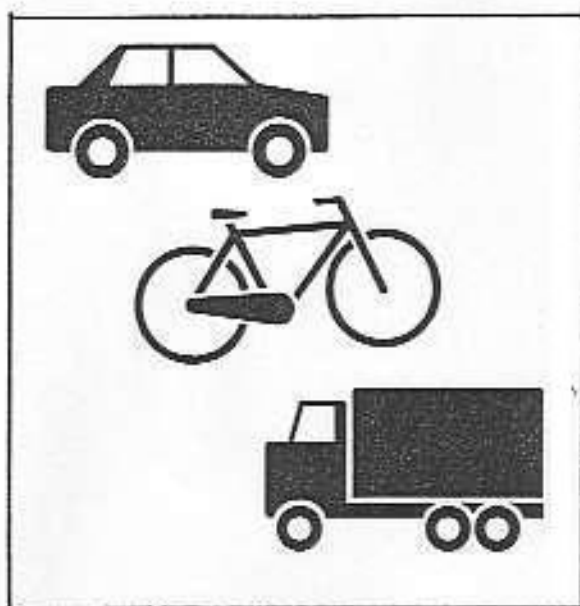


DEVELOPMENT
CONTROL PLAN
Parking



Council Approval: 8 December 1998
Effective Date: 24 December 1998

CONTENTS

Part 1	GENERAL INFORMATION	1
1.1	Introduction	3
1.2	Aims and Objectives	3
1.3	How to use this DCP	4
1.4	Submission Requirements	4
Part 2	PARKING RATES	5
2.1	Parking Requirements	7
2.2	Randwick Section 94 Contributions Plan	8
2.3	Requirements For Various Land Uses	8
2.4	Requirements For Service Vehicles	13
2.5	Requirements For Vehicles For People With Disabilities	14
Part 3	DESIGN GUIDELINES	15
3.1	Parking Layout	17
3.2	Aisle Dimensions	21
3.3	Driveway Access Requirements	22
3.4	Service and Delivery Areas	25
3.5	Landscaping	27
3.6	Access and Parking for people with disabilities	29
3.7	Parking and Heritage Conservation	31
3.8	Bicycle Facilities	33
Part 4	DEFINITIONS	37
	APPENDIX A - TURNING CIRCLES	41
	APPENDIX B - TRAFFIC GENERATING DEVELOPMENT	45

ACKNOWLEDGEMENT

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Part 1

GENERAL INFORMATION

1.1 INTRODUCTION

This Development Control Plan (DCP) has been prepared to provide a co-ordinated and consistent approach for parking and transport guidelines for Randwick City Council. This development control plan applies to all land within the City of Randwick.

This Plan should be read in conjunction with the following documents;

- Randwick Local Environmental Plan 1998 is the principle document covering land use planning within the City of Randwick.
- Randwick Section 94 Contributions Plan.
- Environmental Planning & Assessment Act, 1979.
- State Environmental Planning Policy No.11 Traffic Generating Development.
- RTA Guide to Traffic Generating Development
- Australian Standards;
AS 1428 Design for access & mobility
AS 2890.1-1993- Off-street car parking
AS 2890.2-1989- Commercial vehicles
AS 1668.2-1991- Mechanical ventilation in Buildings
- Randwick Local Approvals Policy 1996.

Any variations to the requirements of this plan need to be justified in writing

1.2 AIMS & OBJECTIVES

The aim of this DCP is to provide standards and guidelines to achieve adequate provision for vehicle parking, service and delivery areas and bicycle parking, based on sound design principles and safe access. The key objectives of this Plan are:-

- To specify that an appropriate level of off-street vehicle parking is provided through specific standards to meet parking demand.
- To specify design standards for the safe entry and exit of vehicles.
- To specify that adequate provision is made for the efficient loading and unloading of goods.
- To specify that parking facilities are designed to maintain the visual and environmental qualities of the local environment.
- To specify that the design of parking facilities meet the requirements of people with a disability.
- To specify standards for the provision of on-site storage for bicycles.

1.3 HOW TO USE THIS DCP

This development control plan is made up of 4 parts as listed below;

Part 1- General information

- Explains the purpose and structure of the DCP
- Describes how the DCP is to be used
- Lists matters that must be addressed in relation to transport and parking when a development application is lodged.

Part 2- Parking rates

- Details the number of parking spaces required for specific land uses, based on the various land uses that have been sourced from Randwick LEP 1998.
- Explains how this code and the Randwick Section 94 plan operate

Part 3- Design Guidelines

- Details and explains the technical design requirements for car park design and layout that must be addressed when designing parking areas.
- Details and explains the need to consider access and parking for people with a disability, heritage issues, landscaping and the provision of bicycle parking facilities.

Part 4- Definitions

- Contains the formal definitions for the interpretation of this DCP, based on the Randwick LEP 1998 and other definitions used in this plan.

1.4 SUBMISSION REQUIREMENTS

Before lodging a development application (DA), applicants should obtain a copy of *The Randwick Development Application Guide* which explains how to prepare a DA and provides a simple, step by step guide to all the things you need to do before submitting an application.

Council operates a Development Assessment Committee which provides pre-lodgement advice to applicants. It is recommended that potential applicants consider the use of this service for which a nominal fee is payable to cover Council's costs. Pre DA lodgement meetings are a very important process in identifying potential problems with respect to parking and provide a valuable opportunity for Council to convey to potential applicants the intent and requirements of this DCP.

The statement of environmental effects submitted with a DA must include information on parking and transport that addresses the requirements of this DCP and is based on the following:-

- Details of existing conditions and details of the proposed development with respect to traffic and parking issues, e.g. Number of employees, hours of operation, gross floor area, and transport facilities in the development.
- The parking requirements contained in this development control plan and clear justification for any variations to the requirements.
- Details of proposed arrangements and compliance with design requirements outlined in this DCP (including parking for persons with a disability, service provisions, landscaping and bicycle parking).
- A statement on the expected traffic generation and nature of impacts resulting from the development for major or non complying development.

Additional traffic impact assessment information in the form of a Traffic Impact Study will be required for those matters referred to Local or Regional Traffic Advisory Committees under the Provisions of State Environmental Planning Policy No 11. (See Appendix B on Traffic Generating Developments.)

Part 2 PARKING RATES

2.1 PARKING REQUIREMENTS

2.1.1 Objectives

- To ensure that an acceptable level of off-street vehicle parking is provided in the City of Randwick through specific standards to meet parking demand.
- To recognise the need for flexibility and site specific parking solutions for development.

2.1.2 Explanation

This section details the parking requirements for specific land uses. The rates are based on surveys and research conducted by the RTA " *Guide to Traffic Generating Developments*", (1993) and supplemented by specific parking studies undertaken for the Randwick City Council area.

Adequate off-street parking is a major criteria in the assessment of parking areas provided for developments. Provision of off-street parking can discourage on street parking, and thereby maintain the existing levels of service and safety of the road network and may contribute to the economic viability of a development. The provision of parking must be balanced against a number of factors, which may allow variations to the normal standards including:

- availability of public transport;
- availability of on street parking;
- demand for car parking by other activities in the locality;
- vehicle ownership of differing socio-economic groups;
- local and regional traffic impact and;
- nature and scale of proposed development.

In determining the level of parking provision land uses have been classed into five broad categories:

- Residential,
- Tourist
- Business
- Health, Education, Community facilities and Recreation
- Industry.

All units of measurement refer to Gross Floor Area (GFA).

In calculating the number of parking spaces required, rounding to the nearest whole number should be used. In calculating car spaces where the fraction is 0.5, then the figure must be rounded up to the next whole number.

Where a development comprises a number of uses, the required provision will normally be the sum of the requirements calculated from the following table for each individual use. However, where the applicant can demonstrate that the peak demands for individual uses occur at different times, Council may consider a lower provision.

Where the development comprises an extension/modification to an existing development, Council will generally only require that additional parking be provided to cater for additional demands arising from increases in floor space or changes in use.

The importance of parking must be kept in perspective in the overall development assessment process. There may be circumstances where it may not be physically possible or aesthetically desirable to provide parking (e.g. provision of off-street parking for a heritage item or in areas of significant streetscape value). It is the responsibility of the applicant through the development assessment process to demonstrate that either the proposed level of parking provision is adequate, or that the overall planning benefits of the proposed development outweigh the deficiencies.

2.2 RANDWICK SECTION 94 CONTRIBUTIONS PLAN

Council's Section 94 Contributions Plan includes a component for carparking in the commercial centres at Randwick, Maroubra Junction, Kingsford and Coogee. Where parking cannot be provided in accordance with this DCP, the shortfall will be made up by a monetary contribution in accordance with the Contributions Plan.

2.3 REQUIREMENTS FOR VARIOUS LAND USES

1. Parking is to be provided in accordance with the requirements specified in the following table. Parking for persons with a disability should be provided in accordance with the requirements of Section 2.5.

Note 1. Parking spaces, unless stipulated otherwise, are for cars.

Note 2. Depending on land use type, parking for delivery /service vehicles, courier vehicles, bicycles should also be provided.

2. Any proposed variation to the requirements **must** be justified. In the case of a significant variation from the standards, a report should be prepared by a suitably qualified transport consultant.
3. Refer also to Section 2.4 Service and Delivery Parking and Section 3.8 Bicycle Facilities.
4. Land uses not specified in the table require a specific parking assessment to be submitted with the application.

Note: In calculating the number of parking spaces required, rounding to the nearest whole number should be used. In calculating car spaces where the fraction is 0.5, then the figure must be rounded up to the next whole number.

TYPE OF LAND USE	PARKING REQUIREMENTS
RESIDENTIAL	
Dwelling Houses	1 space per dwelling house with 2 or less bedrooms 2 spaces per dwelling house with 3 or more bedrooms.
Home Activity	1 space in addition to the parking required for the dwelling.
Dual Occupancy	As per Dwelling houses <u>Note:</u> Tandem parking for 2 vehicles is allowed for dwelling houses and dual occupancies.
Multi Unit Housing	1 space per two studio dwellings 1 space per 1 bedroom dwelling or bedsitter unit over 40m ² 1.2 spaces per 2 bedroom dwelling 1.5 spaces per 3 or more bedroom dwelling <i>Visitor Parking:</i> 1 space per 4 dwellings or part thereof, but shall not be required for a development containing less than 4 dwellings. <i>Service and Delivery Parking:</i> See Section 3.4 <i>Bicycle Parking:</i> 1 space per 3 units, plus 1 visitor space per 10 units. <i>Car Wash Bays:</i> 1 car wash bay required per 12 dwellings. <u>Note:</u> Visitor spaces may be used as car wash bays.
Boarding Houses	1 space per 10 bedrooms plus 1 per resident caretaker
Housing for aged and disabled persons	<i>Hostel:</i> 1 visitor space per 10 beds; plus 1 space per 2 staff; plus 1 space for ambulance parking <i>Self-contained dwellings:</i> 0.5 spaces per bedroom where the development application is made by a person other than the Department of Housing or Randwick Council or a community housing provider. 1 space per each 5 dwellings where the development application is made by, or is made by a person jointly with, the Department of Housing or Randwick Council or a community housing provider. <u>Note:</u> Resident spaces should be designed to be suitable for people with a disability.
TOURIST	
Bed and Breakfast Accommodation	1 space for guest use plus 1 space for dwelling component
Backpacker Accommodation	1 space per 15 beds or 1 space per 5 bedrooms (whichever is the greater) plus space per 2 staff.

TYPE OF LAND USE	PARKING REQUIREMENTS
Motels	1 space for each unit plus 1 space per 2 employees If the Motel contains a Restaurant component, additional parking shall be required at the rate of 1 space per 40m ² of restaurant/bar area for the first 80m ² then 1 space per 20m ² thereafter.
Hotels and Clubs	1 space per 6m ² bar, lounge, entertainment venues, restaurant, dining room, games rooms, auditoriums and disco etc, plus 1 space per 3 employees, plus 1 space per 2 bedrooms, plus 1 space per manager/caretaker, plus Coach/ Taxi Drop off/ Pick up point to be provided on site.
BUSINESS	
Business premises	1 space per 40m ² GFA
Business Premises in Residential Zone (RLEP 1998 Clause 35)	1 space per 50m ² GFA
Amusement Centres	1 space per each 5 amusement machines, except for pool tables and the like where 2 spaces are required per table. (See DCP No 21).
Service stations, Automotive uses and Convenience Stores	6 spaces per work bay, plus 1 space per 25m ² GFA of convenience store. If the site contains a Restaurant component the addition requirement is 1 space per 40 m ² for the first 80m ² then 1 space per 20m ² thereafter.
Plant Nurseries	15 spaces, or 1 space per 200m ² of site area (whichever is greater)
Bulky Goods Salesroom or Showroom	Transport survey based assessment required. Indicative range 1 space per 30m ² to 1 space per 90m ² (See Section 1.4 and Appendix B)

TYPE OF LAND USE	PARKING REQUIREMENTS
Restaurants (e.g. coffee shops, restaurants, cafes, tea room).	1 space per 40m ² GFA for the first 80m ² then 1 space per 20m ² thereafter
Purpose built restaurants (e.g. McDonalds)	Transport survey based assessment (see Section 1.4), including provision for queuing for drive through facilities
Footway Restaurants	<ol style="list-style-type: none"> Where the development is for the purpose of a restaurant on the footway of a public road, or on community land no additional off-street parking will be required. Where the development is for the purpose of a restaurant occupying space over a public road (such as a first-floor balcony), the requirements will be for "restaurants" listed above. (See DCP No 20).
HEALTH, EDUCATION, COMMUNITY FACILITIES and RECREATION	
Place of Worship	1 space per 20m ² GFA
Health consulting rooms (associated with a dwelling/ residential areas)	2 spaces per consulting room plus parking required for the dwelling.
Medical centres	1 space per 25m ² GFA
Child care centres	1 space for every 2 staff members in attendance plus adequate space for drop off/ pick up of children
Primary and Secondary Schools	0.7 spaces per 1 staff member
Tertiary Institutions	0.7 spaces per 1 staff member, plus 1 space per 10 full time students.
Hospitals	1 visitor space per 3 beds; plus 1 space per 2 employees; plus 1 space per doctor; plus adequate space(s) for ambulance parking.
Community facility	1 space per 2 staff members plus assessment based on a transport survey for visitors
Squash courts or tennis courts	3 spaces per court
Bowling alleys	3 spaces per alley
Lawn Bowls	30 spaces for first green; plus 15 spaces for each additional green thereafter.
Gymnasium	1 spaces per 25m ² GFA
Theatres/Places of Assembly	Assessment based on a transport survey

TYPE OF LAND USE	PARKING REQUIREMENTS
INDUSTRY	
Transport depots	Assessment based on a transport survey required. (See Section 1.4 and Appendix B)
Container depots	Assessment based on a transport survey required. (See Section 1.4 and Appendix B)
Factories	1 space per 80m ² GFA
Warehouse	1 space per 300m ² GFA
Port Facilities	Assessment based on a transport survey
Plant and Equipment hire	Assessment based on a transport survey

2.4 REQUIREMENTS FOR SERVICE AND DELIVERY VEHICLES

TYPE OF DEVELOPMENT	MINIMUM REQUIREMENTS
Offices	1 space per 4,000m ² GFA up to 20,000m ² GFA plus 1 space per 8,000m ² thereafter (50% of spaces adequate for trucks)
Department Stores	1 space per 1,500m ² GFA up to 6,000m ² GFA plus 1 space per 3,000m ² thereafter (all spaces adequate for trucks)
Supermarkets, shops and restaurants	1 space per 400m ² GFA up to 2,000m ² GFA plus one space per 1,000m ² thereafter (all spaces adequate for trucks)
Warehouse and Industrial	1 space per 800m ² GFA up to 8,000m ² GFA plus 1 space per 1,000m ² thereafter (all spaces adequate for trucks)
Hotels and Motels	1 space per 50 bedrooms or bedroom suites up to 200 plus one per 100 thereafter plus one space per 1,000m ² of public area set aside for bar tavern, lounge and restaurant, (50% of spaces adequate for trucks)
Multi unit housing	1 space per 50 dwellings up to 200, plus 1 space per 100 dwellings thereafter. Where development sites with more than 20 dwellings adjoin public roads where kerb side parking by removal vans is difficult, provision should be made for the on site parking of removal vans.
Other uses	1 space per 2,000m ² GFA (50% of spaces adequate for trucks)

(Source: RTA Guidelines 1993)

2.5 REQUIREMENTS FOR VEHICLES FOR PEOPLE WITH DISABILITIES

Type of facility	Recommended provision of disabled spaces
<i>Multi -Unit Housing</i> (see Note 1). Refer also to the Development Control Plan for Multi-Unit Housing.	1 space for each dwelling provided in accordance with the requirements of the MUH DCP
<i>Retail/commercial</i> A shopping area with or without commercial premises (banks, credit unions, restaurants, offices), or an office area. Includes strip shopping centres or CBD areas, shopping complexes, supermarkets, variety stores. May include post office, entertainment, recreation venues and the like <i>Tourist Facilities</i>	1-2 percent *
<i>Transport</i> Railway stations, bus/rail or tram/rail interchanges	1-3 percent *
<i>Community</i> Civic centres, town halls, community centres, senior citizens' clubs, health care <i>Recreation</i> Leisure centres, gymnasiums, swimming pools, gardens, foreshore, sporting venues	2-3 percent * (see Note 2)
<i>Education</i> Schools Tertiary institutions	2-3 percent * (see Note 3) 2 percent * (see Note 3)
<i>Entertainment</i> Theatres, libraries, art galleries, sports centres, entertainment centres	3-4 percent * (see Note 2)
<i>Medical</i> Hospitals Medical Centres (including community health centres, radiology clinics, rehabilitation units)	3-4 percent * 3 percent * (see Note 4)
<i>Post office</i> Usually combined with retail/commercial	See Note 2
<i>Religious centre</i> Individual churches or religious centres	See Note 4

(Source: Australian Standard 2890.1)

(* Refers to the percentage of the total number of car parking spaces provided)

Notes:

1. The MUH DCP requires that development proposals containing 15 or more dwellings provide access for people with a disability to and within one dwelling or 5% of the the total number of dwellings whichever is the greater and each dwelling that is designed to be accessible for people with a disability has a corresponding parking space designed for people with a disability.
2. Where a facility of this type is located in a retail/commercial area, at least one space should be located close to that facility to maximise convenience for users of the parking space.
3. For all schools, TAFE, CAE or other institutions with limited parking facilities, disabled spaces should be provided on request where justified. Two percent can be taken as a general guide. This would usually be appropriate to tertiary institutions with large car parks.
4. To be provided as needed in consultation with management of centre or church.

Part 3

DESIGN GUIDELINES

3.1 PARKING LAYOUT

3.1.1 Objectives

- To ensure parking facilities are efficient, adequate and safe.
- To consider public safety and convenience in designing parking areas.

3.1.2. Explanation

The design of effective and efficient parking areas can be achieved through the application of the Australian standards and RTA Guidelines. These standards and guidelines provide for appropriately dimensioned parking bays and access aisles to improve traffic circulation and maintain safety.

In the implementation of this DCP, the following Australian Standards apply for the design of parking and loading facilities, unless otherwise specified in this plan.

AS2890.1 Part 1 Off -street Car Parking
AS2890.2 Part 2 Commercial vehicles facilities.
AS2890.5 Part 5 On Street Parking.

3.1.3 DCP Controls

1. **Parking spaces** must be clear of all obstructions, including columns, ducts, pipes etc.
2. The **minimum dimensions** for a car space are 5.5m x 2.5m. The minimum width for a designated disabled parking space is 3.2m. Car space widths adjacent to a wall should be in accordance with the dimensions in Figure 3.1. The minimum height clearance is 2.3 m and in the case of designated parking for persons with a disability is 2.5 metres (see Figure 3.3).
3. **Visitor car parking** should be located in an accessible and visible location at ground level.

4. The **length and width** of parking spaces may be varied in the following circumstances:

(i) **End overhang** : where a vehicle may overhang the end of a space, e.g. at a kerb or a landscaped area, provided the area behind it is unobstructed and not required as a footway or for some similar purpose, space lengths may be reduced by 0.6 m.

(ii) **Small car space**: in certain circumstances it may be appropriate to provide spaces smaller than specified above and which are designated as small car spaces. The minimum dimensions are 4.9m long and 2.4m wide. In residential developments where parking is strata titled, no small car spaces will be permitted for residents, however up to 10 percent of visitor spaces can be small spaces. These should be clearly identified and located in areas to avoid obstruction of traffic circulation.

(iii) **Parallel spaces** (not enclosed) are to be 6.7m normally or 7.7m in an end space. See Figure 3.2

5. The **floor grade** of parking areas shall not exceed 1 in 10.
6. **Tandem or Stack parking** is not permitted, except for dwelling houses and dwellings in dual occupancy development.
7. The minimum dimensions for **unenclosed and enclosed car spaces** should be in accordance with the dimensions in Figures 3.4 and 3.5 respectively.

Note: Access ways and driveways shall be designed to enable vehicles to enter parking spaces in a single turning movement and leave parking spaces in no more than 2 turning movements.

DESIGN GUIDELINES - PARKING LAYOUTS AND DIMENSIONS

Figure 3.1 Parking Spaces
Space widths where adjacent to walls

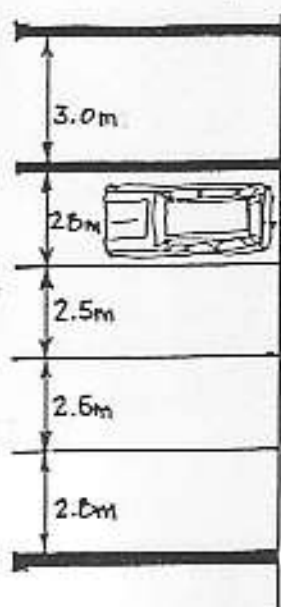


Figure 3.2 Parallel Spaces

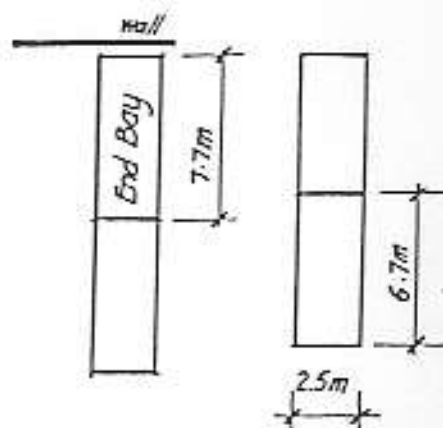
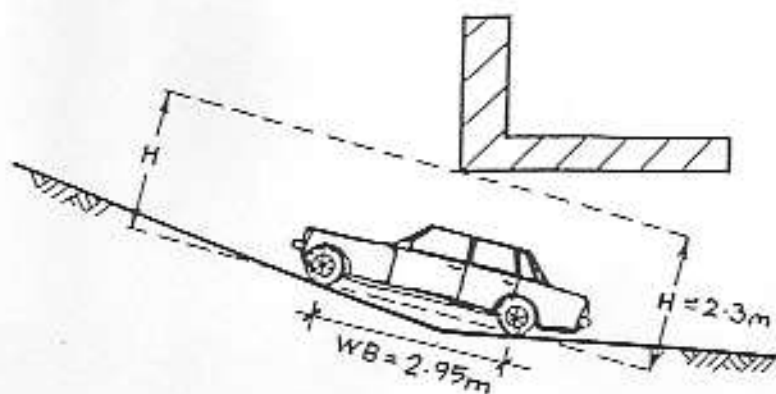


Figure 3.3 Critical Headroom



H = Headroom
 WB = Wheelbase (99 Percentile vehicle)

DESIGN GUIDELINES - PARKING LAYOUTS AND DIMENSIONS

Figure 3.4 Dimensions for Unenclosed Car Spaces

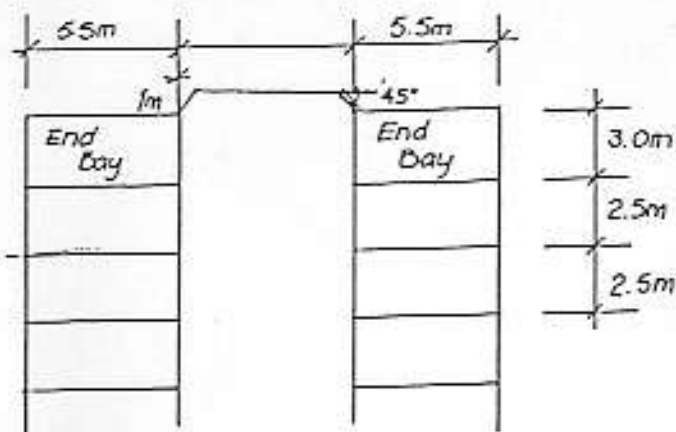
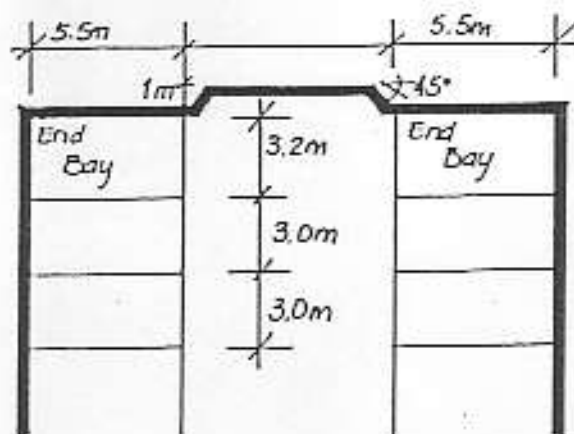


Figure 3.5 Dimensions for enclosed Car spaces



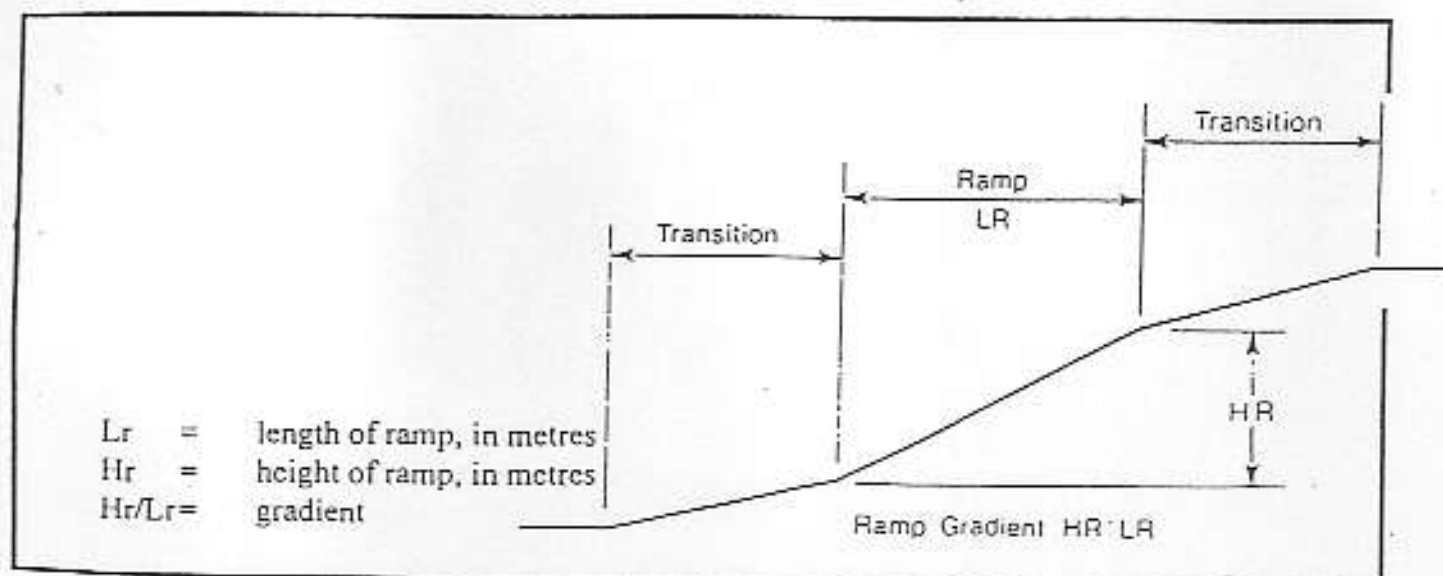
3.1.4 Ramps

Ramps in car parks must be designed to take into account safety considerations. Efficiently designed ramps within car parks can improve the circulation of vehicles. Ramps should be designed taking into account the layout design of circulation roadways, maximum ramp gradients, critical headroom, transition grades and safety issues.

The maximum ramp gradient is 1 in 6 or 16.7%. For long ramps (greater than 20m), a maximum gradient of 1 in 5 or 20% can be used with suitable transition grades. The maximum change in grade for any 5 metre length is 1 in 8 or 12.5%.

The maximum grade adjacent to the property boundary must be less than 1 in 20 or 5% for the first 5m from the property boundary. (See Figure 3.6)

Figure 3.6 Gradients of Ramps



(Source AS2890.1-1993).

3.2 AISLE DIMENSIONS

3.2.1 Objective

To ensure that aisle widths are of sufficient dimensions to permit safe and practical movements in and out of parking spaces.

3.2.2 Explanation

Aisle widths are important in ensuring that vehicle movements in and out of parking spaces are efficient, safe and practical. The minimum aisle widths required for angle parking are shown in the table below. Two way aisles are only suitable for 90° parking.

3.2.3 DCP Controls

1. The minimum requirements for bay dimensions and aisle widths are shown in the table below; all dimensions are shown in metres.

Table 3.2.1 Bay Dimensions and Aisle Widths

Angle	Minimum Bay Width (m)	Minimum Bay Length (m)	Unenclosed Bays Minimum Aisle Width (m)	Enclosed Bays Minimum Aisle Width (m)	Overall Bay Length (m)
30°	2.5	5.5	3.1 (one way)	3.2-3.5 (one way)	4.9
45°	2.5	5.5	3.8 (one way)	3.9- 4.2 (one way)	5.6
60°	2.5	5.5	4.8 (one way)	4.9- 5.3 (one way)	6.0
90°	2.5**	5.5	6.0* (one or two way)	6.2 - 7.0m (one or two way)	5.5

* 7.0m for two way for a dead end aisle

** 3.0m for each bay adjacent to walls

(Source: Modified AS2890.1 Part 1 Off-street and RTA Guidelines 1993).

3.3 DRIVEWAYS AND ACCESS REQUIREMENTS

3.3.1 Objectives

- To specify appropriate driveway widths for various classes of parking facilities.
- To ensure a high standard of design to facilitate efficient vehicle movements and improve vehicle and pedestrian safety.

3.3.2 Explanation

Public safety is the main consideration when planning the location of access to a development.

Location of access points will depend on the following factors;

- Type of frontage,
- Road sight distance,
- Intersections,
- Potential conflicts,
- Bus stops and
- Pedestrian movements.

3.3.3 DCP Controls

1. AS2890.1 refers to access driveway types 1 to 5 for light vehicles.

To determine the access driveway widths and location, this section categorises driveways according to the class of parking facility, the frontage road type (either arterial or local) and the number of parking spaces served by the access driveway.

2. AS2890.1 provides a classification of off street car parking facilities as shown below;

Class	Examples of uses
i.	Tenant, employee and commuter parking (generally all day parking)
ii.	Long term town centre parking, sports facilities, entertainment centres, hotels, motels (generally medium term parking)
iii.	Short term town centre parking, shopping centres, supermarkets, hospital and medical (generally short term parking).

3. The type of driveways that are appropriate to service the specified number of parking spaces are shown in Table 3.3.1. Recommended access driveway widths, exit widths and separation between the two are shown in the Table 3.3.2. Users requiring a detailed explanation of design requirements of access driveways should refer to the source document.

Table 3.3.1 Selection of Access Driveway Category

Class of Parking	Road	Number of Car parking spaces served by the driveway				
		Less than 25	25 to 100	101 to 300	301 to 600	More than 600
1	Arterial	1	2	3	4	5
	Local	1	1	2	3	4
2	Arterial	2	2	3	4	5
	Local	1	2	3	4	4
3	Arterial	2	3	4	4	5
	Local	1	2	3	4	4

(Source :AS2980.1)

Table 3.3.2 Recommended Access Driveway widths based on driveway type

Driveway Type	Entry Width	Exit Width	Driveway separation
1	3.0 to 6.0	Usually combined	Not applicable
2	6.0 to 9.0	Usually combined	Not applicable
3	6.0 to 8.0	4.0 to 8.0	1.2 to 3.0
4	6.0 to 9.0	6.0 to 9.0	1.2 to 3.0
5	Direct feed from a dedicated public roadway via an intersection controlled by Stop or Give Ways signs, traffic signals or a roundabout.		

(Source: RTA Guidelines 1993 modified and AS2980.1)

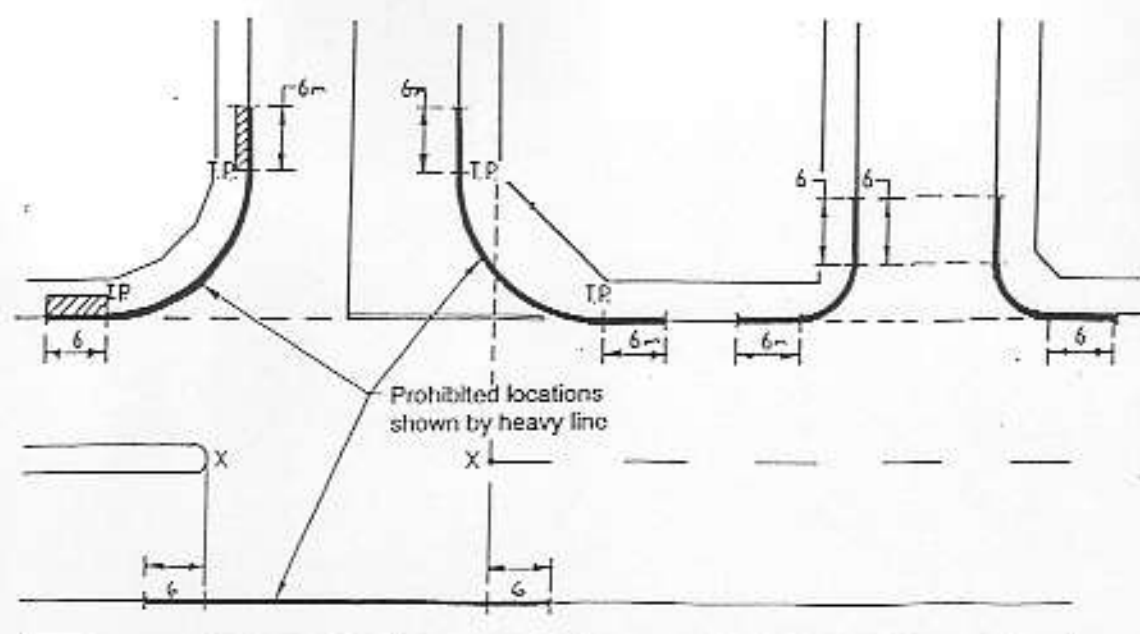
3.3.3 DCP Controls

4. The following design principles must be taken into account when planning driveways for developments:

- Position the entrance at the first vehicular driveway from the adjacent kerbside lane.
- Avoid reversing movements in/out of public streets (except in case of dwelling houses).
- Avoid arrangements that require on-street queuing.
- Position driveways clear of all obstructions, e.g. poles, trees, which may obscure sight lines.
- Design each driveway so that it is relatively level within 5 metres of the site boundary or any pedestrian way; the recommended maximum grade is 1:20.
- Signpost each driveway with appropriate entry/exit and keep left signs

- Driveways should be avoided on major roads, close to intersections, opposite other traffic generating developments, in areas of heavy and constant pedestrian movement, where right turning traffic entering the facility may obstruct through traffic or where the traffic using the driveway interferes with or blocks the operations of bus stops, taxi ranks, loading zones, pedestrian crossings and signalised crossings.
- Access driveways will not be permitted in the sections of kerb shown in Figure 3.4.1 by heavy black lines, at uncontrolled intersections of sub-arterial, collector or local roads or with an arterial road.
- When siting driveways and garages, adequate measures should be taken to ensure pedestrian visibility. For example low fence heights, open design fences or splays (1.5m x 1.5m for Multi-Unit Housing/commercial buildings and 1m x 1m for dwelling houses) may be required.
- To maintain public safety, garages for residential premises (wherever possible) must be setback a minimum of 1m from the front of the property boundary. Note: this provision does not supersede the standard amenity and building line considerations.

Figure 3.4.1 Prohibited Locations for Vehicle Crossings



3.4 SERVICE AND DELIVERY AREAS

3.4.1 Objective

- To ensure that development makes adequate provision for service and delivery vehicles, including access circulation, manoeuvring, safety and headroom.

3.4.2 Explanation

Commercial, industrial and some residential developments generate significant delivery and service activities. This requires that particular consideration at the design stage be made for the range of vehicles using the site, with appropriate design and location of designated loading and unloading service areas, including provision for garbage and recycling vehicles.

Where special provision is made for on-site garbage and recycling collection the access and manoeuvring requirements can be obtained from Council's Waste Services Section.

3.4.3 DCP Controls

1. Design and layout should consider the type and size of vehicles using the facility and the types of goods being handled. (Refer to Table 3.4.1 and Table 3.4.2)
2. Section 2.4 specifies the minimum requirements for an appropriate standard of facilities for service and delivery areas.
3. To minimise noise and disturbance to adjoining development, (in particular residential land uses), service areas should be adequately screened from public view and located as far as practical from sensitive adjoining landuses.
4. Manoeuvring areas associated with service areas and loading bays should be separated from the general car parking areas and associated vehicle circulation routes. Special consideration should be given to the safety of movement of pedestrians.
5. Furthermore the RTA Guidelines specify the following design principles for consideration:
 - The layout of the service area should be designed to facilitate operations relevant to the development and thus discourage on-street loading and unloading.
 - Service area should be a physically defined location which is not used for other purposes, such as storage of goods and equipment.
 - Separation of service vehicle and car movements.
 - All vehicles are to enter and leave the site in a forward direction.
 - Internal circulation roadways should be adequate for the largest vehicle anticipated to use the site.
6. Manoeuvring areas should be designed in accordance with the RTA guidelines to provide adequate turning areas. A minimum clearance of 300mm between the swept path and any building or obstruction is to be provided. Templates of turning circles and loading bay manoeuvring areas are provided in Appendix A.

Table 3.4.1 Service Vehicle Dimensions (In Metres)

Vehicle Type	Length	Width	Height	Turning Circle (Kerb to Kerb)
Station Wagon	5.1m	1.9m	1.4m	12m
Utilities	5.0m	1.9m	1.4m	12m
Van	5.4m	2.1m	2.5m	13.5m
Small rigid truck	6.6m	2.1m	4.3m	14.4m
Max rigid truck	11m	2.5m	4.3m	21.7m
Max articulated truck	17.5m	2.5m	4.3m	16.2m

(Source RTA 1993 modified)

Table 3.4.2 Minimum Dimensions for Loading Facilities

Vehicle Type	Dimensions (Metres)
(1) Small Trucks	
Side loading, No dock platform	Length: 7.5 Width: 4.5 Clearance: 3.2
Rear loading, No dock platform	Length: 8.5 Width: 3.5 Clearance: 3.2
Dock Platform	Length: 7.5 Width: 3.1 Clearance: 3.6 Dock Width: 3.0min Platform height: to be specified on plan.
(2) Other Loading Vehicles	
Dock Dimensions	Large Trucks Length: 12.0 Width: 3.8 Articulated Trucks Length: 18.0 Width: 3.8
Clearance	4.5
Dock Platform Height	1.2-1.4
Width of dock opening	3.5 minimum for Large Trucks 4.0 minimum Articulated Trucks (subject to manouvering requirements).

Note: Where two or more loading bays are adjacent, bay widths may be reduced.

3.5 LANDSCAPING

3.5.1 Objective

- To enhance the appearance, operation and amenity of the car parking areas through landscape design.

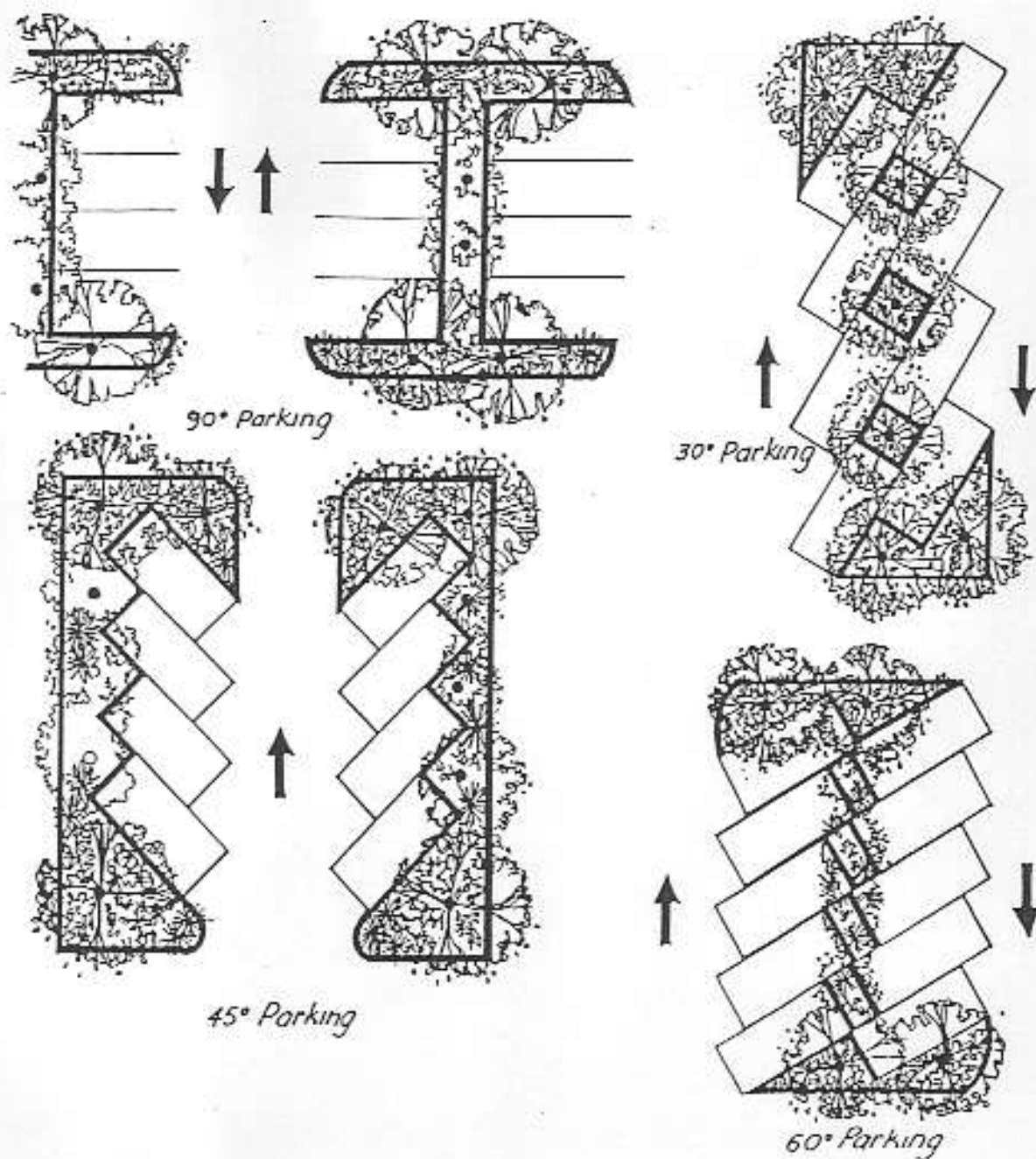
3.5.2 Explanation

Appropriate landscaping can provide many benefits for parking areas, such as shade for parked vehicles, screening for neighbouring residences and public areas. Appropriate planting can also soften the impact of sealed areas and screen parking areas.

3.5.3 DCP Controls

1. Landscape planting should provide appropriate screening, canopy tree cover and low shrub /ground cover planting. Wherever possible, indigenous species should be used, that are sourced from local seed stock.
2. Landscape design for parking areas should consider the following:
 - Screening of parking areas from neighbouring residences and public areas.
 - Sightlines must be retained between the car park, public roads and paths.
 - Visibility between drivers and pedestrians is to be maintained.
 - Visibility across the site to improve security.
 - Design and layout of the car parking area (refer to Figure 5.3.1).
3. In the selection of appropriate trees for car parking areas the following characteristics are important:
 - Trees should preferably have tall trunks and provide ample shade coverage.
 - Plants that do not drop fleshy fruits, berries, sap or large branches
 - Mature trees that branch at least 2 metres above the ground (otherwise pruning will be required).
 - Avoid using plants with invasive or bulbous roots systems that can cause lifting of surfaces or damage underground services.
 - Soil depth for trees should be adequate. In the case of planter beds a minimum of 600mm topsoil depth should be provided to ensure adequate plant growth.
4. For development of land zoned Industrial 4A and 4B a 6 metre landscape buffer strip is to be provided adjacent to the street alignment.
5. A concept landscaping plan must be submitted with a development application.

Figure 3.5.1 Recommended Planting Layouts for Carparks



3.6 ACCESS AND PARKING FOR PEOPLE WITH DISABILITIES

3.6.1 Objectives

- To ensure that the design of parking areas are safe and compatible with best practice standards for persons with a disability.
- To provide a sufficient number of designated car parking spaces for vehicles used by people with disabilities.

3.6.2 Explanation

Through the development planning and approvals process Randwick City Council is promoting improved building and facility design to enable safe and convenient access for people with disabilities. Under the provisions of the federal *Disability Discrimination Act (1992)* it is unlawful to discriminate on the grounds of disability.

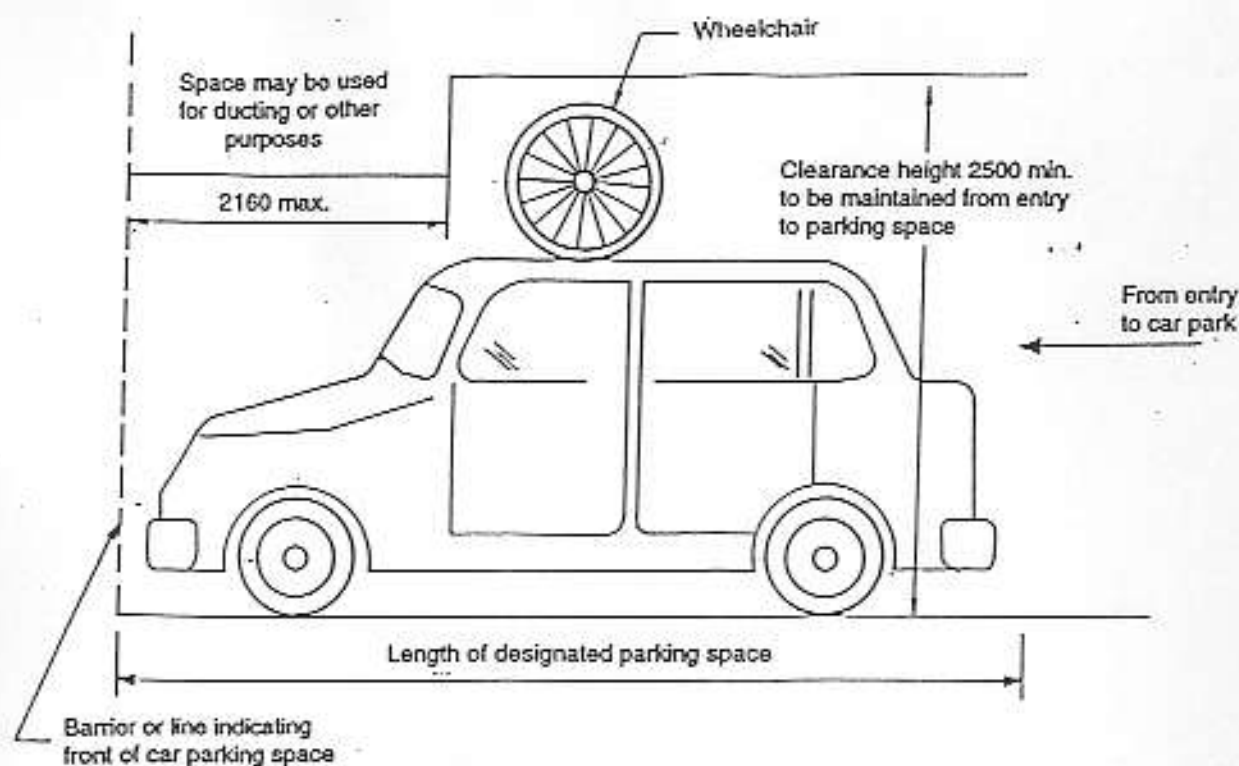
It is the responsibility of owners, builders and developers, when parking facilities are provided to ensure compliance with the *Disability Discrimination Act, 1992* and the relevant sections of the Building Code of Australia and the Australian Standards.

3.6.3 DCP Controls

1. Section 2.5 "*Provision of Parking Spaces for People with Disabilities*" sets out the minimum number of designated parking spaces required for different types of development.
2. Designated car parking spaces must comply with the requirements of parking for people with disabilities in the Building Code of Australia (BCA) and the relevant provisions of Australian Standards, AS 1428.1 - Design for Access and Mobility and AS 2890.1 - Off Street Parking Design (refer Figure 3.6.1), and should take into account the following criteria:

- Designated parking space(s) should be located in a part of the building that is accessible and connected by a continuous path of travel accessible to the buildings main lifts and/or wheelchair lifts. A continuous path of travel should provide ramps instead of steps and not be obstructed by railings or other structures.
- Parking areas that use lifts should include audio cues and tactile control panels incorporated into the design of the lift.
- Parking spaces for people with a disability should be level (less than 1 in 40 grade), parallel to or at 90° to the angle of parking. Parking spaces must be a minimum of 3.2 metres wide, with an unobstructed headroom of 2.5m.
- Parking spaces should be well lit, clearly line marked and the location of accessible parking space(s) should be indicated at the entrance of the car park.
- Parking areas should provide appropriate levels of lighting so that signage and directions can be easily read for convenience and safety.
- Paths of travel within the car park and buildings should remain unobstructed and provide comfort and ease of use.
- Doors and doorways within car parks are to be of adequate width to allow efficient access for people with a disability (e.g. wheelchairs).
- Internationally recognised symbols should be used for signposting with access signs for parking located in visible locations such as the main entrance/exits, within the car park areas and near other accessible facilities.

Figure 3.6.1 Design Requirements for Designated Disabled Parking Spaces



Note: Extra clearance height is only required for unloading wheelchairs in the parking space.

3.7 PARKING AND HERITAGE CONSERVATION

3.7.1 Objective

- To provide appropriate parking options for properties identified as heritage items or located within a heritage conservation area.
- To ensure the provision of car parking maintains the heritage significance of the site and its setting.

3.7.2 Explanation

The majority of Randwick's heritage buildings and conservation areas were developed prior to the advent of widespread private car transport. Many buildings have no garages and only limited opportunities for accommodating vehicles. Therefore, special heritage design and siting considerations should be given to car parking. Poorly sited or designed parking areas can undermine the visual amenity of the streetscape and the setting of heritage items.

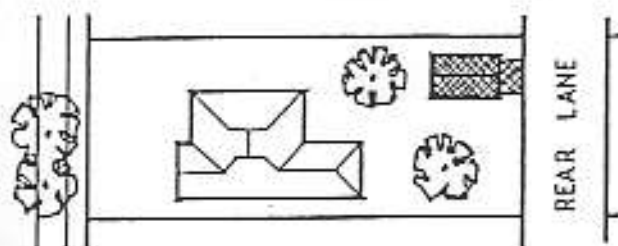
Council is preparing Development Control Plans for individual Heritage Conservation Areas. Please consult with Council's Heritage Officer to ascertain whether there is a DCP for the Conservation Area in question.

3.7.3 DCP Controls

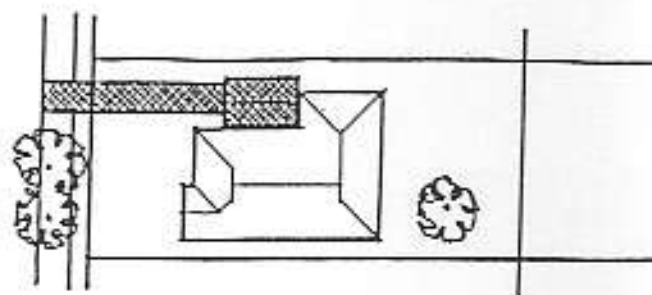
1. The provision of parking within a heritage conservation area, or for a Heritage Item should be in designed and located in accordance with Figure 3.7.1.
2. In Heritage Conservation Areas and for Heritage Items garages in front of the building alignment are not appropriate. They obscure views of the heritage building and break up the pattern of setbacks in the street, change the character and reduce the quality and value of the streetscape.
3. Carports should not be screened or enclosed. The aim is to minimise obstruction of views through to the building behind. A simple flat roof is preferred and decoration should be avoided. The structure should be very finely detailed and well constructed and painted.
4. In certain circumstances the requirements for additional on-site parking may be waived, in order to maintain the heritage significance of a heritage item or its setting. If you require further information on heritage matters associated with the design options for parking please contact Council's Heritage Officer on (02) 9399-0999.

Figure 3.7.1 There are several priorities for accommodating the car as specified below:

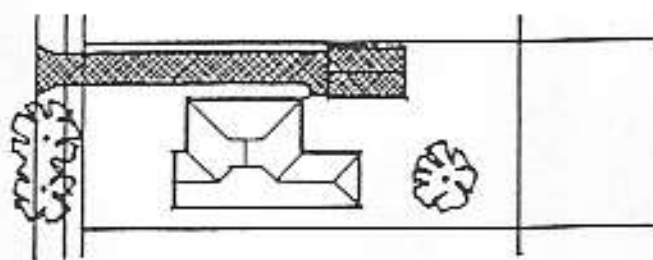
1. Locate at the rear, with access from a rear lane.



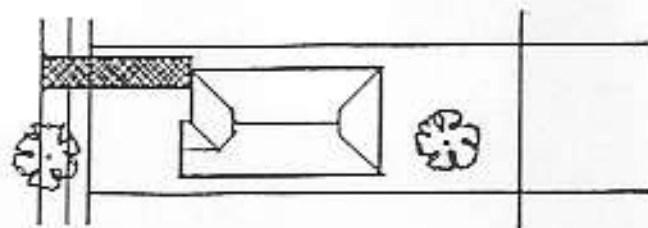
3. Locate at the side of the house, well setback.



2. Locate towards the rear, with access from the front.



4. Provide an uncovered paved area at the front.



3.8 BICYCLE FACILITIES

3.8.1 Objectives

- To promote the use of bicycles as a safe and convenient form of transport for work and recreation.
- To provide functional and secure bicycle storage areas and facilities.

3.8.2 Explanation

Randwick City Council has a large number of activity nodes that generate demand for non-car transport. These include the UNSW, Prince of Wales Hospital and major recreational facilities, such as Centennial Park and the beaches. Through improving facilities for cyclists, there is an opportunity to reduce car dependency, reduce pollution and to improve community health.

3.8.3 DCP Controls

1. Bicycle parking is to be provided in accordance with AS 2890.3 Bicycle Parking Facilities in all new residential developments (except aged and disabled housing, dwelling houses/dual occupancies), all new commercial, retail, community services, recreation and industrial facilities.

Bicycle Parking Provision

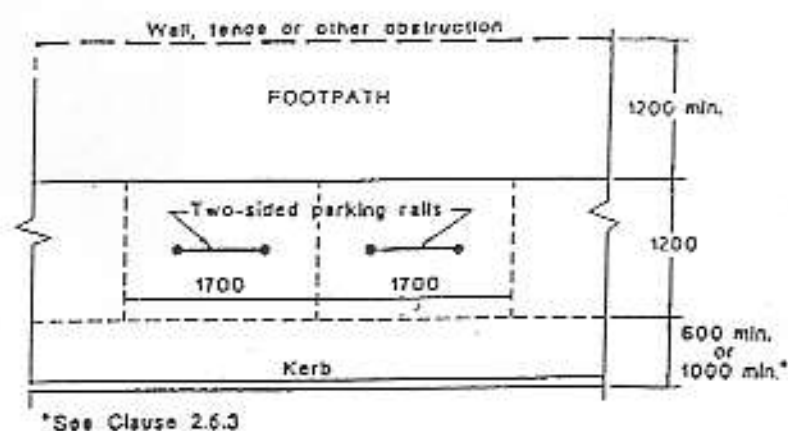
<i>Land Use</i>	<i>Rate</i>
Residential - Multi Unit housing	1 per 3 units plus visitor 1 per 10 units
Commercial/retail and Industrial	1 per 10 car spaces for first 200 then 1 space per 20 car spaces thereafter
Community, Health and Recreational	1 per 10 car spaces

Types of facilities and design guidelines are specified in the AS 2890.3 Bicycle Parking Facilities and Austroads' Guide to Traffic Engineering Practice - Part 14 - Bicycles.

2. The design of facilities should take into account the specific parking requirement for cyclists under the following categories:
 - All day parking for employees and students.
 - All day parking at public transport nodes
 - Short term parking for visitors to shopping centres, offices and public/private buildings.
3. In all new developments (excluding private dwellings houses and dual occupancies) bicycle parking is to be provided by way of either a secure, lockable area, lockers or bicycle racks, located within the ground floor foyer or adjacent within any forecourt, or within the parking area.
4. Bicycle parking facilities should be designed to be capable of accommodating and supporting all usual types of bicycles, to minimise damage in storage or during movement in/out of the parking space.
5. Designs should meet requirements for safety and ease of use, with appropriate signage and aesthetic appearance.
6. Traditional bike racks that provide the means of locking one wheel of the bike to a fixture are not considered a secure arrangement and are discouraged. Facilities that require a wheel to be removed are also not acceptable.
7. Access paths to bicycle parking areas should have a minimum width of 1.5 metres to accommodate a person pushing a bicycle. In the case where bicycle parking is provided within a general car park area, adequate sight lines are to be provided to ensure safety.
8. Figures 3.8.1 and 3.8.2 show various acceptable bike parking layouts, parking and facilities based on the Australian Standard (AS 2890.3-1993).

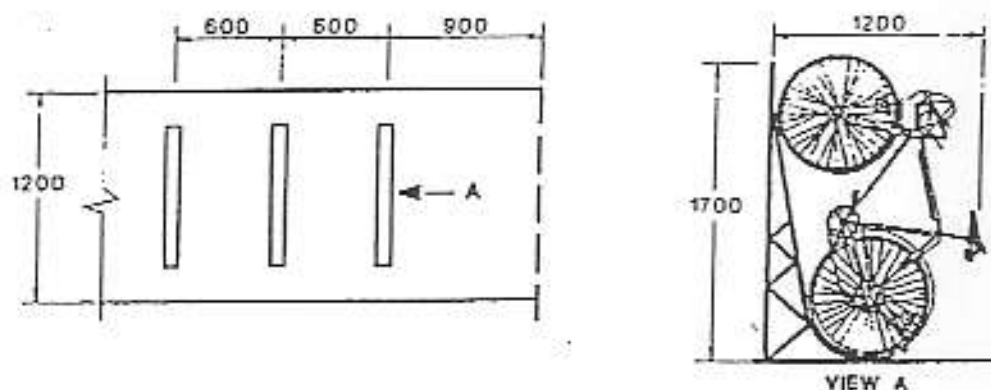
Figure 3.8.1 Design Requirements- Bicycle Parking

(Source AS 2890.3-1993)



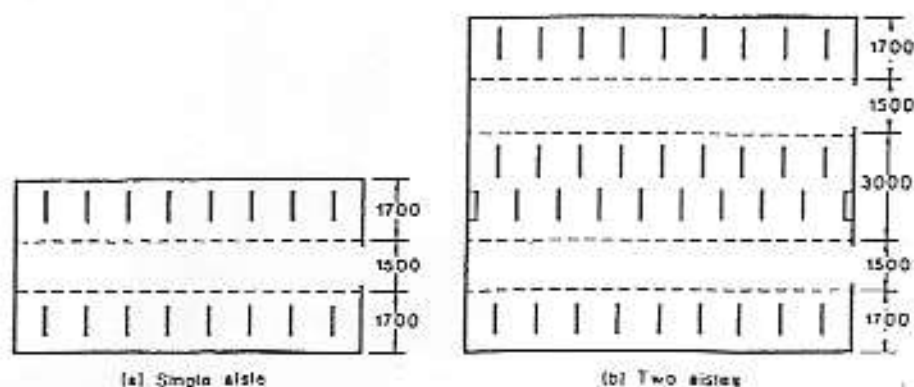
DIMENSIONS IN MILLIMETRES

BICYCLE STORAGE - NOSE-TO-TAIL ON A FOOTPATH OR VERGE



DIMENSIONS IN MILLIMETRES

BICYCLE STORAGE - VERTICAL RACKS

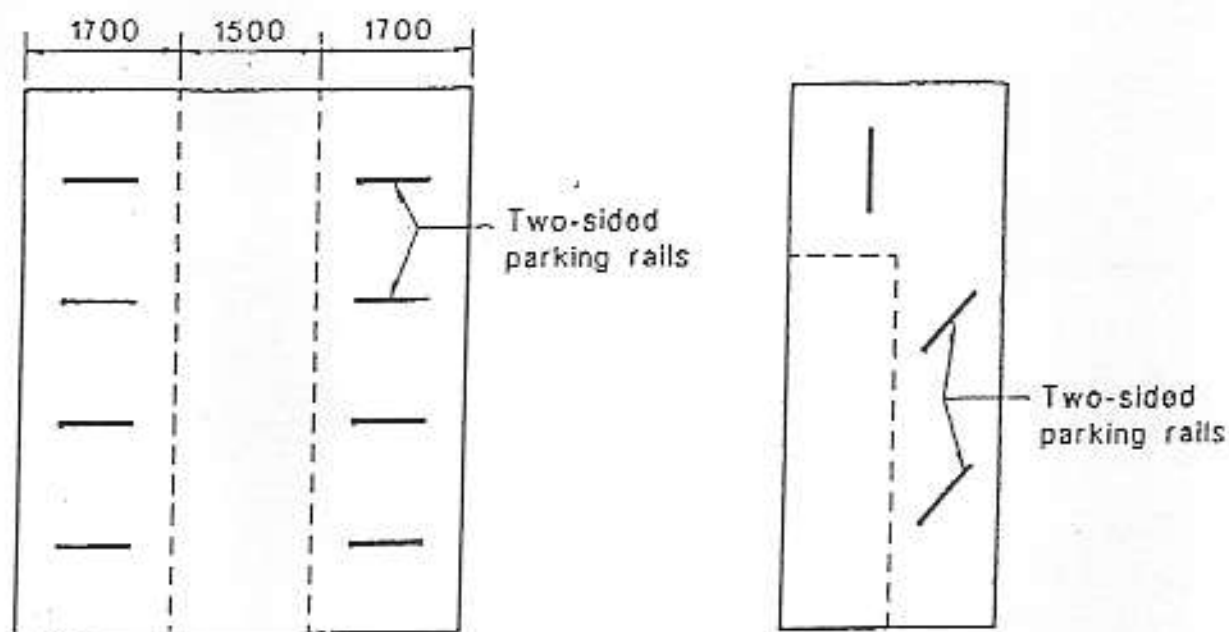


DIMENSIONS IN MILLIMETRES

TYPICAL OPEN PLAN STORAGE LAYOUTS

Figure 3.8.2 Design Requirements- Bicycle Facilities

(Source AS 2890.3-1993)



(a) Double parking bay (4900 x 5400)
sixteen bicycles

(b) Single bay (2400 x 5400)
six bicycles

NOTES:

- 1 A perimeter barrier should be provided to protect bicycles from damage by moving cars.
- 2 Signposting or physical devices may be required to discourage or prevent access to the area by motor-cycles.

DIMENSIONS IN MILLIMETRES

CAR SPACE CONVERSION FOR BICYCLE PARKING

Part 4

DEFINITIONS

4.0 DEFINITIONS

The definitions to the land uses listed below can be found in Randwick LEP 1998.

- "automotive use"
- "backpacker accommodation"
- "bed and breakfast accommodation"
- "boarding house"
- "bulk store"
- "business premises"
- "car park"
- "child care centre"
- "club"
- "container depot"
- "council"
- "dual occupancy"
- "dwelling"
- "dwelling house"
- "educational establishment"
- "gross floor area"
- "group home"
- "health consulting rooms"
- "home activity"
- "hospital"
- "hotel"
- "industry"
- "medical centre"
- "motel"
- "multi-unit housing"
- "place of worship"
- "plant nursery"
- "plant and equipment hire"
- "port facilities"
- "restaurant"
- "transport depot"
- "service station"
- "serviced apartment"

- "site area"
- "transport depot"
- "warehouse"

OTHER DEFINITIONS

The definitions listed below are not from Randwick LEP 1998 but have been included to assist in the interpretation and application of this DCP;

"bulky goods salesroom or showroom" means a building or place used for the sale (by retail or auction), hire or display of items which are of such a size, shape or weight as to require;

(a) a large area for handling, storage or display; or

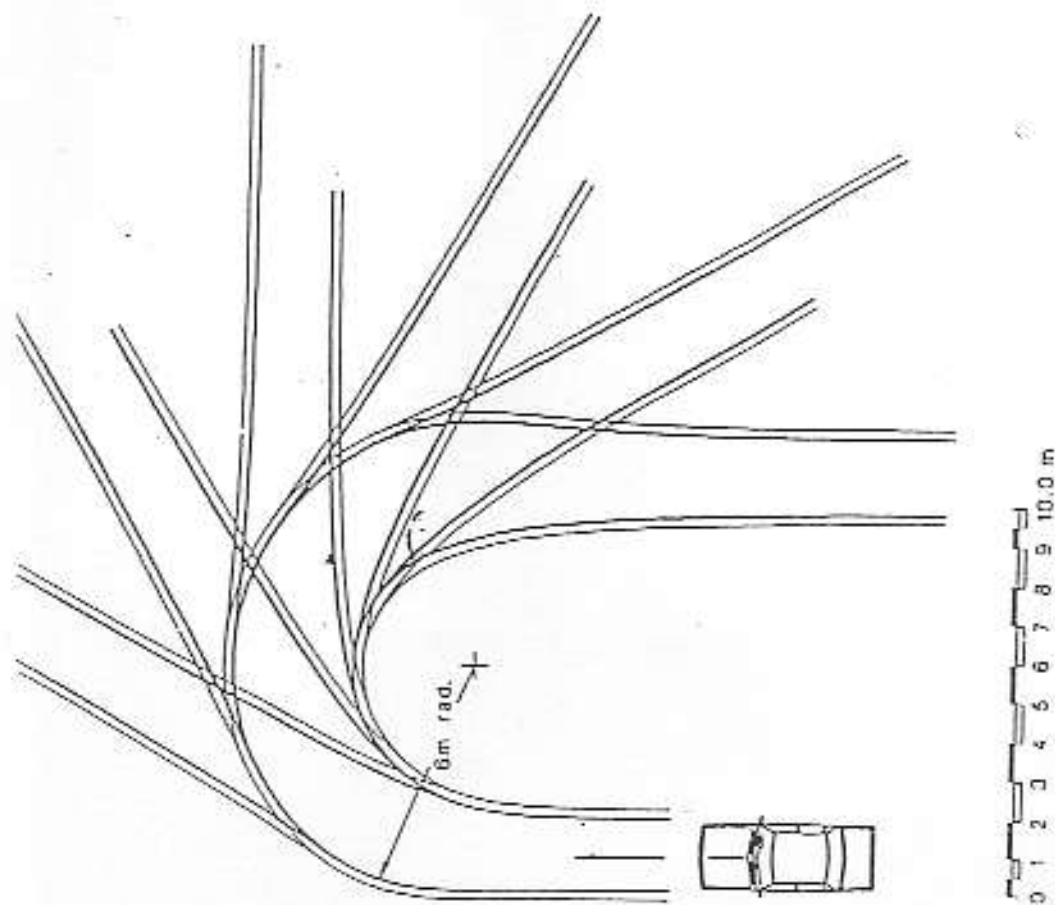
(b) direct vehicular access to the site of the building or place by members of the public for the purpose of loading items into their vehicles after purchase, but does not include a building or place used for the sale of food or clothing;

"hostel" is a residence which houses aged or disabled persons, and provides cooking, dining, laundering and other care facilities on a shared basis. Hostels are maintained on a full time basis by persons who have nursing, social work or other similar experience.

"small car space" means a smaller than standard car space with a minimum dimension of 2.4m wide by 4.9metres long.

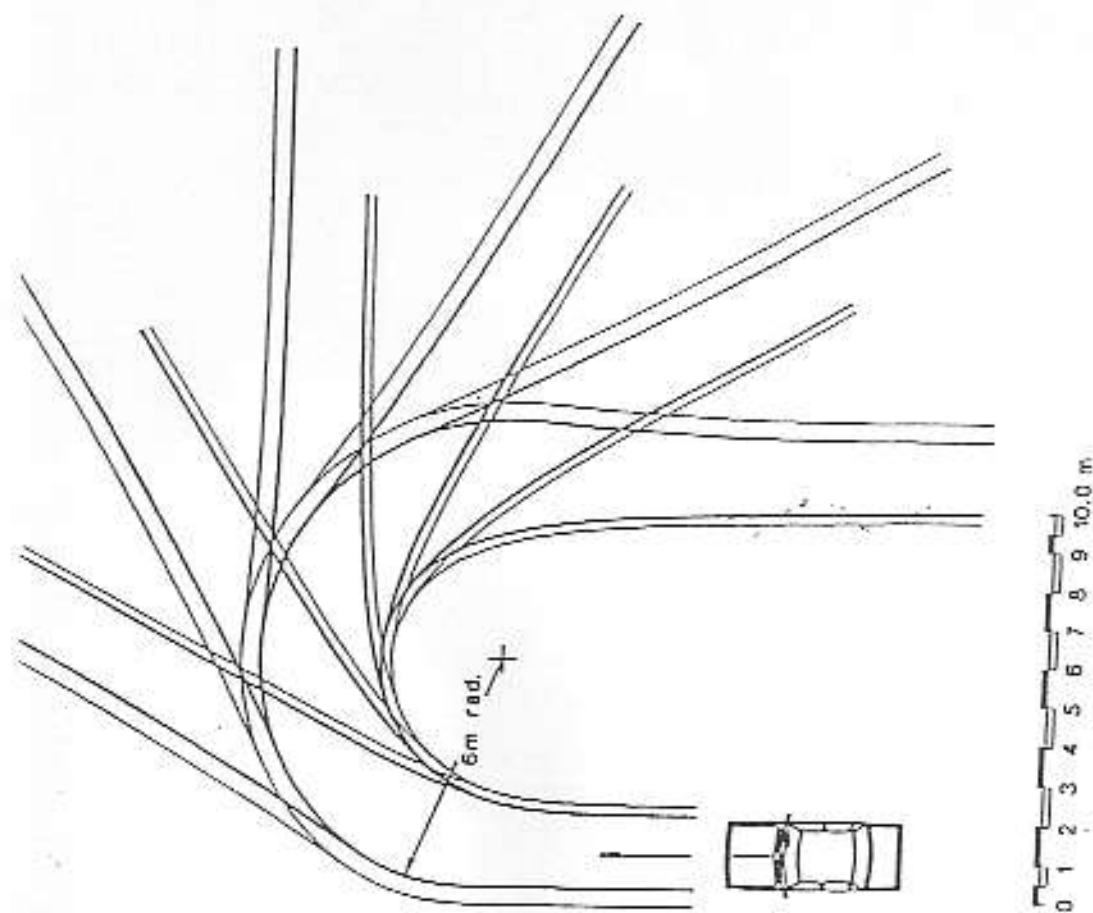
"studio dwelling" a self contained residential unit in which the living and sleeping areas are combined in a single space, with a maximum floor area of 40m².

APPENDIX A TURNING CIRCLES



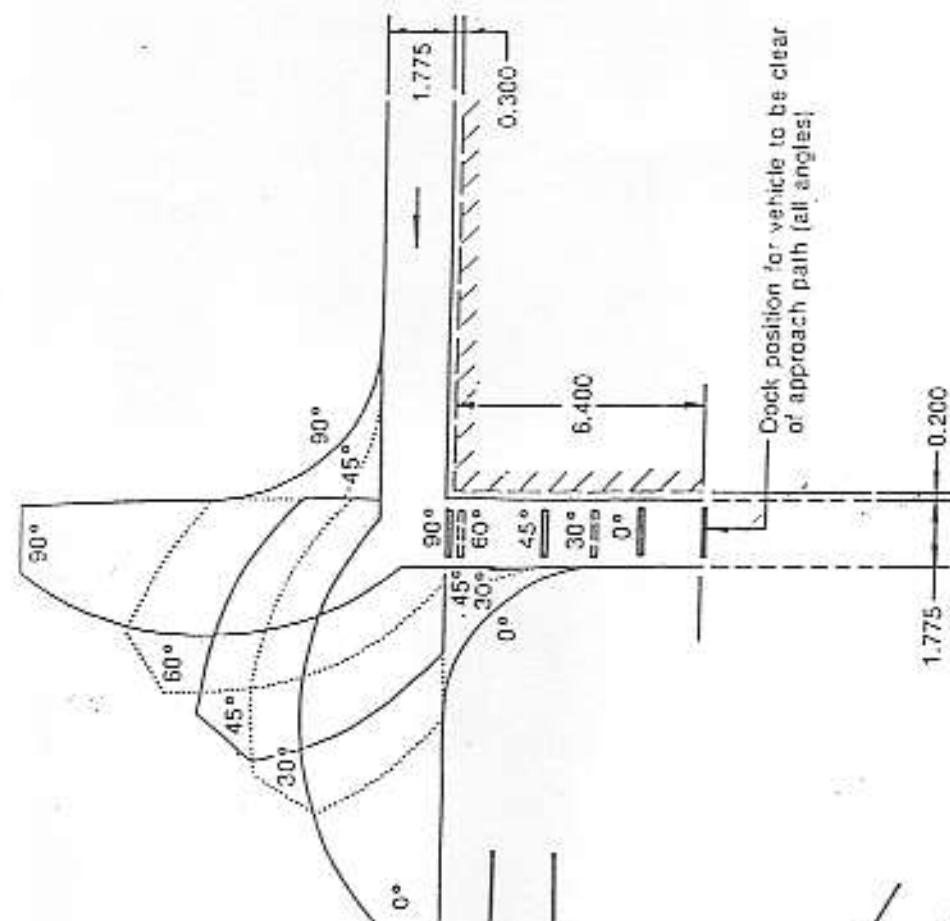
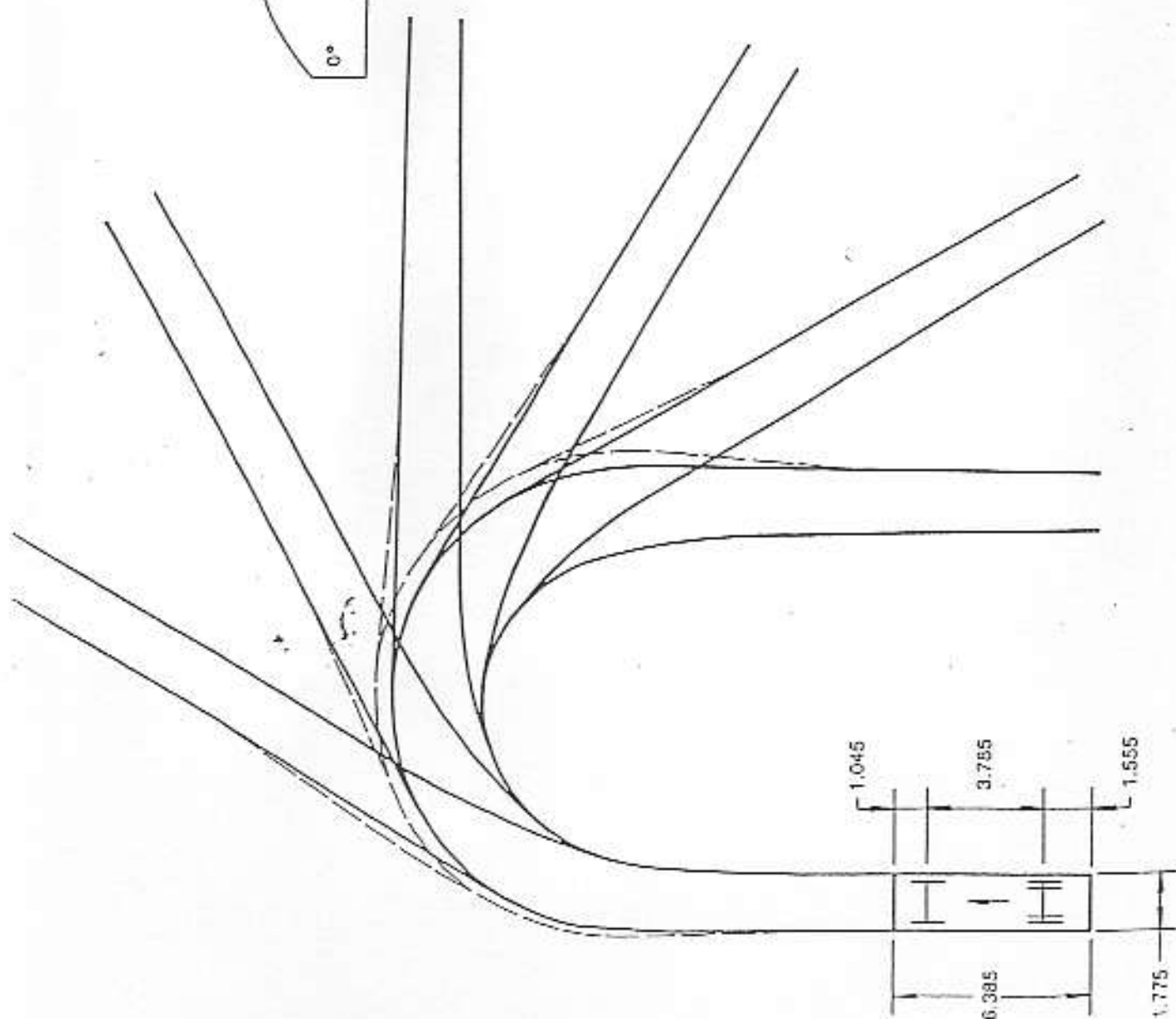
- denotes the B85 base dimension sweep path.
- denotes the B85 design template which includes 2 x 300 mm manoeuvring clearances only.

FIGURE B2 THE B85 DESIGN TEMPLATE



- denotes the B99 base dimension sweep path.
- denotes the B99 design template which includes manoeuvring and circulation clearances, 300 mm on the inside and 600 mm on the outside.

FIGURE B1 THE B99 DESIGN TEMPLATE



LEGEND:

β° Position of rear of vehicle when in final docking alignment (i.e. perpendicular to dock)—approach angle β°



SCALE 1:200

SERVICE AREA TEMPLATE—SMALL RIGID VEHICLE (SRV)

APPENDIX B

TRAFFIC GENERATING DEVELOPMENT

**(STATE ENVIRONMENTAL PLANNING POLICY NO.11
TRAFFIC GENERATING DEVELOPMENT)**

The aims of State Environmental Planning Policy No 11- Traffic Generating Development are:

1. To ensure the RTA and police are made aware of developments known to have significant traffic and safety effects, and to give them the opportunity to make representations concerning these developments.
2. To specify the types and scale of development for referral to either a Local Council or Regional Traffic Committee.

The matters to be considered in designing for traffic generating developments are:

- required off-street parking;
- review of methodology of traffic impact study presented by the applicant, including a review of traffic generation rates used;
- design of driveways, including auxiliary lanes, internal roads, parking areas, delivery/service vehicles;
- proposed access and manoeuvring areas; and,
- consideration of statutory requirements for public car parks.

SEPP No. 11 identifies two categories of development, based on their scale and size.

SEPP 11 does not diminish Councils responsibilities under Section 79 of the EPA Act.

Refer to the following table for the types and scales of development listed under Schedules 1 and 2 of SEPP No. 11 that must be referred to either Council or Regional Development Committee.

It should be noted that small developments (not covered by SEPP No. 11) fronting State Arterial Roads may be referred to the RTA for comment.

Item Number	Type of Development	Scale of Development	Development Committee
1.	Residential Flat-Building (New or Enlargement/Extensions)	75 to 300 dwellings	Council
		more than 300 dwellings	Regional
2.	Retail (New or Enlargement/Extensions)	500m ² to 2000m ² GFA	Council
		more than 2000m ² GFA	Regional
3.	Retail and Commercial (New or Enlargement/Extensions)	1000m ² to 4000m ² GFA	Council
		more than 4000m ² GFA	Regional
4.	Commercial (New or Enlargement/Extensions)	5000m ² to 20,000m ² GFA	Council
		more than 20,000m ² GFA	Regional
5.	Commercial and Industry (New or Enlargement/Extensions)	4000m ² to 15,000m ² GFA	Council
		more than 15,000m ²	Regional
6.	Industry. (New or Enlargement/Extensions)	5000m ² to 20,000m ² GFA	Council
		more than 20,000m ²	Regional
7.	Residential subdivision	50 to 200 allotments	Council
		more than 200 allotments	Regional
8.	a) Tourist Facilities b) Recreational facilities c) Showgrounds d) Sportsgrounds (New or Enlargement/Extensions)	50 to 250 car parking spaces	Council
		more than 250 car parking spaces	Regional
9.	a) Clubs b) Hotels (New or Enlargement/Extensions)	50 to 250 car parking spaces	Council
		more than 250 parking spaces	Regional
10.	a) Places of Assembly b) Places of Public Worship (New or Enlargement/ Extensions)	50 to 250 car parking spaces	Council
		more than 250 parking spaces	Regional
11.	a) Refreshment Rooms b) Restaurants (New or Enlargement/ Extensions)	more than 300m ² GFA	Council
12.	Drive-in Take-Away Food Outlets (New or Enlargement/ Extensions)	50 to 250 car parking spaces	Council
		more than 250 spaces	Regional
13.	Service Stations (New or Enlargement/ Extensions)	Any Scale	Council
14.	Motor Showrooms (New or Enlargement/ Extensions)	More than 50 car parking spaces	Council

Item Number	Type of Development	Scale of Development	Development Committee
15.	Hospitals (New or Enlargement/ Extensions)	100 to 250 car parking spaces	Council
		more than 250 spaces	Regional
16.	Roadside Stalls	Any Scale	Council
17.	Educational Establishments (New or Enlargement/ Extensions) Including child care centres	50 to 500 students	Council
		more than 500 students	Regional
18.	Drive-in Theatres - New	Any Scale	Regional
19.	a) Transport Terminals b) Bulk Stores c) Container Depots d) Liquid Fuel Depots (New or Enlargements or Extensions)	Any Scale	<4000m ² Council >4000m ² Regional
20.	a) Junk Yards b) Waste Disposal Depot (New or Enlargement or Extensions)	Any Scale	Regional
21.	a) Heliports b) Airports c) Aerodromes (New or Enlargements or Extensions)	Any Scale	Regional
22.	a) Extractive Industry b) Mining (New or Enlargement or Extensions)	Any Scale	Regional
23.	Parking Area Public Car parks (any scale irrespective of location)	50 to 250 car parking spaces	Council
		More than 250 car parking spaces	Regional

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