# STRATHFIELD DEVELOPMENT CONTROL PLAN NO 20

# Parramatta Rd Corridor Area

Adopted by Council on 6 October 2020 In force from 13 October 2020



AMENDMENTS					
Amendment No.	Description	Adopted by Council	Date Effective		
1	Deletion of Part L. Part L has been repealed by a separate document, the Strathfield Community Participation Plan (CPP). All references to Part L deleted and General Housekeeping amendments.	6 October 2020	13 October 2020		

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### 1.0 INTRODUCTION

The Strathfield Planning Scheme Ordinance (PSO) as amended by Strathfield Local Environmental Plan No. 79 (LEP 79) sets out the broad planning framework for residential and mixed use development in the Parramatta Road Corridor Area within the Strathfield Municipality, identifies land use zones and the type of development generally permitted or prohibited within each zone. Development Control Plan No 20 (DCP20) has been prepared to control and guide the nature, form and scale of multiple-unit housing and mixed use developments within the Parramatta Road Corridor Area.

The purpose of DCP20 is to encourage developers and property owners to submit residential and mixed use development proposals which are attractive, appropriate for the surrounding built and natural environment, affordable and enjoyable in which to live and work. An important locational benefit of the Parramatta Road Corridor Area is access to public transport. The area adjoins the main western railway line and Parramatta Road has been identified as a route for a bus transitway between Strathfield and Parramatta. Development guidelines included in the plan have been prepared as advice to developers in an attempt to encourage innovative and imaginative design based on sound environmental principles and to enhance the quality of the landscape and streetscape character of the Parramatta Road Corridor Area which has a high exposure.

#### 1.1 Name of this Plan

This plan is known as "Strathfield Development Control Plan No. 20 - Guidelines for the Siting, Design and Erection of Developments Within the Parramatta Road Corridor Area". In pursuance of Council's resolution of 4 April 2006, this Plan is in force from 3 May 2006.

#### 1.2 Structure of Plan

DCP20 has been formulated drawing on the findings of the Parramatta Road Corridor Study 1997 and the Parramatta Road Corridor Analysis and Masterplan 1999. DCP20 has been structured into 2 main parts each with subsections which relate to specific advice or controls. An overview of the structure is provided below:

#### **1.3** Aims and Objectives of this Plan

The aim of this Development Control Plan (DCP) is to achieve development within the Parramatta Road Corridor Area which is sympathetic and appropriate for the natural and built environment, optimises opportunities for utilising public transport, acceptable to the community and economically feasible.

This DCP is intended to be a comprehensive guide for developers on the minimum standards required by Council. It should be noted that each proposal will be determined according to how well it assimilates within its surrounding and general locality. Compliance with this DCP will not lead to automatic approval. The specific objectives of this DCP are:

#### Location

1. To recognise the strategic importance of Parramatta Road as a major regional connection; and

2. To build on the opportunities provided by the proximity of the Corridor Area to the Olympic Park.

#### Accessibility

- 1. To provide better links, both in terms of accessibility and urban form, between residential development and other services in the Corridor Area;
- Provide a safe and accessible system of pedestrian and cycle links throughout the area, and to desirable destinations outside the Corridor Area;
- 3. Reinforce the public transport role in the Corridor Area;
- 4. Improve traffic and parking management in the Corridor Area; and

#### Public Domain

- 1. To improve pedestrian amenity throughout the Corridor Area;
- 2. To reduce vehicular/pedestrian conflicts;
- 3. To provide a stronger public domain focus to the Corridor Area and more open space;
- 4. To encourage provision of community services and facilities as part of site redevelopments;
- 5. Create an accessible and safe public domain;
- 6. Enhance the existing streets and lanes with tree planting to improve pedestrian amenity; and
- 7. Ensure private open space areas are designed with security in mind.

#### **Streetscape**

- 1. To provide direction and certainty of outcome in relation to built form to ensure:
  - a. A coherent street scale.
  - b. Compatibility with the existing urban fabric.
- 2. To enhance the character of individual streets in the Corridor Area by appropriate landscape design and coordinated built form; and
- 3. To re-establish the market place function near Homebush Station and along parts of Parramatta Road.

#### Landscaped Open Space

- 1. To provide for an increased demand for open space caused by the anticipated increased residential population in the Corridor area;
- 2. To maintain a viable amount of landscaped space on private land to preserve and enhance the existing character of the Corridor Area;
- 3. To encourage the planting of native vegetation;
- 4. To ensure landscaped spaces are provided in appropriate locations and designed to standards consistent with Ecologically Sustainable Development principles;
- 5. Upgrade existing infrastructure easements to incorporate links and recreation facilities; and
- 6. Provide a range of recreation opportunities, in line with the objectives of the Strathfield Council Parks and Recreation Plan.

#### **Building Form**

- 1. Promote a more vibrant urban form and character within the Corridor Area; Promote high quality design of building form that is essential for areas of increased density.
- 2. Provide for a variety of building types;
- Encourage the construction of flexible accommodation and a diverse mix of uses;

- 4. Encourage the provision of economically and environmentally sustainable development which is energy efficient and provides good solar access;
- 5. Provide an acceptable acoustic environment for residents through appropriate design, layout and construction measures, which mitigate noise and vibration impacts from nearby road and rail transport activities;
- 6. Preserve items of cultural or heritage significance;
- 7. Promote a mix of housing types to increase housing within the Corridor Area and within the Strathfield Municipality generally;
- 8. Ensure that the buildings are designed incorporating Ecologically Sustainable Development principles by requiring the construction of energy smart buildings; and
- 9. To improve residential amenity in the Corridor Area, and integrate built form with public and private landscaped open space.

#### **1.4** Land to which this DCP applies

DCP 20 applies to land within the Strathfield Municipality known as the Parramatta Road Corridor Area, shown on the map edged in black and illustrated in **Figure 1**.

#### 1.5 Definitions

These definitions should be read in conjunction with Council's principle planning instrument, the Strathfield Planning Scheme Ordinance and the Environmental Planning & Assessment Act, 1979.

"Attic" means the space within the roof where the ceiling follows the line of the roof.

"**Balcony**" means a part of a building external to the outer walls and directly accessible from within the building for the exclusive usage of the occupants, at a level one storey or more above the ground, unenclosed on the longest outer side except for an approved solid balustrade.

"**Bedroom**" means any room within a dwelling as defined within this plan identified as a bedroom or capable of being used as a bedroom such as a study, library, rumpus room, enclosed balcony, and the like.

**"Building"** means any fixed structure which is either wholly or in part enclosed by walls and which is roofed and includes any part of a building.

"Development Control Plan" has the meaning ascribed to it in Section 72 of the Environmental Planning and Assessment Act, 1979.

"Deep soil landscaping" means landscaping of natural ground, which is not over any built structure.

"**Dwelling**" means a room or suite of rooms occupied or used or so constructed or adapted to be capable of being occupied or used as a separate domicile.

"Ecologically Sustainable Development (ESD)" is a conceptual framework for development concerned with dealing with the decreasing ability of the earth to continue to support humanity. It "... aims to improve the quality of life now, and in the future, equitably, in a way that maintains the ecological processes on which life depends...It implies an integration of environmental and economic considerations in decision making, an appropriate valuation of environmental assets, dealing

cautiously with risk and irreversibility and recognising the global implications of our actions." (Strategy for a Sustainable Sydney, Greenpeace, 1993).

"Facade" means the face or front of a building.

"Habitable room" means a room used for normal domestic activities such as bedroom, living room, lounge room, kitchen, dining room, study, play room and sun room.

"Height" in relation to a building means the greatest distance measured vertically from any point on the eaves of the topmost floor of the building to the existing ground level immediately below that point.

"Heritage significance" means historic, scientific, technological, cultural, social, archaeological, architectural, townscape, natural or aesthetic significance.

"Landscaped open space" means that part of the site (including both communal and private open space areas) that is landscaped by way of the planting of gardens, lawns, shrubs or trees but does not include that part of the site used for driveways and parking.

**"Multiple unit residential development"** means a development comprising two or more dwellings, including buildings commonly known as residential flats, villa homes, townhouses or other similar forms of housing.

"**Natural Ground Level**" means the level of any land to which this plan applies as at 9 February 2000.

"**Open space**" means that area within a particular site upon which no building or work has been constructed.

"**Public Domain**" the shared urban areas and spaces, generally in public ownership, and the infrastructure that supports them.

"**Private open space**" means an area of land or a building (such as a balcony or roof garden) which is appurtenant to a dwelling and intended for the exclusive use of the occupants of the dwelling and located and designed so as to offer visual privacy to the occupants.

"Residential flat building" means a building containing two or more dwellings.

"**Storey**" means any floor regardless of use but does not include a parking area within a basement where the finished ground floor level does not exceed more than 1200mm above natural ground level at any point, a loft within a dwelling unit or an attic contained within the roof space of the building.

"**Streetscape**" is the combination of elements within the street which create the urban form of that street. It includes elements such as building forms and styles, landscaping, street furniture, pavements, etc.

**"Townhouse"** means a dwelling within a 2 storey building containing 2 or more dwellings, where each dwelling has, within its curtilage, pedestrian access and open space at ground level for the exclusive use of the occupants of the dwelling.

**"Villa home"** means a dwelling within a 1 storey building containing 2 or more dwellings, where each dwelling has, within the curtilage, pedestrian access and open space at ground level for the exclusive use of the occupants of the dwelling.

#### **1.6** Relationship to Other DCPs and Policies

DCP 20 has been designed to supplement the requirements of Strathfield LEP No.79. In the event of any inconsistency between this DCP and any other Development Control Plan, this DCP will prevail to the extent of the inconsistency.

This DCP may be amended from time to time by Council. Proposed amendments are required to be advertised and exhibited in draft form and any submissions considered by Council before being adopted. Applicants using this DCP should check with council as to whether they have the latest copy, including any amendments. Where the Built Form Masterplan provides for townhouses and villa houses, the provisions of "Part C – Multiple Unit Housing Developments of the Strathfield Consolidated Development Control Plan 2005" will be applied.

This DCP should be read in conjunction with:

- i) Strathfield Planning Scheme Ordinance 1969;
- ii) Strathfield Stormwater Management Code;
- iii) Strathfield Fencing Guidelines for Existing Domestic Swimming Pools;
- iv) Strathfield Fencing Guidelines for New Domestic Swimming Pools;
- v) Strathfield Tree Preservation Order & Tree Management Strategy;
- vi) Council's Significant Tree Register & Recommended Tree List;
- vii) Strathfield Landscaping Code;
- viii) Street Tree Plan of Management;
- ix) Building Code of Australia (BCA);
- x) Exempt and Complying Development within the Strathfield Municipality (refer to SPSO);
- xi) Council's Guidelines for Completing Applications;
- xii) Section 94 Contributions Plan
- xiii) Strathfield Controls and Guidelines for Outdoor Eating Areas with Strathfield Municipal Council.

#### 1.6.1 Additional Provisions

- A. This DCP adopts the following provisions of the Strathfield Consolidated Development Control Plan 2005:
  - a) Part E Child Care Centres
  - b) Part F Bed and Breakfast Establishments
  - c) Part H Waste Management
  - d) Part I Provision of Off Street Parking Facilities
  - e) Part J Erection and Display of Advertising Signs and Structures
  - f) Part K Development on Contaminated Land
  - g) Part M Educational Establishments
  - h) Part N Water Sensitive Urban Design
  - i) Part P Heritage
  - j) Part Q Urban Design Controls
  - k) Part R Subdivision Minimum Frontage
  - I) Strathfield Community Participation Plan
- B. For the purpose of clause 1.6.1 A above, any reference in those Parts to the

Consolidated Plan is taken to be a reference to this DCP.

- C. A provision of this DCP will have no effect to the extent that:
  - a) It is the same or substantially the same as a provision in the SPSO or another environmental planning instrument (EPI) applying to the same land; or
  - b) It is inconsistent with a provision of the SPSO or another EPI applying to the same land, or its application prevents compliance with a provision of the SPSO or another EPI applying to the same land, and the provision in the SPSO or other EPI will apply.

#### 1.7 Use of these Guidelines

Persons seeking to redevelop or alter sites within land the subject of this plan will be expected to consider carefully the context of their proposal and identify those design guidelines which will apply. Council may refuse consent to a development which does not comply with this DCP, or may modify the development by way of conditions so that it does comply.

Compliance with this DCP does not necessarily mean the application will be approved. All applications will be determined on their individual merits, taking into account these guidelines together with other matters under Section 79C of the Act and the Strathfield Planning Scheme Ordinance.

Where a proposed development departs from any controls contained in this DCP, the applicant must put forward reasons why particular controls should not be strictly adhered to and substantiate that the development can still meet the broad objectives of the plan.

Council's preparedness to apply the DCP guidelines in a flexible manner will depend on the applicant demonstrating that the integrity of the overall Masterplan will not be compromised and that urban design and economic development advantages would result from the proposal whilst still achieving the overall objectives.

#### **1.8 Development Applications**

Council's normal requirements for development applications, including details to be submitted, number and type of plans required and a schedule of fees are detailed on the development application form available from the Planning, Building and Environmental Services Department of Council.

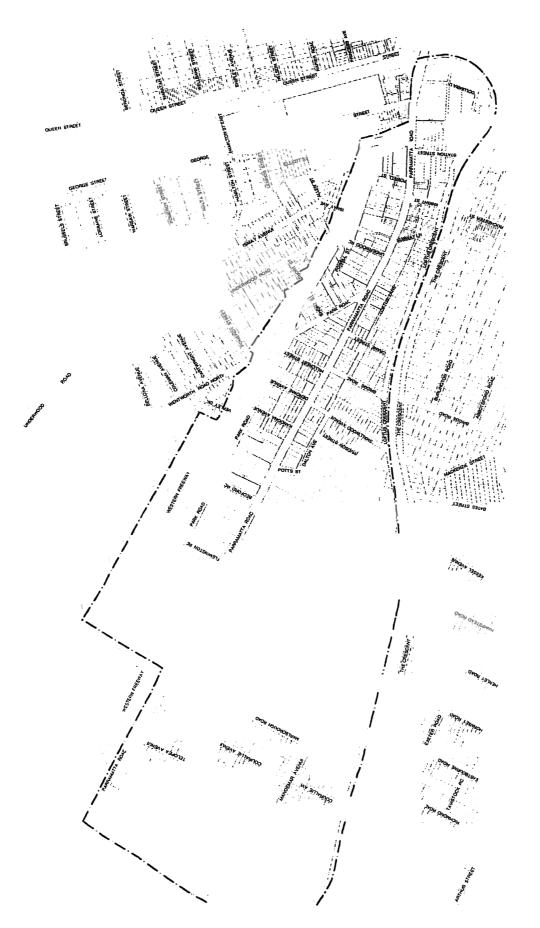
However, Council may request additional information in support of an application before it makes a decision. It is in both the applicant's and the Council's interests that fully documented applications are submitted. Apart from considering the guidelines in this DCP applicants are strongly advised to consult with the Council's Planning, Building and Environmental Services Department prior to preparing development applications, to discuss site specific issues and for guidance on the type of supporting information and documents required.

#### 1.9 Masterplan

A Redevelopment Strategy Masterplan for the Parramatta Road Corridor Area has been formulated. (Refer **Figures 2 to 6**). This plan encompasses objectives, standards and controls for both public and private land. The Masterplan objectives, strategies and controls relating to private land form the basis of this DCP.

#### 1.10 Legislative Changes

New Clauses 1.6 and 1.6.1 have been added in order to comply with Part 3 of the Environmental Planning and Assessment Act 1979, introduced under Schedule 2 of the Environmental Planning and Assessment Amendment (Infrastructure and other Planning Reform) Act 2005 No. 43.



HILL THALIS ARCHITECTURE AND URBAN 'ROJECTS JANE IRWIN LANDSCAPE ARCHITECTS \_ 250m 10 50 100 SCALE 1:8000

Figure 1 Parramatta Road Corridor Area

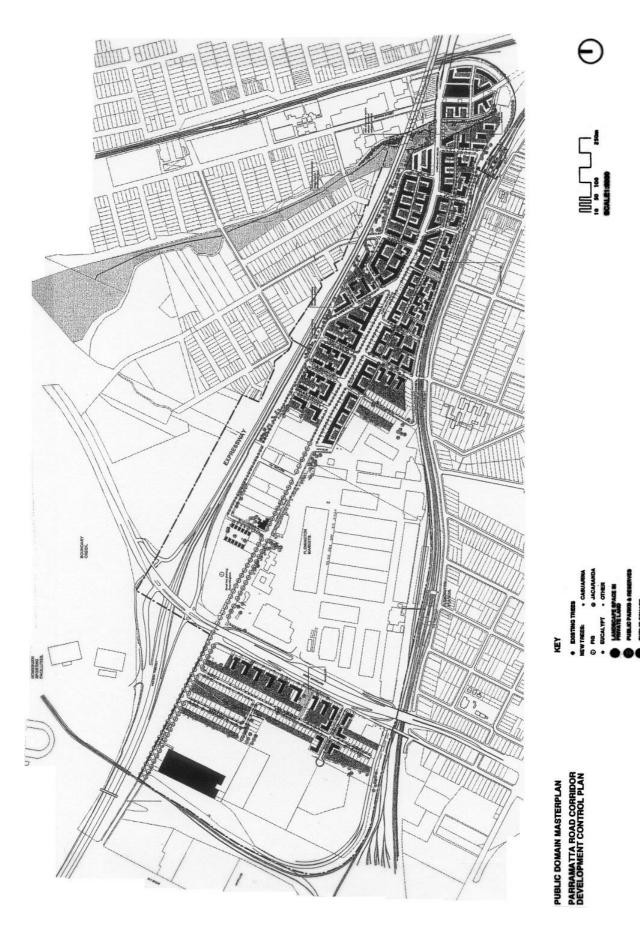


Figure 2 – Parramatta Road Corridor Masterplan



Figure 3 – Parramatta Road Corridor Masterplan (cont)



Figure 4 – Parramatta Road Corridor Masterplan (cont)

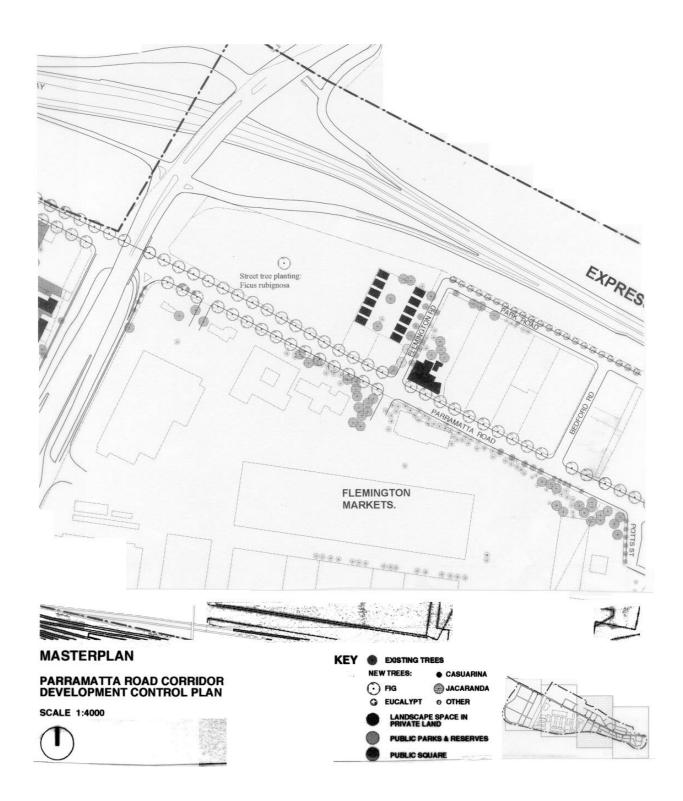


Figure 5 – Parramatta Road Corridor Masterplan (cont)

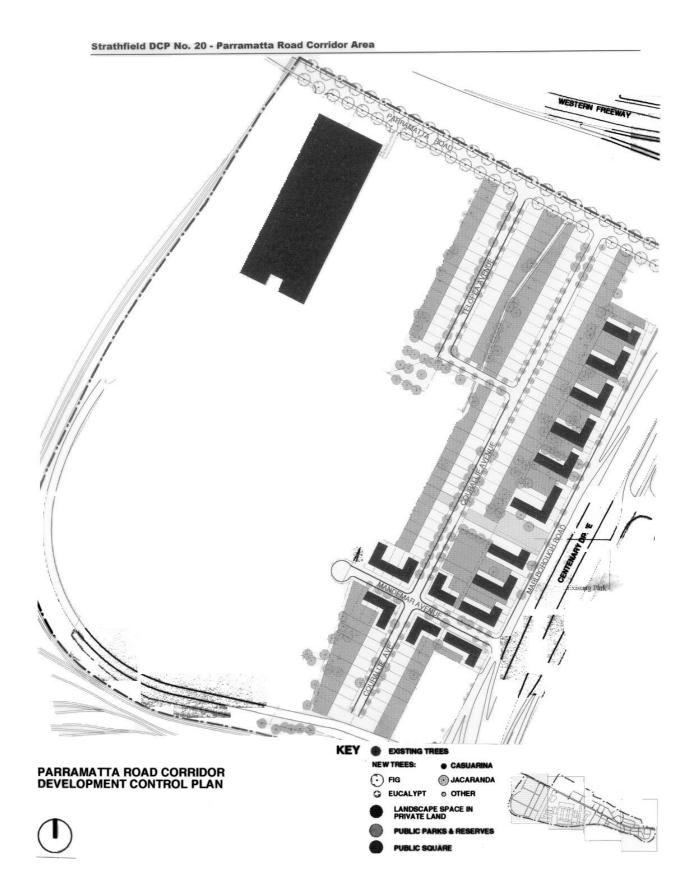


Figure 6 – Parramatta Road Corridor Masterplan (cont)

### 2.0 DEVELOPMENT GUIDELINES

#### 2.1 Site Analysis

#### **Objective:**

To ensure that site layout and building design consider the existing characteristics, opportunities and constraints of the site and the surrounds, which will result in a design sensitive to its environment and be of high quality.

#### **Guidelines and Controls**

All applications must include a site analysis drawing which demonstrates the following matters have been taken into consideration in the design and documentation of applications:

Site	Surrounds	
<ul> <li>Survey details, including changes of levels</li> <li>Easements (drainage or service)</li> <li>Existing vegetation and other significant site features</li> <li>Existing buildings or structures</li> <li>Site orientation and solar access</li> <li>Significant noise sources</li> <li>Views</li> <li>Pedestrian and vehicle access</li> <li>Natural drainage</li> </ul>	<ul> <li>Location, height and use of neighbouring buildings (including location of doors or windows facing the site)</li> <li>Predominant built form and character of locality (including fencing and garden styles)</li> <li>Private open space areas adjacent to site</li> <li>Adjacent public open space</li> <li>Location of major trees on adjacent properties</li> <li>Elements of street frontage (street trees, vehicular cross-overs, bus stops, etc)</li> <li>Differences of levels between site and neighbouring properties</li> <li>Significant noise sources, such as railway lines and major roads</li> </ul>	

Refer to Figure 7 for an example of a site analysis drawing.

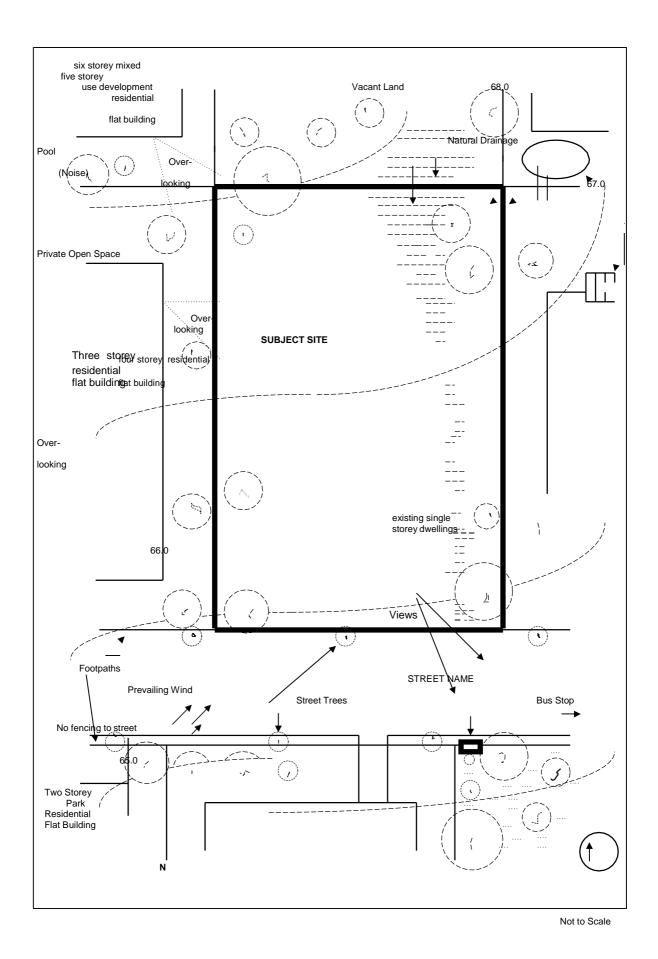


Figure 7: Site Analysis Drawing

#### **Design Principles**

A site analysis must be carried out in respect of all proposals.

Site layout and building design are to consider the existing characteristics, opportunities and constraints of the site and the surrounds to result in a high quality design that is sensitive to its environment.

Council will consider the results of the site analysis, and will not grant consent to a development unless it is satisfied that:

- 1. The development is consistent with the height limits illustrated in **figures 8 to 10**.
- 2. The development is compatible with the predominant height, bulk, scale and future character of the locality.
- 3. The development is generally consistent with the Masterplan for the Parramatta Road Corridor area.
- 4. The height, scale, character and external detailing of the development is compatible with any adjoining heritage.
- 5. The development is unlikely to adversely affect the amenity of any existing residential development in terms of overshadowing, privacy, excess noise, loss of views or otherwise.

#### 2.2 Building Footprint

Developments within the Corridor Area are to conform generally with the building footprints as illustrated on **Figures 8 to 10** of this DCP. In order to establish lot consolidation patterns relating to building footprints, a Consolidation Masterplan is illustrated in **Figures 11 to 13**.

#### **Basement Setbacks:**

The outer walls of basements shall comply with the setbacks required in this Section.

Setback from Easements:

Sydney Water Corporation requires that all buildings and structures be at least one metre from any easement or public sewer main. Exceptions may be considered on their merit. In all cases, development must comply with the Corporation's requirements for building over or adjacent sewer mains.

#### 2.3 Building Height

Buildings within the Corridor Area are to comply with the height limits illustrated on **Figures 8 to 10** of this DCP.

#### 2.4 Built Form

- 1. Developments within the Corridor Area are to conform generally with the Built Form guidelines as illustrated on **Figures 14 to 19** of this DCP. Specifically, these controls relate to properties fronting -
  - The new public square proposed opposite Homebush Station;
  - The proposed new Watercourse Park;
  - Loftus Lane;
  - Residential streets;
  - Parramatta Road East; and
  - Parramatta Road Centre.

#### 2. The following minimum unit sizes shall apply

Dwelling type	Size in m <sup>2</sup>
1 bedroom apartment	70
2 bedroom apartment	85
3 bedroom apartment	100
More than 3 bedroom apartment	110
2 Bedroom townhouse/villa	100
3 bedroom townhouse/villa	110
More than 3 bedroom townhouse/villa	120





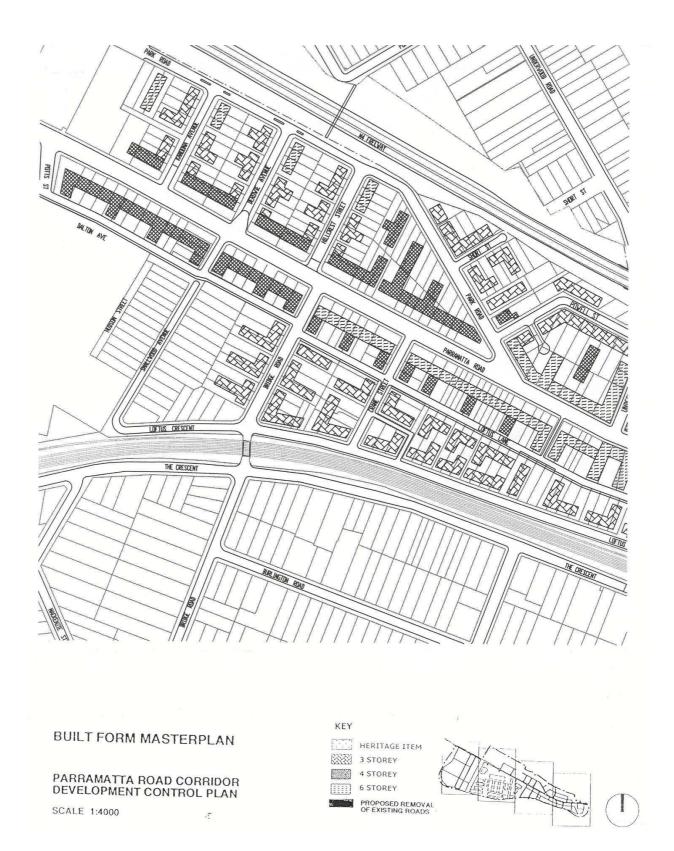


Figure 9 Parramatta Road Corridor Built Form Masterplan (Cont)

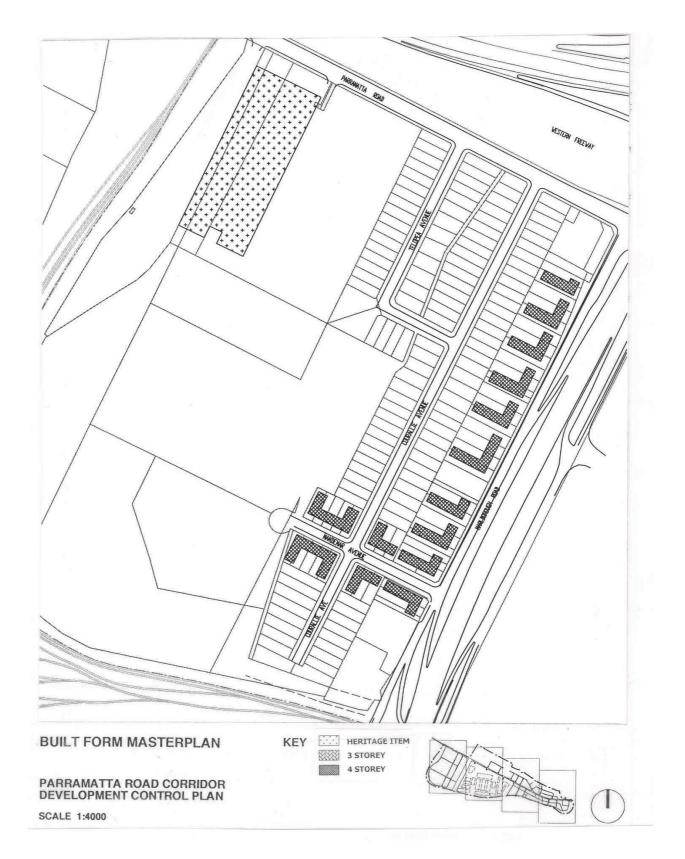


Figure 10 – Parramatta Road Corridor Built Form Masterplan (cont)



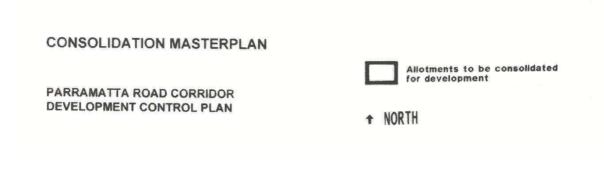
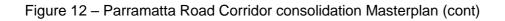


Figure 11 – Parramatta Road Corridor consolidation Masterplan



+ NORTH



DEVELOPMENT CONTROL PLAN

Strathfield DCP No. 20 - Parramatta Road Corridor Area

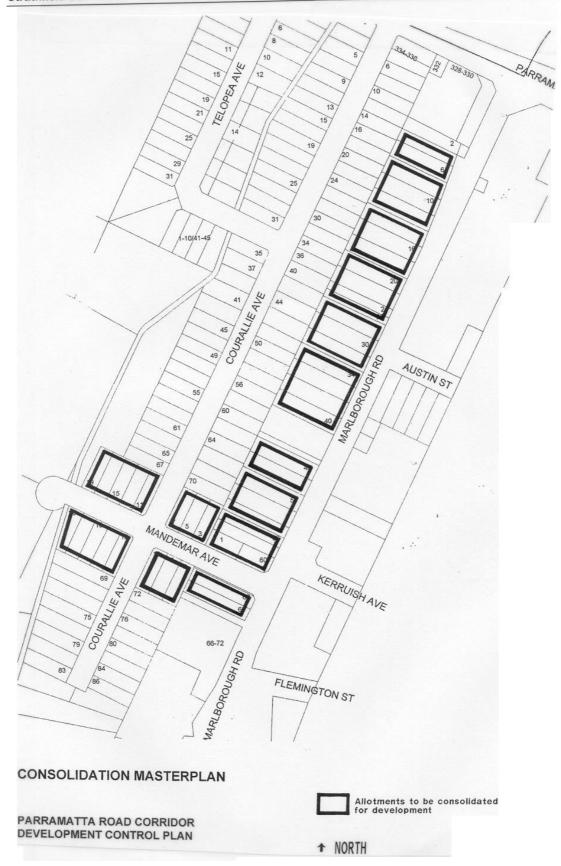


Figure 13 – Parramatta Road Corridor consolidation Masterplan (cont)

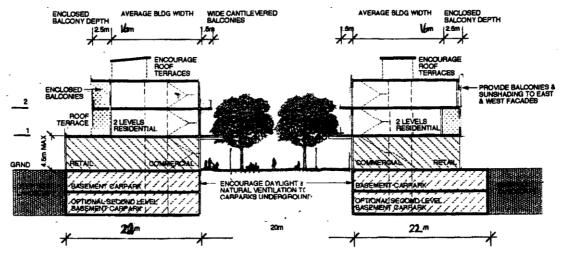


Figure 14

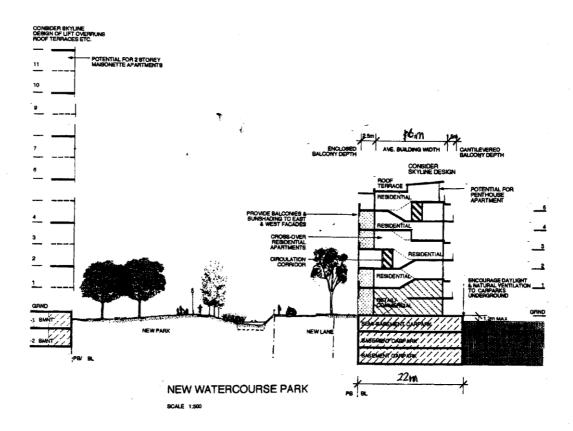
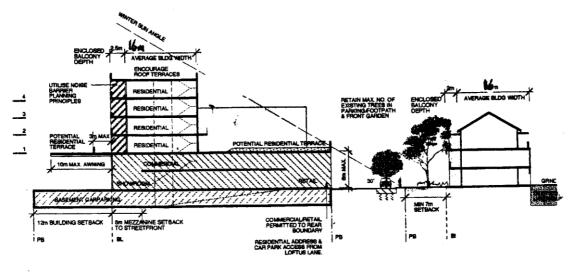
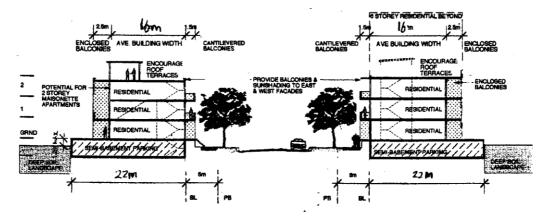


Figure 15



LOFTUS LANE





#### TYPICAL RESIDENTIAL STREET

SCALE 1:500

Figure 17

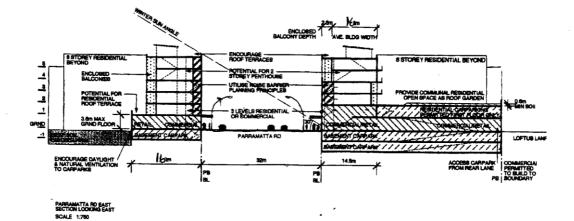


Figure 18

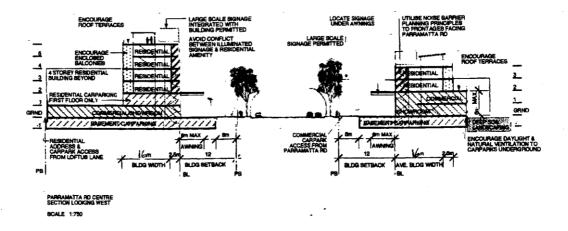


Figure 19

#### 2.5 Roof Form

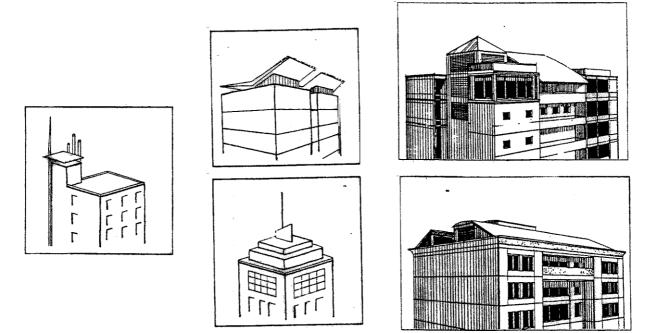
Roofs are a strong visual element in areas with high rise buildings and undulating landscapes. Flat roofs with protruding lift or service plant rooms have very little visual interest and do not contribute to the streetscape.

#### Objective

To provide visually interesting and harmonious roofscapes and skylines through the design of roofs.

#### **Guidelines and Controls**

- 1. Lift and service plants should be concealed within well designed roof structures.
- 2. Roof designs should consider generating an interesting skyline and enhancing views from adjoining developments. **Figure 20** provides examples of roof forms and designs.



## FIGURE 20: SOME ROOF FORMS AND EXAMPLES OF SERVICE STRUCTURES DESIGNED TO BE INTEGRATED INTO THE DEVELOPMENT.

Source: Better Urban Living DUAP

#### **Attic Space**

3. Council does not permit the use of attic space for any form of habitable purposes including living area, bedrooms, balconies, study or the like. Attic space can be used for storage purposes however no dormer windows are permissible.

#### 2.6 Facade Composition

The overall street character is established by the pattern, rhythm, composition and articulation of individual building facades. Existing horizontal or vertical rhythms in a streetscape should be complemented by new facades.

Building entrance canopies and porches are also significant elements for articulating the facade and giving identity to the development.

The opportunity exists to establish building forms and facades which directly respond to environmental and energy needs, such as sunshading, bay windows and recesses.

It is also important that facades respond to the character of the Strathfield Municipality in terms of building materials.

#### Objectives

- a) To ensure that facades reinforce the character and continuity of existing or proposed landscapes.
- b) To ensure that new developments have well articulated and harmonious built edges defining the public domain.
- c) To encourage materials used in new developments to be compatible with adjoining developments and the streetscape in terms of type, form and colour.

#### **Guidelines and Controls**

- 1. Street facades should provide a distinguishable entrance to the building
- 2. The Facades should provide architectural features which give human scale at street level such as entrance porches, public spaces and landscape treatments.
- 3. Materials and finishes used on building facades should blend together and be architecturally interesting. At least 30% of the facade is to incorporate face brick to reflect the traditional character of the Strathfield Municipality.
- 4. The design of the facades and use of particular building materials should address the potential impacts of glare caused by glass particularly on the northern and western elevations and also solar efficiency matters. These are addressed in more detail in Section 2.10.

#### 2.7 Heritage and Conservation

Strathfield Council is committed to the conservation of buildings and structures of special significance within the local government area. Within the Corridor Area, a number of buildings and structures are listed as heritage items. Special requirements apply to applications involving or affecting heritage items. Schedule 9 of the SPS lists the heritage items within the Strathfield Municipality. The Scheme also provides requirements for submitting applications relating to sites with heritage items.

#### Objectives

- a) Protect and enhance items of environmental and heritage significance; and
- b) All new developments and works to existing developments are to be designed to be compatible with the heritage significance of listed heritage items.

#### **Guidelines and Controls**

- 1. Proposed developments involving heritage items must comply with the heritage provisions contained in the Strathfield Planning Scheme Ordinance.
- 2. When submitting an application in respect of a heritage item, the onus is on the applicant to demonstrate that the heritage significance of the item or structure would not be compromised by the proposal.
- 3. Where a development involves a heritage item, Council requires that a statement of effect be lodged with a development application. That statement must set out the heritage significance of the structure or place and the effect the proposed works will have on the significance of the heritage item.

#### 2.8 Visual and Acoustic Privacy

Visual and acoustic privacy are important environmental considerations in relation to the existing and future residential development of the Corridor Area.

#### Objectives

- a) Ensure adequate visual and acoustic privacy to residential apartments in the area and to private open space areas.
- b) Protect the privacy of adjacent neighbours.
- c) Protect residential development from the noise impact emanating from the various transport infrastructures in the area i.e., the M4 Motorway, Parramatta Road and the railways line.
- d) Provide personal and property security for residents and visitors and enhance perceptions of community safety.

#### **Design Principles**

- 1. Visual privacy is to be protected by providing adequate distance between opposite windows of neighbouring buildings where direct view is not restricted by screening or planting (refer to the **Figures 21 and 22**).
- 2. Main living areas are to be oriented to the street or rear garden to avoid overlooking
- 3. The acoustic privacy of all development shall be considered in the context of the proposed development itself and its relationship to the surrounding environment. The site layout and building design shall ensure that:
  - active communal recreation areas, parking areas, accessways and service equipment areas are separated from bedrooms and minimise the entry of high levels of external noise to dwellings;
  - (ii) bedrooms of one dwelling do not adjoin living rooms of adjacent dwellings; and
  - (iii) dwellings close to high-noise sources (such as busy roads and railway lines) are designed to locate habitable rooms and private open space away from noise sources and are protected by appropriate noise- shielding devices.
- 4. Buildings are to be sited and designed to minimise the transmission of external noise to other buildings on the site and on adjacent land.
- 5. Noise impact associated with goods delivery and garbage collection, particularly early morning, should be minimised.
- 6. Developments adjoining a major road or railway line shall take into consideration impacts of the noise source on the future amenity of residents on the site, ensuring noise sensitive uses are placed in more shielded locations (refer to figure 23). For development located close to busy roads, reference should be made to AS2107 –"Acoustics Recommended Design Sound Levels & Reverberation Times for Building Interiors" and AS3671-1989 "Acoustics

– Road Traffic Noise Intrusion – Building Siting and Construction". For development located close to railway lines, reference should be made to Hornsby Shire Council's Code of Practice for Sound Insulation of Residential Building and the State Rail's Publication titled "Rail Related Noise & Vibration". For development that may be impacted by vibration from road or rail, reference should be made to AS2670.2 Evaluation of Human Exposure to Vibration – Part 2: Continuous and Shock Induced Vibration in Buildings (1Hz to 80Hz). Such sites are also required to demonstrate adequate noise attenuation can be achieved within all dwellings through the use of materials and mitigative measure such as double-glazing in windows. The costs of any on-site noise attenuation measures required for the amenity of a development are to be borne entirely by the developer. Council may require a Noise Assessment report to be submitted with such applications, evaluating the likely noise environment of proposed developments.

- 7. Utilise noise barrier planning principles (no bedrooms facing noise source; locate service rooms, kitchens, bathrooms and stairs to separate living areas and bedrooms away from the noise source). Refer to **Figure 23**).
- 8. Council may require a Noise Impact Assessment Report to accompany a Development Application, particularly in respect of noise impact from Parramatta Road, the M4 Motorway and the Railway lines within the Parramatta Road Corridor Area.
- 9. The security aspects of all development shall be considered in the context of the proposed development itself. The sitting and layout of buildings shall ensure that:
  - (i) shared pedestrian entries can be locked and serve a limited number of dwellings; and
  - buildings adjacent to public streets or spaces are designed to allow casual surveillance and should have at least one habitable room window facing that area.

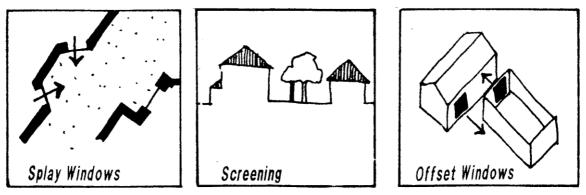
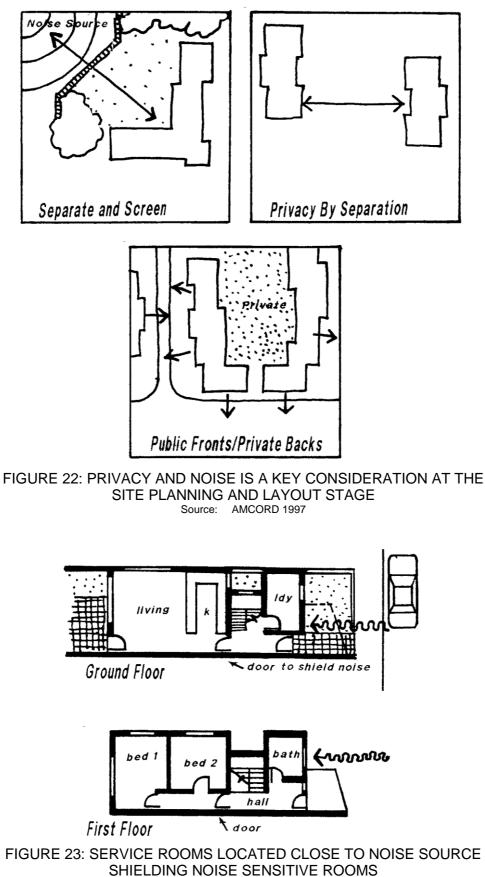


Figure 21: Windows Located To Limit Overlooking Source: AMCORD 1997



SOURCE: AMCORD 1997

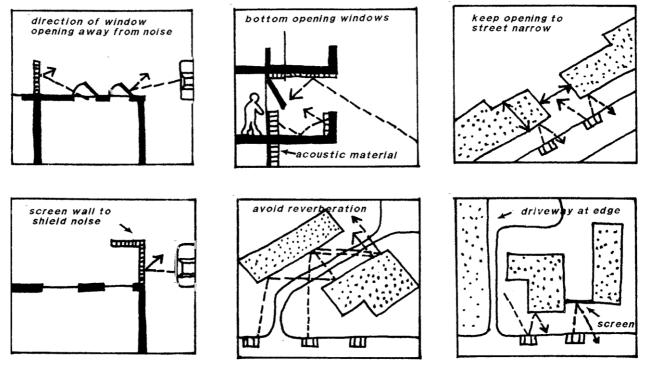
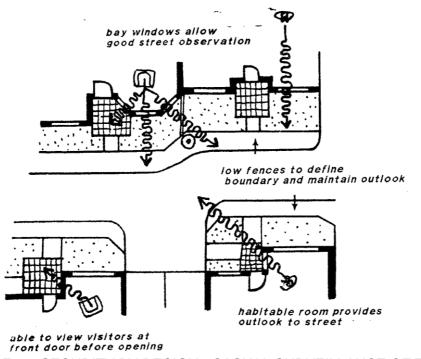


FIGURE 24: SOME IDEAS FOR ACHIEVING ACOUSTIC PRIVACY

Source: AMCORD 1997





## 2.9 Private Open Space

Private open space includes soft landscape or permeable garden areas, and above ground open space such as roof gardens or terraces over car parking, covered arcades, balconies and verandahs. The accessibility of comfortable private and communal outdoor living areas is a major determinant of the ability of occupants to enjoy living in the area.

The existing character of the area is formed in part by the presence of large private gardens with mature trees, which collectively create larger scale landscape spaces. This quality area is to be maintained through the provision of adequate landscape space in each new development.

Soft landscape is the area of deep soil landscape which includes planted areas and permeable surfaces such as lawn, gravel and semi porous paving. It excludes external structures, driveways, swimming pools, ponds, planters or any area over basement car parks. Soft landscape in deep soil contributes to stormwater management by allowing infiltration of runoff to the subsoil. This also contributes to the general health of the landscape in the public and private domains throughout the whole area, by contributing to adequate groundwater flows.

## Objectives

- a) To provide adequate open space for the recreation needs of residents
- b) To ensure open space relates well to the living areas of dwellings
- c) To maintain the park like vistas of the Council area generally.

## **Design guidelines:**

## <u>General</u>

- 1. Each individual development site is required to provide an area of deep soil landscaping of at least 35% of the site area. Buildings and basement car parks shall be planned to allow contiguous deep soil areas, and planned to allow planting of large trees.
- 2. Buildings shall be planned to retain and protect existing significant mature trees. Paved areas, driveways, kerb crossings, and external structures must be sited to have minimum impact on existing significant trees.
- 3. Each contiguous landscape area should contain large trees. The planting may be made up of existing trees and newly planted trees.
- 4. Provide trees and pergolas to shade external areas and control sunlight into buildings.
- 5. Each development must provide an area of common open space equal to 10% of the total site area or 100m<sup>2</sup>, whichever is the greater, and with minimum dimensions of 7 metres. Such an area is to be positioned to receive sunlight and shade, be conveniently located for all residents and be clearly visible from the windows of the majority of dwellings and include an appropriate area for recreation by resident's children where safe and durable play equipment can be provided. Such area must be located behind the front building setback.

- 6. Stormwater detention systems should be integrated into the landscape in such a way as to be part of the useable open space.
- 7. Trees and shrubs with invasive root systems must not be planted over existing service infrastructure.
- 8. A Landscape Concept Plan is required to be submitted with the application indicating the location and treatment of landscaped areas and private open space areas. Refer to Council's Application Information Kit for details required for a Landscape Concept Plan.

#### **Balconies**

- 1. Where dwellings do not have access to ground level open space, at least one main balcony having access from each dwelling unit's living area/s is to serve as private open space. The minimum main balcony area is:
  - 12m<sup>2</sup> for up to 2 bedroom dwellings; and
  - 15m<sup>2</sup> for 3 or more bedroom dwellings.

All balconies must have a minimum dimension of 2 metres.

- 2. Balconies on the south side of buildings are discouraged.
- 3. Locate balconies off living areas, preferably with solar access.
- 4. Balcony balustrades are to be designed to provide adequate privacy and conceal service areas and also allow for passive surveillance of public areas to improve public safety..

#### Front gardens

- 1. Design front gardens to provide a positive setting for the building.
- 2. Design front gardens for security by providing adequate lighting to entrances. Lighting at entrances should enhance security at the street. Avoid planting which may obscure the entry.
- 3. Minimise the impact of driveways in front gardens by design, materials selection and planting.
- 4. Garden structures such as gazebos, clotheslines, play equipment, pools and ponds are not permitted between the building line and the street.
- 5. Garages and parking structures are not permitted forward of the building line.

#### Front fences

1. In residential areas generally, front fences need only be low structures 600mm to 1200mm high to provide some separation from the street. In high traffic areas, such as Marlborough Road, fences may be up to 1.8 metres high measured from the footpath.

## **Design guidelines**

- 1. Front fences shall relate to the predominant streetscape character of the site and its locality. Fences above 1.2 metres in height will only be considered where the site is located on a major road or is exposed to other significant noise sources. The maximum fence height is 1.8 metres where 50% of the fence is transparent. Refer to **Figure 26**.
- 2. Fences should be integrated with the building and landscape design through the use of materials and detailing.
- 3. Fences should highlight entrances to the building and provide lighting at the entrance for security and enhance legibility.
- 4. Solid fences or fences with less wrought iron inserts than specified above, over 900mm in height, must be setback a minimum of 1.5 metres from the street alignment and the setback area is to be suitably landscaped to Council's satisfaction.

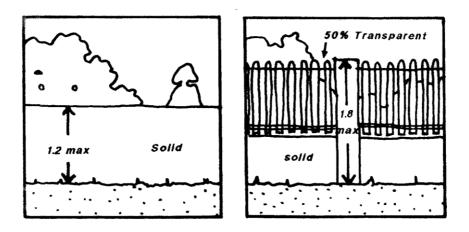


FIGURE 26 : MAXIMUM FENCE HEIGHTS Source: AMCORD 1997

## 2.10 Energy Efficiency and Water Conservation

This section of the DCP has been developed as part of the Council's and growing community's desire to achieve greater efficiency in domestic energy use. It stems from the concern about the effects of greenhouse gases generated by energy use on the environment and over use of domestic water supplies.

The following provisions illustrate how energy efficiency can be achieved in all new developments through the use of appropriately designed buildings, passive solar energy, use of energy smart appliances and water efficiency which will dramatically reduce the need for non-renewable energy thereby reducing both costs and air pollution and in turn increase the level of living standards and comfort within the dwelling.

Applicants are encouraged to consult the Sustainable Energy Development Authority's (SEDA), *Energy Smart Homes Policy* for design solutions to the minimum requirements specified in this plan.

## Objectives

- a. To promote ecologically sustainable development through the design, construction and use of buildings.
- b. To locate buildings and open space areas so that existing and proposed dwellings have reasonable access to sunlight, shade and have optimal outlook and aspect; and
- c. To achieve a high level of energy efficient urban housing, using passive solar design, that provides residents with all year round comfort and reduces energy consumption; and
- d. To conserve water via the use of rainwater tanks and water-saving appliances; and
- e. To encourage the use of devices which promote energy efficiency and water conservation and which respect the residential qualities of the areas in which they are located; and
- f. To promote the reduction of greenhouse gas emissions through ensuring a thermally efficient building envelope and the use of greenhouse gas friendly hot water systems; and
- g. To encourage building materials and insulation which assist in thermal performance and maintain internal comfort levels; and
- h. To encourage the use of recycled building materials where appropriate.
- i. To encourage use of public transport services.

## General

An Energy Performance Statement is required to be submitted which details and justifies the energy performance of the proposal, covering thermal efficiency, greenhouse gas friendly hot water systems, provision of suitable outdoor space for clothes drying, the inclusion or otherwise of clothes dryers with a minimum SEDA Greenhouse Appliance Score of 3.5. The statement must also address any overshadowing of adjoining properties, energy efficiency influences on the landscape design and general efficient influences on the design in general.

The individual elements to be covered in the Energy Performance Statement are detailed below.

## 2.10.1 Energy Efficiency:

## Requirements

Thermally efficient building envelope

- 1. All proposed developments must achieve for each residential unit a minimum House Energy Rating of 3.5 stars (using Nationwide House Energy Rating Software NatHERS or equivalent), assessed by an accredited HMB Assessor – accredited by the House Energy Rating Management Body (HMB).
- 2. A NatHERS assessment must be submitted for each residential unit plan which has a unique solar orientation and position within the development. The Energy performance Statement must justify why rated units have been selected as 'representative' of the thermal conditions of the non-rated units.

## 2.10.2 Solar Access

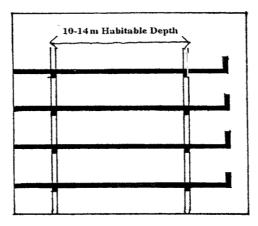
## Requirements

- 1. All buildings are to be designed to maximise solar access to living areas and private open space. Refer to Figure 27. The following guidelines indicate the preferred levels of solar access for new developments, and any departures from these standards will require justification that resulting energy efficiency and solar access is acceptable:
  - (i) the main living areas and at least 50 percent of the principal private open space of each dwelling unit shall have at least three hours of sunlight between the hours of 9am and 3pm on June 22 (winter solstice); and
  - (ii) solar access to the windows of habitable rooms and to the majority of private open space of adjoining properties must be substantially maintained or achieved for a minimum period of 3 hours between 9.00am and 3.00pm at the winter solstice (June 22).
- 2. Solar access to existing neighbouring solar collectors including solar hot water systems and photovoltaic systems must be maintained or enhanced.
- 3. Shadow diagrams are required to accompany all applications, and are to include:
  - (i) details of the existing shadows affecting the property;
  - (ii) projected shadow impacts of the proposed development to the site and adjacent properties at 9am, midday and 3pm, 22 December (summer equinox) and 22 June (winter solstice); and
  - (iii) details of windows/living areas of adjacent properties likely to be shadow

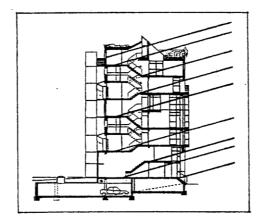
affected by the proposal.

Note: Shadow casts in elevation (to determine the extent of overshadowing impact) may be required if windows of adjoining buildings are affected.

 Shadow diagrams are required to be in accordance with the Department of Environment and Planning's (now Department of Planning) 'Technical Bulletin 13: Sunlight Indicators'.



Narrow footprint buildings allow good daylight 'access



Narrow footprint buildings allow good daylight access Split level plans can enhance environmental quality

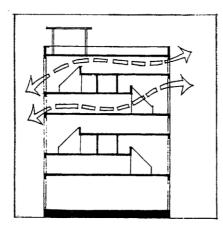
FIGURE 27: NARROW BUILDINGS ALLOW GOOD DAYLIGHT ACCESS. SPLIT LEVEL PLANS CAN ENHANCE ENVIRONMENTAL QUALITY

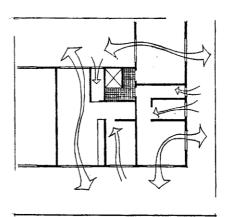
Source: Better Urban Living: Department of Urban Affairs and Planning

## 2.10.3 Natural Space Heating and Cooling

### Requirements

- 1. It is desirable that the use of artificial heating and cooling devices be minimised. Heating and cooling needs should be considered at the design stage.
- 2. Buildings shall be designed/oriented in a manner which minimises heat gain during summer and maximises solar access during winter, thereby reducing the need for artificial cooling and heating (and the associated consumption of natural energy resources).
- 3. The need to artificially heat each dwelling unit during winter, for example, can be minimised via the techniques indicated below.
  - The orientation of living areas to the north so as to make full use of available heat from the sun.
  - The use of deciduous trees (rather than non-deciduous trees) to the north of the building so as to allow for improved solar access during winter.
  - The use of thermal mass to retain solar heat made available during the day. Thermal mass refers to the ability of a material to store and retain heat. Dense materials such as brick and concrete have a high heat storage capacity. For example, an internal brick wall that receives direct sunlight during the day (preferably only) in winter will store heat that is then released during the evening.
- 4. The need to artificially cool each dwelling unit during summer, (via air conditioning) for example, can be minimised via the techniques indicated below.
  - Maximum building depths of 12 metres to ensure cross ventilation. Cross over apartments is one method to achieve this outcome (Refer to Figure 28).
  - The shading of windows and walls (particularly those which face east and west) with both horizontal and vertical shading devices, including appropriately sized eaves and louvres.
  - The shading of windows and walls via appropriately located trees.
  - The positioning of windows and openings so as to capture prevailing breezes.
  - The positioning of windows and openings so as to allow for cross-ventilation.
  - The use of ceiling fans to maintain movement of air.
  - Allowing windows to be locked in a slightly-open position so as to admit cool air yet maintain security.
- 5. Single orientated apartments are discouraged.
- 6. Semi basement carparks where possible should be used as they can be naturally ventilated.





Good cross ventilation can be achived with double orientation apartments, having split levels and corridors on alternate floors

Cross ventilation is best achieved through narrow floor plans

# FIGURE 28: GOOD CROSS VENTILATION IS ACHIEVED USING SPLIT LEVEL APARTMENTS AND NARROW FLOOR PLANS.

Source: Better Urban Living: Department of Urban Affairs and Planning

#### 2.10.4 Natural Lighting

#### **Requirements**

1. Residential units are to be designed so as to maximise natural lighting.

The need to artificially light each unit and common areas (stairs, lobbies and corridors) during the day can be minimised by allowing as much natural light as possible to enter the building. Minimised use of artificial lighting results in reduced electricity consumption. Natural light can be achieved via north and south facing windows; glass bricks and translucent, glazed or otherwise treated glass which allows for the transmittal of light but which maintains privacy.

The installation of some of the above features will require shading devices, either externally or internally such as eaves, pergolas, verandahs, awnings or a solar blind to be incorporated within the building design to provide maximum shading in summer and minimum shading in winter.

- 2. In order to reduce the consumption of conventional non-renewable resources in new developments, all internal and external common areas within a multiple unit housing development are to be lit utilising renewable energy resources generated on site and or supplemented by green energy generated off-site.
- 3 To improve pedestrian safety in public places at least one lamp post on each street frontage is to be installed as part of the development which provides light of at least 150W onto public pedestrian footpath areas. For sites in excess of 30 metres one lamp post is to be provided for each 15 metres or part thereof.

It is preferred that the light be positioned near the main entrance to the site.

## 2.10.5 Glazing

## Requirements

- 1. Glazing to the west is to be minimised to reduce summer heat load or otherwise treated by external screening devices, such as screens, pergolas and tree planting.
- 2. Glazing on north facing facades is encouraged to maximise solar access in winter.
- 3. Utilise glazing systems that minimise the impact of noise from the main roads and the railway.
- 4. New buildings and facades should not result in glare that causes discomfort or threatens safety of pedestrians or drivers.
- 5. A Reflectivity Report that analyses the potential glare from the proposed new development on pedestrians or motorists may be required.

#### 2.10.6 Environmentally Sustainable Building Materials

#### Requirements

- 1. Building materials and insulation that assist in providing acceptable thermal conditions are to be used wherever possible.
- 2. Life Cycle Assessments (LCAs) of the environmental impacts of building materials is considered in the selection of building materials.
- 3. Materials that have low embodied energy, are non-polluting, and from renewable sources are encouraged.
- 4. Materials that are reusable, recyclable or which will decompose are encouraged.
- 5. Heat loss or gain to a dwelling is enhanced by using insulation in ceilings/roofs, walls and floors. Refer to Australian Standard 2627.1993 for recommended ratings.

#### 2.10.7 Water Management

#### Requirements

## Greenhouse Gas Friendly Hot Water Systems

1. A greenhouse gas friendly hot water system that achieves a minimum 3.5 SEDA Hot Water Greenhouse Score must be installed for all developments. Systems which comply with this requirement are outlined in the table below.

Water h	eater Type	Greenhouse Score		
Solar-Gas Doost	Siorage	D		
Gas	instantaneous	4		
Gas-Storage	Hign Eπiclency	4	^	
Electric-Storage	Heat Pump	4	1 እ	
Gas-Storage	Low Efficiency	4		
Solar-Electric Boost*	Continuous	4	11	
Solar-Electric Boost*	Off Peak 2	4	Acceptable	
Electric	Instantaneous	2	UNACCEPTABLE	
Electric	Continuous	1		
Electric-Storage	Storage (Off Peak	1		
* greater than 50%	solar contribution		$\downarrow$	

- 2. Installation details of proposed solar hot water systems are required to be submitted including:
  - S Position on roof and orientation;
  - S Type of system eg split system, direct or indirect system;
  - Size of system and colour of tank and collectors;
  - Specifications for attaching the system to the host structure.

Solar water heaters should generally be located below the ridge line of a roof. Where possible, a solar water heater should be located on a section of roof that is not visible from the street or that is otherwise set back from the street. Particularly in situations where north-facing sections of roof face the street, consideration will need to be given to the visual impact of a solar water heater upon the quality of the streetscape.

3. For the purpose of child safety and energy conservation, all new or replacement hot water systems must include a mixing device which delivers hot water at a maximum temperature of 50 degrees Celsius to all taps, shower heads and other outlets.

#### Water Saving Devices

- Developments are required to be fitted with appliances and plumbing hardware which have a "AAA" Australian Standards Water Conservation Rating and meet the manual of Assessment Procedure for Water Efficient Appliances SAA MP64-1995 which aim to reduce water consumption, including those devices indicated below:
  - Shower head which allows 9 litres flow or less per minute
  - Water tap which allows 9 litres flow or less per minute
  - Dual flush toilet with maximum 6/3 litre capacity dual flush cistern or approved dual flush equivalent
  - Low water use dishwasher and washing machine

#### Mandatory Rainwater Storage

1. A rainwater collection tank must be included in all developments incorporating residential units. The use of tank water for outdoor purposes such as garden watering should have the effect of 'saving' higher-grade water. The size of the rainwater tank will be based on the following calculation:

First 10 units	<ul> <li>minimum 500 litres per unit = 5000litres</li> </ul>
Each unit thereafter	<ul> <li>additional minimum 250 litres per unit</li> </ul>

- 2. The following controls apply to all water tanks:
  - a. The water tank(s) are to be located underground. Where it is not possible to locate a water tank wholly underground, it must at least be located behind the front building line. Care should be taken to reduce the visibility of the water tank from the street.
  - b. The water tank(s) and any associated support structure and plumbing should be the same colour as the development or a colour which complements the building
  - c. The water tank(s) must be located at least 900mm from any property boundary.
  - d. The top of any aboveground tank(s) is to be located below the top of the nearest fenceline or 1.8 metres, whichever is the lesser.
  - e. The water tank(s) should be positioned to collect rainwater which falls on the roof of the building(s). Tank water is to be used for non-drinking/non-consumption purposes only. Taps associated with the tank(s) are to be clearly marked 'NOT FOR DRINKING'.
  - f. Overflow from the water tank(s) is to be piped directly to the approved stormwater drainage system. Where stormwater for a particular property is required to be directed to on-site stormwater detention (OSD) storage (as per Council's Stormwater Management Code) then the overflow from the water tank(s) must also be directed to the OSD storage.
  - g. Plumbing from the water tank(s) is to be kept separate from the reticulated water supply system.
  - h. The water tank(s) inlet is to be screened to prevent entry of any foreign/animal matter and insects such as mosquitos. The water tank(s) should be enclosed.
  - i. No part of the water tank(s) or support stand is to rest on a wall footing.
  - j. The water tank(s) is to be installed in accordance with the manufacturer's specifications.
  - k. The design of any water tank(s) support structure is to be in accordance with the requirements of a qualified practising structural engineer or to the maker's specifications.

- I. A pump associated with the tank(s) is to be no louder than 5dBA above background noise levels.
- 3. Council may consider the combining of the rainwater storage and on-site stormwater retention in one tank. In this regard you are required to contact Council's Drainage Unit for the minimum requirements.
- 4. The use of 'Grey water' for domestic purposes is encouraged. Developers are required to investigate the treatment and re-use of 'Grey' water for non-potable uses as part of the development.

## 2.10.8 Energy Smart Appliances

- 1. The use of top star rated energy smart appliances and lighting including dryers, dishwashers, refrigerators, freezers and washing machines is required.
- 2. Energy smart appliances are those that use less energy to do the same job as other less efficient models. The Label Star Energy Rating System gives a rating to a range of appliances based on their energy efficiency. The more stars you see, the more efficient the model.
- 3. Energy Smart light includes the use of fluorescent and compact fluorescent globes, self timing systems, dimmers, motion sensors and specific purpose switches. The use of natural lighting should be maximised wherever possible.

## 2.11 Stormwater, Sewerage and Drainage

#### Objectives

- a) Ensure new building work does not detrimentally affect the existing drainage system of the area, particularly any residential area or public domain area.
- b) To control the amount and quality of urban runoff from the new development so as not to exacerbate the problem of localised flooding in the area.

#### **Guidelines and Controls**

- 1. All drainage works on site are to be in accordance with Council's Stormwater Management Code.
- 2. Design measures to reduce and where possible reuse and recycle site stormwater, limiting runoff into the existing stormwater system should be utilised wherever possible.
- 3. Stormwater runoff from roof and paved surfaces is to be collected and discharged by means of a gravity pipe system to the Council's drainage system.
- 4. Where gravity drainage is not feasible to the street frontage, a private easement for stormwater drainage must be obtained to enable gravity discharge of stormwater from the site. Where private easements are used, proof of registration from, must be submitted to Council before construction certificate plans are released, to ensure that the grants of the easement have been registered. Such instruments must contain a clause that the easement shall not be extinguished without the written consent of the Council.

- 5. In accordance with Council's Stormwater Management Code, the development is required to include a system of on-site stormwater detention and provision for overland flow of stormwater. Council will not permit above ground detention basins which alter the natural ground level.
- 6. A Positive Covenant under Section 88E of the Conveyancing Act shall be created on the title of the property detailing the on-site stormwater detention system and surface flowpaths.
- 7. In accordance with Council's Stormwater Management Code the development is required to provide and regularly maintain during construction measures to prevent sediment and polluted waters discharging from the site.
- 8. Development must **not** be carried out on land to which this plan applies until arrangements satisfactory to Sydney Water have been made for the provision of water and sewerage services to that land.
- 9. Run-off from roofs or paved surfaces is to be passed to surface storage devices which allow the slow release of stored water into the development's landscaping or use for the purposes of car washing.
- 10. Pervious areas shall adjoin paved areas to reduce stormwater run-off.
- 11. All costs associated with providing any additional capacity of stormwater and drainage services as well as water and sewerage supply shall be met by the developer in accordance with Council's or Sydney Water's requirements.

## 2.12 Access for People with Mobility Disabilities

Council aims to ensure that all buildings and places in the Parramatta Road Corridor Area are accessible to people with mobility disabilities, including the aged, people with prams, wheelchairs, walking difficulties, the sight or hearing impaired or intellectually handicapped.

#### Objective

Provide for the needs of people with access difficulties.

#### **Guidelines and Controls**

- 1. At least one main Entrance with convenient, barrier-free access must be provided in all new developments and redevelopments.
- 2. Access to public areas of buildings and dwellings should be direct and without unnecessary barriers. Obstructions which cause difficulties should be avoided. These include:
  - Uneven and slippery surfaces;
  - Steep stairs and ramps;
  - Narrow doorways, paths and corridors; and
  - Devices such as door handles that require two hands to operate.
- 3. Adequate and convenient seating and amenities for people with mobility disabilities should be provided.

- 4. Adequate parking for people with mobility disabilities, and safe, easy and convenient access to the building shall be provided. Parking spaces for persons with disabilities which is provided within basements is to have wheelchair access to the residential units by either a ramp with a 1:14 gradient, a passenger lift complying with AS1735.12 –1999 or a fixed stairway lift complying with AS1735.7-1998.
- 5. Design must comply with the Building Code of Australia and Australian Standard AS1428 1 1993 *Design for Access and Mobility*.
- A minimum of 15% of the total number of dwellings within every multiple unit development must be designed in accordance with Australian Standard AS 4299

   Adaptable Housing (Class C) to ensure units are internally designed to allow occupation by older people and people with disabilities.

## 2.13 Vehicular Access and Car Parking

## 2.13.1 On-Site Parking

On-site parking includes surface parking areas, car parking structures, semi- basement and underground parking areas.

This Plan aims to provide for the parking needs of future development consistent with the broader objectives of encouraging greater use of public transport, reducing trip generation and reducing car dependency.

### Objectives

- a) To ensure the impact of car parking on the site and streetscape is handled discretely.
- b) To ensure adequate off street carparking for residents and visitors within each development is provided.
- c) To ensure the design of on-site car parking is safe and efficient and integrated with the overall site and building design.
- d) Maximise natural light and ventilation to parking areas where possible.

## **Guidelines and Controls**

#### <u>General</u>

Car parking provision must comply with part I of Strathfield Consolidated Development Control Plan 2005 – Provision of Off-Street Parking Facilities except where detailed below:

- 1. Car parking should be incorporated within the building, behind the building line;
- Consolidated parking areas should be provided below ground or screened from the street and concentrated under building footprints to maximise the area for deep soil landscaping;
- 3. Geotechnical, Structural and Hydraulic Reports should accompany any proposal for underground parking; and
- 4. Opportunities for natural ventilation to basement car parking should be maximised.
- 5. All development is required to provide 100% of the required parking on site.

#### <u>A.</u> <u>Retail Development</u>

Retail/commercial development to provide parking generally in accordance with Council's DCP No.4 except as varied below:

- For shops less than 500m<sup>2</sup> GFA, one space per 50m<sup>2</sup>.
- For shops between 500m<sup>2</sup> and 1,000m<sup>2</sup> GFA, one space per 40m<sup>2</sup>.
- For shops above 1,000m<sup>2</sup> GFA, one space per 25m<sup>2</sup>.

#### <u>B.</u> <u>Office Development</u>

- For offices less than or equivalent to 1,000m<sup>2</sup> GFA, one space per 100m<sup>2</sup>.
- For offices greater than 1,000m<sup>2</sup> GFA, one space per 75m<sup>2</sup>.

The above rates are based upon encouraging public transport usage.

## C. Residential Flat Buildings

- 1 space per 1 and 2 bedroom unit.
- 1.5 spaces per 3 or more bedroom unit.
- Visitor parking:

It is considered appropriate to maximise use of nearby kerbside parking supply and part of any public off-street public parking areas for use by visitors. Council will require some provision of visitor parking on-site in accessible locations for large scale residential buildings in excess of 20 units. In this regard 1 parking space per 5 units for visitors is required.

Council will determine available kerbside supply within each defined residential precinct which will be available for visitors to residential development. Any shortfall in demand is to be provided on-site in readily accessible locations.

## D. Mixed Use Developments

Where a proposed development includes both commercial and residential uses, the following parking provisions for the residential component will be applied.

- 1 space per 1 and 2 bedroom unit.
- 1.5 spaces per 3 or more bedroom unit.
- Visitor parking:

It is considered appropriate to maximise use of any commercial parking spaces on site as well as nearby kerbside parking supply and part of any public off-street public parking areas for use by visitors. Council will require some provision of visitor parking on-site in accessible locations for large scale residential buildings in excess of 20 units. In this regard 1 parking space per 5 units for visitors is required.

## E Bicycle parking

Consideration should be given to providing suitable facilities for accommodating bicycle parking are to be provided in all residential flat and mixed use developments.

## 2.13.2 Vehicular Access

Vehicular access will be governed by road safety consideration. It is generally preferred that access be provided from roads other than Parramatta Road. However, for large consolidated sites direct access from Parramatta Road may be considered in consultation with the RTA.

## 2.13.3 Loading/Unloading Facilities for Businesses

## **Guidelines and Controls**

 Loading facilities must be provided via a rear lane or side street where such access is available.

#### 2.13.4 Ramp/driveway Gradient and Design

1. The minimum and maximum dimensions and gradients for ramps/driveways leading to basement carparking are provided in the table below. **Figure 29** also details the minimum and maximum dimensions and gradients allowed.

Minimum and Maximum Requirements For Ra	mps
Minimum Lane Width (a)	3.0
Maximum Transition Zone Gradient (b)	1:10
Maximum Transition Zone lengths (c)	2.0
Maximum Ramp Gradient (d)	1:5

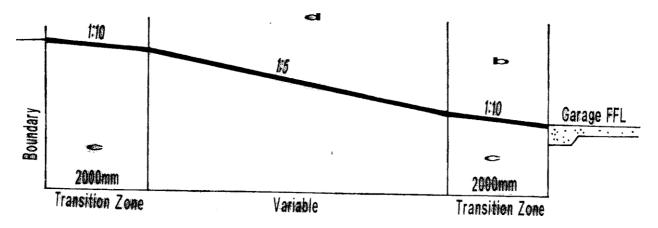


FIGURE 29: MINIMUM AND MAXIMUM REQUIREMENTS FOR RAMPS

- 2. Applications for steeper gradients will generally not be supported unless a written submission accompanies the application justifying the departure. Any such submission shall address the impact of the ramp on the streetscape.
- 3. The ramp/driveway is to be designed in accordance to Australian Standard AS 2890.1 1993.
- 4. Applicants are required to submit plans at a scale of 1:200 of the ramp showing long sections of both the side and centre of the driveway from the garage to the centre of the road carriageway with their development application.

## 2.14 Site Facilities and Services

## **Objectives:**

- a) To preserve and protect the amenity and property of residents, property owners and the community;
- b) To ensure the safety of residents and the community;
- c) To ensure that site facilities and essential services and amenities are well integrated into residential developments, and are unobtrusive; and
- d) To ensure that site facilities are adequate, convenient and easy to maintain.

## **Guidelines:**

## 2.14.1 Garbage Facilities

Refer to Part H of Strathfield Consolidated Development Control Plan 2005 – Waste Management.

## 2.14.2 Telecommunications Supply

## Requirements

- 1. To improve the visual amenity of developing areas, the following is required:
  - All electricity and telecommunications supply to the development and throughout the site is to be placed underground; and
  - Arrangements are to be made with the relevant electricity supply authority and telecommunications carriers to place all overhead wires which hang in front of the development site between electricity power poles to be placed underground including any supplies required from the opposite side of the public road at the developers expense.
- 2. Energy Australia may require an area within the site suitable for location and maintenance of a substation kiosk. The location must satisfactorily meet the requirements of both Energy Australia and the Council and be finalised prior to release of the Construction Certificate. Applicants are encouraged to contact Energy Australia at the design stage to ascertain their requirements.

## 2.14.3 Letterboxes

- 1. Provision shall be made for mail delivery service by Australia Post in accordance with the following:
  - letterboxes are to be chosen to suit the development;
  - deliveries will only be provided to one point at each property;
  - the point of delivery should entail the least possible deviation by delivery staff from the public footpath;
  - letterboxes shall be between 900mm and 1200mm from the ground;
  - letterboxes shall be included in a separate structure located within the property along the pedestrian accessway. The wall of the letterbox structure containing the front of the letterboxes is to be positioned at 90° to the street frontage;
  - letterboxes are not to be surrounded by trees, shrubs and rocks that make it difficult to deliver mail; and

- letterboxes are to have Australia Post approved minimum dimensions which include the following:
  - \* 230mm wide;
  - \* 330mm long;
  - \* 160mm high; and
  - \* the slot should be the full width of the box (230mm), 30mm deep and be positioned at least 130mm above the base of the box.
- 2. Letterboxes are to be located fully within the site and positioned so as to avoid any unsightly or untidy appearance from the street frontage.

#### 2.14.4 TV Antennas

- 1. A master antenna is to be provided for any development of more than two dwellings.
- 2. Any cable TV connection is to be provided by a single underground cable.

#### 2.14.5 Clothes Drying Facilities

All multiple unit developments must include sufficient outdoor clothes drying space. The drying of clothes in balcony areas visible from the street is prohibited.

In addition, where clothes dryers are proposed to be installed as part of the development, these must achieve a minimum SEDA Greenhouse Score of 3.5. The Greenhouse Score is found by comparing the Label Energy Star rating to the Greenhouse Score on the table below.

4.0     0.0       4.0     5.5       3.0     5.0       3.0     4.0       2.0     3.5       1.5     3.0       1.0     2.5       0.5     2.0		Greenhouse Score	Label Energy Rating
3.0         0.0           3.0         4.0           2.0         3.5           1.5         3.0           1.0         2.5	•	U.O	4.5
3.0         4.5           2.0         4.0           2.0         3.5           1.5         3.0           1.0         2.5		D.D	4.0
Z.D         4.U         ACCEPTABLE           2.0         3.5         ACCEPTABLE           1.5         3.0         UNACCEPTABLE           1.0         2.5         UNACCEPTABLE		J.U	3.5
2.0         3.5         ACCEPTABLE           1.5         3.0         UNACCEPTABLE           1.0         2.5         Instruction of the second seco		4.5	3.0
1.5         3.0         UNACCEPTABLE           1.0         2.5         Instant	_	4.0	۲.5
1.0 2.5 <b>ONACCEPTABLE</b>	ACCEPTABLE	3.5	2.0
1.0 2.5	UNACCEPTABLE	3.0	1.5
0.5 2.0		2.5	1.0
		2.0	0.5

## 2.15 Section 94 Contributions

Council is able under the Environmental Planning and Assessment Act to charge a developer/applicant a monetary contribution towards the provision of community infrastructure such as open space, traffic management and community facilities. Please refer to Council's Section 94 Developer Contributions Plan for details of contributions.

## 2.16 Excavation of Sites

The following guidelines refer to works that require deep excavation such as basements, cellars and in ground pools:

- 1. Where excavation work is proposed, the work shall not affect or undermine the soil stability or structural stability of any buildings on adjoining properties. Adequate precautions must be undertaken during excavation to ensure there is no soil subsidence or slip. Council encourages the consideration of soil subsidence and slip issues at the design stage of a proposed development.
- 2. The provisions of the Building Code of Australia must be complied with to ensure that earthworks will be carried out safely and avoid potential damage to adjoining structures and property through soil collapsing or subsiding during building works.
- 3. All excavations and backfilling associated with the erection or demolition of a building must be executed safely and in accordance with appropriate professional standards.
- 4. All excavations associated with the erection or demolition of a building must be properly guarded and protected to prevent them from being dangerous to life or property.
- 5. The applicant is required to produce a dilapidation report for all buildings which adjoin proposed excavation areas.

Note: The owner of the adjoining allotment of land is not liable for any part of the cost of the work carried out, whether carried out on the allotment of land being excavated or on the adjoining allotment of land.

Note: Plans prepared by a qualified Structural Engineer indicating the design details and specifications of the basement walls and excavation shall be submitted with the development application. The plans shall include sections and plan views showing the extent of excavation and setbacks from boundaries. A qualified Structural Engineer shall certify that the excavation works will not result in damage to adjoining properties.

## 3.0 APPENDIX 1

The following checklist provides a quick guide as to the DO'S and DON'TS of designing a multiple unit residential development. The purpose of the guide is to assist developers with producing a development which meets the requirements of the DCP and expectations of the community.

- $\checkmark$  DO consider the characteristics of the site and the adjoining developments
- $\checkmark$  DO ensure that new developments maintain the same setback and streetscape character of the neighbourhood
- $\checkmark$  DO ensure that the development is appropriate for the site
- $\checkmark$  DO ensure that developments will be accessible to people with disabilities, or are able to be modified
- ✓ DO ensure the development is designed and uses materials and finishes which are characteristic of Strathfield
- ✓ DO ensure that the development and public open space areas make best use of the sun, are energy efficient and are environmentally friendly
- DO ensure that building entries address the street and are clearly visible from the street or internal driveways
- $\checkmark$  DO design to fit with the type and quality of landscaping in the area
- $\checkmark$  DO consider the quality of private open space and how it relates to the layout of the development
- ✓ DO ensure that entries, parking areas and paths are well lit and able to be viewed from public spaces
- **X** DON'T let driveways or garages dominate the view of the development from the street
- X DON'T forget communal open space and play facilities for children
- **X** DON'T leave acoustic and visual privacy protection out of the design of the development
- X DON'T ignore design techniques which assist safety issues
- **X** DON'T treat all land as being the same. Recognise its special character and design your development to maximise the advantages of the site.