



# PART C - GENERAL CONTROLS

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## C1 Equity of access

### C1.1 Adaptable housing

#### What is adaptable housing and why should it be provided?

Adaptable Housing is accommodation that is specifically designed to enable easy modification in the future for occupation and visitation by people with disabilities or progressive frailties. It is designed in accordance with the minimum standards for accessibility but is not designed as special purpose housing such as institutional care. Adaptable housing therefore can suit the needs of many different people, including people with a current disability and people who will acquire disabilities gradually as they age. Adaptable housing is also often attractive to people who prefer open plan type living, or those with children.

Typically, the provision of adaptable housing has been perceived to be onerous on developers. However, it has been demonstrated that the additional cost of incorporating adaptable features is in most cases not more than 5% - in fact nil in many cases. This initial cost is more than outweighed by the benefits of providing adaptable housing which include:

- reduced costs of future modifications, which are often costly, to suit people with disabilities or increasing frailties; and
- a wider range of people are able to access adaptable homes, thereby making them more visitable; and
- residents are able to stay in their homes and use the same services as well as maintain the same support networks despite their changing needs; and
- many adaptable features make homes safer for people of all ages and abilities.

#### Rates of adaptable housing units and parking spaces to be provided

Adaptable housing units should be constructed to meet the performance requirements and are to include the essential features as required by AS4299 at the rates specified in Table C-A for developments that include a lift. Where the total number of adaptable housing units to be provided is not a whole figure, the figure is to be rounded up to the next whole figure.

**Table C-A Adaptable housing ratios for developments including a lift**

Total number of dwellings	Number of adaptable dwellings to be provided
Between 0 and 7 inclusive	Nil
Between 8 and 14	1 dwelling
Between 15 and 21	2 dwellings
Between 21 and 29	3 dwellings
30 or more	15% of total dwellings

## Issues which should be considered in the assessment of adaptable housing:

### Common facilities and services

Access to and within the adaptable housing unit complies with the requirements of the relevant provisions of the Australian Standards. This includes access to at least one type of each common facility or service provided in the development eg. BBQ areas, swimming pools, common laundry facilities etc.

### Location

Adaptable housing units should be provided in convenient locations that are close to facilities such as public transport, community facilities and public services. Within the development they should be located along the accessible path of travel, preferably close to the main entrance of the building.

### Bathroom facilities

Bathrooms should be large allowing for wheelchair access and maneuvering. A bath need not be provided, but the shower should allow for chair access. The hand wash basin and any shelving should be provided at a height that is accessible at both a standing or seated position.

### Laundry facilities

The laundry should also be large to allow for wheelchair access and circulation around the appliances. Washing machines and dryers should be front loading, a wall mounted dryer is also preferable.

### Circulation spaces

Bedrooms and living areas should be an adequate size to allow for ease of movement around furniture. Doorways and entrances are wide enough to facilitate wheelchair access and circulation.

### Kitchen facilities

The kitchen should be of a flexible design so that modifications can be made if required in the future. Cupboard and pantry shelf heights should be adjustable to make them easy to reach.

### Flooring

Tiles or timber flooring is preferable to carpet. However, if carpet is to be provided it should be low pile with no underlay. Non-slip tiling should be provided in wet areas.

### Walls

Walls located along main travel paths and in bedrooms and bathrooms should be reinforced to allow for installation of grab rails if necessary.

### Windows

Windows should be operatable with one hand (preferably sliding) and located no higher than 700mm from the floor.

### Landscaping

Outdoor areas should be designed to be low maintenance, with no lawns and a drip irrigation system. All paving should be even and be wheelchair accessible.

## C2 Telecommunications and radiocommunications

This provisions in this section apply to telecommunications and radio communications infrastructure (including broadcasting infrastructure covered under the Telecommunications Act 1997 and the Radio communications Act 1992), within the City of Canada Bay Council Local Government Area (LGA).

The City of Canada Bay Council (Council) is the consent authority for facilities that require development consent under the terms of the Environmental Planning and Assessment Act 1979. These are the facilities that are referred to as “not low impact facilities”.

Council does not have regulatory control over “low impact facilities”. These are facilities described in the Telecommunications (Low Impact Facilities) Determination 1997 (LIF Determination), which exempts low impact facilities from State and Territory planning and environmental laws.

The Telecommunications and Radiocommunication controls of this DCP provide:

- controls for the siting, design and installation of telecommunications and radiocommunications facilities that require development consent from Council; and
- guidelines for telecommunications carriers for the siting, design and installation of “low impact” facilities.

### C2.1 To what facilities does this Part apply?

This Part of the DCP applies to any fixed transmitter, its supporting infrastructure and ancillary development under the following legislation:

- Telecommunications (Low-impact Facilities) Determination 1997 [LIF Determination];
- Telecommunications Act 1997, and
- Radiocommunications Act 1992.

The DCP does not apply to temporary emergency services.

### C2.2 What is the purpose of this Part?

The purpose of this Part is:

- to provide a consistent and integrated planning framework that addresses the community’s interests in the effective and efficient provision of telecommunications and radio communications infrastructure so that it achieves environmental, economic and social sustainability in the short, medium and long term;
- to provide a consistency of approach which benefits carriers, community and councils;
- to balance the needs of different stakeholders, including the community/ industry/ local, state and federal governments, and
- to provide guidance to carriers about Council’s requirements for:
  - a) site selection
  - b) lodging an application
  - c) conducting community consultation.

#### Objectives

The Objectives of this plan are:

##### O1. Social

- to apply a precautionary approach to the deployment of radiocommunications infrastructure; and
- to minimise EMR exposure to the public; and
- to avoid community sensitive locations; and
- to ensure that the general public and local communities have access to telecommunications technology; and
- to achieve equity for the various stakeholders by endeavouring to balance their various needs; and
- to enable members of the public to adequately identify infrastructure and the agencies responsible for them; and
- to provide mechanisms by which information can be disseminated to ensure that the community is adequately informed and empowered to participate in the planning/decision-making process.

## O2. Environmental

- to help implement principles of urban design in respect to telecommunications and radio communications infrastructure; and
- to promote good industrial design of infrastructure;
- to provide infrastructure that is visually compatible with surrounding character and locality/visual context with particular regard to heritage buildings/areas and cultural icons; and
- to minimise adverse impacts on the natural environment; and
- to assess whether the proposed infrastructure is consistent with the amenity of the area; and
- to restore the site after discontinuation or removal of infrastructure.

## O3. Economic

- to identify the type of land use areas suitable for infrastructure in a local government area; and
- to accommodate the planning requirements of new technology; and
- to provide equitable availability of locations to carriers; and
- to assess whether the proposed infrastructure is consistent with permitted development in adjacent areas; and
- to ensure reasonable access to telecommunications technology; and
- to provide certainty for stakeholders and a consistent approach to the implementation/assessment of telecommunications infrastructure.

## O4. Administrative

- to ensure that Council obtains information about existing and proposed infrastructure to assist with strategic planning.

## C2.3 Design controls

### Visual amenity

Controls	
C1.	Carriers are to design antennas and supporting infrastructure in such a way as to minimise or reduce the visual and cumulative visual impact from the public domain and adjacent areas.
C2.	<p>Within the local context, the infrastructure design should take account of:</p> <ul style="list-style-type: none"> <li>a) Colour;</li> <li>b) Texture;</li> <li>c) Form; and</li> <li>d) Bulk and scale.</li> </ul>
C3.	<p>Infrastructure should:</p> <ul style="list-style-type: none"> <li>a) Be well-designed;</li> <li>b) Be integrated with the existing building structure unless otherwise justified in writing to Council;</li> <li>c) Have concealed cables where practical and appropriate;</li> <li>d) Be unobtrusive where possible, and</li> <li>e) Be consistent with the character of the surrounding area.</li> </ul> <p>A discussion on facility design can be found in Low Impact Facilities for Better Visual Outcomes that can be accessed at <a href="http://www.amta.org.au/mcf">www.amta.org.au/mcf</a></p>
C4.	Infrastructure should be removed when no longer being used.

## Co-location

Controls	
C5.	Co-location is the practice of locating a number of different telecommunication facilities, often owned by different carriers, on one facility or structure.
C6.	Co-location may not always be a desirable option where: <ul style="list-style-type: none"> <li>a) Cumulative emissions are a consideration;</li> <li>b) It may be visually unacceptable;</li> <li>c) There are physical and technical limits to the amount of infrastructure that structures are able to support, or</li> <li>d) The required coverage cannot be achieved from the location.</li> </ul>
C7.	Carriers should demonstrate a precautionary approach and effective measures to minimise the negative impacts of co-location.

## Location

Controls	
C8.	The applicant should demonstrate that, in selecting a site, it has adopted a precautionary approach in regards to minimising EMR exposures consistent with Section 5.1 of the ACIF Code.
C9.	Preferred land uses (as determined by this Council) include: <ul style="list-style-type: none"> <li>a) Industrial areas;</li> <li>b) Low-use open space, and</li> <li>c) Commercial centres.</li> </ul>
C10.	The application should demonstrate particular consideration of likely sensitive land uses. Sensitive land uses may include areas: <ul style="list-style-type: none"> <li>a) Where occupants are located for long periods of time (eg residences);</li> <li>b) That are frequented by children (eg schools and child care centres), and</li> <li>c) Where there are people with particular health problems (eg hospitals, aged care facilities)</li> </ul>
C11.	Applicants should locate proposed facilities at least 300 metres away from heritage conservation areas and heritage items and any of the following sensitive land uses: <ul style="list-style-type: none"> <li>a) Areas that are frequented by children (eg schools and child care centres); and</li> <li>b) Where there are people with particular health problems (eg hospitals, aged care facilities).</li> </ul>

## Heritage and Environment

Controls	
C12.	<p>Infrastructure proposed for areas of environmental significance (as defined in LIF Determination) require:</p> <ol style="list-style-type: none"> <li>Development consent under the LIF Determination and Council's planning instruments and policies;</li> <li>The applicant to have regard to avoiding or minimising the visual impact of any proposed facility on the heritage significance of adjacent/adjoining/ surrounding heritage items and conservation areas;</li> <li>The applicant is to provide a heritage report/impact statement in accordance with Council's planning instruments and policies;</li> <li>The applicant to have regard to avoiding or minimising the physical impact of any proposed facility on endemic flora and fauna; and</li> <li>For proposals within heritage conservation and/or special character areas consideration should be given to the impact of the proliferation of telecommunication facilities on the integrity of the heritage conservation and/or special character areas.</li> </ol>

## Facility physical design controls

Controls	
C13.	Infrastructure should be of high quality design and construction.
C14.	Proposals should consider the range of available alternate infrastructure including new technologies, to minimise unnecessary or incidental EMR emissions and exposures, as required under Section 5.2.3 of the ACIF Code.
C15.	The plan for the facility should include measures to restrict public access to the antenna(s). Approaches to the antenna(s) should contain appropriate signs warning of EMR and providing contact details for the facility(ies) owner/manager.
C16.	The minimum requisites that should apply where relevant are the BCA for purposes of construction and the relevant exposure levels as directed by the Australian Communications Authority (ACA). The applicant should provide Council with certification about the standards with which the facility will comply.

## Facility health controls

Controls	
C17.	The applicant is to demonstrate the precautions it has taken to minimise EMR exposures to the public
C18.	The applicant is to provide documentation to show that the proposed facility complies with the relevant Australian exposure standard as specified by the ACA
C19.	The applicant is to provide a mapped analysis of cumulative EMR effect of the proposal.

## C3 Vehicle and bicycle parking rates and bicycle storage facilities

### C3.1 Vehicle Parking

Council's car parking controls seek to limit car parking in locations that have good accessibility to public transport. This approach recognises that people will continue to use and depend on cars but this dependence reduces in more walkable neighbourhoods with good access to public transport.

Car parking needs to be accessible and convenient. It should also be designed so that it does not detract from the amenity of the streetscape.

#### Objectives

- O1. To identify the maximum number of car parking spaces that may be provided to service particular uses of land.
- O2. To provide less resident and visitor parking in localities that are identified as having good accessibility to public transport.
- O3. To minimise vehicular traffic generated by development.
- O4. To ensure parking areas do not detract from the streetscape.

#### General

##### Controls

C1.	Parking should not detract from the streetscape qualities, while meeting the needs of visitors and employees in the commercial areas.
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#### Car spaces

##### Controls

C2.	Parking spaces should be a minimum of 5.4m x 2.4m, with an additional 300mm either side where enclosed (i.e. 5.4m x 3.0m).
C3.	Car parking for people with disabilities should have a minimum dimension of 3.6m x 6m.

#### Residential

##### Controls

C4.	Car Parking is to be provided in accordance with Table C-B.
C5.	All visitor parking should be provided off-street and behind the front setback.
C6.	Visitor parking spaces should be conveniently located, identified as such, and accessible to the general public. They should not be located behind any security grill or gate.
C7.	Dedicated disabled parking spaces should be identified by a clearly visible sign with the international symbol of access for people with disabilities.
C8.	Dedicated disabled parking spaces should be located close to wheelchair accessible entrance lifts.
C9.	If relevant, objectives and controls in section E3.9 Parking and access also apply.



## Commercial

Controls	
C10.	Parking should not detract from the streetscape qualities, while meeting the needs of visitors and employees in the commercial areas.
C11.	On site car parking should be provided below ground or located within the building and well screened.
C12.	Vehicular access ways are designed to be integrated with the building and of minimum height and width.
C13.	Loading facilities should be provided in accordance with the current RTA "Guide to Traffic Generating Developments" and AS 2890.2.
C14.	The provision of parking for different types of development should be in accordance with Table C-C.
C15.	Development should be in accordance with the provisions of State Environmental Planning Policy (Infrastructure) 2007.

## Industrial

Controls	
C16.	All vehicles should be able to enter and leave the site in a forward direction.
C17.	Car parking areas are to be landscaped with trees and shrubs.
C18.	Separation of service areas (loading/unloading) and parking areas is required.
C19.	Development should be in accordance with the provisions of State Environmental Planning Policy (Infrastructure) 2007.
C20.	All loading and unloading operations should be carried out wholly within the confines of the site at all times.
C21.	Loading facilities should be provided in accordance with the current RTA "Guide to Traffic Generating Developments" and AS 2890.2.
C22.	All loading docks, car parking spaces and access driveways should be kept clear of goods at all times and should not be used for storage purposes including garbage storage.
C23.	Parking provision should be in accordance with Table C-D.

## Accessible Parking

### Controls

C24.	Parking provision should be in accordance with Table C-E.
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## Adaptable Housing

### Controls

C25.	Where a residential development provides adaptable housing units in accordance with this plan, one accessible car parking space should be provided for every adaptable unit. This is in addition to any accessible parking required by this DCP.
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## Credit for car parking in existing developments

### Controls

C26.	Council will apply the relevant car parking rate to the entire floor area for new developments and developments proposing substantial alterations and additions to existing buildings.
C27.	A credit will be provided for car parking spaces when calculating required parking numbers for developments involving a change of use of an existing building. The credit shall be calculated on the basis of the demand generated by the existing use that is proposed to be changed.
C28.	A credit for car parking spaces will be provided when calculating required parking numbers for developments involving minor alterations and additions to an existing building. The credit shall be calculated on the basis of the demand generated by the existing use carried out in the building that is proposed to be altered or extended.

## C3.2 Bicycle parking

### Objectives

- O1. To encourage the use of bicycles by residents, employees and visitors of Canada Bay for recreational use and as an alternative mode of transport.
- O2. To ensure that residential developments with more than 3 dwellings and non-residential developments, contain sufficient and adequate bicycle parking and storage facilities.
- O3. To ensure bicycle parking and storage facilities are designed and located to provide easy, convenient and safe access to buildings.
- O4. To ensure bicycle parking and storage facilities are designed and located to minimise conflict with pedestrians and other traffic.
- O5. To ensure that bicycle storage and parking facilities are provided at end of trip for cyclists

### Controls

C1.	Bicycle parking and storage facilities should be provided to allow parking or storage of a minimum number of bicycles, in accordance with Table C-F.
C2.	Bicycle parking should be made available to customers and staff

For all residential, commercial and industrial development, fractions should be rounded up in the calculation of the required number of spaces.

Council may waive the requirement for bicycle storage facilities for other non-residential development if it is satisfied that the requirement presents an unreasonable burden on the development.

References to areas are to gross floor area, unless stated otherwise.

## Other non-residential development

Controls	
C3.	Bicycle storage facilities may be provided as fully enclosed individual lockers (referred to in AS 2890.3 as Class 1 facilities) or as locked compounds (referred to in AS 2890.3 as Class 2 facilities), depending on the type of development and practicality of access to the facility. Compounds should be fitted with a sufficient number of devices to which stored bicycles can be secured (referred to in AS 2890.3 as Class 3 facilities). Bicycle storage facilities should be covered to provide weather protection. A private garage is deemed to be the equivalent of an individual locker space.
C4.	Showers and lockers should be provided close to secure bicycle storage facilities within new commercial and industrial developments.
C5.	Bicycle storage facilities should generally be designed in accordance with paragraph 2.2 of AS 2890.3.
C6.	Bicycle parking facilities on private land should be located so that the minimum clearance between a parked bicycle and the edge of a motor vehicle traffic lane is 600mm and 1000mm where the average traffic speed exceeds 60km/h.
C7.	Bicycle parking facilities should be located so that the minimum clearance (for a pedestrian pass) between a parked bicycle and any other obstruction is 1200mm.
C8.	Bicycle parking facilities should generally be designed in accordance with figure B3 in AS 2890.3. The provision of weather protection for bicycle parking is encouraged.
C9.	Access paths to bicycle storage or parking facilities should be provided so that the envelope shown in figure 3.1 in AS 2890.3 will fit when projected along the access path.
C10.	Where an access path to a bicycle storage or parking facility includes stairs, such stairs should include a bicycle wheeling ramp in accordance with figure 7.12 in the Austroads Guide to Traffic Engineering Practice (Part 14 Bicycles). The gradient of the ramp should not exceed 25%.
C11.	Unacceptable bicycle parking and storage facilities are facilities where: <ul style="list-style-type: none"> <li>a) Only a wheel can be secured but not the bicycle frame;</li> <li>b) The device does not provide stability for the bicycle and may result in damage to the bicycle; and</li> <li>c) The device has a slot in the ground which may get dirty and difficult to use over time.</li> </ul>
C12.	Directional signs advising the public of the location of bicycle parking and storage areas should be harmoniously designed and erected to assist both the facilitation and promotion of the use of these facilities.

**Table C-B Parking Requirements: Dwelling houses, Dual occupancies, Residential flat buildings, Multi dwelling housing and Shop top housing**

Dwelling houses, attached dual occupancies and detached dual occupancies	
Dwelling houses	Minimum of One (1) car parking space Maximum of Two (2) car parking spaces
Dual occupancies	Maximum One (1) car parking space per dwelling
Secondary dwellings	Nil space

Residential flat building, Multi-dwelling housing and residential component of shop top housing	
Maximum parking rates in B4 Mixed Use Zones	
Number of bedrooms	Number of car parking spaces
1 bedroom apartments	0.6 spaces
2 bedroom apartments	0.9 spaces
3 bedroom apartments	1.4 spaces
Visitors	1 space per 5 apartments

Minimum parking rates within 800 metres of a railway station and 400 metres of B3 Commercial Core and B4 Mixed Use zones	
Number of bedrooms	Number of car parking spaces
1 bedroom apartments	0.6 spaces
2 bedroom apartments	0.9 spaces
3 bedroom apartments	1.4 spaces
Visitors	1 space per 5 apartments

Minimum parking rates for all other areas	
Dwelling type/ size	Number of car parking spaces
Small dwelling	1 space
Medium dwelling	1.5 spaces
Large dwelling	2 spaces
Visitors	0.5 spaces per dwelling

Note: Any parking in excess of the above requirements will be counted as Gross Floor Area (GFA) (refer to definition in Canada Bay LEP). In calculating the total number of car parking spaces required for a development, the total should:

- a) Be rounded up if the fraction of the total calculation is equal or more than half (0.5 of a space); and
- b) Include a room that is capable of being converted to a bedroom where calculations involve multi dwelling housing and residential flat buildings.

**Table C-C Parking Requirements: Development in mixed use areas and Neighbourhood Centres**

Land use	Parking requirements
<b>Accommodation</b>	
Motels	1 space for each unit +1 space per 2 employees  if restaurant included then add the greater of: <ul style="list-style-type: none"> <li>• 15 spaces per 100m<sup>2</sup> GFA of restaurant/function room, or</li> <li>• 1 space per 3 seats</li> </ul>
Hotels	Comparisons should be drawn with similar developments
<b>Office and Business</b>	
Office Premises	1 space per 40m <sup>2</sup> GFA
Business Premises	1 space per 40m <sup>2</sup> GFA
<b>Retail</b>	
Shops	1 space per 40m <sup>2</sup> GLFA
Service stations and convenience stores	Requirements are additive: <ul style="list-style-type: none"> <li>• 6 spaces per work bay</li> <li>• 5 spaces per 100m<sup>2</sup> GFA of convenience store</li> </ul> If restaurant present, the greater of: <ul style="list-style-type: none"> <li>• 15 spaces per 100m<sup>2</sup> GFA, or 1 space per 3 seats</li> </ul>
Drive-in take-away food outlets	Developments with no on-site seating: 12 spaces per 100m <sup>2</sup> GFA Developments with on-site seating: 12 spaces per 100m <sup>2</sup> GFA or greater of: <ul style="list-style-type: none"> <li>• 1 space per 5 seats (internal and external), or</li> <li>• 1 space per 2 seats (internal)</li> </ul> Developments with on-site seating and drive through facilities greater of: <ul style="list-style-type: none"> <li>• 1 space per 2 seats (internal), or</li> <li>• 1 space per 3 seats (internal and external), plus queuing area for 5-12 cars</li> </ul>
Restaurants, Cafes, Take-away food & drink premises	Whichever is the greater of: <ul style="list-style-type: none"> <li>• 1 space per 6m<sup>2</sup> of serviced area, or</li> <li>• 1 space per 4 seats.</li> </ul> A parking free threshold of 20 seats and 30m <sup>2</sup> serviced area shall apply to all restaurants, cafes & take-away food and drink premises (to which this DCP applies) in B1 Neighbourhood Centre and B4 Mixed Use zones, excluding those in the areas listed below.  A parking free threshold of 40 seats and 60m <sup>2</sup> serviced area shall apply to restaurants in the following (commercial centres) B1 Neighbourhood Centre and B4 Mixed Use zones: <ul style="list-style-type: none"> <li>• Victoria Road, Drummoyne (inc. Lyons Rd to Bayswater Street)</li> <li>• Great North Road, Five Dock (excluding Wareemba/ Abbotsford)</li> <li>• Majors Bay Road, Concord</li> <li>• Parramatta Road, Concord (No B1 or B4 on Parramatta Rd)</li> <li>• Parramatta Road, Five Dock (No B1 or B4 on Parramatta Rd)</li> <li>• Concord Road, Concord West</li> <li>• Concord Road, North Strathfield</li> </ul> *Where variation to the above criteria is sought, refer to Additional Criteria below.

Land use	Parking requirements
Footpath Dining	Nil.
Residential	As per Table C-B
Car tyre retail outlets	Whichever is the greater of: <ul style="list-style-type: none"> <li>• 3 spaces per 100m<sup>2</sup> GFA, or</li> <li>• 3 spaces per work bay</li> </ul>
Roadside stalls	4 spaces
Markets	2.5 spaces per stall (customers only)
Video Stores	6.1 spaces per 100m <sup>2</sup> GFA
Pub	Comparisons should be drawn with similar developments
Vehicle Showrooms	0.75 spaces per 100m <sup>2</sup> site area + 6 spaces per work bay (for vehicle servicing facilities)
Drive-in liquor stores	Comparisons should be drawn with similar developments
Plant nurseries	Whichever is greater of: <ul style="list-style-type: none"> <li>• 15 spaces, or</li> <li>• 0.5 spaces per 100m<sup>2</sup> of site area</li> </ul>
<b>Recreational and Tourist Facilities</b>	
Recreational facilities <ul style="list-style-type: none"> <li>• Squash courts</li> <li>• Tennis courts</li> <li>• Bowling alleys</li> <li>• Bowling greens</li> <li>• Gymnasiums</li> </ul>	<ul style="list-style-type: none"> <li>3 spaces per court</li> <li>3 spaces per court</li> <li>3 spaces per alley</li> <li>30 spaces for first green + 15 spaces for each additional green</li> <li>7.5 spaces per 100m<sup>2</sup> GFA (desirable) 4.5 spaces per 100m<sup>2</sup> GFA (minimum)</li> </ul>
Marinas	If a survey of a similar existing development has not been undertaken, the following figures may serve as a general guide: <ul style="list-style-type: none"> <li>• 0.6 spaces per wet berth</li> <li>• 0.2 spaces per dry storage berth</li> <li>• 0.2 spaces per swing mooring</li> <li>• 0.5 spaces per marina employee</li> </ul>
<b>Health and Community Services</b>	
Health Consulting Rooms	Comparisons should be drawn with similar development
Medical centres	1 space for each medical practitioner, plus 1 space for each 2 non medical practitioner employees; plus 1 patient space for every 2 specialists.
Child care centres	1 space for every 4 children in attendance
Hospitals	Comparisons should be drawn with similar developments

Source: Based on RTA Guide to Traffic Generating Developments 2002

## Note:

1. Parking spaces, unless stipulated otherwise, are for cars and depending on land use type, parking for delivery/service vehicles, courier vehicles and bicycles should also be provided.
2. Parking free threshold: means an area expressed in both number of seats and serviced area up to which on-site parking does not need to be provided. The standard parking rate applies to any area and seats in excess of the threshold.
3. Serviced area: means the physical area within the restaurant or café which is accessible to the public, but excluding toilets and corridors. Areas such as the kitchen, or behind counters, or display areas should not be included as serviced area.
4. To calculate car parking requirements, applicants must establish the number of spaces required by the proposed development calculated from Tables C-B to C-E in Part C3. The threshold can then be subtracted from this figure and the balance provided.

5. Additional Criteria - Restaurants & Cafes In exceptional circumstances, Council may allow a variation to these requirements where it is demonstrated by the applicant that the proposed use would not have any adverse impacts on the surrounding residential amenity in relation to car parking availability.

To achieve this variation, the following criteria would need to be demonstrated to the satisfaction of Council:

A Parking Impact Study prepared by a qualified traffic consultant shall be provided by the applicant, which demonstrates that the shortfall of parking spaces created by the application is able to be accommodated within 200m (radius) of the subject site. The Parking Impact Study would need to provide the following:

- a) Total number of available spaces within 200m of the subject site;
- b) Parking availability within the study area over operating hours (including hours open for staff and customers);
- c) Demonstrate how the parking shortfall of the proposal can be satisfied by the available parking spaces identified in parts (a) and (b) above.
- d) Demonstrate that the amenity of the surrounding residential areas would not be adversely impacted by any additional on-street parking.

Note: Within the Study, the applicant may demonstrate alternative options as to how the proposed use/development mitigates potential impacts of additional car parking requirements. An example of how this may be achieved includes:

- Demonstrating that parking facilities associated with alternative time-of-day uses can be utilised for the use of the restaurant/café customers.

**Table C-D Parking Requirements: Development in Industrial Areas**

Land use	Parking requirements
<b>Industry</b>	
Factories	1.3 spaces per 100m <sup>2</sup> GFA
Warehouses	1.5 spaces per 100m <sup>2</sup> of total GLA.  1.8 spaces per 100m <sup>2</sup> gross leasable office/showroom area plus 1.2 spaces per 100m <sup>2</sup> of gross leasable factory/warehouse area (where information on components of development is available).
Bulky goods retail stores	Comparisons should be drawn with similar development
<b>Road Transport Facilities</b>	
Road Transport Terminals	Surveys should be undertaken of similar developments
Container depots	Surveys should be undertaken of similar developments
Truck stops	1 truck parking space per motel unit + 1 car space per 2 employees  For restaurant facilities, the greater of: <ul style="list-style-type: none"> <li>• 15 spaces per 100m<sup>2</sup> GFA, or</li> <li>• 1 space per 3 seats</li> </ul>
<b>Other</b>	
Caravan parks	1 space per caravan site

Source: Based on RTA Guide to Traffic Generating Developments 2002



**Table C-E Accessible Parking Requirements**

BCA Classification of the building to which the parking is associated	Parking Requirements Number of spaces required (Table D3.5 of the BCA)
<b>Class 3</b>	
Boarding houses, guest houses, hostel, backpackers accommodation, or the residential part of a hotel or motel	To be calculated by multiplying the total number of car parking spaces by the: <ul style="list-style-type: none"> <li>a) Percentage of accessible sole-occupancy units to the total number of sole-occupancy units; or</li> <li>b) Percentage of beds to which access for people with disabilities is provided to the total number of beds provided.</li> </ul> <p>The calculated number to be taken to the next whole figure.</p> <p>1 space for every 100 car parking spaces or part thereof</p>
<b>Class 5, 7, 8 and 9c</b>	
	1 space for every 100 car parking spaces or part thereof
<b>Class 6</b>	
a) up to 1000 car parking spaces; and b) for each additional 100 car parking spaces or part thereof in excess of 1000 car parking spaces	1 space for every 50 car parking spaces or part thereof 1 space
<b>Class 9a</b>	
(a) Hospital (non-outpatient area)	1 space for every 100 car parking spaces or part thereof
(b) Hospital (outpatient area)	1 space for every 50 car parking spaces or part thereof
up to 1000 car parking spaces; and for each additional 100 car parking spaces or part thereof in excess of 1000 car parking spaces	1 space
Nursing home	1 space for every 100 car parking spaces or part thereof
Clinic or day surgery not forming part of a hospital	1 space for every 100 car parking spaces or part thereof
<b>Class 9b</b>	
(a) School	1 space for every 100 car parking spaces or part thereof
(b) Other assembly buildings	1 space for every 50 car parking spaces or part thereof
up to 1000 car parking spaces; and for each additional 100 car parking spaces or part thereof in excess of 1000 car parking spaces	1 space

Source: Based on RTA Guide to Traffic Generating Developments 2002

**Table C-F Bicycle Parking and Storage Requirements**

<b>Residential development (including boarding houses and serviced apartments)</b>		
Development type	Bicycle storage facility	Bicycle parking facility
Residential development with 3 or more dwellings	1 space for every dwelling	1 space for every 12 dwellings (minimum 1 space)
Other development providing longer term residential accommodation such as boarding houses and serviced apartments	1 space for every 4 lodgings/apartments	1 space for every 16 lodgings/apartments

<b>Commercial and industrial development</b>		
Development type	Bicycle storage facility	Bicycle parking facility
Cafe		1 per 25m <sup>2</sup> public area
Consulting Rooms	1 per 8 practitioners	1 per 4 practitioners
Hotel		1 per 25m <sup>2</sup> bar floor area and 1 per 100m <sup>2</sup> lounge or beer garden
Heavy Industry	1 per 150m <sup>2</sup>	See note 2
Light Industry	1 per 100m <sup>2</sup>	See note 2
Motel	1 per 40 rooms	See note 2
Office/Commercial	1 per 200m <sup>2</sup>	1 per 750m <sup>2</sup>
Restaurant	1 per 100m <sup>2</sup> public area	2 per restaurant
Shop	1 per 300m <sup>2</sup>	1 per 500m <sup>2</sup>
Showroom	1 per 750m <sup>2</sup> sales area	1 per 1000m <sup>2</sup> sales area

**Note:**

1. The above requirements only apply to new commercial and industrial developments. They do not apply to developments which are changes of use or which are extensions of existing development or which could have been undertaken as Exempt or Complying development but for criteria such as heritage listing and the like.
2. Where the table does not provide a standard, the Council will make an assessment of the required number of spaces based on:
  - a) Expected number of employees, and their likely or desired use of bicycles for travel to and from work; and
  - b) Expected number of visitors, and their likely or desired use of bicycles to visit the development.

## C4 Waste Management

### Objectives

- O1. Assist in achieving Federal and State Government waste minimisation targets in accordance with regional waste plans.
- O2. Minimise overall environmental impacts of waste and foster the principles of ecologically sustainable development (ESD).
- O3. Facilitate source separation and provide design standards that complement waste collection and management services offered by Council and private service providers.

### C4.1 General Controls

Controls	
C1.	On site storage for waste and recycling facilities must be provided in designated areas for all new developments. The minimum storage space required is to be based on 120 litres of garbage and recycling generated per unit per week. The area should be located so as not to cause offence to adjoining property owners or occupiers with regard to smell, visual appearance, noise disturbance and traffic.
C2.	Source separation facilities and containers shall be provided in kitchens for waste to be divided into separate waste streams to encourage the composting and recycling of materials.
C3.	Common composting facilities should be provided at accessible locations away from dwellings to every residential development for garden waste and organic kitchen waste.
C4.	Consideration should be given to bin storage space for garden organics that are not able to be composted on site ie. thick branches as garden organics cannot be disposed of in Council serviced garbage bins.

C5.	Source separation facilities shall be provided on building sites so that different waste streams may be easily separated during construction and demolition to encourage the re-use and recycling of materials. The source separation facilities are to be clearly indicated on the drawings. Tipping docket for disposal and recovery of all wastes are required to be held on site during this phase and are subject to auditing and/or inspection by Council.
C6.	In the design of buildings waste should be minimised by: <ul style="list-style-type: none"> <li>• Matching building dimensions to standard sizes of building materials;</li> <li>• Using recycled materials;</li> <li>• Selecting materials that can be re-used or recycled in the future; and</li> <li>• Utilising component parts that may be easily replaced.</li> </ul>
C7.	Plans and drawings of the proposed development that highlight the location of and space allocated to the waste management facilities and the nominated waste collection point must be included in the Waste Management Plan. The path of access for both users and collection vehicles must also be highlighted.

### C4.2 Single Dwellings and Dual Occupancies

Controls	
C1.	Residential development are to provide storage space for garbage, recyclables, and garden organics in accordance with the following: <p>Allocated 1x 120L Garbage Bin (1 per dwelling), 1 x 240L Recycling Bin (1 per dwelling) and 1 x 240L Garden Organics (1 per dwelling).</p>

### Space Dimensions for Garbage Bins

	Height	Width	Depth
<b>120 L</b>	980mm	500mm	540mm
<b>240 L</b>	1140mm	580mm	715mm

#### Controls

C2.	Space must be allocated within each property boundary behind the building line for storing Council specified waste and recycling bins.
C3.	The garbage/recycling storage area shall be constructed of brick or other approved masonry material, have a concrete floor at appropriate level approved by Council and be suitably graded to allow drainage.

## C4.3 Multi Dwelling Residential Development

#### Controls

C1.	<p>Residential developments are to provide storage space for garbage, recyclables and garden organics in accordance with the following:</p> <p>Allocated 1x 240L Garbage Bin (per 2 residential units), 1 x 240L Recycling Bin (per 2 residential units) and 1 x 240L Garden Organics (per 10 residential units up to a maximum of 20 residential units): and</p> <p>Above 20 units on application to Council.</p>
C2.	In multi-dwelling residential development containing 20 or more dwellings, a bulk garbage and recycling collection service is required. Council supplies 660 ltr bulk recycling and garbage bins. Provision must be made for waste collection vehicles to enter and service all bins on site. Bins cannot be presented on the pedestrian footpath for servicing.

C3.	Garbage chutes are required for all buildings more than 3 storeys in height. All garbage chutes are required to discharge into a compaction unit. Compaction units shall not compact above the ratio of 2:1. Consideration should be given to a chute system that is able to be adapted in the future or space allocated for an additional chute system to be installed, to accept recyclables. It is anticipated that future improvements in resource recovery technologies will allow recyclables to be recovered via a chute system.
C4.	Garbage chute outlets must discharge into the central waste and recycling room. The building caretaker should not be required to transfer waste from one side of the building to the other in order to get it from the chute outlet to the waste and recycling room. All transferring of waste from the central waste and recycling room to the collection point must occur underground.

### Spatial requirements

#### Controls

C5.	Space must be allocated and a receptacle supplied inside each unit for waste and recycling, each with the capacity to store 2 days' worth of waste and recycling.
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### Waste Service compartments

#### Controls

C6.	In buildings where a chute system is required to be installed, a waste service compartment must be provided on each floor to contain the garbage chute hopper and at a minimum, storage space for 2 days recyclables per unit (34 ltrs) generated on that floor.
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C7.	The waste service compartment must have enough space to allow easy use of the chute hopper and manoeuvring of no more than 2 x 240 litre recycling bins. Doors should open outwards to allow maximum storage unless prevented by BCA requirements.
C8.	The space required to collect recyclables within the service compartment will depend upon the number of units on each floor and how frequently the recyclables are transferred to the waste and recycling room. It is recommended that recyclables are transferred daily, however this arrangement will only work when there is a full-time cleaner or maintenance person employed and they are instructed to empty recycling from waste compartment rooms. A service elevator should be considered.

### Centralised garbage and recycling room

#### Controls

C9.	A centralised waste and recycling room must be provided in an area that is accessible to the users and easy for servicing. The waste and recycling room must be located within the underground carpark or basement. The clearance to the garbage room must be no less than 3.8 m high to allow waste collection vehicles to service bins on site. Waste collection vehicles must move in a forward direction at all times. Where it is not possible to provide this level of access for waste collection vehicles, an alternate area will be required for bin servicing and/or storage. The alternate area must be located on the property boundary line, have a layback of suitable size and be constructed to accommodate collection vehicles. For OH & S reasons access to the alternate servicing/storage room for servicing shall be from the layback to ensure bins are serviced with minimal handling.
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C10.	In high rise residential developments where there is a full time caretaker on site, it is advisable that access to waste facilities by residents is limited to only the service compartments located on each floor, and the bulky items storage area. This is to help prevent contamination of recycling bins. Council will not collect recycling bins that are contaminated with unacceptable materials.
C11.	A room or caged area must be allocated for the storage of discarded bulky household items awaiting collection and should be incorporated within the waste and recycling room. The space shall be adequate in size to meet the needs of the residents and shall be divided into sections ie. metals, e-waste, mattresses to maximise resource recovery. The ongoing management of disposal/recovery of these items is to be addressed in the waste management plan. The allocated space must be a minimum of 5m <sup>3</sup> . Consideration should be given to allocating space for a charity clothing bin, as well as printer cartridge, toner bottle and mobile phone recovery bins as these items are able to be recovered by the private sector at no charge. Implementation of these types of recovery options will reduce the overall waste generated in these development sites.

### Residential amenity

#### Controls

C12.	Residential dwellings must be adequately insulated from noise and smell if they are adjacent to or above: <ul style="list-style-type: none"> <li>• chutes or waste storage facilities, or</li> <li>• chute discharge, or</li> <li>• waste compaction equipment, or</li> <li>• waste collection vehicle access points.</li> </ul>
C13.	Where possible, chutes should not be situated adjacent to habitable rooms due to the noise from hopper use and waste falling down the shaft.

## Waste Management

Controls	
C14.	The Waste Management Plan must describe how the waste management system will work and who is responsible for the transfer of waste and recycling for each stage of the process.
C15.	Signage in waste storage compartments must encourage residents to wrap garbage prior to placement in chutes, specify that no dangerous or bulky items be placed in chutes and provide information about what is acceptable in the recycling system.

### C4.4 Controls for Mixed Use Developments

Controls	
C1.	Where a development mixes residential with commercial uses, the waste handling, storage and collection system for residential waste (from the residential area) and commercial waste (from the commercial area) are to be completely separate and self-contained. They must have separate keys and locking systems.
C2.	The Waste Management Plan prepared for a mixed use development must identify the collection points and management systems for both residential and commercial waste streams.
C3.	The waste handling and management system for each component of the mixed development must comply with the relevant provisions of this DCP (eg. Separate residential and commercial collection areas).
C4.	Sufficient space must be allocated in each waste and recycling storage room to store the amount of waste likely to be generated in each respective part of the development.

C5.	Each waste and recycling room must be located in an area that is easily accessible for waste services collection vehicles and convenient to the users.
C6.	Measures must be taken to ensure that noise and odour from the commercial waste facilities does not impact on residents.
C7.	Commercial tenants in a mixed development must be actively discouraged from using the residential waste facilities.
C8.	The waste storage and recycling area shall be designed to enable each separately tenanted or occupied area within the building or complex to be provided with a designated and clearly identified space for the housing of sufficient commercial bins to accommodate the quantity of waste and recycling material likely to be generated.

### Commercial/Industrial Premises

Controls	
C9.	A waste and recycling room must be provided on each floor level within a retail development. The waste and recycling area must have the capacity to store at least one (1) day's volume of waste and recycling likely to be generated on that floor level. Refer to Table C-G for waste generation rates.
C10.	Material from the waste and recycling room must be transferred to the centralised waste and recycling room or holding area daily or more frequently, as required.
C11.	If more than 10m <sup>3</sup> of non-compacted waste and recycling is calculated to be generated per day (as described in the Waste Management Plan), the central waste and recycling room must be separate from the goods receivable dock or service vehicle bay area.

Controls	
C12.	The waste and recycling area should be flexible in design so as to allow for a variety of bin sizes and types and future changes in the use of the commercial/ industrial units.
C13.	The waste collection area shall be covered, drained to the sewer as per a Sydney Water Trade Waste Agreement and may need bunding depending on the material to be stored within the area.
C14.	All development applications involving demolition or construction are to be accompanied by a completed Waste Management Plan.  A Waste Management Plan form may be obtained from Council's website or Council's Customer Service Centre.
C15.	Sufficient space shall be provided on-site for waste separation.
C16.	A well designed and located waste storage and recycling area and/or garbage and recycling room shall be provided on-site.
C17.	Clear access for staff and collection services is to be provided.
C18.	Facilities are to be carefully sited and well designed to not have an adverse impact on adjoining premises or amenity.
C19.	Where multiple occupancy (such as a suite of shops or an office complex) is proposed, communal facilities may be appropriate, particularly where: <ul style="list-style-type: none"> <li>a) The design makes it difficult for all units to have access to a collection point; or</li> <li>b) Site characteristics restrict entry of vehicles.</li> </ul>
C20.	The waste storage and recycling area shall have a concrete floor, suitably graded to allow drainage and be designed to enable each separately tenanted or separately occupied area within the building or complex to be provided with a designated and clearly identified space for commercial waste containers.
C21.	The waste storage and recycling area should be sited to allow easy vehicular access (preferably from the rear of the property) and opportunities for screen landscaping.
C22.	A building containing more than three storeys shall be provided with an acceptable method for transporting waste from each level to a garbage and recycling room. Space must be provided on each floor for temporary storage of waste material and recyclables. Ongoing management should be detailed in the Waste Management Plan.
C23.	For offices and commercial premises, particular attention should be paid to paper, cardboard, glass, aluminium, steel and plastic (1-7) recycling, with source separation at the waste storage and recycling area or garbage and recycling room.
C24.	For restaurants and other premises which deal with perishable food stuffs, special attention should be paid to food scrap generation. Specialised containment should be provided and a regular/daily collection service arranged.
C25.	Refrigerated garbage rooms should be provided when large volumes, perishables (such as seafood) and infrequent collection is proposed.
C26.	Grease traps must be provided, where appropriate. Contact should be made with Sydney Water to obtain their trade waste requirements.

C27.	Where special waste material is to be generated by professional services such as but not limited to medical centres, dentists and aged care facilities, special arrangements will be required which should be detailed in the Waste Management Plan.
C28.	Commercial developments are to provide storage space for garbage and recyclables in accordance with Table C-G below.

**Table C-G Waste generation rates for Mixed Use Areas and Neighbourhood Centres**

Type of premises	Waste generation	Recycling generation
Backpackers accomodation	40L/occupant/week	20L/occupant/week
Boarding house, guest house	60L/occupant/week	20L/occupant/week
<b>Food Premises</b>		
Butcher	150L/100m <sup>2</sup> floor area/day	120L/100m <sup>2</sup> floor area/day
Delicatessen	150L/100m <sup>2</sup> floor area/day	120L/100m <sup>2</sup>
Fish shop	150L/100m <sup>2</sup> floor area/day	120L/100m <sup>2</sup> floor area/day
Greengrocer	240L/100m <sup>2</sup> floor area/day	120L/100m <sup>2</sup> floor area/day
Restaurants	10L/1.5m <sup>2</sup> floor area/day	2L/1.5m <sup>2</sup> floor area/day dining
Supermarket	240L/100m <sup>2</sup> floor area/day	240L/100m <sup>2</sup> floor area/day
Takeaway	150L/100m <sup>2</sup> floor area/day	120L/100m <sup>2</sup> floor area/day
Hotel	5L/bed/day 50L/100m <sup>2</sup> /bar area/day 10L/1.5m <sup>2</sup> of dining area/day	120L/100m <sup>2</sup> /of bar and dining areas/day
Licensed club	50L/100m <sup>2</sup> of bar area/day 10L/1.5m <sup>2</sup> of dining area/day	120L/100m <sup>2</sup> of bar and dining areas/day
Motel (without public restaurant)	5L/bed/day 10L/1.5m <sup>2</sup> of dining area/day	1L/bed/day
Offices	10L/100m <sup>2</sup> floor area/day	40L/100m <sup>2</sup> floor area/day
<b>Retail (other than food sales)</b>		
Shop less than 100m <sup>2</sup> floor area	50L/100m <sup>2</sup> floor area/day	25L/100m <sup>2</sup> floor area/day
Shop over 100m <sup>2</sup> floor area	50L/100m <sup>2</sup> floor area/day	50L/100m <sup>2</sup> floor area/day
Showrooms	40L/100m <sup>2</sup> floor area/day	10L/100m <sup>2</sup> floor area/day



## C5 Preservation of trees and vegetation

### C5.1 Pruning and removal of trees

#### Objectives

- O1. The aim of the DCP is to conserve and enhance the treescape and environmental amenity of the City of Canada Bay.

Controls											
C1.	<p>A person must not ringbark, cut down, top, lop, remove, injure or wilfully destroy any tree or other vegetation to which this development control plan applies if:</p> <p>a) The tree has a height of, or greater than, four (4) metres;</p> <p>b) The tree has a trunk girth of, or greater than, 500mm at any point; or</p> <p>c) The tree is a cycad or mangrove, irrespective of its dimensions without a permit granted by the Council.</p>										
C2.	<p>If the tree or other vegetation is or forms part of a Heritage Item or is within a Heritage Conservation Area, then development consent is required.</p>										
C3.	<p>Exemptions: A person will be exempt from the prohibition stated in C1 above with respect to particular tree works if Council establishes that:</p> <p>a) The tree was dead or that the works were limited to the removal of dead branches;</p> <p>b) The tree was one of the following exempt species (provided the tree is not listed as a Heritage Item in an environmental planning instrument – in which case the prohibition applies):</p> <table border="1"> <tbody> <tr> <td>Alnus jorullensis</td> <td>Evergreen Alder</td> </tr> <tr> <td>Bambusa spp</td> <td>Bamboo</td> </tr> <tr> <td>Celtris occidentalis</td> <td>Sugarberry</td> </tr> <tr> <td>Erythrina x sykesii</td> <td>Indian Coral</td> </tr> <tr> <td>Erythrina crista-galli</td> <td>Coral Tree</td> </tr> </tbody> </table>	Alnus jorullensis	Evergreen Alder	Bambusa spp	Bamboo	Celtris occidentalis	Sugarberry	Erythrina x sykesii	Indian Coral	Erythrina crista-galli	Coral Tree
Alnus jorullensis	Evergreen Alder										
Bambusa spp	Bamboo										
Celtris occidentalis	Sugarberry										
Erythrina x sykesii	Indian Coral										
Erythrina crista-galli	Coral Tree										

Ficus elastica	Rubber Tree
Ligustrum spp	Privet
Nerium oleander	Oleander
Olea Africana	African olive
Populus spp	Poplar
Salix spp	Willow
Schefflera spp	Umbrella Tree
Syagrus romanzoffianum	Queen/Cocos Palm
Toxicodendron spp	Rhus Tree
Cinnamomum camphora (Camphor Laurel) or Liquidamber spp (Liquidamber) where the outside edge of the trunk of such tree is located within 3 metres of any single storey dwelling (not being an out building eg. Garage, carport, shed, etc).	Camphor Laurel or Liquidamber
A fruit tree grown for the purposes of fruit or fodder production except Acmena spp (Lilly Pilly), Syzygium spp (Lilly Pilly) or Elaeocarpus spp (Blueberry Ash).	Lilly Pilly or Blueberry Ash
c) The tree is a declared noxious weed in the local government area of the City of Canada Bay under the Noxious Weed Act 1993; and	
d) The tree works were limited to the maintenance of a minimum clearance of five hundred (500) millimetres from domestic service leads as specified by Energy Australia, provided that the works were carried out by a qualified or experienced Arborist or Tree surgeon, in accordance with the Australian Standards for the Pruning of Amenity Trees AS 4373-1996.	

Note: Definitions for Council, Injuring, Removal/Cutting down and Tree are contained within Part J of this DCP.

## C5.2 Assessment of trees

### Objectives

- O2. Providing a guide to the regulatory framework for the preservation of trees;
- O3. Helping in establishing a coordinated approach to the assessment and management of trees.

#### Controls

C1.	<p>Council may issue a permit or development consent for the removal of tree(s) if the following criteria are met:</p> <ul style="list-style-type: none"> <li>a) The tree is a poor specimen and is in decline and or inappropriate for the location;</li> <li>b) The tree has caused significant structural damage and supporting documentation is provided i.e. structural engineer's report; and</li> <li>c) It can be demonstrated that there is an on-going problem with the tree and no other course of action will rectify the problem.</li> </ul>
C2.	<p>Council may issue a permit or development consent for the pruning of tree(s) if the following criteria are met:</p> <ul style="list-style-type: none"> <li>a) The tree(s) have structural defects and or disease and remedial pruning (to AS 4373-1996), will improve the health of the tree; and</li> <li>b) The tree(s) require crown thinning (no reduction in height permitted) to reduce weight within the tree if the tree is overhanging property or for other areas deemed appropriate i.e. access issues etc. A percentage no greater than 15% is generally issued.</li> </ul> <p>In some circumstances it may be necessary for you to supply, at your cost, an independent arborist's, structural, plumber's and or pest report. A comprehensive report must meet the criteria as outlined in Council's Guidelines for the Preparation of Reports available from Council. The Tree Management Officer will determine if such reports are necessary and such circumstances may include those where there is the possibility that the tree has been deliberately tampered with or extra supporting information is needed.</p>

## Emergency Procedures

#### Controls

C3.	<ul style="list-style-type: none"> <li>a) Where a tree(s) pose a potential hazard to property, the applicant should identify this on the application form. Council may expedite the assessment. No responsibility shall be taken by Council should a tree fail and cause damage or injury prior to inspection and the issue of the Tree Preservation Permit;</li> <li>b) Emergency Permits may be issued to applicants if deemed necessary by Council's Tree Management Officer(s); and</li> <li>c) In respect of potential hazard situations, tree problems do not usually occur in the short term, (except in the event of physical/mechanical damage i.e. storm activity etc)</li> </ul>
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## C5.3 Canada Bay tree species

**Table C-H Native trees**

Native Trees	Common Name	Size, Foliage, Fruit, Indigenous	Private Gardens	Small Gardens	Parks	Streets/ Carparks
<i>Acacia falcata</i>	Sickle Wattle	4m, evergreen, indg.	Yes	Yes	Yes	
<i>Acacia fimbriata</i>	Fringed Wattle	7m, evergreen	Yes	Yes	Yes	
<i>Acacia floribunda</i>	Sally Wattle	7m, evergreen, indg.	Yes	Yes	Yes	
<i>Acacia longifolia</i>	Sydney Golden Wattle	5m, evergreen, indg.	Yes	Yes	Yes	
<i>Acacia melanoxylon</i>	Blackwood	7-15m, evergreen	Yes		Yes	
<i>Acacia prominens</i>	Gosford Wattle	8m, evergreen, indg.	Yes	Yes	Yes	
<i>Acacia parramattensis</i>	Sydney Wattle Green	9m, evergreen, indg.	Yes	Yes	Yes	
<i>Acmena smithii</i>	Lilly Pilly	6-10m, evergreen, indigenous	Yes		Yes	Yes
<i>Acmena smithii</i> <i>vaminor</i>	Dwarf Lilly Pilly	7m, evergreen, indg.	Yes	Yes	Yes	Yes
<i>Allocasuarina littoralis</i>	Black She-oak	10m, evergreen, slender shape, indg.	Yes	Yes	Yes	Yes
<i>Angophora costata</i>	Angophora, Sydney Red Gum	15m, evergreen, indg.	Yes		Yes	Yes
<i>Archontophoenix cunninghamiana</i>	Bangalow Palm	5-8m, palm	Yes	Yes	Yes	
<i>Backhousia myrtifolia</i>	Grey Myrtle	5-8m, evergreen	Yes	Yes	Yes	
<i>Banksia integrifolia</i>	Coastal Banksia	5-8m, evergreen, indg.	Yes	Yes	Yes	Yes
<i>Banksia serrata</i>	Old Man Banksia	5m, evergreen	Yes	Yes	Yes	Yes
<i>Brachychiton acerifolium</i>	Illawarra Flame Tree	10m, deciduous, Indigenous	Yes		Yes	
<i>Callicoma serratifolia</i>	Black Wattle	8m, evergreen, indg.	Yes	Yes	Yes	
<i>Callistemon viminalis</i>	Weeping Bottlebrush	5m, evergreen	Yes	Yes	Yes	Yes
<i>Callistemon salignus</i>	Willow Bottlebrush	5-7m, evergreen, indg.	Yes	Yes	Yes	
<i>Callitris rhomboidea</i>	Port Jackson Pine	8m, evergreen, indg.	Yes	Yes	Yes	
<i>Cassine australis</i>	Red Olive Berry	5-7m, evergreen	Yes	Yes	Yes	
<i>Casuarina cunninghamiana</i>	River She-oak	10m, evergreen			Yes	Yes
<i>Elaeocarpus reticulatus</i>	Blueberry Ash	10m, evergreen indg.	Yes	Yes	Yes	
<i>Ehretia acuminata</i>	Koda	7-10m, rainforest tree	Yes	Yes	Yes	
<i>Eucalyptus botryoides</i>	Mahogany	20m, evergreen			Yes	Yes
<i>E. ficifolia</i>	Red Flowering Gum	8m, evergreen	Yes	Yes	Yes	Yes
<i>E. haemastoma</i>	Scribbly Gum	12m, evergreen, indg.	Yes		Yes	Yes
<i>E. leucoxylon roseri</i>	Yellow Gum	10-12m, evergreen	Yes	Yes	Yes	Yes
<i>E. maculata</i>	Spotted Gum	20m, evergreen			Yes	Yes
<i>E. sideroxylon</i>	Ironbark	15m, evergreen			Yes	Yes
<i>Ficus macrophylla</i>	Moreton Bay Fig	35m, evergreen			Yes	

Native Trees	Common Name	Size, Foliage, Fruit, Indigenous	Private Gardens	Small Gardens	Parks	Streets/ Carparks
<i>Ficus rubignosa</i>	Port Jackson Fig	20m, evergreen			Yes	
<i>Flindersia australis</i>	Austr. Teak	20m, evergreen			Yes	Yes
<i>Howea forsterana</i>	Lord Howe Island Palm	5m, palm	Yes	Yes	Yes	
<i>Hymenoporum flavum</i>	Native Frangipani	8m; evergreen, flowers	Yes	Yes	Yes	Yes
<i>Leptospermum laevigatum</i>	Coastal Tea Tree	7m, evergreen	Yes	Yes	Yes	
<i>Livistona australis</i>	Cabbage Palm	7m, palm	Yes	Yes	Yes	
<i>Lophostemon confertus</i>	Brush-Box	10m, evergreen			Yes	Yes
<i>Macadamia integrifolia</i>	Macadamia	7m, evergreen	Yes	Yes	Yes	
<i>Melia azedarach</i>	White Cedar	7-10m, deciduous	Yes	Yes	Yes	Yes
<i>Melaleuca armillaris</i>	Honey Myrtle	4m, evergreen	Yes	Yes	Yes	Yes
<i>M. linariifolia</i>	Snow in Summer, Ball Honey Myrtle	4m, evergreen	Yes	Yes	Yes	Yes
<i>M. nodosa</i>		3m, evergreen	Yes	Yes	Yes	
<i>M. quinquinervia</i>	Swamp Paperbark	10m, evergreen	Yes		Yes	
<i>M. squarrosa</i>	Scented Paperbark	10m, evergreen	Yes	Yes	Yes	
<i>M. styphelioides</i>	Prickly Paperbark	12m, evergreen	Yes		Yes	Yes
<i>Omalanthus populifolius</i>	Bleeding Heart	5m, evergreen	Yes	Yes	Yes	Yes
<i>Pittosporum undulatum</i>	Sweet Pittosporum	8m, evergreen			Yes	Yes
<i>Polyscias elegans</i>	Celery Wood	8-10m, rainforest tree	Yes	Yes	Yes	
<i>Syzygium leumanhii</i>	Riberry	8m, evergreen, rainforest tree	Yes	Yes	Yes	
<i>Tristaniopsis laurina</i>	Water Gum	6-7m, evergreen	Yes		Yes	Yes

Table C-1 Exotic trees

Exotic Trees	Common Name	Size, Foliage, Fruit, Indigenous	Private Gardens	Small Gardens	Parks	Streets/ Carparks
<i>Acer palmatum</i>	Japanese Maple	5m, deciduous	Yes	Yes	Yes	
<i>Agonis flexuosa</i>	Willow Myrtle	5-7m, evergreen	Yes		Yes	Yes
<i>Bauhinia blakeana</i>	Orchid Tree	7m, evergreen	Yes	Yes	Yes	
<i>Caesalpinia ferrea</i>	Leopard Tree	10m, open crown	Yes	Yes	Yes	
<i>Cercis siliquastrum</i>	Judas Tree	15m, deciduous	Yes		Yes	Yes
<i>Citrus limon</i> <i>Citrus X tangelo</i> <i>Citrus aurantium</i>	Lemon Tree Tangelo Tree Orange Tree	3-5m, evergreen	Yes	Yes		
<i>Ginkgo biloba</i>	Maidenhair Tree	10-15m, deciduous	Yes		Yes	Yes
<i>Gleditsia triacanthos</i> sunburst	Honey Locust	15-25m, deciduous			Yes	Yes
<i>Jacaranda mimosifolia</i>	Jacaranda	7-10m, deciduous in spring, purple flowers	Yes		Yes	Yes
<i>Lagerstroemia indica</i>	Crepe Myrtle	7m, deciduous	Yes	Yes	Yes	Yes
<i>Liquidambar styraciflua</i>	Liquidambar	15-20m, deciduous	Yes	No	Yes	Yes
<i>Litchi chinensis</i>	Lychee	7m, evergreen, fruit	Yes	Yes	Yes	
<i>Magnolia denudata</i>	Magnolia	10m, deciduous	Yes	Yes	Yes	
<i>Magnolia grandiflora</i>	Magnolia	15m, wide crown	Yes		Yes	Yes
<i>Malus floribunda</i>	Crab Apple	5m, deciduous, fruit	Yes	Yes		
<i>Morus rubra</i>	Mulberry	5m, deciduous, fruit	Yes	No	Yes	
<i>Olea europaea</i>	Olive	5m, evergreen, fruit	Yes	Yes	Yes	
<i>Paulownia Tomentosa</i>	Butterfly Tree	10m, deciduous	Yes	Yes	Yes	
<i>Pistacia chinensis</i>	Chinese Pistachio	15m, deciduous	Yes	Yes	Yes	Yes
<i>Platanus orientalis</i>	Plane Tree	35m, deciduous			Yes	Yes
<i>Platanus x hybrida</i>	London Plane	15-25m, deciduous, hardy	Yes		Yes	Yes
<i>Plumeria rubra</i>	Frangipani	3-5m, deciduous	Yes	Yes	Yes	
<i>Robinia pseudoacacia</i>	Black Locust	12m, deciduous, white fragrant flowers	Yes		Yes	
<i>Sapium sebiferum</i>	Chinese Tallow Tree	7m, deciduous	Yes	Yes	Yes	Yes
<i>Schinus molle</i>	Peppercorn Tree	12m, evergreen	Yes		Yes	
<i>Ulmus parvifolia</i>	Chinese Elm	10m, deciduous	Yes		Yes	Yes
<i>Washingtonia filifera</i>	Cotton Palm	10m, palm	Yes	Yes	Yes	

## C6 Engineering Requirements for Development

### C6.1 Engineering works

Council has adopted a separate Civil Infrastructure Works Policy and Engineering Technical Specification which aims to provide engineering requirements for the following:

- Road and Footpath Works
- Vehicular Access
- Stormwater Management

Council requires that all future public infrastructure, development and building works within the Canada Bay Local Government Area comply with the Engineering Technical Specification to ensure that developments and construction of public domain areas are undertaken to acceptable standards.

A full copy of the Engineering Technical Specifications is provided as Attachment 2.

### C6.2 Objectives

#### Road and Footpath Works

##### Objectives

- O1. To provide adequate engineering standards for public domain areas, public road reserves and private access roads.
- O2. To ensure that there is a benefit to the public resulting from development and the result is that the public is catered for by uniform infrastructure. Such infrastructure includes the road carriageway, footway, footpath, pavement, kerb and gutter, street trees, utility services, ancillaries and the like.

#### Vehicular Access

##### Objectives

- O3. To ensure uniformity in the design and construction of vehicular crossings in the City of Canada Bay Local Government Area.
- O4. To ensure that safe and convenient vehicular access can be provided to and from parking spaces for all properties.

#### Stormwater Management

##### Objectives

- O5. To provide uniform guidelines and apply control systems to achieve consistency, in the assessment and conditioning of development applications, in relation to stormwater runoff from all development types.
- O6. To minimise any adverse impact on properties caused by stormwater runoff from all development types.
- O7. To ensure that the water quality of receiving waterways is not adversely affected by the discharge of pollutants such as nutrients and pathogens, from stormwater runoff as a result of development.
- O8. To ensure that uniform stormwater controls are applied throughout the whole of the City of Canada Bay Council Local Government Area.

## C7 Flooding Control

### C7.1 Introduction

Flooding can be a significant issue that affects people and development in some areas of the City of Canada Bay. The hazard can vary through a wide range over short distances and should be assessed on a location by location basis.

This Section establishes Council's approach to flood related development control for the whole LGA. Council's approach to flooding is based on the requirements of the New South Wales Government's Flood Prone Land Policy and Floodplain Development Manual as amended (FDM 2005).

Different controls are applicable depending on the land use, level of potential flood inundation and flood hazard category.

### C7.2 Relationship to other documents

In areas where Council has adopted a Flood Study or Floodplain Risk Management Study or Floodplain Risk Management Plan that sets a flood planning area and freeboards, these will take precedence over the following DCP controls where there is any inconsistency.

### C7.3 Land to which this Flood Control clause applies

This section applies to:

- Land which is shown as 'Flood Planning Area' in a Flood Planning Map in the Canada Bay Local Environmental Plan.
- Land which is recommended to be shown as a Flood Planning Area in the Canada Bay Local Environmental plan by a publicly exhibited and/or adopted Flood Study prepared in accordance with the FDM (2005).

Where Council is of the understanding that land subject of an application is or may potentially be affected by flooding, Council may require the applicant to prepare a flood study.

#### Definitions:

Words and phrases in this section have the meanings assigned in the LEP and FDM(2005).

A 'High Flood Risk' Precinct is an area of land that under 1%AEP conditions is either subject to a high hydraulic hazard or presents significant evacuation difficulties.

A 'Medium Flood Risk' Precinct is an area of land that under 1%AEP conditions is not subject to a high hydraulic hazard and presents less than significant evacuation difficulties.

A 'Low Flood Risk' Precinct is the area above the 100 year flood and includes all area up to and including the 'Probable Maximum Flood (PMF)'.

Freeboard represents a nominated additional height above a flood level to provide a safety factor against inundation. It is used to set minimum floor levels.

#### Abbreviations:

AEP: Annual Exceedance Probability

FDM 2005: Floodplain Development Manual

FRMP: Flood Risk Management Plan

FRMS: Flood Risk Management Study

## Objectives

- O1. To ensure the proponents of development and the community in general are aware of the potential flood hazard over the whole range of AEP and of the consequent risk and liability associated with the development and use of flood liable land.
- O2. To manage flood liable land in manner that is economically and environmentally sustainable and socially responsible.
- O3. To establish whether or not a proposed development or activity is appropriate to be carried out having regard to the economic, property, environmental and human impacts of flooding.
- O4. To protect community by ensuring that developments with high sensitivity to flood risk (eg. critical public utilities) are sited and designed to provide reliable access, continued operability during emergencies, quick recovery and to generally minimise risk from flooding.
- O5. To allow development with a lower sensitivity to the flood hazard to be located within the floodplain, subject to appropriate design and siting controls and provided that the potential consequences that could still arise from flooding remain acceptable.
- O6. To prevent intensification of inappropriate development.
- O7. To control the use of 'High Hazard' areas and Floodways, and wherever appropriate and feasible, allow for their conversion to natural waterway corridors.
- O8. To ensure that proposed development does not expose existing development to increased risks associated with flooding.
- O9. To ensure building design and location address flood hazard.
- O10. To ensure that development does not result in unreasonable flood impacts upon the amenity or ecology of an area.
- O11. To incorporate the principles of Ecologically Sustainable Development (ESD).
- O12. To minimise the risk to life and property arising from flooding.
- O13. To ensure the provision of appropriate access to and egress from areas affected by flooding including for extreme events.
- O14. To provide controls to ensure that development is carried out in accordance with this Policy.
- O15. To implement the principles of floodplain risk management as defined by the NSW Government's Flood Prone Land Policy and the FDM 2005.

## Design Principles

- D1. Development should not result in any increased risk to human life.
- D2. The additional economic and social costs which may arise from damage to property from flooding should not be greater than that which can reasonably be managed by the property owner, property occupants and general community.
- D3. Development should only be permitted where effective warning time is available for the evacuation of an area potentially affected by floods to an area free of risk from flooding.
- D4. Development should only be permitted where reliable egress is available for the evacuation of an area potentially affected by floods to an area free of risk from flooding.
- D5. Evacuation should be consistent with any relevant flood evacuation strategy or flood risk management plan where in existence.
- D6. Development should not adversely increase the potential flood affectation on other development or properties, either individually or in combination with similar developments(s) that are likely to occur within the same catchment.
- D7. Developments must make allowances for motor vehicles to be relocated to an area with substantially less risk from flooding within an effective warning time.
- D8. Developments must provide an evacuation plan detailing procedures that would be in place for an emergency (such as warning systems, signage or evacuation drills).



- D9. Flood mitigation measures associated with new developments should not result in significant impacts upon the amenity of an area by way of unacceptable overshadowing of adjoining properties, privacy impacts (eg. by unsympathetic house raising), alienation of otherwise usable open space or by being incompatible with the streetscape or character of the locality (including heritage).
- D10. Raised structures shall be designed to cater for the forces of floodwaters. An Engineer's Certificate will be required for the structural design.
- D11. Development is to be compatible with any relevant Floodplain Risk Management Study, Floodplain Risk Management Plan, Flood Studies, or Sub-Catchment Management Plan.
- D12. Development must not divert flood waters, nor interfere with floodwater storage or the natural function of waterways.
- D13. Filling of land up to the Probable Maximum Flood (PMF) must not adversely impact upon flood behaviour. This must be demonstrated by appropriate modelling.
- D14. Development must consider the impact of flooding resulting from local overland flooding whether it is a result of Local Drainage or Major Drainage.
- D15. Where hydraulic flood modelling is required, flow hazard categories should be identified and adequately addressed in the design of the development.
- D16. Council strongly discourages basement car parks on properties within the floodplain. Where site conditions require a basement car park on a property within the floodplain, development applications must provide a detailed hydraulic flood study and design demonstrating that the proposed basement car park has been protected from all flooding up to and including the PMF event. An adequate emergency response and evacuation plan must also be provided where basement car parks are proposed in the floodplain.

## C7.4 Development Controls

All proposals are to have regard to the planning matrix at Table C-K. The procedure to determine which design standards apply to proposed development involves:

**Step 1:** identify the land use category of the development from Table C-K; and

**Step 2:** determine which flood risk category applies to the land (in some areas Council may have undertaken a formal flood study and published flood risk mapping or made the data available on application. Where Council is of the understanding that land subject of an application is or may potentially be affected by flooding, Council may require the applicant to prepare a flood study.); and

**Step 3:** apply the objectives and design principles as outlined in this section and then the design standards in the planning matrix at Table C-K as applicable to the floodplain and land use category, the numbers in Table C-K identify the controls which are applicable as detailed in C7.5 Details of Flood Controls (Flood Planning Matrix).

**NOTE:** An evacuation plan does not negate requirements for compliance with planning and building regulations.

**Table C-J Land Use and Development Category Definitions**

Sensitive Uses and Facilities	Community facilities or public administration buildings which may provide an important contribution to the notification and evacuation of the community during flood events(eg community buildings that may serve as evacuation centres); Facilities which involve concentrations of more vulnerable people; Child care centres; Hospitals; Residential care facilities; Seniors housing; Educational establishments. (See also “Concessional Development”)
Critical Uses and Utilities	Public utilities, community facilities or public administration buildings which provide direct emergency response. (Eg Police Stations, Ambulance Stations, SES Headquarters, Council Works Depots, Telecommunication facilities.) Hazardous industries; Hazardous storage establishments; Offensive industries; Offensive storage establishments; Liquid fuel depots; Undertakings which may cause pollution during flooding, are essential to evacuation during periods of flood or if affected during flood events would unreasonably affect the ability of the community to return to normal activities after flood events; Waste management facilities. (See also “Concessional Development”)
Subdivisions	Subdivision of land which involves the creation of additional allotments.
Filling	The net importation of fill material onto a site, except where: <ol style="list-style-type: none"> <li>1. final surface levels are raised by no more than 100mm over no more than 50% of the site; or</li> <li>2. filling is no more than 800mm thick beneath a concrete building slab only.</li> </ol> Earthworks involving both cut and fill shall not be considered to be filling provided that: <ol style="list-style-type: none"> <li>1. there is no net importation of fill material onto the site; and</li> <li>2. there is no net loss of flood storage.</li> </ol>
Residential	Residential accommodation unless more specifically included in the Sensitive Uses and Facilities category above or Commercial Industrial category below. (See also “Concessional Development”)
Commercial or Industrial	Bulky goods premises; Business Premises; Car parks; Depots; Entertainment facilities; Food and drink premises; Freight transport facilities; Funeral chapels; Funeral homes; Function centres; Hardware and building supplies; Heavy industries; Hotel accommodation; Industries; Landscape and garden supplies; Light industries; Materials recycling or recovery centres; Medical centres; Mixed use development; Office premises; Passenger transport facilities; Places of public worship; Public administration buildings (other than an essential community facility); Pubs; Recreation facilities (indoor); Registered clubs; Restricted premises; Retail Premises; Service stations; Sex services premises; Shop top housing; Tourist and visitor accommodation; Vehicle body repair workshops; Vehicle repair stations; Vehicle showrooms; Veterinary hospitals; Warehouse or distribution centres. (See also “Concessional Development”)
Tourism Related Development	Advertising structures; Kiosks; Markets; Information and education facilities; Signage.

<p>Open Space or Non-urban Uses</p>	<p>Recreation facilities (outdoor); Recreation areas and minor ancillary structures (e.g. Amenities blocks or kiosks) Boat launching ramps; Boat repair facilities; Boat sheds; Jetty; Animal boarding and training establishments; Environmental facilities; Helipad.</p>
<p>Concessional Development</p>	<p>Concessional development is any development or redevelopment that would normally not be permitted under this Plan, but may be permitted as a concession provided it:-</p> <ol style="list-style-type: none"> <li>1. is kept clear of any floodway; and</li> <li>2. involves an acceptably small (see below for limits) addition or alteration to an existing development that will not cause a significant increase in potential flood losses or risks or have an adverse impact on adjoining properties; or</li> <li>3. redevelopment that achieves a substantial reduction of the extent of flood affectation relative to the existing situation provided that such redevelopments incorporate, to the fullest extent practical, design features and measures to reduce the existing potential for flood losses and personal risks and avoid any adverse impacts on adjoining properties – especially obstruction or diversion of floodwaters and loss of flood storage.</li> </ol> <p><b>Limits for residential development. The maximum size of a concessional development is:</b></p> <ol style="list-style-type: none"> <li>1. a once-only addition or alteration to an existing dwelling of no more than 10% or 30m<sup>2</sup> (whichever is the lesser) of the habitable floor area which existed at the date of commencement of this Policy or Plan; or</li> <li>2. the construction of an outbuilding with a maximum floor area of 20m<sup>2</sup>.</li> </ol> <p><b>Limits for other (non-residential) development</b></p> <p>In the case of other development categories, the maximum size of a concessional development is a once-only addition to existing premises of no more than 10% of the floor area which existed at the date of commencement of this Policy or Plan.</p>

Table C-K Flood Planning Matrix

Planning & Development Controls	Flood Risk Precincts																					
	Low Flood Risk				Medium Flood Risk				High Flood Risk													
	Concessional Development	Open Space & Non-Urban	Tourist Related Development	Commercial & Industrial	Residential*	Filling	Subdivision	Critical Uses & Facilities	Sensitive Uses & Facilities	Concessional Development	Open Space & Non-Urban	Tourist Related Development	Commercial & Industrial	Residential*	Filling	Subdivision	Critical Uses & Facilities	Sensitive Uses & Facilities				
	3	2	2	2	2	2	2	3	3	2, 5	2, 5	2, 5	2, 5	2, 5	2, 5	2, 5	2, 5	2, 5				
<b>Planning Consideration</b> (the numbers below identify the controls which are applicable, as contained in section C7.5)	Floor Level																			1, 5	4, 5	
	Building Component	2								1	1	1	1	1						1	1	
	Structural Soundness	2								1	1	1	1	1						1	1	
	Flood Affection	2	2	1	2	2	2	2	2	1	1	1	1	1						1	1	
	Car Parking & Driveway Access	1, 3, 5, 6, 8																			2, 4, 6, 7	1, 5
	Evacuation	2, 4																			1, 4	3, 4, 6
	Management & Design	2, 3, 4																			2, 3, 4	2, 3, 4

**Colour Key** Not Relevant Unsuitable Land Use \* For redevelopment refer also to 'Concessional Development' provisions

- Notes**
- i Canada Bay Local Environmental Plan 2013 identifies development permissible with consent in various zones. Notwithstanding, constraints to individual sites may preclude the granting of consent for certain forms of development on all or part of a site. The above matrix identifies where flood risks are likely to determine where certain development types will be considered "unsuitable" due to flood related risks.
  - ii Filling of site, where acceptable to Council, may change the FRP used to determine the controls applied in the circumstances of individual applications.
  - iii Any fencing that forms a part of a proposed development is subject to the relevant Flood Effects and Structural Soundness planning considerations of the applicable land use category. Fences may need to be of open design to address this cause.
  - iv Development within the floodplain may be subject to Clause 6.4 Limited Development On Foreshore Area and Foreshore building line provisions in the Canada Bay Local Environmental Plan 2013.
- Note that the land above the PMF level is not captured by the above matrix.

## C7.5 Details of the Flood Controls

(Flood Planning Matrix see Table C-K)

### Floor Level

Controls	
C1.	Floor levels to be equal to or greater than the 20 year Average Recurrence Interval (ARI) flood level plus freeboard.
C2.	Habitable floor levels to be equal to or greater than the 100 year ARI flood level plus freeboard.
C3.	All floor levels to be equal to or greater than the Probable Maximum Flood (PMF) level.
C4.	Floor levels to be equal to or greater than the 100 year ARI flood level plus freeboard. Where this is not practical due to compatibility with the height of adjacent buildings, or compatibility with the floor level of existing buildings, or the need for access for persons with disabilities, a lower floor level may be considered. In these circumstances, the floor level is to be as high as practical, and, when undertaking alternations or additions, no lower than the existing floor level.
C5.	A restriction is to be placed on the title of the land, pursuant to S.88B of the Conveyancing Act, where the lowest habitable floor area is elevated more than 1.5m above finished ground level, confirming that the subfloor space is not to be enclosed.
C6.	Because of the particular catchment characteristics of the Concord West Precinct, additional requirement is for habitable floor levels to be at a minimum of RL 3.0m AHD. Refer to sections 9.3.3, 9.3.6, and 10.2.3 of the CWFS.

### Building Components and Method

Controls	
C1.	All structures to have flood compatible building components below the 100 year ARI flood level plus freeboard.
C2.	All structures to have flood compatible building components below the PMF.

### Structural Soundness

Controls	
C1.	An Engineer's report is required to certify that the structure can withstand the forces of floodwater, debris and buoyancy up to and including a 100 year ARI flood level plus freeboard.
C2.	An Engineer's report is required to certify that the structure can withstand the forces of floodwater, debris and buoyancy up to and including a PMF level.

### Flood Affection

Controls	
C1.	An Engineer's report is required to demonstrate how and certify that the development will not increase flood affection elsewhere, having regard to: <ol style="list-style-type: none"> <li>loss of flood storage;</li> <li>changes in flood levels, flows and velocities caused by alterations to flood flows; and</li> <li>the cumulate impact of multiple potential developments in the vicinity.</li> </ol>
C2.	The impact of the development on flooding elsewhere to be considered having regard to the three factors listed in C11 above.

### Car Parking and Driveway Access

Controls	
C1.	The minimum surface level of open parking spaces or carports shall be as high as practical, but no lower than 0.1m below the 100 year ARI flood level. In the case of garages, the minimum surface level shall be as high as practical, but no lower than the 100 year ARI flood level.

C2.	The minimum surface level of open parking spaces or carports shall be as high as practical, but no lower than 0.3m above the 20 year ARI flood level.
C3.	Garages capable of accommodating more than 3 motor vehicles on land zoned for urban purposes, or enclosed car parking, must be protected from inundation by floods equal to or greater than the 100 year ARI flood. Ramp levels to be no lower than 0.5m above the 100 year ARI flood level.
C4.	The driveway providing access between the road and parking spaces shall be as high as practical and generally rising in the egress direction.
C5.	The level of the driveway providing access between the road and parking spaces shall be no lower than 0.2m below the 100 year ARI flood level.
C6.	Enclosed car parking and car parking areas accommodating more than 3 vehicles, with a floor below the 100 year ARI flood level, shall have adequate warning systems, signage, exits and evacuation routes.
C7.	Restraints or vehicle barriers to be provided to prevent floating vehicles leaving a site during a 100 year ARI flood.
C8.	Enclosed underground car parks shall have all potential water entry points protected from the PMF. The intent of this requirement is to mitigate the creation of life threatening circumstances and very high economic loss such as may occur with the complete inundation of an underground car park. Council may consider relaxation of this requirement if it can be shown by modelling that the catchment characteristics are such that the maximum depth of inundation is less than 300mm. Because of the particular catchment characteristics of the Concord West Precinct, an additional requirement within that precinct is for habitable floor levels to be at a minimum of RL 3.0m AHD. Refer to sections 9.3.3, 9.3.6, and 10.2.3 of the CWFS.

## Evacuation

Controls	
C1.	Reliable access for pedestrians required during a 20 year ARI peak flood.
C2.	Reliable access for pedestrians and vehicles required to a publicly accessible location during the PMF peak flood.
C3.	Reliable access for pedestrians and vehicles is required from the site to an area of refuge above the PMF level, either on site (eg. second storey) or off site.
C4.	Applicant is to demonstrate the development is consistent with any relevant flood evacuation strategy or similar plan.
C5.	Applicant is to demonstrate that evacuation in accordance with the requirements of this DCP is available for the potential development resulting from the subdivision.
C6.	Adequate flood warning is available to allow safe and orderly evacuation without increased reliance upon SES or other authorised emergency services personnel.

## Management and Design

Controls	
C1.	Applicant is to demonstrate that potential development as a consequence of a subdivision proposal can be undertaken in accordance with this clause, and any applicable flood study, FRMS and FRMP.
C2.	Site Emergency Response Flood Plan required where the site is affected by the 100 year ARI flood level (except for single dwelling-houses).
C3.	Applicant is to demonstrate that area is available to store goods above the 100 year flood level plus freeboard.
C4.	No storage of materials below the 100 year ARI flood level.

## C8 Contaminated land

### Objectives

- O1. Minimise the risk to human and environmental health on land contaminated by past uses.
- O2. To ensure each development application includes information sufficient to allow Council to meet its obligation to determine whether development should be restricted due to the presence of contamination.
- O3. To facilitate appropriate site remediation to ensure the land is suitable for the intended use.

Note: These obligations are outlined in State Environmental Planning Policy No.55 at the time of adoption of this plan.

### Controls

C1.	All development must take precautionary steps to prevent the release of substances that cause contamination of soil, surface water, air or groundwater.
C2.	Proposals for the development of contaminated land or potentially contaminated land will need to determine: <ul style="list-style-type: none"> <li>a) The extent to which land is contaminated (including both soil and groundwater contamination) and;</li> <li>b) Whether the land is suitable in its contaminated state (or will be suitable after remediation) for the purpose for which the development is proposed to be carried out, and;</li> <li>c) Whether the land requires remediation to make the land suitable for the intended use prior to that development being carried out, and;</li> <li>d) If the land has been previously investigated or remediated, development cannot be carried out until Council has considered the nature, distribution and levels of residues remaining on the land and Council has determined that the land is suitable for the intended use.</li> </ul>

C3.	In accordance with Clause 9(f) of SEPP 55, Council specifies the following additional works as Category 1 remediation works: <ul style="list-style-type: none"> <li>a) Remediation work within 40m of an open drainage channel, creek or water body.</li> <li>b) Remediation work involving treatment of groundwater.</li> <li>c) Remediation work involving on-site treatment of contaminated soil e.g., soil stabilisation, land-farming, soil washing or thermal desorption.</li> <li>d) Remediation work involving on-site capping or containment of contaminated soils.</li> <li>e) Remediation work on a site where off site migration of contaminants has occurred.</li> <li>f) Remediation work involving the removal of Petroleum and other Underground Storage Tanks.</li> </ul>
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## C9 Crime prevention through environmental design

### Objectives

- O1. Provide a safe environment and minimise opportunities for criminal and anti-social behaviour.

Controls	
C1.	Active spaces and windows of habitable rooms within buildings are to be located to maximise casual surveillance of streets, laneways, parking areas, public spaces and communal courtyard space.
C2.	In commercial, retail or public buildings, facilities such as toilets and parents rooms are to be conveniently located and designed to maximise casual surveillance to facility entries.
C3.	Minimise blind-corners, recesses and other external areas that have the potential for concealment or entrapment.
C4.	Building entries are to be clearly visible, unobstructed and easily identifiable from the street, other public areas and other development. Where practicable lift lobbies, stairwells, hallways and corridors should be visible from the public domain.
C5.	Ground floors of non-residential buildings, the non-residential component of mixed use developments, and the foyers of residential buildings, are to be designed to enable surveillance from the public domain to the inside of the building at night.
C6.	Pedestrian routes from car parking spaces to lift lobbies are to be as direct as possible with clear lines of sight along the route.
C7.	Where dwelling units have individual main entries directly from a public space, the entry is to include a clearly defined transitional space between public and private areas.
C8.	Building details such as fencing, drainpipes and landscaping are to be designed so that illegitimate access is not facilitated by the opportunity for foot or hand-holds, concealment and the like.