Part D Section 19
Showground Station Precinct

DRAFT – September 2017
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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 following figure).

![Figure 1  Land to which this Section applies](image_url)

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.

1.3 Relationship to other Sections of the 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 10,500 additional dwellings and 2,300 additional jobs by 2036. 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.
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 Character and Structure Plan

3.1 Desired 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.
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 vision and development principles for the Precinct.

b. To provide a mix of housing, retail, employment and services within the Precinct.

c. To locate higher scale residential apartments and commercial uses close to station, the Castle Hill Showground and Cattai Creek corridor to optimise access to the station facilities as well as, outlook and amenity.

d. To develop a local centre in the area surrounding the station to provide local shopping, employment opportunities, and other services to support the incoming population.

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 at Figure 7. 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

<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
</table>
| Land Use                     | • A mixed use local centre immediately the station with shops, cafes, restaurants, plazas and 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.  
• Mixed use development west of Cattai Creek facilitating revitalisation of the creek corridor.  
• 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 to Dawes Avenue.  
• 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   | • 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 passive recreation and informal community gathering and interaction. |
<p>| Movement network             | • Precinct is generally bound by arterial roads including Windsor Road to the west and Showground Road to the north and east. |</p>
<table>
<thead>
<tr>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
</table>
| Overview | - Two sub-arterial roads traverse the precinct including Carrington Road (north-south) and Victoria Avenue (east-west).  
- Existing roads to be generally retained with new connections to enhance access and permeability including:  
  - 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 | - 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 six to 12 storeys.  
- New commercial buildings up to six storeys in height.  
- Parks and other key public domain areas protected from overshadowing. |
Figure 7  Showground Precinct Structure Plan
4 General Development Controls

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. 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. Streets profiles are to be consistent with the street profiles in Figures 11-19.

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 20).

6. Road infrastructure not funded through a Contributions Plans 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 or 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 indented 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.
Figure 8  Indicative Street Network and Hierarchy

Figure 9  Existing and Proposed Cycleway Network
Figure 10  Local Street – Land Dedication Plan
**Figure 11  Profile 1 – Local Street**

Note: Figure represents road profile after land dedication/ acquisition.
Figure 12  Profile 2 – Carrington Road (from Showground Road to Middleton Avenue)

Note: Figure represents road profile after land dedication/ acquisition.
Figure 13  Profile 3 – Carrington Road (from Doran Drive to Victoria Avenue)

Note: Figure represents road profile after land dedication/ acquisition.
Figure 14  Profile 4 – Carrington Road (from Middleton Avenue to Doran Drive)

Note: Figure represents road profile after land dedication/ acquisition.
Figure 15  Profile 5 – Middleton Avenue (from Carrington Road to Dawes Avenue)

Note: Figure represents road profile after land dedication/ acquisition.
Figure 16  Profile 6 – Middleton Avenue (from Carrington Road to Fishburn Crescent (north end))

Note: Figure represents road profile after land dedication/acquisition.
Figure 17  Profile 7 – Middleton Avenue (from Fishburn Crescent (south end) to Parsonage Road)

Note: Figure represents road profile after land dedication/acquisition.
Figure 18  Profile 8 – Victoria Avenue
Figure 19  Profile 9 – Future Employment Roads
Figure 20  Landscaping in Roundabout

Figure 21  Landscaped Median
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 management of stormwater and enhancement of ecological values.

f. To maximise public access along Cattai Creek and throughout the Castle Hill Showground.

g. To provide opportunities for collaboration between artists and designers in the development of creative, innovative, memorable, integrated and sustainable public art projects.

**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**

<table>
<thead>
<tr>
<th>Park/Plaza</th>
<th>Minimum Area</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapman Avenue Reserve Extension</td>
<td>4,000m²</td>
<td>• Park to be enlarged and embellished to create a central neighbourhood park.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• A range of new children’s play spaces, open lawn areas, seating and barbecue areas, shade structures and other facilities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Existing and new trees and vegetation.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• High quality, robust and low maintenance landscaping materials.</td>
</tr>
<tr>
<td>Riparian Corridor Park</td>
<td>7.9 hectares</td>
<td>• An open space corridor is to be provided along Cattai Creek which will enable restoration of the creek</td>
</tr>
<tr>
<td>Cockayne Reserve</td>
<td>4.3ha new open space</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3.6ha existing open space</td>
<td></td>
</tr>
</tbody>
</table>
corridor, while enhancing pedestrian and cyclist access throughout the Precinct, in particular linkages to existing open space and the Castle Hill Showground.

- Restoration of natural bushland/landscape along vitalisation of 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.

<table>
<thead>
<tr>
<th>Station Plazas</th>
<th>3,000m² approx.(total)</th>
<th>Subject to a Master Plan.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>- Village Plaza alongside Doran Drive) approx. 1,150m²</td>
<td>Open lawn for recreation (as appropriate).</td>
</tr>
<tr>
<td></td>
<td>- Station concourse plazas approx. 1,950m² (delivered through the Sydney Metro Northwest construction)</td>
<td>Open paved areas (as appropriate).</td>
</tr>
<tr>
<td>The Showground</td>
<td>Subject to a Master Plan.</td>
<td>High quality, durable paving and landscape finishes.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Feature planting bed.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sufficient shade tree planting to provide shade and greenery.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Seating and other street furniture to optimise use of the space</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Water features</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Public Art</td>
</tr>
</tbody>
</table>

The Showground Subject to a Master Plan.
Figure 22  Artist Impression of open space associated with 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

a. To establish a framework for the design of the public domain within the B2 Local Centre.

b. To provide a range of quality public spaces to support new residential and employment uses.

c. To improve the quality and aesthetic of the public domain to reflect the transitioning of the Showground Precinct into a Transit Orientated Community.

d. To provide an improved pedestrian experience.

e. To ensure the provision of high quality, functional and attractive informal spaces for community interaction and play are provided.

f. Undergrounding of power lines to improve the aesthetics and liveability of the centre and to facilitate increased space within road reserves to install public domain improvements.

Controls

1. A concept Public Domain Plan (PDP) is required to be provided with the first subdivision development application within the local centre (B2 Local Centre zone). The purpose of the PDP is to demonstrate at a high level how a high quality public domain will be developed as a result of future development on the proposed lots. The PDP should be a legible scale and show lot numbers, north point, scale, drawing title and site labels such as street names and include:
   - location of driveways and driveway crossovers;
   - verge design (footpath, landscape);
   - surrounding streets and lanes (kerb line, material surface where special treatments proposed);
   - street tree locations (sizes and species list can be provided on a separate plan);
   - demonstrated provision and arrangements for on-street car parking particularly in relation to street tree planting, driveways and intersections (in principle, not as public domain works);
   - extent of kerb line where parking is not permitted (in principle, not as public domain works);
   - location and type of any proposed street furniture;
   - location of retaining walls in the public domain; and
   - electricity substations, including screening elements.

2. 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.

3. Attractive, high quality outdoor spaces for children to play should be integrated into the public domain within centres where appropriate. Such spaces should allow for interactive play and include seating and shading.

4. 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.
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
4.4 Solar Access and Overshadowing

**Objectives**

a. To provide a comfortable and enjoyable public realm.
b. To ensure new buildings and works allow good sunlight access to public spaces.
c. To ensure that overshadowing from new buildings or works does not result in significant loss of sunlight and diminish the enjoyment of public spaces for pedestrians.
d. To protect, and where possible increase the level of sunlight to public spaces during the times of the year when the public space is most commonly used.

**Controls**

1. Development is to ensure that the private open space of adjoining properties including the common open spaces of private developments is to receive a minimum of 4 hours of sunlight between the hours of 9am to 3pm on June 21.
2. No additional overshadowing of public open spaces such as local parks and plazas, including public open spaces adjoining the precinct is to occur between the hours of 11am and 2pm between the dates of April 21 and August 21.

4.5 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 open spaces.
c. The built form does not adversely impact upon the amenity of residents in common 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 generally 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.
   e. The report is to be prepared by a suitably qualified engineer.
4.6 Public Art

Objectives

a. To ensure new development seeks opportunities for the provision of artwork to enrich the public domain and promote enjoyment by the community.

b. To provide for the integration of public art in the design of the public domain.

c. To locate and design public artwork to reinforce the desire character of each neighbourhood or location.

d. To ensure public art is:
   - High quality, durable and low maintenance,
   - Provides positively to the experience of place; and,
   - Is community endorsed

Controls

1. A public art strategy is required to form part of the public domain strategy required for the first subdivision development application within the local centre (the area zoned B2 Local Centre).

2. The public art strategy is to achieve the following principles:
   - provide public art at key focal points throughout the precinct in locations that maximise visibility;
   - enhance the precinct’s identity and sense of place; and
   - ensure public art is high quality, durable and low maintenance.

3. The public art strategy is to address:
   - context within the Showground Precinct;
   - community/public artist engagement;
   - location of installation/art work;
   - themes, narratives, including the history and heritage of the place;
   - procurement strategies;
   - maintenance strategies;
   - risk assessment and hazard control summary, and
   - decommissioning strategies.

4. Development Applications are to demonstrate consistency with the public art strategy.
4.7 Integrated Water Management

**Objectives**

a. The quality and integrity of urban waterways is maintained and enhanced through both the construction and occupation phases of development.

b. Urban form minimises risks to life and property as a result of either minor or major flooding.

c. Developments adopt a best practice Water Sensitive Urban Design approach at the individual lot, overall development and regional scales.

d. Developments meet the required water quality objectives prior to discharging to receiving waterways and minimise impacts such as streamflow erosion potential on receiving waterways.

e. Stormwater runoff is treated as a valuable resource and its use for non-potable purposes is maximised.

f. Nuisance flooding is minimised to a level acceptable.

**Controls**

**Flood Risk Management**

1. All owners of properties adjoining the Cattai Creek Corridor are required to confirm the 100 year ARI flood extent and associated flood levels from Cattai Creek prior to the lodgement of development and subdivision applications.

2. Development on land adjoining Cattai Creek is 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.

**Stormwater Management**

1. A Stormwater Management Plan is to be prepared for each development application for subdivision to include consideration of various sustainable practices including stormwater harvesting and re-use and water conservation.

2. All Stormwater drainage designs are to comply with the most up to date revision of Council’s Design Guidelines Subdivision/Developments (September 2011) and Contributions Plan No.19 – Showground Station Precincts.
3. Any discharge to, or construction within the Cattai Creek Corridor zoned RE1 Public Recreation will require the approval of NSW Office of Water.

4. Individual connections into Cattai Creek are not permitted. Subdivision plans are to minimise the number of connections.

5. During the construction phase of development, the relevant Stormwater Management Objectives for new development as set out in the most up to date revision of "Managing Urban Stormwater: Soils and Construction" (NSW Department of Housing) must be complied with in full.

6. Erosion and sediment control measures are to be implemented and regularly maintained on site, while sediment trapping measures are to be located at all points where stormwater runoff can enter inlets to stormwater systems, or where runoff may leave the construction site.

**Water Sensitive Urban Design**

1. Water Sensitive Urban Design (WSUD) principles and techniques are to be adopted for all development to provide sustainable and integrated management of land and water resources, incorporating best practice stormwater management, water conservation and environmental protection measures.

2. Stormwater runoff must be treated on the development site before it discharges to a public drainage system.

3. A WSUD management plan is to be prepared for all development. This plan can be incorporated into a Stormwater Management Plan.

4. The WSUD Management Plan is to take 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**

**Table 3 Water Quality and Stream Erosivity Performance Objectives**

<table>
<thead>
<tr>
<th>Water Quality</th>
<th>Environmental Flows</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Reduction in Pollution Loads</td>
<td>Stream Erosion Control Ratio</td>
</tr>
<tr>
<td>Gross Pollutants (&gt;5mm)</td>
<td>Total Suspended Solids</td>
</tr>
<tr>
<td>Stormwater Management Objective</td>
<td>90</td>
</tr>
<tr>
<td>Ideal Stormwater Outcome</td>
<td>100</td>
</tr>
</tbody>
</table>

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.


5. Industrial/commercial developments within the Precincts 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.

6. Water quality modelling undertaken to support development proposals within the Precincts shall utilise MUSIC Version 5 (or later) 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.

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

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

Table 5  Recommended Stormwater Quality Parameters for MUSIC modelling

<table>
<thead>
<tr>
<th>Land use</th>
<th>TSS Mean</th>
<th>TSS SD</th>
<th>TP Mean</th>
<th>TP SD</th>
<th>TN Mean</th>
<th>TN SD</th>
<th>Base Flow TSS Mean</th>
<th>Base Flow TSS SD</th>
<th>Base Flow TP Mean</th>
<th>Base Flow TP SD</th>
<th>Base Flow TN Mean</th>
<th>Base Flow TN SD</th>
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<tr>
<td>General urban</td>
<td>2.15</td>
<td>0.32</td>
<td>-0.60</td>
<td>0.25</td>
<td>0.30</td>
<td>0.19</td>
<td>1.20</td>
<td>0.17</td>
<td>-0.85</td>
<td>0.19</td>
<td>0.05</td>
<td>0.11</td>
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<tr>
<td>Residential</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Industrial</td>
<td>2.43</td>
<td>0.32</td>
<td>-0.30</td>
<td>0.25</td>
<td>0.34</td>
<td>0.19</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Commercial</td>
<td>1.30</td>
<td>0.32</td>
<td>-0.89</td>
<td>0.25</td>
<td>0.30</td>
<td>0.19</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Roads</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Roofs</td>
<td>1.60</td>
<td>0.32</td>
<td>-1.10</td>
<td>0.25</td>
<td>-0.05</td>
<td>0.19</td>
<td>0.78</td>
<td>0.17</td>
<td>-1.52</td>
<td>0.19</td>
<td>-0.52</td>
<td>0.12</td>
</tr>
<tr>
<td>Forest/Natural</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Note: SD = standard deviation, TSS = total suspended solids, TP = total phosphorus and TN = total nitrogen

7. For developments generating oils and grease, the additional objective of no visible oils for flows up to 50% of the one-year ARI peak flow shall be achieved.

8. WSUD infrastructure elements are to be designed and constructed in accordance following publications:
   - Australian Runoff Quality (Engineers Australia 2005); and

9. As part of a WSUD management plan, residential, employment and commercial developments are to install rainwater tanks to meet a portion of 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 follow provisions apply for each development type:

   **Detached residential dwellings**
   a) All residential dwellings are required to provide a (minimum) 3,000 litre rainwater tank and such tank is to be connected for use in toilet flushing and external uses. Larger tanks than the minimum requirement are permitted.
   b) The rainwater tank may be connected to laundries as well as being available for outdoor use including filling of swimming pools.

   **Multi Dwelling Housing**
   c) The minimum storage capacity of this system must be 3,000 litres per proposed dwelling or as defined by a detailed water balance assessment of the development.
   d) Rainwater tanks may be connected to laundries as well as being available for outdoor use including filling of swimming pools.

   **Residential Flat, Mixed Use and Commercial Buildings**
   a) The capacity of rainwater tanks to be provided on the development is to be determined through a detailed water balance assessment.
   b) The tanks are to be used for external uses and may only be used for other purposes such as any wash down bays and laundry facilities.

10. Each rainwater tank is to be provided with potable water trickle top-up with a back flow prevention device, complying with Sydney Water requirements.

11. 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.
4.8 Subdivision and Earthworks

Objectives

a. Topsoil and vegetation removal and “land-shaping” on land where residential subdivisions are being constructed is minimised.

b. Subdivisions provide a landform that is capable of supporting a range of residential, business and industrial uses.

c. Development visually integrates with the surrounding environment.

Controls

1. Earthworks shall be minimised to locations where the construction of roads require earthworks to be undertaken or filling adjacent to Cattai Creek (refer to the Integrated Water Management and Cut and Fill Sections of this DCP).

2. Such earthworks may extend into the proposed allotments for the purpose of providing suitable vehicle access to identified building platforms.

3. Vegetation and topsoil are not to be removed or disturbed in areas outside of the above areas of proposed construction.

4. 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.

5. 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.

6. The Cattai Creek corridor is to remain, or become vegetated, with native vegetation (trees, shrubs and groundcover species) according to the appropriate local provenance vegetation community.

7. Perimeter roads along the edge of the Cattai Creek corridor shall be in accordance with Precincts Structure Plan Maps and relevant road profile.

4.9 Cut and Fill

Objectives

a. Developments minimise the impact of earthworks on the stormwater regime, salinity and groundwater.

b. The extent of cut and fill required for large scale development does not detract from the appearance and design.

c. Development visually integrates with the surrounding environment.

d. Fill material imported to a site is to be clean and comply with the contamination and salinity provisions of this section.

e. Land is appropriately stabilised and retained.

f. 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 Cattai Creek may be required to facilitate the urban development of the Precincts 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. Land filled areas must be revegetated where appropriate.

8. Embankment batters shall have a maximum slope of 1:6.

9. 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 10 m.

10. Development shall comply with the provisions of State Environmental Planning Policy No. 55 – Remediation of Land.


### 4.10 Ecologically Sustainable Development

**Objectives**

a. Building designs are innovative and sustainable to reduce the reliance on, and consumption of, fossil fuels and potable water supplies.

b. Development adapts to climate change.

c. Developments contribute 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 area and to enhance the amenity of the streetscape environment.

6. Buildings are encouraged to incorporate a tri-generation energy 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
   - 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.

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**Figure 31  Green roofs to individual flats**
Source: Bill Dunster
4.11 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 riparian corridors

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 34  Land requiring preparation of Vegetation Management Plan
Figure 35  Greened residential flat building
Bosco Verticale, source: Stefano Boeri Architects

Figure 36  Green roof in the city
Source: Susanne Jespersen

Figure 37  Green roof to residential flat building
Source: THSC

Figure 38  Green roof to library
Source: THSC
4.12 Development adjoining the Cattai Creek Riparian Corridor

The Riparian Corridor will provide a focus for passive and active recreation along the creek corridor. A unique and in places pristine environmental setting, the corridor is a unique parkland setting within a transitional urban environment. 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. A range of events such as contemporary art fixtures, exercise stations, seating structures and public pocket parks occur along the course of the corridor and will cater for diverse user groups. The public address and built form massing to the riparian corridor frontage will enable a pleasant and attractive environment which encourages social activity and gathering. The reinstatement of the riparian corridor as public open space will increase the pedestrian permeability of the Showground Precinct improving connectivity and access to Showground Station and community facilities.

For certain land zoned B6 Enterprise Corridor on the western side of the Cattai Creek residential floor space is permitted through an ‘Additional Permitted Use’ provision of the LEP. Where this Additional Permitted Use applies, a minimum of 35% of the Gross Floor Area of the development shall be employment floor space. The additional use will be contingent on the delivery of housing diversity, and where relevant, the revitalisation and embellishment of the Cattai Creek Riparian Corridor and the provision of a public rights of access to the portion of the creek corridor on the development site.

Figure 39 Riparian Corridor Interface Area Map
**Objectives**

a. To enhance, reinstate and manage a unique environmental setting which can enable continuous pedestrian link across the Showground Precinct.

b. To encourage built form elements and uses, to enable a vibrant interface with the riparian corridor and shared pedestrian cycleway.

c. Future development uses and built form will provide an appropriately scaled and attractive interface with the riparian corridor.

d. The Public Domain shall provide an attractive setting and desirable location for new development.

**Controls – Urban edge – Interface Area (a) (refer to Figure 39 - Riparian Corridor Interface Area Map)**

1. All development shall address the riparian corridor. Retail and commercial uses must have an address to, and be accessible directly from the riparian corridor.

2. Entry ways to and from retail, commercial and residential land uses must be clearly visible and provide direct sight lines to the riparian corridor.

3. 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.

4. 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.

5. A minimum 5m built form setback shall be provided to the riparian corridor. Note: the riparian corridor is 30m from the ‘top of bank’ on each side of the creek.

6. Maximum height of six storeys, with the first two storeys, clearly articulated to be the main feature in the façade.

7. A primary frontage setback of 3m shall be provided above the fourth storey addressing the riparian corridor.

8. All development is to comply with part 6.1.2 Built Form Controls
9. All development shall address the riparian corridor. All ground floor apartments must have an address to, and be accessible directly from the riparian corridor.

10. Entry ways to and from residential land uses must be clearly visible and provide direct sight lines to the riparian corridor.

11. 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.

12. 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.

13. A minimum 7.5m built form setback shall be provided to the riparian corridor. Note: the riparian corridor is 30m from the ‘top of bank’ on each side of the creek.

14. Underground car parking is not permitted within 5m of the riparian corridor boundary.

15. A podium height of four storeys shall be provided.

16. A primary frontage setback of 6m above the fourth storey addressing the riparian corridor.

17. Development with residential ground floor uses is to adopt a two storey terrace house appearance to present a fine grain articulation to the riparian corridor frontage.

18. Blank retaining walls or landscape treatments greater than 600m in height addressing the riparian corridor are not permissible.

Draft September 2017
19. 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 41](image)

**Figure 41** Profile – Riparian Corridor Interface (b)

**Controls – Landscaped urban edge – Interface Area (c) (refer to Figure 39 - Riparian Corridor Interface Area Map)**

20. All development shall address the riparian corridor. Retail, commercial and residential uses must have an address to, and be accessible directly from the riparian corridor.

21. 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.

22. 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.

23. 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.

24. A minimum 7.5 m built form setback to the riparian corridor for residential apartments. Note: the riparian corridor is 30m from the ‘top of bank’ on each side of the creek.

25. A minimum 4.5m setback shall be provided to a public open space such as a pocket park for residential apartments.
26. Maximum height of six storeys with the first two storeys clearly articulated to be the main feature in the façade.

27. A primary frontage setback of 3m shall be provided above the fourth storey addressing the riparian corridor and any public open space such as a pocket park.

28. All development is to comply with part 6.1.2 Built Form Controls.

29. A minimum 3m setback shall be provided to all public open space interfaces for designated terrace type dwellings as per the structure plan.

![Profile – Riparian Corridor Interface (c)](image_url)

### 4.13 Safety & Security

**Objectives**

a. To provide high levels of property safety and personal comfort and safety.

b. To minimise opportunities for criminal and anti-social behaviour.

**Controls**

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

**Note:** Consideration shall also be given to The Hills Council’s Policy Designing Safer Communities, Safer by Design Guidelines (June 2002).
4.14 Heritage (Aboriginal and European)

Objectives

e. Development is designed and located to protect Aboriginal sites and archaeological relics by minimising the likelihood of disturbance.

f. Development is appropriately designed with regard to sensitive and direct interfaces with heritage sites.

g. Development is sited to minimise adverse impacts on the significance of the heritage items.

Controls – Aboriginal Heritage

30. 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*.

31. 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.

32. 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, object and/or places within the boundaries of the Showground Precinct.’

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

33. 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 this DCP.

34. The curtilage of the heritage item, being the existing allotment boundary of 128-132 Showground Road, Lot 406 DP 860609 shall be maintained and protected.

35. Development on sites which interface the eastern and western boundaries of the heritage item shall be designed to have a maximum height of three (3) storeys or no more than 10m in height, whichever is the lesser.

36. Development to the south of the heritage item shall incorporate a transition of height and density, with the lower scale elements located closest to the heritage site.

37. 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.

38. Development within the vicinity of the heritage item shall ensure that significant view lines to and from the heritage item are appropriately maintained.

39. Development on sites adjoining the eastern and western boundaries of the heritage item should
40. 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

41. 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.

42. The curtilage of the heritage item, being the existing allotment boundary of 107 Showground Road, Lot 1 DP 578072 shall be maintained and protected.

43. Development on sites which interface the eastern, western and southern boundaries of the heritage item shall be designed to have a maximum height of three (3) storeys or no more than 10m in height, whichever is the lesser.

44. Development to the north of the heritage item shall incorporate a transition of height and density, with the lower scale elements located closest to the heritage site.

45. 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.

46. Development within the vicinity of the heritage item shall ensure that significant view lines to and from the heritage item are appropriately maintained.

47. 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.
5 Local Centre & Business Development

5.1 Desired Layout and Character

Objectives

a. A range of employment and services are located close to transport connections and high quality open space.

b. Centres located around the stations are attractive, pedestrian focussed, convenient and walkable, providing shops, cafes, restaurants, community facilities and jobs.

Controls

1. Development within centres and business zones shall be generally consistent with the following indicative layout plans.

![Indicative Layout Plan - Showground Precinct](image)
5.2 Setbacks, building layout and 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.

Controls

1. Buildings are to comply with the podium/street frontage heights and upper level setbacks identified Figures 59-60 and if not identified, Table 6.

2. Buildings on street corners are to address both street frontages.

3. 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.

4. The location and means of access to customer car parking within a building is to be clearly visible.

5. 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.

6. 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.

7. Development provides awnings which are a minimum width of 1.5m over the pedestrian access/footpath.

8. Footpath awnings are designed to complement and integrate with the façade and the streetscape.

9. Signage is to be integrated into the overall façade design and be in accordance with the relevant signage strategy.

10. Sun shading is to be provided appropriate to orientation for glazed portions of façades.

11. Roof design is to be incorporated into the overall building design and built form modelling.

12. Car parking or external retail space shall not be located on the roof of buildings.

13. Loading areas and vehicular access points for development are to be screened from public roads and public access points.

14. 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.
Figure 45  Podium addresses public domain, Jackson’s landing
Source: e-architect.co.uk

Figure 46  Indicative Podium Setback
Source: unknown

Figure 47  Podium integrated with public domain
New Acton, Source: THSC

Figure 48  Podium addresses public domain
Jackson’s landing, Source: e-architect.co.uk
Figure 49  Artist impression of quality building design
Source: www.collinsandturner.com/architecture/barangaroo-r7

Figure 50  Iconic Building Design, Macquarie Bank Building, Sydney
Source: Forlrite
5.3 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 for a diverse range of activities.

c. Active street frontages provide energetic, safe and vibrant pedestrian environments.

d. Public domain spaces encourage activity outside commercial business hours.

Controls

1. Active frontages are to be provided in accordance with the active street frontages identified on the Indicative Layout Plan for each Precinct in Section 5.1 of this DCP.

2. In addition to any active street frontages identified in the Indicative Layout Plans in Section 5.1 of this DCP, any portion of the ground floor of a building adjoining or directly opposite an urban plaza/town square (or similar) for use by the public that has an area of 500m² or greater, is to include an active street frontage on that portion of the ground floor.

3. 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;
   - Recreation facilities with a street entrance.

4. 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.

5. Ground floor uses are to be at the same level as the footpath and be directly accessible from the street.

6. 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.

7. For larger developments, building entrances should be provided on each street frontage.

8. Loading docks are not permitted on active frontages.

9. Security grilles may only be fitted internally behind the shopfront. They are to be transparent and fully retractable.
Figure 51  Active street frontage, cafe
Source: THSC

Figure 52  Active street frontage, retail uses
Source: THSC
6 Residential

6.1 Residential flat buildings and shop top housing

This section applies to residential flat buildings and shop top housing developments within the areas of the Precinct zoned R1 General Residential, R4 High Density Residential and B2 Local Centre.

State Environmental Planning Policy No 65 – Design Quality of Residential Apartment Development (SEPP 65) applies to residential flat buildings and the residential component of a 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.

6.1.1 Site requirements

The Hills LEP 2012, clause 4.1A (Minimum lot sizes for dual occupancy, multi dwelling housing and residential flat buildings) specifies the minimum lot size for residential flat buildings in the R1 General Residential, R3 Medium Density Residential, R4 High Density Residential and B2 Local Centre zones.

Objectives

a. To encourage the amalgamation of sites and discourage the creation of isolated development sites.
b. To provide flexible site requirements for the Showground Station Precinct.
c. Sites have sufficient space for landscaping that will complement the building form and enhance the landscape character of the street.
d. Developments provide space for recreation and for use by residents of developments.
e. 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 a right of access arrangements for access to a public road.

6.1.2 Built form controls

Objectives

a. To ensure the street frontage heights and setbacks reinforce the future precinct character and residential identity.
b. To ensure building heights and articulation provide a sensitive transition to the surrounding areas and that high density residential development provides a slender built form.
c. To ensure the bulk, massing and articulation of buildings provides a high quality pedestrian street experience, reduces the appearance of building bulk and scale and provides for visual interest and innovative design.

Draft September 2017
d. To create an active interface between ground floor uses and the street.

e. To ensure buildings are able to adapt to differing uses.

f. To reinforce key landmark sites and defining entries / gateways through the location of taller buildings.

g. To ensure buildings allow reasonable daylight access and privacy to all developments and the public domain, including streets.

**Controls**

1. The proposed development must not exceed the maximum height in storeys shown on the Structure Plan (refer to Figure 7). The maximum height in storeys may only be achieved when it is demonstrated that:

   a. The built form achieves the desired character;

   b. The development is sympathetic to the heritage context, contributes positively to the precinct setting; and

   c. The development does not provide additional overshadowing to public open space between the hours of 11am-2pm between the dates of 21 April to 21 August. This includes public open spaces outside and adjacent to the precinct.

   d. 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 53.

2. On streets with a road reserve of less than 20m the width of the façade shall not exceed 40m. On streets with a road reservation of 20m or greater the street frontage shall not exceed 65m.

3. 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. 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.
4. Buildings are to have a maximum depth of 18m measured from glass line to glass line.
5. Adjacent buildings are to comply with the provisions of SEPP65 ADG building separation. For developments of 3 storeys or less, the minimum building separation is 4m.
6. Pedestrian links should be connected to the existing and proposed pedestrian network.

7. 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.
8. All ground floor lobbies are to have a direct visual connection to the street.
9. Balconies to upper levels are to provide a minimum 50% opaque / solid balustrading to provide for residential amenity.
10. 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.
11. Each street façade is to be articulated into smaller elements at a scale or grain that reflects the use of the building and its various components, the location of the building relative to pedestrian or outdoor recreation activity, and elements such as building entries.
12. The floor plate of each individual level of a building shall not exceed a cumulative total of:
   - 50% of the site area (excluding land to be dedicated or acquired for a public purpose) for each level of the building up to, and including, the 8th storey;
   - 40% of the site area (excluding land to be dedicated or acquired for a public purpose) for each level of the building between 9 to 12 storeys; and
   - 30% of the site area (excluding land to be dedicated or acquired for a public purpose) or 750m$^2$ per building (whichever is the lesser), for each level of the building above 12 storeys.
13. 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.

14. Car parking areas at lower levels must be sleeved by other uses with a minimum depth of 10m to activate the street. Car parking at the ground floor level is not encouraged in a mixed use building.

15. Underground car parking is not to intrude into the setback zone of 5m from the street boundary or be aligned with the building line.
6.1.3 Building setbacks

The Hills LEP 2012 specifies locations for specific building setbacks.

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 create a landscaped streetscape that can accommodate large trees.

Controls

1. Setbacks shall be provided in accordance with the setbacks included within Figures 59 and 60. If not identified on these figures, setbacks shall be provided in accordance with the following table.
2. Dwellings on the ground floor facing the street are to have individual entries from the street wherever possible.
3. Buildings on street corners are to address both street frontages, with corners emphasised by appropriate architectural treatment.
### Table 6  Setbacks

#### Setbacks – Shop Top Housing

<table>
<thead>
<tr>
<th>Setback to classified roads</th>
<th>• 10m (note: noise attenuation requirements may require a greater setback distance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setbacks to Waterways</td>
<td>• Refer to setback controls contained within 4.12 ‘Development adjoining the Cattai Creek Riparian Corridor’.</td>
</tr>
</tbody>
</table>
| Front setbacks              | • Ground level and podium setbacks – Commercial and retail uses: Nil  
                                • Levels above 4 storeys: 6m behind the front building line. |
| Side and rear setbacks      | • Where adjoining or adjacent to commercial development: Nil  
                                • Where adjoining or adjacent to residential development: 6m or to comply with SEPP 65 whichever is the greater (to be used exclusively for landscaping). |

#### Setbacks – Residential Flat Buildings

<table>
<thead>
<tr>
<th>Setback to classified roads</th>
<th>• 10m (note: noise attenuation requirements may require a greater setback distance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Setbacks to Waterways</td>
<td>• Refer to setback controls contained within 4.12 ‘Development adjoining the Cattai Creek Riparian Corridor’.</td>
</tr>
<tr>
<td>Front Setback</td>
<td>• 7.5m</td>
</tr>
</tbody>
</table>

**Primary Frontage Setback**

- For all buildings, on a street reservation greater than 20m in width (Carrington, Middleton from Carrington to Dawes Cres.), all storeys above the 6th storey shall be setback 3m behind the front building line.
- For all buildings on a street reservation less than 20m in width, all storeys above the 4th storey shall be setback 6m behind the front building line.
- Underground car parking is not to intrude into the primary frontage setback.

**Secondary Frontage Setback**

- For all buildings on a street reservation greater than 20m in width, all storeys above the 8th storey shall be setback 9m behind the front building line.

**Rear Setback**

- 8m or to comply with SEPP 65 whichever is the greater.

**Side Setback**

- 6m or to comply with SEPP 65 whichever is the greater.

**Balconies**

- Balconies shall not protrude into the setback area.
6.1.4 Streetscape and the 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 walls 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.
6.1.5 Residential Uses on Ground and First Floors

Objectives

a. To activate the street.

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.

---

**6.1.6 Podium Design**

**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. Where podiums are envisaged by the zone, tower base form respects the framework of established built form, adjacent streets, parks and public or private open spaces.
d. Podium facades reinforce the intended neighbourhood character and enhance the pedestrian experience.
e. Podium form animates the street level by engaging primary and secondary street frontages appropriately.

Controls
1. Podium heights shall frame adjacent park land and on-site open space.
2. Tower base facades avoid blank, featureless walls by patterning high quality architectural elements, like window bays, canopies and fenestration.
3. Where entirely residential development is proposed:
   - Along primary street frontages ground floor units are grade separated (up to 600mm high) with soft screening landscaping and direct individual entrances.

![Figure 71 Podium addressing public open space](Source: THSC)
![Figure 72 Podium interface with street, Rhodes](Source: THSC)

6.1.7 Tower Form and Design

Objectives
a. Towers minimise the bulk and scale of the proposed development and reflect a slender built form.
b. Slender tower built forms are to be provided which promote:
   - open, attractive and distinct skyline;
   - small, fast moving shadows;
   - view corridors between nearby towers;
   - efficient interior climate control; and
   - balconies as an extension of indoor living space.
c. Tower form mitigates negative visual and physical impacts, including impacts on privacy, by setting back from streets, parks, open space and adjacent properties and tower forms.
Controls

1. Tower floor plate is limited to 750m$^2$ per tower (includes all services, lift and stairwell annex, etc.).
   Note: Balconies are excluded from calculations to encourage larger private outdoor space areas.

2. Tower form provides a unique profile when compared to nearby existing and proposed towers of similar height.

3. New towers are separated a minimum distance of 25m from any adjacent tower(s) where existing or approved.

4. Tower form is coordinated to off-set 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.

5. Tower form is orientated to:
   - reduce the perceived mass of the building; and
   - provide privacy for both communal and private open space areas.

6. Tower façades are:
   - 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.

Figure 73 Podium enlivens public domain
Source: THSC

Figure 74 Podium addresses public domain
Source: e-architect.co.uk
6.1.8 Roof design and roof features (tower caps)

Objectives
a. Roof design and roof features attractively integrate telecommunications, service structures, lift motor rooms and mechanical plants.
b. Tower caps assist in creating an attractive and interesting skyline of the precinct.

Controls
1. Where building height creates an identifiable protrusion in the skyline the following are provided:
   - a signature cap strengthening the identity as a landmark; and
   - decorative lighting that highlights key architectural features.
2. Tower cap design attractively integrates all signage, telecommunications, service structures, lift motor rooms and mechanical plants.
3. Roof features shall be designed to generate an interesting skyline and enhance views from adjoining developments and surrounding areas.
4. Lift over-runs and all other service equipment shall be incorporated into the roof design and be obscured from general view.

6.1.9 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 5 Residential Flat Buildings of The Hills DCP 2012.

2. All types of residential accommodation are to consider flexibility in the design to allow adaptation to meet the changing needs of residents due to ageing or disability.

6.1.10 Open space and landscaping

Objectives

a. To provide communal open space for the enjoyment by residents.

b. To maximise opportunities for landscaping, including the retention and/or planting of trees within deep soil areas to ensure a high level of amenity.

c. To assist with the management of water quality.

d. Communal space areas:
   - are accessible, useable and safe;
   - enhance the attractiveness of the development;
   - provide opportunities for social interaction; and
   - create pleasantly shaded outdoor areas.

e. Sites have sufficient space for landscaping that will complement the building form and enhance the landscape character of the street.

f. Developments provide space for recreation and for use by residents of developments.

Controls

Landscaping

1. 50% of site area - exclusive of building footprint/s, access driveways and parking. 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).

Roof Gardens and Planting on Structures

1. Green walls are encouraged on podium walls along active frontages to soften the interface between future development and the public realm.

2. Rooftop gardens must be adequately enclosed and accessible to occupants of the development.

3. The design of exterior private open spaces such as roof top gardens is to address visual and acoustic privacy, safety, security, and wind effects.

4. 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.

5. For planting guidance refer to:
   http://www.growinggreenguide.org/technical-guide/design-and-planning/plant-selection/green-roofs/
Communal Open Space

1. A minimum of 10m² per dwelling shall be provided as communal open space.
2. A minimum of 25% of the required communal open space must be located at ground level in a singular large parcel.

3. 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).

4. 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.
   - be in addition to any public thoroughfares.

5. 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).

6. 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.

7. Drought tolerant plant species, and species that enhance habitat and ecology, are to be prioritised.

8. Landscape design is to be integrated with water and stormwater management.

6.1.11 Safety and security

Objectives
a. Building design enhances safety and security for intended users.
Controls
1. Above ground floor windows and balconies overlook all on-site pedestrian paths and communal open spaces.
2. Lighting at 4m intervals is provided along all on-site pedestrian paths and communal open spaces.
3. Entrances and exits to the street are directly accessible, illuminated and highly visible.
4. Dead-end corridors, alleyways, pathways and refuse areas are signed and secured to prevent unauthorised access.

6.1.12 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 is 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

<table>
<thead>
<tr>
<th>Internal Space</th>
<th>Recommended Noise Criteria</th>
<th>Maximum noise criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Living areas</td>
<td>40 dBA</td>
<td>45 dBA</td>
</tr>
<tr>
<td>Working areas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sleeping areas</td>
<td>35 dBA</td>
<td>40 dBA</td>
</tr>
</tbody>
</table>

6.1.13 Vehicular and pedestrian access

Objectives
a. Vehicles enter and exit developments in a safe and efficient manner.
b. Visual impacts of access and parking facilities on the public realm are minimised.
c. Pedestrian and cycle access to, from and through development is simple, safe and direct.

**Controls**

**Vehicular Access**

1. Car parking shall be provided at the rates identified within Part 8 of this section of the DCP.

2. Adequate vehicular entry and exit and circulation areas are to be provided. The design must:
   - Provide a 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.

3. The driveway shall be centrally located within the development and be a minimum of 10 metres from any side boundary or street.

4. Driveways are to have a minimum width of 6 metres at the property boundary for a distance of 6 metres within the development to ensure easy entry/exit of vehicles.

5. Parking shall be provided underground or at the rear of buildings.

**Pedestrian Access**

6. Developments in excess of 10 units are to provide pedestrian access from the street separate from the vehicular access.

7. Where identified in Figure 8, a pedestrian link through the site must be provided as part of the development to increase the connectivity of the area for local pedestrians. The following factors shall be considered:
   - The link must be no less than 3m wide;
   - It should be a straight-line link through the site linking streets or other public spaces; and
   - The link shall not include stairs.

8. 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 the pathway as they will restrict passive surveillance over the pathway.

9. Pedestrian link must be subject to a legal right of public access.

**Garages**

10. Where possible, any ground level car parking, garages and/or basement garage doorways should be screened from public areas by planting.
6.2 Terrace housing (attached housing)

6.2.1 Site requirements and layout

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.
e. Subject to council discretion all terraces are to be rear loading.

Controls
1. Sites 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. Rear laneways are to be a minimum of 6m in width (AS 2890.1: 2004). Allow for 1.5m planting zones at end of sightlines in entry ways.
4. All dwellings with a frontage to the street (including a secondary street) must address the street.
5. Avoid north - south block arrangements. North facing terraces on north south block arrangements to be a minimum of 8m in width.

6.2.2 Building height

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

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

6.2.3 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. Setbacks shall be provided in accordance with the following table.

<table>
<thead>
<tr>
<th>Setbacks – Shop Top Housing and Mixed Use Development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front setbacks</td>
</tr>
<tr>
<td>• 3m to front building line for the first and second storey</td>
</tr>
<tr>
<td>• 4m to front building line for the third storey</td>
</tr>
<tr>
<td>Front articulation zone</td>
</tr>
<tr>
<td>• 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.</td>
</tr>
<tr>
<td>Side and rear setbacks</td>
</tr>
<tr>
<td>• 0m between terraces</td>
</tr>
<tr>
<td>• 5m from side property boundary (end terrace)</td>
</tr>
<tr>
<td>Rear Setback</td>
</tr>
<tr>
<td>• 1-2 storey element</td>
</tr>
<tr>
<td>• 3 storey element</td>
</tr>
<tr>
<td>• Garages of rear lanes</td>
</tr>
<tr>
<td>• 8m</td>
</tr>
<tr>
<td>• 10m</td>
</tr>
<tr>
<td>• 0.5m</td>
</tr>
</tbody>
</table>

6.2.4 Building design and streetscape

Objectives

a. To incorporate high quality façade design and finishes.

b. Designs reduce the visual bulk of buildings from the street to reinforce the desired future neighbourhood character.

c. Developments provide usable private open space areas to improve the amenity for future residents.

Controls

1. Each dwelling is to include individual access from the main street frontage.

2. 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>
<thead>
<tr>
<th>Dwelling Type</th>
<th>Minimum Floor Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 bedroom dwelling</td>
<td>75m²</td>
</tr>
<tr>
<td>2 bedroom dwelling</td>
<td>110m²</td>
</tr>
<tr>
<td>3 bedroom dwelling</td>
<td>135m²</td>
</tr>
</tbody>
</table>
4. For strata developments, a minimum of $10m^3$ 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). Provide a 4m gap between frontages greater than 32m. Provide a 2m gap between changes in continuous terrace frontage and single lot housing, duplexes or townhouses.

7. Waste collection is to be undertaken from the rear laneway.

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:
   - 0.9m for solid masonry fences; and
   - 1.2m for open or transparent style fences with 50% min. permeability / and or hedges.
   - Chain link, sheet metal or timber paling fencing is not permitted to front or secondary frontages.

10. Side and rear fences are to be a maximum of 1.8m in height.

11. Front fencing and courtyard walls are permitted on the boundary line. Courtyard walls are only permitted on secondary frontage to corner lots.

12. 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.

13. Rear laneways to provide for low maintenance soft landscaping treatments to reduce impact of hardscaped surfaces and wall treatments.
Figure 80  Terrace style housing, Kingston
Source: THSC

Figure 81  Terrace Style Townhouse
Source: Google Streetview

Figure 82  Modern Terrace Design
Source: www.realestate.com

Figure 83  Terraces, Pyrmont
Source: THSC
6.2.5 Open space and landscaping

Objectives

a. 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 $16m^2$ 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 within front setback.

5. Roof terraces and roof gardens are encouraged where the privacy of adjoining properties can be maintained.

Figure 84 Terrace with Green roof
Source: Bere Architects
6. The siting of dwellings is to provide good solar access to private open space and is not to adversely impact upon the solar access of adjacent dwellings private open space.

7. 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.

8. 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.

6.2.6 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 85.

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 85).

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.
Rear Laneway Principles

**Figure 85** Rear Laneway Principles
Source: North Kellyville DCP

```
RESIDENTIAL STREET
      
      
      
      
      
LANEWAY
      
      
      
      
      
RESIDENTIAL STREET

Block Length Laneway
```

```
LANEWAY

“C” shaped laneway

LANEWAY

“T” shaped laneway
```

**Figure 86** Sample Lane Sections
Source: North Kellyville DCP

Draft September 2017
Figure 87 Rear lane outcome to be avoided

Source THSC
7 Industrial and business development within the Castle Hill Industrial Area

This section applies to development on land within the Precinct zoned IN2 Light Industrial, B5 Business Development and, B6 Enterprise Corridor.

7.1 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 55.
4. The following building setbacks shall be applied within the Castle Hill Industrial Area (zoned IN2 Light Industrial, B5 Business Development and B6 Enterprise Corridor:

   Internal Roads
   - 15 metres with no car parking forward of the building.
   - 23 metres where car parking is situated forward of the building.

   Arterial Roads
   - 20 metres with no car parking forward of the building.
   - 30 metres where car parking is situated forward of the building.

   Carrington Road
   - 5 metres with no car parking forward of the building.

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 Car and bicycle parking

8.1 Car parking

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

Controls - General
1. 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 8 Car parking rates – all land uses

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dwellings – detached, attached and semi-detached</td>
<td>To comply with the rates in Part C Section 1 – Parking.</td>
</tr>
<tr>
<td>Multi dwelling housing</td>
<td>To comply with the rates in Part C Section 1 – Parking.</td>
</tr>
<tr>
<td>Residential flat buildings, and dwellings in shop top housing</td>
<td>1 resident space per unit and 1 visitor space per 5 units.</td>
</tr>
<tr>
<td>All other uses</td>
<td>To comply with the rates in Part C Section 1 – Parking.</td>
</tr>
</tbody>
</table>

Controls – Residential Flat Buildings and Shop Top Housing
2. For residential flat buildings and shop top housing, the following is required:
   - Parking is to be underground and generally within the footprint of the building above.
   - 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.
3. 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.
4. Any parking located within the front setback area must be suitably landscaped to add positively to the streetscape.
5. 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.

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.

Controls – Terrace Housing
1. 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.
2. Garages are to face the rear lane.
3. 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.
4. Basement car parking is to be consolidated under building footprints to maximise opportunities for deep-soil planting on the site.
5. Basement car parking must not protrude more than 0.5m above the natural ground level.
6. Where basement car parking is provided, waste collection shall occur within the basement car park.

8.2 Bicycle parking

Objectives
a. To ensure that bicycle parking is considered and provided appropriately in all development.
b. 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
1. Secure, conveniently located bike parking facilities are to be provided at the rates specified in Table 9 below.
2. End of trip facilities such as change rooms, showers and secure areas for bicycle parking are to be provided within employment development.

Table 9  Bicycle Parking rates

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Bicycle parks rate (minimum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residential flat buildings</td>
<td>1 space per 3 apartments</td>
</tr>
<tr>
<td></td>
<td>1 space for 12 apartments for visitors</td>
</tr>
<tr>
<td>Industrial</td>
<td>1 space per 1500m² GFA for staff</td>
</tr>
<tr>
<td>Commercial</td>
<td>1 space for 600m² GFA for staff</td>
</tr>
<tr>
<td>Shops/cafes/restaurants</td>
<td>1 space per 450m² for staff</td>
</tr>
</tbody>
</table>
Appendix A: Housing Diversity

As the Hills Shire population grows there will be greater reliance on higher density development to accommodate future housing demand. A more sustainable Sydney is a more compact Sydney and more new homes in the future will be in the form of higher density developments. More people need to be able to choose to live, raise families and retire to an apartment located in an area of high accessibility and amenity.

The Hills Shire Council is expected to be home to an additional 37,934 households between 2016 and 2036 and population forecasts indicate that 23,519 (or 62%) of these will be ‘larger’ household types such as couples with children, single parents with children and multiple family households. 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 a 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 established within The Hills Local Environmental Plan 2012 which permits additional floor space for developments that provide the required mix of apartment types and sizes.

This document provides an overview as to why the housing diversity provision has been prepared, how it was prepared, and how it should be applied. This document will assist applicants, consent authorities and community in understanding the intent behind the housing diversity provision.

1. Housing Diversity within the Sydney Metro Northwest Corridor

As part of the planning for the Sydney Metro North West Corridor, a development incentive provision has been implemented which will facilitate:

- the delivery of at least 20% of future apartment development in the form of three or more bedroom apartments and
- at least 40% of all future two and three bedroom apartments will be at a larger apartment adopted size.

This will provide a greater diversity of product and will help meet the future housing needs of our community. The application of the development incentive provision to the Showground Precinct is outlined below.

1. All land is subject to a ‘base’ floor space ratio which is identified on the Floor Space Ratio Map. From a Precinct wide perspective, the application of the Base Floor Space Ratios will deliver approximately 5,000 dwellings.
2. Land within the Precinct is also assigned with an “incentivised” floor space ratio through an Incentive Floor Space Ratio Map. The incentivised floor space ratio will facilitate a total of around 8,300 additional dwellings, which equates to 3,300 more dwellings that what would be achievable under the ‘base’ floor space ratio.

For ease of reference all land that is also subject to an incentivised floor space is identified as ‘Area A’ on the Floor Space Ratio Map.

Development will only be permitted at the ‘incentivised’ floor space ratio if it satisfies the requirements set out within Clause 7.12 ‘Dwelling Mix and Diversity within the Sydney Metro Northwest Corridor’. In summary the provision requires the following:

a) Maximum of 25% of all dwellings to be studio or one bedroom apartments;

b) Minimum of 20% of all dwellings to be three or more bedroom apartments;

c) 40% of all two and three bedroom apartments to comply with a minimum apartment size set by Council (110m² for two bedrooms and 135m² for three bedrooms); and

d) Parking rates to be 1 space per apartment and 1 visitor space per 5 apartments.

Development that does fully comply with the above requirements will only be permitted to develop at the ‘base’ floor space ratio, as identified on the Floor Space Ratio Map.

The incentivised unit mix and size requirements will ensure that the original anticipated yield of 5,000 dwellings is still achievable at SEPP 65 sizes. A portion of the ‘bonus’ 3,300 dwellings will be larger-sized units. Overall, the incentive provision would facilitate the delivery of approximately 70% of units at SEPP 65 sizes and 30% of the apartments at the larger sizes.

The delivery of around 30% of the apartments at the larger sizes will facilitate an appropriate diversity of housing stock and will provide developers with sufficient flexibility to determine the sizes for the remaining units. The provision will facilitate a greater level of apartment diversity than what would be achieved if development was only subject to the minimum apartment area requirements within SEPP 65 and the Apartment Design Guide.

3. State Environmental Planning Policy No. 65

State Environmental Planning Policy No 65 - Design Quality of Residential Apartment Development (SEPP 65) has been prepared to promote better apartment design across the State. The policy aims to deliver a better living environment for the residents now choosing this form of housing, and enhance our streetscapes and our neighbourhoods across the State.

SEPP 65 establishes nine design quality principles which are intended to ensure high quality development outcomes and more liveable urban areas. The SEPP 65 design quality principles must be considered by design professionals when designing residential apartment development, by design review panels when giving advice on proposals and by consent authorities. The nine principles are listed below:

- Principle 1 – Context and Neighbourhood Character;
- Principle 2 – Built Form and Scale;
- Principle 3 – Density;
Principle 4 – Sustainability;  
Principle 5 – Landscape;  
Principle 6 – Amenity;  
Principle 7 – Safety;  
Principle 8 – Housing Diversity and Social Interaction  
Principle 9 – Aesthetics.

In determining a development application for consent to carry out development to which this Policy applies, a consent authority is to take into consideration (in addition to any other matters that are required to be, or may be, taken into consideration):

a) the advice (if any) obtained from the design review panel, and  
b) the design quality of the development when evaluated in accordance with the design quality principles, and  
c) Apartment Design Guide.

Through the Design Principles, SEPP 65 recognises that housing diversity is a critical design requirement when assessing applications for high density development. Principle 8 – Housing Diversity and Social Interaction provided the following.

- **Principle 8 – Housing Diversity and Social Interaction**  
  Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

  Well-designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix.

  Good design involves practical and flexible features, including different types of communal spaces for a broad range of people and providing opportunities for social interaction among residents.

As outlined within the principle, well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix. The approach being implemented within the Sydney Metro Northwest Corridor is directly consistent with this Principle as the provisions have been prepared having regard to the future demographic characteristics of the Shire.

4. **Housing to Meet the Needs of the Future Hills Shire Population**

The housing diversity provision which is being applied within the Sydney Metro Northwest Corridor has been prepared to ensure that the future housing stock is appropriate to meet the needs of the future population.

There are two critical and equally important issues being diversity of mix (i.e. 1 bedroom, 2 bedroom and 3+ bedrooms) and diversity of mix of size (provision of a mix of small, moderate and larger apartments).

**Ensuring a Diversity of Apartment Mix**

The following table identifies the projected household types for The Hills Shire from the Department of Planning and Environment’s ‘Household and Implied Dwelling Projection Data (2014)’.
Based on the above projections, by 2031 approximately 62% of households within The Hills Shire will be a family household including couples with children, single parents with children and multiple family households. Accordingly, it is reasonable to assume that approximately 62% of the additional housing stock that will be provided within The Hills Shire by 2031 will need to be capable of accommodating these household.

The Draft North West Subregional Strategy, prepared in December 2007, set The Hills Shire a target of an additional 36,000 dwellings by 2031. Council’s Local Strategy and Residential Direction demonstrated how this target would be predominately met through the provision of 35,925 new dwellings in existing urban areas, the North West Growth Centre and the release areas of Kellyville/Rouse Hill and Balmoral Road. It should be noted that the dwelling targets represented Council’s projected yield at the time of preparing its Local Strategy in June 2008, prior to the Government commitment to the delivery of the Sydney Metro Northwest.

Of the original dwelling target, approximately 4,600 were planned on land south of the M2 Motorway, on land which has now been transferred to Parramatta City Council. This land included Carlingford, Northmead, North Rocks, North Parramatta and Oatlands. As this analysis is principally focussed on ensuring that housing within The Hills Shire is sufficient to meet the needs of the future Hills Shire population, planned growth and approvals on land south of the M2 Motorway has been excluded from this analysis.

The following table provides a summary of the Shire’s current dwelling targets, the additional growth opportunities which have arisen since the targets were established and Council’s progress toward achieving its targets. It is noted that the planned dwellings and past approval figures have been adjusted to account for land that has transferred to Parramatta City Council.

<table>
<thead>
<tr>
<th>SUMMARY</th>
<th>Planned Dwellings (Total)</th>
<th>Planned Apartments</th>
<th>Planned Low and Medium Density Dwellings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target Dwellings 2004-2031</td>
<td>31,375</td>
<td>5,623</td>
<td>25,752</td>
</tr>
<tr>
<td>Additional Growth Opportunities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baulkham Hills Town Centre</td>
<td>1,000</td>
<td>1,000</td>
<td>0</td>
</tr>
<tr>
<td>Rural Subdivision</td>
<td>700</td>
<td>0</td>
<td>700</td>
</tr>
<tr>
<td>Box Hill North</td>
<td>4,600</td>
<td>645</td>
<td>3,955</td>
</tr>
<tr>
<td>Hills Corridor Strategy</td>
<td>16,050</td>
<td>15,604</td>
<td>446</td>
</tr>
<tr>
<td>Revised Dwelling Supply 2004+</td>
<td>53,725</td>
<td>22,872</td>
<td>30,853</td>
</tr>
<tr>
<td>Actual Dwellings 2004-2016</td>
<td>15,791</td>
<td>4,570</td>
<td>11,221</td>
</tr>
<tr>
<td>Revised Dwelling Projection 2016+</td>
<td>37,934</td>
<td>18,302</td>
<td>19,632</td>
</tr>
</tbody>
</table>

Figure B2
Dwelling Targets and Residential Activity
When accounting for the additional growth opportunities and actual dwellings that have been approved since 2004, a revised dwelling projection of approximately 37,934 dwellings could be achieved within The Hills Shire from 2016, of which 18,302 dwellings (48%) would be apartments.

The following table provides justification for requiring at least 20% of future high density apartments within The Hills Shire as 3 bedroom units.

<table>
<thead>
<tr>
<th>Projected Growth and Household Type: 2016 to 2036</th>
<th>Projected New Dwelling Stock: 2016 to 2036</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household Type</td>
<td>%</td>
</tr>
<tr>
<td>----------------</td>
<td>---</td>
</tr>
<tr>
<td>Couple Only</td>
<td>25%</td>
</tr>
<tr>
<td>Lone Person</td>
<td>12%</td>
</tr>
<tr>
<td>Group</td>
<td>1%</td>
</tr>
<tr>
<td>Couple with Children</td>
<td>50%</td>
</tr>
<tr>
<td>Single Parent</td>
<td>8%</td>
</tr>
<tr>
<td>Family Household (Other)</td>
<td>1%</td>
</tr>
<tr>
<td>Family Household (Multiple)</td>
<td>3%</td>
</tr>
</tbody>
</table>

Figure B4
Justification for Apartment Mix

Of the 37,934 additional dwellings projected within The Hills Shire from 2016, approximately 23,519 (62%) will need to be able to accommodate a family household. It is assumed that the 19,610 dwellings within the low and medium density residential areas will be capable of accommodating family households. This means that the remaining 3,909 family households will need to be accommodated within high density apartments which equates to approximately 21% of the future high density apartment stock.

Having regard to the above analysis, the incentive provision being applied within the Corridor requires a minimum of 20% of the future apartment stock incorporates 3 or more bedrooms. This will ensure that the housing stock matches the needs of the Shire’s future households.

Ensuring a Diversity of Apartment Size
It is imperative that an appropriate mix of apartment sizes is produced so as to facilitate housing diversity within the marketplace. Having a diverse housing stock will provide improved housing choice for the future Hills Shire residents and will ensure that the apartments which are produced cater for a wider range of households with varying needs, expectations and living requirements.

In order to ensure that an appropriate diversity of apartment sizes is being produced within the Corridor, the incentive provision requires a proportion of 2 and 3 bedroom apartments to be at the larger apartment size. The requirement would require the following:

- at least 40% of 2 bedroom dwellings forming part of the development have a minimum internal floor area of 110m²; and
- at least 40% of 3 bedroom dwellings forming part of the development have a minimum internal floor area of 135m².
So long as 40% of 2 bedroom apartments have an area of 110m$^2$ and 40% of 3 bedroom apartments have a minimum area of 135m$^2$, developers will have full discretion with respect to the distribution of sizes for the remaining apartments.

The incentive provision would facilitate the delivery of approximately 70% at SEPP 65 sizes and 30% of the apartments at the larger apartment. As 2 and 3 bedroom apartments would comprise around 75% of apartments, 40% of 2 and 3 bedroom apartments would equate to approximately 30% of the overall number of units within the Precinct.

As previously mentioned, Principle 8 of SEPP 65 requires that ‘Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets’. Accordingly, requiring a mix of apartment sizes, including a proportion of larger apartments, is consistent with this principle as it will ensure that an appropriate diversity of apartment sizes is provided to suit different needs and budgets.