve parking management by rationalising the type and distribution of time restricted parking spaces in line with village use demands.
- ▶ To increase the quantum of public parking in response to future development by seeking contributions for the establishment of new off-street parking areas. Refer to Rose Bay Centre Development Control Plan 1998 Section 6.6.
- ▶ To improve and maintain regular enforcement procedures to control usage of time restricted spaces in the village.

## 5.1 PARKING

### MANAGEMENT

#### Principles

Rationalise the type and distribution of time restricted parking spaces, to increase turnover and thereby improve patronage of adjacent retail shops. This will be achieved by:

- converting the existing 1 hour spaces along New South Head Road between Newcastle Street and Dover Road to half hour spaces.
- converting the existing 1 hour spaces along the north-western side of New South Head between Norwich Road and Newcastle Street, to half hour spaces on weekdays between 3pm and 6pm.
- retaining 2 hour restriction within the Wilberforce Avenue and Ian Street / Dover Road off-street public parking areas.
- converting the unrestricted kerbside spaces along the following road segments to two hour resident parking scheme spaces:
  - Norwich Road - east side only
  - Richmond Road
  - Newcastle Street
  - Wilberforce Avenue
  - Dover Road
  - Ian Street
  - Caledonian Road
  - Collins Avenue

#### PARKING STRATEGY

red - convert 1 hour to half hour zones on New South Head Road

orange - convert kerbside zones adjacent to residences to 2 hour resident parking

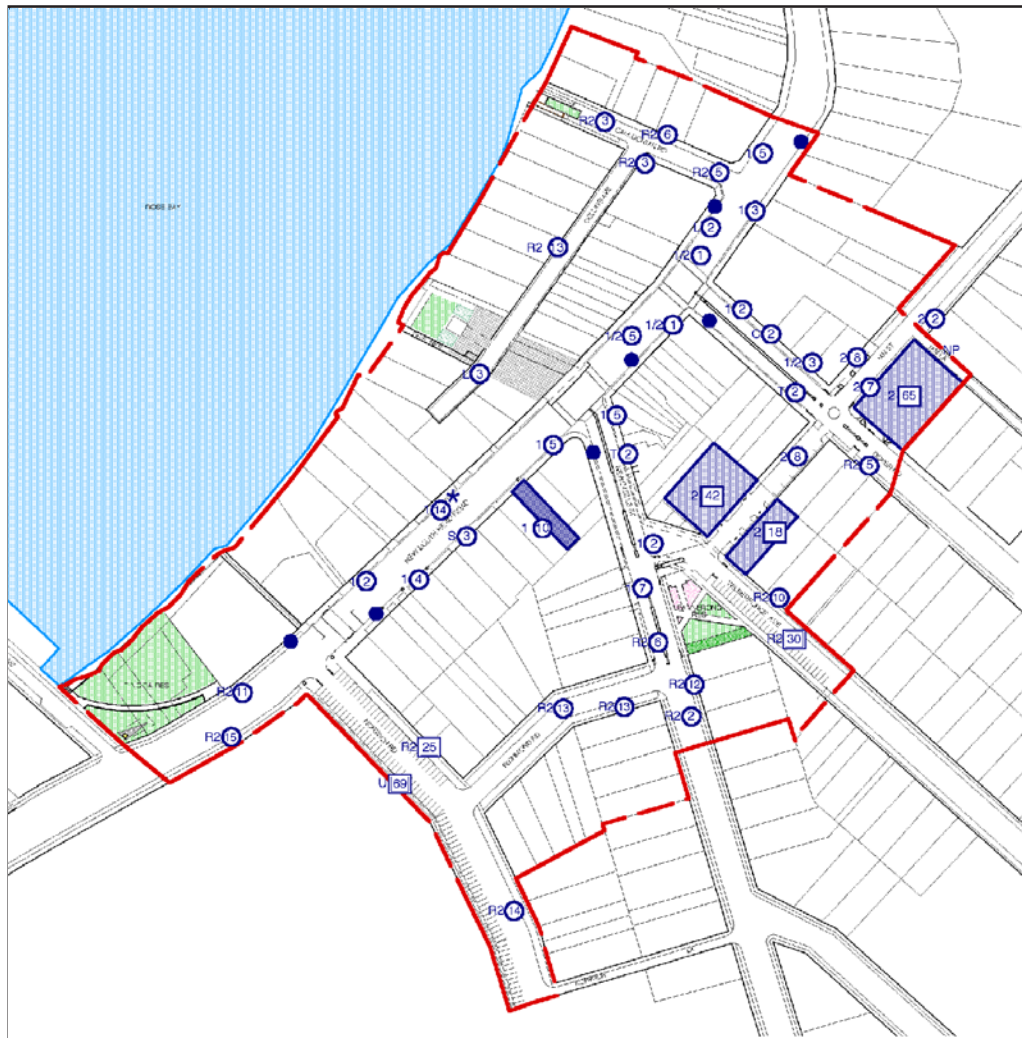


#### SUMMARY OF PARKING CHANGES

LOCATION	CURRENT	IMPROVEMENT	NET CHANGE	MULTI LEVEL (refer page 19)
Ian St Extension	31	8	-23	
Wilberforce Ave car park	48	42	-6	71
Wilberforce Ave realignment	4	0	-4	
Ian St / Dover Rd car park	52	65	+13	109
Wilberforce Ave 90 deg parking	12	30	+18	
Dover Road pedestrian crossing	2	0	-2	
<b>TOTAL</b>	<b>149</b>	<b>145</b>	<b>-4</b>	

The net loss of 4 spaces will be more than adequately compensated by the increase in turnover. Improved turnover will create up to 200 additional parking opportunities per day, compared to the existing situation. This increase of 15% to 25% assumes that up to half of the kerbside parking is utilised by resident vehicles within the Resident Parking Scheme areas.

If required, the number of kerbside parking spaces could be increased by the further extension of 90 degree angled parking along Wilberforce Avenue, and the provision of 10 additional angled spaces in Norwich Avenue, south of Richmond Road.



**PARKING STRATEGY  
INVENTORY**

Unrestricted Parking	U	2 hour Free Off-street Parking	
30 min Parking	1/2	On-Street Parking Supply	94
1 hr Parking	1	On-Street Angled Parking Supply	97
Truck Zone	T	Off-Street Parking Supply	1
Loading Zone	L	1 hour Free Off-Street Parking	
No Parking	NP	Shared Parking Restrictions	S
No Stopping		1/4 hour 9am-5pm Mon-Fri	
2 hr Resident Parking	R2	1 hour 8:30am-12:30pm Sat	
Taxi Rank	C	Retained bus stops	

## 5.2

## FUTURE PARKING

## DEMAND

## Principles

To increase the quantum of public parking in response to future developments, by seeking contributions for the establishment of new off-street parking spaces.

- ▶ This will be achieved by generally retaining the current code for parking whilst incorporating the following maximum provision for the residential component of developments only.
 

for 1 bedroom units	0.5 space per unit
for 2 bedroom units	1 space per unit
for 3+ bedroom units	2 spaces per unit
for visitors	1 per 5 units
- ▶ Retail development is required to provide a *minimum* of 80% of the required parking as an off-site contribution, with the balance of the required spaces provided on-site as private parking.
- ▶ Commercial development is required to provide a *minimum* of 80% of the required parking on-site as private parking, with the balance of the required spaces provided as an off-site contribution.
- ▶ Future redevelopment will result in an increased demand of about 42 public parking spaces. (Since the peak demand periods for visitor parking and shopper parking generally do not coincide, a duality of use has been assumed for this calculation.)
- ▶ Capacity of the existing public car parks has been investigated to determine whether the future demand can be met by development of these sites.
- ▶ Indicative plans of the Ian Street / Dover Road car park site suggest that an additional 57 spaces for the public can be provided on four half levels accessed off Dover Road, with 15 of those spaces at street level. There is opportunity to provide upper level parking to private development, via Ian Lane.
- ▶ Indicative plans of the Wilberforce Avenue car park site suggest that an additional 26 spaces for the public can be provided on two levels.

**IAN STREET / DOVER ROAD  
CARPARK**

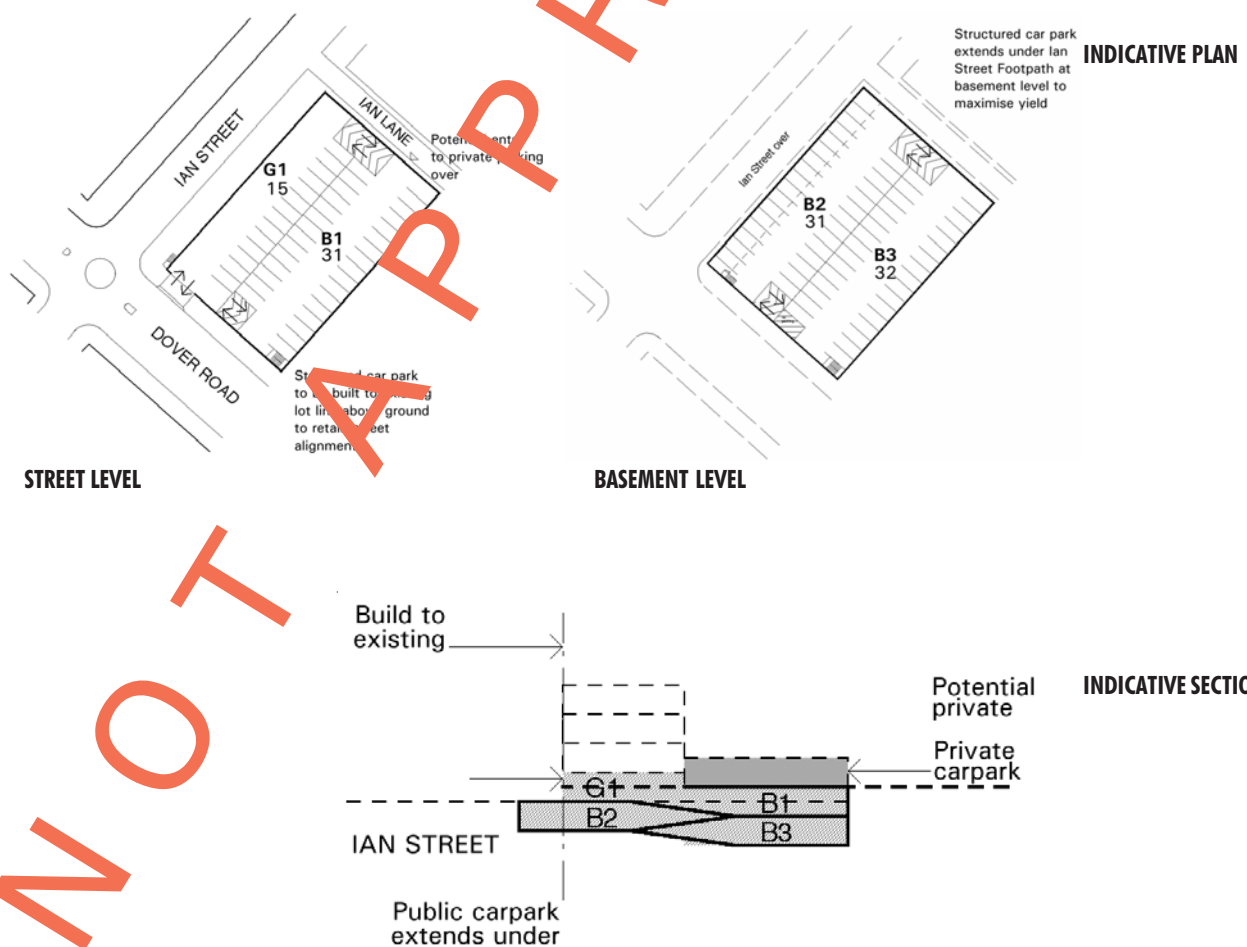
The following investigations consider the capacity for multi level redevelopment of the two Council owned off-street carparks in the Rose Bay Centre.

**CAPACITY INVESTIGATION**

- One half street level plus three half basement levels.
- Two-way aisle.
- Yield and detailed configuration subject to detailed design

**INDICATIVE YIELD**

Existing capacity	52
G1 + B1 + B2 + B3	109
Net increase	57

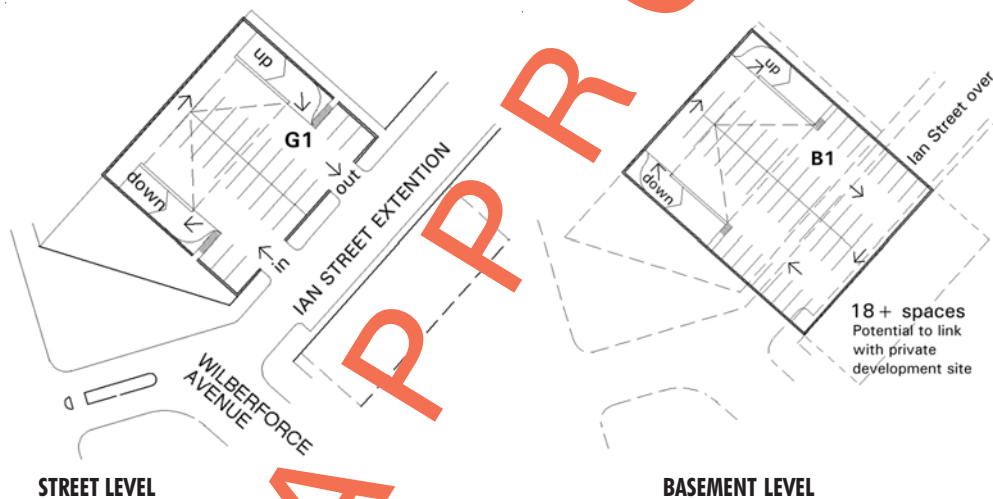
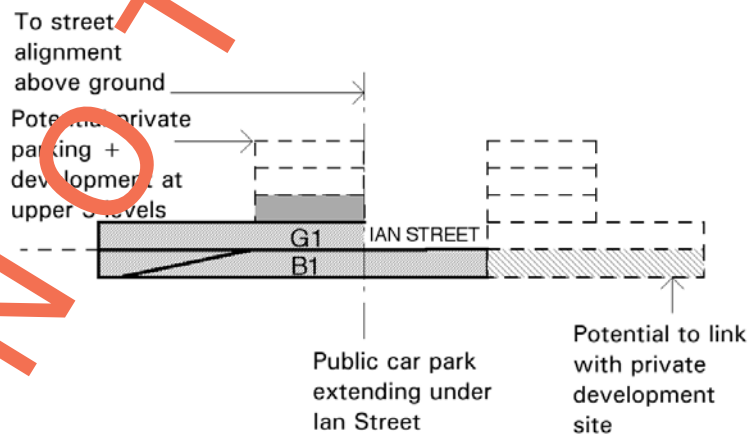


**WILBERFORCE AVENUE  
CAR PARK****CAPACITY INVESTIGATION**

- One street level plus one basement level extending under Ian Street.
- One-way circulation.
- Yield and detailed configuration subject to detailed design.

**INDICATIVE YIELD**

Existing capacity	48
G1 + B1	74
Net increase	26

**INDICATIVE PLAN****INDICATIVE SECTION**

# PART 6

# Stormwater Strategy

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# Stormwater Strategy

## PART 6

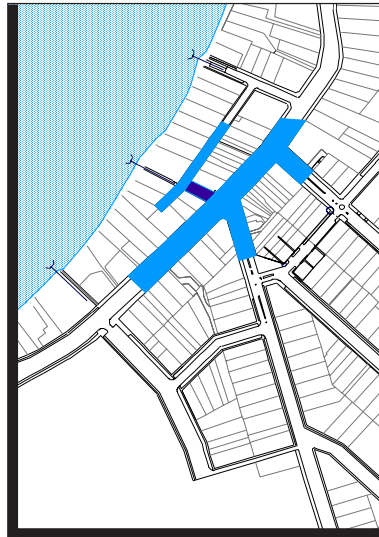
### Objectives

Stormwater has the potential to have a major impact on the efficient and safe functioning of the Rose Bay Centre. The stormwater strategy aims to;

- ▶ reduce the impact of flooding on the public domain and private property
- ▶ integrate stormwater solutions with good urban design
- ▶ improve amenity on the waterfront by reducing the impact of stormwater outlets

### Principles

- ▶ Investigate the viability of a floodway in the location of Worth Arcade to provide a fail safe system (ie if the whole system blocks, surcharge will safely occur through Worth Arcade).
- ▶ Investigate the magnitude of reduction in flood levels at peak flood levels by provision of a 9m surface floodway at Worth Arcade.
- ▶ Provide gross pollutant traps to all outlets into the harbour. Extend walkways/ jetties over the outlets to integrate outlets with landscape design treatments.



### STORMWATER STRATEGY

light blue - Areas prone to flooding in 50 year floods

dark blue - Area proposed for overland flow to mitigate effects of flooding



# PART 7

# Streetscape Design Manual

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**7.1** STREET FURNITURE

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**7.2** PAVING

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**7.3** URBAN GEOMETRY

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**7.4** STREET TREES

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# Streetscape Design Manual

## PART 7

### 7.1 STREET FURNITURE & PAVING

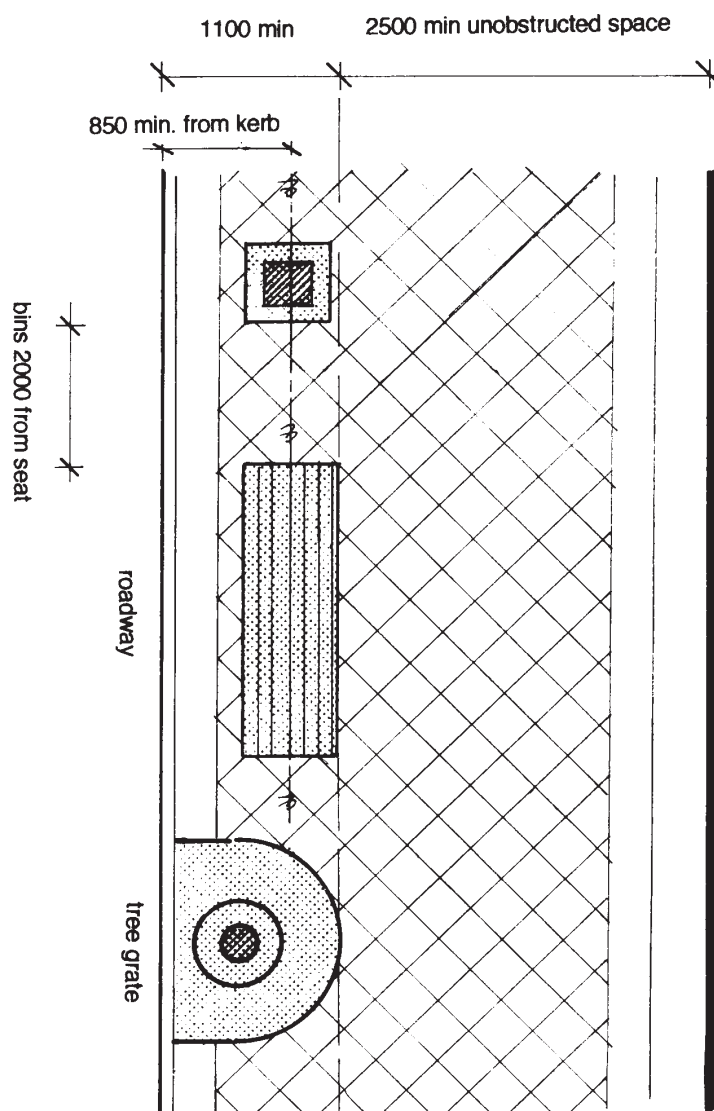
Street furniture can enhance the image of the town centre. In combination with paving it provides the detail of the streetscape.

Seats, lights bins etc should be positioned at the street edge, outside the main pedestrian flow, with enough room to move between elements. Preferred width of unimpeded footpath 2.5m.

A range of furniture has been adopted by Woollahra Council for use throughout the Rose Bay Centre

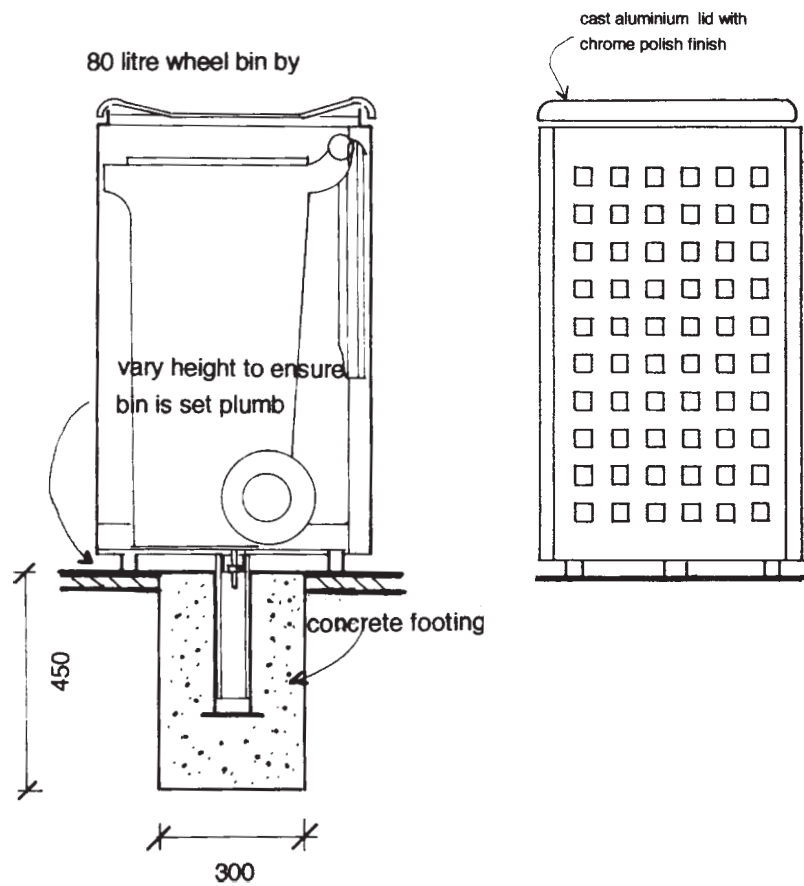
The core elements of this range is outlined following:

Drawings in this section are not to scale. Use figured dimensions only.



METAL WHEEL BIN  
SURROUND

Type	3205 / 2 to take 80 / 120 litre wheelie bin
Supplier	Bromax
Colour	black with polished stainless steel center open cover.
Location	1 bin every block - not suitable for use along the waterfront



**Type** P101 bollard base  
L101S small Windsor luminaire

**POLE LIGHT**

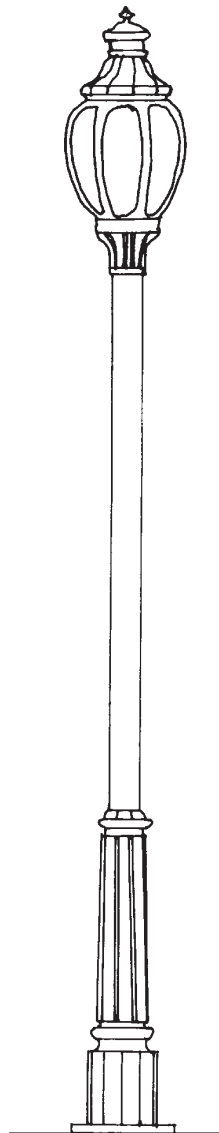
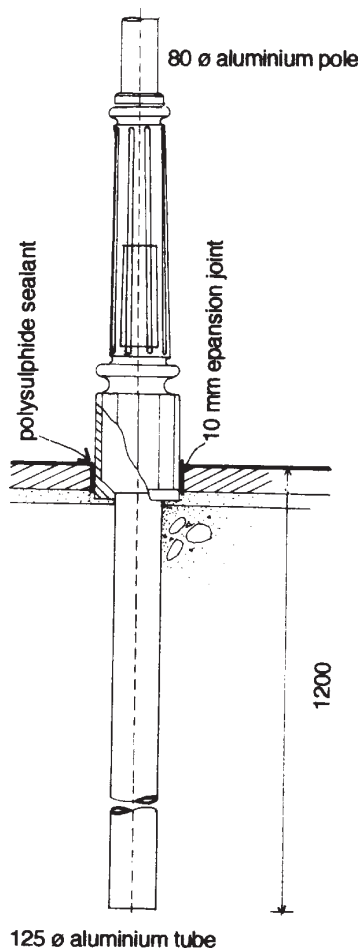
**Supplier** Canon Marketing

**Colour** black

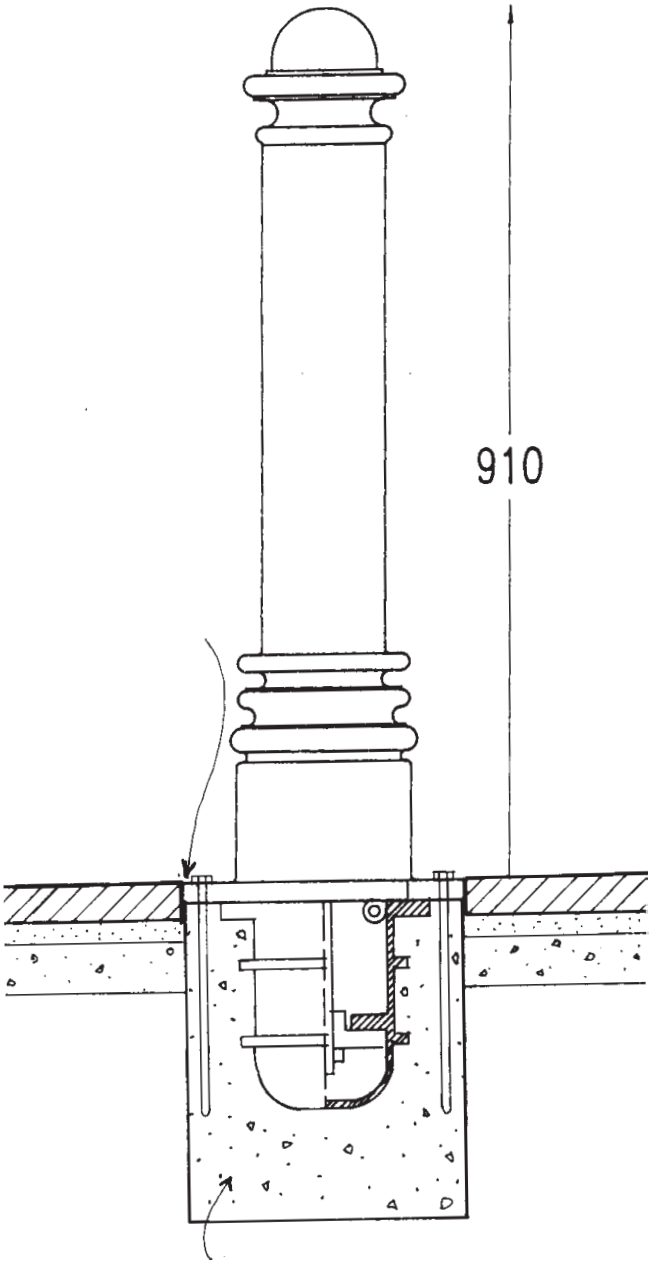
**Location** To be located along New South Head Road only, to reinforce the formal entry to the Rose Bay Centre. Position where awnings are absent or narrow in width. Pole lights should not replace street trees in those position, as they do not provide a strong enough structuring element.

May be used in pavement extensions and at ends of medians along New South Head Road.

Not suitable for use along the waterfront.

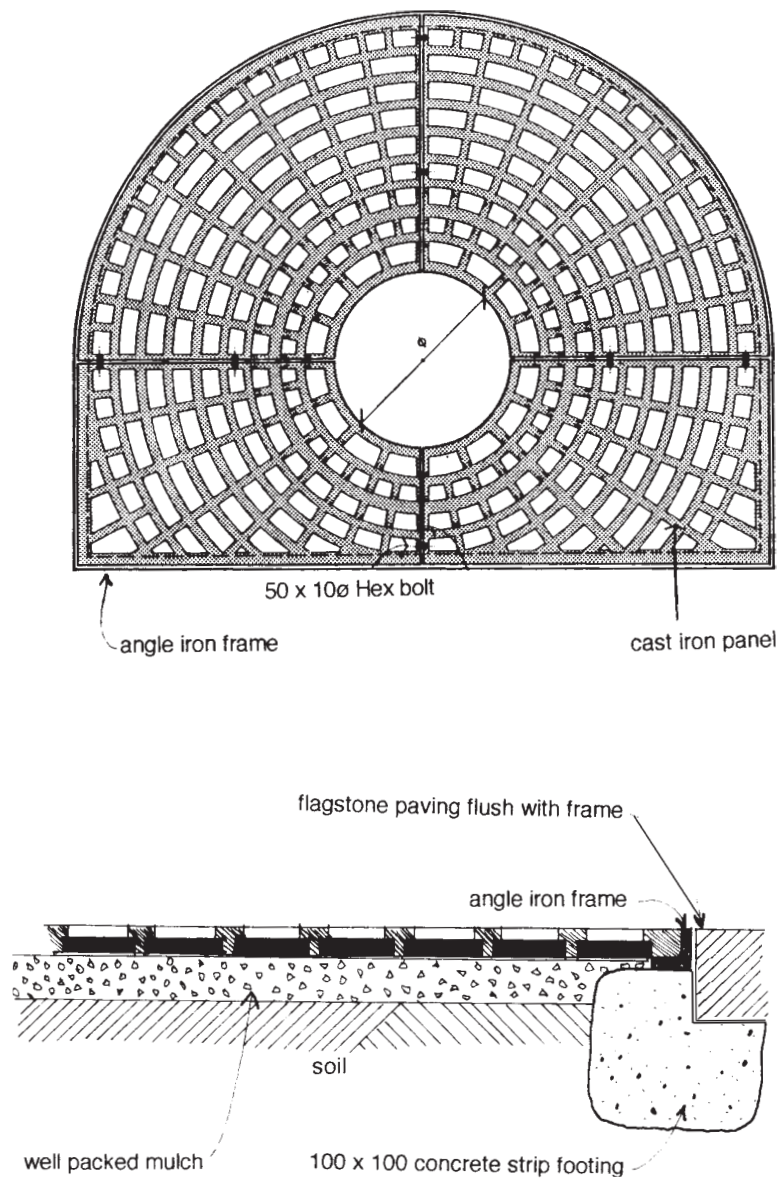


<b>BOLLARD</b>	<b>Type</b>	Canon Marketing B102 Sussex bollard ( removable )
	<b>Colour</b>	black
	<b>Location</b>	where barriers to vehicular movement is required and where fences, walls and kerbs are not appropriate

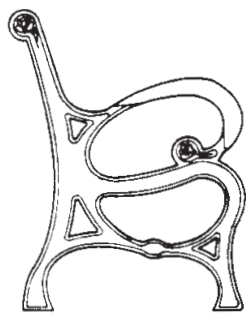




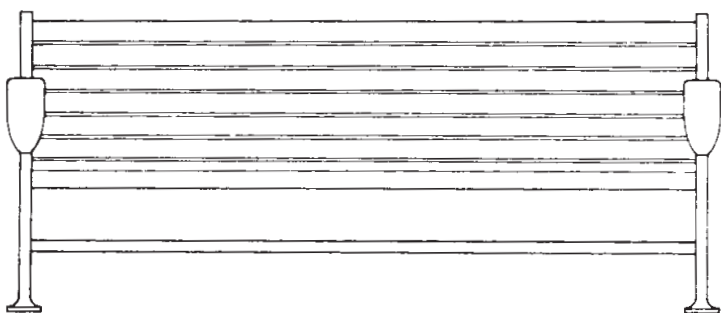
<b>Type</b>	Product No. 851, cast iron tree surround
<b>Supplier</b>	Gatic
<b>Colour</b>	plain finish, do not black as this will result in staining of pavers
<b>Location</b>	Trees in flagstone paving along streets and to replace existing tree surrounds as maintenance demands. For trees in paved squares, use square version - No. 854

**CAST METAL TREE SURROUND**

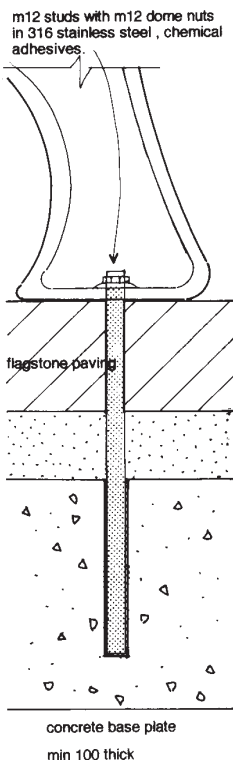
<b>SEAT</b>	<b>Type</b>	Restoration seat 1800 length ski feet with arms
	<b>Supplier</b>	Moodie Marketing Australia
	<b>Colour</b>	black frame and natural timber battens, natural finish
	<b>Location</b>	Streets, generally one seat every 60 - 100m and at bus stops. Pannerong Reserve. Not suitable for use along the waterfront



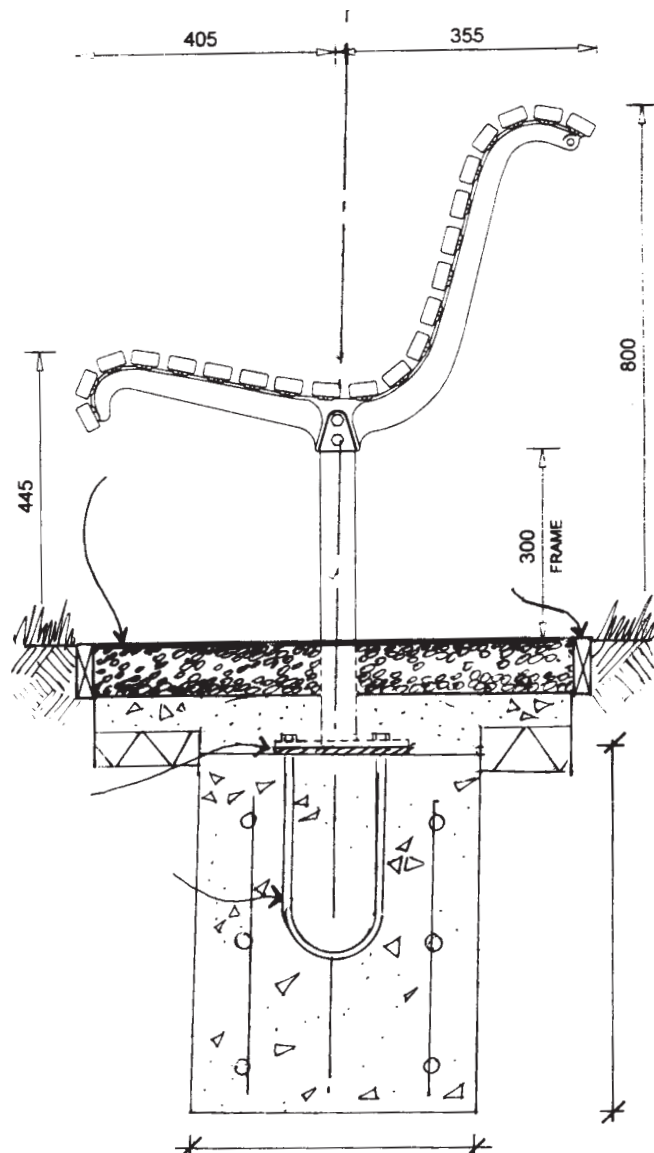
2118



2118



<b>Type</b>	CMP 7 park seat
<b>Supplier</b>	Street Furniture Australia
<b>Colour</b>	black frame and natural timber battens, oiled finish
<b>Location</b>	for use in parks and along waterfront.

**SEAT**

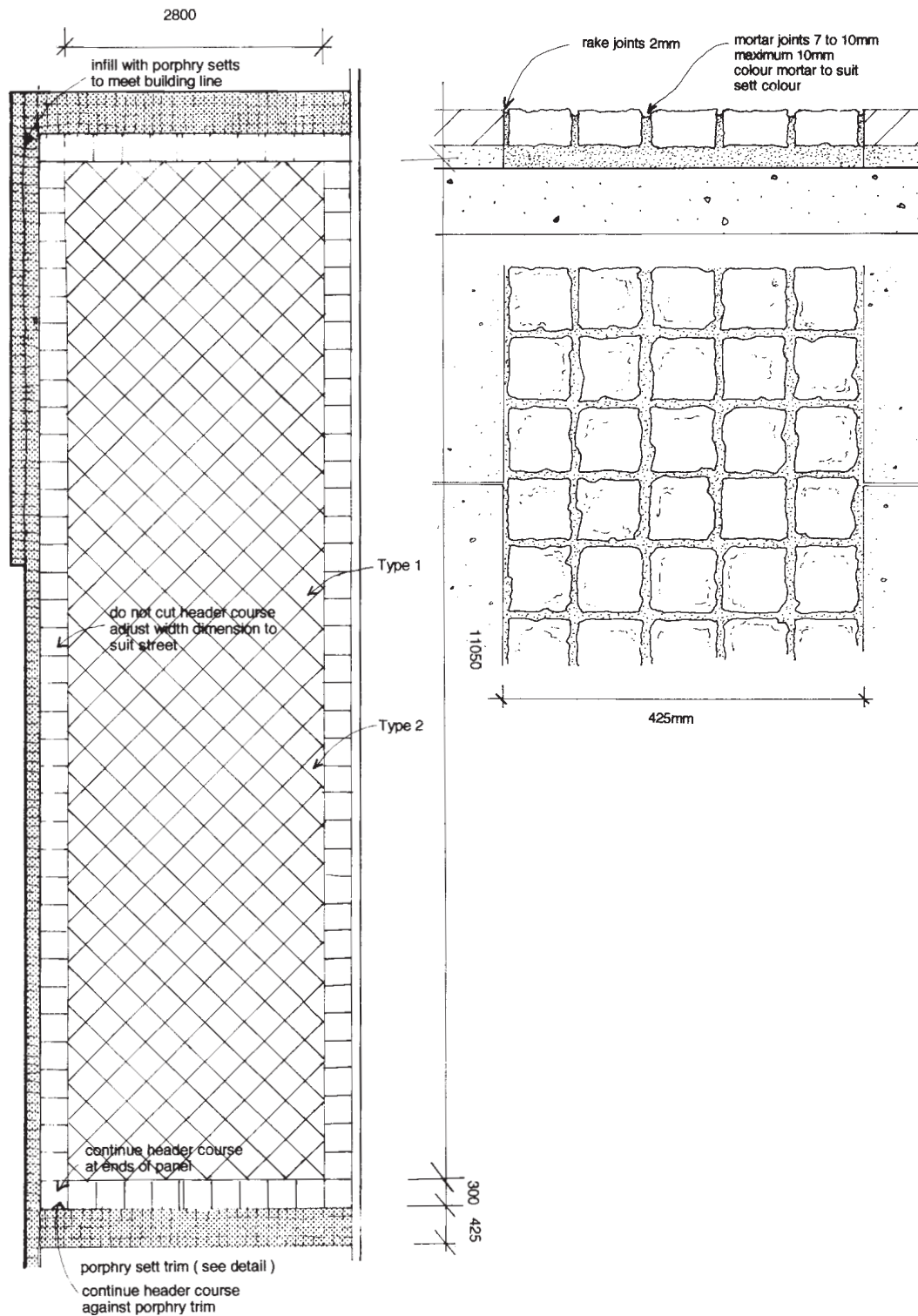
## 7.2 PAVING

A strong and consistent paving design with attention to detail will create a cohesive image and establish a grade of urban quality. Paving design should avoid use of complex patterning which may confuse partially sighted pedestrians.

The following pavers are the standard range selected for use throughout the centre.

<b>TYPE 1</b>	Reconstituted Granite Paver PPX 45 300 x 300 x 60mm triangle, supplied by Pebblecrete In Situ Pty Ltd
<b>Colour</b>	Pink
<b>Location</b>	New South Head Road Dover Road Newcastle Street Ian Street
<b>TYPE 2</b>	Reconstituted Granite Paver PPX 45 300 x 300 x 60mm square, supplied by Pebblecrete In Situ Pty Ltd
<b>Colour</b>	Pink
<b>Location</b>	Edge infill along: New South Head Road; Dover Road; Newcastle Street; Ian Street
<b>TYPE 3</b>	Reconstituted Granite Paver PPX 67 300 x 300 x 60mm square, supplied by Pebblecrete In Situ Pty Ltd
<b>Colour</b>	Grey
<b>Location</b>	Newcastle Street Square, edge of Pannerong Reserve, Percival Park and new square opposite. Pedestrian kerb crossings on all streets. Textured non-slip surface to crossings on streets noted above.
<b>TYPE 4</b>	Porphry sett - 75mm x 75mm supplied by JML International Pty Ltd.
<b>Colour</b>	Predominantly grey ( 80% )
<b>Location</b>	Trim as illustrated to streets and squares; trim to waterfront paving.

Porphry unit pavers should be used to better define the pedestrian environment and reinforce the hierarchy of pedestrian dominance. To this end, vehicle crossovers do not need special treatment, and should be defined in plain concrete, the same as kerbs, to signal that they are part of the vehicular environment.

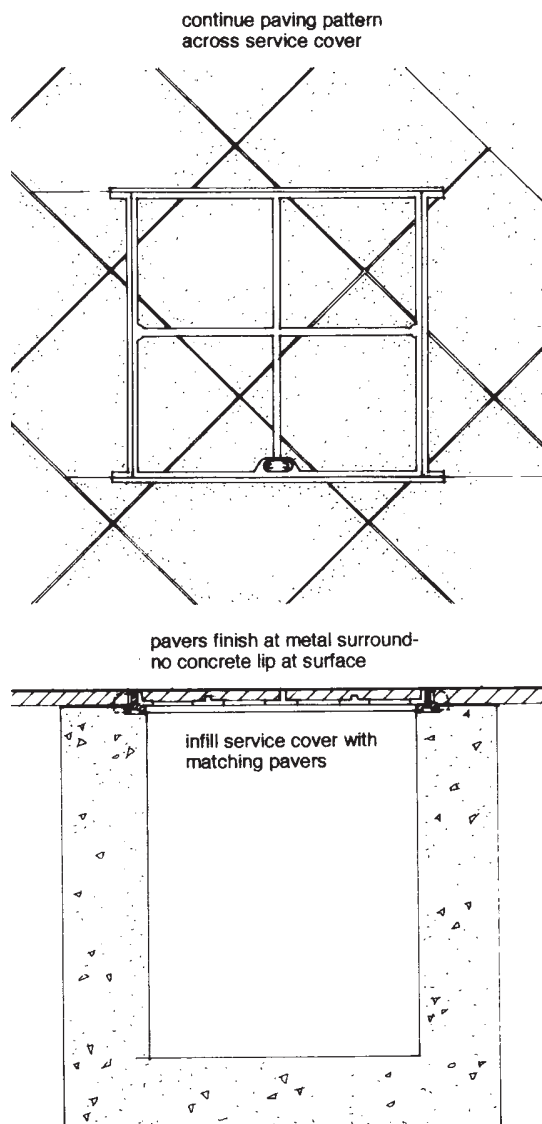


**PAVEMENT DETAIL**

Reduce the intrusion of service covers in the pavement as far as possible by infill paving surfaces of larger covers to match surrounding paving, and by minimising or avoiding concrete surrounds to covers.

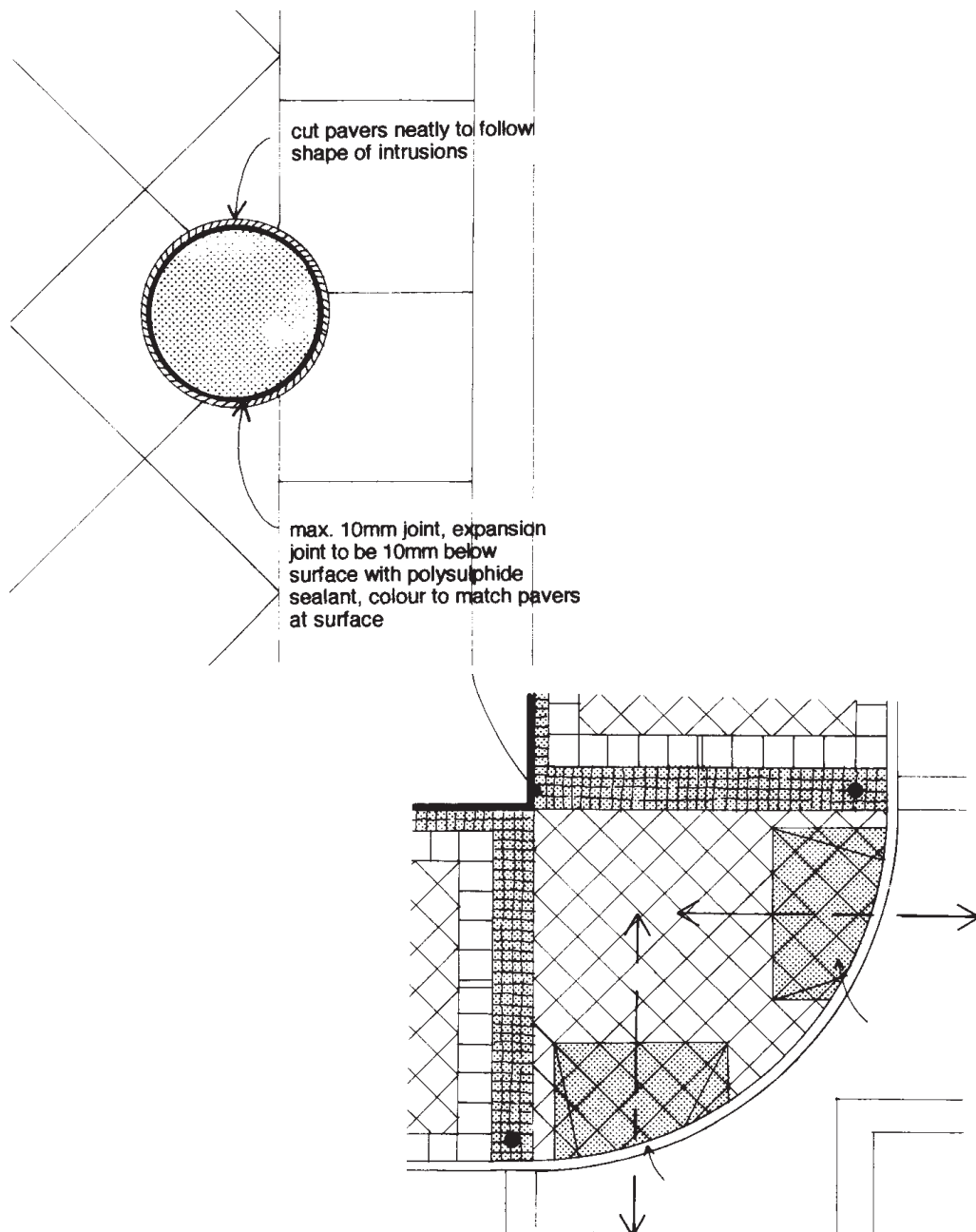
The following access covers are suitable for infilling and may be used to replace existing covers which cannot be altered.

- ACO Polycrete single and multi part access covers. Heavy gauge steel frames.
- 2379L Stormwater pit covers. Available from Aco Polycrete Pty Ltd.



Cut pavers neatly around intrusions (such as posts) in the paving. Infill the gap with polysulphide sealant coloured to suit the paving.

Detail paving carefully at corners, kerb ramps and intersections. Use half pavers to avoid cutting where possible. Each change of direction in paving should be detailed before construction.



## 7.3

## URBAN GEOMETRY

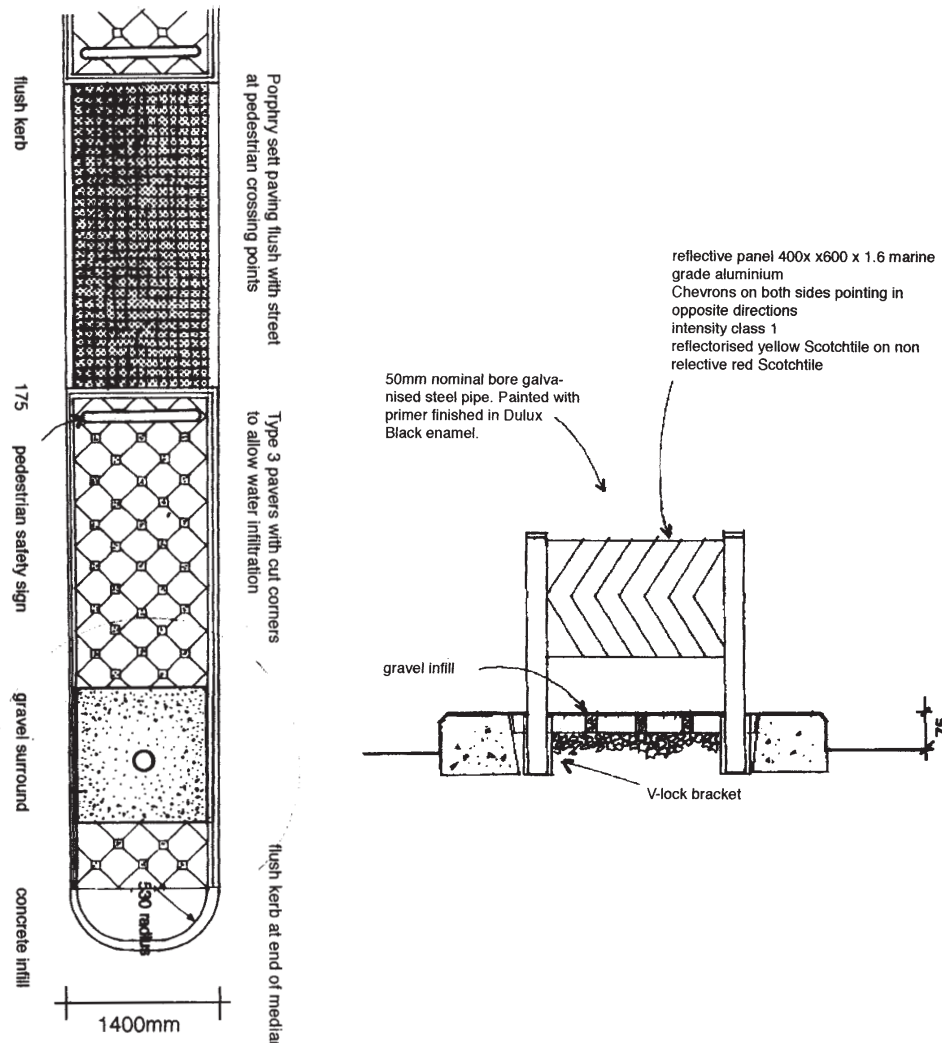
Establish a consistent geometry for kerblines, medians and pedestrian refuges that emphasises the dominant geometry created by built edges. The geometry should reinforce the urbanity of the pedestrian environment, rather than be designed solely as traffic calming devices.

Integrate the needs of the disabled with those of traffic, paving and urban furnishings; marker strips, ramps etc should not only respond functionally, but be part of the overall image.

Provide a pavement surface which is consistently graded, both along and across the pedestrian route. Avoid sharp changes in level and crossfalls greater than 1:40.

Design to best practice rather than to minimum standards.

Kerbs should provide a clear separation between the pedestrian space and traffic. If bollards are used as a barrier, they should not dominate the streetscape or obstruct pedestrian flow.





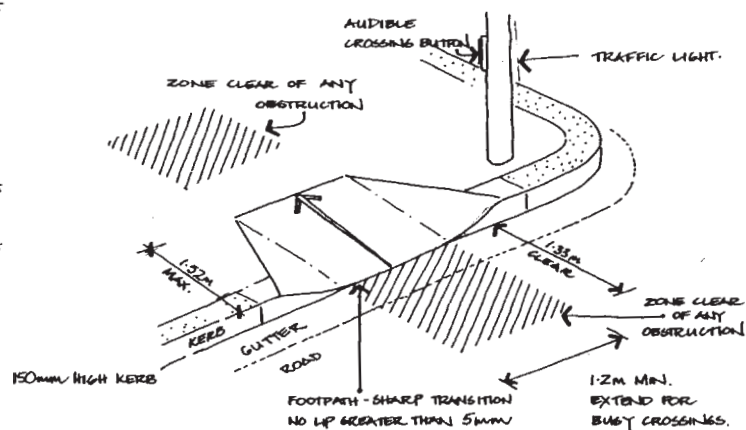
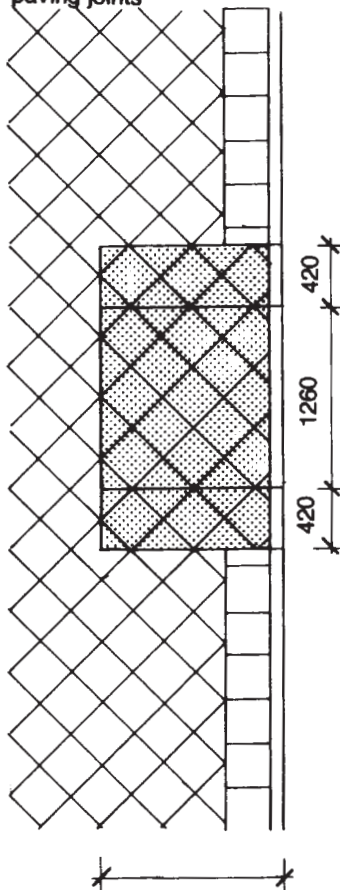
Position kerb ramps along the direction of travel. Ramps should ideally be at 90 degrees to the roadway, although where this is not possible, such as at radius corners, some compromise must be made.

Pedestrian kerb ramps should have a contrast in luminance to general paving. Paving contrasts, and any change in texture should be used to represent a change in the pedestrian environment for partially sighted users. Pavers on kerb ramps should have a textured non slip surface.

Design corners and intersections to suit pedestrian comfort and safety. Use of minimum radii at corners will enhance pedestrian convenience and safety.

Pedestrian crossings should be clearly defined with zebra stripes. Avoid ambiguity.

take up level changes at paving joints



## 7.4 STREET TREES

### Planting Detail

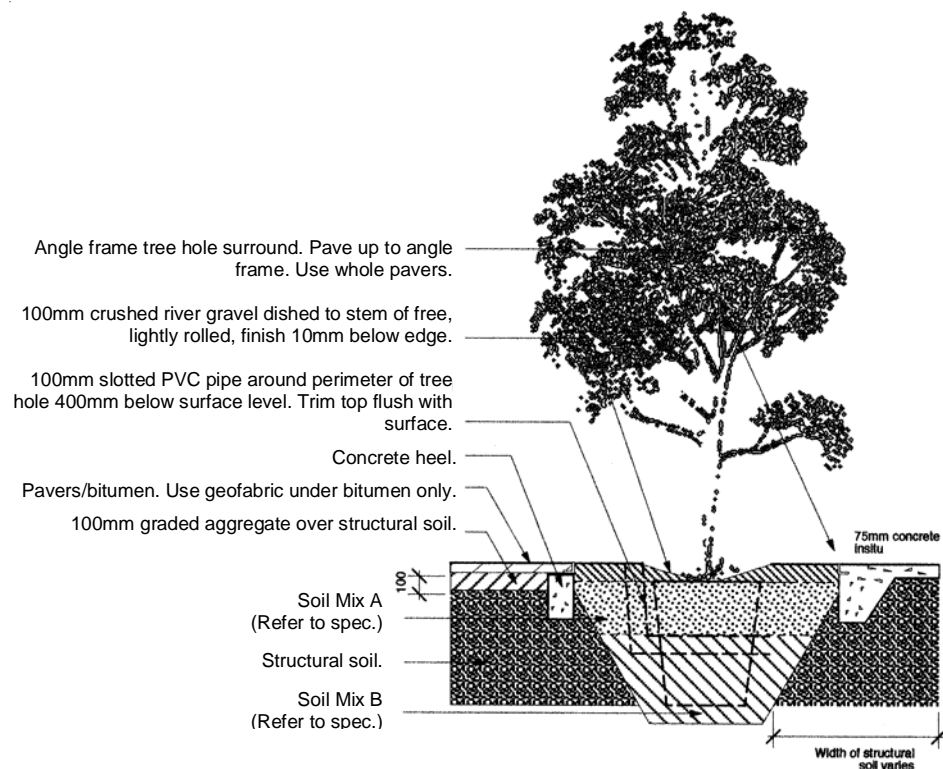
Typical planting detail for trees in paved areas. Australian Standard 2223 specifies a Soil Mix A, which is an imported soil with a high organic content. This is suitable for back filling the top 300mm of the planting hole. Soil mix B is the excavated site soil, mixed with sand suitable for the lower 1500mm of the planting hole.

#### Topsoil mix A

Site soil	20%
Medium sand	70%
Lime	0%
Compost	10%
Fertiliser	Controlled release fertiliser.

#### Topsoil mix B

Site soil	20%
Medium sand	80%
Lime	0.5% per cubic metre.



Reinforce the entry to the Commercial centre with a row of street trees extending to Tingira Reserve on the Western approach, and to the church on the eastern approach.

Tree species - *Ficus microcarpa* var. *hillii* (Hill's Weeping Fig)

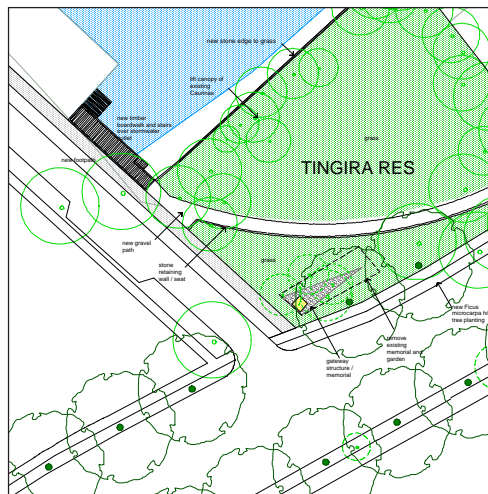
Discontinuous awnings in the western section of the commercial centre will enable tree planting.

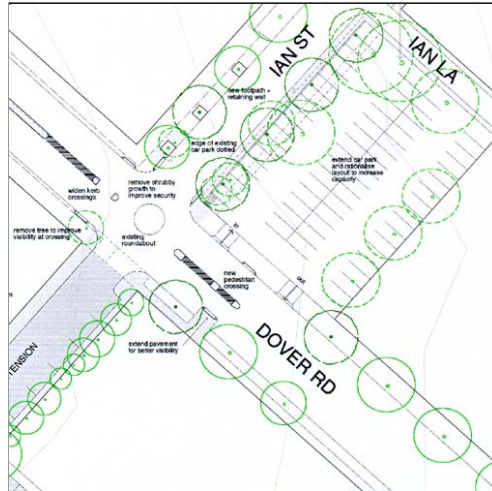
Tree species - *Harpulia pendula* (Fiddlewood)

The canopy of trees should be undercut to 2 metres minimum to allow pedestrian access, and to allow views to the bay along the edge of Tingira Reserve.



**NEW SOUTH HEAD ROAD**

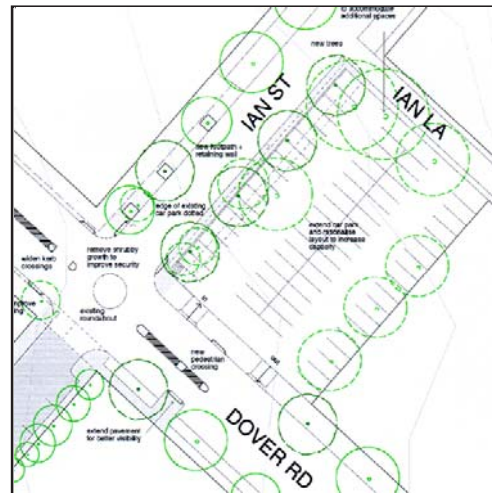


**DOVER ROAD**

Planting is restricted by awnings and street width. The presence of busses on both sides of the street restricts tree planting in the median.

Reinforce existing street trees in the southern section of Dover Road.

Tree species - *Lophostemon confertus* (Brushbox)

**IAN STREET**

Remove existing Brushbox adjacent to the Ian street car park, and replace with trees planted along the edge of the car park. Design the car park to accommodate tree planting.

Tree species - *Lophostemon confertus* (Brushbox)

Remove shrubs and garden beds at the base of trees to improve security.

Establish trees in the median to enhance pedestrian scale and visual amenity.

Tree species - *Pyrus ussuriensis* (Flowering Pear)

Reinforce existing planting in the upper, residential section of the street.

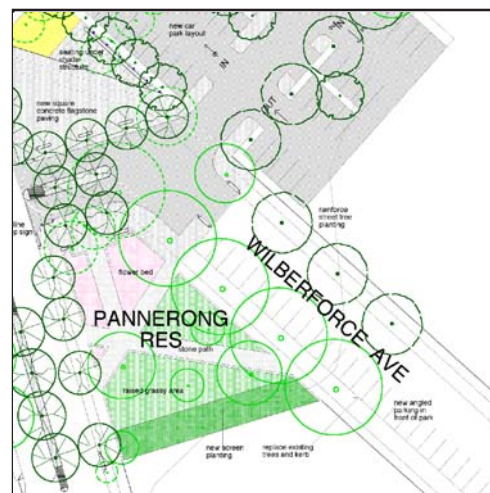
Tree species - *Lophostemon confertus*  
(Brushbox)



NEWCASTLE STREET

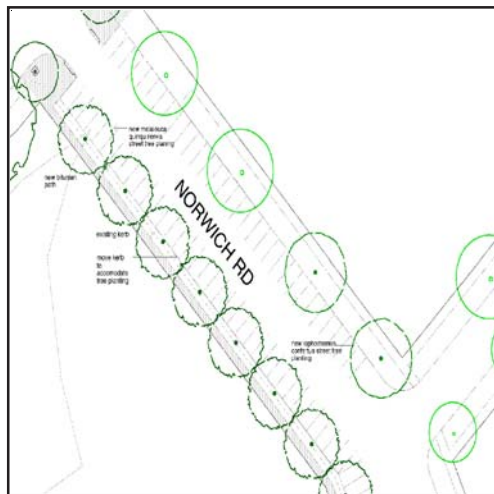
Reinforce tree planting along the park edge.

Tree species - *Lophostemon confertus*  
(Brushbox)



**WILBERFORCE AVENUE**

**NORWICH ROAD**



Reinforce tree planting along eastern edge, establish trees along western edge with widened verge.

Tree species - *Melaleuca quinquinervia* (Broad-leaved Paperbark)

## CALEDONIA ROAD



Remove recently planted small trees to improve views to the harbour from the public domain. Retain existing figs.