

The Hills Development Control Plan (DCP) 2012

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THE
HILLS
Sydney's Garden Shire



Part D Section 19 Showground Station Precinct

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1 Introduction

This section establishes a framework and controls to guide development in the Showground Station Precinct (the Precinct).

1.1 Land to which this Section applies

This section applies to the land within the Showground Station precinct (refer Figure 1).

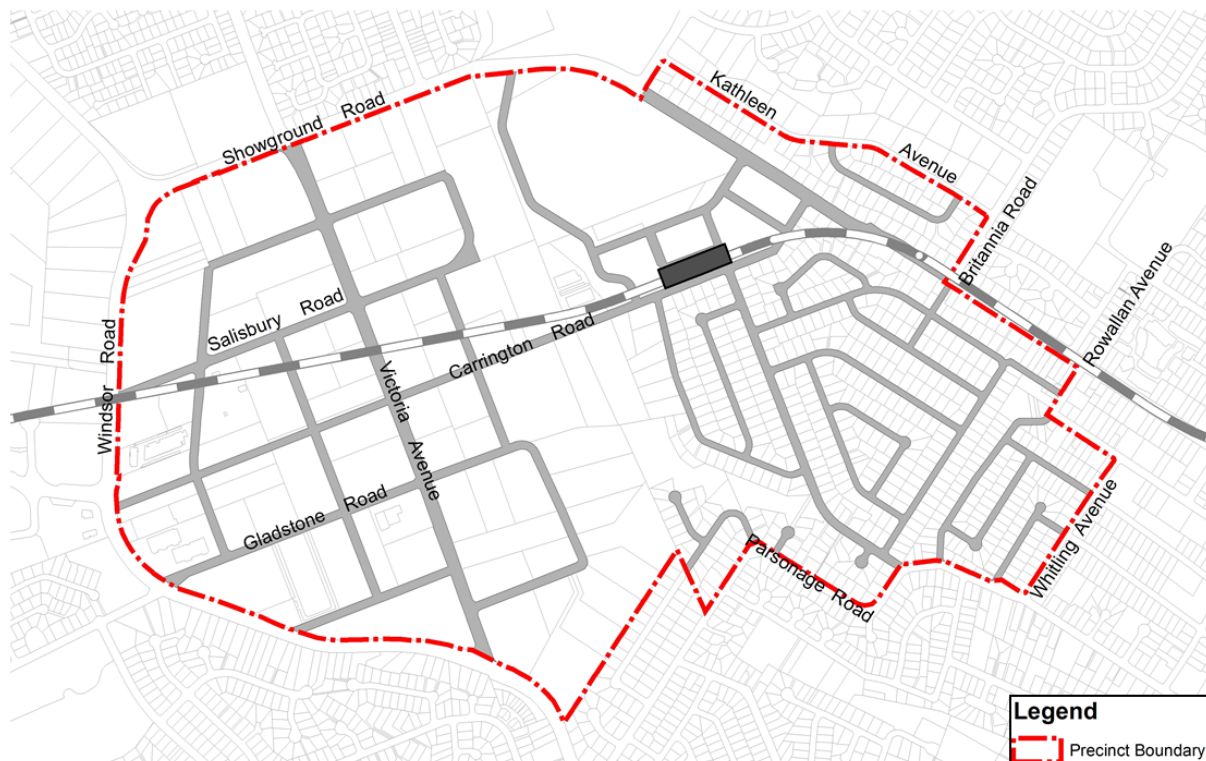


Figure 1 Land to which this Section Applies

1.2 Purpose of this Section

The purpose of this section of the DCP is to guide the future development of the Showground Station Precinct by identifying the vision, development principles, key elements and indicative structure for the future development of the precinct. It seeks to ensure the orderly, efficient and environmentally sensitive development of the precinct to achieve high quality urban design outcomes.

This DCP was developed with consideration to the Apartment Design Guide, which sets minimum requirements for compliance. This DCP builds on these same principles to facilitate the delivery of a distinct local character that aligns with Council's vision for the Precinct.

1.3 Relationship to other Sections of this DCP

This section forms part of The Hills Development Control Plan 2012 (DCP 2012). Development within the Showground Station Precinct will need to have regard to this section of the DCP as well as other relevant controls in DCP 2012. In the event of any inconsistency between this section and other sections of DCP 2012, this section will prevail to the extent of the inconsistency.

2 Vision and Principles

2.1 Vision

The Showground Station Precinct is proposed to become an attractive and well-connected neighbourhood that achieves housing targets, creates vibrant, safe and desirable places, reinforces the garden shire character and lifestyle, and is supported by necessary infrastructure. It is anticipated the Precinct will provide up to 9,000 additional dwellings and 2,300 additional jobs by 2036 (excluding potential growth within the deferred area on the western side of Cattai Creek). In order to meet this vision, future development within the Precinct must achieve the following key principles and strategic priorities.

2.2 Development Principles

To achieve the vision, future development within the Precinct must address the following key principles and strategic priorities of Council:

Housing Diversity

As the population grows there will be greater reliance on higher density development to accommodate future housing demand. The expected characteristics of the Hills Shire population will continue to include a variety of household types including singles, couples and a high proportion of households with children. It will be critical that future high density development provides ‘dwelling diversity’ to ensure the market caters for the different living needs, expectations and household budgets within the community. This will require the provision of an appropriate mix of one, two and three bedroom apartments which are varied in size.

Apartment buildings are long term building stock so it is very important that if they are to be built, they are resilient over the long term. Unlike detached housing where landowners can choose the style and size of their home, a homeowner wanting an apartment can only choose from what is being provided. Whilst smaller apartments should be provided to meet the needs of a certain demographic within the market, moderate and larger apartments should also be provided to meet the latent demand for this housing option. This will then reduce pressure on smaller, more affordable housing options.

In order to achieve appropriate housing diversity within the Corridor, a floor space incentive provision has been included within The Hills Local Environmental Plan 2012 which permits additional floor space for developments that provide the required mix of apartment types and sizes (refer Figure 2). Further information on housing diversity is also provided as Appendix A.

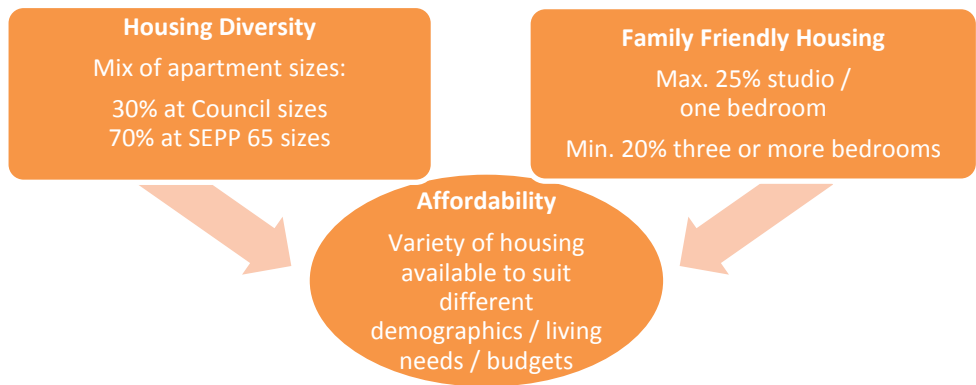


Figure 2 Approach to Housing Diversity

Employment Outcomes

A significant growth in population will require a corresponding increase in employment opportunities to meet demand and provide more jobs close to homes. Sufficient land has been zoned for employment uses to meet the targeted number of new jobs. However, it will be important to ensure that opportunities for jobs growth are protected and that employment potential is not lost due to pressure for residential development in the shorter term.

The Shire's resident labour force is educated and the majority are employed as professionals, managers or clerical and administrative workers. However a high proportion of these residents seek travel outside the Shire to access higher order employment opportunities that meet their skill set and qualifications. Development within the rail corridor presents an opportunity to address the current imbalance between the available jobs and the skills of residents, and ensure that new populations can access high quality professional employment close to where they live.

The rail corridor will be an attractive location for commercial businesses to locate being close to the existing Norwest Business Park, highly accessible by road and public transport and in close proximity to a highly skilled labour force. The planning controls will further attract businesses by facilitating quality spaces and facilities for workers and visitors including active streets that promote commercial, retail and business activity and town squares and plazas that provide spaces for informal meetings, recreation and dining.

Transit Oriented Development

Transit oriented development (TOD) involves the creation of compact, walkable, mixed-use communities around public transport nodes. A key goal of TODs is to increase the number of people who walk, cycle or use public transport as their main form of transport. TODs have densities that result in increased patronage of public transport and provide more opportunities for people to live near the station and reduce their reliance on vehicles.

The need to locate high density housing in centres with good access to services, community facilities and transport is well recognised and will support the on-going operation of the Sydney Metro Northwest. Density at the core allows for a scale and character suitable for pedestrian connectivity. Centres should provide a mixture of residential, retail and commercial activities that are centred around transport and create an environment where services, recreation, entertainment, jobs and housing provide a lifestyle alternative to the traditional suburban context, consistent with the principles of TODs.

This DCP Section supports the provision of TODs by helping to deliver the highest densities in key strategic locations close to centres and existing and proposed transport infrastructure. This will ensure a sensible balance can be achieved between delivering on housing targets whilst ensuring an appropriate transition in residential densities and maintaining residential character.

Infrastructure and Open Space

Public open spaces play an important role in urban areas including provision of recreation, environmental conservation, connecting people with nature and improving social and mental health.

The expected additional population of approximately 20,300 people within the Showground Precinct will increase demand for various public facilities and services (such as roads, community facilities, open space and the like). The future population should be provided with access to open space, recreation and community facilities in line with the lifestyle enjoyed by existing residents.

There is a need to vastly improve open space networks to meet the demands generated by incoming population and ensure appropriate recreational opportunities are provided for the future population. A number of local and neighbourhood parks are required in key locations that will be connected through dedicated shared ways along all streets providing a high level of amenity for both pedestrian and cyclists. Public plazas and town squares in the areas surrounding the stations and upgrades to open spaces outside of the precincts provide further opportunities for active and passive recreation.

Place Making

Place making will be a key focus in order to provide neighbourhoods that are sustainable, accessible, safe, attractive and well serviced with a unique character and sense of place. The development controls will provide the guidelines to make neighbourhoods liveable including vibrant activity centres, permeable and safe movement networks, generous public spaces, high quality built form and public art and ecologically sustainable development. The provision of quality spaces including streets, parks, buildings, and other public spaces will invite greater interaction between people and foster healthier, more social and economically viable communities.

Public areas such as informal gathering areas within centres will include high quality and durable elements such as seating, shading and lighting to enhance the amenity of these areas. Streets will be well connected incorporating shared pedestrian/cycleways. The precinct will incorporate new public domain treatments including new paving, new street furniture and lighting, improved pedestrian access and dedicated street tree planting.

Quality built form plays a vital role in achieving liveable, productive and resilient environments and creating great places that people want to live, work, visit and invest in. Development which achieves the key principles and meets with the development controls in this DCP will ensure an exemplary standard of design that provides a positive contribution to the public realm. A design excellence clause has also been included within The Hills Local Environmental Plan 2012 to require certain buildings to be assessed by a design excellence panel to achieve quality built form outcomes for the precincts.



Figure 3 Activated Pedestrian and Cycleway
(Source: Brent Toderian)



Figure 4 Retail at Ground Level
(Source: Google Streetview)

3 Desired Future Character and Structure Plan

3.1 Desired Future Character

There are four key character areas within the precinct:

Employment Areas

The employment areas will be attractive, walkable and thriving destinations with quality built form, landscaping and enhanced connectivity to the Station. Development adjacent to Cattai Creek will facilitate restoration of the creek corridor and benefit from the natural setting, open space and amenity provided by the area.

The bulky goods spine along Victoria Avenue and light industrial areas in the west of the precinct will generally be retained to provide shopping and services for the incoming population. Opportunities for new commercial development will be provided along Carrington Road and on Windsor Road adjacent to Norwest Business Park.

Carrington Road will be aesthetically enhanced comprising a landscaped median, wide footpaths and mature street trees. Existing bulky goods/light industrial areas will continue to provide quality buildings and large landscaped setbacks. New commercial development will provide opportunities for taller office style buildings up to six storeys in height, with setbacks that incorporate quality landscaping to complement existing areas.

Permeability within the employment areas and connectivity to the station and surrounding residential areas will be enhanced through the provision of through site links, on and off road pedestrian/cycle links, additional road connections and intersection upgrades.

Mixed Use Areas

A new local centre will be a vibrant and active central focus for the precinct. The centre will provide a range of shops, cafes, restaurants and local services and quality public spaces including wide footpaths and plazas. A main village plaza will connect the new station to Castle Hill Showground. Shops, cafes and restaurants will open onto the plaza with outdoor seating areas. A central lawn area will be provided for workers and visitors to relax or play. Quality mature landscaped areas around the plaza edges will offer pleasant shaded green space year round.

Buildings will have a dense urban character comprising urban active edges, residential development at upper levels and commercial development close to the retail heart of the centre. Upper residential levels will be setback to enhance residential amenity and provide visual interest to buildings. Residential development will promote activity outside of the traditional retail and workday hours and activate streets in the evenings.



Figure 5 Artist's Impression of Local Centre and Main Plaza
(source: Showground Station Precinct Proposal, NSW Department of Planning and Environment)



Figure 6 High Density Residential Built Form, Active Ground Floor and Central Common Open Space, New Acton
(Source: Oculus)

Castle Hill Showground

The Castle Hill Showground will be a regional scale attraction and build upon its significance as a cultural and leisure facility. Future layout and uses will be the subject of a detailed master planning process.

Residential Areas

The residential areas will be green and walkable, providing a lifestyle alternative to the traditional suburban context, focused highly on an appropriate scale and an attractive environment for pedestrians. Built form will be an appealing scale to pedestrians by providing generous street setbacks, variety of materials and colours and green elements to reduce building bulk and add visual interest. The highest density development will be located closest to the station and local centre with more compact urban form and quality building design and finishes. Development will become less dense moving away from the station incorporating more generous landscaped setbacks and central communal open spaces with high quality building design. Residential areas will transition to terraces or townhouses within landscaped settings on the edges of the precinct to provide genuine diversity in housing stock. Green spaces will bring a sense of nature into the neighbourhoods through open spaces, tree lined streets and garden areas within street setbacks.

3.2 Showground Precinct Structure Plan and Key Elements

Objectives

- a. To ensure that development occurs in a coordinated manner consistent with the Precinct vision and the development principles of housing diversity, employment opportunities, transit oriented development, quality infrastructure and open space and place making.
- b. To provide a mix of housing, retail, employment and services in appropriate and logical locations within the Precinct.
- c. To locate higher scale residential apartments and commercial uses closest to the station, the Castle Hill Showground and Cattai Creek corridor to optimise access to station facilities as well as outlook and natural amenity.
- d. To develop a local centre and main plaza in the area immediately surrounding the station to provide local shopping, employment opportunities and other services to support the incoming population and establish a vibrant and well-used public domain.

Controls

1. Development is to comply with the desired character in Section 3.1 of this DCP, key elements in Table 1 and the Showground Precinct Structure Plan in Figure 7.
2. Where variations are proposed, development is to demonstrate how the vision, development principles, key elements for the Precinct and relevant specific objectives are to be achieved.

Table 1 Key Elements of the Precinct

Element	Description
Land Use	<ul style="list-style-type: none"> • A mixed use local centre immediately surrounding the station with shops, cafes, restaurants, plazas, local services and some commercial premises and apartments at upper levels. • Employment areas on the western side of the precinct to generally retain existing bulky goods spine along Victoria Avenue and light industrial areas. • New commercial office development on Windsor Road adjacent to Norwest Business Park. • Residential areas on the eastern side of the precinct to comprise highest density apartment buildings immediately surrounding the station and south of Carrington Road. • Buildings to transition to lower scale apartments further south of Carrington Road. • Medium density housing forms such as townhouses and terraces on the edges of the precinct to Whitling Avenue and Kathleen Avenue.
Open Space & Public Domain	<ul style="list-style-type: none"> • An upgraded Castle Hill Showground to be the regional and cultural open space facility. • Chapman Avenue Reserve and Cockayne Reserve to be retained and enhanced. • Cattai Creek Corridor to be revitalised with improved access and crossings. • Public plazas around the station providing opportunities for passive recreation and informal community gathering and interaction.
Movement	<ul style="list-style-type: none"> • Precinct is generally bound by arterial roads including Windsor Road to the west

Element	Description
Network	<p>and Showground Road to the north and east.</p> <ul style="list-style-type: none"> • Two sub-arterial roads traverse the precinct including Carrington Road (east-west) and Victoria Avenue (north-south). • Existing roads to be generally retained with new connections to enhance access and permeability including: <ul style="list-style-type: none"> ○ new connections surrounding the station; ○ new road between Carrington Road and Showground Road; ○ new roads throughout employment areas including connections between Salisbury and Gladstone Roads and a long term potential connection from Victoria Avenue to Windsor Road; and ○ new roads within residential areas including extension of Fishburn Crescent to Cecil Avenue and new road between Chapman Avenue and Showground Road. • New and upgraded shared paths along key routes and new cycleways associated with Cattai Creek and connecting open spaces.
Built Form	<ul style="list-style-type: none"> • High quality architectural and urban design. • Taller buildings up to 20 storeys around the station on the northern side of Carrington Road. • Lower height apartments on the southern side of Carrington Road ranging between 6 to 12 storeys. • New commercial buildings up to 6 storeys in height. • Parks and other key public domain areas protected from overshadowing.

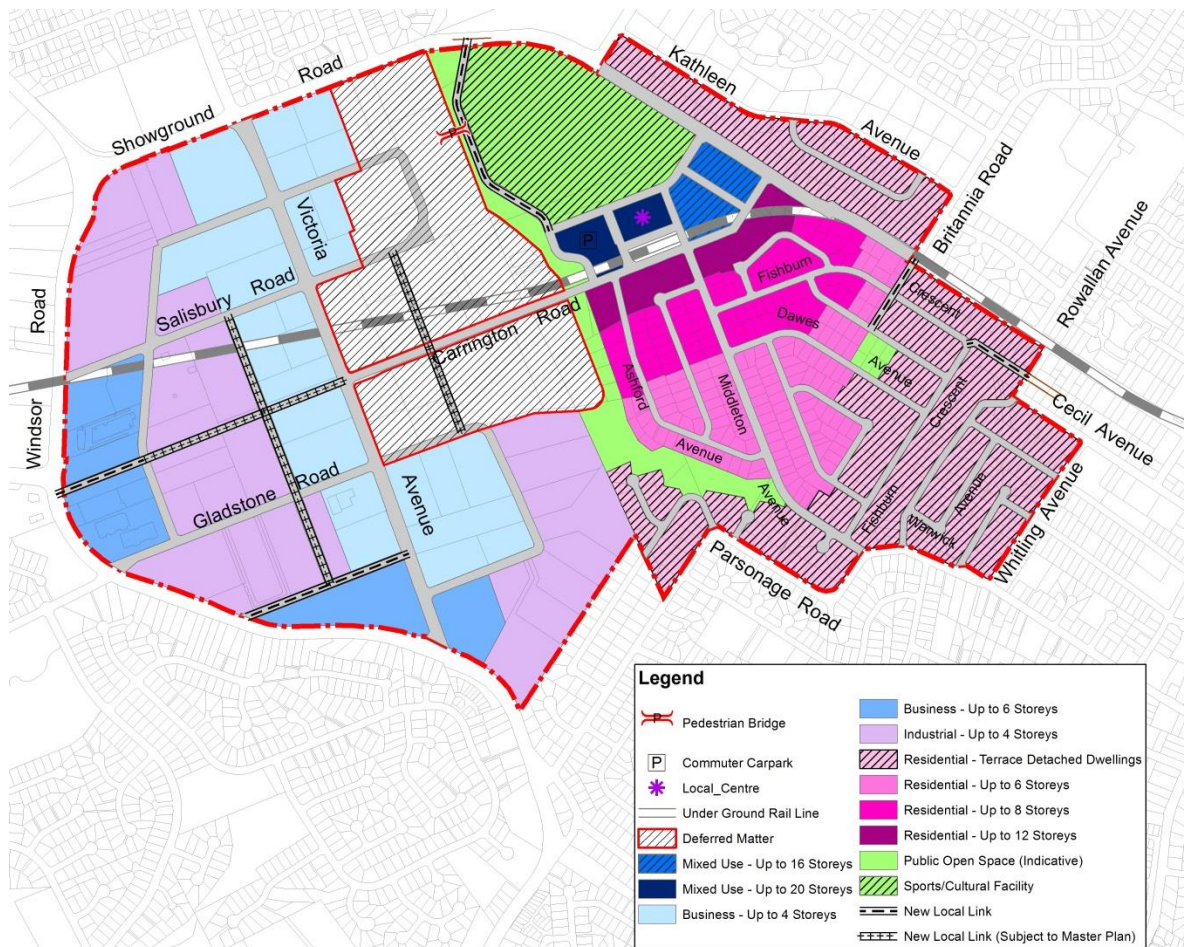


Figure 7 Showground Precinct Structure Plan

4 General Controls

This section of the DCP applies to all development within the Precinct.

4.1 Movement Network and Design

Objectives

- a. To encourage residents to walk or cycle to shops, the railway station, recreation areas, community and other facilities by providing for safe and direct pedestrian and cycle connections between key locations.
- b. A functional and attractive new street network is provided that facilitates access, safety and convenience for all street and road users and minimises the negative impact of traffic.
- c. Carriageways and verge widths are consistent with the identified street hierarchy and profiles to allow streets to perform their designated functions within the street network, enhance functionality and amenity for users and accommodate public utilities and drainage systems.
- d. To improve the capacity and function of the road network to support higher density development.

Controls

1. The street network is to be consistent with the indicative street network and hierarchy within Figure 8.
2. Street profiles are to be consistent with the street profiles in Figures 13-21.
3. An appropriate transition and connectivity is to be provided between roads constructed by NRT and the roads constructed by developers.
4. The design and construction of road infrastructure shall comply with Council's Design Guidelines Subdivisions/Developments.
5. Where roundabouts are provided, these are to be appropriately landscaped to ensure visibility for traffic and high quality visual amenity (refer to Figure 11).
6. Infrastructure not funded through a Contributions Plan is to be constructed to Council's specifications and dedicated to Council at no cost.
7. The cycleway network is to be generally consistent with the existing and proposed cycleway network in Figure 9.
8. Where alternative access to a development site is available from the existing and indicative street network, no vehicle access to/from Carrington Road will be permitted.
9. In order to facilitate increased densities along local streets, land identified on the 'Local Street – Land Dedication Plan' (Figure 10) shall be dedicated to Council at no cost. The land to be dedicated shall have a width of 2 metres measured from the existing property boundary. The land dedicated will facilitate intended parking on one side of the local street (refer to road 'Profile 1 – Local Streets'. Floor space potential of land to be dedicated shall be transferred to the remainder of the development site.
10. Future pedestrian links shall be provided in accordance with Figure 8 and shall have regard to the guidelines contained under section '4.3 Public Domain' of this section of the DCP.

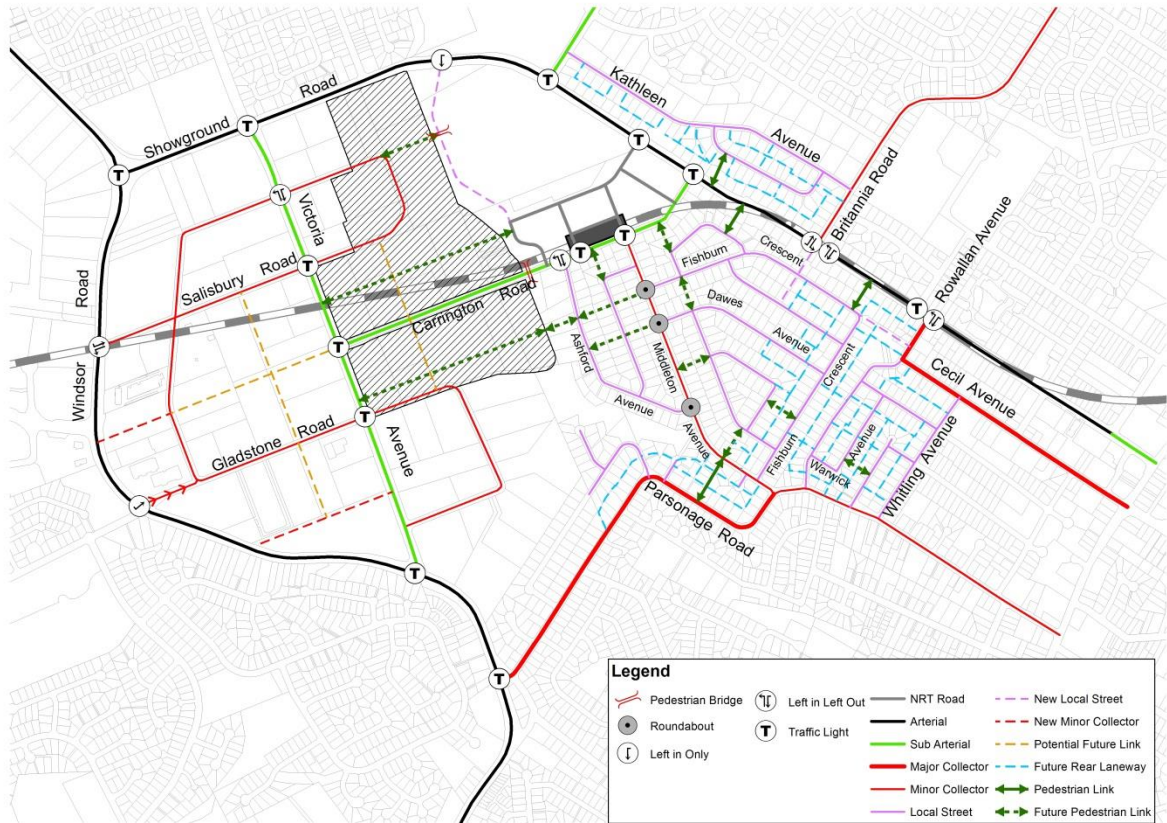


Figure 8 Indicative Street Network and Hierarchy
(Note: Land within the Deferred Area will be subject to further Master Planning)

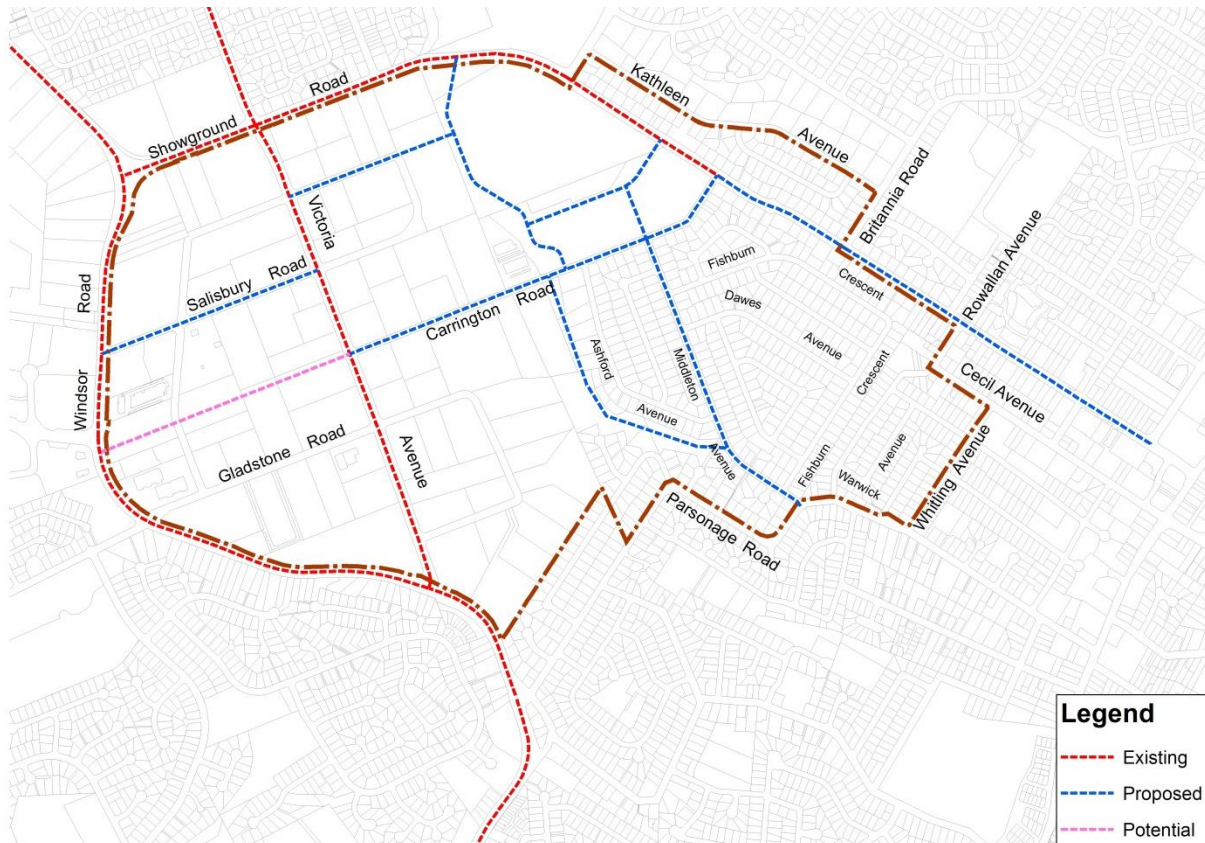


Figure 9 Existing and Proposed Cycleway Network

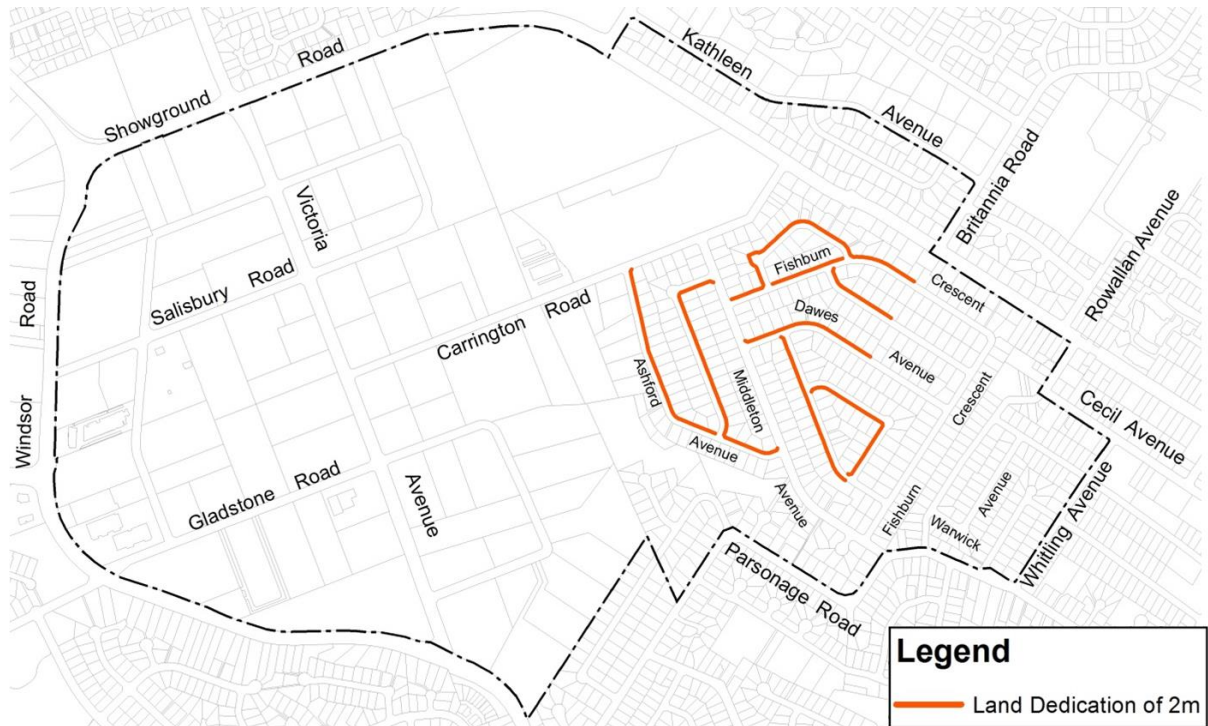


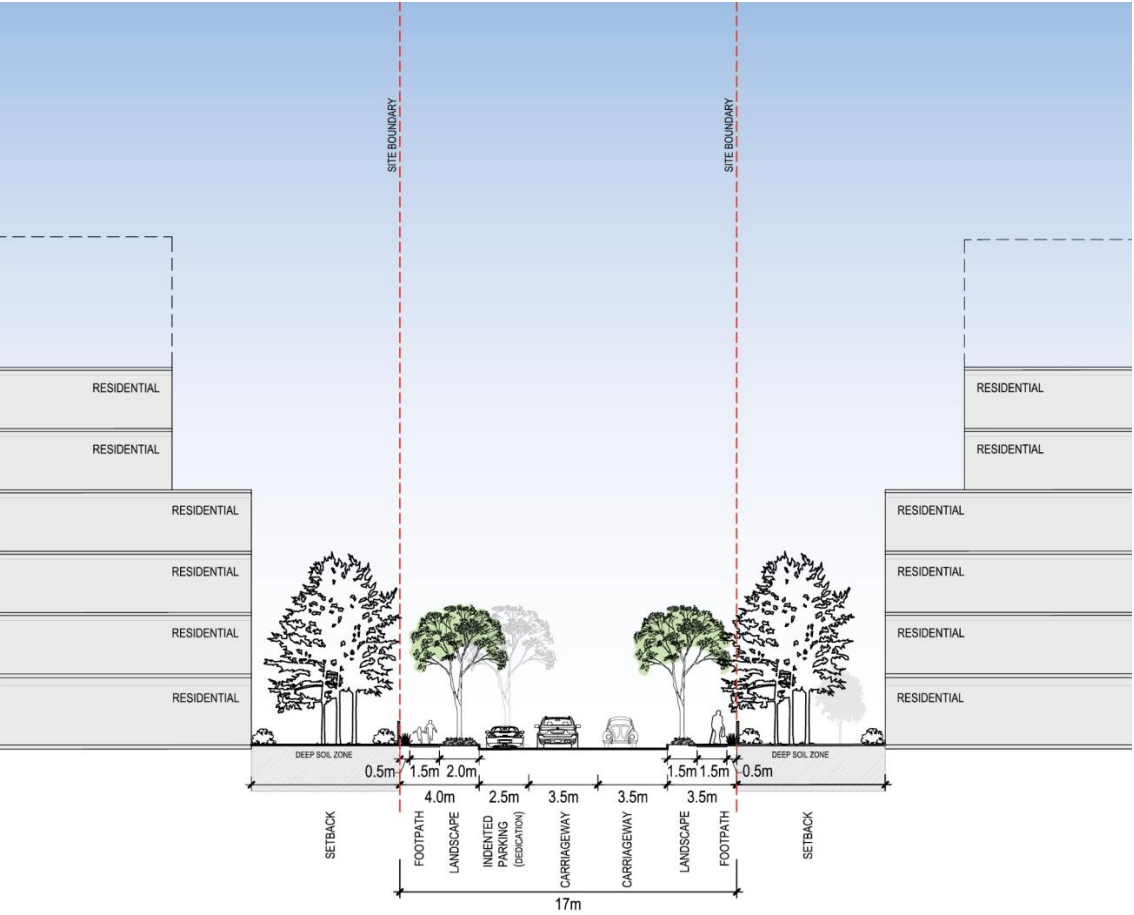
Figure 10 Local Street – Land Dedication Plan



Figure 11 Landscaping in Roundabout



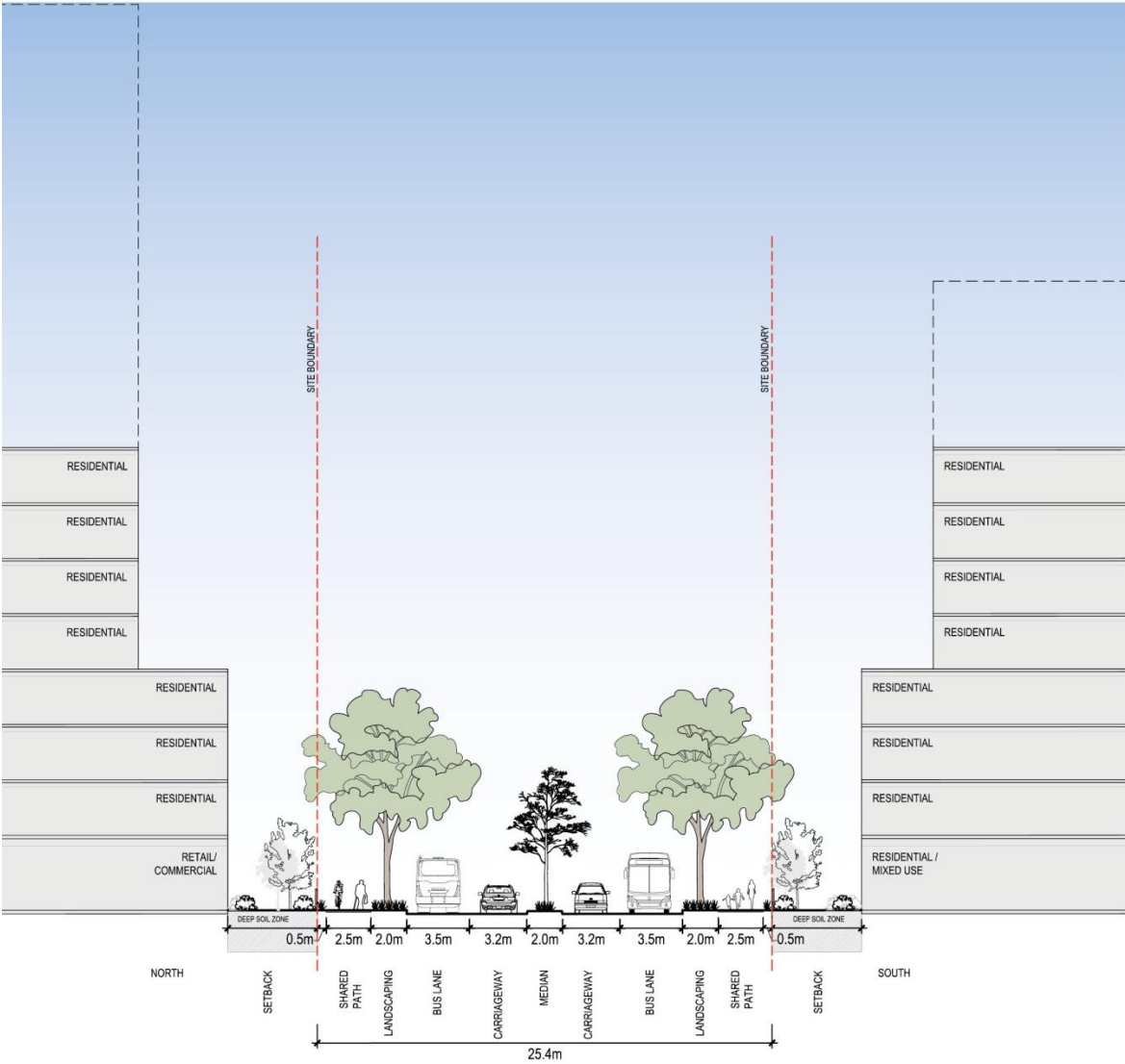
Figure 12 Landscaped Median



PROFILE 1 LOCAL STREET SECTION & PLAN



Figure 13 –Local Street



PROFILE 2 CARRINGTON ROAD (from Showground Road to Middleton Avenue) STREET SECTION & PLAN

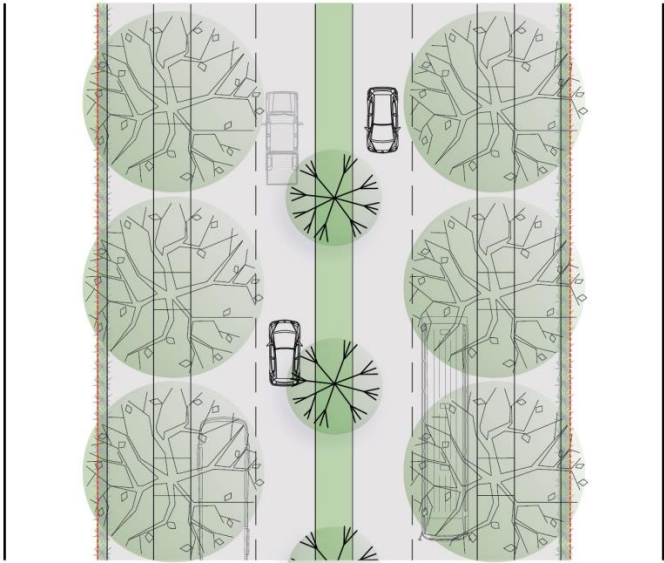


Figure 14 – Carrington Road (from Showground Road to Middleton Avenue)

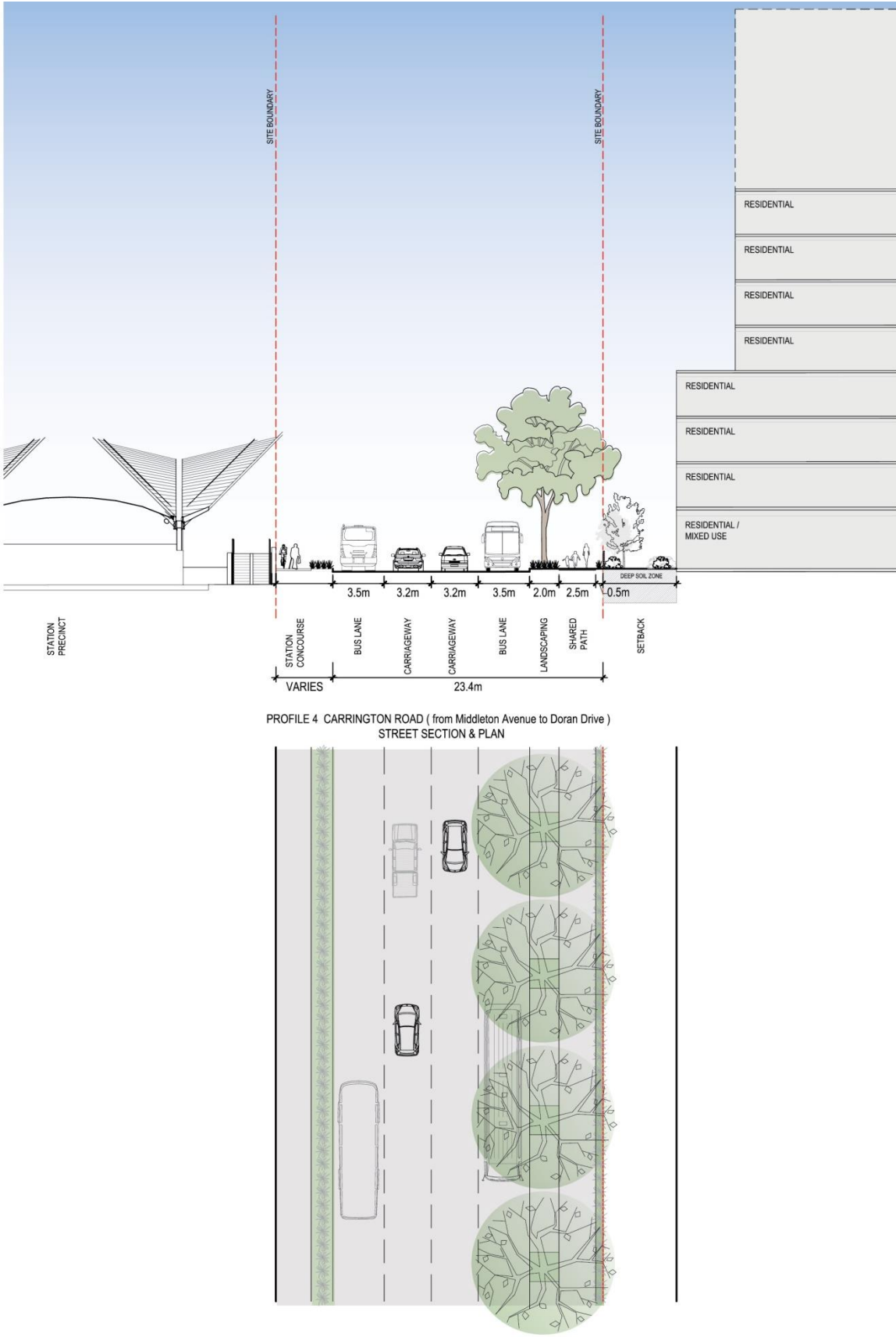


Figure 15 – Carrington Road (from Middleton Avenue to Doran Drive)

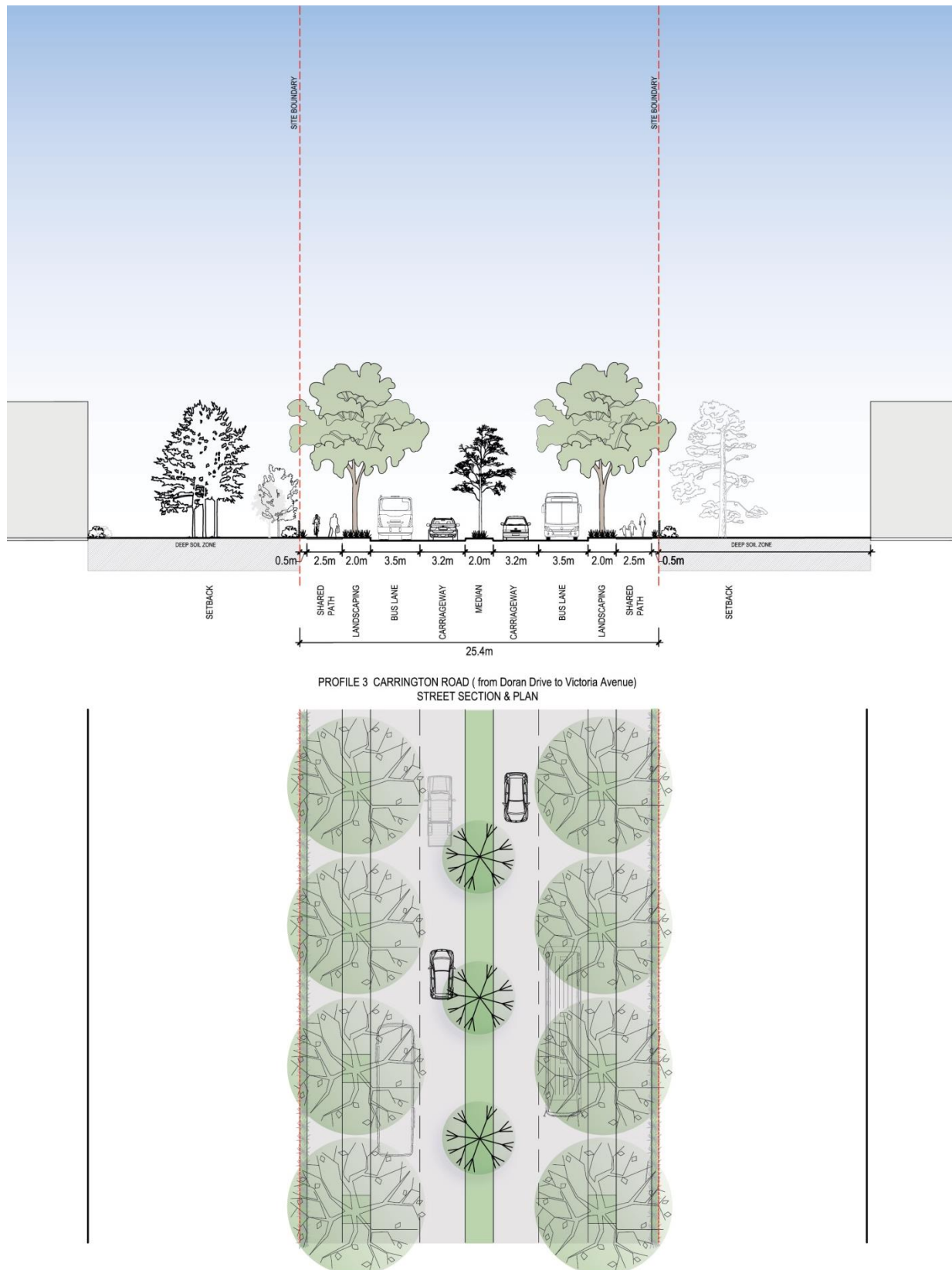


Figure 16 – Carrington Road (from Doran Drive to Victoria Avenue)

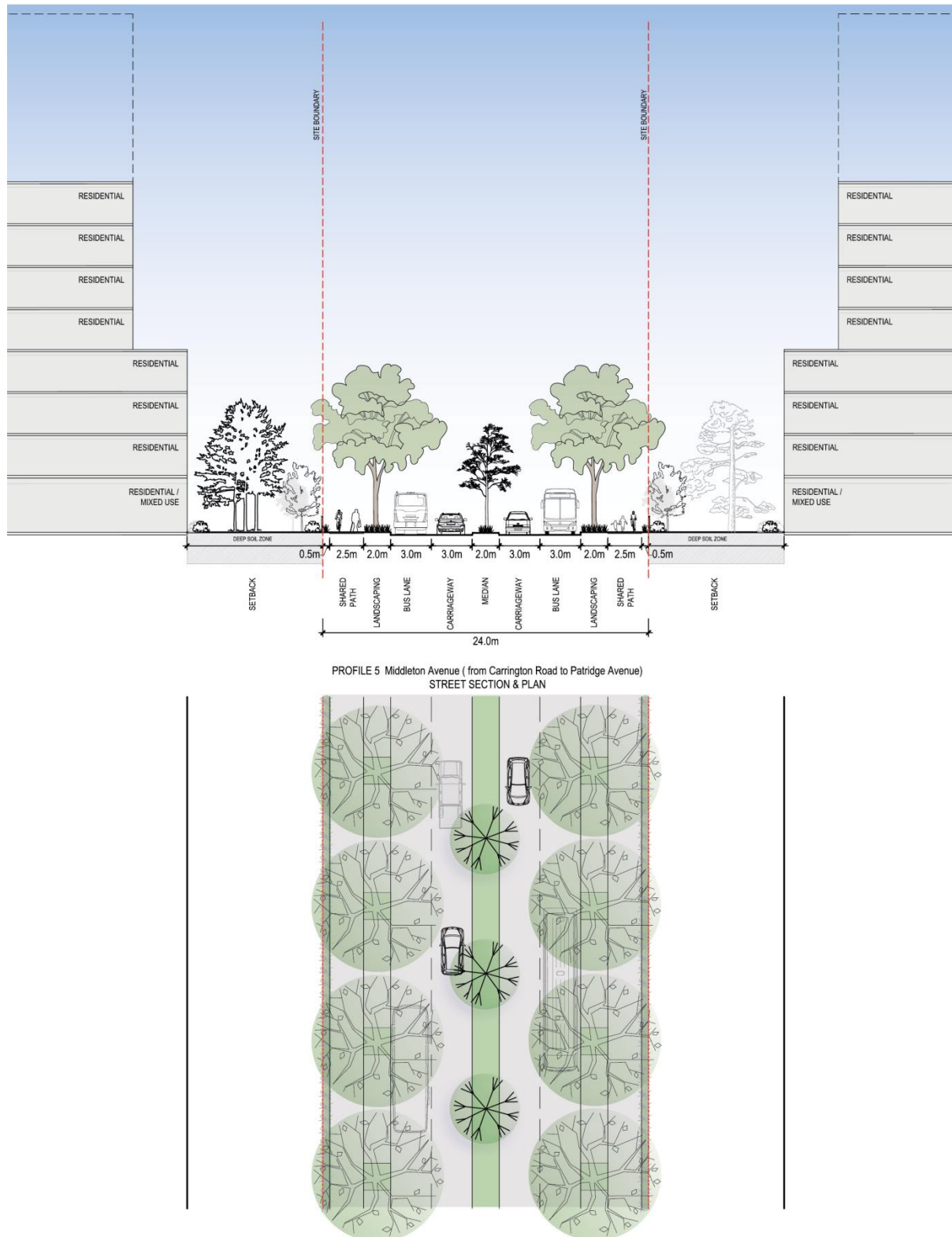


Figure 17 – Middleton Avenue (from Carrington Road to Partridge Avenue)

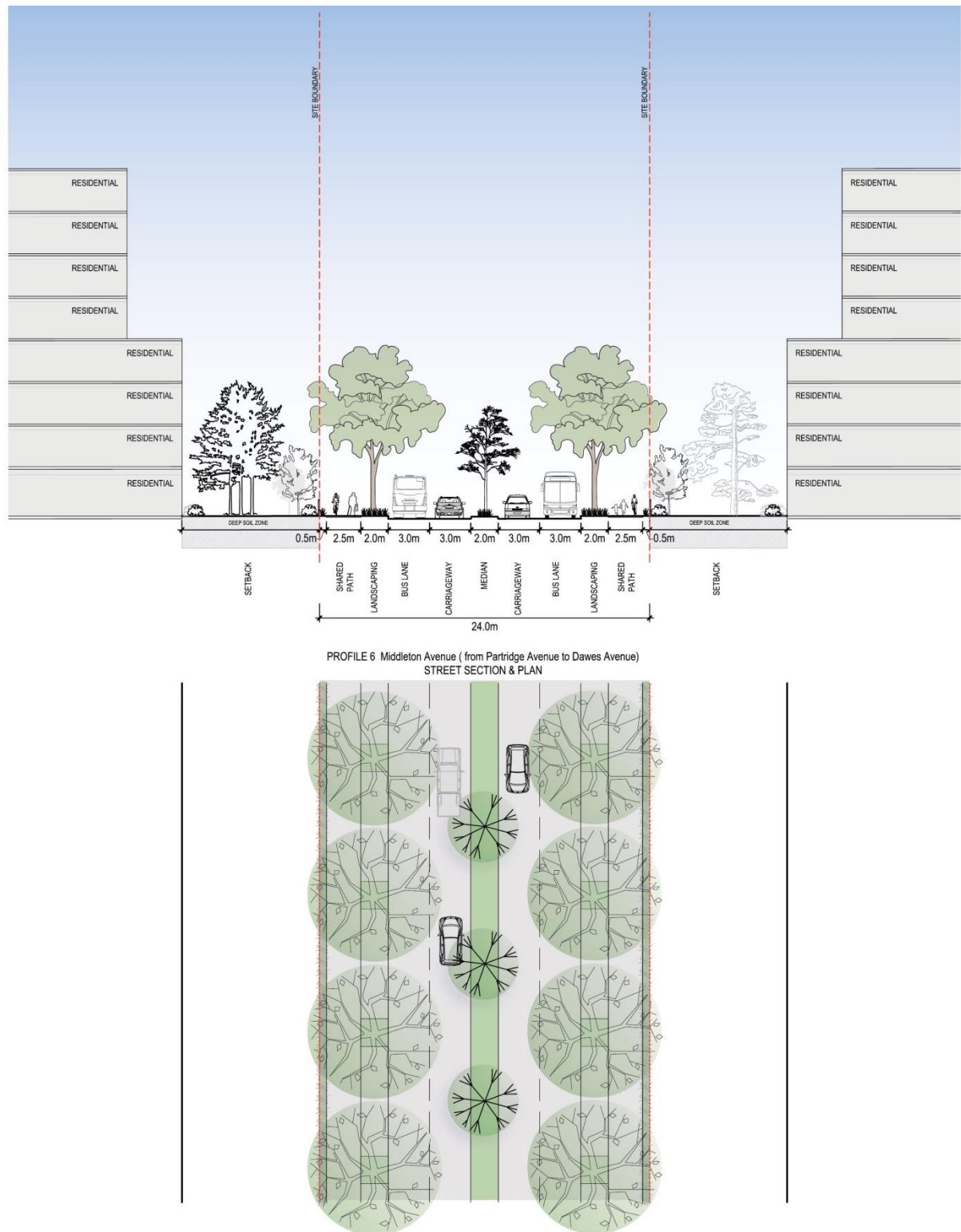


Figure 18 – Middleton Avenue (from Partridge Avenue to Dawes Avenue)

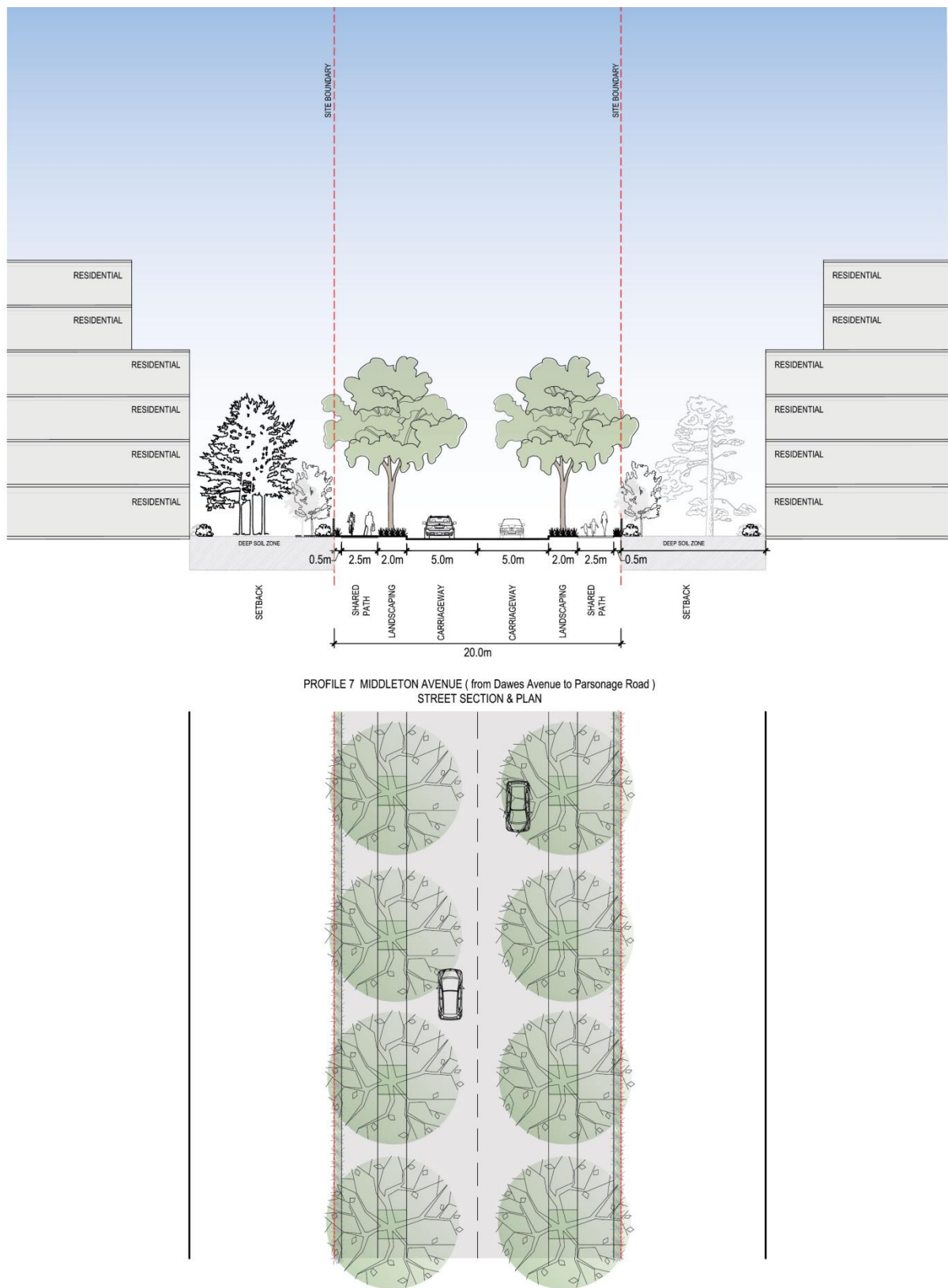
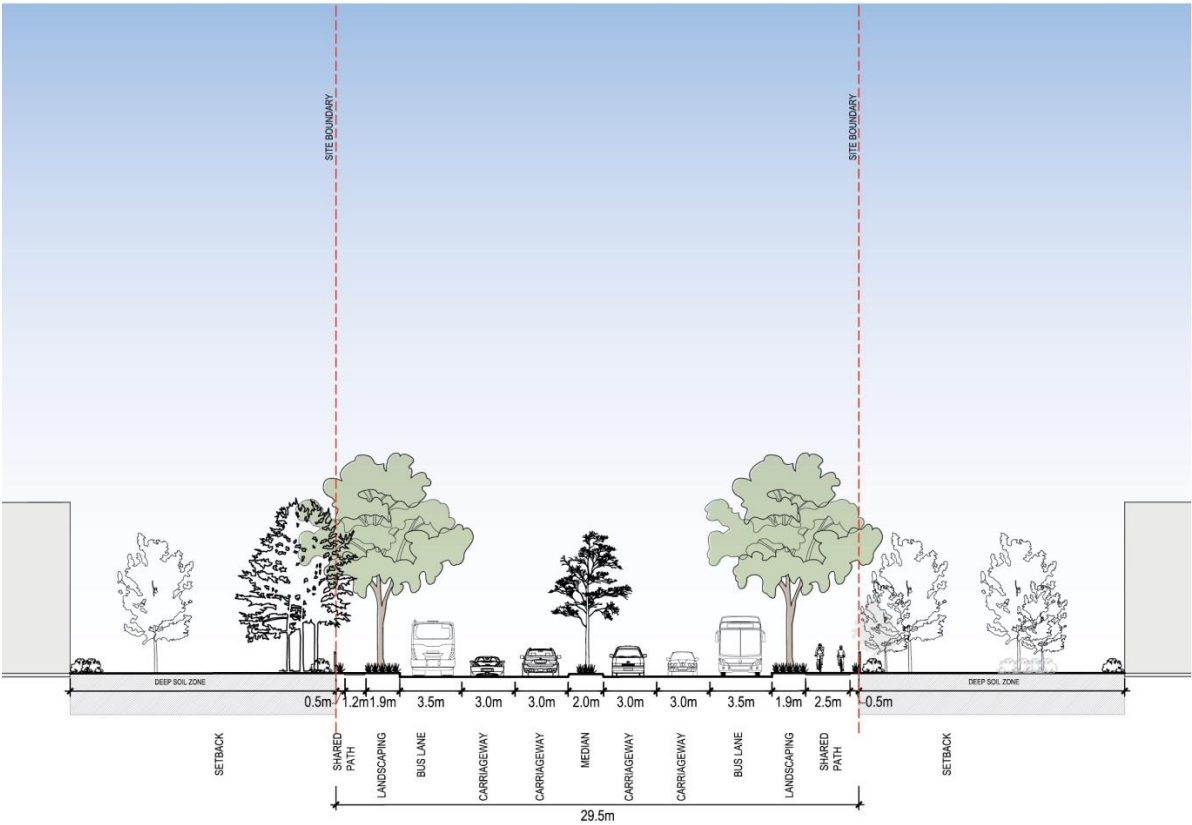


Figure 19 – Middleton Avenue (from Dawes Avenue to Parsonage Road)



PROFILE 8 VICTORIA AVENUE STREET SECTION & PLAN

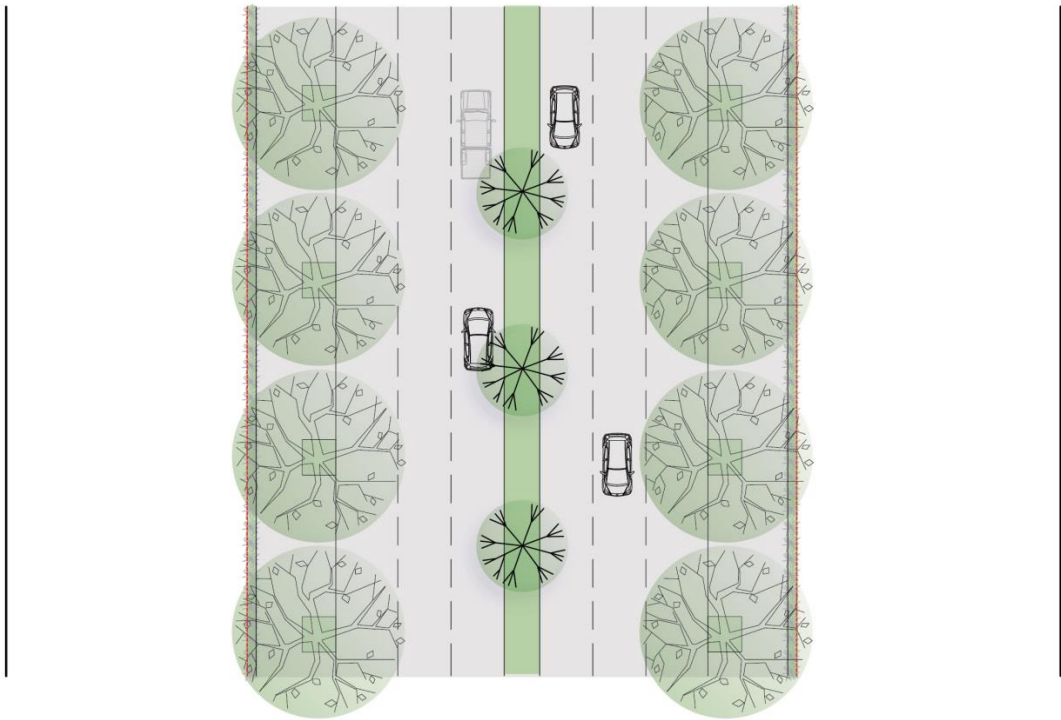
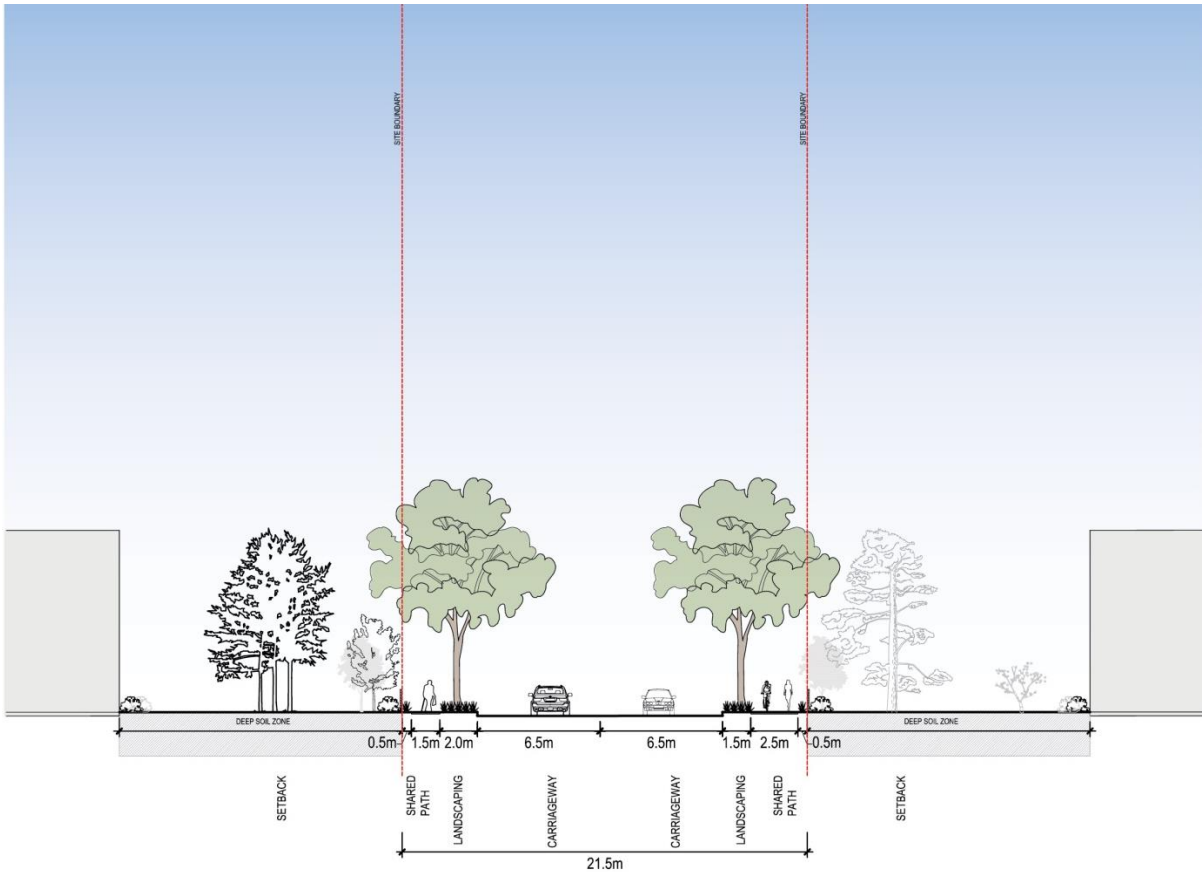


Figure 20 – Victoria Avenue



PROFILE 9 FUTURE EMPLOYMENT ROADS STREET SECTION & PLAN

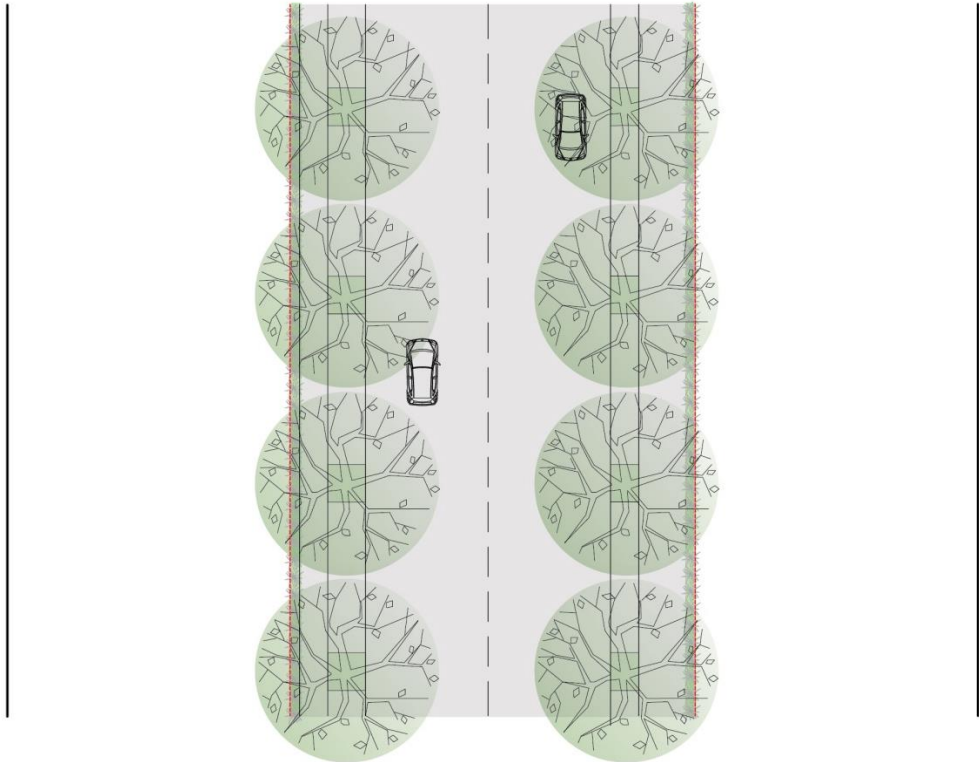


Figure 21 – Future Employment Road

4.2 Open Space Network

Objectives

- a. To provide a range of quality public spaces to support new residential and employment uses, including parks, civic squares and places for community gatherings and events.
- b. To provide an integrated open space network that links existing open spaces within and outside the Precinct.
- c. To improve the amenity, facilities and usage of existing parks and public spaces.
- d. To provide a range of open spaces with high quality landscaping that will accommodate the diverse recreational needs of existing and future residents and workers, as well as visitors to the area.
- e. To contribute to the enhancement and protection of ecological values.
- f. To maximise public access along Cattai Creek and throughout the Castle Hill Showground.

Controls

1. Land identified for open space, but not listed within an applicable development contributions plan shall be dedicated to Council by the developer at no cost.
2. The open space network is to be consistent with the minimum areas and features identified in the table below.

Table 2 Open Space Requirements

Park/Plaza	Minimum Area	Requirements
Chapman Avenue Reserve Extension	6,280m ² total <ul style="list-style-type: none"> • Existing: 2,221m² • New: 4,059m² 	<ul style="list-style-type: none"> • Park to be enlarged and embellished to create a central neighbourhood park. • A range of new children's play spaces, open lawn areas, seating and barbecue areas, shade structures and other facilities. • Existing and new trees and vegetation. • High quality, robust and low maintenance landscaping materials.
Riparian Corridor Park	7.9 hectares <ul style="list-style-type: none"> • 4.3ha new open space • 3.6ha existing open space Cockayne Reserve 	<ul style="list-style-type: none"> • An open space corridor is to be provided along Cattai Creek which will enable restoration of the creek corridor, while enhancing pedestrian and cyclist access throughout the Precinct, in particular linkages to existing open

		<p>space and the Castle Hill Showground.</p> <ul style="list-style-type: none"> • Restoration and revitalisation of natural bushland/landscape along Cattai Creek. • Shared pedestrian and cycle paths connecting to local centre/station, the Castle Hill Showground, Fred Caterson Reserve, Cockayne Reserve and adjacent residential and employment areas. • Embellishment of Cockayne Reserve as appropriate.
Station Plazas	<p>3,000m² approx.(total)</p> <ul style="list-style-type: none"> • Village Plaza alongside Doran Drive) approx. 1,150m² • Station concourse plazas approx. 1,950m² (delivered through the Sydney Metro Northwest construction) 	<ul style="list-style-type: none"> • Open lawn for recreation (as appropriate). • Open paved areas (as appropriate). • High quality, durable paving and landscape finishes. • Feature planting bed. • Sufficient shade tree planting to provide shade and greenery. • Seating and other street furniture to optimise use of the space • Water features • Public Art
The Showground	Subject to a Master Plan.	Subject to a Master Plan.



Figure 22 Artist Impression of Open Space along Cattai Creek
(Source: Showground Station Precinct Proposal, NSW Planning and Environment)



Figure 23 Example Children's Play Facilities, Green Square
(Source: THSC)

4.3 Public Domain

Objectives

- To improve the quality and appearance of the public domain to reflect the transitioning of the Showground Precinct into a Transit Oriented Community with an improved pedestrian experience.
- To provide a range of quality public spaces to support new residential and employment uses.
- To ensure the provision of high quality, functional and attractive informal spaces for community interaction and play.

- d. Undergrounding of power lines to improve the appearance and liveability of the Precinct and to facilitate increased space within road reserves to install public domain improvements.

Controls

1. Development applications shall comply with the Showground Precinct Public Domain Plan and demonstrate how high quality elements (driveways, footpaths, street trees, street furniture etc.) will be incorporated into future development.
2. Attractive, high quality outdoor spaces for children to play shall be integrated into the public domain within centres where appropriate. Such spaces should allow for interactive play and include seating and shading.
3. Council requires underground electricity reticulation and telecommunications for all urban development. Council will require as a condition of any development consent that any existing aboveground electricity reticulation service be relocated underground with the exception of main transmission lines.
4. Pedestrian and through-site links shall have regard to the following:
 - a. be publicly accessible;
 - b. have a width of 4-5 metres;
 - c. include a minimum of 500mm of landscaping (maximum height of 800mm) along each side of the pedestrian link is desirable;
 - d. be clearly identifiable as a publicly accessible pedestrian link;
 - e. encourage pedestrians to move along the link and not linger;
 - f. maintain the privacy of ground floor apartments which adjoin the link;
 - g. ensure adequate passive surveillance is provided;
 - h. have adequate lighting to improve safety; and
 - i. building setbacks to the pedestrian links are to be assessed on their merits.



Figure 24 Example Town Square, Rouse Hill
(Source: www.hdrinc.com/portfolio/rouse-hill-town-centre)



Figure 25 Public Space for Workers & Visitors, Basal
(Source: Peter Walker)



Figure 26 Public Space for Workers & Visitors, Rhodes
(Source: The Urban Developer)

4.4 Wind

Objectives

- a. To allow for cooling summer breezes to move through the Precinct.
- b. To ensure the built form does not provide adverse wind conditions which will impact upon the amenity of pedestrian comfort in streets and public and private open spaces.

Controls

1. Built form is to demonstrate that the passage of cooling summer breezes will not be impacted.
2. Buildings 8 or more storeys in height (or over 25 metres) require wind tunnel testing, irrespective of whether they are built to the street frontage or not, which demonstrates the following:
 - a. In open areas to which people have access, the annual maximum gust speed should not exceed 23 metres per second;
 - b. In walkways, pedestrian transit areas, streets where pedestrians do not general stop, sit, stand, window shop and the like, annual maximum gust speed should not exceed 16 metres per second;
 - c. In areas where pedestrians are involved in stationary short-exposure activities such as window shopping, standing or sitting (including areas such as bus stops, public open space and private open space), the annual maximum gust speed should not exceed 13 metres per second;
 - d. In areas for stationary long-exposure activity, such as outdoor dining, the annual maximum gust speed should not exceed 10 metres per second; and
 - e. The report is to be prepared by a suitably qualified engineer.

4.5 Integrated Water Management

Objectives

- a. To control stormwater runoff and discharge impacts on adjoining properties and into natural drainage systems before, during and after construction.
- b. To ensure that proposed development does not adversely affect the operation capacity of the downstream stormwater system.

- c. To encourage reuse, recycling and harvesting of stormwater to reduce demand on potable water supply.
- d. To encourage and create an urban form where risks to life and property, as a result of either minor or major flooding, are minimised.
- e. To maximise opportunities for a best practice Water Sensitive Urban Design approach at the individual lot, overall development and regional scales.
- f. To reduce the impacts typically associated with urbanisation on receiving waterways, including a reduction in streamflow erosion potential and pollutant loads.

Controls

1. Owners of properties adjoining the Cattai Creek riparian corridor and overland flow paths as well as properties identified as Flood Control Lots are required to confirm the 100 year Average Recurrence Interval flood extent and associated flood levels from Cattai Creek prior to the lodgment of development and subdivision applications.
2. Development on land identified as Flood Control Lots and adjoining Cattai Creek or overland flow paths are to apply the provisions of Council's Flood Controlled Land DCP. In applying these provisions consideration is to be given to the type of development, the application of controls according to the Flood Planning Level associated with the property, car parking, flood compatible building materials and land filling.
3. A Stormwater Management Plan is to be prepared for each development application that considers sustainable water management practices and minimal development impact.
4. Stormwater runoff must be treated on the development site before it discharges to a public drainage system.
5. All stormwater drainage designs are to comply with the most up to date revision of Council's Design Guidelines Subdivision/Developments and Contribution Plan No.19 – Showground Station Precincts.
6. All developments are to implement an Erosion and Sediment Control Plan, prepared in accordance with 'Managing Urban Stormwater – Soils and Construction, to minimise land disturbance and erosion and control sediment pollution of waterways.
7. With the exclusion of detached residential dwellings, all developments within the Precinct are required to manage the pollutant loads from each separate allotment to ensure compliance with the performance objective listed in Table 3 prior to discharge to any adjoining drainage system.
8. Water quality modelling undertaken to support development proposals within the Precinct shall utilise the latest version of MUSIC and be in line with the Draft NSW MUSIC Modelling Guidelines, Sydney Metropolitan Catchment Management Authority, 2010, utilising the modelling parameters in Tables 4 and 5.
9. For developments generating oils and grease, the additional objective of no visible oils for flows up to 50% of the one-year Average Recurrence Interval peak flow shall be achieved.
10. A Water Sensitive Urban Design strategy is to be prepared for all development that provides for sustainable and integrated management of land and water resources, taking into account water quality and stream erosivity objectives, together with attenuating flow rates and runoff volumes to acceptable levels following urban development. Water management performance objectives are set out in Table 3.
11. Water Sensitive Urban Design elements are to be designed and constructed in accordance with the following publications:
 - Adoption Guidelines for Stormwater Biofiltration Systems – Cities as Water Supply

- Catchments, Sustainable Technologies (CRC for Water Sensitive Cities, 2015 or later)
 - Australian Runoff Quality (Engineers Australia 2005)
 - Water Sensitive Urban Design Technical Guidelines for Western Sydney (NSW Government Stormwater Trust and Upper Parramatta River Catchment Trust, May 2004)
12. As part of a Water Sensitive Urban Design strategy, residential, employment and commercial developments are to install rainwater tanks for water supply demand such as outdoor use, laundries and toilets. With the exception of detached residential dwellings, a water balance assessment is to be undertaken for the development and rainwater tanks appropriately sized to cater for the water use demand. The following provisions apply:

Detached residential dwellings

- Minimum 3,000 litre rainwater tank for toilet flushing and external uses is required. Larger tanks and use for filling of swimming pools is permitted.

Multi dwelling housing

- Minimum 3,000 litre rainwater tank per proposed dwelling or as defined by a detailed water balance assessment for the development is required.
- Rainwater tanks may be connected to toilets, laundries and external uses including the filling of swimming pools.

Residential flat, mixed use and commercial buildings

- The required rainwater tank volume is to be determined by a detailed water balance assessment.
 - Rainwater tanks are to be used for external uses and other purposes such as wash down bays and laundry facilities.
13. Rainwater tanks are to be provided with potable water trickle top-up with a back flow prevention device, complying with Sydney Water requirements.
14. In accordance with the recommendations made in the publication “Guidance on the Use of Rainwater Tanks” (enHealth, Commonwealth Government 2004), diversion of the “first flush” of up to 180 litres is to be incorporated into the design of the rainwater tank and associated plumbing based on a minimum first flush of 1L/m² of roof area.
15. Any discharge to, or construction within the Cattai Creek riparian corridor may require the approval of NSW Office of Water, under the Water Management Act 2000.
16. The natural form, characteristics and function of waterways, including riparian land, are to be retained, restored, protected and enhanced wherever possible.
17. Waterway rehabilitation and construction works are to apply ‘Best Practice’ combination of soft and hard engineering techniques establishing a water sensitive, geomorphically stable, diverse and functional waterway corridor that addresses urban influences and considers the immediate waterway corridor and aquatic systems both upstream and downstream of a subject site.

As a minimum, waterway design and construction ought follow the principles and guidelines in the Constructed Wetlands Manual (Department of Land and Water Conservation, NSW 1998) and A Rehabilitation Manual for Australian Streams (Cooperative Research Centre for Catchment Hydrology, 2000).

Table 3 Water Quality and Stream Erosivity Performance Objectives

	Water Quality % Reduction in Pollution Loads				Environmental Flows Stream Erosion
	Gross Pollutants (>5mm)	Total Suspended Solids	Total Phosphorus	Total Nitrogen	Post Development Duration of above 'Stream Forming Flow' Natural Duration of Above 'Stream Forming Flow' ¹
Stormwater Management Objective	90	85	65	45	3.5 – 5.0:1
Ideal Stormwater Outcome	100	95	95	85	1:1

1. For the purposes of these objectives, the 'stream forming flow' is defined as 50% of the 50% AEP flow rate estimated for the catchment under natural conditions.
2. This ratio should be minimised to limit stream erosion to the minimum practicable. Development proposals should be designed to achieve a value as close to one as practicable, and values within the nominated range should not be exceeded. A specific target cannot be defined at this time.

Source: Managing Urban Stormwater: Environmental Targets, Department of Environment and Climate Change NSW, 2007

Table 4 Soil / groundwater parameters recommended for adoption in MUSIC modelling

	Units	Urban	Non-urban
Impervious area parameters			
Rainfall threshold	mm/day	1.4	1.4
Pervious area parameters			
Soil storage capacity	mm	170	210
Initial storage	% of capacity	30	30
Field capacity	mm	70	80
Infiltration capacity coefficient – a		210	175
Infiltration capacity coefficient – b		4.7	3.1
Groundwater properties			
Initial depth	mm	10	10
Daily recharge rate	%	50	35
Daily baseflow rate	%	4	20
Daily deep seepage rate	%	0	0

Table 5 Recommended Stormwater Quality Parameters for MUSIC modelling

Land use	Storm Flow						Base Flow					
	TSS		TP		TN		TSS		TP		TN	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
	<i>(all values expressed as log₁₀ mg/l)</i>											
General urban	2.15	0.32	-0.60	0.25	0.30	0.19	1.20	0.17	-0.85	0.19	0.11	0.12
Residential												
Industrial												
Commercial												
Roads	2.43	0.32	-0.30	0.25	0.34	0.19	---	---	---	---	---	---
Roofs	1.30	0.32	-0.89	0.25	0.30	0.19	---	---	---	---	---	---
Forest/Natural	1.60	0.32	-1.10	0.25	-0.05	0.19	0.78	0.17	-1.52	0.19	-0.52	0.12

Note: SD = standard deviation, TSS = total suspended solids, TP = total phosphorus and TN = total nitrogen

4.6 Subdivision and Earthworks

Objectives

- To minimise topsoil and vegetation removal and “land-shaping” on land where residential subdivisions are being constructed.
- Subdivisions provide a landform that is capable of supporting a range of residential, business and industrial uses.
- To ensure development visually integrates with the surrounding environment.

Controls

- Earthworks shall be minimised to locations where the construction of roads require earthworks to be undertaken or filling adjacent to Cattai Creek (refer to Integrated Water Management and Cut and Fill Sections of this DCP).
- All proposed public open space areas are to be fenced and are not to be disturbed or used for any purpose during the construction of a subdivision.
- Subdivision applications must provide a plan showing the existing pre-development and proposed finished ground levels to enable an assessment of the extent of earthworks proposed and assessment of the relationship between the finished road levels and proposed building platform levels.
- Perimeter roads along the edge of the Cattai Creek Riparian Corridor shall be in accordance with the Street Network Layout and Hierarchy (Figure 8) and relevant road profile (Figures 11-19).

4.7 Cut and Fill

Objectives

- To minimise the impact of earthworks on the stormwater regime, salinity and groundwater.
- To ensure the extent of cut and fill required for large scale development does not detract from the appearance and design.
- To ensure development visually integrates with the surrounding environment.

- d. To minimise the risks and associated impacts of contaminated land and to ensure land is appropriately stabilised and retained.
- e. To ensure that cut and fill does not encroach within, or adversely affect the efficiency, integrity and stability of any open space area.

Controls

1. The filling of land adjacent to the Cattai Creek Riparian Corridor may be required to facilitate the urban development of the Precinct and will only be permitted after consultation with NSW Office of Water and to the subsequent levels provided. Justification for any proposed changes to land levels provided is required and is to be supported by a flood assessment that takes into account the cumulative impact of flooding behaviour, and associated risks caused by individual developments.
2. In the areas of fill relevant provisions of Council's Flood Controlled Land DCP are to be applied, with reference to the Integrated Water Management Section of this DCP.
3. A Fill Plan must be prepared.
4. All cut and fill works shall be in accordance with Council's Design Guidelines Subdivisions/Developments and Works Specification Subdivisions/Developments.
5. All landfilled areas must comprise clean material free from contamination. Imported material shall be certified "Virgin Excavated Natural Material (VENM)".
6. Landfilled areas must be suitably compacted and stabilised with density tests to verify that compaction was achieved in accordance with Council requirements.
7. Embankment batters shall have a maximum slope of 1:6.
8. Embankment batters and retaining walls are to be landscaped to reduce erosion and provide a suitable screen. They should be vegetated preferably with native ground covers and small native trees with mature height of up to 10m.
9. Development shall comply with the provisions of State Environmental Planning Policy No. 55 – Remediation of Land.
10. Development shall comply with the Acid Sulfate Soils provisions of LEP 2012.

4.8 Ecologically Sustainable Development

Objectives

- a. To ensure building design is innovative and sustainable to reduce the reliance on, and consumption of, fossil fuels and potable water supplies.
- b. Development adapts to climate change.
- c. Development contributes to improved quality of life, health and well-being of the community.
- d. The design, construction and operation of development minimises adverse impacts on the natural environment.
- e. Use landscape treatments to improve amenity for people using open space.

Controls

1. Residential flat buildings, townhouses and terraces built as a development lot should achieve a minimum 5 star NatHERS energy rating for each dwelling unit.
2. Development other than residential should achieve a minimum 5 star Green Star Design and as Built rating, respectively.

3. Building operation should achieve a minimum 4.5 star base building and tenancy NABERS Energy rating, where applicable.
4. The incorporation of green walls and roofs into the design of commercial and residential buildings is encouraged. Where suitable, building facades should incorporate vertical landscaping features to soften the visual bulk of buildings and to improve streetscape appeal.
5. Canopy trees are to be planted within street verges and medians to provide shade and reduce pavement surface temperatures. Understorey planting and permeable surfaces should also be provided where possible to reduce the extent of paved areas and to enhance the amenity of the streetscape environment.
6. Buildings are encouraged to incorporate a tri-generation facility that provides energy-efficient power, heating and air conditioning for use on site.
7. Building designs are to:
 - Maximise the use of natural light and cross ventilation;
 - Reduce the reliance on mechanical heating and cooling through the use of eaves, awnings, good insulation and landscaping;
 - Include energy efficient light fittings and water fittings; and
 - Allow for separate metering of water and energy usage for commercial and multi-unit tenancies.



Green roofs can help to decrease heat absorption, reduce the ambient temperatures of buildings, and improve air quality and building efficiency. They can also provide a habitat for urban ecology and have amenity and recreational benefits for a building's occupants.

Green walls are plant systems that are grown on the vertical façade of a building and are often a striking and attractive design feature. Benefits include reducing the radiation of absorbed heat from buildings, they provide insulation from noise and heat, and make public spaces more appealing for the community to use and enjoy.

Figure 27 Green Roofs to Individual Flats
(Source: Bill Dunster)



Figure 28 Green Wall, Bligh Street, Sydney
(Source: City of Sydney)



Figure 29 Green Wall at 'The Met', Thailand
(Source: WOHA Design)

4.9 Ecology and Riparian Corridors

Objectives

- a. To protect and enhance areas of significant native vegetation.
- b. To protect and enhance wildlife habitat.
- c. To protect and enhance the integrity and environmental functionality of the Cattai Creek Riparian Corridor.

Controls

1. Wherever practical, development within the Precinct should be sited to minimise impacts on the existing vegetation and avoid removal of significant trees.
2. Provide green roofs and walls wherever practical to mitigate the loss of green canopy and vegetation as a result of development.
3. A site specific Vegetation Management Plan (VMP) is to be prepared and implemented for Cattai Creek and Cockayne Reserve. This plan is to be lodged with development applications for development on land adjoining the Cattai Creek corridor as identified in Figure 34, and approved prior to the commencement of construction works in this land.
4. The VMP is to be prepared in accordance with relevant guidelines and based on standard vegetation management actions including:
 - Collection of seed from any native vegetation proposed to be cleared at the site;
 - Weed control;
 - Management of fire for conservation;
 - Management of human disturbance;
 - Retention of regrowth and remnant native vegetation;
 - Replanting or supplementary planting where natural regeneration will not be sufficient;
 - Retention of dead timber;
 - Erosion control; and
 - Retention of rocks.
5. The VMP is to ensure the rehabilitation and regeneration of Cattai Creek and Cockayne Reserve vegetated riparian corridor (being 30m wide on either side of the creek measured from top of bank).
6. The VMP is to provide for a minimum 2 year monitoring and maintenance period for the rehabilitated riparian area and other revegetation following final planting.

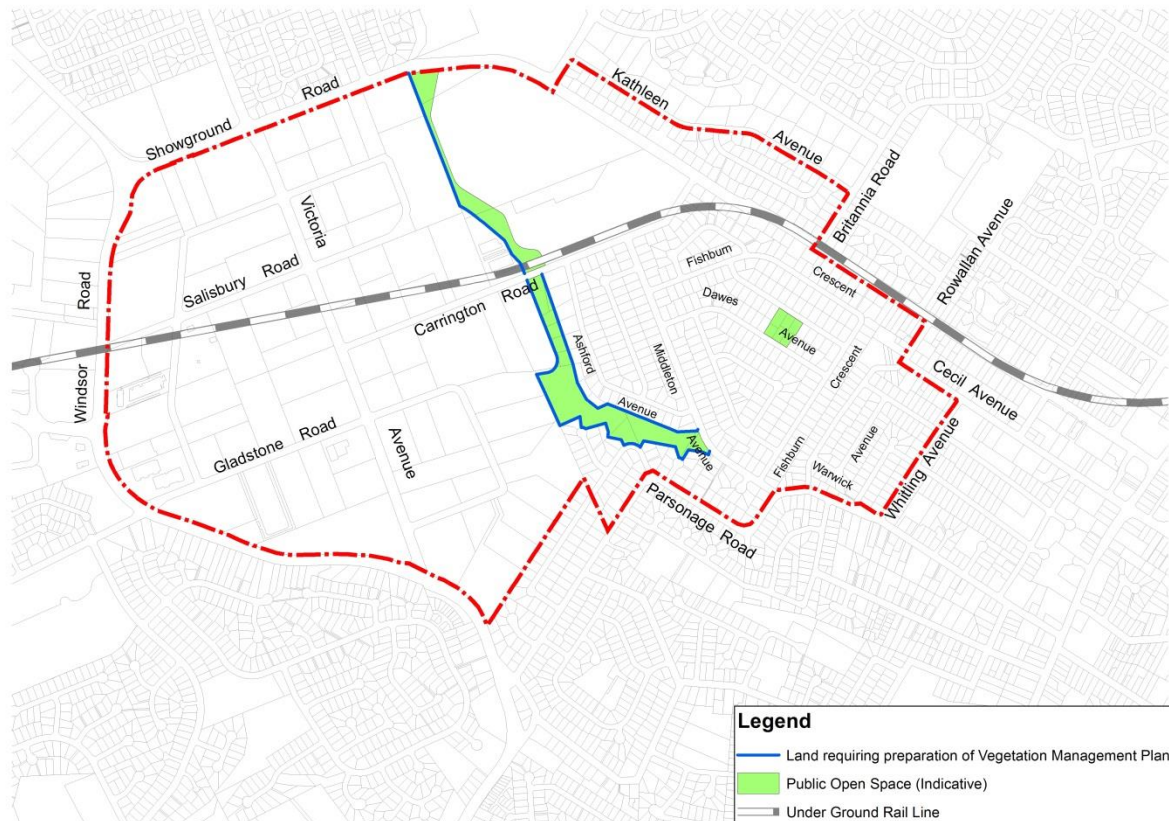


Figure 30 Land Requiring Preparation of a Vegetation Management Plan



Figure 31 Greened Residential Flat Building, Bosco Verticale

(Source: Stefano Boeri Architects)



Figure 32 Green Roof in the City

(Source: Susanne Jespersen)



Figure 33 Green Roof to Residential Flat Building
(Source: THSC)



Figure 34 Green Roof to Library
(Source: THSC)

4.10 Development Adjoining the Cattai Creek Riparian Corridor

The Riparian Corridor will provide a focus for passive and active recreation along the creek corridor. The Riparian Corridor will provide a direct pedestrian link across the Showground Precinct linking residents from the southern periphery to the northern boundary adjacent the Showground in the form of a shared pedestrian cycleway. The Riparian Corridor will be fronted by retail and residential land uses and built form which will define the edge, provide passive surveillance and encourage an activated cross link during the day and night.

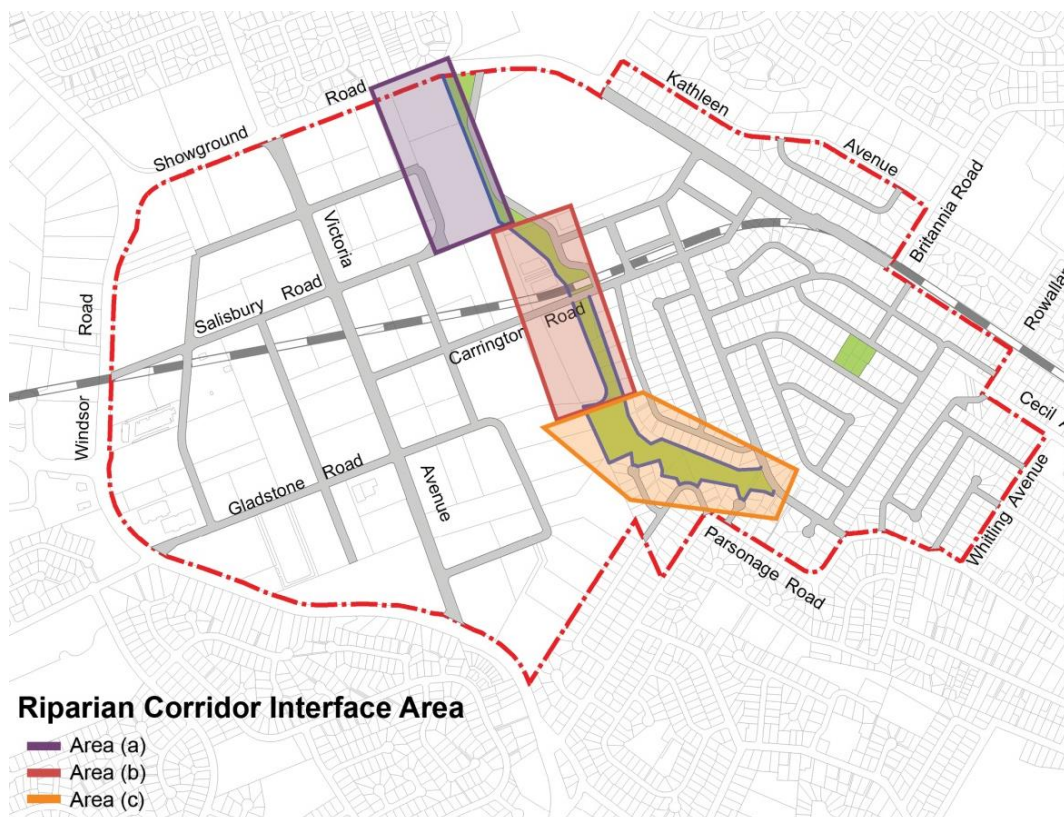


Figure 35 Riparian Corridor Interface Area Map

Objectives

- To enhance, reinstate and manage a unique environmental setting which can enable a continuous pedestrian link across the Showground Precinct.
- To encourage built form elements and uses that will enable a vibrant interface with the riparian corridor and shared pedestrian cycleway.
- Future development uses and built form will provide an appropriately scaled and attractive interface with the riparian corridor.
- The public domain shall provide an attractive setting and desirable location for new development.

Controls – Urban Edge – **Interface Area (a)** (refer to Figure 35 – Riparian Corridor Interface Area Map)

- All development shall address the riparian corridor. Retail and commercial uses must have an address to, and be accessible directly from the riparian corridor.
- Entry ways to and from retail, commercial and residential land uses must be clearly visible and provide direct sight lines to the riparian corridor.
- A tiered open landscape treatment to the riparian corridor from the frontage addressing the riparian corridor is encouraged if direct at grade access cannot be achieved.
- Ground floor residential apartments are to be elevated from the pedestrian walkway / at grade level by a minimum of 300mm and a maximum of 600mm subject to flood control levels.
- A minimum 5m built form setback shall be provided to the riparian corridor. Note: the riparian corridor is 20m from the ‘top of bank’ on each side of the creek within Interface Area (a).
- Built form setbacks to be established as part of the Cattai Creek West Master Planning Process for the land identified as the ‘deferred area’ under LEP 2012.

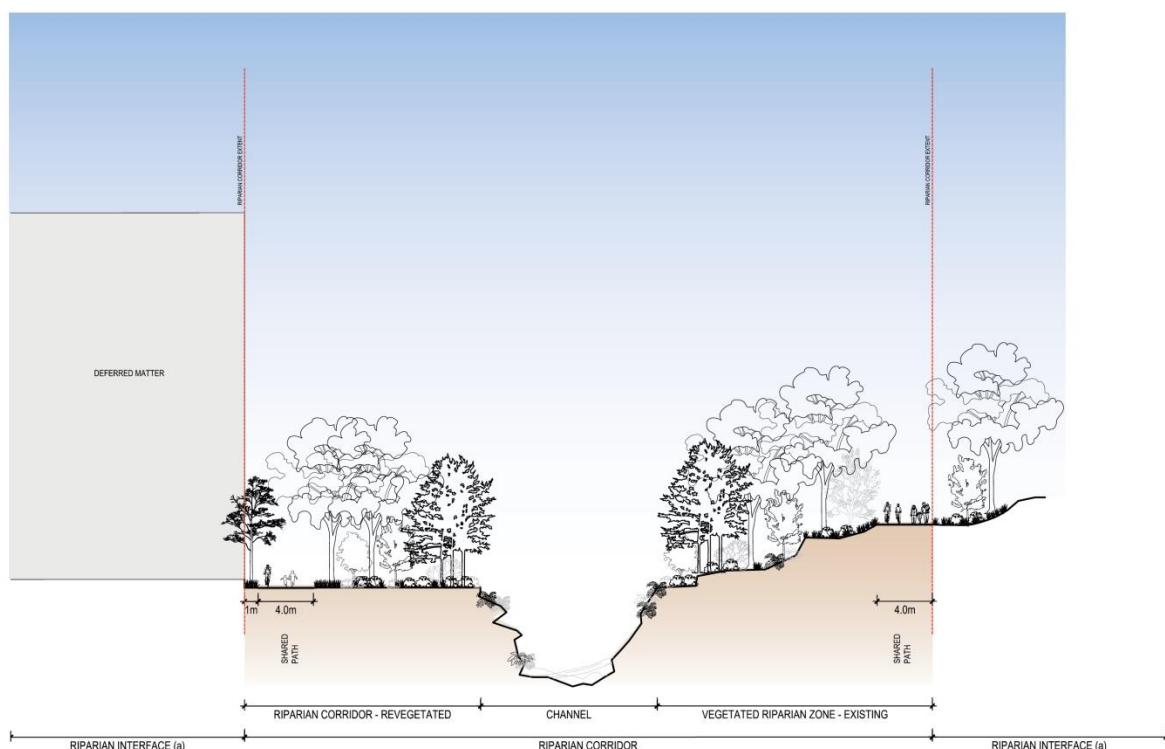


Figure 36 Profile - Riparian Corridor Interface (a)

Controls – Landscaped Urban Edge – Interface Area (b) (refer to Figure 35 – Riparian Corridor Interface Area Map)

7. All development shall address the riparian corridor. All ground floor apartments must have an address to, and be accessible directly from the riparian corridor.
8. Entry ways to and from residential land uses must be clearly visible and provide direct sight lines to the riparian corridor.
9. A tiered open landscape treatment to the riparian corridor from the frontage addressing the riparian corridor is encouraged if direct at grade access cannot be achieved.
10. Ground floor residential apartments are to be elevated from the ground level by a minimum of 300mm and a maximum of 600mm subject to flood control levels.
11. A minimum 7.5m built form setback shall be provided to the riparian corridor. Note: the riparian corridor is 20m from the 'top of bank' on each side of the creek within Interface Area (b).
12. Underground car parking is not permitted within 5m of the riparian corridor boundary.
13. A podium height of 4 storeys shall be provided.
14. Levels above the 4th storey shall be setback 6m behind the building line addressing the riparian corridor.
15. Developments with residential ground floor uses are to adopt a two storey terrace house appearance to present a fine grain articulation to the riparian corridor frontage.
16. Blank retaining walls or landscape treatments greater than 600mm in height addressing the riparian corridor are not permissible.
17. Ground floor residential fences are to be no more than 1.2m in height with a minimum 60% transparency. Contemporary palisade fence designs in a dark recessive colour are encouraged.

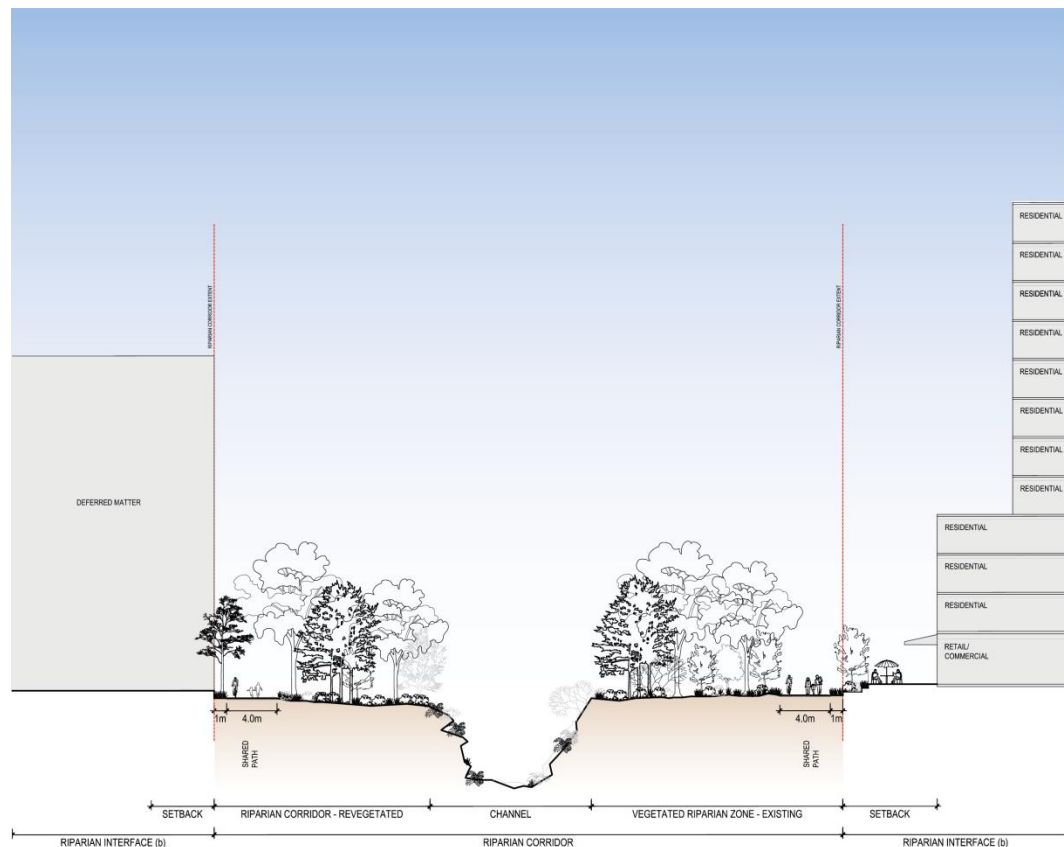


Figure 37 Profile - Riparian Corridor Interface (b)

Controls – Landscaped Urban Edge – Interface Area (c) (refer to Figure 35 – Riparian Corridor Interface Area Map)

18. Entry ways to and from all land uses must be clearly visible and provide direct sight lines to the riparian corridor. Development sites that also address public parks are to give consideration to addressing the park frontage in addition to addressing the riparian corridor.
19. A tiered open landscape treatment to the riparian corridor from the built form primary frontage is permissible if direct at grade access cannot be achieved.
20. Ground floor residential apartments are to be elevated from the street level by a minimum of 300mm and a maximum of 600mm subject to flood control levels.
21. A minimum 7.5m built form setback shall be provided to the riparian corridor. Note: the riparian corridor is 10m from the 'top of bank' on each side of the creek within Interface Area (c).
22. A minimum 4.5m setback shall be provided to a public open space such as a pocket park.
23. A maximum height of six storeys shall be provided, with the first two storeys clearly articulated to be the main feature in the façade.
24. Levels above the 4th storey shall be setback 3m behind the building line addressing the riparian corridor and open space.
25. A minimum 3m setback shall be provided to all public open space interfaces for designated terrace type dwellings as per the structure plan.

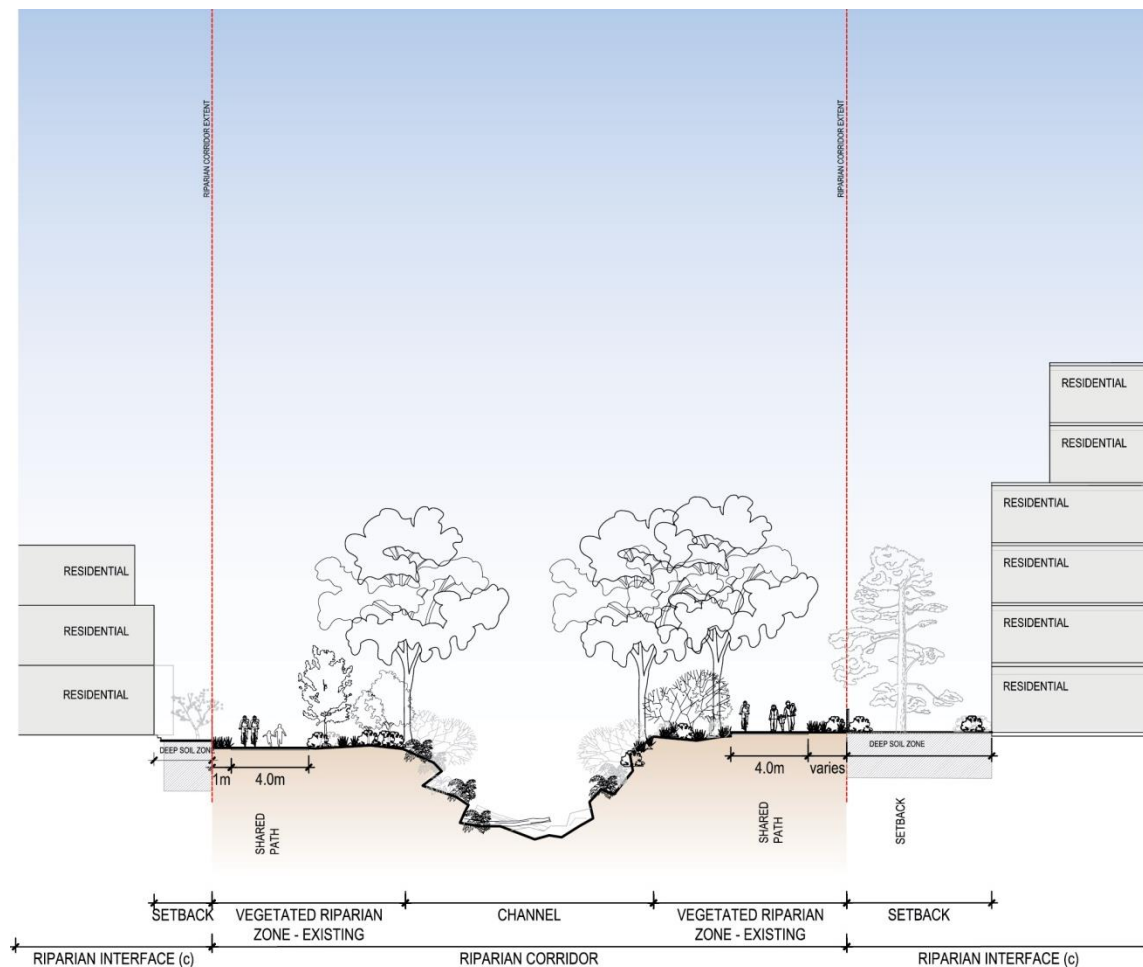


Figure 38 Profile - Riparian Corridor Interface (c)

4.11 Safety & Security

Objectives

- a. To provide high levels of property safety as well as personal comfort and safety.
- b. To minimise opportunities for criminal and anti-social behaviour through urban design.

Controls

1. Development is to address the principles of Crime Prevention Through Environmental Design.

Note: Consideration shall also be given to The Hills Shire Council's Policy Designing Safer Communities, Safer by Design Guidelines (June 2002).

4.12 Heritage (Aboriginal and European)

Objectives

- a. Development is designed and located to protect Aboriginal sites and archaeological relics by minimising the likelihood of disturbance.
- b. Development is appropriately designed with regard to sensitive and direct interfaces with heritage sites.
- c. Development is sited to minimise adverse impacts on the significance of the heritage items.

Controls – Aboriginal Heritage

1. An Aboriginal Due Diligence Report is required for each major development site/subdivision and must be prepared in accordance with the *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW*.
2. Where a Due Diligence Report identifies the presence or likely presence of any Aboriginal sites or relics on or near the subject development site, further Aboriginal Cultural / Archaeological Assessment by a suitably qualified person must be undertaken. Where a site is identified as significant, a letter from the relevant Aboriginal Lands Council is required to be submitted expressing support or recommendations for the subdivision proposal.
3. The report prepared by GML Heritage titled "NWRL Showground Station Precinct, Indigenous Heritage Assessment" dated August 2015 is to guide any future site-specific Aboriginal heritage assessments and management of Aboriginal heritage sites, values, objects and/or places within the boundaries of the Showground Precinct.

Controls – European Heritage – Cottage at 128-132 Showground Road, Castle Hill

4. Development at, or within the vicinity of the heritage cottage at 128-132 Showground Road must have regard to Part C Section 4 – Heritage of DCP 2012.
5. The curtilage of the heritage item is to be established through a heritage impact assessment prepared by a suitably qualified heritage consultant.
6. The curtilage of the heritage item is to be maintained and protected.
7. Development on sites adjoining and adjacent to the heritage item should consider locating landscaped areas and common open space areas between future building elements and the heritage site to assist in providing greater separation between the heritage item and future development.
8. Development within the vicinity of the heritage item shall ensure that significant view lines to and from the heritage item are appropriately maintained.

9. Development on sites adjoining the eastern and western boundaries of the heritage item should be appropriately sited to ensure that the heritage building is not affected by overshadowing.

Controls – European Heritage – Federation House at 107 Showground Road, Castle Hill

10. Development at, or within the vicinity of the heritage cottage at 107 Showground Road must have regard to Part C Section 4 – Heritage of this DCP.
11. The curtilage of the heritage item is to be established through a heritage impact assessment prepared by a suitably qualified heritage consultant.
12. The curtilage of the heritage item is to be maintained and protected.
13. Development on sites which interface the eastern, western and southern boundaries of the heritage item shall be designed to have a maximum height of four (4) storeys or no more than 13 metres in height, whichever is the lesser.
14. Development on sites adjoining and adjacent to the heritage item should consider locating landscaped areas and common open space areas between future building elements and the heritage site to assist in providing greater separation between the heritage item and future development.
15. Development within the vicinity of the heritage item shall ensure that significant view lines and from the heritage item are appropriately maintained.
16. Development on sites adjoining the eastern, western and southern boundaries of the heritage item should be appropriately sited to ensure that the building is not affected by overshadowing.



Figure 39 Non-Indigenous Heritage Items

5 Local Centre (B2 Local Centre and R1 General Residential Zone)

5.1 Desired Layout and Character

Objectives

- A range of employment and services are located close to transport connections and high quality open space.
- Centres located around the stations are attractive, pedestrian focused, convenient and walkable, providing shops, cafes, restaurants, community facilities and jobs.

Controls

- Development within centres and business zones shall be generally consistent with the following indicative layout plan (Figure 40).

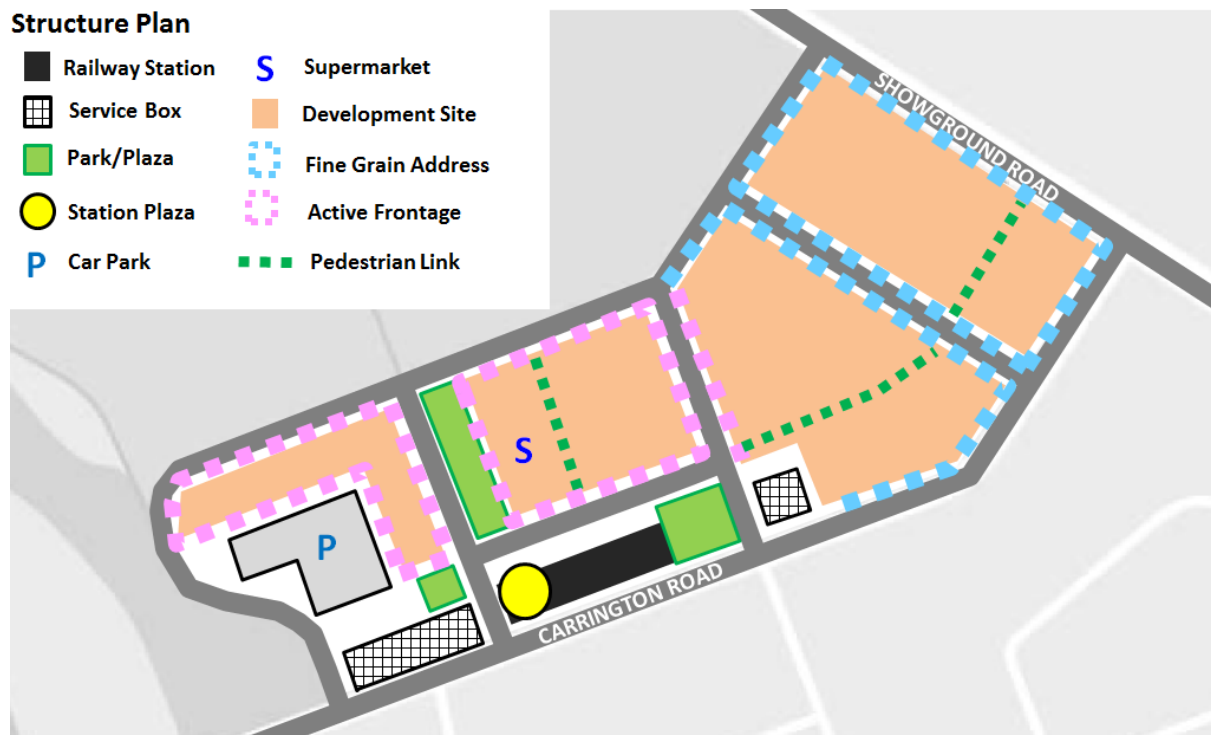


Figure 40 Indicative Layout Plan - Local Centre

Siting the Development

5.2 Site Requirements

The Hills LEP 2012 Clause 9.1 (Minimum lot sizes for residential flat buildings and shop top housing) specifies the minimum lot size for residential flat buildings in the R1 General Residential and B2 Local Centre zones.

Objectives

- a. To provide sufficient space for landscaping that will complement the building form and enhance the landscape character of the street.
- b. Development sites provide sufficient area for adequate access, parking, landscaping, building separation and space for recreation and use by residents.

Controls

1. Development sites within the R1 General Residential Zone shall have a minimum road frontage of 30m.
2. Development sites within the R1 General Residential Zone shall have a minimum site depth of 40m.
3. Residential flat buildings and shop top housing are to have a frontage (address) to the street.
4. The siting of dwellings should take advantage of any views to open space, public reserves and bushland to promote natural surveillance and to enhance the visual amenity of residents.
5. The site coverage of future development within the R1 General Residential zone shall not exceed 50% of the site area (excluding land to be dedicated or acquired or a public purpose).

5.3 Setbacks (Building and Upper Level)

Objectives

- a. To provide strong definition to the public domain and create a consistent streetscape.
- b. To set taller building elements back from the street to reduce building scale and bulk and enable adequate sunlight access to the public domain.
- c. To provide articulation zones to complement building mass and emphasise key design elements such as entrance points and respond to environmental conditions including solar access, noise, privacy and views.
- d. To ensure adequate separation between buildings on different sites to alleviate amenity impacts, including privacy, daylight access, acoustic control and natural ventilation.
- e. To facilitate a landscaped streetscape that can accommodate larger trees.

Controls

1. Buildings are to comply with Figure 41 Street Setbacks, Figure 42 Upper Level Setback, Figure 43 Podium Height maps and Table 6 Building Setbacks.
2. Buildings on street corners are to address both street frontages, with corners emphasised by appropriate architectural treatment.



Figure 41 Street Setbacks (R1 General Residential and B2 Local Centre)



Figure 42 Upper Level Setbacks (R1 General Residential and B2 Local Centre)

Podium Heights

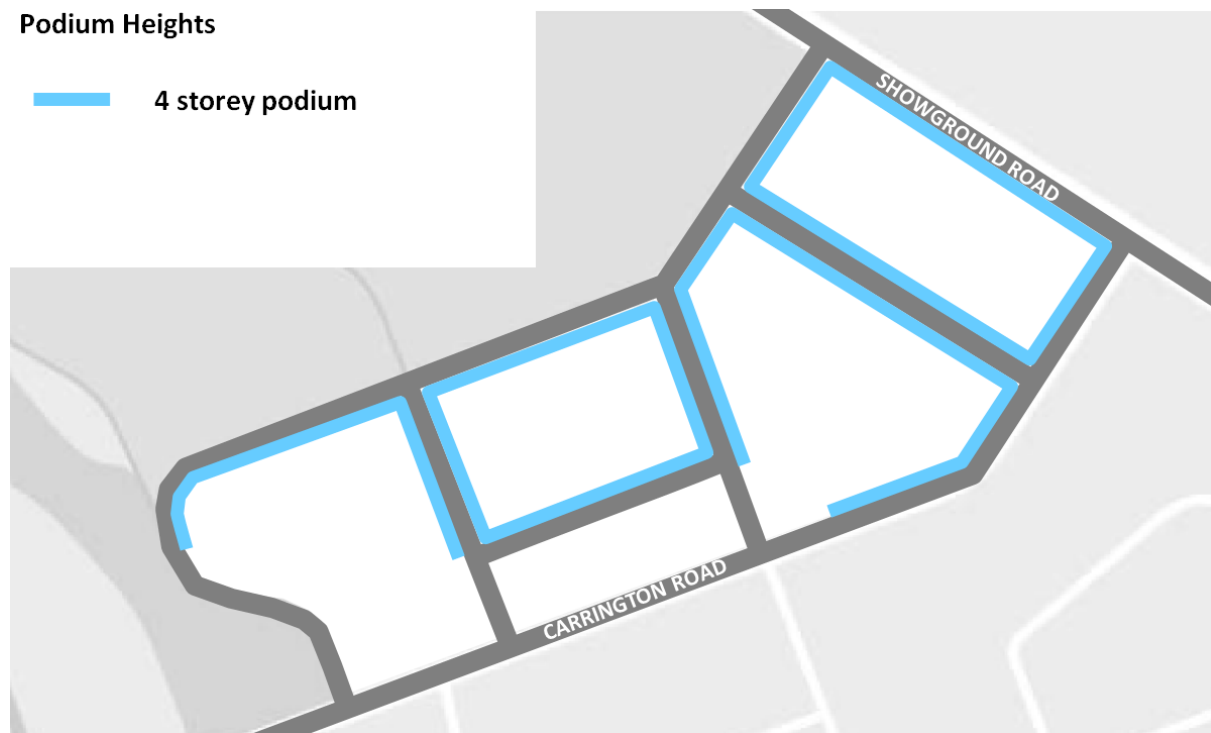


Figure 43 Podium Heights (R1 General Residential and B2 Local Centre)

Table 6 Building Setbacks

Setbacks – B2 Local Centre Zone	
Setbacks to Waterways	<ul style="list-style-type: none"> Refer to setback controls contained within 4.10 'Development Adjoining Cattai Creek Riparian Corridor'.
Front Setbacks	<ul style="list-style-type: none"> Refer to Figure 41 Street Setbacks.
Upper Level Setbacks	<ul style="list-style-type: none"> Refer to Figure 46 Upper Level Setbacks.
Podium Height	<ul style="list-style-type: none"> Refer to Figure 47 Podium Heights.
Side and Rear Setbacks	<ul style="list-style-type: none"> Where adjoining or adjacent to residential development: 6m or to comply with SEPP 65 whichever is the greater (to be used exclusively for landscaping).
Balconies	<ul style="list-style-type: none"> Balconies shall not protrude into the setback area.
Setbacks – R1 General Residential Zone	
Setbacks to Classified Roads	<ul style="list-style-type: none"> 10m (note: noise attenuation requirements may require a greater setback distance).
Front Setbacks	<ul style="list-style-type: none"> Refer to Figure 41 Street Setbacks. Development adjoining any road not identified on Figure 41 shall be setback 5m from the property boundary. Underground car parking shall not intrude into the primary setback.
Upper Level Setbacks	<ul style="list-style-type: none"> Refer to Figure 46 Upper Level Setbacks. Development facing any road not identified on Figure 42 shall be setback 5m behind the front building line (above a 4 storey podium).
Podium Height	<ul style="list-style-type: none"> Refer to Figure 47 Podium Heights. Development facing any road not identified on Figure 43

	shall include a 4 storey podium element.
Rear Setback	<ul style="list-style-type: none"> 8m or to comply with SEPP 65 whichever is the greater.
Side Setback	<ul style="list-style-type: none"> 6m or to comply with SEPP 65 whichever is the greater.
Balconies	<ul style="list-style-type: none"> Balconies shall not protrude into the setback areas.



Figure 44 Podium Addresses Public Domain, Jackson's Landing
(Source: e-architect.co.uk)



Figure 45 Podium Integrated with Public Domain, New Action
(Source: THSC)

5.4 Open Space and Landscaping

Objectives

- a. To maximise opportunities for landscaping, including the retention and/or planting of trees within deep soil areas to ensure a high level of amenity.
- b. To assist with the management of water quality.
- c. To provide communal open space for the enjoyment of residents.
- d. Communal open spaces:
 - Are accessible, usable and safe;
 - Enhance the attractiveness of the development;
 - Provide opportunities for social interaction; and
 - Create pleasantly shaded outdoor areas.
- e. To ensure development sites have sufficient space for landscaping that will complement the building form and enhance the landscape character of the street.

Controls

Landscaping

1. For Land zoned R1 General Residential, a minimum of 50% of the site area (excluding building footprint, roads, access driveways and parking) shall be landscaped. Terraces and patios within 1m of natural ground level shall be included in the calculation of landscaped open space.
2. For land zoned B2 Local Centre, landscaped open space should be provided where possible.

3. Landscaped areas are to have a minimum width of 2m. Areas less than 2m in width will be excluded from the calculation of landscaped area.
4. Native ground covers and grasses are to be used in garden beds and path surrounds (turf is to be confined to useable outdoor areas).

Roof Gardens and Planting on Structures

5. Green walls are encouraged on podium walls along active frontages to soften the interface between future development and the public realm.
6. Rooftop gardens must be adequately enclosed and accessible to occupants of the development.
7. The design of exterior private open spaces such as roof top gardens is to address visual and acoustic privacy, safety, security, and wind effects.
8. Where roof gardens and green walls are provided, consideration should be given to the Urban Green Cover in NSW – Technical Guidelines, published by the Office of Environment and Heritage.

Communal Open Space

9. A minimum of 10m² per dwelling shall be provided as communal open space.
10. A minimum of 25% of the required communal open space must be located at ground level in a singular large parcel.
11. External (outside) common open space areas are to be capable of accommodating substantial vegetation and are to be designed to incorporate active and passive recreation facilities (such as seating, shade structures, BBQs and children's play equipment).
12. External (outside) common open space areas are to be located and designed to:
 - Be seen from the street between buildings;
 - Provide for active and passive recreation needs of all residents;
 - Provide landscaping;
 - Present as a private area for use by residents only;
 - Include passive surveillance from adjacent internal living areas and/or pathways;
 - Have a northerly aspect where possible; and
 - Be in addition to any public thoroughfares.
13. Internal open space areas are to provide opportunities for larger communal gathering and/or active recreation (i.e. kitchen facilities, tables and chairs, small-scale gymnasium or health studio).
14. Plant species appropriate to the context and the specific microclimate within the development are to be selected to maximise use of endemic and native species and opportunities for urban biodiversity.
15. Drought tolerant plant species, and species that enhance habitat and ecology, are to be prioritised.
16. Landscape design is to be integrated with water and stormwater management.

Designing the Building

5.5 Built Form Design

Objectives

- a. To ensure development creates a positive streetscape and achieves a high quality architectural design that promotes commercial, retail and business activity.
- b. To establish streets with a high quality pedestrian friendly retail strip.
- c. To provide a mix of residential flat types and sizes to accommodate a range of household types and to facilitate housing diversity.
- d. To encourage podiums that reinforce the intended neighbourhood character and enhance the pedestrian experience.
- e. To ensure that towers:
 - Include slender design so as to not overwhelming in bulk and scale;
 - Allow for solar access to units within the development and on adjoining sites;
 - Create an open, attractive and distinct skyline;
 - Create small, fast moving shadows;
 - Allow for view corridors between nearby towers.
- f. Roof design and roof features are provided which integrate telecommunications, service structures, lift motor rooms and mechanical plants, contributing to an attractive and interesting skyline of the precinct.

Controls

General

1. The façade design of a development is to utilise large expressed elements to relate to passing motorists and articulate the key components of the building such as entries, showrooms and the like. Finer detail to identify individual tenancies and different building levels are to be used to add richness to the architectural design.
2. The design and layout of any building adjoining landscaped spaces or pathways shall ensure there is natural surveillance of the pathway to protect the security and amenity of users. Solid fences will not be permitted along the boundary of a pathway as they will restrict passive surveillance over the pathway.
3. Sun shading is to be provided appropriate to orientation for glazed portions of facades.
4. Development shall be designed to incorporate clearly defined ground floor street zone, podium and upper level elements. The podium element of any development is to be articulated as shown in Figure 46.



Figure 46 Street façade articulation

Source: THSC

5. On streets with a road reserve of less than 20m the width, the length of the façade shall not exceed 40m. On streets with a road reservation of 20m or greater in width the street frontage shall not exceed 65m.
6. Buildings are to have a maximum length of 65m. Where a building has a length greater than 30m it is to be separated into at least two parts by a significant recess or projection.
7. Where a building has a length greater than 40m it shall have the appearance of two distinct building elements with individual architectural expression and features.
8. The entry to the development is to be visually identifiable from the street frontage with clear sight lines. Separate entrances are required for commercial / retail and residential uses.
9. Street corners must be addressed by giving visual prominence to parts of the building façade, such as a change in building articulation, material or colour, roof expression or height. Buildings on street corners are to address both street frontages.
10. Services such as for fire protection, water and power distribution are not to intrude upon the pedestrian right of way, visually detract from the appearance of the development, and are to be screened from the street frontage with materials which are integrated with architectural expression of the development.
11. Waste management shall comply with the waste management controls contained within Part B Section 5 - Residential Flat Buildings of DCP 2012.



Figure 47 Artist's Impression of Quality Building Design
(Source: www.collinsandturner.com/architecture/barangaroo-r7)

Apartment Mix

12. No more than 25% of the total number of dwellings (to the nearest whole number of dwellings) contained in the development are to be studio or 1 bedroom dwellings, or both, and
13. At least 20% of the total number of dwellings (to the nearest whole number of dwellings) contained in the development are to be 3 or more bedroom dwellings.

Podium Design

14. Podium heights shall be in accordance with Figure 43 Podium Heights.
15. Podium heights shall frame adjacent park land and on-site open space.
16. Podium facades shall avoid blank, featureless walls by patterning high quality architectural elements such as window bays, canopies and fenestration.



Figure 48 Podium Addresses Public Open Space
(Source: THSC)



Figure 49 Podium Interfaces with Street, Rhodes
(Source: THSC)

Tower Form and Design

17. The tower floor plate (floors above the 8th storey) is limited to 750m² gross floor area per storey.
18. Tower forms are to provide a unique profile when compared to nearby existing and proposed towers of similar height.
19. Tower form is to be coordinated to offset with adjacent towers to ensure:
 - Prominent tower views to natural features are not obstructed; and
 - Views of the sky and access to sunlight from the public realm and private open space areas are maximised.
20. Tower form is to be orientated to:
 - Reduce the perceived mass of the building; and
 - Provide privacy for both communal and private open space areas.
21. Tower facades are to be:
 - Articulated to manage passive solar gain in summer;
 - Well-glazed with functional windows where possible to reduce reliance on artificial cooling;
 - Designed with high-quality sustainable materials and finishes that promote building longevity; and
 - Varied in design and articulation to promote visual interest.

Roof Design and Features

22. Where building height creates an identifiable protrusion in the skyline the following are provided:
 - A signature cap strengthening the building's identity as a landmark; and
 - Decorative lighting that highlights key architectural features.
23. Roof features shall be designed to generate an interesting skyline and enhance views from adjoining developments and surrounding areas.

5.6 Active Street Frontages

The Hills LEP 2012 specifies locations for active street frontages.

Objectives

- a. To encourage active street frontages in suitable locations.
- b. Active street frontages cater to a diverse range of activities.
- c. Active street frontages provide energetic, safe and vibrant pedestrian environments.
- d. The public domain encourages activity outside of commercial business hours.

Controls

1. Active frontages are to be provided in accordance with the active street frontages identified on the Indicative Layout Plan (Figure 40).
2. Active frontages may include one or a combination of the following:
 - Shop front;
 - Café or restaurant if accompanied by an entry from the street;
 - Community and civic uses with a street entrance; and
 - Recreation facilities with a street entrance.

3. An active street frontage is not required for any part of a building that is used for any of the following:
 - Entrances and lobbies (including as part of mixed use development);
 - Access for fire services; and
 - Vehicular access.
4. Retail and commercial uses at ground level are to be designed so that the ground floor for at least part of the premises is at the same level as the finished footpath level of the adjacent street and/or open space.
5. Awnings are to be provided over commercial and residential entries. Continuous awnings are to be provided above retail uses and the full length of Active Frontages.
6. Development is to provide awnings which are a minimum width of 1.5m over the pedestrian access/footpath.
7. Footpath awnings shall be designed to complement and integrate with the façade and the streetscape.
8. Where an active frontage is required, a minimum of 80% of the building frontage is to be transparent (i.e. windows and glazed doors). Clear glazing is to be provided to windows and doors.
9. For larger developments, building entrances should be provided on each street frontage.
10. Loading docks are not permitted on active frontages.
11. Security grilles may only be fitted internally behind the shopfront. They are to be transparent and fully retractable.



Figure 50 Active Street Frontage, Cafe
(Source: THSC)



Figure 51 Active Street Frontage, Retail Uses
(Source: THSC)

5.7 Residential Uses on Ground and First Floors

Objectives

- a. To provide residential activation to streets.
- b. To provide for residential identity and legibility.
- c. Encourage the provision of housing for a diversity of dwelling types and users.
- d. To introduce a fine grain built form and architectural diversity within a street block and/or building development.
- e. To provide for future flexibility in use.

Controls

1. Higher density development with residential ground and lower floor uses is to adopt a two storey terrace house appearance to present a fine grain articulation to the street frontage.
2. Residential ground floor units are to have individual gates and entrances accessed directly from the street.
3. Ground floor residential apartments are to be elevated from the street level by a minimum of 300mm and a maximum of 600mm.
4. Ground floor residential fences are to be no more than 1.2m in height with a minimum 50% transparency. Contemporary palisade fence designs in a dark recessive colour are encouraged.
5. Soft landscaping to the front of the terrace is to be a minimum of 40% of the setback area, contiguous, and a minimum of 2m in any direction.
6. Small trees suitable for the landscaped area provided are encouraged.
7. Underground car parking is not to intrude into the primary setback by more than 500mm.



Figure 52: Terrace style housing with access to street



Figure 53: Entry detail



Figure 54: Elevated entries allow for surveillance and privacy



Figure 55: Elevated entries allow for surveillance and privacy (Google maps)

5.8 Solar Access and Overshadowing

Objectives

- a. To provide adequate solar access to common open spaces and the open space of adjoining properties, so as to ensure a high level of amenity is achieved for both future and adjoining residents.
- b. To ensure that overshadowing from new development does not result in significant loss of sunlight and diminish the enjoyment of public and private open spaces.
- c. To protect, and where possible, increase the level of sunlight to public and private open spaces during the times of the year when outdoor spaces are most commonly used.
- d. To facilitate the equitable sharing of future impacts of new development on the public domain.

Controls

1. Development is to ensure that at least 50% of the landscaped open space of adjoining properties receives a minimum of 4 hours of sunlight between the hours of 9am and 3pm on 21 June.

Note: Where these areas already receive less than the minimum 4 hours, the proposed development shall not further reduce the level of solar access.

2. Development shall achieve direct sunlight to the principal usable part of the communal open space within the development site for a minimum of 2 hours between 9am and 3pm on 21 June.
3. The development shall not create additional overshadowing, of land identified for public open space, between the hours of 11am-2pm on 21 June. This includes public open spaces outside and adjacent to the precinct.
4. Solar access to future dwellings within the development shall comply with, and where possible exceed, the minimum solar access requirements within the Apartment Design Guide.

5.9 Adaptable Housing

Objectives

- a. To ensure a sufficient proportion of dwellings include accessible layouts and features to accommodate changing requirements of residents.
- b. To encourage flexibility in design to allow people to adapt their home as their needs change due to age or disability.

Controls

1. Residential flat buildings and multi dwelling housing are to meet the requirements for adaptable housing within part B Section 4 Residential Flat Buildings of The Hills DCP 2012.
2. All types of residential accommodation are to consider flexibility in the design to allow adaption to meet the changing needs of residents due to ageing or disability.

5.10 Noise

Objectives

- a. To ensure the amenity of future residents and workers by appropriately responding to noise impacts.

Controls

1. Site planning, building orientation and interior layout should be used as tools to lessen noise intrusion as far as possible.
2. Attenuation of noise at the source is preferred. Applicants are to indicate measures undertaken to mitigate the impact of noise upon adjacent residents and/or workers.
3. It is preferable that noise attenuation measures will last for a minimum of 10 years or the life of the development proposal, before being upgraded to meet current standards as required.
4. A Noise Impact Assessment prepared by a suitably qualified consultant may be required when submitting a development application for a new development or the renovation of an existing development.
5. The provisions of State Environmental Planning Policy (Infrastructure) 2007 and *Development near Rail Corridors and Busy Roads Interim Guideline* must be taken into consideration to

minimise impacts of busy roads and railway corridors on residential and other sensitive development.

6. Development applications are to demonstrate how buildings comply with the noise criteria specified in Table 7.

Table 7 Noise Criteria

Internal Space	Recommended Noise Criteria	Maximum Noise Criteria
Living areas	40 dBA	45 dBA
Working areas		
Sleeping areas	35 dBA	40 dBA

5.11 Parking Rates and Access

Objectives

- a. To provide sufficient parking spaces for development while encouraging public transport use.
- b. To ensure that car parking is appropriately located and visual impacts of access and parking facilities on the public realm are minimised.
- c. To ensure vehicles enter and exit developments in a safe and efficient manner.
- d. Pedestrian and cycle access to, from and through development is simple, safe and direct.
- e. To ensure that bicycle parking is considered and provided appropriately in all development.
- f. To ensure that end of trip facilities such as change rooms, showers and secure areas for bicycle parking are provided in new buildings featuring employment uses.

Controls

Car Parking

1. Car parking spaces are to be provided at the rates specified in the parking rates table below. For any use not specified, the car parking rates in The Hills Development Control Plan 2012 (Part C Section 1 – Parking) shall apply.

Table 8 Car Parking Rates

Land Use	Rate
Residential flat buildings and dwellings in shop top housing	1 resident space per unit. 1 visitor space per 5 units.
Retail and commercial use in B2 Local Centre zone	To be determined by a merit based assessment. Development applications are to be accompanied by a traffic and parking study which demonstrates that the parking provision is sufficient to meet the forecast demand.
All other uses	To comply with the rates in The Hills DCP 2012 Part C Section 1 – Parking.

2. Car parking shall not be located on the roof of buildings.

Vehicular Access

3. The location and means of access to customer car parking within a building is to be clearly visible.
4. Adequate vehicular entry and exit and circulation areas are to be provided. The design must:

- Provide safe environment for both pedestrians and vehicles using the site and surrounding road networks;
 - Ensure vehicular ingress and egress to the site is in a forward direction at all times;
 - Provide for service vehicles where possible; and
 - Be designed to minimise the visual impact of hard paved areas.
 - Parking shall be provided underground or at the rear of buildings.
5. Loading areas and vehicular access points for development are to be screened from public roads and public access points.
6. Loading areas and vehicular access points for development in the B2 Local Centre zone must avoid conflicts with pedestrian activity areas including waiting zones for bus, taxi and kiss and ride activities.

Residential Flat Buildings and Shop Top Housing

7. Parking is to be underground and within the footprint of the building above.
8. Basement parking is not to be provided forward of the building line.
9. Where above ground parking cannot be avoided due to site conditions, it must be well integrated into the overall façade design and create a good relationship to the public domain.
10. Garages and parking structures are not to project forward of the building line and are to be screened from the public domain by active uses.
11. Any parking located within the front setback area must be suitably landscaped and contribute positively to the streetscape.
12. Car share spaces are encouraged within residential flat buildings and shop top housing developments. Car share spaces are to be for the exclusive use of car share scheme vehicles, and included in the number of car parking spaces permitted on a site. The car share parking spaces are to be:
- Exclusive of visitor car parking;
 - Retained as common property by the Owners Corporation of the site, and not sold or leased to an individual owner/occupier at any time;
 - Made available for use by operators of car share schemes without a fee or charge;
 - Grouped together in the most convenient locations relative to car parking entrances and pedestrian lifts or access points;
 - Located in well-lit places that allow for casual surveillance;
 - Signposted for use only by car share vehicles; and
 - Made known to building occupants and car share members through appropriate signage which indicates the availability of the scheme and promotes its use as an alternative mode of transport.
13. Development applications are to demonstrate how the car share parking space(s) is to be accessed, including where access is through a security gate. A covenant is to be registered with the strata plan advising of any car share parking space. The covenant is to include provisions that the car share parking space(s) cannot be revoked or modified without prior approval of Council.

Bicycle Parking

14. Secure, conveniently located bike parking facilities are to be provided at the rates specified in Table 9 below.

Table 9 Bicycle Parking Rates

Land Use	Rate (minimum)
Residential flat buildings	1 resident space per 3 apartments. 1 visitor space per 12 apartments.
Commercial use	1 space per 600m ² GFA for staff.
Retail use	1 space per 450m ² for staff.

6 Residential Flat Buildings and Shop Top Housing (R4 High Density Residential Zone)

This section of the DCP applies to land within the Precinct zoned R4 High Density Residential.

State Environmental Planning Policy No. 65 – Design Quality of Residential Apartment Development (SEPP 65) applies to residential flat buildings and the residential component of shop top housing development in the Precinct. Such development is to have regard to SEPP 65 and the NSW Apartment Design Guide in addition to the provisions below.

Siting the Development

6.1 Site Requirements

The Hills LEP 2012 Clause 9.1 (Minimum lot sizes residential flat buildings and shop top housing) specifies the minimum lot size for residential flat buildings in the R4 High Density Residential zone.

Objectives

- a. To encourage the amalgamation of sites and discourage the creation of isolated development sites.
- b. To provide sufficient space for landscaping that will complement the building form and enhance the landscape character of the street.
- c. Development sites have sufficient area to provide adequate access, parking, landscaping and building separation.

Controls

1. Development sites shall have a minimum road frontage of 30m.
2. Development sites shall have a minimum site depth of 40m.
3. Residential flat buildings and shop top housing are to have a frontage (address) to the street and are not to be located on battle-axe allotments or rely on right of access arrangements for access to a public road.
4. The site coverage of future development shall not exceed 50% of the site area (excluding land to be dedicated or acquired for a public purpose).

Note: Determination of site cover includes driveways, footpaths and other impervious surfaces.

Note: Isolation of Lots and Orderly Development

The creation of isolated sites is not desirable and should be avoided where possible. Where a property is likely to be isolated by a development and it cannot be demonstrated that the site can be developed to its full potential, applicants should provide documentary evidence that a genuine and reasonable attempt has been made to purchase the isolated site based on a fair market value. Where a development may result in the creation of an isolated lot/s, the applicant should demonstrate that:

- Negotiations for amalgamation of sites commenced early, prior to the lodgement of a development application;
- If negotiations are not successful, details of the negotiations should be provided with the development application submission, including at least one recent independent valuation (which considers the property as being part of a complying amalgamated site) and include

other reasonable expenses likely to be incurred by the owner of the isolated property in the sale of the property; and

- The orderly development of the isolated site can be achieved that is consistent with the provisions of The Hills LEP and DCP. This should include the applicant providing an envelope for that site, indicating height, building form, setbacks and separations (building and basement) sufficient to understand the relationship between the proposed development and the isolated site and the streetscape implications.

The development of an isolated site should not detract from the character of the streetscape and is to achieve a satisfactory level of amenity, including solar access, visual and acoustic privacy.

6.2 Setbacks (Building and Upper Level)

Objectives

- a. To provide strong definition to the public domain and create a consistent streetscape.
- b. To set taller building elements back from the street to reduce building scale and bulk and enable adequate sunlight access to the public domain.
- c. To provide articulation zones to complement building mass and emphasise key design elements such as entrance points and respond to environmental conditions including solar access, noise, privacy and views.
- d. To ensure adequate separation between buildings on different sites to alleviate amenity impacts, including privacy, daylight access, acoustic control and natural ventilation.
- e. To facilitate a landscaped streetscape that can accommodate larger trees.

Controls

1. Buildings are to comply with Figure 56 Street Setbacks map and Table 10 Building Setbacks.
2. Where land is dedicated to Council for road widening at no costs, the setback shall be measured from the existing property boundary.
3. Buildings on street corners are to address both street frontages, with corners emphasised by appropriate architectural treatment.



Figure 56 Street Setbacks (R4 High Density Residential)

Table 10 Building Setbacks

Setbacks	
Setbacks to Classified Roads	<ul style="list-style-type: none"> 10m (note: noise attenuation requirements may require a greater setback distance).
Setbacks to Waterways	<ul style="list-style-type: none"> Refer to setback controls contained within 4.10 'Development Adjoining Cattai Creek Riparian Corridor'.
Front Setbacks	<ul style="list-style-type: none"> See Figure 56 Street Setbacks. Underground car parking shall not intrude into the primary setback.
Upper Level Setbacks	<ul style="list-style-type: none"> Storeys above the 4th storey shall be setback a minimum of 4m behind the front building line.
Rear Setback	<ul style="list-style-type: none"> 8m or to comply with SEPP 65 whichever is the greater.
Side Setback	<ul style="list-style-type: none"> 6m or to comply with SEPP 65 whichever is the greater.
Balconies	<ul style="list-style-type: none"> Balconies shall not protrude into the setback areas.

6.3 Open Space and Landscaping

Objectives

- To maximise opportunities for landscaping, including the retention and/or planting of trees within deep soil areas to ensure a high level of amenity.
- To assist with the management of water quality.
- To provide communal open space for the enjoyment of residents.
- Communal open spaces:
 - Are accessible, usable and safe;
 - Enhance the attractiveness of the development;

- Provide opportunities for social interaction; and
 - Create pleasantly shaded outdoor areas.
- f. To ensure development sites have sufficient space for landscaping that will complement the building form and enhance the landscape character of the street.

Controls

Landscaping

1. A minimum of 50% of the site area (excluding building footprint, roads, access driveways and parking) shall be landscaped. Terraces and patios within 1m of natural ground level shall be included in the calculation of landscaped open space.
2. Landscaped areas are to have a minimum width of 2m. Areas less than 2m in width will be excluded from the calculation of landscaped area.
3. Native ground covers and grasses are to be used in garden beds and path surrounds (turf is to be confined to useable outdoor areas).
4. Landscaped areas are to have a minimum width of 2m. Areas less than 2m in width will be excluded from the calculation of landscaped area.
5. Native ground covers and grasses are to be used in garden beds and path surrounds (turf is to be confined to useable outdoor areas).

Roof Gardens and Planting on Structures

6. Green walls are encouraged on podium walls along active frontages to soften the interface between future development and the public realm.
7. Rooftop gardens must be adequately enclosed and accessible to occupants of the development.
8. The design of exterior private open spaces such as roof top gardens is to address visual and acoustic privacy, safety, security, and wind effects.
9. Where roof gardens and green walls are provided, consideration should be given to the Urban Green Cover in NSW – Technical Guidelines, published by the Office of Environment and Heritage.

Communal Open Space

10. A minimum of 10m² per dwelling shall be provided as communal open space.
11. A minimum of 25% of the required communal open space must be located at ground level in a singular large parcel.
12. External (outside) common open space areas are to be capable of accommodating substantial vegetation and are to be designed to incorporate active and passive recreation facilities (such as seating, shade structures, BBQs and children's play equipment).
13. External (outside) common open space areas are to be located and designed to:
 - Be seen from the street between buildings;
 - Provide for active and passive recreation needs of all residents;
 - Provide landscaping;
 - Present as a private area for use by residents only;
 - Include passive surveillance from adjacent internal living areas and/or pathways;
 - Have a northerly aspect where possible; and
 - Be in addition to any public thoroughfares.

14. Internal open space areas are to provide opportunities for larger communal gathering and/or active recreation (i.e. kitchen facilities, tables and chairs, small-scale gymnasium or health studio).
15. Plant species appropriate to the context and the specific microclimate within the development are to be selected to maximise use of endemic and native species and opportunities for urban biodiversity.
16. Drought tolerant plant species, and species that enhance habitat and ecology, are to be prioritised.
17. Landscape design is to be integrated with water and stormwater management.

Designing the Building

6.4 Built Form Design

Objectives

- a. To ensure development creates a positive streetscape and achieves a high quality architectural design that promotes commercial, retail and business activity.
- b. To provide a mix of residential flat types and sizes to accommodate a range of household types and to facilitate housing diversity.
- c. To encourage podiums which reinforce the intended neighbourhood character and enhance the pedestrian experience.
- d. To ensure that towers:
 - Include slender design so as to not overwhelming in bulk and scale;
 - Allow for solar access to units within the development and on adjoining sites;
 - Create an open, attractive and distinct skyline;
 - Create small, fast moving shadows;
 - Allow for view corridors between nearby towers.
- e. Roof design and roof features are provided which integrate telecommunications, service structures, lift motor rooms and mechanical plants, contributing to an attractive and interesting skyline of the precinct.

Controls

General

1. Retail and commercial uses at ground level are to be designed so that the ground floor for at least part of the premises is at the same level as the finished footpath level of the adjacent street and/or open space.
2. The façade design of a development is to utilise large expressed elements to relate to passing motorists and articulate the key components of the building such as entries, showrooms and the like. Finer detail to identify individual tenancies and different building levels are to be used to add richness to the architectural design.
3. Sun shading is to be provided appropriate to orientation for glazed portions of facades.
4. Development shall be designed to incorporate clearly defined ground floor street zone, podium and upper level elements. The podium element of any development is to be articulated as shown in Figure 46.

5. On streets with a road reserve of less than 20m the width, the length of the façade shall not exceed 40m. On streets with a road reservation of 20m or greater in width the street frontage shall not exceed 65m.
6. Buildings are to have a maximum length of 65m. Where a building has a length greater than 30m it is to be separated into at least two parts by a significant recess or projection.
7. Where a building has a length greater than 40m it shall have the appearance of two distinct building elements with individual architectural expression and features.
8. The entry to the development is to be visually identifiable from the street frontage with clear sight lines. Separate entrances are required for commercial / retail and residential uses.
9. Street corners must be addressed by giving visual prominence to parts of the building façade, such as a change in building articulation, material or colour, roof expression or height. Buildings on street corners are to address both street frontages.
10. Services such as for fire protection, water and power distribution are not to intrude upon the pedestrian right of way, visually detract from the appearance of the development, and are to be screened from the street frontage with materials which are integrated with architectural expression of the development.
11. Waste management shall comply with the waste management controls contained within Part B Section 5 - Residential Flat Buildings of DCP 2012.

Apartment Mix

12. No more than 25% of the total number of dwellings (to the nearest whole number of dwellings) contained in the development are to be studio or 1 bedroom dwellings, or both, and
13. At least 20% of the total number of dwellings (to the nearest whole number of dwellings) contained in the development are to be 3 or more bedroom dwellings.

Podium Design

14. Podium heights shall frame adjacent park land and on-site open space.
15. Podium facades shall avoid blank, featureless walls by patterning high quality architectural elements such as window bays, canopies and fenestration.

Tower Form and Design

16. The tower floor plate (floors above the 8th storey) is limited to 750m² gross floor area per storey.
17. Tower forms are to provide a unique profile when compared to nearby existing and proposed towers of similar height.
18. Tower form is to be coordinated to offset with adjacent towers to ensure:
 - a. Prominent tower views to natural features are not obstructed; and
 - b. Views of the sky and access to sunlight from the public realm and private open space areas are maximised.
19. Tower form is to be orientated to:
 - a. Reduce the perceived mass of the building; and
 - b. Provide privacy for both communal and private open space areas.
20. Tower facades are to be:
 - a. Articulated to manage passive solar gain in summer;
 - b. Well-glazed with functional windows where possible to reduce reliance on artificial cooling;

- c. Designed with high-quality sustainable materials and finishes that promote building longevity; and
- d. Varied in design and articulation to promote visual interest.

Roof Design and Features

- 21. Where building height creates an identifiable protrusion in the skyline the following are provided:
 - a. A signature cap strengthening the building's identity as a landmark; and
 - b. Decorative lighting that highlights key architectural features.

6.5 Streetscape and Public Domain Interface

Objectives

- a. Development contributes to the activity, safety, amenity and quality of streets and the public domain.
- b. Development addresses the street and creates a human scale for pedestrians.
- c. Development frames and addresses public spaces with appropriately scaled built form achieving excellence in architectural, landscape and urban design.

Controls

- 1. Buildings shall address any shared open space and adjacent public areas to increase the natural surveillance of these areas and contribute to their safety and security.
- 2. Residential developments are to address the primary street frontage. Where a development comprises a number of buildings with a variety of orientations, a major part of the overall development is to face the street.
- 3. Building design shall avoid creating opportunities for personal concealment.
- 4. The siting and design of dwellings should take advantage of any views to open space, public reserves and bushland to promote natural surveillance and to enhance the visual amenity of residents.
- 5. Blank courtyard wall along boundaries shared with open space or reserves are to be avoided and opportunities to create and orient dwellings to permit direct views from living areas into the open space / reserve should be pursued in design. Any blank wall or portion of blank wall is to be treated with an anti-graffiti paint application and/or vegetation treatment.
- 6. Building entries should be readily apparent from the street and clearly visible from inside the dwelling to improve casual surveillance.
- 7. Lighting is to be provided for safety at night for all public and semi-public entry ways.
- 8. Awnings are to be provided over commercial and residential entries. Continuous awnings are to be provided above retail uses and the full length of Active Frontages.
- 9. Development is to provide awnings which are a minimum width of 1.5m over the pedestrian access/footpath.
- 10. Footpath awnings shall be designed to complement and integrate with the façade and the streetscape.
- 11. The design and layout of any building adjoining landscaped spaces or pathways shall ensure there is natural surveillance of the pathway to protect the security and amenity of users. Solid fences will not be permitted along the boundary of a pathway as they will restrict passive surveillance over the pathway.



Figure 57: Active Street Frontage with landscaped edge (Source: THSC)



Figure 58: Landscaped setback to development (Source: THSC)



Figure 59: High quality address to public open space corridor (Source: THSC)



Figure 60: High quality address to public open space corridor (Source: THSC)

6.6 Residential Uses on Ground and First Floors

Objectives

- To provide residential activation to streets.
- To provide for residential identity and legibility.
- Encourage the provision of housing for a diversity of dwelling types and users.
- To introduce a fine grain built form and architectural diversity within a street block and/or building development.
- To provide for future flexibility in use.

Controls

- Higher density development with residential ground and lower floor uses is to adopt a two storey terrace house appearance to present a fine grain articulation to the street frontage.
- Residential ground floor units are to have individual gates and entrances accessed directly from the street.
- Ground floor residential apartments are to be elevated from the street level by a minimum of 300mm and a maximum of 600mm.

4. Ground floor residential fences are to be no more than 1.2m in height with a minimum 50% transparency. Contemporary palisade fence designs in a dark recessive colour are encouraged.
5. Soft landscaping to the front of the terrace is to be a minimum of 40% of the setback area, contiguous, and a minimum of 2m in any direction.
6. Small trees suitable for the landscaped area provided are encouraged.
7. Underground car parking is not to intrude into the primary setback by more than 500mm.

6.7 Solar Access and Overshadowing

Objectives

- a. To provide adequate solar access to common open spaces and the open space of adjoining properties, so as to ensure a high level of amenity is achieved for both future and adjoining residents.
- b. To ensure that overshadowing from new development does not result in significant loss of sunlight and diminish the enjoyment of public and private open spaces.
- c. To protect, and where possible, increase the level of sunlight to public and private open spaces during the times of the year when outdoor spaces are most commonly used.
- d. To facilitate the equitable sharing of future impacts of new development on the public domain.

Controls

1. Development is to ensure that at least 50% of the landscaped open space of adjoining properties receives a minimum of 4 hours of sunlight between the hours of 9am and 3pm on 21 June.
Note: Where these areas already receive less than the minimum 4 hours, the proposed development shall not further reduce the level of solar access.
2. Development shall achieve direct sunlight to the principal usable part of the communal open space within the development site for a minimum of 2 hours between 9am and 3pm on 21 June.
3. The development shall not create additional overshadowing of land identified for public open space between the hours of 11am-2pm on 21 June. This includes public open spaces outside and adjacent to the precinct.
4. Solar access to future dwellings within the development shall comply with, and where possible exceed, the minimum solar access requirements within the Apartment Design Guide.

6.8 Adaptable Housing

Objectives

- a. To ensure a sufficient proportion of dwellings include accessible layouts and features to accommodate changing requirements of residents.
- b. To encourage flexibility in design to allow people to adapt their home as their needs change due to age or disability.

Controls

1. Residential flat buildings and multi dwelling housing are to meet the requirements for adaptable housing within part B Section 4 Residential Flat Buildings of The Hills DCP 2012.
2. All types of residential accommodation are to consider flexibility in the design to allow adaption to meet the changing needs of residents due to ageing or disability.

6.9 Noise

Objectives

- a. To ensure the amenity of future residents and workers by appropriately responding to noise impacts.

Controls

1. Site planning, building orientation and interior layout should be used as tools to lessen noise intrusion as far as possible.
2. Attenuation of noise at the source is preferred. Applicants are to indicate measures undertaken to mitigate the impact of noise upon adjacent residents and/or workers.
3. It is preferable that noise attenuation measures will last for a minimum of 10 years or the life of the development proposal, before being upgraded to meet current standards as required.
4. A Noise Impact Assessment prepared by a suitably qualified consultant may be required when submitting a development application for a new development or the renovation of an existing development.
5. The provisions of State Environmental Planning Policy (Infrastructure) 2007 and *Development near Rail Corridors and Busy Roads Interim Guideline* must be taken into consideration to minimise impacts of busy roads and railway corridors on residential and other sensitive development.
6. Development applications are to demonstrate how buildings comply with the noise criteria specified in Table 7.

Table 11 Noise Criteria

Internal Space	Recommended Noise Criteria	Maximum Noise Criteria
Living areas	40 dBA	45 dBA
Working areas		
Sleeping areas	35 dBA	40 dBA

6.10 Parking Rates and Access

Objectives

- a. To provide sufficient parking spaces for development while encouraging public transport use.
- b. To ensure that car parking is appropriately located and visual impacts of access and parking facilities on the public realm are minimised.
- c. To ensure vehicles enter and exit developments in a safe and efficient manner.
- d. Pedestrian and cycle access to, from and through development is simple, safe and direct.
- e. To ensure that bicycle parking is considered and provided appropriately in all development.
- f. To ensure that end of trip facilities such as change rooms, showers and secure areas for bicycle parking are provided in new buildings featuring employment uses.

Controls

Car Parking

1. Car parking spaces are to be provided at the rates specified in the parking rates table below. For any use not specified, the car parking rates in The Hills Development Control Plan 2012 (Part C Section 1 – Parking) shall apply.

Table 12 Car Parking Rates

Land Use	Rate
Residential flat buildings and dwellings in shop top housing	1 resident space per unit. 1 visitor space per 5 units.
All other uses	To comply with the rates in The Hills DCP 2012 Part C Section 1 – Parking

2. Car parking shall not be located on the roof of buildings.

Vehicular Access

3. The location and means of access to customer car parking within a building is to be clearly visible.
4. Adequate vehicular entry and exit and circulation areas are to be provided. The design must:
 - Provide safe environment for both pedestrians and vehicles using the site and surrounding road networks;
 - Ensure vehicular ingress and egress to the site is in a forward direction at all times;
 - Provide for service vehicles where possible; and
 - Be designed to minimise the visual impact of hard paved areas.
 - Parking shall be provided underground or at the rear of buildings.
5. Loading areas and vehicular access points for development are to be screened from public roads and public access points.
6. Loading areas and vehicular access points for development in the B2 Local Centre zone must avoid conflicts with pedestrian activity areas including waiting zones for bus, taxi and kiss and ride activities.

Residential Flat Buildings and Shop Top Housing

7. Parking is to be underground and within the footprint of the building above.
8. Basement parking is not to be provided forward of the building line.
9. Where above ground parking cannot be avoided due to site conditions, it must be well integrated into the overall façade design and create a good relationship to the public domain.
10. Garages and parking structures are not to project forward of the building line and are to be screened from the public domain by active uses.
11. Any parking located within the front setback area must be suitably landscaped and contribute positively to the streetscape.
12. Car share spaces are encouraged within residential flat buildings and shop top housing developments. Car share spaces are to be for the exclusive use of car share scheme vehicles, and included in the number of car parking spaces permitted on a site. The car share parking spaces are to be:

Exclusive of visitor car parking;

- Retained as common property by the Owners Corporation of the site, and not sold or leased to an individual owner/occupier at any time;
- Made available for use by operators of car share schemes without a fee or charge;
- Grouped together in the most convenient locations relative to car parking entrances and pedestrian lifts or access points;
- Located in well-lit places that allow for casual surveillance;

- Signposted for use only by car share vehicles; and
 - Made known to building occupants and car share members through appropriate signage which indicates the availability of the scheme and promotes its use as an alternative mode of transport.
13. Development applications are to demonstrate how the car share parking space(s) is to be accessed, including where access is through a security gate. A covenant is to be registered with the strata plan advising of any car share parking space. The covenant is to include provisions that the car share parking space(s) cannot be revoked or modified without prior approval of Council.

Bicycle Parking

14. Secure, conveniently located bike parking facilities are to be provided at the rates specified in Table 9 below.

Table 13 Bicycle Parking Rates

Land Use	Rate (minimum)
Residential flat buildings	1 resident space per 3 apartments. 1 visitor space per 12 apartments.
Commercial use	1 space per 600m ² GFA for staff.
Retail use	1 space per 450m ² for staff.

7 Terrace Housing

This section of the DCP applies to land within the Precinct zoned R3 Medium Density Residential.

Development specified in this section of the DCP that is Torrens Title subdivision will need to meet the requirements of Clause 4.1B Exceptions to minimum lot sizes for certain development under The Hills Local Environmental Plan 2012.

Siting the Development

7.1 Site Requirements

Objectives

- a. Development sites have sufficient area to provide adequate access, parking and landscaping.
- b. To minimise impact on the amenity of neighbouring sites
- c. To allow a range of allotment types to suit most household types and allow for diversity.
- d. To provide a distinct urban character which is sympathetic to existing and future development.

Controls

1. Terrace lots shall have minimum site depth of 30m (exclusive of land required for rear laneway access).
2. Terrace housing (as single lot or as a townhouse type development) shall be provided within the periphery of the Precinct on land zoned R3 Medium Density Residential.
3. Subject to council discretion all terraces are to be rear loading.
4. All dwellings with a frontage to the street (including a secondary street) must address the street.

7.2 Building Setbacks

Objectives

- a. Developments contribute to an attractive and diverse neighbourhood that is characterised by tree-lined streets, high quality landscaping and innovative building design.
- b. To provide strong definition to the public domain and create a consistent streetscape.
- c. To alleviate impacts on amenity including privacy, solar access, acoustic control and natural ventilation within the development and adjoining neighbours.

Controls

1. Buildings are to comply with Figure 61 Street Setbacks – Terrace Housing map and Table 14 Setbacks – Terrace Housing.



Figure 61 Street Setbacks – Terrace Housing

Table 14 Setbacks – Terrace Housing

Terrace Housing	
Front setbacks (Terrace Housing)	<ul style="list-style-type: none"> • Shall Comply with Figure 62. • 3m to front building line for the first and second storey • 4m to front building line for the third storey
Front articulation zone (Terrace Housing)	<ul style="list-style-type: none"> • Minor façade elements such as balconies, porches or verandahs may be 1m forward of front building line. On corner blocks the articulation zone may be extended along the secondary frontage for a max of 3m or 25% of façade length with a min. of 1m setback from boundary.
Side setbacks (Terrace Housing)	<ul style="list-style-type: none"> • 0m between terraces • 3m from the side property boundary (end terrace) that adjoins a public street. • 1m from the side property boundary (end terrace) that adjoins a laneway.
Rear Setback (Terrace Housing) <ul style="list-style-type: none"> • 1-2 storey element • 3 storey element • Garages of rear lanes 	<ul style="list-style-type: none"> • 7m • 9m • 0.5m
Multi Dwelling Housing (Other than Terrace Housing)	Shall comply with the setback requirements contained within The Hills DCP 2012(Part B Section 4 – Multi Dwelling Housing)

7.3 Open Space and Landscaping

Objectives

- To cater for the recreational needs of building occupants.

- b. To improve amenity and soften the impact of buildings through the provision of landscaping, including the retention and/or planting of trees within deep soil zones.
- c. A high level of amenity for residents is achieved through the provision of sufficient solar access, natural ventilation, privacy and open space.

Controls

- 1. Minimum 16m² private open space (POS) for each dwelling with a minimum dimension of 3m. Must be located at ground level at the rear of the dwelling directly accessible from the main living area.
- 2. 60% of the private open space area shall comprise deep soil planting and be located such that a canopy tree can be planted.
- 3. 30% of front setback area shall comprise soft landscaping.
- 4. Landscaped areas are to have a minimum width of 2m.
- 5. Roof terraces and roof gardens are encouraged where the privacy of adjoining properties can be maintained.



Figure 62 Terrace with Green roof

(Source: Bere Architects)

- 6. At least 50% of the required private open space for each dwelling and adjacent dwellings is to receive direct sunlight for a minimum of 3 hours between 9am and 3pm on 21 June.
- 7. Collapsible or permanent clothes drying device is to be provided within private open space areas and located to maximise the amount of direct sunlight received.

7.4 Rear Laneways

Objectives

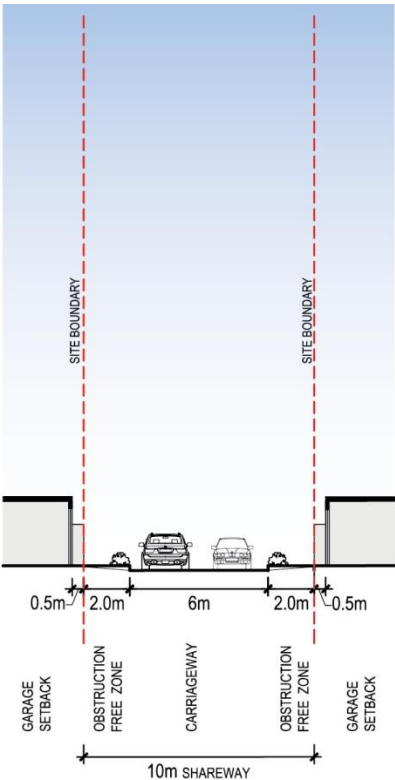
- a. To facilitate orderly development within the R3 Medium Density zone through the provision of rear laneways.
- b. To provide vehicular access to the rear or side of lots to reduce garage dominance in residential streets.

- c. To reduce vehicular conflict through reduced driveway cross overs and focusing of traffic to known points.
- d. To enable garbage collection along street frontages.
- e. To facilitate the use of attached and narrow lot housing to achieve an attractive streetscape.

Controls

1. Rear laneways shall be provided in accordance with the Indicative Street Network and Hierarchy figure of this section of the DCP.
2. Where rear laneways are not achievable (for single row terraces only), and underground parking is an option, the entry is to not adversely impact upon the streetscape or pedestrian right of way. Driveway entries from the street frontage are not desirable and are subject to council discretion.
3. The design and construction of laneways is to be consistent with Figure 63.
4. The laneway is a public “shareway” as the paved surface is for cyclists, pedestrians and cars etc, with a 10 km speed limit and driveway-style crossovers to the street rather than a road junction.
5. On-street car parking within the rear laneway carriageway shall not be permitted.
6. The minimum garage doorway widths for manoeuvrability in this laneway section are 2.4m (single) and 4.8m (double).
7. Rear laneway design shall have regard to the following lot layouts. Entry way sightlines are to end with a landscaped treatment or the continuation of the laneway.
8. Laneways that create a ‘fronts to backs’ layout (front addressed principal dwellings on one side and rear accessed garages on the other side) are to be avoided.
9. All lots adjoining a laneway should utilise the laneway for vehicular/garage access (refer Figure 65).
10. Terraces shall be designed so as to facilitate passive surveillance along the rear laneway through the positioning of windows and balconies facing the laneway.
11. Waste collection is to be undertaken from the rear laneway.
12. A concrete bin pad 1.7m wide and 0.8m deep shall be provided behind the kerb and adjacent to the driveways for bin presentation.
13. A swept path analysis for the standard 12.5m long HRV (AS2890.2-2002) shall be submitted demonstrating all bends of laneways are suitable for the turning of garbage vehicles. This includes ingress and egress points to intersecting roads or laneways. All manoeuvring must be contained within trafficable carriageways.
14. No building element (such as eaves, balconies, gutters and the like) shall encroach into the rear laneway reservation area (carriageway plus verge).

Note: Waste collection vehicles will collect rubbish bins from the laneway verge. Accordingly, any building elements that overhangs the rear laneway reservation area will impact on operation of side mounted waste collection vehicles.



PROFILE 10 TYPICAL LANEWAY SECTION & PLAN

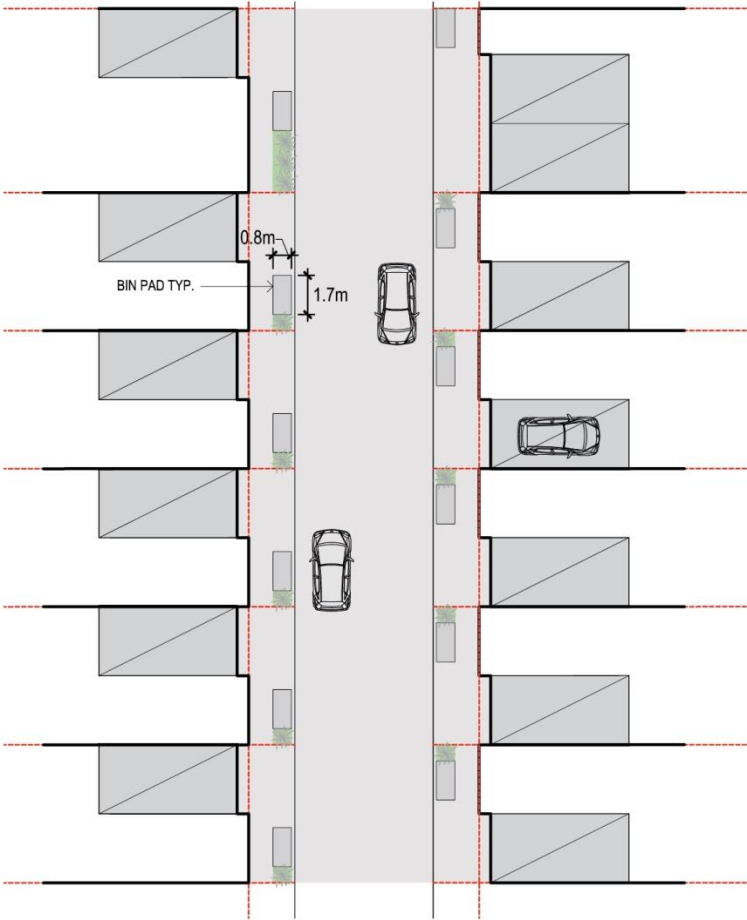


Figure 63 Rear Laneway Principles

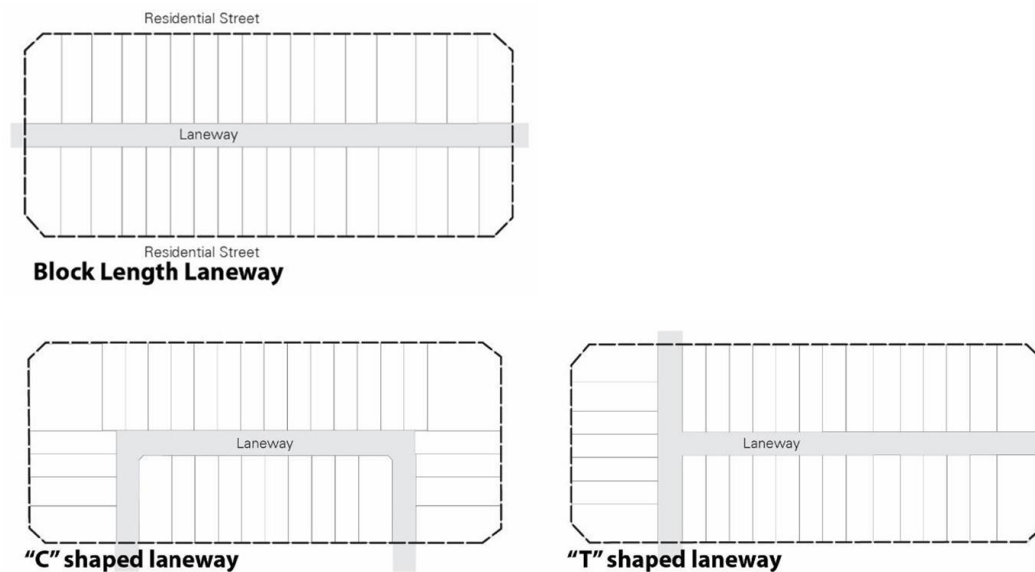


Figure 64 Sample Lane Sections

Source: North Kellyville DCP

Note: Rear laneway location and layout is subject to swept path analysis.

Designing the Building

7.5 Building Height

Objectives

- Terraces integrate with the character of surrounding development and are of a high architectural quality.
- Designs reduce the visual bulk of buildings from the street.
- The scale of terrace development reinforces the desired future neighbourhood character.

Controls

- Terrace houses are to be a minimum of 2 storeys and a maximum of 3 storeys inclusive of attic rooms.

7.6 Building Design and Streetscape

Objectives

- To incorporate high quality façade design and finishes.
- Designs reduce the visual bulk of buildings from the street to reinforce the desired future neighbourhood character.
- An appropriate level of amenity is provided for residents within, and adjoining, the development.

Controls

- Each dwelling is to include individual access from the main street frontage.
- Building entry must be integrated with building façade design. At street level, entry is to be articulated with awnings, porticos, recesses or projecting bays for clear identification. The entry path to the building is to be accessible and visible from the street.

3. The minimum internal floor area for each dwelling, excluding common passageways, car parking spaces and balconies shall be as follows:

Table 15 Minimum Floor Area – Terrace Housing

Dwelling Type	Minimum Floor Area
1 bedroom dwelling	75m ²
2 bedroom dwelling	110m ²
3 bedroom dwelling	135m ²

4. For strata developments, a minimum of 10m³ storage space is to be provided for each dwelling in either a lockable garage or a basement. Storage areas shall have a minimum base of 5m² and minimum width of 2m.
5. The minimum width of each dwelling is 6m.
6. The maximum building length is 50m (block of attached terraces).
7. Where a building frontage is greater than 32m, a 4m gap shall be provided to break up the frontages.



Figure 65 Vegetated rear lane
Source: THSC



Figure 66 Pedestrian walkthroughs between terraced groups, Kingston
Source: THSC

8. Bin storage areas must be located so that bins can be easily wheeled to the rear laneways for collection.
9. Hedge and shrub planting or open style fencing shall be provided along the street frontage. Where proposed, the height of front fences should not exceed:
 10. 0.9m for solid masonry fences; and
 11. 1.2m for open or transparent style fences with 50% min. permeability / and or hedges.
12. Chain link, sheet metal or timber paling fencing is not permitted to front or secondary frontages.
13. Side and rear fences shall be a maximum of 1.8m in height.
14. Front fencing and courtyard walls are permitted on the boundary line. Courtyard walls are only permitted on secondary frontage to corner lots.
15. Minimise direct overlooking of main internal living areas and private open space of dwellings both within and adjoining the development through building design, window locations and sizes, landscaping and other screening devices.
16. Rear laneways to provide for low maintenance soft landscaping treatments to reduce impact of hardscaped surfaces and wall treatments.



Figure 67 Terrace style housing, Kingston

Source : THSC



Figure 68 Terrace Style Townhouse

Source: Google Streetview



Figure 69 Modern Terrace Design

Source: www.realestate.com

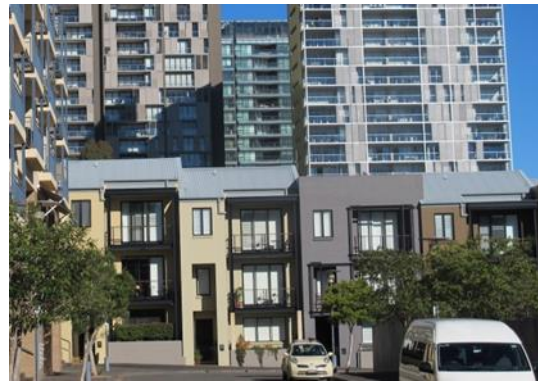


Figure 70 Terraces, Pyrmont

Source: THSC

7.7 Car Parking

Objectives

- To provide sufficient parking spaces for development while encouraging public transport use.
- To ensure that car parking is appropriately located.

Controls

- Car parking spaces are to be provided at the rates specified in parking rates table below. For any use not specified, the car parking rates in The Hills Development Control Plan 2012 (Part C Section 1 - Parking) shall apply.

Table 16 Parking Rates

Land Use	Rate
Dwellings – detached, attached and semi-detached	To comply with the rates in Part C Section 1 – Parking.

- All terrace housing shall be accessed via a rear laneway, in accordance with the Street Network and hierarchy figure within this section of the DCP.
- Garages are to face the rear lane.

4. Where basement car parking is provided, the parking area is to be accessed by a single front driveway. The car park entry is to be integrated with the building design.
5. Basement car parking is to be consolidated under building footprints to maximise opportunities for deep-soil planting on the site.
6. Basement car parking must not protrude more than 0.5m above the natural ground level.
7. Where basement car parking is provided, waste collection shall occur within the basement car park.

8 Industrial and Business Development within the Castle Hill Industrial Area

This section applies to development on land within the Precinct zoned IN2 Light Industrial and B5 Business Development.

8.1 Setbacks, Building Layout and Design

Objectives

- a. To ensure development creates a positive streetscape and achieves a high quality architectural design that promotes light industrial activity.
- b. To provide an adequate buffer between industrial development and residential development.

Controls

1. Industrial development, and bulky goods premises, shall comply with the controls contained within Part B Section 7 – Industrial of this DCP.
2. Business development shall comply with the controls contained within Part B Section 7 – Industrial of DCP.
3. All buildings are to comply with the setbacks shown in Figure 71.

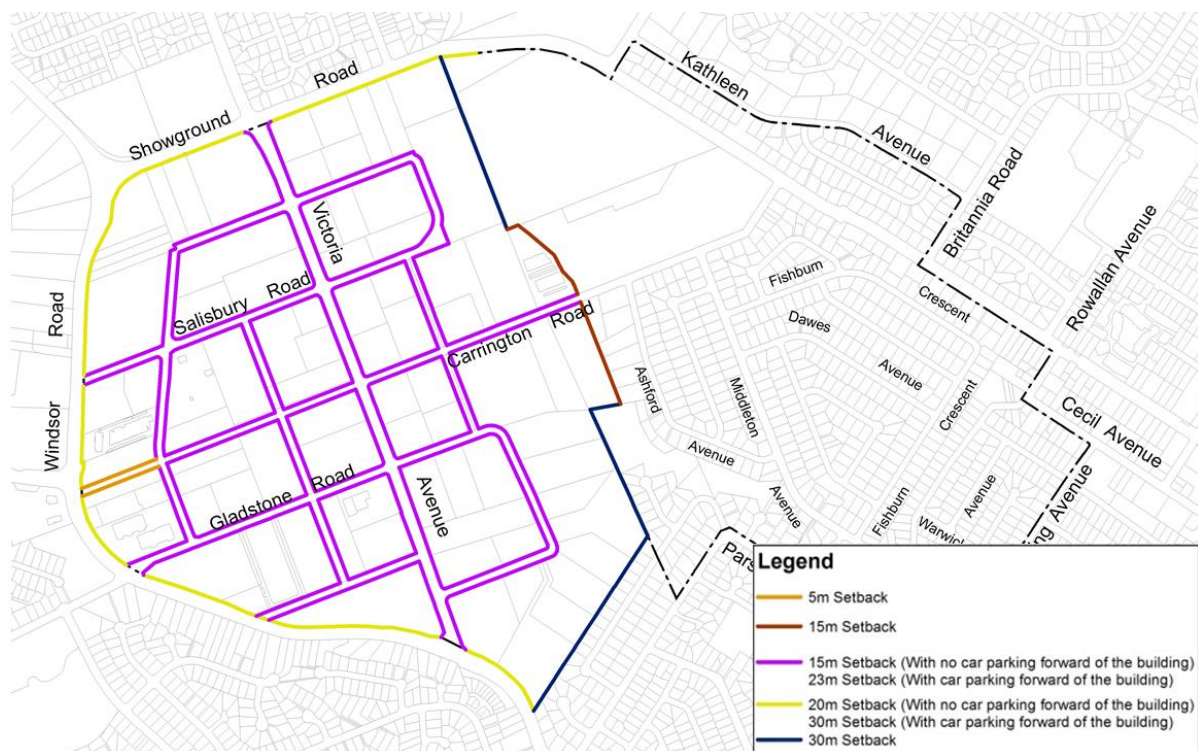


Figure 71 Setbacks – Industrial and Business Development

4. Where a proposed acquisition for road widening affects a development site, the minimum setback will be measured from the proposed new alignment of the road.
5. Where development is located within 30 metres of a residential property boundary, building heights shall be no more than 10 metres.

6. Where possible, existing trees are to be maintained and augmented as a visual green screen to development.
7. The location and means of access to customer car parking is to be clearly visible.
8. The façade design of a development is to utilise large expressed elements to relate to passing motorists and articulate the key components of the building such as entries, showrooms and the like. Finer detail to identify individual tenancies and building levels are to be used to add richness to the architectural design.
9. Buildings are to be designed with a strong relationship to the street through glazing. Extensive blank walls are to be avoided.
10. Signage is to be integrated into the overall façade design and be in accordance with Part C Section 2 of The Hills DCP 2012.
11. Sun shading is to be provided appropriate to orientation for glazed portions of façades.
12. Roof design is to be incorporated into the overall building design and built form modelling.
13. Roof space is not to be used for car parking or external retail space.

8.2 Car and Bicycle Parking

Objectives

- a. To provide sufficient parking spaces for development while encouraging public transport use.
- b. To ensure that car parking is appropriately located.
- c. To ensure that bicycle parking is considered and provided appropriately in all development.

Controls

1. Car parking spaces are to be provided at the rates specified within The Hills Development Control Plan 2012 (Part C Section 1 - Parking).
2. Bicycle spaces are to be provided at the rates specified within The Hills Development Control Plan 2012 (Part C Section 1 - Parking).
3. End of trip facilities such as change rooms, showers and secure areas for bicycle parking are to be provided within employment development.