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</thead>
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<tr>
<td>1</td>
<td>Council Notice of Rescission: Term &quot;street width&quot; and associated definition deleted and replaced with new term &quot;road reserve width&quot; and associated definition.</td>
</tr>
<tr>
<td>2</td>
<td>The amendments ensure consistency with the Department of Planning’s Building Sustainability Index (BASIX) and amendments to the provisions in relation to building materials and finishes.</td>
</tr>
</tbody>
</table>
1 Introduction

1.1 Name of this DCP
This plan is the “Ku-ring-gai Multi-unit Housing Development Control Plan No. 55 - Railway/Pacific Highway Corridor and St Ives Centre”

1.2 Commencement date
This Development Control Plan was adopted by Council resolution of 14 December 2004 and came into effect on 22 December 2004 and may be subject to amendments. Applicants should check with Council to make sure that this is the most up-to-date issue.

1.3 Land affected by this DCP
This plan applies to land zoned Residential 2(d3) under the Ku-ring-gai Planning Scheme Ordinance 1971 (as amended).

1.4 Consistency of DCP with the EP&A Act 1979
This Development Control Plan (DCP) has been prepared in accordance with Section 72 of the Environmental Planning and Assessment Act 1979 (the Act). Council is required by Section 79C of the Act to take the DCP into consideration when determining development applications to which the DCP applies.

This DCP is to complement the statutory requirements of Ku-ring-gai Local Environmental Plan No.194 (LEP 194). In the case of any inconsistency between this DCP and LEP 194, the provisions of LEP 194 shall prevail.

1.5 Purpose of the plan
The DCP is intended to support the objectives and provisions of Ku-ring-gai Local Environmental Plan No.194 by providing more detailed objectives and controls for multi-unit development. The objectives and controls of the DCP are responsive to both community expectations and an applicant’s right to have a level of certainty in the development process.
1.6 General aims of the plan

This plan aims to:

a) accommodate demand for additional housing in a way that reflects the desired future character of Ku-ring-gai;

b) achieve a landscape setting for multi-unit housing that replenishes the tree canopy, retains the landscape character of Ku-ring-gai through the selection of appropriate species and provides a high level of aesthetic quality and amenity for both occupants and the adjoining public domain;

c) recognise the heritage significance of heritage items and their settings and the heritage significance of heritage conservation areas.

d) achieve a high quality urban design and architectural design of buildings and in the relationship of buildings with neighbouring development, the public domain and landscape quality;

e) provide for a harmonious relationship between new multi-unit housing and the natural environment of Ku-ring-gai, including biodiversity, general tree canopy, natural watercourses and to reduce and mitigate impacts of development on natural areas including National Parks and bushland reserves;

f) promote the principles of ecologically sustainable development including water sensitive urban design, climate responsive building design, energy efficiency, and selection/use of building materials;

g) achieve a high level of residential amenity in building design for the occupants of the building through sunlight/daylight access, acoustic control, privacy protection, natural ventilation, passive security design, outdoor living, landscape design, indoor amenity and storage provision.

h) facilitate buildings and landscaping that are designed for all age groups and degrees of mobility;

i) incorporate traffic control measures and outcomes to improve access by traffic and promote pedestrian safety; and

j) encourage the use of public transport, walking and cycling, and manage local traffic impacts.

1.7 Which applications does this DCP apply to?

This DCP applies to all multi-unit housing including residential flat developments, townhouses and villas in 2(d3) zones. This DCP applies to development applications and applications to modify development consents under section 96 of the Environmental Planning and Assessment Act 1979 which are made on or after the commencement date of this plan.
1.8 Relationship to SEPP 65 and NSW Residential Flat Design Code

This DCP has been prepared in accordance with State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development (SEPP 65) and has been formulated to respond to the design quality principles of SEPP 65.

The design of residential flat buildings is to be considered in accordance with the SEPP 65 design principles, being:

**Principle 1: Context:** Good design responds and contributes to its context. Context can be defined as the key natural and built features of an area.

**Principle 2: Scale:** Good design provides an appropriate scale in terms of the bulk and height that suits the scale of the street and the surrounding buildings.

**Principle 3: Built form:** Good design achieves an appropriate built form for a site and the building’s purpose, in terms of building alignments, proportions, building type and the manipulation of building elements.

**Principle 4: Density:** Good design has a density appropriate for a site and its context, in terms of floor space yields (or number of units or residents).

**Principle 5: Resource, energy and water efficiency:** Good design makes efficient use of natural resources, energy and water throughout its full life cycle, including construction.

**Principle 6: Landscape:** Good design optimizes that together landscape and buildings operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both occupants and the adjoining public domain.

**Principle 7: Amenity:** Good design provides amenity through the physical, spatial and environmental quality of a development.

**Principle 8: Safety and Security:** Good design optimizes safety and security, both internal to the development and for the public domain.

**Principle 9: Social dimensions**
Good design responds to the social context and needs of the local community in terms of lifestyles, affordability, and access to social facilities.

**Principle 10: Aesthetics:** Quality aesthetics require the appropriate composition of building elements, textures, materials and colours and reflect the use, internal design and structure of the development.

The preparation of this DCP has had regard to the publication *NSW Residential Flat Design Code 2002* (RFDC). Where there is any inconsistency between this DCP and the RFDC, the provisions of this DCP will prevail. However, the principles and controls contained in the RFDC are to apply to design issues not specifically covered within the DCP.
1.9 Relationship to Planning Instruments and Other Plans

This DCP complements the strategic and statutory requirements in Ku-ring-gai’s deemed environmental planning instrument, known as the Ku-ring-gai Planning Scheme Ordinance 1971 (as amended by Local Environmental Plan No. 194) by providing detailed provisions and controls to be considered when assessing applications for multi-unit housing development in the Residential 2(d)3.

The provisions of this DCP are matters for consideration under clause 33(d) of the Ku-ring-gai Planning Scheme Ordinance.

The provisions of this DCP are also to be read in conjunction with all other relevant Environmental Planning Instruments, DCPs and Council Policies including, but not limited to:

- State Environmental Planning Policy No. 1 – Development Standards
- State Environment Planning Policy No. 19 – Bushland in Urban Areas
- State Environmental Planning Policy No. 65 – Design Quality of Residential Flat Development and NSW Residential Flat Design Code 2002
- Sydney Regional Environmental Plan No. 20 – Hawkesbury–Nepean River
- Development Control Plan No. 31 – Access
- Development Control Plan No. 40 – Construction and Demolition Waste Management
- Development Control Plan No. 43 – Car Parking
- Development Control Plan No. 46 – Exempt and Complying Development
- Development Control Plan No. 47- Water Management DCP
- Notification Policy
- Tree Preservation Order, 1995

Details of the above statutory requirements and policies are available from Council on request. This DCP has been prepared in accordance with the Environmental Planning and Assessment Act 1979 and its Regulations.

The applicant should submit sufficient information to demonstrate compliance with the relevant controls. Where there are inconsistencies between this DCP and the above DCPs and other Council policies and orders, this DCP prevails.

The Heads of Consideration contained in Section 79C of the Environmental Planning and Assessment (EP&A) Act 1979 must be addressed in any application for multi-unit housing. A Statement of Environmental Effects addressing these matters (a schedule of matters is in the Regulations) must accompany each Development Application for multi-unit housing.
1.10 Preparing and lodging a Development Application (DA)

Applicants should refer to Council’s Development Application Guide before preparing and lodging a development application under this DCP.

The Development Application Guide is available from Council’s Customer Service Centre and provides a comprehensive step-by-step guide to preparing an application and outlining all information that must be submitted with an application.

1.11 How to use the DCP design objectives and controls

Sections 2 to 6 of this DCP provide design objectives and design controls. Applicants are required to comply with these objectives and controls in order to ensure their development meets the DCP’s requirements.

The ‘Design Objectives’ for each topic describe the outcomes that proposed developments are required to achieve. In order to gain Council approval, developments need to demonstrate that they have fulfilled the relevant objectives for each topic.

The ‘Design Controls’ represent specific ways in which a development proposal should meet the ‘objectives’ for the topic. The purpose of the numerical design controls is to establish minimum design standards that should be met in order to achieve the objectives contained in this DCP and LEP 194.

It is acknowledged that not all design controls are appropriate for all sites. Where an applicant wishes to vary a design control to respond to the particular circumstances of their site, they must provide written justification in the Statement of Environmental Effects accompanying the development application. The written justification must establish that the departure from the design control/s still achieves the design objectives and principles. A suitably qualified person in the areas of architecture, landscape architecture or urban planning must prepare the written justification for the proposed variation to the controls.

Section 7 of this DCP provides specific design objectives and controls for nominated areas. Development in these nominated areas must be in accordance with the relevant design controls contained in this section in addition to, or instead of, the general controls. In the event of any inconsistency between the design controls in section 7 and design controls elsewhere in the DCP, the section 7 design controls will prevail to the extent of any inconsistency.

Compliance with the design controls of this DCP is not a sufficient basis for approval. Emphasis will be given by Council to ensure that the proposal satisfies the aims and objectives if this plan and LEP 194 and the objectives for each design element are achieved. While the DCP contains
most of the detailed design objectives and controls for multi-unit housing development, LEP 194 and the KPSO also contain important objectives and development standards that will need to be met.

1.12 Definitions

In this DCP the following definitions apply:

**access handle** means a strip of land that provides access from an allotment to a street or other public land, whether or not the strip forms part of the allotment.

**balcony** means any unenclosed balustraded platform 0.3 metres or more above adjacent finished ground level either cantilevered or supported over open space, which is attached to a dwelling and used for the exclusive enjoyment of the occupants.

**bedroom** means any habitable room, which in the opinion of Council, is capable of being used as a bedroom.

**Blue Gum High Forrest (BGHF)** means the plant community described in the final determination of the Scientific Committee to list Blue Gum High Forrest as an endangered ecological community under Part 3 of Schedule 1 of the **Threatened Species Conservation Act 1995**. Note: A copy of this description is available from Council.

**building footprint** means the total maximum extent of the two dimensional area of the plan view of a building including all levels, but excluding any part of the building below ground and minor ancillary structures such as barbeques, letterboxes and pergolas.

**built upon area** means the area of a site containing any built structure (whether covered or uncovered), any building, carport, terrace, pergola, hard surface recreation area, swimming pool, tennis court, driveway, parking area or any like structure, but excluding minor landscape features.

**bushland** means land on which there is vegetation which is either a remnant of the natural vegetation on the land or, if altered, is still representative of the structure and floristics of the natural vegetation.

**common property** refers to that part of the site not subject to exclusive or private use by any particular residents or occupants of the building(s).

**deep soil landscaping** means a part of a site area that:
(a) is not occupied by any structure whatsoever, whether below or above the surface of the ground (except for paths up to 1 metre wide), and
(b) is not used for car parking.

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

ecologically sustainable development has the same meaning as in the Local Government Act 1993 and includes the following:
(a) conservation of natural resources,
(b) optimisation of the use of natural features,
(c) optimisation of energy efficiency,
(d) maintenance or improvement of air, water and soil quality,
(e) reduction of car dependence, and
(f) waste avoidance and minimisation, and cleaner production.

floor space ratio of a building means the ratio of the gross floor area of the building to the site area.

gross floor area means the sum of the areas of each floor of a building where the area of each floor is taken to be the area within the inner faces of the external enclosing walls, as measured at a height of 1,400 millimetres above each floor level, but excluding:
(a) columns, fin walls, sun control devices, awnings and any other elements, projections or works outside the general lines of the outer face of the external walls, and
(b) lift towers, cooling towers, machinery and plant rooms, and air conditioning and ventilation ducts, and
(c) ancillary car parking and any associated internal designated vehicular and pedestrian access thereto, and
(d) space for loading and unloading of goods, and
(e) internal public areas, such as arcades, atria and thoroughfares, terraces and balconies with outer walls less than 1,400 millimetres high.

ground level means the natural level of the ground before the erection of any building or carrying out of any work.

habitable room means all rooms in a dwelling other than bathrooms, separate toilets and laundries.

heritage building means any building that forms part of a heritage item.

heritage garden means landscaping and vegetation associated with a heritage item.

heritage item means a building, work, relic, tree or place of heritage significance to the area of Ku-ring-gai as identified in Schedule 7 of the Ku-ring-gai Planning Scheme Ordinance.

living room shall be one room of the following type:
(a) sunroom;
(b) lounge room;
(c) open plan living areas, including eat in kitchen areas; and

It shall not include bedrooms, bathrooms, storage areas, laundries or separate toilets.

**manageable housing** means housing in accordance with Class C – Adaptable Housing Features as set out in Australian Standard AS 4299 – 1995 – *Adaptable Housing* and must contain a bedroom, kitchen, dining area and bathroom on the ground floor or, where not on the ground floor, on a level to which lift access is provided.

**multi-unit housing** means three or more dwellings on one allotment, whether attached or not.

**north facing** is defined as between 30 degrees east and 20 degrees west of true solar north.

**private open space** refers that part of the site area not occupied by any building/s, except for swimming pools or other outdoor recreation facilities, which is landscaped by gardens, lawns, shrubs or trees and is available for the exclusive use of the occupants of each respective dwelling and which is directly accessible from the principle living area or areas, but excludes driveways, turning areas, vehicular and pedestrian access ways, car spaces narrow elongated curtilage areas within the boundary setback areas, drying yards and service areas.

**residential flat building** means a building containing three or more dwellings.

**road reserve width** means the distance between property boundary to opposite property boundary.

**site area**, in relation to proposed development, means the areas of land to which an application for consent to carry out the development relates, excluding the area of any access handle.

**site coverage** means the proportion of the building footprint to the site area, expressed as a percentage.

**site slope** means the proportion, expressed as a percentage, of the vertical difference in levels between the highest and lowest points of the ground level at the outer edge of the building footprint of proposed development to the horizontal distance between those same two points.

**setback** means the distance between any given boundary of an allotment and the external plane of the building being erected or proposed to be erected, including the external plane of any balcony, carport or the like.

**shadow** shall be that caused by a proposed structure, together with any existing structures to be retained, and does not include that cast by trees and vegetation or boundary fences.
**streetscape** means the character of the locality (whether it be a street or precinct) defined by the spatial arrangement and visual appearance of built and landscape features when viewed from the street.

**storey** in relation to a building, means the space between any 2 successive floors, or the space between natural ground level and any floor immediately above that level, or the space between any floor and its ceiling or roof above.

*Note: Any such space that exceeds 3.5m in height is counted as 2 storeys. Any space where the ceiling of that floor or level is more than 1.2 metre above natural ground level at any point will be counted as a storey.*

**Sydney Turpentine Iron Bark Forest (STIF)** means the plant community described in the final determination of the Scientific Committee to list Sydney Turpentine Iron Bark Forest as an endangered ecological community under Part 3 of Schedule 1 of the *Threatened Species Conservation Act 1995*.

*Note: A copy of this description is available from Council.*

**townhouse** means a dwelling included in multi-unit housing, being a dwelling that has a separate entrance door accessible from an outside area and a private courtyard area at a level the same as, or similar to, the floor level of the dwelling.

**Urban Conservation Area** means land identified in Urban Conservation Area maps in Appendix C of this DCP as an urban conservation area and includes buildings, works, relics, trees and places situated on or within the land.

**villa** means a townhouse which has only one storey.
2 Elements of Good Design

This section provides broad guidelines and some detailed controls on what Council considers to be elements of good design for multi-unit housing in Ku-ring-gai and which should be evident in all applications. Some of these good design elements are elaborated through the detailed design objectives and design controls contained in this DCP and should be reflected in all new medium density development.

2.1.1 Context

E-1 Good design responds and contributes to the context in which the building is situated. Responding to the local context involves identifying the desirable elements of the current character that are important to its future.

E-2 In most locations, new proposals in the Ku-ring-gai are to be located within a setting that is dominated by the form of the Blue Gum High Forest, Sydney Turpentine Ironbark Forest or medium to large native and exotic canopy trees. Ku-ring-gai is characterised by a steep topography and a generally irregular street pattern that traverses it creating a myriad of experiences through the landscape.

E-3 Multi-unit housing concentrated along the Highway / Railway corridor is typically characterised by buildings setback from the street within a landscape setting. A generous tree canopy within the front setback provides screening creating a streetscape dominated by its landscape character.

E-4 New residential flat buildings should be integrated as part of this landscape environment, being sub-ordinate to it.

2.1.2 Building to Street Alignment

E-5 Buildings should be predominantly aligned with the street to provide definition of the street edge and provide a consistent urban form.

E-6 Corner sites should relate and be aligned to both street frontages.
2.1.3 Building Entry

E-7 The building entry should provide a clear identity for the development.

E-8 Entries should be located to relate to the existing street and be a clearly identifiable element of the building in the street.

E-9 Sites with wide frontages should have multiple entries – to activate the street edge.

E-10 Mailboxes should be located to be an integrated element in the landscape - setting them at 90 degrees to the street rather than along the front boundary.

2.1.4 Articulation and Materials

E-11 The existing materials palette of development within the Ku-ring-gai area consists largely of dark or red back brick, timber or copper. New development should respect and respond to the existing materials palette.

E-12 Buildings that are setback from the street or at the rear of a development and are surrounded by a dense tree canopy may be more suitably finished in a light coloured render to maximise the reflectance of light between the buildings.

E-13 Large overhanging roofs can add scale and proportion to the building and provide useful shading devices.

E-14 Lift overruns and plant equipment should be integrated into the building form and should not be visible.
E-15 Buildings should be considered ‘in the round’ rather than being designed as a series on unrelated facades. The number and distribution of elements across the facade determines the simplicity and complexity. Columns, beams, floor slabs, balconies, window openings and fenestrations, doors, balustrades, roof forms and parapets are elements which can be revealed or concealed and organised into simple or complex patterns. Buildings should also clearly respond to their orientation using elements such as recesses, awnings, light shelves and bay windows as environmental controls.

E-16 Building should be designed with an appropriate rhythm and proportion that responds to the contextual character and uses within the building. Design solutions should consider:

i. definition of a base and top relating to the overall proportion of the building using lighter materials ensure that the upper floors are recessive;

ii. articulating building entries with awnings, porticos and recesses; and

iii. selecting balcony types that respond to the street context, building orientation and residential amenity.
3 Local Context

This section of the DCP addresses the SEPP 65 Design Principal 1: Context.

Developments should be designed to be consistent with the stated Desired Future Character of the 2(d3) zones, while not detracting from the existing character of adjoining or surrounding areas.

Ku-ring-gai also has a large number of heritage items and identified Urban Conservation Areas. All future residential flat development needs to occur in a manner that will not compromise the integrity of heritage items in the vicinity, or compromise the integrity of Urban Conservation areas.

3.1 Existing Character of Ku-ring-gai

Council adopted statements on "The Character of Ku-ring-gai" and "A Statement of Heritage Significance" on 9 March 2004. Copies of these statements are included as Appendix B of this DCP. These statements provided a clear context for residential development in Ku-ring-gai.

Ku-ring-gai contains most of the last remnants of Blue Gum High Forest, a threatened plant community. The tall forest and remnant trees are a significant contributor to the visual character of Ku-ring-gai. The area is also characterized by remnants of Sydney Turpentine Ironbark Forest (see Appendix D for the extent of the communities).
3.2 Desired future character

The statement below outlines Council’s desired future character for the areas in Ku-ring-gai to be developed for multi-unit housing in the 2(d3) zone.

In order to achieve this desired future character, general controls and specific controls are adopted in this DCP. The key planning and urban design principles below provide the basis for detailed objectives and controls in subsequent sections of this DCP.

Council’s vision is that multi-unit housing will be in a setting where vegetation, especially in the form of tall trees, is the dominant impression. Ku-ring-gai’s streetscape and landscape will be dominated by indigenous canopy trees and bushland and appropriate exotic trees for sunlight access to dwellings and energy efficiency. This will require that at least half of the site be available for deep soil planting. The leafy setting creates a strong visual and aesthetic identity and, equally importantly, serves as a basis for the rich biodiversity which is evidenced by the variety of flora and fauna that lives and visits the area and the presence of threatened vegetation communities. Protecting and enhancing these attributes will form the foundation for environmental and genetic sustainability of this area and region.

Several areas along the Pacific Highway / railway corridor have outstanding heritage buildings and urban conservation areas with many intact high quality residential areas of 19th and 20th century buildings. New development will be of a design incorporating sustainable development principles whilst protecting the integrity of heritage buildings and urban conservation areas. Roof forms, articulation, modulation and other design elements, residential medium density that adjoins will complement their character.

Built form for multi-housing zone will achieve a cohesive streetscape character through consistency in colours, materials and setbacks within the 2(d3) zone while allowing scope for contemporary architecture expression. It will respect and respond to topographic features and established subdivision patterns.

New development will be highly accessible and, where possible, provide improved permeability, allowing improved pedestrian access through blocks to town centres, railway station and community facilities. Residences in adjacent zones will retain, as far as practicable, current levels of privacy and solar access. Buildings will achieve designs that create climatically sensitive dwellings that are accessible and comfortable to live in with minimum need for heating or cooling and optimize water sensitive urban design.
3.3 Landscape and Visual Character

Refer to Appendix D to check if your site is in an area which has endangered plant communities and trees.

Existing Landscape Character

Ku-ring-gai is located on an uplifted plateau capped with Wianamatta shales. The area receives high rainfall given its altitude and proximity to the coast. Higher rainfall and shale geology has created deep rich soils which support tall Blue Gum High Forest. Today there are many remnant trees of the former forest remaining in parks, streets and private gardens which provide amenity, shade and shelter for residents. These trees are often old with numerous hollows and faults which provide habitat and nest holes for a wide range of birds and animals. More extensive bushland remnants are protected within the creek valleys and gullies in National Parks and Reserves, these areas support a more complex ecosystem of grasses, herbs, shrubs and trees. The tall forest character is a significant contributor to the visual character, biodiversity and amenity of the area. The extent of Blue Gum High Forest and associated vegetation is shown in the maps contained in Appendix D.

The elevated topography of Ku-ring-gai provides opportunities for distant and sometimes panoramic views to the east south and west. The best views are from the Pacific Highway looking south and west where views are framed by roads, by buildings or from parks and other vantage points. Visual and scenic quality is a key contributor to the character of Ku-ring-gai.

The soils and climate of Ku-ring-gai create good conditions for gardening. Historically gardens have retained tall canopy trees and complemented these with gardens that are characterised by imported plants such as Jacaranda, Camellia, Rhododendron and Azalea which all do particularly well on the local soils.

It is Council's intention to maintain existing landscape character to the greatest extent that is possible given multi-unit housing development.

<table>
<thead>
<tr>
<th>Design Objectives</th>
<th>Design Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-1 New residential flat development that responds to the landscape character of Ku-ring-gai.</td>
<td>C - 1 Medium density development should be responsive to the topography and be designed around existing significant trees and vegetation.</td>
</tr>
<tr>
<td>O-2 Remnant trees are retained as significant elements that contribute to the visual, environmental and historical character of the area.</td>
<td>C - 2 Remnant and indigenous trees, where possible, are assessed from multiple view points including heritage, arboricultural, ecological and landscape (function, habitat, amenity and visual) values so that mature remnant trees are valued correctly.</td>
</tr>
<tr>
<td>O-3 New residential flat development that protects and enhances the biodiversity and ecology of the area.</td>
<td>C - 3 Adequate open space around existing remnant/indigenous trees is to be retained to minimise future conflicts related to branch drop and root damage from mature trees (all housing to be outside drip-line of significant trees).</td>
</tr>
<tr>
<td><strong>Design Objectives</strong></td>
<td><strong>Design Controls</strong></td>
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<tr>
<td>O-4 New residential flat development is designed to protect the visual and scenic qualities of the area</td>
<td>C - 4 New locally indigenous trees shall be planted to support and replace maturing remnant trees (refer 4.5 Landscape Design).</td>
</tr>
<tr>
<td></td>
<td>C - 5 Multi-unit housing development and its gardens shall be designed to provide new habitat opportunities for a range of wildlife including birds, micro-bats, mammals, frogs and lizards among others (ponds, wetlands and nest boxes).</td>
</tr>
<tr>
<td></td>
<td>C - 6 New developments shall provide generous front setbacks and communal open space areas for the establishment of high quality gardens with a mix of exotic and indigenous species consistent with surrounding gardens.</td>
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<tr>
<td></td>
<td>C - 7 Buildings are to be designed and located to respect existing significant views by not blocking or limiting opportunities for public views from roads, streets and parks.</td>
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<tr>
<td></td>
<td>C - 8 Buildings should be articulated using view corridors to break long continuous facades and create visual linkages and view opportunities wherever possible.</td>
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<tr>
<td></td>
<td>C - 9 Design shall address issues of view-sharing of private views.</td>
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<td></td>
<td>C - 10 Streetscape shall be enhanced through work such as undergrounding overhead power lines and planting appropriate street trees.</td>
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### 3.4 Development within an Urban Conservation Area

Refer to Appendix C to check if your site is in an Urban Conservation Area.

Ku-ring-gai has 28 precincts that the National Trust has termed “Urban Conservation Areas” (UCA). These precincts contain a number of elements of heritage significance, such as historic subdivision layouts, a consistent pattern of building “footprints” within each block (setbacks), buildings of historic and architectural importance from several periods including Colonial, Federation and Interwar styles, road alignments, gardens, trees gutters and kerb edges which combine to create a sense of place that is worth keeping. It is Council’s intention to conserve that character of the UCAs while allowing appropriate new medium density development that respects and enhances the existing values.

If the proposed development is within a UCA, it is strongly recommended that the applicant discuss the proposed development with Council’s Heritage Advisory at the early stages of the design development and before pre-DA consultation takes place.

Stylistic elements define the character of each separate period of development within the UCAs. The predominant styles are Federation period and Inter-War period. The elements which best define the character of these periods are as follows:

**Federation period:** complex asymmetrical form and massing; heavily articulated facades; steeply pitched roofs with a combination of hips and gables; combinations of fabric predominately face brick, terra cotta roof tiles, render or timber details.

**Inter-War period:** asymmetrical form and massing, curvilinear corners, flat parapet roofs, low pitched gable roofs with wide eaves, vertical or horizontal brickwork or render detail, dark face brick, light coloured render surfaces, combinations of stone, brick and timber fabric, horizontal groups of steel frame windows, round porthole, multi-pane or large fixed plate glass windows.

### Design Objectives

| O-1 | New residential flat development in keeping with the identified historic and aesthetic values and character of the Urban Conservation Area in which it is situated. |
| O-2 | New residential flats that respect the character of, and minimise visual impact upon, the UCA and its streetscapes through appropriate design and siting. |

### Design Controls

<p>| C-1 | Multi-unit housing development in a UCA should respect the predominant architectural character of the UCA and be designed with reference to predominant design elements such as massing, style, complexity and pitch of roofs, proportions of window and door openings and external materials and colours. |
| C-2 | Buildings should be well articulated to avoid long continuous facades facing the street frontages. Facades should preferably be broken up into discrete pavilions or the openings in walls arranged so that their shape and size reflect the structure and openings of its neighbour. |
| C-3 | Scale and massing of new buildings should be proportioned to respect and enhance the scale and character of adjacent or... |</p>
<table>
<thead>
<tr>
<th><strong>Design Objectives</strong></th>
<th><strong>Design Controls</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>O-3 New buildings that respect the character and setting of significant items in their vicinity as well as the predominant pattern of street plantings, gardens and landscape character.</td>
<td>nearby development within the UCA. Façade massing can be varied to break down the scale of new development adjoining new residential development.</td>
</tr>
<tr>
<td>C-4 The form and outlines of new developments should respect the complexity and patterns of predominate roof shapes and skylines of the particular UCA in which they are located. Complex arrangements of hips and gables are suitable in a predominately Federation period UCA, while hips, gables or parapeted roofs are suitable for a predominately Inter-War period UCA.</td>
<td></td>
</tr>
<tr>
<td>C-5 Where there is a uniform building setback, new buildings should respect the established pattern and not be located forward of adjacent buildings.</td>
<td></td>
</tr>
<tr>
<td>C-6 New buildings should not be oriented across sites contrary to the established alignment pattern.</td>
<td></td>
</tr>
<tr>
<td>C-7 New buildings should incorporate modern designs, building materials and techniques which are sympathetic to the predominant character of the UCA. Traditional styles should not be copied but used merely as a point of reference on which to base the characteristics of the new design.</td>
<td></td>
</tr>
<tr>
<td>C-8 Combinations of modern materials are acceptable if the detailing, proportions and colour range are carefully chosen to blend with the existing character of the precinct.</td>
<td></td>
</tr>
<tr>
<td>C-9 Complementary combinations of textures and colours may be used to blend the massing of the new development into the existing streetscape.</td>
<td></td>
</tr>
<tr>
<td>C-10 Design and materials of the front fences, gates and walls are to be appropriately designed and compatible with the heritage context of the UCA.</td>
<td></td>
</tr>
<tr>
<td>C-11 Unsympathetic fences, gates and walls are to be removed and replaced by elements of appropriate heights, style and fabric that complement the character of the UCA.</td>
<td></td>
</tr>
<tr>
<td>C-12 Where original or early fences and gates contribute strongly to the character of a precinct they should be retained and repaired.</td>
<td></td>
</tr>
</tbody>
</table>
3.5 Development within the Vicinity of a Heritage Item

Ku-ring-gai’s heritage comprises a rare blend of fine domestic architecture within a landscape of indigenous forest and exotic plantings. Heritage inventory sheets for all existing heritage items are available from Council.

For development within the vicinity of a heritage item, Council must assess the effect of carrying out development on the heritage significance of the item (KPSO Clause 61E). The term “in the vicinity” not only means immediately adjoining the site, but depending on site context can be extended to include other sites with a high visual presentation due to landform, size or location of the heritage item.

It is strongly recommended that the applicant discuss the proposed development with Council at the early stages of the design development and before pre-DA consultation takes place.

<table>
<thead>
<tr>
<th>Design Objectives</th>
<th>Design Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-1 New medium density development that respects the heritage significance of the adjoining or nearby heritage items.</td>
<td>C-1 Medium density development adjacent to a heritage item shall:</td>
</tr>
<tr>
<td>O-2 New medium density that does not visually dominate a heritage item.</td>
<td>i. Setback the first and second storeys at least 10 metres from the adjacent heritage building.</td>
</tr>
<tr>
<td>O-3 New medium density that does not reduce the views from or to an item from the public realm.</td>
<td>ii. Setback the third and fourth storeys at least 15 metres from the adjacent heritage building.</td>
</tr>
<tr>
<td>O-4 New medium density that does not impact on the garden setting of an item, particularly in terms of overshadowing the garden or causing physical impacts on important trees.</td>
<td>iii. Be setback from the front boundary so that it is not closer than the adjoining heritage building.</td>
</tr>
<tr>
<td></td>
<td>C-2 Screen planting on all boundaries with an item to achieve a height of at least 4 metres.</td>
</tr>
<tr>
<td></td>
<td>C-3 New development shall respect the aesthetic character of the item and not dominate it.</td>
</tr>
<tr>
<td></td>
<td>C-4 Colours and building materials are to be complementary to the heritage building.</td>
</tr>
<tr>
<td></td>
<td>C-5 The solid component of front and side fences is to be no higher than the fence of the adjoining item and any additional height must be visually transparent.</td>
</tr>
<tr>
<td></td>
<td>C-6 An applicant’s statement of environmental effects shall discuss the effect that the proposed development will have on a heritage item (including its garden and setting).</td>
</tr>
</tbody>
</table>
4 Design principles and controls

4.1 Landscape Design

This section addresses SEPP 65 Design Principle 6: Landscape

Landscaping is important for the amenity of residents living in a development and views from the public domain. Landscape design should build on the site’s existing natural and cultural features.

Deep soil zones are areas of natural ground within a development for mature vegetation growth to contribute to the ecology of Ku-ring-gai and to a canopy height that dominates the buildings. Clause 25I(2) of LEP 194 requires a minimum of 40% or 50% (depending on the site size) of the site for deep soil planting (Refer to Appendix A)

Figure 1 shows an example of a development that retains existing significant vegetation.

The desired future character of the Railway/Pacific Highway Corridor and St Ives Centre reflects and enhances the landscaped and treed character of Ku-ring-gai. This landscaped and treed character is to be reinforced in multi unit development so that most deep soil planting is commonly owned land. This will ensure buildings will be in a landscaped setting and the landscaping will not be generally broken into a series of private courtyards where Co-ordinated landscaping may break down over time.

The use of permeable paving in landscape design provides high rates of surface infiltration due to a high percentage of voids compared to conventional pavement. Runoff percolates into a deep layer of gravel that acts as a saturated storage. Slow infiltration into the underlying soils then occurs. Permeable paving:

- reduces the peak flow rate and volume of stormwater discharge;
- removes fine particle and dissolved pollutants by filtration processes; and
- increases ground water recharge.

Design Objectives

<table>
<thead>
<tr>
<th>Design Objectives</th>
<th>Design Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-1 Integration of the planning and design of buildings with the site’s landscaping.</td>
<td>C-1 At least one area of not less than 150m² per 1000m² of site area of deep soil landscaping shall be provided within the site. This is to be concentrated towards the rear or middle of the site.</td>
</tr>
</tbody>
</table>
| O-2 Sufficient deep soil for planting and retaining large canopy trees on every site. | C-2 Landscape design is to ensure that the built form blends with the natural landscape. This is to be achieved by:
  i) selecting species with an appropriate range of height and foliage density; and
  ii) allowing for adequate deep soil planting zones for established screen planting where required. |
| O-3 Landscaping that is appropriate to the scale of the development. | C-3 Driveways shall not be located in side setbacks as these areas are to... |
### Design Objectives

and trees when viewed from the public domain and neighbouring properties;

### Design Controls

consist of deep soil landscaping.

#### C-4

On lots adjoining the railway and arterial roads landscaping is to be designed to:

i) soften the hard surfaces of buildings by planting tall trees which contribute to the tree canopy; and

ii) be durable and suited to the conditions of the road and railway environment.

#### C-5

Fencing used to define boundaries is to respond to the character of the streetscape in terms of:

- open landscape character;
- visibility and security;
- materials selection;
- solid or transparent qualities;
- height;
- vertical and horizontal composition of the materials; and/or
- location of entries and gates;

**Note:** Masonry boundary walls are generally inappropriate to the landscape character of Ku-ring-gai.

#### C-6

Landscape design is to integrate water and stormwater management measures by:

i) using locally occurring and other native species as much as possible;

ii) using permeable surfaces; and

iii) locating pipelines outside the zone of influence of tree roots at natural growth to maintain pipeline integrity.

#### C-7

Use permeable pavers for pathways wider than 1m and external visitor parking and at least 50% of driveways. Such paving must comply with standards for access for people with disabilities.

#### C-8

Tree replenishment:

Lots with the following sizes are to support a minimum number of tall trees capable of attaining a mature height of at least 13 metres:

<table>
<thead>
<tr>
<th>Lot size</th>
<th>Number of tall trees</th>
</tr>
</thead>
<tbody>
<tr>
<td>less than 1,200 (residual lots)</td>
<td>1 per 400sqm of site area or part</td>
</tr>
<tr>
<td>1,200sqm- 1,800sqm</td>
<td>1 per 350sqm of site area or part</td>
</tr>
<tr>
<td>1,800sqm +</td>
<td>1 per 300sqm of site area or part</td>
</tr>
</tbody>
</table>

(i) Proposed tall trees should be selected from the schedule of suitable plant species for tall tree replenishment at Appendix E;

(ii) In addition to the tall trees, a range of medium trees, small trees and shrubs are to be selected to ensure that vegetation is predominantly in the view of buildings;

(iii) At least 50% of all tree plantings chosen are to be locally occurring trees and spread around the site.

#### C-9

Maintain natural ground level beneath the canopy spread of existing
**Design Objectives**

- **O-8** Development that contributes to the quality and amenity of communal and private open space on roof tops, terraces and internal courtyards.

- **O-9** Communal and private open spaces with high-quality microclimates.

**Design Controls**

- **trees** (if the ground level is modified within the canopy spread, a report from a suitably qualified arborist will be required).

- **C-10** Private outdoor space for ground floor apartments is differentiated from common areas by:
  - change in level and/or;
  - screen planting, such as hedges and low shrubs; and/or
  - up to 1.2m solid wall with at least 30% transparent component above and gate to common open space.

- **C-11** Roof terraces and balcony planting
  - Roof terraces to be designed for optimum conditions for plant growth by appropriate soil conditions and irrigation methods and drainage.

*Note: For further details on requirements for private and communal open space, refer to section 4.5.5.*

---

**Figure 2: Landscaping to screen the visual presence of development**

Tall trees should be planted in setback areas to reduce the visual intrusiveness of new development and replenish the tall tree canopy of Ku-ring-gai. This is an example of a four storey building.
4.2 Density

This section addresses the SEPP 65 Design Principle 4: Density

LEP 194 seeks to control density of future development through maximum standards for building footprints and height. Under LEP 194 the maximum building footprint must not exceed the following:

<table>
<thead>
<tr>
<th>Development type</th>
<th>Building footprint as % of total site area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential flat buildings</td>
<td>35%</td>
</tr>
<tr>
<td>Townhouses</td>
<td>40%</td>
</tr>
<tr>
<td>Villas</td>
<td>50%</td>
</tr>
<tr>
<td>Combination of townhouses and villas</td>
<td>50%</td>
</tr>
</tbody>
</table>

In order to achieve the desired landscaped and built character of Ku-ring-gai, the capacity of development in the 2(d3) zone will be limited by the ability to achieve the minimum deep soil landscaping requirements on a particular site.

### Design Objectives

**O-1** Development density that is in keeping with the optimum capacity of the site and the desired future landscape and built character of the area.

### Design Controls

**C-1** The total built upon area of a site must not prevent the minimum deep soil landscaping standards under LEP 194 being achieved on any site. Council gives a priority to achieving landscape standards over any other standards in the LEP in the event of any conflict.

**C-2** Building footprint calculations shall include all elements within the external plane of a building, including the external plane of any balcony.

**C-3** Any areas of ground floor terraces or courtyards that extend beyond the external plane of the above floor/s may not be included in building footprint calculations.

**C-4** The maximum floor space ratio of any development shall in accordance with Table 2 below:

<table>
<thead>
<tr>
<th>Development type</th>
<th>Site Area (m²)</th>
<th>Maximum Floor Space Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential Flat Building</td>
<td>2400+</td>
<td>1.3:1</td>
</tr>
<tr>
<td></td>
<td>1800 - 2399</td>
<td>1:1</td>
</tr>
<tr>
<td></td>
<td>&lt;1800</td>
<td>0.7:1</td>
</tr>
<tr>
<td>Townhouses</td>
<td>1200 +</td>
<td>0.8:1</td>
</tr>
<tr>
<td>Villas</td>
<td>1200 +</td>
<td>0.45:1</td>
</tr>
</tbody>
</table>

**Table 2: Maximum floor space ratio for multi unit housing**

**Note:** FSR shall not be the sole determinant of built form and density;
### Design Objectives

- it will be linked with all other design and site constraint considerations. Also, the stated FSR controls may not be wholly achievable on all sites due to urban design and site constraint considerations.

<table>
<thead>
<tr>
<th>Design Objectives</th>
<th>Design Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>it will be linked with all other design and site constraint considerations. Also, the stated FSR controls may not be wholly achievable on all sites due to urban design and site constraint considerations.</td>
</tr>
</tbody>
</table>

**Figure 3: Building Footprint and Gross Floor Area**

Building footprint includes all elements within the external plane of the building.
4.3 Setbacks

This section addresses the SEPP 65 Design Principle 2: Scale

The scale of a building must be compatible with the desired streetscape character of the area by adhering to height controls and sensitively responding to setback controls.

LEP 194 provides development standards that control the scale of future development. These include standards for number of storeys, maximum perimeter ceiling height, maximum ceiling height generally, minimum site frontage, maximum site coverage, minimum deep soil area, top floor area, and car parking rates. In addition, clause 25L of LEP 194 contains standards for building setbacks at the interface of the 2(d3) zones and any adjoining zone. (Refer to Appendix A of this DCP for the relevant development standards that apply under LEP 194)

This section of the DCP provides front, side and rear setback controls designed to achieve site-responsive development at a scale which is compatible with the local context by control of visual impacts relating to height and bulk;

<table>
<thead>
<tr>
<th>Design Objectives</th>
<th>Design Controls</th>
</tr>
</thead>
</table>
| O-1 Buildings set behind gardens dominated by canopy trees which screen the buildings, soften the urban form and maintain the garden character of Ku-ring-gai. | C-1 The building must be set back the following distances from the boundary (refer to Figure 4):
| | a) Side and rear boundary setbacks: 6m;
| | b) Side boundary setback for buildings 3 storeys or less on sites less than 1800sqm: 3m or 6m to windows of habitable rooms;
| | b) Street boundary setback: setback zone between 10-12m from boundary, no more that 40% of this zone may be occupied by building footprint;
| | c) Street boundary setbacks where road reserve width is less than 12m may be reduced proportionately, but no less than 6m. |
| O-2 Adequate space between sites to enable effective landscaping, tree planting between buildings, separation of buildings for privacy and views from the street to rear landscaping. | C-2 Where the site has a depth of more than 45 metres and a width of more than 35m, a front setback zone of 13 to 15 metres from the boundary shall apply unless it can be demonstrated that:
| | i. the increased setback will result in the loss of significant vegetation; and
| | ii. other standards contained within the DCP and LEP 194 will be compromised.
| | Note: This control does not apply to sites fronting the Pacific Highway, Mona Vale Road, Boundary Street (Roseville) or Link Road (St Ives). |
| O-3 A high level of residential amenity with adequate separation between buildings on different sites for privacy, sun access, acoustic control and natural ventilation. | C-3 The setback extends both above and below ground and applies to all built elements of the development including car parking, |
| O-4 A consistent urban form providing definition of the street edge. | |

Note: Effective 22 December 2004 Ku-ring-gai Multi-unit Housing DCP No.55 Amended 28 April 2006 Railway / Pacific Highway Corridor and St Ives Centre
Design Objectives

Storage, detention tanks or the like.

C-4 The following elements may encroach into the setback:

i. eaves;
ii. sun shading;
iii. blades, fins, columns;
iv. private courtyards in the front setback (see C5-C6).

C-5 On corner sites the minimum street boundary setbacks in C-1 and C-2 above shall apply on both street frontages.

Design Controls

O-5 Private open space in the front of buildings that allows the establishment and maintenance of canopy trees and does not visually dominate the front of the building.

C-6 The building alignment shall be parallel to the street alignment.

Figure 4: Site setbacks

STREET

BUILDING FOOTPRINT TO OCCUPY NO MORE THAN 40% OF SETBACK ZONE

SETBACKS

4000

10000

10000

4000

12000

Figure 4: Site setbacks

O-5 Private open space in the front of buildings that allows the establishment and maintenance of canopy trees and does not visually dominate the front of the building.

C-6 The building alignment shall be parallel to the street alignment.
**Design Objectives**

**Design Controls**

C-7  Ground floor private terraces/courtyards must be set back 8m from the street boundary or 11m where the setback is 13-15m to allow for deep soil planting within the common area.

C-8  No more than 15% of the total area of the front setback is to be occupied by private terraces/courtyards.

O-6  Top floor design that minimises visual bulk, promotes articulation and prevents any increased overshadowing.

C-9  Top floor design:

This clause refers to the top floor as referred to in LEP 194 which is 60% of the floor area of the level below.
<table>
<thead>
<tr>
<th>Design Objectives</th>
<th>Design Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>The top storey of a residential flat building of 3 storeys or more is to:</td>
<td></td>
</tr>
<tr>
<td>i. Be setback from the outer face of the floors below on all sides;</td>
<td></td>
</tr>
<tr>
<td>ii. Not result in any overshadowing of adjoining properties; and</td>
<td></td>
</tr>
<tr>
<td>iii. Be designed in the form of setback floor space, attics and dormers, lofts and clerestories in order to minimise the appearance of the top floor as viewed from the street.</td>
<td></td>
</tr>
</tbody>
</table>
4.4 Built Form and Articulation

This section addresses the SEPP 65 Design Principle 3: Built form and Design Principle 10: Aesthetics

Large buildings can visually impact on the public domain and must be modulated in their building width facing the street. In order that soft landscape features predominate, it is important that there is sufficient separation between neighbouring buildings by side landscaped areas for views from the street between buildings to rear landscaping reinforcing the vegetated character of the locality.

High quality architectural and landscape design are essential in multi-unit residential zones to mitigate the change in scale to nearby single dwelling zones.

### Design Objectives

| O-1 | Residential flat buildings in Ku-ring-gai of a high architectural quality. |
| O-2 | A predominance of soft landscape features. |
| O-3 | Mitigated change in scale between new development and existing lower density housing. |
| O-4 | Varied articulation in building design. |
| O-5 | Building elements that are integrated into the overall building form. |
| O-6 | Visual connection between dwellings and the public domain |

### Design Controls

| C-1 | All facades to the public domain shall be articulated with wall planes varying in depth by not less than 600mm (Figure 6). |
| C-2 | No single wall plane shall exceed 81 sqm in area (Figure 6). |
Design Objectives

Design Controls

Figure 6: Façade Articulation
Provide a varied articulation pattern of solid/void, light/shade in building facades. Building facades should be articulated so that a single wall place shall not exceed 81 sqm in area.

C-3 The width of a single building on any elevation facing the street should not exceed 36 metres.

C-4 On sites where a building length greater than 36 metres has been justified by an applicant, that portion of a building in excess of 36 m shall be sufficiently recessed and/or articulated so as to present to the street as a separate building.

C-5 Limit building length along side boundaries to promote view corridors between buildings and provide a leafy outlook from all dwellings.

C-6 Balconies shall project not more than 1.2m from the outermost part of the building façade.

C-7 Service elements (such as lift over runs, service plants, vent stacks, telecommunications infrastructures, gutters and down pipes) shall be integrated into the overall design of the roof.

C-8 Buildings shall address the street either
   i) with main entrances to lift lobbies directly accessible and visible from the street footpath, or
   ii) where site configuration is conducive to having a side entry, with the path to the building entry readily visible from the street.

C-9 Unit layouts must respond to the opportunities and constraints of the natural and built environments with:
   i) main living spaces oriented to the front or rear of a property (rather than to a side boundary), and
   ii) primary private open spaces located adjacent to main living areas.
4.5 Residential amenity

This section addresses the SEPP 65 Design Principle: 7: Amenity

The layout of buildings and landscaping affects residential amenity and residents’ enjoyment of their living spaces. Providing a pleasant and attractive living environment is socially important as it encourages long term occupancy that assists in achieving a thriving community.

4.5.1 Solar access

Appropriate solar access contributes to pleasant environments in which to live. Within an apartment, daylight and sunlight reduces reliance on artificial light, improves energy efficiency and residential amenity.

<table>
<thead>
<tr>
<th>Design Objectives</th>
<th>Design Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-1 Natural lighting of all living spaces.</td>
<td>C-1 70% of apartments shall receive a minimum of 3 hours direct sunlight on 21 June to living room windows or adjacent balconies between 9.00am and 3.00pm on June 21 (Note: shadows cast by trees and fences excluded from this calculation).</td>
</tr>
<tr>
<td>O-2 Development that enables adequate natural lighting of adjoining properties.</td>
<td>C-2 At least 50% of the principal area of common open space of the development shall receive direct sunlight for at least 3 hours between 9.00am and 3.00pm on June 21.</td>
</tr>
<tr>
<td></td>
<td>C-3 Entry lobbies and common corridors should be naturally lit and ventilated.</td>
</tr>
<tr>
<td></td>
<td>C-4 No single-aspect units shall have a southern orientation.</td>
</tr>
<tr>
<td></td>
<td>C-5 Not more than 15% of the total units proposed shall be single-aspect with a western orientation.</td>
</tr>
<tr>
<td></td>
<td>C-6 The development shall allow the retention of at least 3 hours of sunlight between 9.00am and 3.00pm on June 21 to the habitable rooms and the principal portion of the outdoor living area of adjoining houses in single house zones (2(c1) and 2(c2) zones). (Note: where existing overshadowing by buildings is greater than this, sunlight is not to be reduced by more than 20%).</td>
</tr>
</tbody>
</table>
### 4.5.2 Visual Privacy

The privacy of residents in the proposed development and adjoining properties is important, particularly important with regard to principal living spaces and private open space.

#### Design Objectives

- **O-1** Visual privacy for residents and adjoining neighbours;
- **O-2** Integration of architectural and landscape screening devices into the overall design of the building.

#### Design Controls

- **C-1** Windows shall be offset from those of adjoining buildings to minimize the opportunity for direct overlooking.
- **C-2** The minimum separation between windows and balconies of a building and any adjoining building either on site or adjoining sites.
  - Storeys 1 to 4
    - i. 12 metres between two habitable rooms
    - ii. 9 metres between a habitable room and a non-habitable room
    - iii. 6 metres between two non-habitable rooms
  - 5th Storey
    - iv. 18 metres between two habitable rooms
    - v. 13 metres between a habitable room and a non-habitable room
    - vi. 9 metres between two non-habitable rooms
- **C-3** Roof terraces are to be designed to avoid overlooking of neighbours’ principal outdoor living areas (e.g. roof terraces facing side boundaries are generally inappropriate).

### 4.5.3 Acoustic privacy

Designing for acoustic privacy relates to the location and separation of buildings especially the proximity of noisy/quiet spaces between units and the design of buildings in near external noise sources such as main roads and railway lines.

#### Design Objectives

- **O-1** Minimal acoustic disturbance to occupants of the development from activities and services.
- **O-2** Acoustic privacy for all occupants of the development.
- **O-3** Housing located next to the Pacific Highway and the Railway line is designed and constructed so as to minimize the impact of external noise and facilitate comfortable living.

#### Design Controls

- **C-1** All dwellings are to meet the sound insulation provisions and standards of the Building Code of Australia.
- **C-2** Buildings shall be designed such that noise-generating rooms (such as living rooms) are located adjacent to (i.e., sharing common walls / floors) those in adjoining units.
- **C-3** Bedrooms and private open space shall be located away from noise sources including active garages, driveways, mechanical equipment and recreation areas.
- **C-4** Where physical separation from noise sources cannot be achieved, windows are to be located away from noise sources or buffers used.
### Design Objectives

<table>
<thead>
<tr>
<th>O-1</th>
<th>A high level of internal living amenity for all occupants.</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-2</td>
<td>Adequate storage for everyday household items within easy access of each unit.</td>
</tr>
<tr>
<td>O-3</td>
<td>To provide adequate storage for everyday household items within easy access of each unit; and</td>
</tr>
</tbody>
</table>

### Design Controls

<table>
<thead>
<tr>
<th>C-1</th>
<th>Habitable rooms shall have a minimum floor to ceiling height of 2.7m.</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-2</td>
<td>Non-habitable rooms shall have a minimum floor to ceiling height of 2.4m.</td>
</tr>
<tr>
<td>C-3</td>
<td>One and two bedroom units shall have a minimum plan dimension of 3m (excluding wardrobe space) in all bedrooms.</td>
</tr>
<tr>
<td>C-4</td>
<td>Units with three or more bedrooms shall have at least two bedrooms with a minimum plan dimension of 3m (excluding wardrobe space).</td>
</tr>
</tbody>
</table>

---

**4.5.4 Internal amenity**

With an increasing proportion of Sydney's population being housed in apartments, it is important to have better levels of internal amenity (e.g. better daylight penetration which means higher ceiling heights and reduced apartment depths; encouraging long term occupancy which relates to facilities such as providing storage and basement car parking etc).
### Design Objectives

<table>
<thead>
<tr>
<th>C-5</th>
<th>All single common corridors shall:</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>serve a maximum of 8 dwellings;</td>
</tr>
<tr>
<td>ii.</td>
<td>be at least 1.5m wide (to allow ease of movement of furniture); and</td>
</tr>
<tr>
<td>iii.</td>
<td>be at least 1.8m wide at lift lobbies.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C-6</th>
<th>Storage space shall be provided for each unit at the following minimum volumes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>6m$^3$ for studio and one-bedroom units;</td>
</tr>
<tr>
<td>ii.</td>
<td>8m$^3$ for two-bedroom units; and</td>
</tr>
<tr>
<td>iii.</td>
<td>10m$^3$ for units with three or more bedrooms, with at least 50% of the storage space for each dwelling provided within the unit.</td>
</tr>
</tbody>
</table>

#### Note 1: Storage space within dwellings can be in the form of cupboards in halls, living rooms, laundries, flexible spaces (which can also be used as studios/media rooms etc). Storage in kitchens, bedrooms or bathrooms will not count towards this requirement; and

#### Note 2: Storage space outside dwellings can be in garages and dedicated storeroom. The rear of a parking space is an appropriate location in the basement for part of the storage Controls.

#### Note 3: Where 2 car spaces are provided for a unit, the requirement for the basement storage component may be waived in order to ensure basements do not extend greater than 10% of the ground floor perimeter.

### 4.5.5 Outdoor living

The primary function of outdoor living spaces is to provide a high level of amenity for the occupants with access to fresh air and daylight/sunlight, visual privacy and opportunities to recreate and socialise. Private and common outdoor living spaces are to be provided for all occupants.

<table>
<thead>
<tr>
<th>Design Objectives</th>
<th>Design Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Private open space</strong></td>
<td><strong>C-1</strong> Ground level apartments shall have a terrace or private courtyard with a minimum area of 25m$^2$.</td>
</tr>
<tr>
<td><strong>O-1</strong> Private passive and active recreation spaces for all occupants.</td>
<td><strong>C-2</strong> All units that are not at ground level are to include outdoor living space (such as a balcony, deck or terrace) with a minimum area of:</td>
</tr>
<tr>
<td><strong>O-2</strong> Private open space that is functional.</td>
<td>- 10 m$^2$ for each 1 bedroom unit;</td>
</tr>
<tr>
<td><strong>O-3</strong> Private open space that is responsive to the environmental character and integrated into the overall design of development.</td>
<td>- 12 m$^2$ for each 2 bedroom unit;</td>
</tr>
<tr>
<td></td>
<td>- 15 m$^2$ for each unit with 3 or more bedrooms;</td>
</tr>
<tr>
<td></td>
<td>of which at least one space shall be at not less than 10m$^2$ in area.</td>
</tr>
</tbody>
</table>
Design Objectives

Common open space

<table>
<thead>
<tr>
<th>Design Controls</th>
<th>Design Objectives</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-4 Deep soil planting in common areas of the site.</td>
<td>C-3 The primary outdoor living space shall be directly accessible from the main living areas.</td>
</tr>
<tr>
<td>O-5 Easy access to common open space for all residents and visitors.</td>
<td>C-4 The primary outdoor living space shall have a minimum dimension of 2.4m.</td>
</tr>
<tr>
<td></td>
<td>C-5 Balconies are to be integrated into the overall architectural form and detail of residential flat buildings and not run the full length of a façade of a building</td>
</tr>
<tr>
<td></td>
<td>C-6 Locate private open space facing north, east or west for solar access;</td>
</tr>
<tr>
<td></td>
<td>C-7 Design balustrades and screens to provide visual and acoustic privacy for residents where appropriate.</td>
</tr>
<tr>
<td></td>
<td>C-8 Roof terraces shall contain soft landscaping to soften the appearance of the top storey of the building.</td>
</tr>
</tbody>
</table>

Figure 7: Private open space example

Private open space should be located adjacent to living areas and can be in the form of ground floor terraces and upper level balconies.

C-9 At least 30% of the site area is to be common open space principally for tall tree planting.

C-10 Private open space adjoining common open space shall not be enclosed with high solid fences.

C-11 Locate common open space at the front and rear of lots and to optimize solar access to the open space and units.
## 4.6 Safety and security

This section addresses SEPP 65 Design Principle 8: Safety and security. Quality building design helps to ensure both a truly safe human environment and to enforce the perception that an area is safe.

<table>
<thead>
<tr>
<th>Design Objectives</th>
<th>Design Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-1 Safe and secure multi-unit housing for residents and visitors.</td>
<td>C-1 Apartments adjacent to common open space areas or public streets shall have at least one window or a habitable room with an outlook to that area.</td>
</tr>
<tr>
<td></td>
<td>C-2 Open space</td>
</tr>
<tr>
<td></td>
<td>i. Design of common open spaces, including the location and design of facilities so as not to create concealment or entrapment areas;</td>
</tr>
<tr>
<td></td>
<td>ii. Common open space areas are to be visible from the street, and/or overlooked by apartments; and</td>
</tr>
<tr>
<td></td>
<td>iii. Paths are to have unimpeded sightlines.</td>
</tr>
<tr>
<td></td>
<td>C-3 Lighting on pathways surrounding the development to have a high level of illumination and good uniformity to increase visibility quality.</td>
</tr>
<tr>
<td></td>
<td>C-4 Entries to buildings are to be clearly visible from streets or internal driveways.</td>
</tr>
<tr>
<td></td>
<td>C-5 Buildings are to be designed to minimise access between roofs, balconies and windows of adjoining apartments.</td>
</tr>
</tbody>
</table>
# 4.7 Social dimensions

This section addresses SEPP 65 Design Principle 9: Social dimensions.

Adaptable housing is housing that is designed to be flexible to be easily modified at a later stage to cater for the special needs of an occupant or frequent visitor who may become frail, develop a disability or who have a disability that may become worse over time. Simple inexpensive design features incorporated during construction can save the need for expensive renovations as needs change in the future.

Clause 25N(2)(a) of LEP 194 requires that at least 10% of dwellings in a residential flat development be designed as adaptable housing in accordance with the provisions of Australian Standard AS4299-1995: Adaptable Housing.

<table>
<thead>
<tr>
<th>Design Objectives</th>
<th>Design Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Adaptability and accessibility</strong></td>
<td></td>
</tr>
<tr>
<td>O-1 Housing choice for aged and disabled persons.</td>
<td>C-1 Applicants are to demonstrate that planning and design measures provide access for people with disabilities:</td>
</tr>
<tr>
<td>O-2 Housing that allows people to stay in their home as their needs change due to aging or disability.</td>
<td>i. Building design shall be consistent with the Controls of AS 1428.1-1998 Design for Access and Mobility.</td>
</tr>
<tr>
<td>O-3 Housing that is appropriate to the needs of visitors who are elderly or who have a disability.</td>
<td>ii. Disabled access paths / ramps should be of a sufficient width and gentle slope up to 1 in 14 slope, include handrails and path lighting and offer direct access between the street frontage and principal building entrances.</td>
</tr>
<tr>
<td></td>
<td>iii. Bends or corners in access paths and ramps shall be of sufficient width and radius to allow the maneuvering of wheelchairs and mobility scooters.</td>
</tr>
<tr>
<td></td>
<td>iv. The ramp should not dominate the visual appearance of the development.</td>
</tr>
<tr>
<td><strong>Housing Mix</strong></td>
<td></td>
</tr>
<tr>
<td>O-4 A range of unit types, sizes and layouts for housing choice.</td>
<td>C-2 Each adaptable dwelling must be provided with at least one disabled car parking space designed in accordance with AS2890.1</td>
</tr>
<tr>
<td></td>
<td>C-3 At least 70% of dwellings are to be &quot;visitable&quot; in accordance with the definition prescribed under Appendix F.</td>
</tr>
<tr>
<td></td>
<td>C-4 In the case of residential flat buildings without lifts:</td>
</tr>
<tr>
<td></td>
<td>i. if the whole of the site has a gradient of less than 1:10, 100% of the ground floor dwellings must be visitable</td>
</tr>
<tr>
<td></td>
<td>ii. if none of the site has a gradient of less than 1:10, a percentage (which is not less than the proportion of the site that has a gradient of less than 1:10, or 50%, whichever is the greater) of all ground floor dwellings must be visitable.</td>
</tr>
<tr>
<td></td>
<td>C-5 Residential flat developments are to include a range of unit sizes and types.</td>
</tr>
</tbody>
</table>
4.8 Building Sustainability

This section deals with the following SEPP 65 Design Principle:

**Ecological sustainability**

Ecologically sustainable development principles have been adopted at national, state and local levels to integrate viable development with environmental responsibility. In this way, future generations may enjoy a natural, social and economic environment that does not compromise their needs.

4.8.1 Building materials and finishes

Past building practices have often advocated the use of certain building materials that are now a recognised health risk or that have adverse environmental impacts. Alternative methods and materials are now available which can lead to cost savings as well as causing less health risk and environmental impact.

<table>
<thead>
<tr>
<th>Design Objectives</th>
<th>Design Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-1 Use of construction materials with a low environmental impact.</td>
<td>C-1 Any timber specified for the construction or finishing of the development shall be either plantation and recycled timbers.</td>
</tr>
<tr>
<td>O-2 A high level indoor air quality.</td>
<td>C-2 Medium Density Fibreboard (MDF) and particleboard shall not be specified as a construction material for the development.</td>
</tr>
<tr>
<td></td>
<td>C-3 The use of alternatives to PVC piping is encouraged including Colorbond (above ground only), HDPE where appropriate.</td>
</tr>
<tr>
<td></td>
<td>C-4 Roof surfaces with a sheen finish reduce unwanted heat gain in summer and are to be used where they do not impact on the amenity of neighbours in terms of glare and reflectivity.</td>
</tr>
</tbody>
</table>

4.8.2 Biodiversity, topography and soils

Ku-ring-gai’s natural heritage is highly valued. In establishing multi-unit housing it is therefore important to conserve the natural environment, including landforms and soils. It is particularly important that development adjacent to areas of remnant bushland or endangered ecological communities (such as Blue Gum High Forest or Sydney Turpentine Ironbark Forest) will not be detrimental to the health of the local biodiversity.
**Design Objectives**

| O-1 | Conservation of indigenous vegetation and other existing trees. |

**Design Controls**

| C-1 | Maximise the retention and protection of significant vegetation on the site including understorey and ground covers. |
| C-2 | Indigenous plant species (canopy/understorey and ground cover) that are appropriate to the soil types shall be incorporated in the landscape design to provide food and shelter for wildlife. |
| C-3 | Excavation:  
  i. Development is to be accommodated outside the canopy spread of existing trees; and  
  ii. Natural ground level is to be maintained within 2m setback of a side and rear boundary. |

---

**4.8.3 Waste management**

All levels of government have set goals to reduce resource consumption, reduce waste generation and reduce waste disposal.

**Design Objectives**

| O-1 | Efficient, effective and sustainable waste management practices. |
| O-2 | Waste collection and storage within the site that does not affect the amenity of residents. |

**Design Controls**

| C1 | The design of residential flat developments is to be consistent with Council’s adopted DCP 40: Construction and Demolition Waste Management for the separation, storage and collection of solid wastes. |
| C2 | Residential flat developments are to include a common rubbish collection/separation area sufficient in size to store all wheelie garbage bins and recycling bins provided by Council for the propose number of units in the development. |
| C3 | The location of rubbish collection/separation units is to allow bins and associated storage area to be conveniently located, screened from view (internal to the main building or if outside the building, landscaped so as to be fully screened from public view and no closer than 6m to the front boundary) and easily wheeled to the street for collection. |
| C4 | The design of buildings is to provide ample space for recycling systems, compactors, balers and space for sorting. |
| C5 | The landscape plan is to incorporate an area for a composting facility and worm farm. |
5 Parking and vehicular access

5.1 General Controls

This section of the DCP provides technical controls for car parking, bicycle parking, vehicular access and visitor parking and pedestrian access. Clause 25J of LEP 194 provides development standards for resident and visitor car parking provision. All developments shall comply with these requirements.

Basement car parking under buildings will free substantial areas of a site for deep soil planting and on-site stormwater detention rather than ground level parking. Resident and visitor parking should be provided as basement car parking where ever possible.

Design Objectives

| O-1 | Basement parking that permits a high proportion of deep soil landscaping on the site. |

Design Controls

| C-1 | Basement car parking areas: |

i. All resident is to be provided as basement car parking.

ii. Basement car parking can project up to 600mm average and 1.2m maximum above natural ground level to the underside of the floor above.

iii. Basement car parking areas are to be designed to facilitate natural ventilation where practicable.

Figure 13: Naturally ventilate basement car parking level

Figure 14: Basement car parking protruding above natural ground level

Basement car parking may protrude an average of 600mm above natural ground and a maximum of 1.2m above natural ground level. Protrusions should be well integrated as part of the facade and/or screened by landscaping.
### Design Objectives

<table>
<thead>
<tr>
<th>O-2</th>
<th>Adequate car parking for the building’s users and visitors, depending on building type and proximity to public transport.</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-3</td>
<td>Sufficient parking for people with disabilities.</td>
</tr>
<tr>
<td>O-4</td>
<td>Sufficient access to parking areas for service and utilities vehicles.</td>
</tr>
<tr>
<td>O-5</td>
<td>Minimal visual impact of car parking facilities when viewed from the street and adjoining properties.</td>
</tr>
<tr>
<td>O-6</td>
<td>Vehicular visibility and traffic safety.</td>
</tr>
</tbody>
</table>

### Design Controls

<table>
<thead>
<tr>
<th>C-2</th>
<th>Resident parking</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>All parking areas are to be designed in accordance with Ku-ring-gai Council’s DCP No. 43 – Car Parking;</td>
</tr>
<tr>
<td>ii.</td>
<td>For each adaptable unit, one of the spaces provided for each unit is to comply with the requirements for people with a disability Australian Standard AS2890.1. Such spaces are to be level and there should be a continuous path of travel between such spaces to the buildings’ principal entrance or the lift.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C-3</th>
<th>Visitor parking:</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>Basement visitor parking spaces are not to be obstructed by security grills or similar devices.</td>
</tr>
<tr>
<td>ii.</td>
<td>Screen external parking areas with landscaping from view of the public domain.</td>
</tr>
<tr>
<td>iii.</td>
<td>All external visitor parking to be constructed of water permeable surfaces.</td>
</tr>
<tr>
<td>iv.</td>
<td>At least 1 visitor parking space is to be adaptable, by complying with the dimensional and locational requirements of AS2890.1-parking spaces for people with disabilities.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C-4</th>
<th>Service vehicles/removalists:</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>Residential developments are to provide a space for temporary parking of service and removalist vehicles, clearly signposted as such.</td>
</tr>
<tr>
<td>ii.</td>
<td>This space may be provided as a visitors' space provided that the space has a minimum dimension of 3.5m x 6m and a minimum maneuvering area 7m wide.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C-5</th>
<th>Car washing:</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>One external visitor parking bay to be provided with a tap.</td>
</tr>
<tr>
<td>ii.</td>
<td>Use rainwater from a collection tank for car washing where practicable.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C-6</th>
<th>Vehicle entries are to be designed and sited so as not to dominate the street frontage:</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>Reduce the visual presence from the street of the garage opening by angling the alignment of the driveway.</td>
</tr>
<tr>
<td>ii.</td>
<td>Where possible vehicle entries are to be appropriately screened from view by landscaping.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C-7</th>
<th>Access and driveways:</th>
</tr>
</thead>
<tbody>
<tr>
<td>i.</td>
<td>Driveway width within 6m of the street boundary is to accord with table 3.</td>
</tr>
<tr>
<td>ii.</td>
<td>Vehicle access to multi unit developments is to be consolidated where possible.</td>
</tr>
<tr>
<td>iii.</td>
<td>Vehicles must be able to enter and exit from the site in a forward direction.</td>
</tr>
<tr>
<td>iv.</td>
<td>Ensure clear sight lines for vehicle crossings of footpaths and to traffic corridors and roads at pedestrian and vehicle crossings;</td>
</tr>
<tr>
<td>v.</td>
<td>Avoid the use of side setback areas for vehicle access.</td>
</tr>
<tr>
<td>vi.</td>
<td>Set back or recess car park entries from the main facade line.</td>
</tr>
<tr>
<td>vii.</td>
<td>Long driveways (&gt;30m) are to be avoided. Where unavoidable driveways &gt;30m are to be provided with a passing bay.</td>
</tr>
</tbody>
</table>
**Design Objectives**

- **O-7** Minimal car dependency and promote alternative modes of transport-public transport, bicycling and walking.

**Design Controls**

Table 3: Driveway width

<table>
<thead>
<tr>
<th>Proposed number of car parking spaces in development</th>
<th>Driveway clear widths for development fronting other roads</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 25 spaces</td>
<td>3.7m min – 6.0m max</td>
</tr>
<tr>
<td>25-100 spaces</td>
<td>3.7m min – 6.0m max</td>
</tr>
<tr>
<td>100-300 spaces</td>
<td>6.0m min – 9.0m max</td>
</tr>
</tbody>
</table>

- **C-8** Bicycles:
  i. Provide 1 bicycle parking space per 5 units for residents.
  ii. Provide 1 bicycle parking space per 10 units for visitors.
  iii. Bicycle parking spaces designed in accordance with AS2890.3.

- **C-9** Pedestrian connections between private property and the public domain should be clearly defined and easily accessible for easy of movement without conflicting with vehicle access.

*Note: A Traffic Impact Assessment must accompany development applications that seek to vary the controls for parking and access.*
5.2 Development Adjoining Arterial Roads

There are a number of locations along the Pacific Highway and other major roads where it is clear that it would be undesirable to permit direct vehicle access to multi-unity zones. Developments on these sites need to incorporate appropriate arrangements for safe access.

**Design Objectives**

- O-1 A safe traffic environment for users of the public road including motorists, cyclists and pedestrians.
- O-2 Efficient vehicular traffic flow.
- O-3 Development that provides landscaped areas at heavily trafficked road frontages and is not dominated by vehicular driveways.
- O-4 Appropriate and direct vehicular access from side streets to multi unit areas.

**Design Controls**

- C-1 Development adjoining an arterial road (Pacific Highway, Mona Vale Road, Boundary Street and Link Road) is not to have vehicular access from that road unless it can be demonstrated that alternative vehicular access to that development is neither practicable nor can be provided by another road (not being a state road).
  
  Such access arrangements may only be permitted subject to the concurrence of Council’s Traffic Committee and the RTA.

- C-2 Notwithstanding any other matter contained within this Plan access to any residential flat building within the Residential 2(d3) zone shall not be through land in a different zone.

- C-3 Driveway width within 6m of the boundary of the arterial road is to accord with table 4:

<table>
<thead>
<tr>
<th>Proposed number of car parking spaces in development</th>
<th>Driveway clear widths for development fronting main roads *</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 25 spaces</td>
<td>3.7m min - 6.0m max</td>
</tr>
<tr>
<td>25-100 spaces</td>
<td>6.0m min – 9.0m max</td>
</tr>
<tr>
<td>100-300 spaces</td>
<td>6.0m for entry 4.0m-6.0m for exit 1.3m separation</td>
</tr>
</tbody>
</table>

Note *: Pacific Highway, Mona Vale Road, and Boundary Street
6 Consideration of isolated sites

LEP 194 contains development standards applying to minimum site areas and minimum street frontages for multi unit housing sites. However, clause 25I(4) allows multi-unit housing development to be carried out within Zone 2 (d3) on smaller sites, provided the proposed development complies with all other requirements.

This section provides considerations for developments proposing site amalgamations that will leave isolated undersized sites.

<table>
<thead>
<tr>
<th>Design Objectives</th>
<th>Design Controls</th>
</tr>
</thead>
<tbody>
<tr>
<td>O-1 Consolidation of sites in a way that sites are not isolated such that they cannot be developed in accordance with this Plan.</td>
<td>C-1 Consolidation or amalgamation of sites are to avoid single detached dwellings on lots in a 2(d3) zone smaller than 1200m² or with street frontages less than 23m being left underdeveloped as a result of any development proposal.</td>
</tr>
<tr>
<td>C-2 Where a development proposal results in an adjoining single allotment or allotments in a 2(d3) zone with an area of less than 1200m² or a street frontage of less than 23m, the applicant is to demonstrate that the adjoining allotment(s) can be developed in accordance with the provisions of LEP 194 and this DCP, including but not limited to the standards and controls relating to:</td>
<td></td>
</tr>
<tr>
<td>i. deep soil landscaping</td>
<td></td>
</tr>
<tr>
<td>ii. site coverage</td>
<td></td>
</tr>
<tr>
<td>iii. building setback</td>
<td></td>
</tr>
<tr>
<td>iv. solar access, and</td>
<td></td>
</tr>
<tr>
<td>v. visual privacy.</td>
<td></td>
</tr>
<tr>
<td>Submitted material should include details and diagrams that demonstrate that such development is economically viable and that it will not detract from the character of the neighbourhood and can contribute positively to streetscape.</td>
<td></td>
</tr>
</tbody>
</table>

Figure 15: Isolation of small sights

Single lots smaller than 1200sqm are not to be left in amalgamation of sites without demonstrating how these lots can be developed in accordance with LEP 194.
7 Specific Controls for nominated areas

This DCP provides **specific design objectives and controls for nominated areas**. Development in these nominated areas is to be in accordance with the relevant design objectives and design controls contained in this section as well as the other objectives and controls contained elsewhere in the DCP. In the event of any inconsistency between the design controls in this section and controls elsewhere in the DCP, the relevant design controls in this section will prevail to the extent of any inconsistency.

Should an applicant propose a variation to the design controls outlined in this section, the onus is on the applicant to demonstrate how the variation achieves the stated design objectives.

7.1 Nola Road Precinct, Roseville

7.1.1 Site Location

The design objectives and controls in this section apply to the land in Corona Avenue, King Avenue, Maclaurin Parade and Nola Road, Roseville as shown in the Figure below.

Figure 16: Area Subject to Specific Controls
7.1.2 Desired future character and design objectives

O-1 A landscape setting dominated by the form of the tall Blue Gum Forest.

O-2 Residential flat buildings are integrated as part of the landscape, being subordinate to it.

O-3 Building design that incorporates elements and materials commonly used within the local area.

O-4 A cohesive and consistent style and form to the streetscape within the zone specified.

O-5 Development in the proximity of Blue Gum Creek provides sufficient setback, appropriate vegetation and providing direction on the relationship to buildings within the area.

O-6 Lot sizes provide adequate space to retain the existing mature landscape as a continuation of the indigenous Blue Gum Forest between the new buildings. This will allow for significant canopy growth and appropriate understorey vegetation to support the Blue Gum forest habitat.

O-7 Development designed to respond to the steep topography.

O-8 Satisfactory relationship between the single detached dwellings on Corona Avenue, Kings Avenue and Maclaurin Parade and the new multi-unit development.

7.1.3 Lot Amalgamations

Local Environmental Plan No. 194 (LEP 194) sets a range of minimum lot sizes and minimum lot frontages for the purpose of ‘apartment buildings’. The existing lot subdivision pattern bounded by Corona, King and Nola Avenue has lots that do not meet these standards. The larger lots required will ensure that adequate space is available to retain the existing Blue Gum Forest and allow a continuation between the new buildings.

Design Controls

C-1 The preferred lot amalgamation pattern is shown in Figure 17 with bold black lines. The lots have been determined by analysis of the topography, the location of the existing vegetation, desired vehicle access locations and the desirable building form that is permissible on the site.

C-2 Alternative lot amalgamations are permissible if it can be demonstrated that development on the proposed site and the remaining sites can be developed in accordance with the design objectives and design controls of this Section and the main body of the DCP.
7.1.4 Built form

Design Objectives

The steep topography makes the site suitable for residential apartment buildings that are characterised by a stepped form.

O-1 Buildings step down the lot in relation to the natural topography.
O-2 Large outdoor roof terraces are provided to contribute to the landscape setting.
O-3 Courtyard form allows the landscape to continue between the buildings.
O-4 Landscaping is provided between the buildings.
O-5 Apartments maintain an outlook to the landscape.
O-6 A stepped and articulated form that reduces the apparent bulk and scale of the building.

Design Controls

C-1 Development that fronts Kings Avenue and Corona Ave should be more urban in form and respond to the opposite single dwellings by way of material selection and proportion.

C-2 Development that is located surrounding Nola Road and Blue Gum Creek shall be designed to respond to the landscape setting, and result buildings that read as pavilions within the landscape.
C-3 Buildings should be located within the zone showed in Figure 18. The building zone is the part of the site in which the building form can be located in order to preserve the existing tree canopy, create an urban form that defines the street, and respond to the existing dwellings.

C-4 Buildings are to step down the site with the topography. The stepping should be three dimensional so that the building does not read as a series of layers.

C-5 A narrow building design should be used to provide good penetration of daylight and natural ventilation. The high tree canopy will restrict the daylight access more than in a typical apartment building.

C-6 Roof gardens and terraces are encouraged to integrate the buildings into the landscape.

Figure 18: Building Zones
7.1.5 Building Articulation

Developments within the area are highly articulated buildings where the apartments are set in a garden environment, characteristic of Ku-ring-gai. The buildings sit comfortably within their surrounds rather than establishing a hard edge urban environment.

The articulation of buildings relate to the built form: fractured and broken up, yet providing definition the street edge and public domain to create positive and negative spaces.

Buildings – particularly those fronting Kings Ave and Corona Ave are designed to have a solid base that develops a relationship with the single dwellings opposite and a lighter top within the tree canopy.

Design Controls

C-1 The buildings should have a defined bottom and top through the use of materials and openings.

C-2 Buildings should be considered 'in the round' rather than being designed as a series of facades.

C-3 Large areas of glazing should be appropriately shaded for the orientation. Toned or Low-E glazing should be used on large areas of west facing glazing.

C-4 Large overhanging roofs can add scale and proportion to the building and provide a useful shading device.

C-5 The following controls apply to development that front Kings Ave and Corona Ave:

i. The lower 3 levels should have a strong heavy base that is grounded into the landscape.
ii. Lower level windows and opening should have deep reveals.
iii. Lower level balcony elements should be recessed into the façade with partially solid balustrades to provide privacy and provide the building with a sense of mass.
iv. The upper 2 levels should be recessed from the main facade and should read as being recessive and lighter. They should assist in the creation of a patterned skyline: integrating service elements such as plant and lift overruns into the building form.
v. Use of light weight building materials such as timber, copper or stucco and glass.
vi. Materials used within the buildings should reflect those commonly found within the Ku-ring-gai area such as dark or red face brick, timber and copper.

C-6 The following controls apply to development within the vicinity of Nola Road and Blue Gum Creek:

i. Create pavilion forms that are sympathetic to the existing scale of the surrounds.
ii. Upper floor setback to reduce the scale and massing.
iii. Create a roof form that is sympathetic to context.
iv. Maximise the outlook from within the proposed development and neighbouring development to the landscape surrounds.
v. External materials should be light in colour to maximise the daylight reflectance.
vi. Balconies should be recessed and incorporated into the building form.
vii. Lower level balconies may include terraces that project into the landscape.
7.1.6 Blue Gum Creek

The setback is to allow for rehabilitation of Blue Gum Creek as part of the natural landscape and to enhance and reinforce the forest character of Ku-ring-gai, as well as prevent pollution and contamination downstream.

**Design Controls**

C-1 No structure, pavement or the like, apart from a three metre wide timber vehicular bridge, shall be permitted within 15m of the centre line of Blue Gum Creek as shown in Figure 19.

C-2 Structures that cantilever over this setback are not permitted.

![Figure 19: Blue Gum Creek Setbacks](image)

7.1.7 Landscape

The Blue Gum forest is a significant feature of this area. Protection of the existing landscape features, and the integration of the landscape with the buildings is a primary objective.

**Design Controls**

C-1 The Blue Gum Forest landscape is to be continued into the lots between the buildings. The planting within this area should be allocated as part of the common...
area so that the landscape can be maintained and co-ordinated, and not broken into individual lots. Figure 20 indicates areas where the existing tree canopy can be extended between the proposed buildings.

C-2 Indigenous plant species: 80% of plants selected should be species found naturally within the area.

Figure 20: Post Development Tree canopy
7.2 1580-1596 Pacific Highway, Wahroonga

7.2.1 Site Location

The planning principals and controls contained in this section apply to the land at 1580 to 1596 Pacific Highway, Wahroonga (‘the site’) and is shown in the Figure below.

Figure 21: Area Subject to Specific Controls.

General controls applying to all development apply to this site except where site specific controls are applied in this section. Controls in this section prevail in the event of any inconsistency.

7.2.2 Site Planning

The layout of buildings on the Site is to have regard to the following key principles in addition to the other principles and controls set out in this DCP.

7.2.3 Landscape Character

Existing Landscape character

This Site is dominated by a number of large trees, most of which are well-established Blue Gums. These trees form a strong canopy that in addition to its ecological and environmental values provides the dominant visual characteristic of the area and this must be protected as part of any development application for the Site.
Cultural & Environmental Significance of Landscape:

As part of any development application, the Applicant must provide the following:

i. An Arborist Report that addresses the need to remove any tree from the Site and specifies any exclusion zone around any retained trees.

ii. A Cultural Landscape Report prepared by a suitably qualified landscape architect that addresses the cultural and visual significance of the existing tree canopy, the inter-relationship between the different tree species on the Site and their importance to the area as a whole.

iii. Both the Arborist Report and Cultural Landscape Report must recommend an appropriate tree replacement strategy for any trees that are proposed to be removed and provide a review of the proposed Landscape Plan for the Site.

Protection of Existing Significant Trees

The Applicant must attempt to retain all ‘Significant Trees’ on the Site. The ‘Significant Trees’ on the Site would include all trees above 9m in height, especially the established Blue Gums. The Applicant would need to provide exceptional reasons for the removal of any trees that are 15m or over in height as part of the development application. Exceptional reasons should not be based on the need to maximise development on the Site. The exclusion zone for all proposed development must be outside the drip line of the canopy of any Significant Trees that are retained (including the basement and balconies).

7.2.4 Built Form Character

Existing Building Character:

The Existing Building Character of the area surrounding the Site is as follows:

i. Low-scale detached dwellings of one to two storeys that are set in a vegetated valley setting. These buildings are unlikely to change significantly in the near future as the development capacity of many of these parcels is low due to a number of environmental constraints.

ii. Some larger buildings that are located near the Pacific Highway, such as Knox Grammar School. These buildings are no more than two to three storeys in height and the longer buildings are either oriented obliquely or end on to the road or have large setbacks to reduce the appearance of their scale and bulk. They have also adopted architectural measures such as stepped roofs, eaves detailing and use of colonnades to reduce the scale of these larger buildings.

Proposed Building Character:

As part of any development application the Applicant must provide a statement that shows how the proposed development will be designed to be in harmony with the existing character of the adjacent buildings around the Site. This statement should address the architectural detailing of the proposed buildings including, but not limited to, the building form, mass and scale, use of articulation, roof forms, eaves detailing, window and door sizes and properties, materials selection, and colour, textures and contrast.

Building Height:

However, due to other Site constraints, this height may not be achievable on all parts of the Site. The Applicant must show how each of the key Site constraints are addressed in order to justify the proposed height of each building. The proposed buildings should respond to the topography and existing built form character of the area by placing taller buildings towards the ridgeline (Pacific Highway) and lower buildings in the valley.
7.2.5 Recommended Building Envelope for the Site

Proposed Site Layout

The illustrative plan for the site is set out in the figure below. These footprints are indicative only and subject to any proposal meeting all of the other requirements under all relevant planning controls. Any developer that wishes to vary the proposed footprints substantially will need to provide detailed justification to Council as to why the proposed footprints are not suitable.

Figure 22: Building Envelope and Footprints.
Illustrative Building Envelope showing recommended building footprints on the Site, approximate heights and relationship with adjacent buildings

7.2.6 Building Orientation

Due to the complexities of the Site constraints, building orientation on the Site is dependent on balancing a number of factors including alignment with the allotment boundaries for efficient design, retention of significant trees and landscape character, topography, solar access, accessibility, and ease of navigation. As a result:

i. Buildings along the Pacific Highway should generally be oriented along the road to provide casual surveillance of the public domain and enclose the street without being too visually dominant.

ii. Buildings at the rear of the Site will generally be oriented in accordance with the allotment boundary in order to retain most of the significant trees at the rear of the Site.

iii. Buildings in the centre of the Site will need to balance orientation to maximise solar access with preservation of significant trees and the topography. Generally the buildings should be oriented along the contour lines in order to improve the efficiency of the basement car parking.
7.2.7 Access & Movement

Pedestrian Access:
Any development proposal needs to provide appropriate pedestrian access from all buildings by the most direct route to both Munderah Street and the Pacific Highway. The primary pedestrian access to the Site should occur on the Pacific Highway frontage and approximately align with the existing pedestrian crossing.

Vehicular Access / Egress:
The primary vehicle access to the Site will be from Munderah Street at the furthest point from the intersection with the Pacific Highway. If an additional access / egress is required to the Pacific Highway then this will require approval from the Roads & Traffic Authority and the appropriate creation of a slip lane for deceleration and acceleration.

Emergency & Heavy Vehicle Access:
As part of any development application, the Applicant will need to provide an Emergency Access Plan that will demonstrate to the satisfaction of Council Officers that emergency vehicles (e.g. fire trucks) and larger vehicles (e.g. removalist vans) can enter and exit the Site and gain adequate access to all buildings on the Site in accordance with relevant requirements.

7.2.8 Stormwater Management

Stormwater Management Issues:
Due to the topography of the Site (Figure 23 below), there is the potential for development of the Site to have a significant influence on stormwater management for the site, adjacent properties and the catchment area as a whole. In particular, overland flows and the capacity of the existing stormwater system have a significant impact on properties downstream of the Site.

Post Development Stormwater Runoff:
In addition to compliance with Council’s DCP No.47 (Water Management), post development runoff shall not exceed the existing runoff and where possible shall seek to reduce the runoff by appropriately sized detention and retention facilities. A flood routing analysis / flood study and On-Site Detention Plans shall be provided as part of any development application for the Site.

Overland Flow Path:
The proposed development needs to address best practice principles of Environmentally Sustainable Development and Water Sensitive Urban Design. The Site plan should consider the creation of an open space system that is associated with both the existing stormwater easement across the Site and the overland flow path that extends from the Pacific Highway down to the south-west corner of the Site (Figure 23). This open space system could incorporate communal open space areas and pedestrian pathways.

Location of Detention Tank:
The detention tank will need to be located towards the lowest part of the Site. However, the detention tank should not result in the removal of any significant trees and must be placed outside the drip line of any significant trees.
7.2.9 Heritage Impact

There is a heritage item at No.1574 Pacific Highway immediately adjacent to the south side of the Site. Development within the visual catchment of the heritage item must be sensitive to the heritage character of the item including, but not limited to, building height, setbacks, roof form, façade treatment, materials and colours. The heritage value of buildings and other on the Site should also be considered as part of the application. A Heritage Impact Statement must be lodged as part of any development application on the Site.

7.2.10 Excavation & Natural Ground Level

*Reduction in Excavation:*

The Applicant should attempt to minimise the amount of excavation that is necessary on the Site to achieve the development outcomes. A reduction in excavation is more easily achieved if the buildings are oriented approximately along the contour lines.

*Ground Floor Levels:*

In order to maximise the amenity of ground floor units, the floor level of any ground floor unit should be within a maximum of 1.0 metre of the natural ground level (before the development commenced).
7.3 Memorial Avenue Precinct, St Ives

7.3.1 Site Location and Site Analysis

The planning principals and controls in this section apply to the land bounded by Memorial Avenue, Killeaton Street, Link Road and Mona Vale Road, St Ives as shown in Figure 24 below.

The main features of the site include the following:

- Memorial Avenue provides a prestigious address, with an avenue of trees, ceremonial character and views across the Village Green;
- Mona Vale Road and Killeaton Street / Link Road are heavily trafficked regional roads;
- Pedestrian links to the north, east and west of the site are desirable; and
- Vehicular and pedestrian addresses should be provided to all future buildings in the centre of the block.
7.3.2 Design Objectives

The design objectives provide a framework for the orderly development of all lots in this precinct.

O-1 The new buildings in Mona Vale Road and Killeaton Street / Link road are placed in a landscape setting with appropriate breaks between the buildings.

O-2 The character of Memorial Avenue is as a prestigious address is reinforced by the development of 3 storey terrace type buildings.

O-3 The retention of significant trees along the edge of the precinct and internally.

O-4 Existing stormwater easements retained.

O-5 Car and pedestrian access to the centre of the site, and to the west, north and east of the site.

O-6 A new east west link through the site resulting in a:
   i. through site link to the village green
   ii. vehicular and pedestrian addresses for future buildings in the centre of the block; and
   iii. cohesive form of development following alignments along its perimeter.

O-7 The southern side of the through link is addressed by 3 storey terrace type buildings, which do not overshadow the apartment buildings on their southern side.

O-8 Inter-connected underground car parking provided under buildings that avoids excessive loss of deep soil area. Access is gained primarily from Sturt Place and the new through site link.

O-9 Existing driveways removed from Mona Vale Road and access to underground car parks along Mona Vale Road is gained from the through site link.

O-10 Access to underground car parks along Memorial Avenue gained from the north-west and south-west corner of the block.

7.3.3 Design Controls

The proposed design controls for this precinct are contained in Figure 25 below. These controls take the form of nominated lot amalgamations, building envelope controls, setbacks, basement car parking locations and pedestrian and vehicular access through the site.

These proposed controls and lot amalgamations are Council’s preferred scheme for achieving the intended design objectives and developed outcomes sought for this precinct. Should an applicant propose a different solution to that presented in Figure 25, then the onus is on the applicant to demonstrate how the alternative solution achieves the nominated design objectives while not preventing Council’s preferred solution from being achieved in the remainder of the precinct.
Figure 25: Site Masterplan
Appendix A

Extract from Ku-ring-gai Planning Scheme Ordinance 1971 (As amended)

Part IIIA - Rail Corridor and St Ives Centre (LEP 194)
Extract from Ku-ring-gai Planning Scheme Ordinance 1971 (As amended)

PART IIIA

Rail Corridor and St Ives Centre

Division 1

Land to which Part IIIA applies

25A Land to which this Part applies

This Part applies to the land in the vicinity of the North Shore Railway / Pacific Highway corridor and the St Ives Centre, as shown edged heavy red on the map marked “Ku-ring-gai Local Environmental Plan No 194 – Zoning Map” held in the office of the Council.

Division 2

Definitions of terms used in Part 3A

25B Definitions

In this Part and the matter relating to Zones Nos 2 (c1), 2 (c2) and 2 (d3) in the Table to clause 23:

- **access handle** means a strip of land that provides access from an allotment to a street or other public land, whether or not the strip forms part of the allotment.

- **apartment conversion** means the creation of a residential flat building containing not more than 4 dwellings within an existing dwelling-house, where the residential flat building maintains the appearance of a single house in a garden setting that is common to all dwellings in the building.

- **attached dual occupancy** means dual occupancy where the two dwellings are within one building.

- **attached small dwelling** means a dwelling that:
  - is attached to another larger dwelling as a result of its being added to, or being constructed wholly or partly within the built form of, an existing dwelling-house, and
  - has a total floor space area of not more than 50 square metres, and
  - together with the other dwelling, maintain the appearance of a single dwelling-house, and
  - does not have a separate land title.

- **building footprint** means the total maximum extent of the two dimensional area of the plan view of a building including all levels, but excluding any part of the building below ground and minor ancillary structures such as barbeques, letterboxes and pergolas.
**built upon area** means the area of a site containing any built structure (whether covered or uncovered), any building, carport, terrace, pergola, hardsurface recreation area, swimming pool, tennis court, driveway, parking area or any like structure, but excluding minor landscape features.

**Note.** Any underground structure such as an on-site detention system or tank is not exempt from the built upon area calculation. Underground tanks should not be provided within areas suitable for landscaping and are encouraged to be provided, for example, under a driveway or car park, being an area which would normally be included as part of the built upon area.

**deep soil landscaping** means a part of a site area that:
(a) is not occupied by any structure whatsoever, whether below or above the surface of the ground (except for paths up to 1 metre wide), and
(b) is not used for car parking.

**Detached Dual Occupancies Map** means the map marked “Ku-ring-gai Local Environmental Plan No 194 – Detached Dual Occupancies Map” held in the office of the Council.

**detached dual occupancy** means two detached dwelling-houses on one allotment. Two dwellings connected by means only of a carport, breezeway, trellis or the like are taken to be detached dwelling-houses for the purposes of this definition.

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

**Dwelling-house Subdivisions Map** means the map marked “Ku-ring-gai Local Environmental Plan No 194 – Dwelling-house Subdivisions Map” held in the office of the Council.

**ecologically sustainable development** has the same meaning as in the *Local Government Act 1993* and includes the following:

(a) conservation of natural resources,
(b) optimisation of the use of natural features,
(c) optimisation of energy efficiency,
(d) maintenance or improvement of air, water and soil quality,
(e) reduction of car dependence, and
(f) waste avoidance and minimisation, and cleaner production.

**family flats** means two dwellings on one site where one dwelling is an attached small dwelling.

**floor space ratio** of a building means the ratio of the gross floor area of the building to the site area.

**gross floor area** means the sum of the areas of each floor of a building where the area of each floor is taken to be the area within the inner faces of the external enclosing walls, as measured at a height of 1,400 millimetres above each floor level, but excluding:
(a) columns, fin walls, sun control devices, awnings and any other elements, projections or works outside the general lines of the outer face of the external walls, and
(b) lift towers, cooling towers, machinery and plant rooms, and air conditioning and ventilation ducts, and
(c) ancillary car parking and any associated internal designated vehicular and pedestrian
access thereto, and
(d) space for loading and unloading of goods, and
(e) internal public areas, such as arcades, atria and thoroughfares, terraces and balconies
with outer walls less than 1,400 millimetres high.

**ground level** means the natural level of the ground before the erection of any building or
carrying out of any work.

**manageable housing** means housing in accordance with Class C – Adaptable Housing
Features as set out in Australian Standard AS 4299 – 1995 – *Adaptable Housing* and must
contain a bedroom, kitchen, dining area and bathroom on the ground floor or, where not on the
ground floor, on a level to which lift access is provided.

**multi-unit housing** means three or more dwellings on one allotment, whether attached or not.

**perimeter ceiling height** means the vertical distance measured between ground level at any
point and the topmost point of any ceiling where it meets, or where a horizontal projection of
the ceiling would meet, any external or enclosing wall of the building.

**residential flat building** means a building containing three or more dwellings.

**site area**, in relation to proposed development, means the areas of land to which an
application for consent to carry out the development relates, excluding the area of any access
handle.

**site coverage** means the proportion of the building footprint to the site area, expressed as a
percentage.

**site slope** means the proportion, expressed as a percentage, of the vertical difference in
levels between the highest and lowest points of the ground level at the outer edge of the
building footprint of proposed development to the horizontal distance between those same two
points.

**townhouse** means a dwelling included in multi-unit housing, being a dwelling that has a
separate entrance door accessible from an outside area and a private courtyard area at a level
the same as, or similar to, the floor level of the dwelling.

**villa** means a townhouse which has only one storey.

## Division 3

### Aims and objectives

#### 25C Aims and objectives of Part 3A

1. The aims of this Part are as follows:
   a. to encourage the protection and enhancement of the environmental and heritage
      qualities of Ku-ring-gai,
   b. to encourage orderly development of land and resources in Ku-ring-gai,
   c. to encourage environmental, economic, social and physical well-being so that Ku-ring-
      gai continues to be an enjoyable place to live in harmony with the environment.
(2) The objectives of this Part are as follows:
   (a) to provide increased housing choice,
   (b) to encourage the protection of the natural environment of Ku-ring-gai, including biodiversity, the general tree canopy, natural watercourses, natural soil profiles, groundwater and topography and to reduce and mitigate adverse impacts of development on natural areas,
   (c) to achieve high quality urban design and architectural design,
   (d) to achieve development of Ku-ring-gai with regard to the principles of ecologically sustainable development,
   (e) to ensure that development for the purpose of residential flat buildings on land within Zone No 2 (d3) has regard to its impact on any heritage items in the vicinity of that development,
   (f) to encourage use of public transport, walking and cycling,
   (g) to achieve a high level of residential amenity in building design for the occupants of buildings through sun access, acoustic control, privacy protection, natural ventilation, passive security design, outdoor living, landscape design, indoor amenity and storage provision.

25D Consideration of residential zone objectives and impact on heritage

(1) Heads of consideration for consent authority

Consent must not be granted to any development of land to which this Part applies unless the consent authority has had regard to:
   (a) the objectives for residential zones set out in this clause, and
   (b) if the application is for consent for a residential flat building in Zone No 2 (d3), a statement describing the extent, if any, to which carrying out the proposed development would affect the heritage significance of any heritage item in the vicinity of the subject land.

(2) Objectives for residential zones

The objectives for residential zones are as follows:
   (a) to provide rear setbacks that ensure rear gardens are adjacent to rear gardens of other properties and that sufficient ground area is available for tall tree planting, consistent with the objectives of this Part,
   (b) to encourage the protection of existing trees within setback areas and to encourage the provision of sufficient viable deep soil landscaping and tall trees in rear and front gardens where new development is carried out,
   (c) to provide side setbacks that enable effective landscaping, tree planting between buildings, separation of buildings for privacy and views from the street to rear landscaping,
   (d) to minimise adverse impacts of car parking on landscape character,
   (e) to provide built upon area controls to protect the tree canopy of Ku-ring-gai, and to ensure particularly the provision of viable deep soil landscaping in order to maintain and improve the tree canopy in a sustainable way, so that tree canopy will be in scale with the built form,
   (f) to encourage the planting of tree species that are endemic to Ku-ring-gai,
   (g) to require on-site detention for stormwater for all new development and refurbishment of existing housing so as to avoid excessive run-off and adverse impacts on natural watercourses, and to preserve the long-term health of tall trees and promote natural absorption,
(h) to encourage water sensitive urban design,
(i) to encourage the protection and enhancement of open watercourses,
(j) to have regard for bushfire hazard,
(k) to ensure sunlight access to neighbours and to provide sunlight access to occupants of the new buildings,
(l) to encourage safety and security of the public domain by facing windows and building entries to the street, where appropriate, and windows to open spaces in order to maximise casual surveillance opportunities,
(m) to encourage safety and security of private development by requiring a high standard of building design and landscape design,
(n) to encourage the provision of housing for seniors and people with disabilities by prescribing appropriate standards for new development,
(o) to encourage the protection of the environmental qualities of the area by limiting the range of permissible residential uses and to allow a limited range of compatible non-residential uses in certain zones,
(p) to allow attached dual occupancies only on compliance with defined criteria and only where they are consistent with or enhance the character of the streetscape and its setting,
(q) to provide for waste management (including provision for garbage storage and collection) consistent with the objectives of this Part,
(r) to ensure that adequate provision of storage is made for residential development,
(s) to encourage the retention and expansion of bicycle infrastructure.

Division 4

Controls on development

25E Dual occupancies and multi-unit housing on land to which this Part applies

(1) Consent may be granted to development for the purpose of an attached dual occupancy, a detached dual occupancy, a residential flat building, three or more townhouses or villas or any other form of multi-unit housing on land to which this Part applies only if the land has an area of at least 1,200 square metres.

(2) In addition, consent may be granted to development for the purpose of a detached dual occupancy only on land shown coloured yellow on the Detached Dual Occupancies Map.

25F Dual occupancies in Zone No 2 (c2)

(1) The objectives of this clause are as follows:
   (a) to give effect to the objectives for residential zones, while permitting detached and attached dual occupancy in limited circumstances,
   (b) to nominate locations for detached dual occupancy,
   (c) to ensure new attached dual occupancy has the appearance of a single dwelling in a single garden.

(2) Consent may be granted to development for the purpose of a detached dual occupancy in Zone No 2 (c2) only if the total floor space ratio after the development has been carried out will be not greater than 0.4:1.

(3) Consent may be granted to development for the purpose of an attached dual occupancy in Zone No 2 (c2), but only if:
(a) the site was occupied by a single dwelling-house on 28 March 2000 and when the
development application is made, and
(b) the attached dual occupancy will be achieved by carrying out alterations or additions, or
both, to the existing dwelling-house, and
(c) no more than 15% of the existing total floor space area of the existing dwelling-house
will be demolished and the proposed development will result in not more than a 15%
increase in the total floor space area over that of the existing dwelling-house as at 28
March 2000.

25G Apartment conversions in Zone No 2 (c2)

(1) The objectives of this clause are:
(a) to encourage the retention of high quality large residential dwellings along the Pacific
Highway, and
(b) to maintain the appearance of such dwellings as single houses set in landscaped
grounds.

(2) Consent may be granted to apartment conversions in Zone No 2 (c2) only if:
(a) the site has a frontage to the Pacific Highway, and
(b) the site area is not less than 1,500 square metres, and
(c) the site was occupied by a single dwelling-house on 28 March 2000 and when the
development application is made (except where an apartment conversion has already
been carried out on the site pursuant to this clause), and
(d) no more than 15% of the existing total floor space area of the existing dwelling-house
will be demolished and the proposed development will result in not more than a 15%
increase in the total floor space area over that of the existing dwelling-house as at 28
March 2000, and
(e) the built upon area is not increased by more than 10% of that which exists or to more
than 40% of the site area, whichever is the lesser, and
(f) on-site car parking can be provided in accordance with other requirements for
development within Zone No 2 (c2) (being requirements relating to landscaped area,
setbacks and protection of trees).

(3) Strata subdivision of a lot containing a residential flat building that has been created pursuant
to this clause may be carried out, but only with development consent.

25H Subdivision in the residential zones

(1) The objectives of this clause are as follows:
(a) to set minimum lot areas that reflect previous minimum lot sizes,
(b) to set minimum lot areas and minimum street frontage lot widths that provide for
development to occur in a garden setting by substantial setbacks to enable long-term
sustainability of trees,
(c) to permit the subdivision of multi-unit housing,
(d) to provide for substantial common landscaped area to encourage good streetscape
quality and areas for trees for each development.

(2) Land to which this Part applies may be subdivided, but only with development consent.

(3) If land to which this Part applies is subdivided:
(a) lots created for the purpose of dwelling-houses are to each have at least the area
specified as the “Minimum Lot Sizes” for the relevant land on the Dwelling-house
Subdivisions Map, and
(b) the only land on which a detached dual occupancy is situated that may be subdivided to create separate titles for the two dwellings comprising the detached dual occupancy is shown coloured yellow on the Detached Dual Occupancies Map, and
(c) each of the allotments occupied by a dwelling that formed part of a detached dual occupancy is to have a site area of at least 550 square metres.

(4) Where development listed in Column 1 of the Table to this subclause is permissible in a zone, a subdivision of land (excluding strata subdivision or a neighbourhood subdivision) to create a lot to be used for that development must not result in an allotment with a street frontage less than the minimum street frontage specified for the development in Column 2 of that Table:

Table

Minimum street frontages

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development for the purpose of:</td>
<td>Minimum street frontage width</td>
</tr>
<tr>
<td>Dwelling-houses</td>
<td>18 metres</td>
</tr>
<tr>
<td>Detached dual occupancy</td>
<td>18 metres</td>
</tr>
<tr>
<td>Attached dual occupancy</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Residential flat buildings, townhouses and villas</td>
<td>23 metres</td>
</tr>
</tbody>
</table>

(5) Without limiting the other provisions of this clause, consent may be given to subdivision of, or to create, battle-axe allotments.

Division 5

Further controls

25I Site requirements and development standards for multi-unit housing

(1) Heads of consideration for consent authority

Before granting consent to development for the purpose of multi-unit housing on land to which this Part applies, the consent authority must take into account the following:
(a) the desirability to provide a high proportion of deep soil landscape to the site area,
(b) the impact of any overshadowing, and any loss of privacy and loss of outlook, likely to be caused by the proposed development,
(c) the desirability to achieve an appropriate separation between buildings and site boundaries and landscaped corridors along rear fence lines,
(d) the environmental features that are characteristic of the zone in which the site is situated by requiring sufficient space on-site for effective landscaping,
(e) the desirability of adequate landscaping so that the built form does not dominate the landscape,
(f) how the principles of water cycle management can be applied to limit the impacts of runoff and stormwater flows off site.
(2) **Minimum standards for deep soil landscaping**

The following standards relating to deep soil landscaping apply to multi-unit housing:

(a) deep soil landscaping with a minimum width of 2 metres is to be provided on the site area,

(b) a site with an area of less than 1,800 square metres is to have deep soil landscaping for at least 40% of the site area,

(c) a site with an area of 1,800 square metres or more is to have deep soil landscaping for at least 50% of the site area.

(3) **Minimum street frontages**

The standards for street frontages set out in the Table to this subclause apply to a site used for the purpose of multi-unit housing:

<table>
<thead>
<tr>
<th>Site area</th>
<th>Minimum street frontage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,800 square metres or more</td>
<td>30 metres</td>
</tr>
<tr>
<td>1,200 square metres or more but less than 1,800 square metres</td>
<td>23 metres</td>
</tr>
</tbody>
</table>

(4) **Multi-unit housing on smaller sites**

Despite clause 25E, multi-unit housing may be carried out within Zone No 2 (d3) on a site that has a site area of less than 1,200 square metres, or a street frontage of less than 23 metres, if the proposed development complies with all other requirements of this Ordinance.

(5) **Maximum number of storeys**

Buildings on land to which this Part applies are not to have more storeys than allowed by the Table to this subclause.

<table>
<thead>
<tr>
<th>Site area</th>
<th>Maximum number of storeys</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1,800m²</td>
<td>3</td>
</tr>
<tr>
<td>1,800m² or more but less than 2,400m²</td>
<td>4</td>
</tr>
<tr>
<td>2,400m² or more</td>
<td>5</td>
</tr>
</tbody>
</table>

(6) **Maximum site coverage**

Buildings of a kind described below are not to occupy a greater percentage of the site area.
than is specified below for the kind of buildings. If a site is comprised of land in Zone No 2 (d3) and other land, the other land is not to be included in calculating site area.

Residential flat buildings – 35%,

Townhouses – 40%,

Villas – 50%,

Combination of townhouses and villas – 50%.

(7) Limit on floor area of top storey

In Zone No 2 (d3), where the maximum number of storeys permitted is attained, then the floor area of the top storey of a residential flat building of 3 storeys or more is not to exceed 60% of the total floor area of the storey immediately below it.

(8) Maximum number of storeys and ceiling height

Subject to subclause (5) and clause 25K, buildings on land to which this Part applies are not to have:

(a) more storeys than the maximum number of storeys specified in Column 2 of the Table to this subclause, or

(b) given the number of storeys in the building, a perimeter ceiling height greater than that specified in Column 3 of that Table.

Table - Maximum number of storeys and ceiling height

<table>
<thead>
<tr>
<th>Column 1</th>
<th>Column 2</th>
<th>Column 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Zone</td>
<td>Maximum number of storeys</td>
<td>Calculation of maximum perimeter ceiling height</td>
</tr>
<tr>
<td></td>
<td>Number of storeys in a building (not including top storey with floor area reduced because of subclause (7) or attics, where applicable)</td>
<td>Number of storeys in building (not including top storey with floor area reduced because of subclause (7) or attics, where applicable)</td>
</tr>
<tr>
<td>2 (c1) and 2 (c2)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>2 (d3)</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4</td>
</tr>
</tbody>
</table>

(9) Any storey which is used exclusively for car parking, storage or plant, or a combination of them, in accordance with the requirements of this Ordinance and no part of which (including any wall or ceiling which encloses or defines the storey) is more than 1.2 metres above ground level, is not to be counted as a storey for the purposes of the Table to subclause (8).
Excavation near Epping-Chatswood Rail Tunnel

Before consent is granted for any substantial excavation of a site to accommodate basement levels in proximity to the Epping-Chatswood Rail Tunnel, the consent authority must consider an assessment of the likely effect of the excavation, and of the rail tunnel and its use, on:
(a) the proposed excavation, and
(b) the likely subsequent use of the land on which the excavation is proposed.

25J Car parking

(1) Before granting consent to residential development on land to which this Part applies, the consent authority must take into account the following:
(a) the proximity of multi-unit housing zones to rail station centres and major bus routes along Mona Vale Road serving the St Ives Centre,
(b) the desirability of encouraging use of public transport,
(c) that the impact of car parking on the natural ground area of multi-unit housing lots should be minimised and the need to provide sufficient deep soil landscaping for trees and their long-term sustainability,
(d) that the visual impact of car parking both from the street and from other land (private or public) should be minimised.

(2) Consent must not be granted to development that will result in more than one dwelling on a site unless:
(a) at least one car space is provided per dwelling and, if the site is not within 400 metres of a pedestrian entry to a railway station, one additional car space is provided for each dwelling with 3 or more bedrooms, and
(b) at least one additional visitor car space is provided for every 4 dwellings, or part thereof, that will be on the site.

(3) All car parking provided must not be open air car parking unless it is for visitors, in which case it must be constructed with water-permeable paving unless the paving is directly above part of the basement.

25K Steep slope sites

Consent may be granted to a building on a site with a site slope greater than 15% that would:
(a) exceed the number of storeys controls in clause 25I (8) by only one storey for up to 25% of the building footprint, or
(b) exceed the height controls in clause 25I (8), but only by up to 3 metres for up to 25% of the building footprint, or
(c) take advantage of the concessions conferred by both paragraphs (a) and (b), but only for up to the same 25% of the building footprint.

25L Zone interface

(1) The objective of this clause is to provide a transition in the scale of buildings between certain zones.

(2) The third and fourth storey of any building on land within Zone No 2 (d3) must be set back at least 9 metres from any boundary of the site of the building with land (other than a road) that is not within Zone No 2 (d3).
(3) Landscaping required to screen development from any adjoining property must be provided on the site and must not rely on landscaping on the adjoining property.

25M Non-discretionary development standards for residential flat buildings in Zone No 2 (d3)

Pursuant to section 79C (6) (b) of the Act, the development standards for number of storeys, site coverage, landscaping and building set back that are set by this Part are identified as non-discretionary development standards for development for the purpose of a residential flat building on land within Zone No 2 (d3).

25N Manageable housing

(1) Objectives

The objectives of this clause are:
(a) to increase the housing choice for seniors and people with disabilities, and
(b) to encourage ageing in place.

(2) Requirement for manageable housing

Consent must not be granted to development for the purpose of multi-unit housing in Zone No 2 (d3) unless:
(a) at least one dwelling comprises manageable housing for each 10 dwellings (or part thereof) comprising the multi-unit housing, and
(b) wheelchair access is provided to all dwellings comprising the manageable housing.

(3) Requirement for lifts

A lift must be provided in all multi-unit housing of more than 3 habitable storeys in Zone No 2 (d3).
Appendix B

Statements on “The Character of Ku-ring-gai and “A Statement of Heritage Significance”
THE CHARACTER OF KU-RING-GAI

THE CHARACTER OF KU-RING-GAI IS DEFINED BY:

- Large indigenous and exotic trees whose canopies form the skyline, line the streets and dominate
garden spaces throughout the whole area; and
- The unique presentation of private gardens which are given due importance in residential settings and
designs.

Nature of development

- A unique predominance of residential development, with a notable absence of industry or large
commercial areas. Large educational establishments and suburban retail/service centres are the other
major land uses.
- Development which responds to the landform - the spine of the heavily incised plateau carries the
main transport routes and the earliest development; successive feeder roads and suburban
development follow tributary ridges, leaving the steep gullies on the east and west of the spine as
bushland reserves and national parks.

Pattern of development

- The predominant form of development is of individual houses sited on large blocks of land and
surrounded by garden space.
- Houses are separated by generous side setbacks and curtilages.
- Fences define the boundary of each allotment; front fences and/or hedges mark the street alignment
and allow pedestrians to look over to the garden beyond. Particular areas of post 1945 subdivision are
characterised by an absence of front fences combined with a lack of solid side and/or rear fences
presenting a continuity of open landscape vistas between adjoining properties.
- Garages/carports are generally sited at the side or back of each house. They are most commonly
accessed by single width driveways which have minimal paving. Runoff is therefore largely absorbed
within each residential allotment into the predominant green surfaces of lawn, garden beds, shrubberies
and trees.

Trees and gardens

- Older residential developments along the main spine are characterised by larger blocks of land and
gardens combining exotic, deciduous and indigenous plantings. More recent development is away from
the main spine and is generally on smaller blocks of land with a predominance of indigenous and exotic
plantings.
- Street tree plantings include informal remnants of the forest, others are of formal plantings made over a
period of 100 years. Street tree plantings may also feature grassed or planted nature strips and verges
and are largely contributory to the unique characteristic of Ku-ring-gai’s streetscapes.

Materials

- Houses and shops are mostly built of unpainted brick with tile roofs. There are some important pockets
of early timber houses. Walls of render or timber shingles and iron or slate roofs characterise some of
the typical building materials.
KU-RING-GAI

A STATEMENT OF HERITAGE SIGNIFICANCE

The heritage of Ku-ring-gai comprises a rare blend of fine domestic architecture within a landscape of indigenous forests and exotic plantings and garden.

Ku-ring-gai as a whole is of national and state heritage significance because of:

- The outstanding quantity, quality, depth and range of its twentieth century architecture. It contains houses designed by many of Australia’s prominent twentieth century architects which have influenced the mainstream of Australian domestic architecture nationally including John Sulman, Howard Joseland, Hardy Wilson, Leslie Wilkinson and Harry Seidler.

- The evidence it provides of twentieth century town planning and conservation philosophies – the segregation of residential areas from other urban uses, subdivision patterns which reflect a range of suburban aspirations, the use of residential district proclamations to create and retain domestic environmental amenity, street tree planting and post-war neighbourhood planning.

- The railway whose presence demonstrates the bargaining power of public works and services in gaining votes for federation.

Ku-ring-gai is of regional significance for:

- The evidence it retains in its surrounding national parks, along its creek lines and in its public and private gardens, remnants of the original Blackbutt and Blue Gum forests and associated woodlands, understoreys and dependent fauna – a resource of wide ranging scientific research potential.

- Its coherent aesthetic values resulting from a combination of elevated locations, good soils, large trees, extended views, fine architecture and established gardens inspiring artists such as Grace Cossington Smith and Lionel Lindsay, visionaries such as John Sulman and J.J.C Bradfield and writers such as Ethel Turner to honour Ku-ring-gai with their works.

- For the technical and design innovation in its buildings and gardens – demonstrating some of the earliest examples of Australia’s first school of architecture at Sydney University, some of the earliest use of cavity walls, Marseilles tiles and innovative landscape designs of renowned exponents such as Edna Walling, Paul Sorensen and Jocelyn Brown.

Ku-ring-gai is also of heritage significance for:

- The evidence provided by its rich history and all its sequential layers – from Aboriginal occupation, very early timbergetting, the long period of relative isolation from built suburbia, orcharding and farming followed by the rapid growth of suburban development in response to elevated topography, “clean air” and the establishment of the railway.

- The evidence offered by its built landscape and garden design incorporating a variety of horticultural styles and in harmony with the natural landscape such as those at Swain Gardens, Bobbin Head, large estate private gardens and the gardens at railway stations and well-designed gardens of cultivated botanical specimens such as Eryldene and the Ku-ring-gai Wildflower Garden.
Appendix C

Urban Conservation Areas
Urban Conservation Areas
Statement of Significance & Statement of Character

Preamble

The National Trust received a National Estate Grant in 1992 to employ consultants to undertake a housing estate study in NSW. The consultants surveyed as much of NSW as was feasible in order to identify the extent and quality of Inter War housing and estate housing.

The study identified a number of precincts in NSW considered to be worthy of listing by the Trust. It also found that housing in NSW between 1918 and 1942, is of State heritage significance due to the enormous visual impact it had on the built form of today’s suburbs and towns. In Ku-ring-gai the main housing growth period was after the North Shore Railway was opened in 1890 and between World War 1 and World War 2. Compared to other areas in the Sydney region, Ku-ring-gai was found to contain one of the most extensive and intact Inter War housing areas in the State.

The National Trust report, titled; “Housing in NSW Between the Wars” was finalised in 1996 and recommended 28 precincts in Ku-ring-gai for possible listing. All 28 precincts were subsequently classified by the National Trust in 1997.

Twenty One (21) of the UCAs in Ku-ring-gai are currently listed on the National Estate Register as Indicative Places and the Australian Heritage Commission is assessing these precincts for possible inclusion in their Register.

In 2000, recognising the value of these 28 precincts and the high pressure for development, the Australian Council of National Trusts declared the 28 precincts in Ku-ring-gai “Endangered Places”.

SUMMARY STATEMENT OF SIGNIFICANCE

Of the 28 UCAs identified by the National Trust, 18 will be potentially affected by residential flat development in the Residential 2(d3) zone. These areas are identified in the following Maps.
Urban Conservation Area 3 - Roseville (East side)

Description

- The Ku-ring-gai Urban Conservation Area (Roseville East side Precinct) consists of an area of predominately 1920s bungalows with the almost universal use of face brick on medium-sized lots with Federation style houses and interwar flats being located close to the railway line as well as 1920s shops being located in Hill Street.

Statement of Significance

The Roseville Urban Conservation Area (3) is an area of outstanding streetscapes of Federation and Interwar period housing, complemented by shops, community buildings and a small number of Inter War flats and enhanced by gardens and street planting.

The area is visually distinctive in its overall cohesiveness and consistency of high-quality, mainly single-storey houses from the Federation and Inter-War periods complemented by a small number of flats and is remarkable for the high proportion of contributory items. These buildings combine with large mature private gardens and significant avenue plantings, which help create substantially harmonious streetscapes. The cohesiveness of the area is reinforced by the consistent and generally regular grided settlement pattern, with buildings on similarly-sized allotments and set back uniformly from the street behind low fences.

Urban Conservation Area 4 - West Roseville

Description

- The Ku-ring-gai Urban Conservation Area (West Roseville Precinct) consists of a predominately 1920s bungalows on medium-sized lots with Federation style houses and interwar flats being located on the Pacific Highway and the almost universal use of face brick. There are few unsympathetic alterations or intrusions into the area.

Statement of Significance

The West Roseville Urban Conservation Area (UCA 4) is a notable precinct of mixed housing and commercial development that retains important evidence of the development of Ku-ring-gai in the decades following the coming of the railway in 1890. The layout of the streets and lots as well as much of the building stock provides cohesive evidence of the late nineteenth and early twentieth century subdivisions and development of the area’s original land grants and in particular the growth spurts in the pre-World War 1 and interwar periods.

The area is characterised by a predominance of Federation and Interwar period residential development comprising freestanding houses in established gardens. These houses are major contributors to the area’s numerous attractive streetscapes and while varied in architectural character, they feature a compatibility of form, massing materials and detailing.

The siting of houses within informally landscaped gardens set back from the street behind low fences/walls and/or hedges and featuring tall trees contributes to the significant aesthetic values of the streetscapes.
Urban Conservation Area 6 - Lindfield

Description:

- The Ku-ring-gai Urban Conservation Area (Lindfield Precinct) consists predominately of 1920s bungalows on medium-sized lots with Federation style houses being located close to the railway line as well as 1920s shops being located in Lindfield Avenue. There are few unsympathetic alterations or intrusions into the area.

Statement of Significance

The Lindfield Urban Conservation Area (UCA6) is an area of highly intact streetscapes that provide evidence of subdivision and development during the Federation and Inter-War periods. They include Federation and Californian bungalows within mature gardens. The residential streetscapes are complemented by a number of distinctive building and landscape features, such as churches, a whist club, tennis club, Lindfield Avenue, and two Inter-War flat buildings.

The large number of Federation and Inter-War houses that contribute to the significance of the area is enhanced by individually significant buildings from the same period, including the Inter-War Spanish Mission shops in Lindfield Avenue, landmark churches and a number of large residences, set within a generally grided settlement pattern, which includes a number of historically and visually distinctive laneways. A pocket of homogenous Inter-War housing in Lightcliff Avenue contributes to the significance of the area as a whole, as well as being a significant example of cohesive subdivision and development as an individual entity.

The collective value of the built and landscape elements is enhanced by the high visual amenity of the vegetation which results from the quality and distribution of vegetation: within private gardens, as avenue plantings and remnant vegetation that permeates the area. The built environment is softened by the large quantity of established street trees. Houses are set back behind low front fences, with private gardens at front and back that are mostly well landscaped and well maintained, while being generally sympathetic to the house types that they surround.

Urban Conservation Area 7 - West Lindfield

Description

- The Ku-ring-gai Urban Conservation Area (West Lindfield Precinct) consists of housing in the area consists predominately of 1920s bungalows developed in a single period on medium-to large lots with the almost universal use of face brick.
Urban Conservation Area 9 - Killara

Description:

- The Ku-ring-gai Urban Conservation Area (Killara Precinct) consists of residences ranging from single-storey 1920s bungalows in the northern section, two storey flats near Killara Station, large 1920s and 1930s mansions in Stanhope Road, large 1920s and 1930s houses in the central section of the precinct and more modest 1930s and 1940s as well as some post-World War 2 houses in the eastern section of the precinct.

Statement of Significance

The Killara UCA (UCA 9) is an area of special streetscapes and groups of substantial, intact houses of the Federation and Inter-War periods that provide evidence of a suburb established for ‘gentlemen of means’ around the railway line from the 1890s.

The area is distinct in its consistency of high quality intact buildings predominately form the Federation and Inter-War periods, combined with mature extensive private gardens and significant avenue plantings.

The area has a high level of visual amenity, based on the large body of vegetation that provides privacy, buffering, height and texture overall, which is reinforced by a large number of tall remnant trees on public and private land.

Urban Conservation Area 10 - Culworth Avenue, Killara

Note: This precinct is currently being reviewed in Stage 4 of the UCA review.

Description

- The Ku-ring-gai Urban Conservation Area (Culworth Avenue Precinct) consists of an area of single-storey Federation period and 1920s bungalows in the southern section, two and three storey flats near Killara Station and large 1930s houses in Marion Street. The uniform appearance of the area stems from its development within a single period as well as the almost universal use of face brick.

- The Culworth Avenue Precinct epitomises the area and era in both the excellent, intact nature of its houses, their gardens and street plantings.
Urban Conservation Area 11 - Killara Golf Links

Description:

- The Ku-ring-gai Urban Conservation Area (Killara Golf Links Precinct) consists of an area of residences ranging from single–storey 1920s and 1930s bungalows to single and two-storey post World War 2 houses. The uniform appearance of the area stems from its well established landscape.

- The Killara Golf Links Precinct epitomises the area and era in both the excellent, intact nature of its houses, their gardens and street plantings.

Urban Conservation Area 12 - Greengate, Killara

Note: Council is currently reviewing this precinct in Stage 4 of the UCA review.

Description

- The Ku-ring-gai Urban Conservation Area (Greengate Precinct) consists of an area of residences ranging from the Federation period, 1920s and 1930s bungalows and some post–World War 11 Houses. The Greengate Hotel on the corner of the Pacific Highway and Greengate Road is one of the best, most intact examples of 1930s hotels in the Sydney Region. There are also some excellent examples of 1920s and 1930s residential flat buildings on the Pacific Highway.

- The uniform appearance of the area stems from its well-established landscape.

- The Greengate Precinct epitomises the area and era in both the excellent, intact nature of its houses, their gardens and street plantings.
Urban Conservation Area 13 - Gordon (East)

Description

- The Ku-ring-gai Urban Conservation Area (Gordon Precinct) consists of an area of single-storey 1920s bungalows and some one and two storey Federation period houses. The uniform appearance of the area stems from its almost universal use of face brick.

Statement of Significance

The Gordon UCA (13) is a relatively intact residential area of Federation and Inter-War period houses that collectively provide evidence of the transformation of the area from agriculture to suburban housing, over a fifty year period, following the opening of the railway in 1890. The collection of Federation and Inter-War houses contributes to attractive streetscapes that are reinforced by a number of other significant characteristics, such as the early subdivisions and development pattern that established a relative consistency in the siting of buildings and provided for generous garden areas.

Streets of Federation and Inter-War period houses are often unified by similarities in their mainly single-storey form and materials such as face brickwork and tiled roofs. The houses are set back from the street behind low fences, and are complemented by their gardens, which often include large trees.

Remnant eucalypts and the consistent leafy appearance of its streets, including street trees, contribute or a high level of visual amenity. Views from Gordon Station steps to the east reveal the rich variety of indigenous and exotic trees, which dominate the buildings.

Urban Conservation Area 15 - West Gordon

- The Ku-ring-gai Urban Conservation Area (West Gordon) consists of an area of single-storey 1920s and 1930s bungalows. The uniform appearance of the area stems from its development within a single period as well as the almost universal use of face brick.
URBAN CONSERVATION AREA 13 - GORDON EAST

URBAN CONSERVATION AREA 15 - WEST GORDON

Key:
- 2(d) Zoned land
- Proposed 2(d) under LEP 2011
- Heritage item under KRPA
- Contributory item

Urban Conservation Area proposed by National Trust
Urban Conservation Area 17 - Pymble (East)

Description

- The Ku-ring-gai Urban Conservation Area (Pymble Precinct) consists of an area of single-storey and double storey 1930s and 1940s houses. The uniform appearance of the area stems from its well established landscape.
- The centrepiece is the housing surrounding Robert Pymble Park. The houses and Park constitute an excellent example of good civic design.

Statement of Significance

Pymble UCA (17) is a cultural landscape comprising outstanding streetscapes that demonstrate the development of an early twentieth-century residential suburb. The large variety of Federation and Inter-War housing on medium to large lots is enhanced by a setting of remnant indigenous forest, exotic street plantings and a network of streets that continue to reflect the early subdivision and development of the area.

The development pattern provides evidence of the subdivision of the original land grants for residential development following the arrival of the North Shore Railway line in 1890. The predominance of Federation and Inter-War period housing reflects the two major phases of residential development that occurred in the 50 year period between 1890 and 1940.

The UCA contains aesthetically distinctive Inter-War period streetscapes that feature a general uniformity of building setbacks from the street, architectural styles, materials, colour and form. The established nature of the landscape and well-maintained gardens and street planting of indigenous and exotic trees contribute to a high level of streetscape integrity.

Urban Conservation Area 18 - Avon Road, Pymble

Description

- The Ku-ring-gai Urban Conservation Area (Avon Road, Pymble Precinct) consists of an area of single-storey and double storey 1920s, 1930s and 1940s houses. The uniform appearance of the area stems from its well-established landscape.
- The centrepiece is the landscaping of Pymble Ladies College.

Statement of Significance

Pymble UCA (18) is an area of three outstanding streetscapes, commenced in the Federation period, but mainly developed in the Inter-War period, within a landscape of dense vegetation and exotic street plantings.

The subdivision pattern provides evidence of the original land grants, and of the Federation-period residential development following the arrival of the North Shore Railway Line in 1890. Inter-War period housing predominates.

The UCA contains aesthetically distinctive streetscapes of mainly Inter-War period buildings that feature a general uniformity of setback from the street, architectural styles, materials, colour and form. They are enhanced by an established landscape of well maintained gardens and street plantings of indigenous and exotic tree and shrubs, which are incorporated into private front and rear yards which contributes to a high level of streetscape integrity. Of particular significance is the remnant stand of indigenous trees that provides a substantial canopy that extends from the Pacific Highway in a southerly direction along a creek line.
Urban Conservation Area 19 - Bobbin Head Road, Turramurra

Description

- The Ku-ring-gai Urban Conservation Area (Bobbin Head Road, Turramurra Precinct) consists of an area of single-storey and double storey 1920s, 1930s and 1940s houses. The uniform appearance of the area stems from its well established landscape.

- The precinct contains excellent examples of architect-designed houses such as the Spanish Mission houses designed by G. Kenworthy on the corner of the Pacific Highway and Warrangi Street.

- The Bobbin Head, Road, Turramurra Precinct epitomises the area and era in both the excellent, intact nature of its houses, their gardens and street plantings.

Urban Conservation Area 20 - Ku-ring-gai Avenue, Turramurra

Note: This precinct is one of the early National Trust Conservation Areas and was classified before the Interwar UCA study commenced. It is included within draft LEP 21 which was finalised by Council in 2000 and has been with the Department since early 2001.

Description

- The Ku-ring-gai Avenue, Turramurra Urban Conservation Area provides an excellent townscape comprised of mainly two storey mansions dating from the 1890 and set in well established gardens. There is a fine collection of street tree plantings including Brush Box. The streetscapes are strongly characterised by fine fences.
Urban Conservation Area 21 - Kissing Point Road, Turramurra

Description

- The Ku-ring-gai Urban Conservation Area (Kissing Point Road, Turramurra Precinct) consists of an area of single-storey 1920s and 1930s bungalows. The uniform appearance of the area stems from its well established landscape.

Urban Conservation Area 25 - Heydon Avenue, Warrawee.

- The Ku-ring-gai Urban Conservation Area (Heydon Avenue, Warrawee Precinct) consists of an area of large single-storey 1920s and 1930s bungalows as well as some large 1940s houses. The uniform appearance of the area stems from its well established landscape.

- The Heydon Avenue, Warrawee Precinct epitomises the area and era in both the excellent, intact nature of its houses, their gardens and street plantings.
Urban Conservation Area 26 - Mahratta, Wahroonga

Description

- The Ku-ring-gai Urban Conservation Area (Mahratta Precinct) consists of an area of large single-storey 1920s, 1930s and 1940s houses with some post World War 2 houses in the centre of the precinct. The precinct is named after the large red brick, interwar mansion, Mahratta constructed at the corner of the Pacific Highway and Fox Valley Road.
- The uniform appearance of the area stems from its well established landscape.

Urban Conservation Area 27 - Wahroonga (East side)

Note: This precinct has been reviewed and is graded as State significance.

Description

- The Ku-ring-gai Urban Conservation Area (Wahroonga Precinct) consists of an area of large single-storey and two storey 1920s, 1930s and 1940s houses, many of which were designed by prominent architects including Howard Joseland, B J Waterhouse, F Glynn Gilling, L'Anson, Bloomfield and McCulloch and H V Vernon.
- The houses are built on large landscaped lots with well maintained mature trees and botanical gardens, some designed by Paul Soderson. The mature tree plantings along Burns Road make it one of the most picturesque in Ku-ring-gai. Fine fences appropriate to the period also contribute to the rustic character of the precinct.
- The significance of this precinct is largely due to the setting in which the houses are placed, the principal elements in the area being the successful correlation between buildings and its extensive gardens and natural landscape.

Statement of Significance

The Wahroonga UCA (27) is of outstanding streetscape significance for its concentration of large Federation period houses set in expansive garden settings on tree-lined streets. Burns Road is an important street of landmark value, which together with Cleveland Street and Water Street, contains the highest concentration of large Federation period houses. The high visual quality of the area is enhanced by its vegetation, through dramatic visual effects and the continuous lush character generated by the combination of individual specimen trees, avenue plantings and well-incorporated indigenous vegetation.

The area provides historic evidence of the subdivision pattern of the “Big Island Estate” into large suburban lots with a semi-rural character prompted by the laying of the Hornsby to St Leonards railway in 1890. The way of life for a community on the Upper North Shore, prominent in the professions, industry and commerce, is reflected in these well-crafted detached houses with picturesque gardens, many still sited on large allotments.

The architectural fashions and urban design theories evident in this area can be traced to contemporaneous movements in England and the United States. Adaptations for climate are evident in most of the houses.

The collection of large Federation period houses is complemented by many more modest Federation period houses as well as Inter-War buildings of various sizes.
Appendix D

Extent of Blue Gum High Forest and Sydney Turpentine Ironbark Forest within the railway corridor and St Ives areas
Appendix E

Suitable Canopy Tree Species
<table>
<thead>
<tr>
<th>TREE SPECIES</th>
<th>Soil type</th>
<th>Soil moisture</th>
<th>Origin</th>
<th>Leaf drop</th>
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<td>Shale</td>
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<td>Moist</td>
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<td>Eucalyptus saligna (Sydney Blue Gum)</td>
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<td>Eucalyptus paniculata (Grey Ironbark)</td>
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<td>Eucalyptus pilularis (Blackbutt)</td>
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<td>Angophora floribunda (Rough Barked Apple)</td>
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<td>Syncarpia glomulifera (Turpentine)</td>
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<tr>
<td><strong>Blue Gum High Forest – Tall Canopy Species</strong></td>
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<td><strong>Other Canopy Species</strong></td>
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<tr>
<td>Agathis robusta (Queensland Kauri Pine)</td>
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<td>Angophora costata (Sydney Red Gum)</td>
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<td>Araucaria cunninghamii (Hoop Pine)</td>
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<td>Araucaria heterophylla (Norfolk Island Pine)</td>
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<td>Carya illinoiensis (Pecan Nut)</td>
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<td>Cedrus atlantica (Atlantic Cedar)</td>
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<td>Cedrus deodara (Himalayan Cedar)</td>
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<td>Cryptocarya glaucescens (Native Tammarind)</td>
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<td>Corymbia citriodora (Lemon Scented Gum)</td>
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<td>Cryptocarya gummifera (Red Bloodwood)</td>
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<td>Cryptocarya maculata (Spotted Gum)</td>
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<td>Cryptocarya glaucescens (Native Tammarind)</td>
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<tr>
<td>Diploglottis cunninghamii (Native Tamarind)</td>
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<td>Doryphora sassafras (Sassafras)</td>
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<td>Elaeocarpus kirtonii (Pigeonberry Ash)</td>
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<td>Eucalyptus acmenioides (White Mahogany)</td>
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<td>Eucalyptus globoidea (White Stringybark)</td>
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<td>Eucalyptus micocorys (Tallowood)</td>
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<td>TREE SPECIES</td>
<td>Soil type</td>
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<td>Shale</td>
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<td>Eucalyptus piperita (Sydney peppermint gum)</td>
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<td>Eucalyptus punctata (Grey Gum)</td>
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<tr>
<td>Eucalyptus racemosa (Scribbly Gum)</td>
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<tr>
<td>Eucalyptus resinifera (Red Mahogany)</td>
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<tr>
<td>Eucalyptus sieberi (Silvertop Ash)</td>
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<td>Flindersia australis (Crow's Ash)</td>
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<td>Liriodendron tulipfera (Tulip Tree)</td>
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<td>Michelia champaca (Golden Champaca)</td>
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<td>Metasequoia glyptostroboideae (Dawn Redwood)</td>
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<td>Nageia falcata (Outeniqua yellow-wood) syn. Podocarpus falcatus</td>
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<td>Nyssa sylvatica (Tupelo)</td>
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<td>Platanus x hybrida (Plane Tree)</td>
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<td>Platanus orientalis (Oriental Plane Tree)</td>
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<td>Podocarpus elatus (Brown Pine)</td>
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<td>Pyrus calleryana (Chinese Wild Pear)</td>
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<td>Pyrus ussuriensis (Manchurian Pear)</td>
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<td>Quercus coccinea (Scarlet Oak)</td>
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<td>Quercus palustris (Pin Oak)</td>
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<td>Quercus rubra (Red Oak)</td>
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<tr>
<td>Waterhousia floribunda (Weeping Lillypilly)</td>
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<td>Syzygium francisii (Francis Water Gum)</td>
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<td>Zelkova serrata (Zelkova)</td>
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Appendix F

Adaptable housing in Ku-ring-gai
Adaptable housing

Adaptable housing is housing that is designed with basic accessible features which can easily be complemented with further features to meet an individual’s needs over time. The dwelling can be easily adapted, if required, to cater for the changing needs and capabilities of an older or persons of persons with a disability, and then be readapted to a conventional unit if that person moves out.

The Australian Bureau of Statistics 1993 Survey of Disability, Aging and Carers estimated than 18% of the Australian population had a disability. Around 60% of those persons with a disability have some difficulty with mobility. For people aged over 60 years, the percentage of persons with a disability increases to almost 50%. The need for adaptable housing is therefore substantial, and growing with the aging of the population. The provision of adaptable housing should not be limited to special purpose built housing for a sector of the community, but rather applied to all housing types (HillPDA).

Australian Standard AS4299 – Adaptable housing defines the essential and desirable features for adaptable housing. The cost of adapting most items in Australian Standard AS4299 is minimal provided they are designed in from the beginning. The HillPDA report found that the initial cost of adapting a unit in high-rise units (4 storeys or greater) with prior provision added 0.3%-0.7% to the cost of construction while modifying the same unit if there was no prior adaptive features added 9.2%-12.9% to the cost of construction. Similarly for low-mid rise housing units the initial cost of adapting a unit with prior provision added 0.3%-7.0% while modifying the same unit of there was no prior adaptive features added 10.3%-21.9% to the cost of construction (HillPDA, 1999).

Most of the adaptable items with the greatest cost savings have minimal or nil upfront costs but would be very difficult to retrofit at a latter stage. Some items of AS4299 increase costs and floor area particularly for small units. These include basement car parking, passenger lifts, accessible pathways, and wheelchair accessibility in bedrooms. The impact of these features is relative to the project circumstances. For example:

• The major cost impact of adaptable housing standards from the Hill PDA research is to low-rise residential development because of the need to incorporate a lift.
• Moderate to high quality dwellings often feature larger bedrooms with open plan accommodation that can easily adopt wheelchair manoeuvrability.

SEPP (Seniors Living) 2004 requires that all self care housing comply with a modified set of adaptability standards. Also between 50% to 100% of dwellings must be accessible by a continuous path of travel (within the meaning of AS 1428), depending on gradients.

Definitions

“Manageable housing” is housing in accordance with Class C – Adaptable Housing Features as set out in Australian Standard AS4299 and must contain a bedroom, kitchen, dining area and bathroom on the ground floor, or where not on the ground floor, lift access is provided.
“Visitable housing unit” is to be visitable by people who use wheelchairs, in that there must be at least one wheelchair accessible entry and path of travel to the living area and to a toilet that is either accessible (A toilet complying with the floor space requirements described in AS1428.1) or visitable (A toilet which has a space of minimum 1250mm in front of the toilet that is either accessible or visitable. AS4299 contains the technical requirements to achieve a visitable dwelling.

“Accessible housing” is designed to allow a wheelchair user to enter, move about and use all rooms and facilities in a dwelling unaided. Typical accessible features include wider doors, sufficient clear floor space for a wheelchair, entrance free of steps and stairs, audible and visual signals, lowered Kitchen counters, grab bars in the toilet and bathroom, knee spaces under sinks and counters and shower screens can be removed to allow hobless entry and appropriate waterproofing. Features are provided up front, permanently fixed in place, and noticeable. As a result, many persons that do not require such features view them as clinical in appearance and not marketable to the wider population. AS1428 Part 1 and Part 2 and AS4299 contain the technical requirements for accessible housing.

“Adaptable housing” is designed with the basic accessible features which can easily be complemented with further features to meet needs over time. Adaptable house features can be invisibly incorporated into plans for all types of housing. The only difference is that the dwelling can be easily adapted, if required, to cater for the changing needs and capabilities of an older or “disabled” occupant, and then be readapted to a conventional configuration of the person moves out. Adaptable design means readily adjusted. Adaptable features are those than can be adjusted in a short time without involving structural or major material changes. Typical adaptable features that are aimed at all users and available the moment the dwelling is built include level and wider doorways and corridors, slip resistant floor surfaces, reachable power points, lever door handles and lever taps. Features that may be utilised at a later stage include kitchen counters that may be adjusted in height or replaced, strengthened walls onto which grab rails may be fixed, and the provision of a hobless shower. AS4299 contains the technical requirements for adaptable housing. Appendix A of AS4299: Adaptable housing provides a schedule of features for adaptable housing.

Section 4.7 of this DCP outlines the requirements and provisions for adaptability and accessibility.