THE
FOUNDATIONS
PORTLAND NSW

Prior to the notification of the DCP, minor amendments including a full formatting of the document will be undertaken following adoption and prior to uploading to the NSW Planning Portal and Council's Website. The General Manager will have the authority to make these changes.

Development Control Plan

November 2023

Revision 1.0
22/11/2023

TABLE OF CONTENTS

APPENDICES LIST

Appendix	Document	Prepared by
1	Place-Led DCP Primer	Hatch Roberts Day
2	Conservation Management Plan 2017	Niche Environment and Heritage

FIGURES LIST

GLOSSARY

Term	Definition
Amenity	'Liveability' of a place that makes it pleasant and agreeable for individuals and the community. Amenity includes, but is not limited to, the enjoyment of sunlight, views, privacy and quiet.
Articulation	Variations to the bulk, form, height, setbacks, openings and materials of a building that can create visual interest, avoid dominance of large and/or blank walls, and integrate with street and neighbouring building character
Building Height	The height of the maximum part of the building from the natural ground level.
Fine grain rhythm	Smaller consistent development style, being similar housing typologies repeated along a road or through a precinct.
Foundations	The entire area to which this DCP applies as specified in **Section 1.3**.
Interior corner lot	A lot that is adjacent to a corner lot.
Landscaped Area Forward of Building Line	The amount of landscaped or garden space required in front of a building footprint. This should be measured based on the area forward of the building line (excluding articulation features) to the front boundary.
Offset lot frontage	The frontage is not immediately in front of the main area of the lot.
Place Precincts	The six precincts and separate areas that are located within the Foundations.
Place Inspiration	These are elements or uses which may assist in achieving the vision of the Place Precincts. These elements are examples to provide inspiration for the delivery of the Place Precincts and are not specific requirements for the delivery of the Place Precincts.
Setback	The distance measured between the principal building wall closest to the boundary and the boundary line.

PART 1 PRELIMINARY

1.1 AIMS AND OBJECTIVES OF DCP

This Plan is known as the *Foundations Development Control Plan 2023* (Foundations DCP) for which it applies to the land known as the Foundations site. It has been prepared in accordance with the provision of Part 3 Division 3.6 of the Environmental Planning and Assessment Act 1979 (EP&A Act) and Part 2, Division 2 of the Environmental Planning and Assessment Regulation 2021 (EP&A Regulation).

The principal aims of the Foundations DCP are listed as follows:

- To enable the delivery of environmentally, economic and socially sustainable development;
- To promote innovative and flexible development that will relate to its surroundings both man-made and natural;
- To provide high quality design and amenity for all development;
- To facilitate the creation of publicly accessible open space areas;
- To create the Foundations as a vibrant and active mixed-use community;
- To provide connections to required services to meet the future needs of the Precinct;
- To enhance and protect key environmental features, cultural and Indigenous heritage of the area.
- Provide a diversity of housing options from larger lots to the north of the site to suit the landscape and terrain through to smaller lot typologies in the centre of the site that do not impact the character of existing surrounding areas.
- Integrate new commercial land uses and spaces and adaptive re-use of heritage buildings to activate the southern areas near the existing town centre.
- To ensure development is guided by the principles of Crime Prevention through Environmental Design.
- Provide legible pedestrian links to the surrounding areas.
- Physically connect with the lakes where possible with recreation and communal amenity.
- Enhance and protect view corridors to water bodies and landscape features.
- Protect significant vegetation clusters and create pocket parks with green emphasis.
- Treat the water's edge sensitively and ensure unbroken communal access.
- Weave built form into natural topography and minimise visual impacts of cut/ fill.

The Foundations DCP has been developed in response to the amendments to zoning provisions through the planning proposal made through amendment to the Lithgow Local Environmental Plan 2014 (LLEP 2014). The Foundations DCP should be read in conjunction with the Place-Led DCP Primer provided at **Appendix 1.** This document supports the overarching design intent and provides vision for the aims and objectives of this DCP.

The DCP includes specific objectives that address the principal development standards listed within the LLEP 2014 and the planning principles developed during the precinct planning process. The associated controls have been designed to address the key environmental impacts identified as part of the technical investigations undertaken to inform the LEP amendment.

1.2 STRUCTURE OF THE DCP

The DCP is structured into six (6) sections as outlined within the following table.

Table 1 will be completed following final formatting

TABLE 1. STRUCTURE OF DCP	
Part	**Description**

1.3 LAND TO WHICH THE DCP APPLIES

The DCP applies to land within the Foundations Site and should be read in conjunction with the *Lithgow Local Environmental Plan 2014* (LLEP 2014).

The land parcels affected are outlined **Figure 1** below also shows the extent of the land the DCP applies.

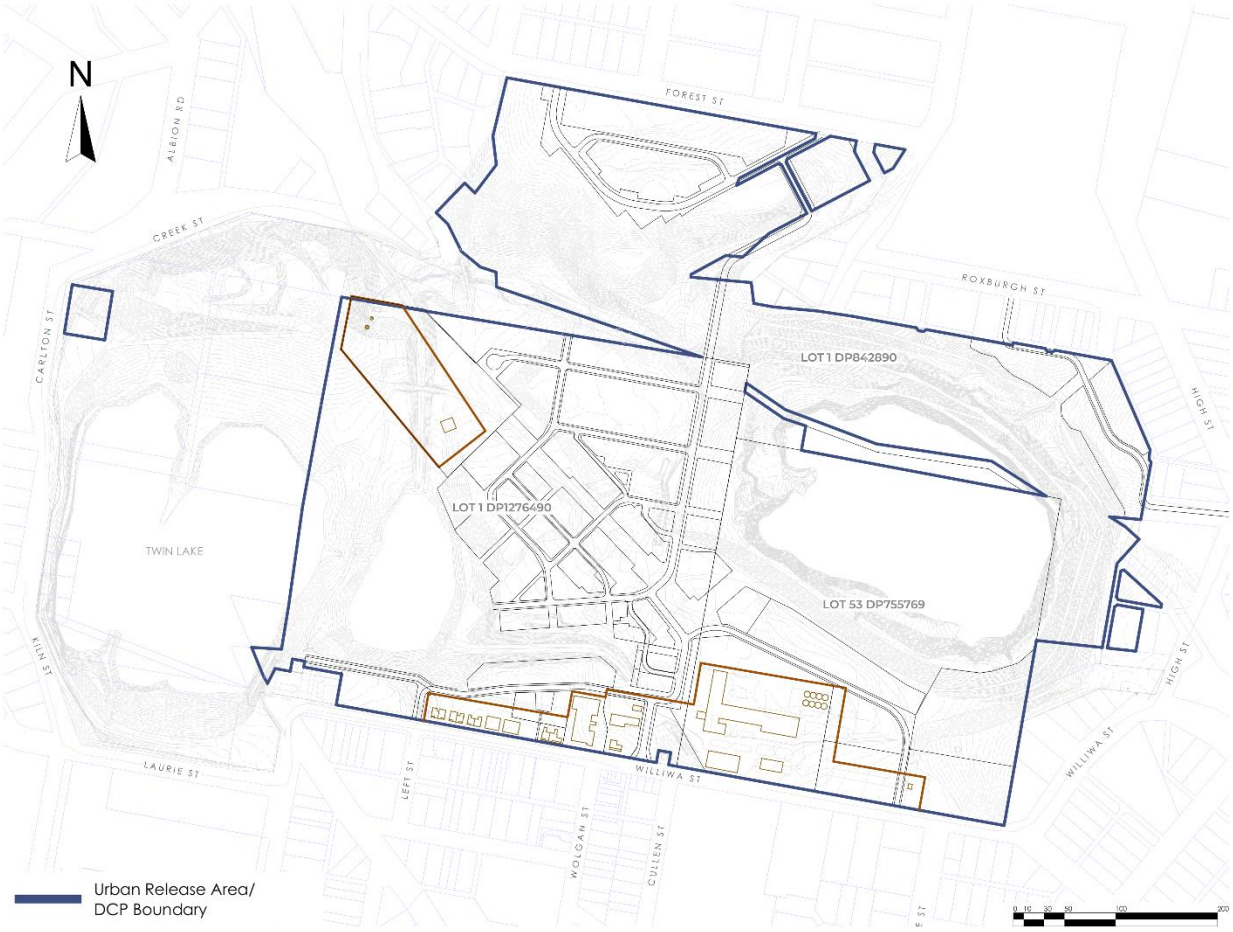


Figure 1. Land to which the Foundations DCP 2022 applies

1.4 RELATIONSHIP TO OTHER PLANS

This DCP has been prepared to provide detailed development controls to guide the preparation and assessment of development proposals on land located within the Foundations Site. This DCP is a stand-alone DCP and operates independently of Lithgow DCP2021.

The land use provisions and development standards within LLEP 2014 and the detailed development controls within this DCP comprise the principal planning provisions relevant to the development of the Foundations Site.

1.5 EXEMPT AND COMPLYING DEVELOPMENT

The *State Environment Planning Policy (Exempt and Complying Development Codes) 2008* (Codes SEPP) may permit certain development that is considered as exempt or complying development without requiring a development application to Council if it complies with the requirements of the Codes SEPP. This DCP does not permit any additional exempt or complying development for the Foundations.

1.6 VARIATIONS TO DCP CONTROLS

The controls in this DCP have been designed to address the common development types and scenarios. Council accepts that is not possible to plan for all development scenarios.

However, there will inevitably be situations where strict compliance is not able to be achieved, and/or alternate solutions are preferred.

Council may consent to a Development Application involving variation to a control contained within this DCP, but only where Council has considered a written request from the applicant that seeks to justify the variation by demonstrating:

a. The objectives of the particular control(s) are met or sufficiently addressed; and
b. Compliance with the particular control(s) within this DCP is unreasonable or unnecessary in the circumstance of the case; and
c. There are sufficient environmental planning grounds to justify the departure from the particular control(s) within this DCP; and
d. The impact(s) of the non-compliant proposal will not be significantly greater than a compliant proposal or may enhance the outcome.

The written request for variation of a development control or controls may be included within the *Statement of Environmental Effects* submitted with the *Development Application*.

1.7 DEVELOPER DESIGN GUIDELINES

In addition to the provisions of this DCP, a developer may implement and administer further building and landscape design guidelines to ensure a high quality built product. Such guidelines are not to be inconsistent with this DCP.

PART 2 MASTERPLAN

2.1 PILLARS OF PLACE-LED DESIGN

The Foundations holds the potential to become a major regional destination for events and tourism – where industrial heritage, tourism and the great outdoors meet in the centre of a richly layered region. The Foundations Future Framework, Urban Design Report, March 2018, provides strategic framework, place strategy and key design principles to create a place-led master plan for the Site celebrating its unique character, history and qualities within the region.

Unique place qualities of the Site include:

- Regional Position- Bordering Central NSW and the Blue Mountains regions, Portland has the opportunity to capitalise on the complimentary characters of the two.
- Compelling Historic Narrative- Portland's rich heritage as a production hub and NSW town is kept alive through the Glen Museum's collection. This local resource is to be celebrated and relocated to The Foundations. The buildings and quarry lakes of the Cement Works site are an icon for the town and an intrinsic part of the heritage and fabric of the area.
- Recreational Opportunities- Portland offers the relationship between a town centre, event facilities, State Forests and lakes and dams in close proximity. This strong combination could be solidified through the support of existing activities (bushwalking, 4WD, bird watching, food harvesting, sporting events) and the introduction of new ones.
- Town Centre Proximity- Proximity and connectivity are the key ingredients for a great place destination. The compact Portland network of the Cement Works site, a well-presented Art Deco shopping centre and Saville Park, provides the opportunity for cross-programming and triangulation.
- Portland's industrial heritage, active recreation, engaged community and cultural offerings promise a strong point of difference as a tourist destination and will ensure Portland plays its part to attract visitors from outside the region.

NEIGHBOURHOOD CHARACTER

OPEN SPACE

STREETS

BUILT FORM

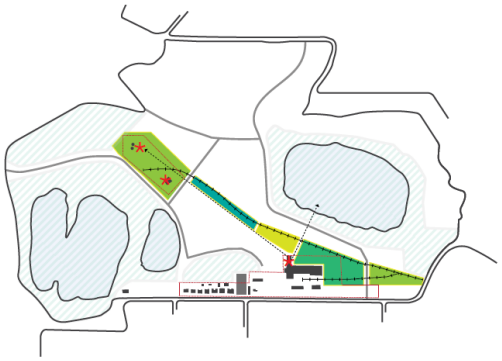
HOUSING DIVERSITY

PLACE-MAKING

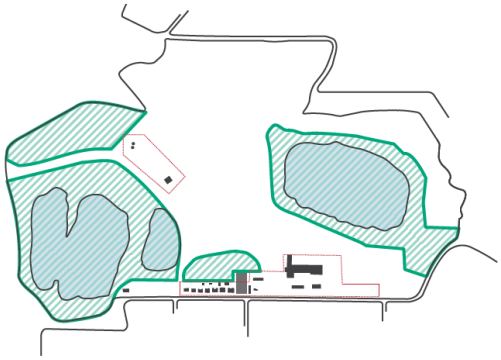
2.2 DESIGN MOVES

The following Design Moves were also developed as part of the 2018 Urban Design Framework. They are the key drivers for the site and form the basis for this Place-Led Design.

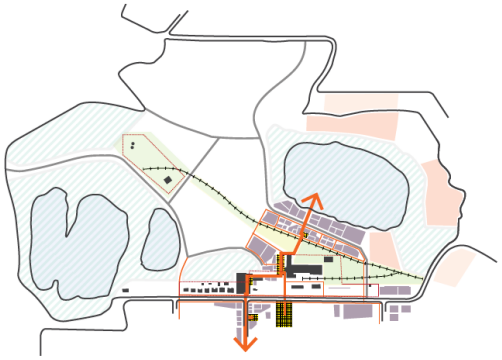
03 VISUALLY CONNECT HERITAGE FEATURES



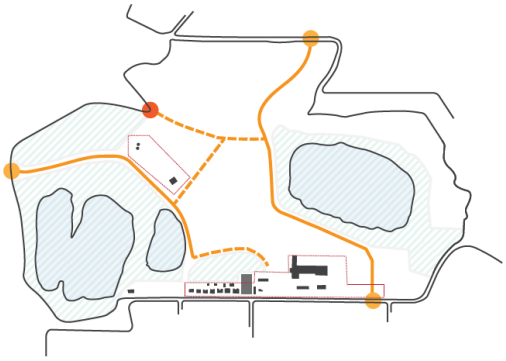
01 PROTECT LANDSCAPE FEATURES



04 ACTIVATE URBAN ECONOMICS



02 CREATE A LEGIBLE MOVEMENT SYSTEM



05 WEAVE IN RESIDENTIAL VILLAGES

2.3 VISION AND PRINCIPLES

The vision for The Foundations, as a sustainable mixed-use village, is to become a unique regional destination that captivates the senses and inspires the soul. With a rare combination of industrial heritage and picturesque natural beauty, The Foundations will be a vibrant, regional destination that offers a diverse range of cultural, culinary, community and recreational experiences that make it perfect for a short stay or a more permanent lifestyle change. The Place Led DCP Primer (**Appendix 1**), provides the underlying support for the vision and principles and provides examples of place led design being implemented.

The following principles shall be used to guide the planning, design and development of The Foundations.

- Historic- A place that carries a shared heritage, with stories that shape and enrich the social fabric of the community. The Foundations will honour the past and welcome the future.
- Resilient- Despite historic circumstances, The Foundations is place that has bounced back. Its resilient nature will continue to allow it to thrive for years to come.
- Inclusive- The Foundations, Portland will be a welcoming, transparent, inviting and approachable place. The diversity of people, personalities, cultures and work within The Foundations will be distinct and accommodated through its places, spaces and offerings.
- Pioneering- The Foundations is a pioneer in placemaking and community building. It will create destinations, partnerships and provide skills and innovation within the regional economy.
- Authentic- True to the Vision and evolving Community, The Foundations are proud of Portland's working-class roots. The Foundations is a place that is not manufactured, false or copied. It will be a place that leverages off the strengths, qualities and assets that have defined the place and the town.
- Creative- The Foundations will inspire experiences and spaces where arts and culture flourish. Artisan aesthetics of crafted places and spaces will inspire and transform the place and people.
- Community culture- The value of 'providing for us and we provide for you' are qualities of the community that allow for a strong sense of connectedness and social cohesion.
- Safe – The Foundations will promote safety and security through good design outcomes, including CPTED
- Sustainable- The Foundations will be a place that positively contributes climatatic, health and movement conditions to ensure smart new community development, walkability, enhances local economic development and quality of life.
- Wellbeing- The Foundations will be a place that provides for physical, mental and social well-being. It will be a place that encourages active living, access to local amenity, walkable, pedestrian environments that supports arts and cultural experiences

2.4 PLACE CHARACTER

Place character at a precinct scale is focussed on creating compact, livable and distinct neighbourhoods, each with their own identity, focussed around a local public space. There are diverse housing types and mix of uses, the public spaces have personality and there is a strong sense of community pride and belonging.

KEY BENEFITS

A place-based approach in design can promote 'loveability' – supporting places which people have a sense of ownership over, and which people want to return to.

Place-based character areas create places that are authentic, more meaningful, and more resilient, because they support socially sustainable communities.

Distinctive character areas provide a unique opportunity to create an attractive and drawing community and destination for Portland NSW. The Foundations has the potential to become a renewed visitor and residential scene, with a rich history of an industrial productive use.

2.5 TYPICAL OUTCOMES TO AVOID

- Places that lack identity, character, or anything that responds to the local context
- Limited variety of housing choices
- Car dependency

2.6 HOUSING DIVERSITY

The Foundations will provide a variety of housing choices including types not currently available in Portland, which will service the needs of the current and future population in line with Council's forecasts and strategic planning to service a diverse community. The housing choices will provide people with different needs the opportunity to live in the area, and stay within the area as their needs change. Housing diversity will include larger rural lots, to a variety of traditional detached housing, cottages, narrow terraces, live-work formats, studios above garages, and a mix of front and rear loaded, and sizes from 2-4 bedrooms, The housing typologies will be distributed in relation to the defined character areas and interface with neighbouring areas. A transect approach is used to transition from large lifestyle blocks at the peripheral natural areas and steeper lands to traditional and smaller lots in the central precinct, focussed around the amenity of parks and mixed use areas.

KEY BENEFITS

Smaller lots and the mix of compatible uses around town centres provides higher densities in an environment where residents can easily reach key destinations by walking and cycling. This will be result in a more active community and reduction in the likelihood of obesity

Strong social networks and bonds arise from a diversity of income and ages

A diverse neighbourhood supports a more vibrant community

Opportunity for direct interface with open space, and increase overlooking and safety of open spaces

Lifecycle housing allows people to move within their neighbourhood without leaving established social networks

A diversity of housing types can quickly respond to potential changes in market demand

More affordable housing options will attract first home buyers and younger generation

2.7 OUTCOMES

Ability to 'Age in Place' by moving into different housing typologies within the same community as your life changes

- Provides appropriate interfaces to surrounding areas e.g. lifestyle lots interfacing with rural land
- Creates a central focused hub of activity around areas of high amenity
- Caters for alternative work opportunities, by providing live-work spaces
- Provides affordable housing opportunities by encouraging areas of smaller dwellings
- Provides areas of traditional family lots

2.8 HOUSING TYPES


STUDIO ABOVE GARAGE


LIFESTYLE LOTS


LIVE-WORK


SMALL LOTS


SMALL LOTS


TRADITIONAL LOTS

2.9 MASTERPLAN DESIGN

The Master Plan (**Figure 2**) illustrates the general development outcomes including the development footprint, land use, mobility network, open space and recreational areas and retention of the existing heritage buildings. The key design elements underpinning the master plan are:

- Create a series of identifiable precincts and places informed by the site's natural features, heritage and relationship to the town and adjoining neighbours.
- Provide a diversity of housing options from larger lots to the north of the site to suit the landscape and terrain through to smaller cottage lot typologies in the centre of the site that complement time-proven housing typologies across the LGA.
- Integrate new commercial land uses and spaces and adaptive re-use of heritage buildings to activate the southern areas near the existing town centre.
- Provide legible mobility network giving priority to people walking, cycling and driving – in that order.
- Provide public access to the lakes via a network of interconnected lake-front parklands with a diversity of recreation opportunities.
- Provide where possible view corridors to visually connect people to the existing town, heritage features, landscape features, and new built form enhancing the overall experience of the place.
- Protect significant vegetation clusters and create pocket parks with green emphasis.
- Provide a diversity of lake and park edge experiences ranging from intensely active edges close to town to tranquil natural edges away from town. Integrate where possible earthworks, street design, lots and building form to a diversity of experiences in response to topography.

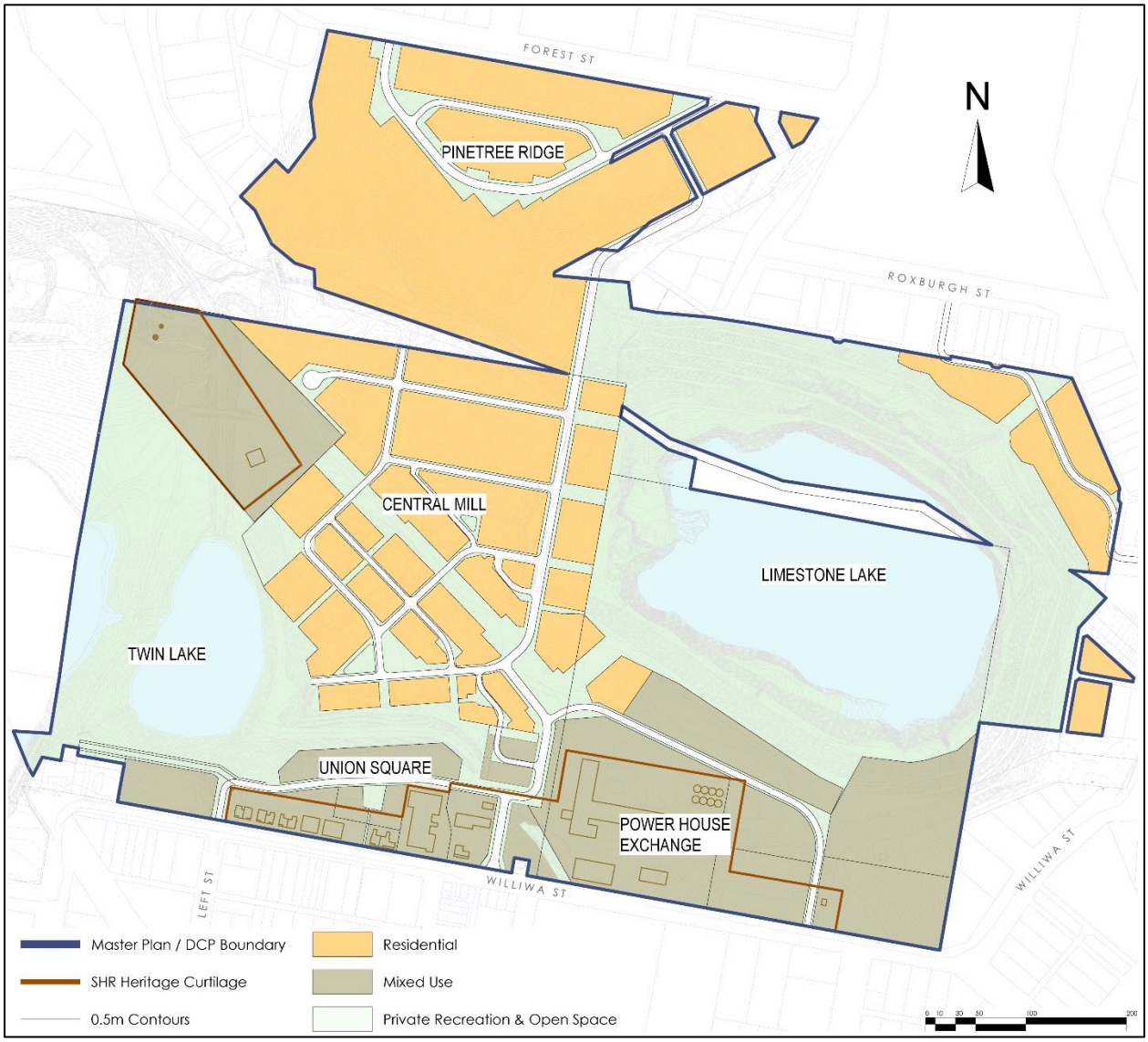


Figure 2. Master Plan

PART 3 PLACE PRECINCTS

Place Precincts have been established to ensure the character and identity is reflective of the look and feel unique to that setting. These distinct Place Precincts have been defined based on a range of attributes including topography, vegetation, the existing lakes, historical buildings, proposed land uses and proximity to the adjoining residential and town centre areas. The Place Precincts will allow the various areas of the site to be easily identifiable in terms of the identity, physical setting, activities and future offerings.

The six Place Precincts comprise:

1. Union Square

2. Powerhouse Exchange
3. Limestone Lake
4. Pinetree Ridge
5. Twin Lake
6. Central Mill

Refer to **Figure 3** below.

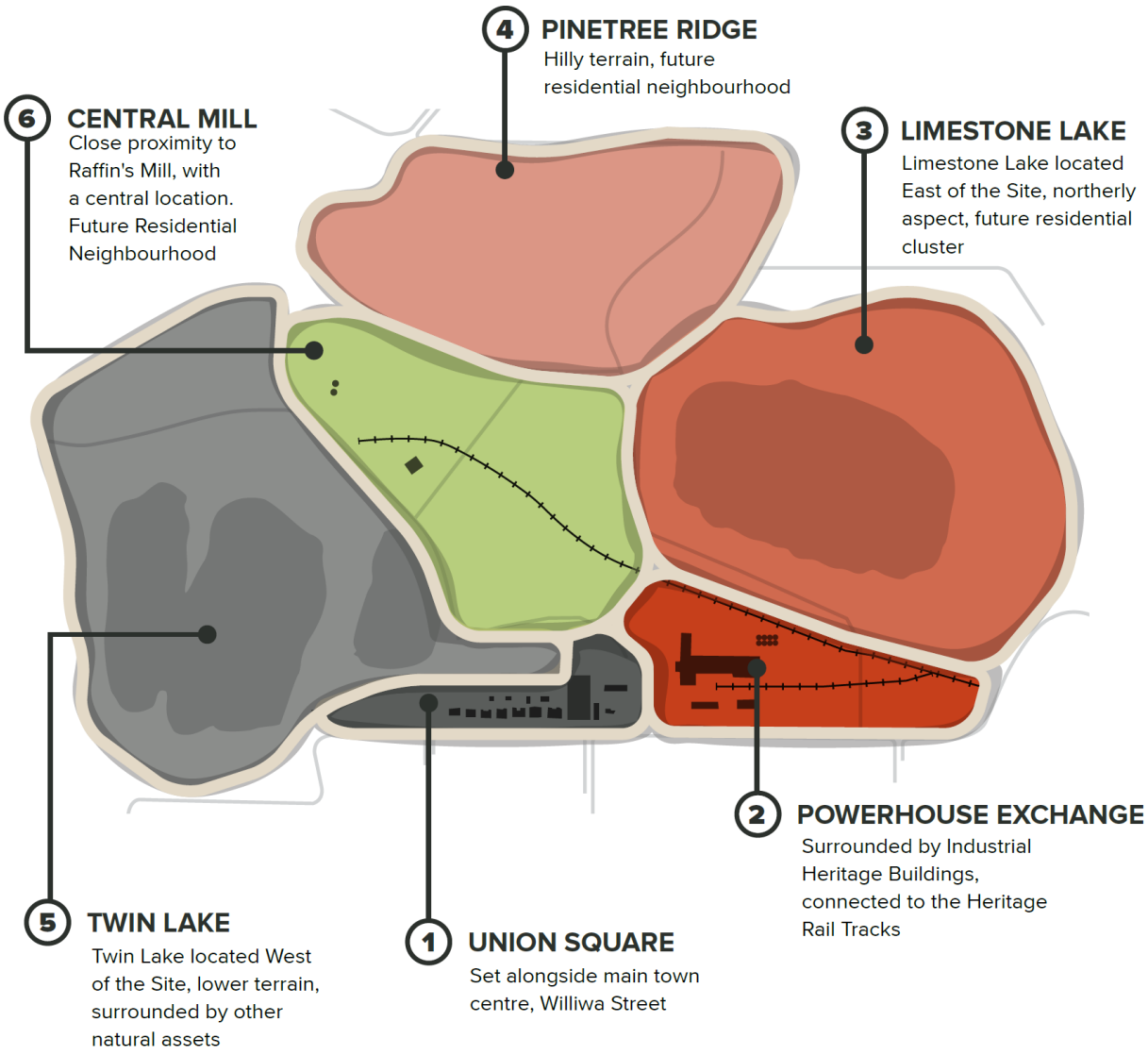


Figure 3. Precinct Map

3.1 UNION SQUARE

Vision

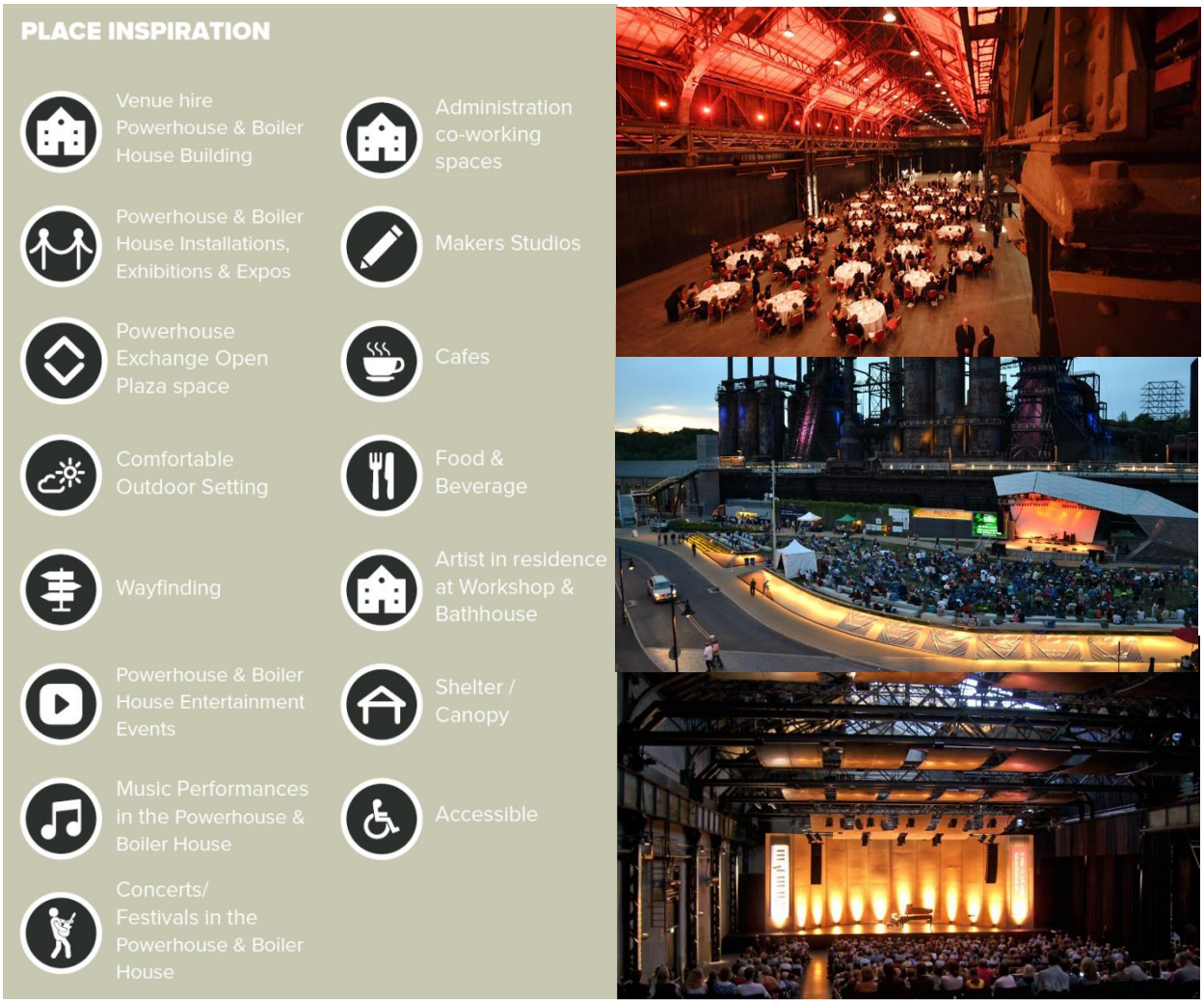
Connecting the main thoroughfare street adjoining the Foundations site and the local town of Portland, Union Square has the opportunity to showcase the local and supportive characteristics of Portland and its community through a friendly, welcoming and relaxed atmosphere reflected in the buildings, activities, street interface and people. Along Williwa Street behind some of the existing heritage significant cottages, visitors and residents can take a step back in time, to a place where the yesteryears of Portland are showcased; a destination where you can reflect on the stories and historical qualities of Portland through the public domain treatments, buildings and public art.

Desired Future Character

- Streetscape with fine grain rhythm
- A comfortable place to meet family and friends, read, enjoy a coffee or pastry from the local bakery and work remotely outdoors
- Family friendly environment with breakout spaces with natural play elements incorporated in the public furniture
- An atmosphere and setting which reflects the anecdotal stories and accounts of "life working at the former Portland Cement Works"
- Short-term accommodation
- Retail and café
- Complementary offerings for the local town centre
- Restored cottages connected with space for lingering, staying and socialising
- Residential development that supports the heritage cottages
- Art spaces/ mural walls
- Diversity of dining options through the day and night-time
- Day to day public plaza, where smaller scale activities occur as well as local events

- A local meeting place with seating, public furniture and outdoor activities for all ages
- Relaxed walking pace, with opportunity connections to continue walking to the Twin Lake Loop walk

3.2 POWERHOUSE EXCHANGE



Vision

Development in the former industrial building Powerhouse, Boiler House, Bath House Workshop and Administration Building, the Powerhouse Exchange Precinct will be a place recognised for its celebration of entertainment, culture, art and events. A network of spaces that are socially charged, energetic and enhance celebration, aspirations and memorable experiences. A place that will allow for shows, pop-up events, co-working, conferences, art showcases, entertainment, large-scale forums and performances.

The Foundations Silo Park boasts a perfect entertainment setting for a ‘plug-and-play venue’ ready for promoters, festivals and concerts. A venue that allows for the creation of unforgettable experiences.

Desired Future Character

- A place to showcase the grandness of the existing heritage buildings with industrial buildings forming an edge to a landscaped public space
- A place where great experiences and moments are celebrated
- Open and landscaped environment with generous green space and gardens
- A place with versatile, flexible and adaptable spaces
- A visual feast of plants, home wares and a relaxing setting for daily meetings of friends and family
- Events, artist studio and exhibitions in the existing heritage buildings
- Workspaces
- Open space surrounding the existing silos and on western interface with active connection to Union Square
- Nursery with intimate garden and landscaped open spaces
- A local place to browse, shop and explore the retail nursery;
- A truly flexible space that caters for the best entertainment, music, performance events of the region
- A space that is welcoming on a day-to-day basis, for the youth to use for meeting and socializing

3.3 LIMESTONE LAKE


Garden Pathways, Orange, NSW


Barangaroo Reserve by PWP Landscape Architecture

Vision

Set along the crescent shaped edge of Limestone Lake, visitors can enjoy the relaxed and animated setting of The Crescent waterfront with local attractions within walking distance. Locals and Visitors can dine at the Limestone Lake Pontoon Restaurant, or enjoy the alfresco setting of The Crescent Restaurant looking across the Precinct activity. Whether its celebrating at the venue hires, enjoying the outdoor cinemas overlooking the Lake or riding along The Crescent with hire bikes, there is something to enjoy for everyone.

Limestone Lake Hill looks out across the Foundations site, with future residents of Limestone Lake Hill being able to enjoy overlooking the Limestone Lake activities whilst being set away from the bustle. With expansive views and an exclusive setting the destination is a must visit place to replenish and recharge.

A true moment of acknowledgment to the former workings of a successful productive industry; the tranquil Secret Gardens of Portland will be an enchanting destination, rich with planting, designed around a tribute seat looking out across the site for family, friends, former employees of the cement works and visitors to experience.

Desired Future Character

- A place that captures the beauty of the Limestone Lake
- A place that respects the natural qualities of the precinct and the water body
- Ebbs and flow of hard and soft landscaped open spaces with diverse seating spaces
- An enjoyable and relaxing setting for daily meetings of friends and family
- Employment and commercial
- Open space/ landscaped walkway
- Diverse mix of residential housing
- A local place to wander, linger and feel inspired by the scenic marvel of the Limestone Lake
- Curated garden setting with seating and look-out across Limestone Lake
- Traditional sized residential lots (450+sqm) located near employment areas adjacent to the existing housing

3.4 PINETREE RIDGE

Vision

Set on the furthest northern portion of the site, the Pine Tree Backdrop to Forest Street and the generous and canopy-filled streetscapes allows for a comfortable and scenic visual escape for visitors and residents. Locals and Visitors can wander across the hill side by foot, hire bikes or on horse back guided rides. Pack a picnic or use the barbeque facilities, enjoying the scenery over lunch.

The existing unique topography toward the Historical Bottle Kilns with a steep bushland terrain allows for a private leafy backdrop, looking across to the Heritage Train Track corridor and easy walking access to the Central Mill with the conveniences of local shops, eateries and produce. With the hilly terrain, the setting is an ideal place for keen walkers and trekkers with sweeping views to be enjoyed across the site.

Desired future character

- Leafy outlooks and natural topography
- A community that feels welcoming and embraces visible daily public life
- Good access to natural play elements and native planting
- Well-connected pedestrian streets and cycle-ways
- Complementary aesthetics to the historical Bottle Kilns
- Residential homes/ community-minded spaces
- Parks and open spaces

- Play spaces
- A local place where people enjoy visiting and passing through
- Large lot residential (1000+sqm) and lifestyle lot (800-1000sqm) residential

3.5 TWIN LAKE

Vision

A destination scene focused around the largest former quarry Lake in the region. Recognised for its relaxed outdoor recreation and fishing activities, enjoy the serene setting of crystal turquoise blue waters. Circling around the smaller Twin Lake Loop, the setting is an easy walking track with natural elements overlooking waterfront views. Visitors and residents can stroll and take in the surrounds with a furry friend, family or alone, or stop and utilise the facilities overlooking the lake, that could include adult gym equipment, seating and picnic facilities.

Desired future character

- A place to recharge and immerse in outdoor pleasures on the Lake
- A place to escape to an easy outdoor experience
- A place where you can retreat and enjoy the tranquil and serene setting of the natural reserve environment
- Twin Lake Loop walk and cycle-way
- Landscaped walking paths
- Play and recreational uses

- Walking, running, cycling and exercising
- Camping and cabin accommodation
- Flexible spaces to use to socialise and enjoy being outdoors
- A local place with scenic views across the Twin Lakes for the enjoyment of outdoor activities including fishing and kayaking

3.6 CENTRALMILL

Vision

The Central Mill is a place where people enjoy lingering and want to stay longer to experience the day-to-day living and culture of The Foundations and Portland community. The Precinct's character is anchored by the surrounding charming historical assets, art trails and a friendly bustle of local and visitor activity.

future residential neighbourhood will attract the health minded, enjoying the proximity of the waterfront lake, whilst being close to local shops, retail and activity.

Future residents have access to local amenity including a local park, natural play elements, shelter, public art trails, and closed-loop bike paths across the Precinct.

Desired Future Character

- A local place that supports local producer, goods-making and a friendly small town culture
- A local place that showcases the small village charm through boutique tenancies
- Fine grain with walkable streetscape
- A local place that offers an outdoor and recreational lifestyle experience
- Retail
- Residential homes/ community
- Open space and recreational spaces
- Historic art trail
- Local amenity parks natural play elements, shelter and closed-loop bike paths
- Combination of small and large residential lots

PART 4 GENERAL REQUIREMENTS FOR ALL DEVELOPMENTS

4.1 SITE CONTAMINATION

Objectives:

(a) To minimise the risk to human health or any other aspect of the environment from the development of potentially contaminated land.

(b) To provide for the detailed assessment and remediation of potentially contaminated land at the subdivision stage.

Controls

1. Development will be accompanied by a Preliminary Site Investigation prepared in accordance with the guidelines made or approved by the EPA under Section 105 of the Contaminated Land Management Act, 1997 (CLM Act)
2. Where the Preliminary Site Investigation identifies potential or actual site contamination, a Detailed Site Investigation must be conducted to determine the full nature and extent of the contamination. The detailed site investigation/s must be undertaken, and the subsequent report(s), must be prepared in accordance with relevant guidelines made or approved by the EPA under section 105 of the CLM Act. If the Detailed Site Investigation determines that remediation is required to ensure the site is suitable for the proposed use, a Remediation Action Plan must be developed.
3. Prior to granting development consent, the Council must be satisfied that the site is suitable, or can be made suitable, for the proposed use. Remediation works identified in the Remediation Action Plan will require consent prior to commencing works.
4. All reports submitted as part of the planning application must be prepared, or reviewed and approved, by a consultant certified under either the Environmental Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme.
5. Where remediation works have been undertaken, Council must require the applicant to submit a validation report, that confirms that the site is suitable for the proposed use, prepared by a consultant certified under the Environmental Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) scheme (CENVP(SC) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme.
6. Council may require a site audit statement for complex contamination or to confirm the suitability of a Preliminary Site Investigation (PSI), Detalied Site Investigation (DSI), Remdiation Action Plan (RAP) or Validation Report

4.2 EARTHWORKS

The controls set out in this part of the DCP apply to all development in the Foundations site. Additional requirements for bulk earthworks and building on sloping land are included in Part 4.13 of this DCP.

Objectives

(a) Design of development is to respond to natural topography to minimise cut and fill.
(b) Ensure land forming does not increase the potential for the inundation or water on any other land during the full range of flood events.
(c) Protect and enhance the aesthetic quality and amenity of the area by controlling the form, bulk and scale of land forming operations to appropriate levels.

Controls

1. Development is to be designed to ensure minimal cut and fill is required for the construction phase.
2. Earthworks will be undertaken to a maximum of 1m cut and 1m fill from the present surface level of the property. A variation to the maximum cut and fill may be considered if in Council's opinion, supporting information adequately demonstrates that the development will have no adverse impacts on adjoining properties and visual amenity.
3. All fill is certified to be 'Virgin Excavated Natural Material' (VENM). A validation report is required to be submitted to Council prior to the placement of imported fill on site.
4. Earth moved from areas containing noxious weed material must be disposed of at an approved waste management facility and transported in compliance with the Biosecurity Act 2015.
5. All retaining walls proposed will be identified in the Development Application.
6. Retaining walls are located clear of lot boundaries to ensure clear ownership and maintenance obligations for owners. The retaining walls will be located within the property and on the down slope side of the lot.
7. All retaining walls to be masonry construction (or similar).
8. The maximum height of a single retaining wall is 1m. A variation to the maximum height that may be considered if in Council's opinion, supporting information adequately demonstrates that the development will not have adverse impacts on adjoining properties and overall local amenity.
9. Where terraced retaining walls are proposed the minimum distance between each step is 1m.
10. Retaining walls that front a public place will be finished with anti-graffiti coating.

Steep/Unstable land

11. Development on land having a natural gradient of 15% or greater will be accompanied by, and comply with, a geotechnical study (prepared by a suitably qualified geotechnical engineer), including guidelines for structure and engineering works on the land.
12. Development on unstable land or land previously filled will not be assessed or approved without a geotechnical study.

4.3 STORMWATER MANAGEMENT

Objectives

To ensure that stormwater runoff has no detrimental impact on neighbouring properties, public spaces and Council infrastructure.

To provide major and minor drainage systems which:

- Adequately protect people and the natural and built environments to an acceptable level of risk and in a cost effective manner in terms of initial costs and maintenance; and
- Contribute positively to environmental enhancement of catchment areas.

To manage any water leaving the site(during construction and operation) with stormwater treatment measures.

To provide water quality management systems which:

- Ensure that disturbance to natural systems is minimised, and
- Stormwater discharge to surface and underground receiving waters, during construction and in developing catchments, does not degrade the quality of water in the receiving areas

Controls

A site-specific Stormwater Management (SMP) is to be submitted with all subdivision development on the site including any bulk earthworks development applications.. The SMP will provide for the integrated management of stormwater in order to:

- Minimise flooding impact;
- Protect and enhance environmental values of receiving waters;
- Maximise the use of water sensitive urban design principles
- Maximise the use of natural waterway corridors and natural channel design principles
- Maximise community benefit; and
- Minimise public safety risk.

New developments and redevelopments are not to increase stormwater peak flows in any downstream areas.

Stormwater systems shall be designed and constructed using a major/minor system configurationin accordance with council's Engineering Guidelines.

The design of the stormwater system provides for stormwater quality best management practices that are sufficient to treat target pollutants.

Where site topography prevents the discharge directly to the street gutter or a Council controlled pipe system, interallotment drainage is provided to accept fun-off from all existing or future impervious area that are likely to be directly connected.

The floor level of new development is to be at or above the 1% AEP plus 500mm freeboard to provide protection to life and property.

4.4 BUSHFIRE RISK MANAGEMENT

Objectives:

(a) Prevent loss of, and damage to life, property and the environment due to bushfires by requiring development to be compatible with bushfire risk management principles;

(b) Ensure that all new and redeveloped allotments have sufficient measures to minimise the impact of bushfires;

(c) Ensure that future development does not increase the bushfire risk management and maintenance

responsibilities on adjacent properties;

(d) Identify the potential bushfire threats to individual sites and ensure that there are adequate water supplies available for firefighting; and

(e) Identify asset protection zones between areas of potential hazard and development.

Controls:

1. Development on land identified as bushfire prone on Council's Bush Fire Prone Land Map must address the bush fire protection measures in the NSW RFS publication Planning for Bush Fire Protection (or equivalent).
2. Asset protection zones must be contained wholly within the subdivision they are designed to protect. The asset protection zones are to be placed as a restriction as well as a positive covenant on the burdened allotments. No habitable buildings or storage structures are permitted within those zones.
3. Temporary APZs, identified through a Section 88B instrument, will be required where development is proposed on allotments next to undeveloped land. Once the adjacent stage of development is undertaken, the temporary APZ will no longer be required and shall cease.

4.5 HERITAGE CONSERVATION

Objectives:

(a) To conserve heritage items and their significance as far as practical to their original elements.

(b) To enable adaptive reuse of heritage items for uses that are complimentary their existing built form.

(c) To protect identified heritage items and their curtilage from new developments that would detract from their cultural or scenic heritage significance.

(d) To ensure new developments that are located within close proximity to heritage items are designed to complement heritage features and reduce their visual impact.

(e) To protect view lines both within and outside the development area to key heritage items.

Controls:

1. A Heritage Impact Statement is to be submitted with any Development Application that affects an item of State or Local heritage significance to demonstrate that the items integrity and heritage significance is maintained.
2. A landscape plan and landscape management plan is to be submitted with any DA within the SHR State Heritage Curtilage.
3. A Heritage Impact Statement is submitted for any Development Application that is within the Heritage Curtilage and Local Heritage Conservation Area Figure 4.
4. New developments should not disrupt the visual view corridor between the kiln and powerhouse buildings.
5. New buildings within the Heritage Curtilage and Local Heritage Conservation Area should respect the precincts heritage and in terms of siting, form and character, and not compete with historic items. Materials and finishes should be sympathetic.

6. Any development involving or adjoining a heritage item should be in accordance with the Conservation Management Plan (CMP) – Chapter 7 at Appendix 3.
    a. A Heritage Maintenance Plan is to be submitted with any DA proposed on a heritage item.
    b. Painted elements should be repainted in the original colour scheme, any unpainted areas should remain.
    c. New uses should ensure the long term viability of the heritage item, with mixed uses being the most appropriate.
    d. The use should not result in unsympathetic alterations to the significant buildings, and as such the current size and configuration of the heritage item should largely dictate the use.
    e. Signage and lighting should be in harmony with the historic character of the lighting.
    f. Signage or lighting fixings should be reversible and not damage significant heritage fabric. Free standing signage should be used for major signs and signage should not be attached to the brickwork walls of the buildings.
    g. Any new services should be carefully considered and take into consideration the structure and fabric of the heritage item to minimise impacts. Grills and mesh to doors and windows is discouraged. Air conditioning units should be in discreet locations and in appearance and concealed from view.
    h. No external alterations and additions should occur to State significant items, except for minor additions for services, and minor internal alterations in areas of least significance.
    i. New buildings or alterations adjoining heritage items should be identifiable and where possible reversible. New fabric should not lessen the cultural significance of the place.

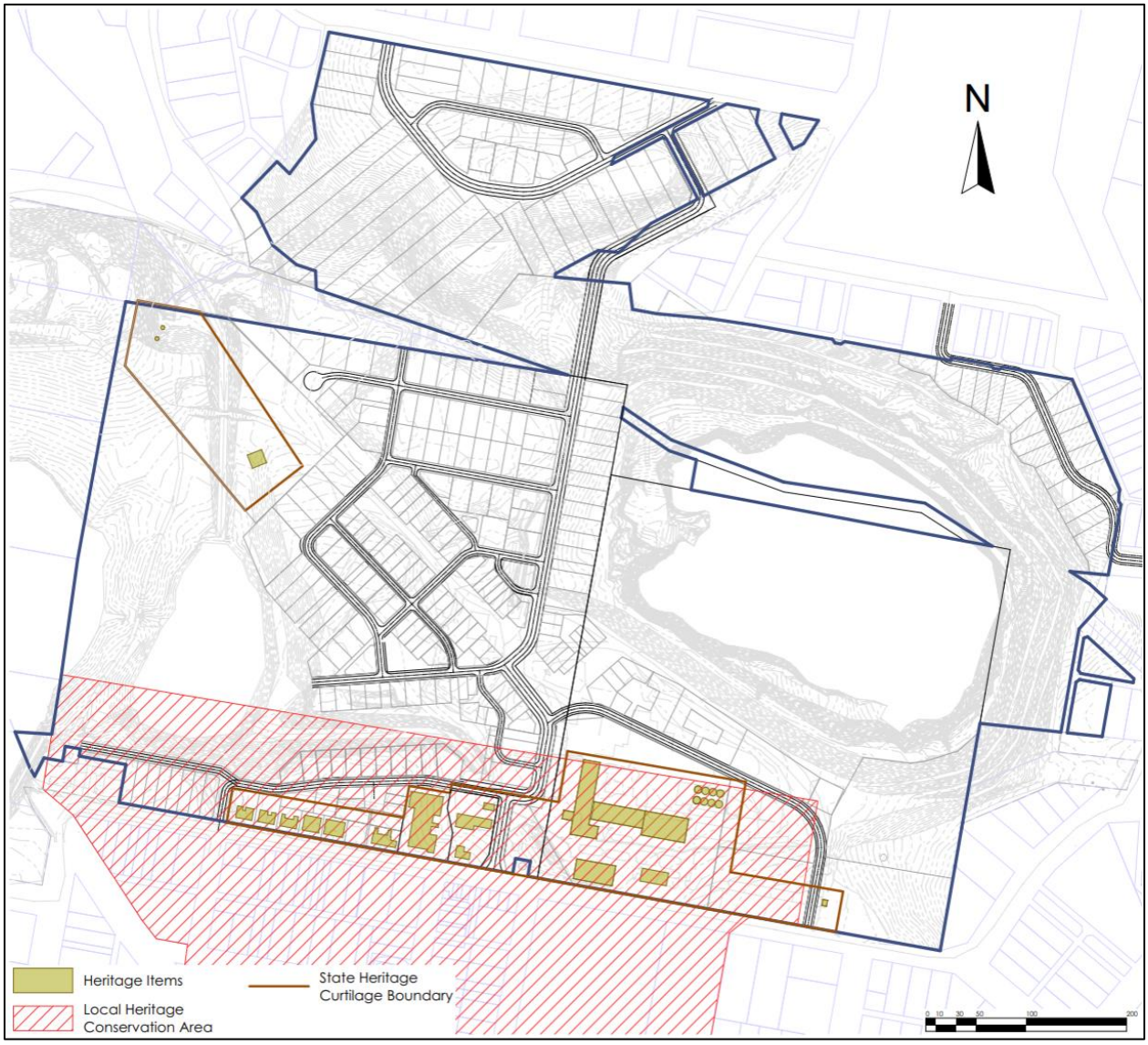


Figure 4. Heritage Curtilage Map

4.6 INDIGENOUS CONSERVATION

Objectives:

(a) To protect and enhance and celebrate areas of Indigenous cultural significance.

(b) To consult with the Aboriginal community regarding the heritage management of the Foundations Precinct.

Controls:

1. Should any Aboriginal objects be encountered, work must cease in the vicinity and the find should not be moved until assessed by a qualified archaeologist. If the find is determined to be an Aboriginal object the

archaeologist will provide further recommendations, which may include notifying NSW Environment and Heritage Group (EHG) and Aboriginal stakeholders.

2. Should any Aboriginal objects be uncovered during construction, excavation or disturbance of the area shall cease immediately and the National Parks Division of the EHG is to be informed in accordance with Section 91 of the National Parks and Wildlife Act 1974.
3. If any suspected human remains are discovered during any activity, all work must be ceased immediately at that location and not further moved or disturbed. The NSW Police and EHG's Environmental Line must be contacted on 131 555 as soon as practicable and provided with details of the remains and their location. Work at that location cannot be recommenced unless authorised in writing by EHG
4. The proponent should inform Aboriginal stakeholders about the management of Aboriginal cultural heritage sites throughout the life of the project.
5. The final Aboriginal Cultural Heritage Assessment Report will be sent to the Registered Aboriginal Parties, the client, EHG and the AHIMS register for their records.

4.7 TREE RETENTION AND BIODIVERSITY

Objectives:

(a) To enhance and encourage areas of established native vegetation, including areas of contiguous remnant vegetation.
(b) To increase biodiversity across the site and adjoining catchments
(c) Promote and enhance the green grid within the precinct and connections to the wider green grid.
(d) To prevent the spread of weeds during and after construction
(e) Promote regeneration and native vegetation planting on all lots and across the precincts.

Controls:

1. Established trees should be retained where practicable. A Tree Survey should accompany any development application where established native trees are proposed to be removed. The Tree Survey Plan is to identify the location, type and condition of all existing trees, and is to indicate those trees proposed to be removed, including the justification for their removal, and those to be retained. Where trees are to be retained, details of any protection methods shall be submitted with the DA. Priority should be given to retention of trees that have biodiversity value, particularly hollow bearing trees. These and other significant trees are to be retained wherever possible within public and community parks, streetscapes and riparian corridors.
2. New plantings should focus on ensuring connections to existing and surrounding vegetation patches to encourage larger areas and connectivity of green spaces.
3. All subdivision design and bulk earthwork is to consider the need to minimise weed dispersion and eradication. In the opinion of Council, where a significant weed issue exists, a Weed Eradication and Management Plan is to be submitted with the subdivision DA that outlines weed control measures during and after construction. In these instances, a detailed Management Plan will be required to be prepared prior to any earth works being undertaken.

Native Biodiversity Impacts Associated with a Development Application

4. Clearing of native vegetation proposed in association with a Development Application is to comply with the requirements of Biodiversity Conservation Act 2016 and its Regulations 2017 and State Environmental Planning Policy (Biodiversity and Conservation) 2021.
5. Flora and fauna assessments are required to be conducted and corresponding reports prepared and submitted to Council where development where direct or indirect impacts are anticipated to native biodiversity, including prescribed impacts as defined under the Biodiversity Conservation Regulations 2017. Flora and fauna assessment reports must be prepared by a suitably qualified expert and in accordance with the NSW Government "Threatened Species Survey and Assessment Guidelines and Field Survey Methods".
6. NOTE* A flora and fauna assessment will assist Council in determining the potential impacts of a development/ clearing and whether the BOS is applicable to the development.
7. For all activities likely to have biodiversity impacts applicants must determine if the Biodiversity Offsets Scheme (BOS) applies through application of the Biodiveristy Values Map and Threshold (BMAT) tool. Should the BMAT identify that entry into the BOS applies the applicant must engage an accredited assessor to apply the Biodiversity Assessment Method (BAM) to the proposal After applying the BAM, the accredited person will prepare a Biodiversity Development Assessment Report (BDAR) if required.
8. NOTE* The accuracy of the BMAT tool report is dependent on the accuracy of the information input into the tool. In this regard applicants must provide the total development footprint including that which is required for construction. Council may request resubmission of the reports if there is any uncertainty about the accuracy of information.

Test of Significance

9. Where the proposed activities relate to impacts on threatened species and/or threatened ecological communities but do not trigger the BOS vegetation clearing threshold, applicants must complete a 'Test of Significance' (5 part test) in accordance with Section 7.3 of the Biodiversity Conservation Act 2016.
10. Tests of significance must be prepared by a suitably qualified expert in accordance the NSW Government Threatened Species Test of Significance Guidelines, and Threatened Species Survey and Assessment Guidelines and Field Survey Methods.

4.8 VEHICLE ACCESS AND PARKING AND SERVICING

Objectives

To ensure all development has safe and functional vehicle access/egress that minimises impacts on public roads and pedestrian safety and connections.

To ensure access and parking areas (and associated structures) are designed:

(a) To respond to site opportunities and constraints, especially slope;
(b) To minimise impacts on active or retail frontages in key business zones or main streets;
(c) To integrate with the building design; and
(d) To be appropriately located, designed, screened and/or landscaped to protect street character and minimise visual impacts.

To provide adequate off-street (on-site) parking consistent with:

(e) The likely parking demand generated by the development;
(f) The size and nature of the proposed use(s) and activity on the site;

(g) The number of employees/staff/residents and the estimated number of customers/visitors;
(h) The availability of public transport or other active/alternative transport methods;
(i) The need to accommodate service vehicles and deliveries, so that there is not an unreasonable reliance on on-street (or off-site) parking that impacts on other users.

To provide adequate circulation and manoeuvring areas for the largest design vehicle for the site that addresses safety and ease of access, circulation and navigation.
To provide suitable loading/unloading, servicing, and waste management for developments.
To minimise impacts on neighbouring sites from vehicle movements and parking (e.g., noise, dust, vehicle lights, vibrations etc.).
To encourage alternatives to private vehicles for access including, but not limited to, public transport, walking, and bicycles (active transport).
To promote accessibility for all users, including people with a disability (where required).

Contols

1. Where an inconsistancy between this section and Residential Parking Garages And Site Access the the latter will take precidence.
2. All development is e.g., designed to be consistent with (as amended):
3. Council's Guidelines for Civil Engineering Design and Construction for Development ('Engineering Guidelines');
4. RTA (now Transport for NSW) (2002) Guide to Traffic Generating Developments; and Relevant Australian Standards including but not limited to (as amended):

(a) AS2890 – Parking facilities including:
    i. AS2890.1 (2004) – Off-street car parking;
    ii. AS2890.2 (2018) – Off-street commercial vehicle facilities;
    iii. AS2890.3 (2015) – Bicycle parking facilities;
    iv. AS2890.6 (2009) – Off-street parking for people with disabilities
(b) AS1428 – Design for Access and Mobility.
(c) Relevant Austroads Guidelines; and
    i. Relevant Council Policies.
    ii. These guidelines/standards are applicable to all relevant control(s) below.

Vehicle Access & Driveways

Access: The applicant demonstrates that any proposed site vehicle access location and design has considered the site opportunities and constraints as well as public safety including, but not limited to:

(a) Assessing the type of road(s) the site will access and its posted speed limit;
(b) Avoiding direct access to an arterial road (e.g., highway or main road) unless there is an existing suitable access or no suitable alternative;
(c) Avoiding or minimising impacts on street trees and utilities/services in the street;
(d) Locating and designing access points to minimise interference with natural and street drainage;

(e) Ensuring appropriate sight-lines (clear of obstructions) at driveway exits to vehicular traffic and pedestrians/bicycles;
(f) Assessing potential conflicts with other vehicles and pedestrians/ bicycles on and off-site;
(g) Separating vehicle and pedestrian accessways for larger developments
(h) Ensuring the landscape design does not impact safety whilst screening or softening the visual impact of any parking areas;
(i) Minimising impacts on on-street parking;
(j) Minimising the visual impact of larger driveways or on-site parking areas.

Policy: All works comply with Council Policy No.10.18 – Specification for the Construction of Driveways, Footpath/Gutter Crossings and Foot-paving (as amended).

All Weather Access: All weather access is required to all development to ensure that emergency services are able to access them at all times.

Proximity to Intersection(s) & Sight-Lines: Any driveway:

(a) a) Has a minimum separation of 6m from the kerb return of a street corner/intersection in an
(b) urban area (this setback may increase where it is near a major arterial road or there are
(c) reduced sight-lines); and
(d) b) Complies with AS2890.1 (as amended) including:
    i. Figure 3.1: Prohibited Locations of Access Driveways; and
    ii. Figure 3.2: Sight Distance Requirements at Access Driveways.

Direction of Travel: Vehicle access and egress to/from a lot occurs in a forward direction, except as follows:

(a) With direct access to an arterial road, only single dwelling houses or secondary dwellings;
(b) With direct access to a non-arterial (local) road only single dwellings, secondary dwellings, dual occupancies (attached or detached), bed and breakfast accommodation and short-term holiday lets of these dwelling types. Unless the applicant has demonstrated there are specific site constraints, exceptional circumstances, and safety has been addressed (e.g., emergency vehicles) at the discretion of Council and/or TfNSW.

Access to Street: Vehicle access is designed to:

(a) Meet the requirements of Council's Engineering Guidelines in Section 2.3.8 – Driveway Construction;
(b) Cross the footpath or footway at right angles to the centreline of the road;
(c) Be clear of obstructions, which may prevent drivers having a timely view of pedestrians or vehicles;
(d) Be 0.5m clear of drainage structures at the kerb or gutter and not impact other utility infrastructure (or relocation is at the cost of the developer);
(e) Be properly signposted, where there are separate access and exit points;

(f) Take into consideration any requirements in the former RTA (2002) Guidelines for Traffic
(g) Generating Development (as amended or replaced) – Section 6.2 Access requirements.

Slope: Driveways and car parking areas in urban areas does not exceed a maximum grade of 25% with suitable transitions at the boundary and garages to prevent scraping for the standard design vehicle.

Driveway Width:

(a) Driveways serving one (1) to two (2) dwellings or in rural areas are a minimum width of 3.5m.
(b) Shared driveways serving three (3) or more dwellings (up to eight (8) dwellings) have a minimum width of 4.5m (3.5m carriageway plus landscaping) increasing to 5.5m forward of the front building line or provide for passing bays (in accordance with AS 2890.1) based on the size of the development/length of the driveway.
(c) Driveways servicing commercial or industrial development (or residential development not covered in (a) or (b) above) have sufficient width to enable safe either two-way or separated one-way vehicle movement in and out of the Site without blocking sight-lines.
(d) Driveways do not dominate the street and provide the minimum width to achieve safety whilst being integrated with the landscape design for the site.

If the land is bushfire prone, driveways / access may need to comply with the Rural Fire Service requirements in addition to the above dimensions.

Loading/Unloading, Delivery & Servicing Facilities

Street Servicing: Servicing from the street frontage is not permitted unless there are site constraints that would prevent off-street servicing from occurring.

Design: Layout and dimensions are to comply with AS2890.2 Off street commercial vehicle facilities (where applicable).

Residential Impacts: In mixed use developments (or adjacent to residential zones or residential accommodation) servicing facilities for non-residential uses are located and designed to protect the amenity of residents.

Loading / Unloading Design: Servicing area(s) are located and designed so:

(a) They can be accessed in a safe and efficient manner;
(b) They do not result in any service vehicles extending over public roads or footpaths during loading and unloading operations;
(c) They do not utilise or crossover vehicle circulation, parking spaces or pedestrian paths unless all loading/unloading occurs outside the normal business hours of the premises;
(d) They are located behind the building line to any street;
(e) They are suitably screened from public spaces, especially where there may be open (outdoor) storage of goods.

Parking Location, Design & Circulation

Parking Location: Parking location considers and addresses (where relevant):

(a) Providing consistent front building setbacks to the street;

(b) Minimising visual impact of off-street parking areas/garages/garage doors/driveways on street activity and character;
(c) Providing screening that can minimise this impact (where appropriate) in urban areas;
(d) Proximity of customer parking to customer entrances and staff parking to staff entrances including accessible parking and access;
(e) Minimising impacts of traffic movements and parking on any neighbouring dwellings/residential areas;
(f) Addressing site conditions such as slope and drainage;
(g) Ease of access to and from the street and navigation to parking areas;
(h) Separation of customer parking from courier and service delivery vehicle parking and/or loading and unloading facilities for safety and accessibility;

Parking Design: Parking spaces, manoeuvring areas, and driveways are designed in accordance with relevant Australian Standards.

Accessible Parking:

(a) All development provides accessible car parking as set out in the National Construction Code and the relevant Australian Standard(s) (AS).
(b) The dimensions for accessible car spaces (including headroom & access) comply with AS2890.6 - Off-street parking for people with disabilities.

Safety: The design of all internal vehicle manoeuvring areas demonstrates consideration of the safety and access for all users (private vehicles, service vehicles, pedestrians, bicycles etc.) and minimise potential conflicts.

Sealed Vehicle Areas:

(a) All vehicle manoeuvring areas on-site in urban areas are sealed.
(b) Gravel surfacing is not permissible except where there are no conflicts (noise and dust) with adjacent lots and suitable drainage is provided.

Stormwater: Parking areas and driveways are designed, surfaced and graded to reduce runoff and allow stormwater to be controlled on site in accordance with Section 4.3 of this DCP.

Vehicle Sizes: Internal vehicle manoeuvring and parking areas is designed to accommodate the size, turning radii and the pavement loading of the largest vehicle that is likely to be used by the proposed development/activity.

Operation Hours: Free and uninterrupted access to car parking areas is maintained at all times during the hours of operation of the proposed development. Any restrictions or overlapping uses should be addressed in the application.

Basement Parking: Basement car parking is not to protrude more than 1m above finished ground level except at the entrance to the car park.

Stacked Parking: Stacked (or' tandem') car parking is not acceptable for medium to high density housing, commercial or industrial uses, or visitor/customer parking unless justified in a relevant report based on special site considerations and parking management arrangements.

Circulation: Larger car parking areas provide rational circulation patterns with ease-of navigation and minimise the use of dead-end aisles.

Parking Navigation: Signage addresses/takes into consideration the following:

(a) Parking areas are well sign-posted to indicate the location of off-street parking, exit and entry points, and the circulation spaces on the site, with directional signposting from the building entrance/exit (where necessary);
(b) Pavement arrows clearly indicate the direction of traffic circulation (if one-way);
(c) Parking areas are clearly delineated as well as parking spaces for specific users (e.g., disabled spaces/staff/visitors).

Lighting: Lighting of car parking areas is to be in accordance with AS1158.3 Pedestrian Area (Category P) Lighting whilst avoiding impacts on neighbouring properties (see AS4282 Control of Obtrusive Effects of Outdoor Lighting).

Visual Impact: Design should integrate parking areas including garages and carports to minimise the visual dominance and impact of parking areas and structures, particularly when viewed from the street/public domain.

On-Site Parking Provision

Parking: Parking is to be provided generally in accordance with Table 2 Parking Provisions.

Other Use: For any other use (or for larger developments), in accordance with an assessment of the parking demand for the development determined on merit having regard to the nature of the development and traffic generation. Council may require a Traffic & Parking Report with three (3) cases / examples from the region.

TABLE 2. PARKING PROVISION		
Use	**Car Parking**	**Bicycle Parking**
Tourist & Visitor Accommodation	1 space per unit or room and 1 space per 3 staff. A minimum of 1 visitor or drop off/reception space.	1 space per 4 staff (on-site at one time); and 1 space per 20 units/rooms
Business or Office premises	1 space per 50m^2 GFA	1 space per 15 car parking spaces
Child care centres	1 space per 10 children + 1 space per 2 employees	1 space per 15 car parking spaces; and 1 space per 4 staff (on-site at one time).
Community facilities/ place of public worship/assembly	1 space per 10m^2 of GFA OR 1 space per 4 seats (whichever is greater).	1 space per 15 car parking spaces
Home Business	1 space per dwelling and 1 space per 2 staff.	N/A

Medical centre/ health consulting room	1 space per 50m^2 GFA.	1 space per 15 car parking spaces; and 4 staff (on-site at one time).
Shop	1 space per 35m^2	1 space per 15 car parking spaces
Any other development	As justified through a Traffic Statement.	As justified through a Traffic Statement.

4.9 ACTIVE TRANSPORT

Objectives:

(a) To encourage and support alternative travel options, including active and public transport

(b) To provide safety, connectivity, and ease-of-navigation for pedestrians.

(c) To maximise the accessibility of the public and private domain (including buildings) for all members of the community.

Controls:

Pedestrian Accessibility:

Development complies with the relevant accessibility legislation & standards including, but not limited to:

1) Access to Premises Standards: Disability (Access to Premises — Buildings) Standards 2010 (as amended or replaced) under the Disability Discrimination Act 1992;
2) National Construction Code (NCC); and
3) Australian Standards (including AS1428 – Design for Access and Mobility)s

Separation:

4) Pedestrian and vehicle access for all larger developments (e.g., > 10 dwellings or for commercial/industrial development) is separated and clearly marked/defined. All other development can provide shared movements with reduced vehicle speeds and appropriate signage and markings.

Entrances:

5) Entrances to buildings are clearly visible from primary street frontages and enhanced as appropriate to improve legibility and accessibility.

Mixed-Use Buildings:

6) Mixed-use buildings, particularly those with residential uses, have separate residential and commercial entrances to the street.

Access ramps: Access ramps (to meet accessibility standards above) are integrated into building design and located outside the road reserve/public footpath to minimise visual impact and impact on footpath safety and flows.

7) Consider provision of parking areas for mobility scooters.
8) Ensure access is consistent with the needs of wheelchair users with the provision of universal access principles.

Cycling

9) Bicycle parking spaces should be provided for all commercial and non-residential development in accordance with Table 2
10) Bicycle parking for staff or residents should allow for secure bicycle storage.
11) Bicycle parking spaces should be clearly marked and easily accessible and safe.

4.10 End of trip facilities, including lockers should be incorporated into commercial and non-residential development in accordance with the *NSW Planning Guidelines for Walking and Cycling*.WASTE MANAGEMENT

Objectives:

(a) To facilitate sustainable waste management practices during the demolition, construction and operational phases of the development.

(b) To minimise the environmental impacts of waste through waste avoidance, minimisation, re-use and recycling.

Controls:

1. A Waste Management Plan is to be prepared and lodged with a development application involving demolition, construction and/or changes of use.
2. A Waste Management Plan shall include details regarding:
    a. The types and volumes of waste and recyclables generated during the demolition, construction and operational phases;
    b. Details of on-site storage and/or treatment of waste during the demolition, construction and operational phases;
    c. Disposal of waste generated during the demolition and construction phases which cannot be re-used or recycled;
    d. Ongoing management of waste during the operational phase of the development.

4.11 CONNECTION TO UTILITIES

Objectives:

(d) To ensure that development will not place unreasonable pressure on servicing authorities in terms of timing and extent of supply;

(e) To ensure that development will take place only where satisfactory arrangements are made with the servicing authorities; and

(f) To ensure that adequate consultation is carried out with the relevant servicing authorities during the formulation of development proposals.

Controls:

General

1. Any site analysis should address the existing and proposed provision of services/utilities to a property and whether there is satisfactory capacity to address the required demand of the proposal.
2. Satisfactory arrangements should be made with the servicing authorities for the provision of services to the property.
3. Where possible, services (including easements) should not be located in areas where vegetation will be removed or damaged.
4. Utility infrastructure is designed to allow for colocation of compatible services

5. Pit and pipe infrastructure supports future requirements to service smart city infrastructure

Electricity

1. Applicants are required to make satisfactory arrangements with Endeavour Energy for the provision of electricity and/or lighting to the site.
2. All development is to be serviced with underground electricity.

Telecommunications

1. Applicants are required to make satisfactory arrangements with relevant service providers for the provision of telephone and data cables.
2. Telecommunication infrastructure in new release areas should provide the following:
3. Multiple telecommunication services including high speed internet (including broadband), voice and data systems;
4. Cabling for all telephone lines, cable TV and internet, built into all buildings from the outset;
5. Underground telecommunications infrastructure; and
6. Consideration of the provision of a centralised (C.A.T.V) system rather than individual
7. antennae or dishes particularly for multi dwelling housing and residential flat buildings

Water and Sewer

1. All development is to be connected to reticulated water and sewer to the satisfaction of Lithgow City Council.
2. All water connections are to be separately metered for each lot, tenant or building.
3. The developer is responsible for the full cost of the design and construction of water supply and sewerage reticulation in new development areas/subdivisions.
4. Note: LCC Development Servicing Plans for Water Supply and Sewerage apply to the Foundations Urban Release Area that levy developer charges

Building Near Utilities/Easements/Drainage Lines

1. Building near Easements: Permanent buildings, structures or works are not to be located over an easement unless there is express written authorisation from the relevant authority benefited by the easement in accordance with Council Policy 5.1 – Building Over Easements.
2. Setbacks from Utilities: Where an easement does not exist, the structure is located:
    a. A minimum distance equivalent to the invert depth of the pipeline plus one (1) metre; and/or
    b. Outside the 'zone of influence' from the known utility location; or
    c. In accordance with the relevant utility authority requirements.
3. Drainage: Development does not compromise the integrity of a drainage or stormwater line originating from outside the development site.

LAND DEVELOPMENT

4.12 INDICATIVE LAYOUT

The Indicative Layout Plan (ILP) at **Figure 5** illustrates the broad level development outcomes for the Foundations Site. It outlines the development footprint, landuses, lot size areas, open space and water bodies.

Objectives

a) To locate innovative mixed-use lots closer to the town of Portland to attract new retail, commercial and hospitality uses to complement the town.
b) To locate small cottage lots largely within the Central Mill Precinct and / or locations where cottages coexist within its landscape context.
c) To locate larger lots towards within the Pinetree Ridge Precinct, lands adjoining Roxburgh St and High St, and / or other locations to diversify housing choice within a sub-precinct.
d) To ensure functional lots that ensure amenity for any future dwellings or development.
e) To ensure open space, laneways and roads can be appropriately dedicated to Council.
f) To allow for the delivery of approximately 300 – 350 new dwellings.

Controls

1. Development is to be undertaken generally in accordance with the Indicative Layout Plan at Figure 5 subject to compliance with the objectives and controls set out in this DCP.
2. Where variation from the ILP is proposed, the applicant is to demonstrate that the proposed development is consistent with the vision and development objectives for the site set out in Part 2 of this DCP. The DCP may require amendment where significant variation is envisaged.

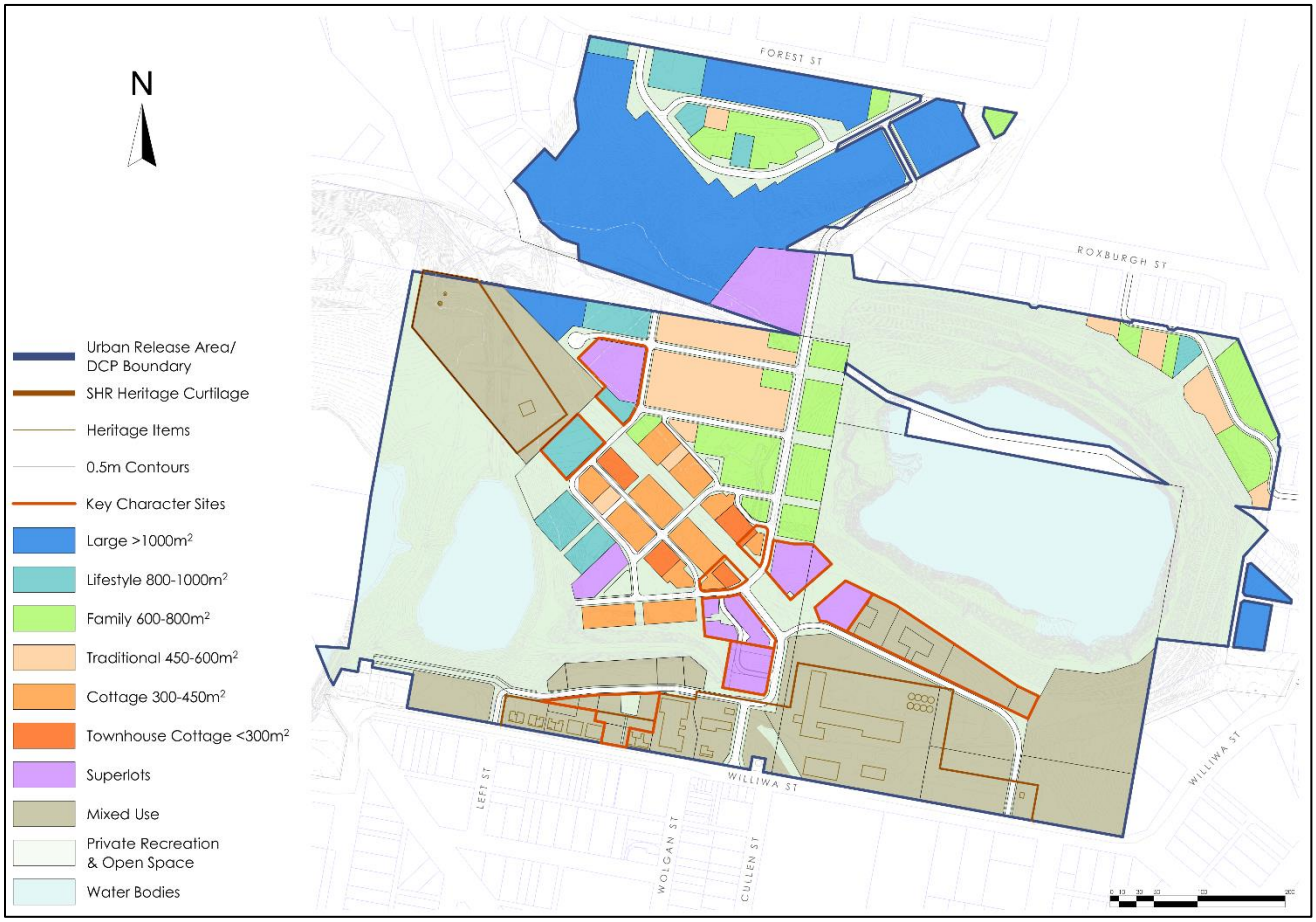


Figure 5. Indicative Layout Plan

Infrastructure Delivery and Development Staging

Objective:

(a) To ensure orderly development in a logical sequence.

(b) To ensure infrastructure is provided in a logical sequence and ensure all development has access to key services.

Controls:

1. Development should be delivered in a staged sequence generally in accordance with Figure 6. Indicative Staging Plan.
2. A concept infrastructure servicing strategy is to be prepared and submitted to Council as part of the first subdivision DA for the site that demonstrates essential utilities and infrastructure can be provided to service the full development.
3. Any out of sequence development should demonstrate the ability to connect to infrastructure and services required to support the development.

Figure 6. Indicative Staging Plan

Access and Movement

The Foundations will provide a variety of street types that respond to the village character, prioritise pedestrian movements over cars, and encourage a slow speed environment that is safe for all ages. The streets will contribute to the character of the area with distinctive planting, street furniture, and connections into the wider active travel path network.



TYPICAL OUTCOMES TO AVOID:

• Wide carriages with inadequate size and frequency of trees to provide sufficient shade coverage

• Identical street widths, characters, types, provide 'a one size fits all' rather than tailored to the neighbourhood scale and character

• Inefficient road reserve widths reduce available developable land

• Lack of pedestrian / cycle priority, enforcing reliance on vehicles

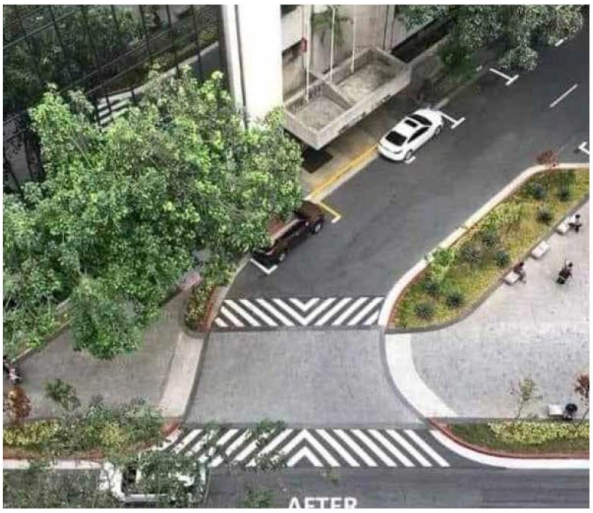
• Wide intersections are slower and more dangerous for pedestrians to cross

PLACE LED APPROACH

TIGHTER KERB RADII

Design Guidance

- Vehicles are required to drive slower around tighter corners which creates a safe slow speed environment for pedestrians



NARROWED INTERSECTIONS

Design Guidance

- Reduced carriageway widths at intersections creates a safer environment for pedestrians with less road to cross
- On-street parking is safer with reduced chances of accidents on corners

INDENTED ON-STREET PARKING

Design Guidance

- Provide tree pits between indented on-street parking to slow traffic and increase shade coverage to reduce the 'heat island effect'

Street Network Layout and Design

Objectives

(a) To create a mobility network that responds to the historic street grid of Portland and site influences.
(b) To give priority to people walking, cycling and driving – in that order.
(c) To provide a range of street types balancing capacity and character.
(d) To provide the opportunity for rear lanes to improve vehicle access and servicing of cottage lots and mixed-use super blocks.
(e) To prioritise pedestrian and improve pedestrian, cycle and road safety through implementation of traffic calming measures.

Controls

1. The street network is to be provided generally in accordance with Figure 7 Street Typology. Where any variation to the residential street network is proposed, the alternative street network is to be designed to achieve the following principles:
    - establish a permeable network that is based on a modified grid system,
    - encourage walking and cycling
    - maximise connectivity between residential areas, open space and community facilities and the Portland Town Centre
    - take account of topography and any significant vegetation
    - optimise solar access opportunities for dwellings
    - provide frontage to and maximise surveillance of open space and riparian corridors
    - maintain views and vistas to landscape features and visual connections to heritage items and places and
    - maximise the use of water sensitive urban design measures
2. Streets to be provided in accordance with Figure 7. The dimensions shown on these typical diagrams are minimums only. Alternate street designs may be permitted on a case by case basis if they preserve the functional objectives and requirements of the design standards.
3. Traffic management, ie road layout and/or speed reducing/calming devices are to be used to produce a low speed traffic environment such as (refer to Figure 7)

    Raised intersections and pedestrian crossings
    Road narrowing
    Horizontal deflection
    Traffic islands
    On road Bicycle emblems

    Such traffic management devices are to be identified at subdivision DA stage.

4. All roads should allow for a minimum 4m radius kerb return, as shown in Figure 13. 4m kerb radius is aimed at achieving a balance between traffic access and calming for promoting pedestrian and cycling modes of transport. Figure 13 **Error! Reference source not found.**shows the swept path of the check vehicle being a 12.5m Heavy Rigid Vehicle which satisfies Austroads Guidelines.

5. Roads and laneways are to be dedicated to Council, unless proposed to be common property under a strata subdivision scheme.

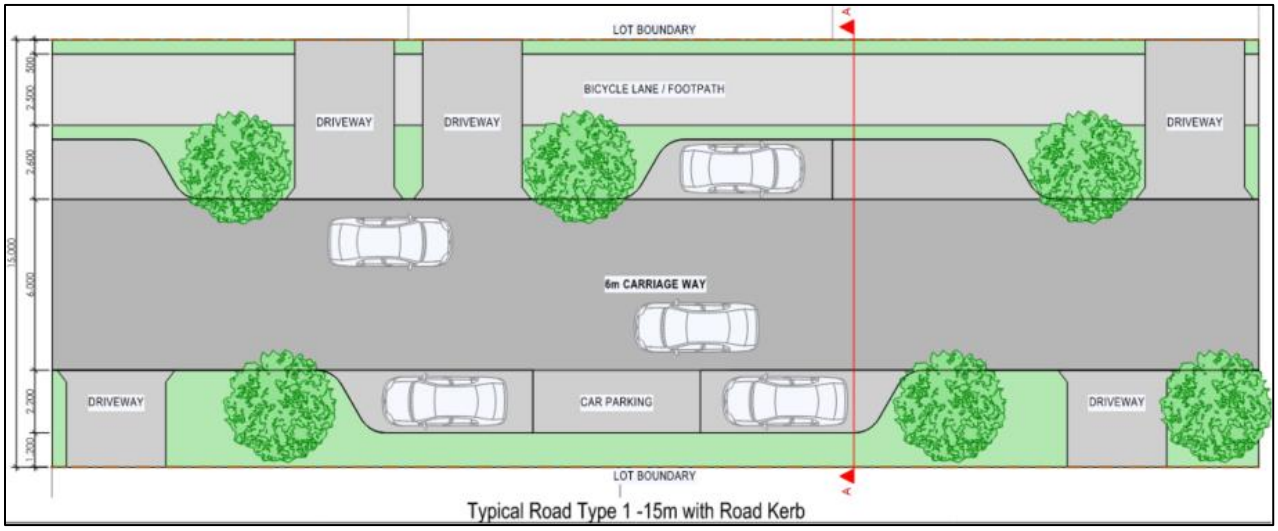
6. Street trees are required on all streets, except laneways. Street planting is to:
be used consistently to distinguish between public and private open spaces and between different street types within the street hierarchy, minimise risk to utilities and services,
be durable and suited to the street environment and include endemic species,
maintain adequate lines of sight for vehicles and pedestrians, especially around driveways and street corners,provide appropriate shade, and provide an attractive and interesting landscape character without blocking the potential for street surveillance.

7. Any proposal for street tree planting within the road reserve (carriageway and footpath) is to include appropriate detailed design that addresses access and manoeuvrability of heavy vehicles and cars, the impact of the root system on the carriageway, ongoing maintenance of the tree and carriageway, and the relationship with future driveway access points. It must also address any adverse impact on available on-street parking.

8. The location and design of signage, street furniture and street lighting is to be indicated on the engineering construction drawings.

9. The design of all signage, street furniture and street lighting is to be approved by Council and be:
designed to reinforce the distinct identity of the development co-ordinated in design and style, located so as to minimise visual clutter and obstruction of the public domain, of a colour and construction agreed to by Council, and consistent with any relevant Australian Standard including AS/NZS 1158 series for street lighting,

Figure 7. Street Typology



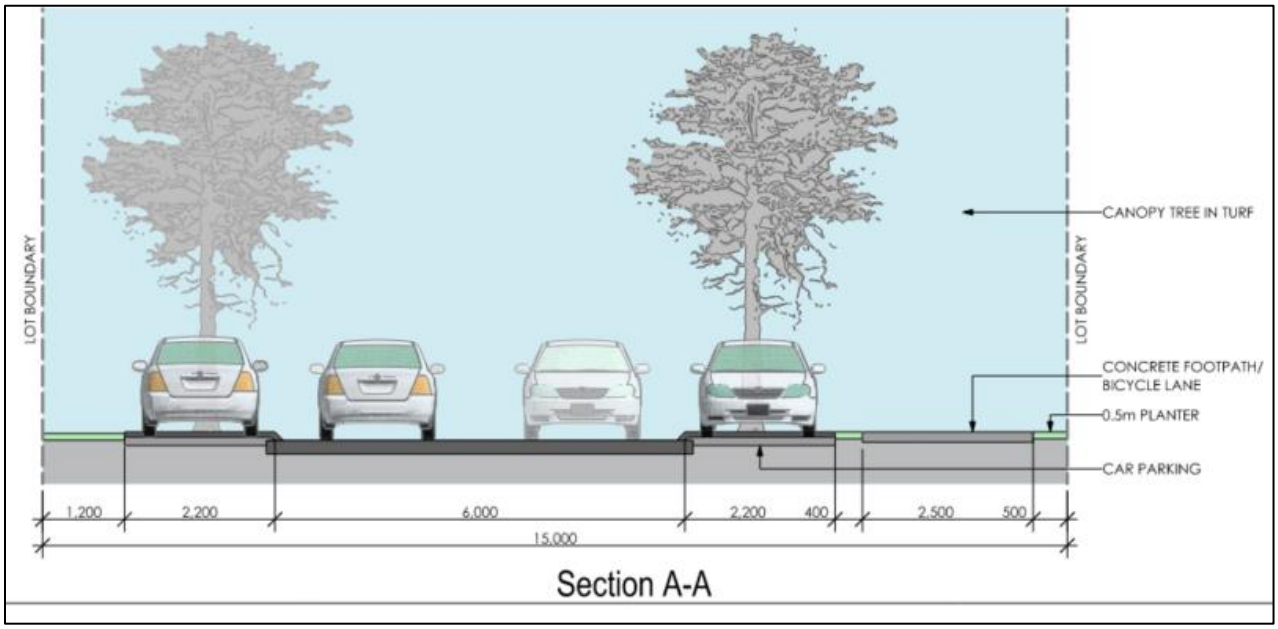
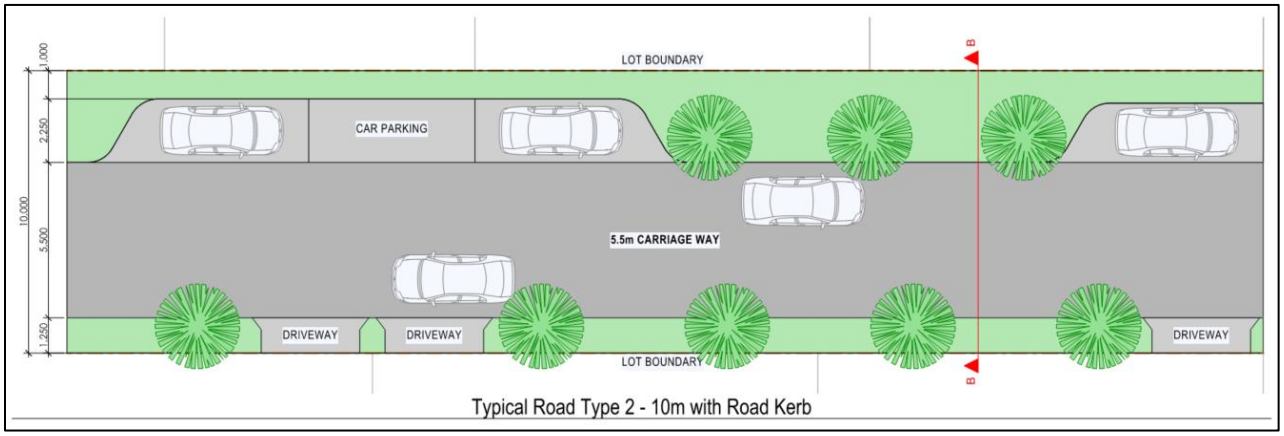


Figure 8. Road Type 1 and Cross Section



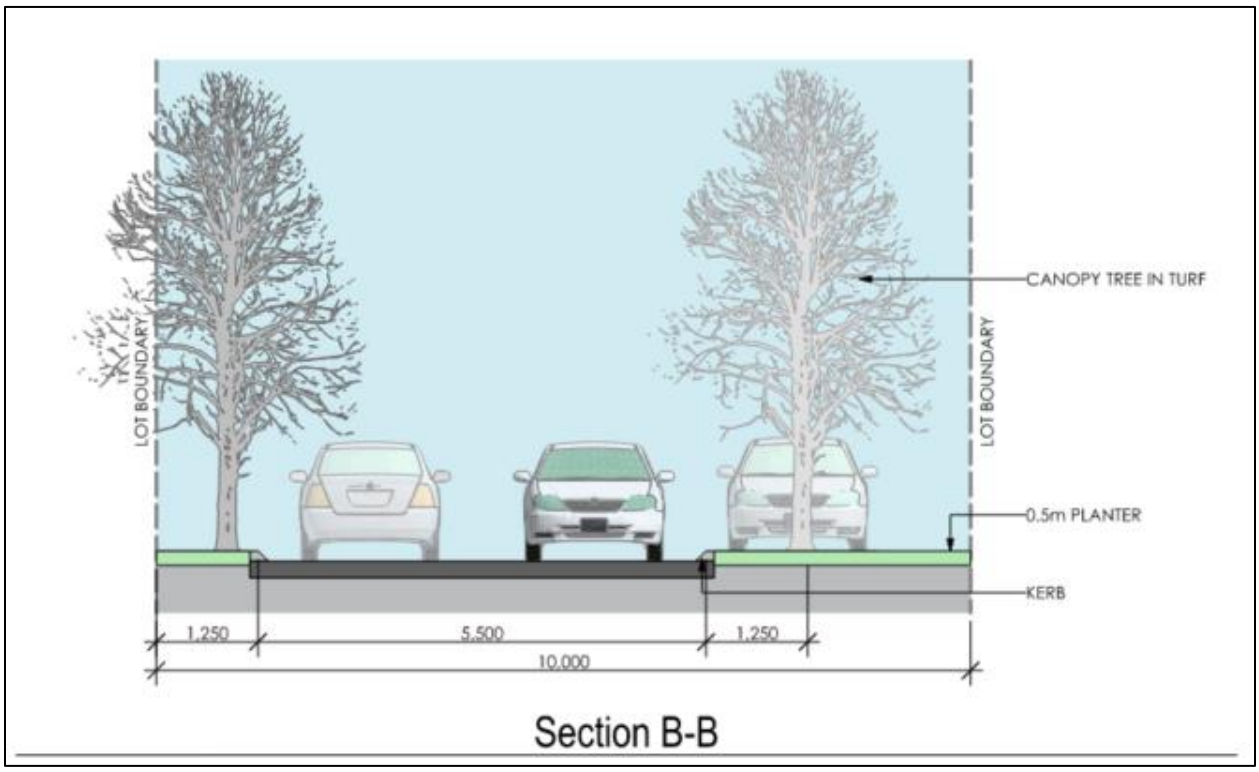
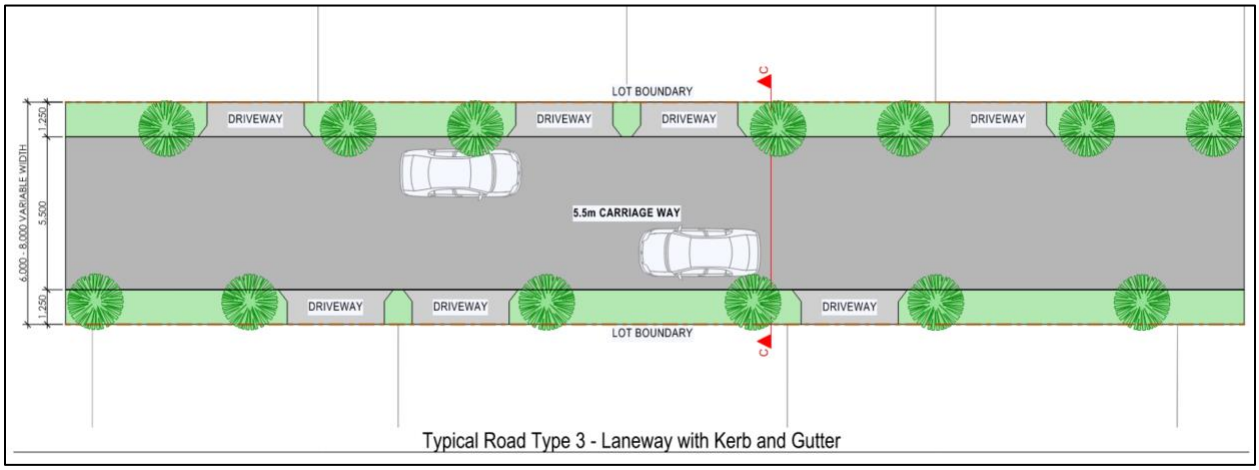


Figure 9. Road Type 2 and Cross Section



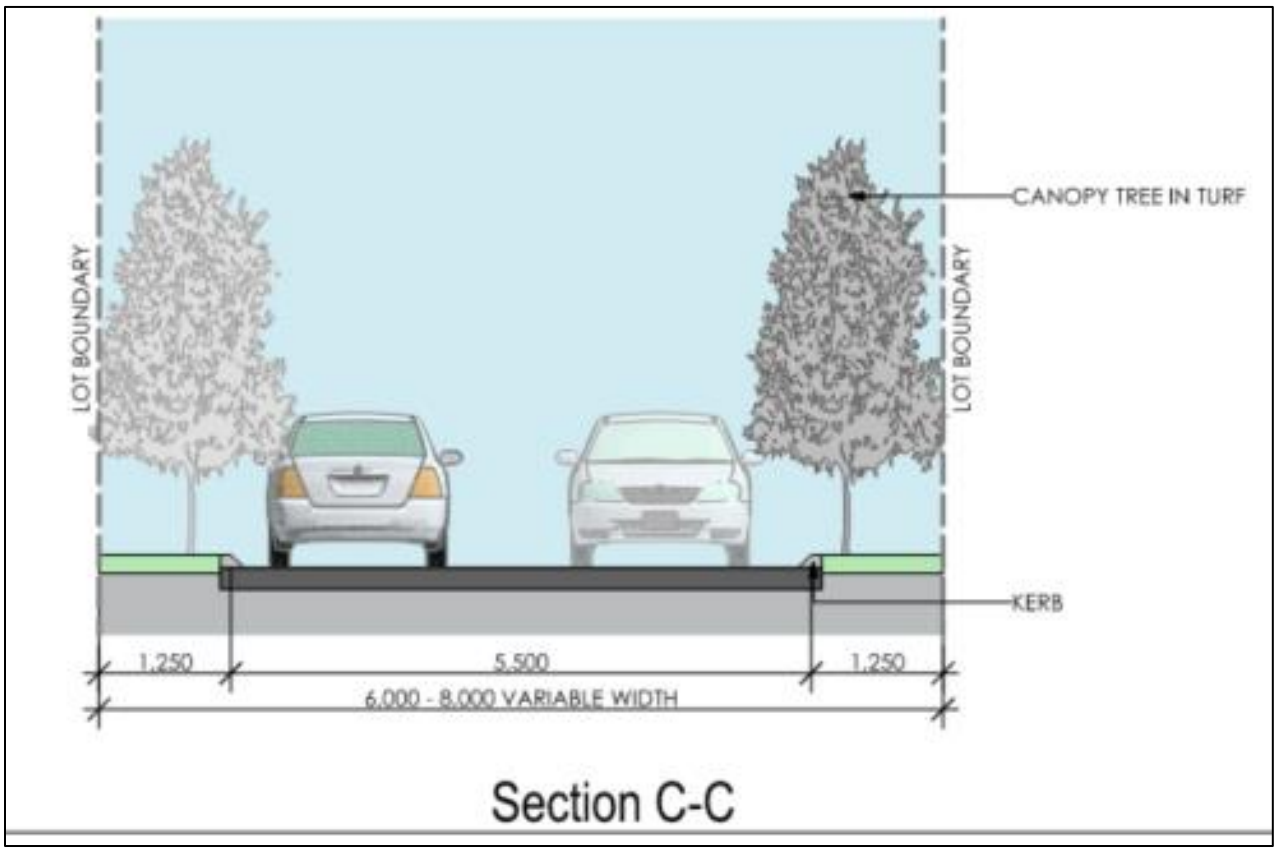


Figure 10. Road Type 3 and Cross Section

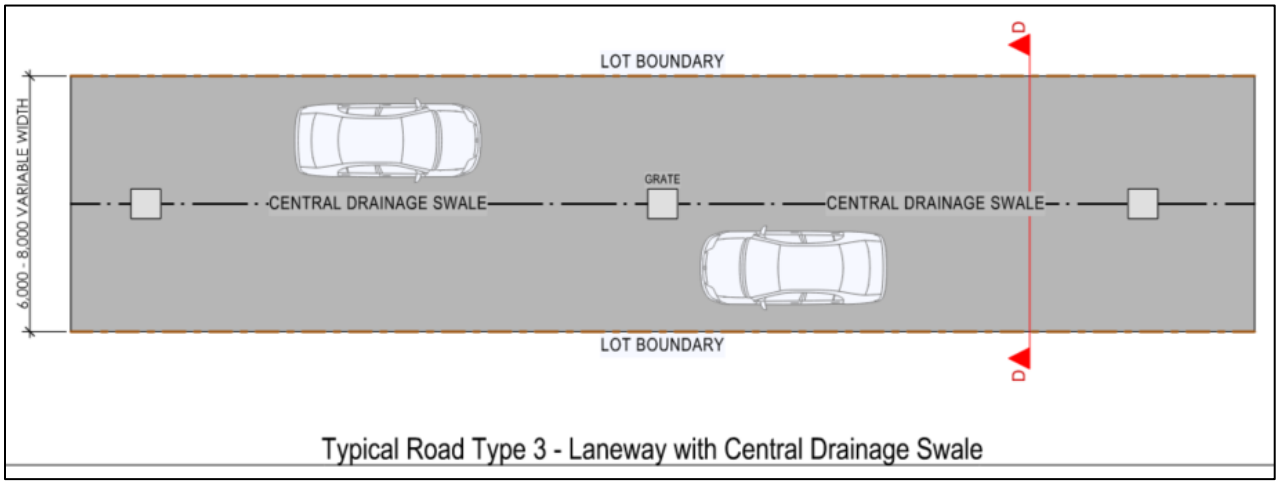


Figure 11. Road Type 3 and Cross Section

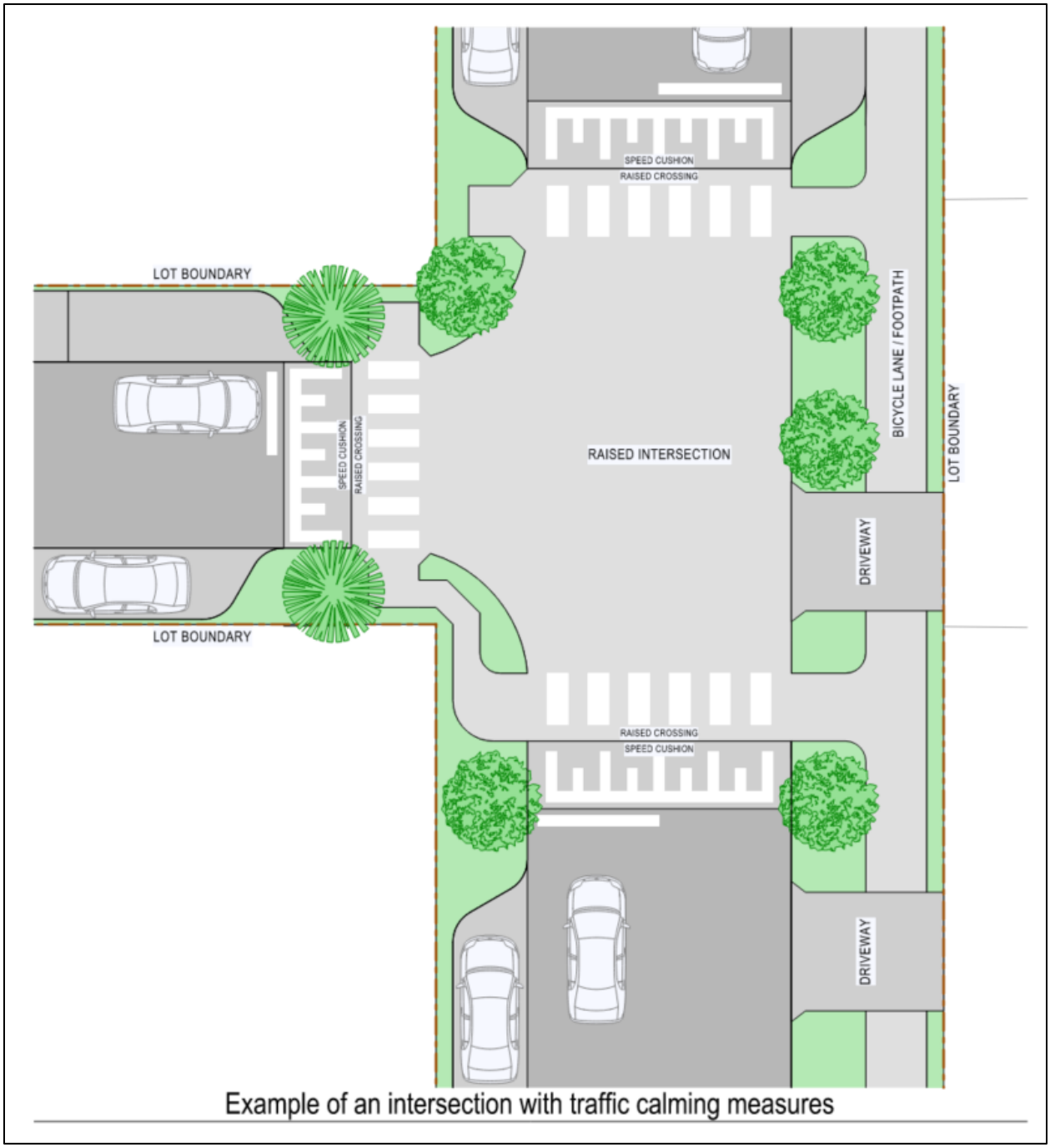


Figure 12. Example traffic calming intersection arrangement

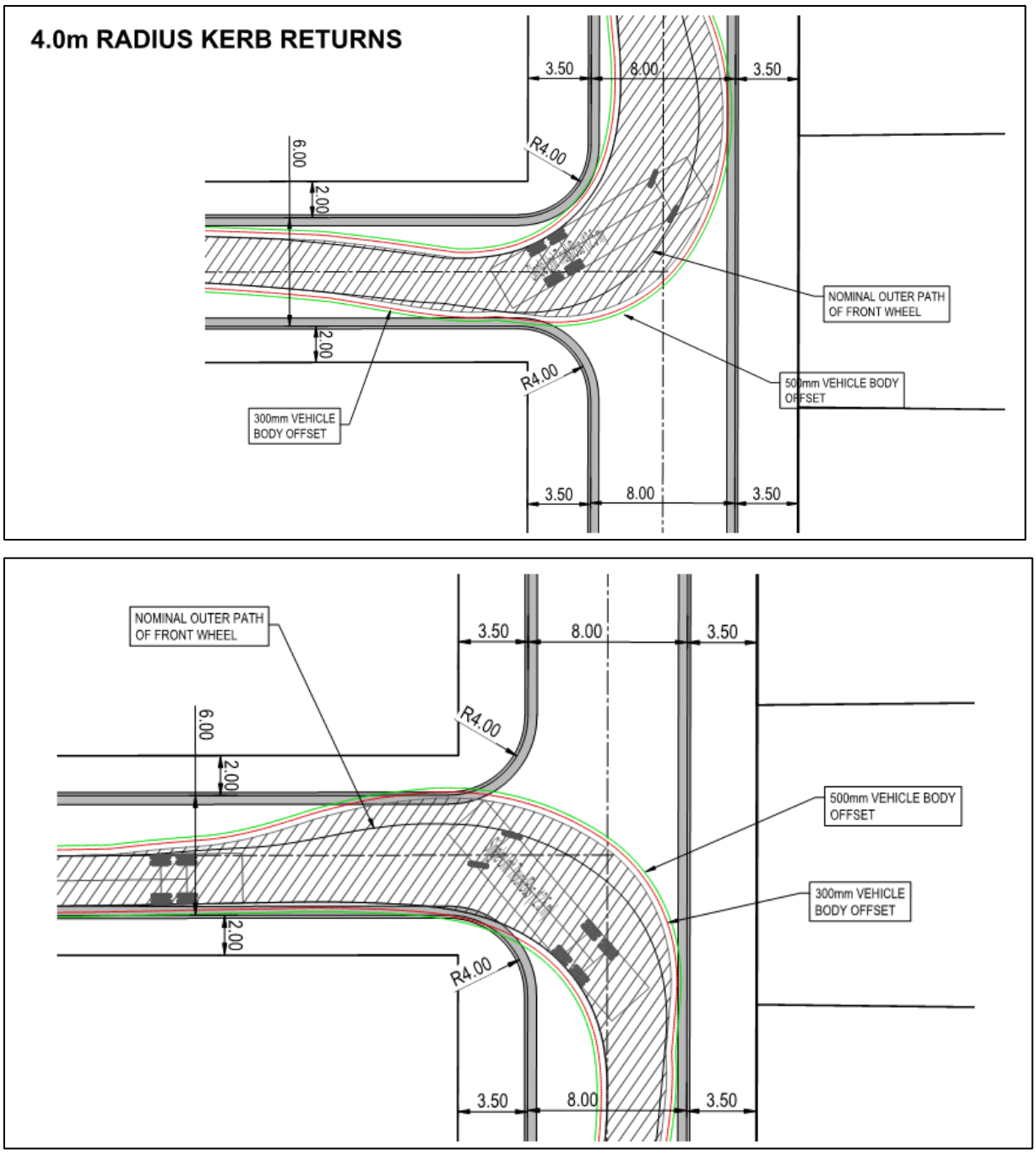


Figure 13. Kerb Radius & Vehicle Swept Paths

Pedestrian and Cycle Network

Objectives

a) To provide a convenient , efficient and safe network of pedestrian and cycleway paths of the use of the community, within and beyond the site.

b) To encourage residents to walk or cycle, in preference to using motor vehicles as a way of moving around the Foundations Site and to connect with the Portland Town Centre

Controls

1. Pedestrian and cycleway routes are to be provided generally in accordance with Figure 14. The design of the cycleways located within the road reserve is to be in accordance with Figure 14.
2. The minimum width of any off-street shared cycle and pedestrian pathway is to be 2.5m.
3. Pedestrian and cycle routes and facilities in public spaces are to be safe, well lit, clearly defined, functional and accessible to all.
4. Pedestrian and cycle pathways are to be constructed as part of the infrastructure works for each stage of the development with detailed designs to be submitted with DA's.

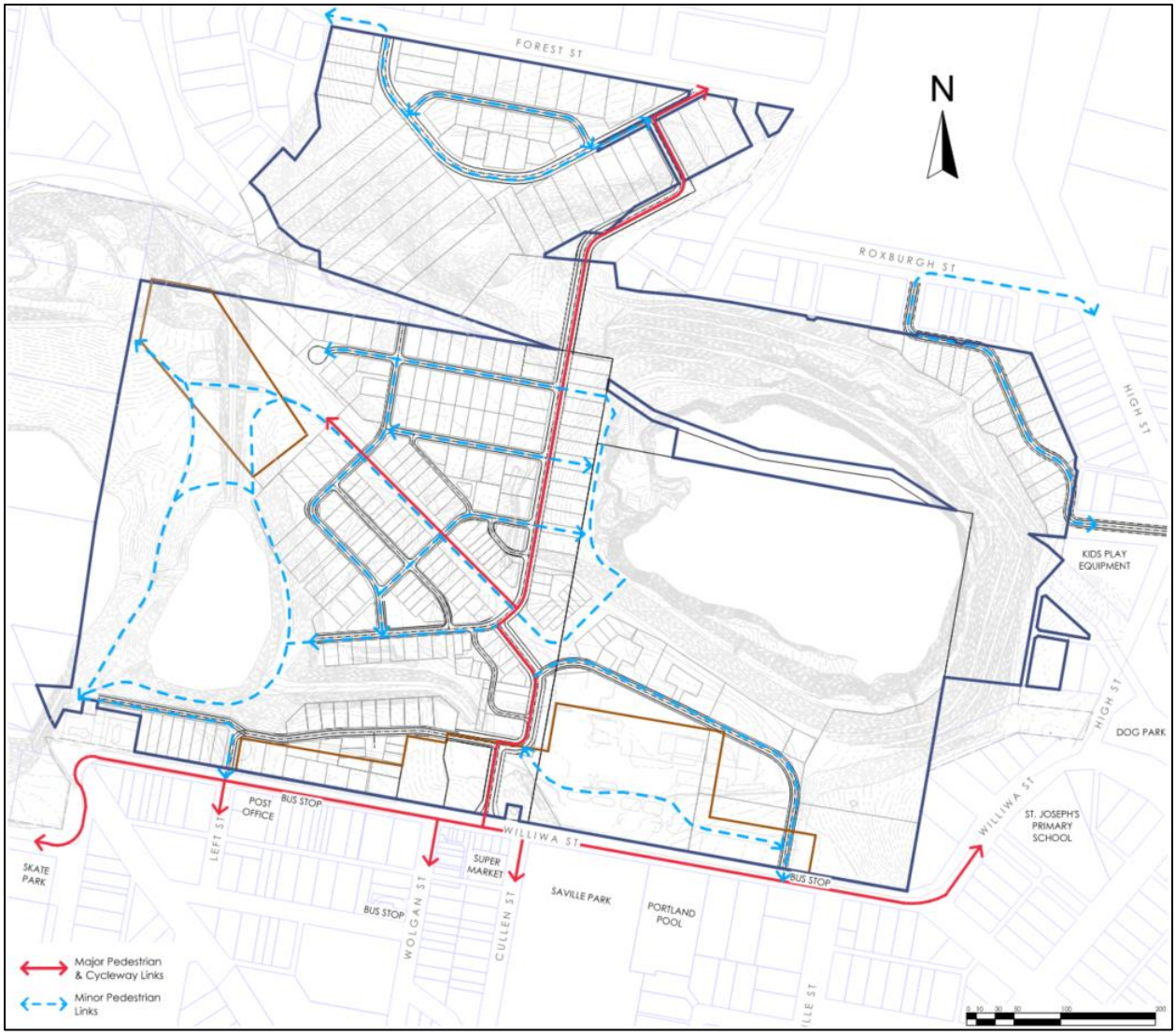


Figure 14. Pedestrian and Cycle Network

PUBLIC PARKS / DOMAIN LANDSCAPE STRATEGY

Objectives

To meet the public open space and recreational needs of residents
To provide an equitable distribution of public open space and recreational opportunity
To ensure a high quality of design and embellishment of all public open space
To ensure that environmentally and visually sensitive land contributes to landscape character
To ensure that all public domain elements like street trees, paving, street furniture, lighting and signage contribute to a consistent street character
To ensure that the public domain can be sustainably managed and considers the impacts of climate change
To ensure that provisions are made for utilities
To ensure that all utilities are integrated into the development and are unobtrusive
To ensure residents are within walking distance (400m) of public parks.

Controls

Public parks should generally be provided in accordance with Figure 7 and detail of the landscaping and built form elements should be agreed with Council. Where a deviation is proposed, public parks should be in locations that allow key views or vistas to heritage or recreation areas, or as pocket parks within small lot developments.

Council agreement will be required for any open space or public domain areas to be dedicated to Council. Council encourages early discussion in the subdivision planning and design phase.

Parks should be located and designed to accommodate remant vegetation and where appropriate, should be linked and integrated with riparian corridors. They should be located to take advantage of view and vistas.

Parks should be generally bordered on at least one side by streets with houses orientated towards them for surveillance. Smaller lot housing is encouraged around parks.

Parks should be designed having regard to the principle of Crime Prevention Through Environmental Design (CPTED).

Riparian corridors and areas for conservation are to provide opportunities for pedestrians and cycle ways, fitness trails and open space in a manner that maintains the environmental of social significance of these areas. A range of themed elements such as boardwalk, eco-pathways and educational tracks should be utilised in appropriate locations.

Ensure parks and public domain areas are sustainably designed to:
incorporate water saving devices and retains water for re-use

Utilise native and resilient planting
Minimise the impacts of urban heat island effect through minimising hard landscaping or pavement areas
Design buildings to use passive cooling methods that relay on improved natural ventilation

A Landscape Plan is required to accompany a subdivision DA creating any park and is to provide details on elements such as:

- Asset protection zones
- Earthworks
- Furniture
- Plant species and sizes
- Play equipment.
- Utilities and services
- Public art
- Hard and soft landscaping treatments
- Signage
- Any entry statements
- Lighting
- Waste facilities
- Any other embellishment

Street Planting

Street trees are required for all streets. Street planting is to:

- Be consistently used to distinguish between public and private spaces and between different classes of street within the street hierarchy
- Minimise risk to utilities and services
- Be durable and suited to the street environment and wherever appropriate, include endemic species
- Maintain adequate lines of sight for vehicles and pedestrians, especially around driveways
- Provide appropriate shade
- Provide an attractive and interesting landscape character and clearly define public and private areas without blocking the potential for street surveillance

Street trees will be required to be planted at the time of subdivision construction and will have a maintenance period bonded in accordance with Council's Engineering Guidelines.

Lighting

1. External lighting within the commercial lots is to comply with the provisions of *Australian Standard AS4282-1997 Control of Obtrusive Effects of Outdoor Lighting*.

2. Street lighting along the internal roads is to be provided in accordance with the provisions of *Australian Standard AS1158 Lighting for Roads and Public Spaces*
3. Lighting design should address the principles of Crime Prevention Through Environmental Design having regard to the operating hours of individual tenants and any safety and security issues.
4. Lighting design should seek to avoid unnecessary energy consumption. Where feasible, lighting is to be powered by solar or other forms of renewable energy. Sensor lighting should be incorporated for both internal and external spaces, where appropriate.
5. Lighting within the SHR Heritage Curtilage, as shown in Figure 2 should have regard to the heritage nature of the surrounds, and be in keeping with this character. Lighting design should be consistent across the public realm.

Figure 15. Public Domain Masterplan

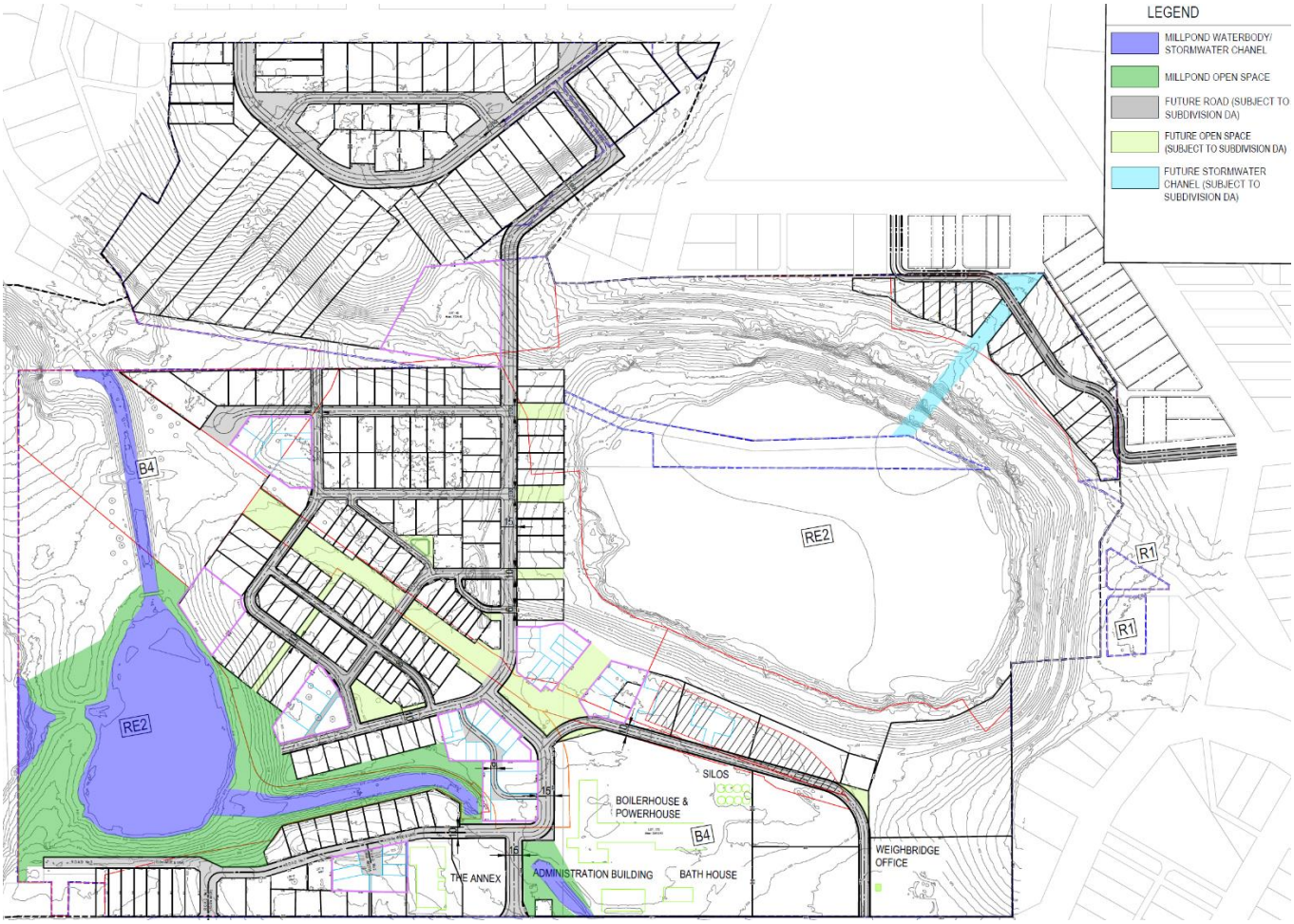


Figure 16. Conceptual Open Space & Dedication Plan

PRIVATE RECREATION AREAS

Objective:

(a) Ensure private recreation areas are of a high quality of design and landscaping.
(b) Encourage the linkage of open space and recreation areas through walking and cycling pathways.
(c) Provide a range of private recreational facilities to meet the needs to the community into the future.
(d) Ensure active street frontages throughout the Foundations and ensure activation externally to adjacent streets.
(e) Ensure a high level of amenity, safety and security throughout any open space and landscaped areas.
(f) Incorporate areas of soft and deep soil landscaping to enhance the green grid and add to the urban tree canopy.

Controls:

1. A landscape masterplan and maintenance management plan should be provided for any development application (DA) proposed over RE2 zoned land, that is generally consistent with the character of the Foundations area and provides for native endemic species and durable long lasting materials.
2. Development on RE2 zoned land should provide for minimum deep soil planting of 15%.
3. Development on RE2 zoned land should have regard for the surrounding context and ensure design is of a high quality, using sustainable materials where practicable. A Design Statement should accompany any DA that involve built form.
4. Any DA should clearly identify areas of private or public access, and hours of operation as required.
5. Development should ensure there that there is weed management is in place during demolition, excavation, filling and construction and that open space areas are managed to limit the establishment of any noxious weeds.

4.13 BULK EARTHWORKS STAGE

Objective:

(c) To ensure the bulk earthworks are undertaken prior to extensive development, to stabilise land especially around Pine Tree Ridge Precinct.
(d) To ensure bulk earthworks and cut and fill allow for future development of the land.
(e) To respond to site topography and ensure ongoing stability of the land.
(f) To ensure any potential site contamination is removed or land remediated prior to further development.

Controls:

Bulk earthworks to prepare the land for development are to be undertaken in accordance with an approved DA prior to the lodgement of any further subdivision within any precinct. An indicative bulk earthworks plan is provided in Figure 17. The bulk earthworks shall be designed to ensure minimal cut and fill is required for the construction phase.

Subdivision shall be designed to respond to the topography of the site wherever possible to minimise the extent of cut and fill (e.g. for steep land houses will need to be of a ‘split level’ design or an appropriate alternative solution).

A Geotechnical Report should accompany any application for bulk earthworks at the first phase of development for the site.

A Preliminary Site Investigation and if relevant Remediation Action Plan is required to be submitted with any Bulk Earthworks Stage development application. Subsequent Validation reporting should be completed and signed off by a qualified consultant on completion of the bulk earthworks in line with the requirements of **Part 4.1** of this DCP.

All fill is certified to be 'Virgin Excavated Natural Material' (VENM), Excavated Natural Material (ENM) or other material subject to a Resource Recovery Exemption in accordance with the NSW EPA Protection of the Environment Operations Regulation 2014. A material classification report is required to be submitted to Council prior to the placement of imported fill on site.

Structural engineering plans are required to show any slope, batters or retaining walls to ensure they are structurally sound and can be appropriated drained

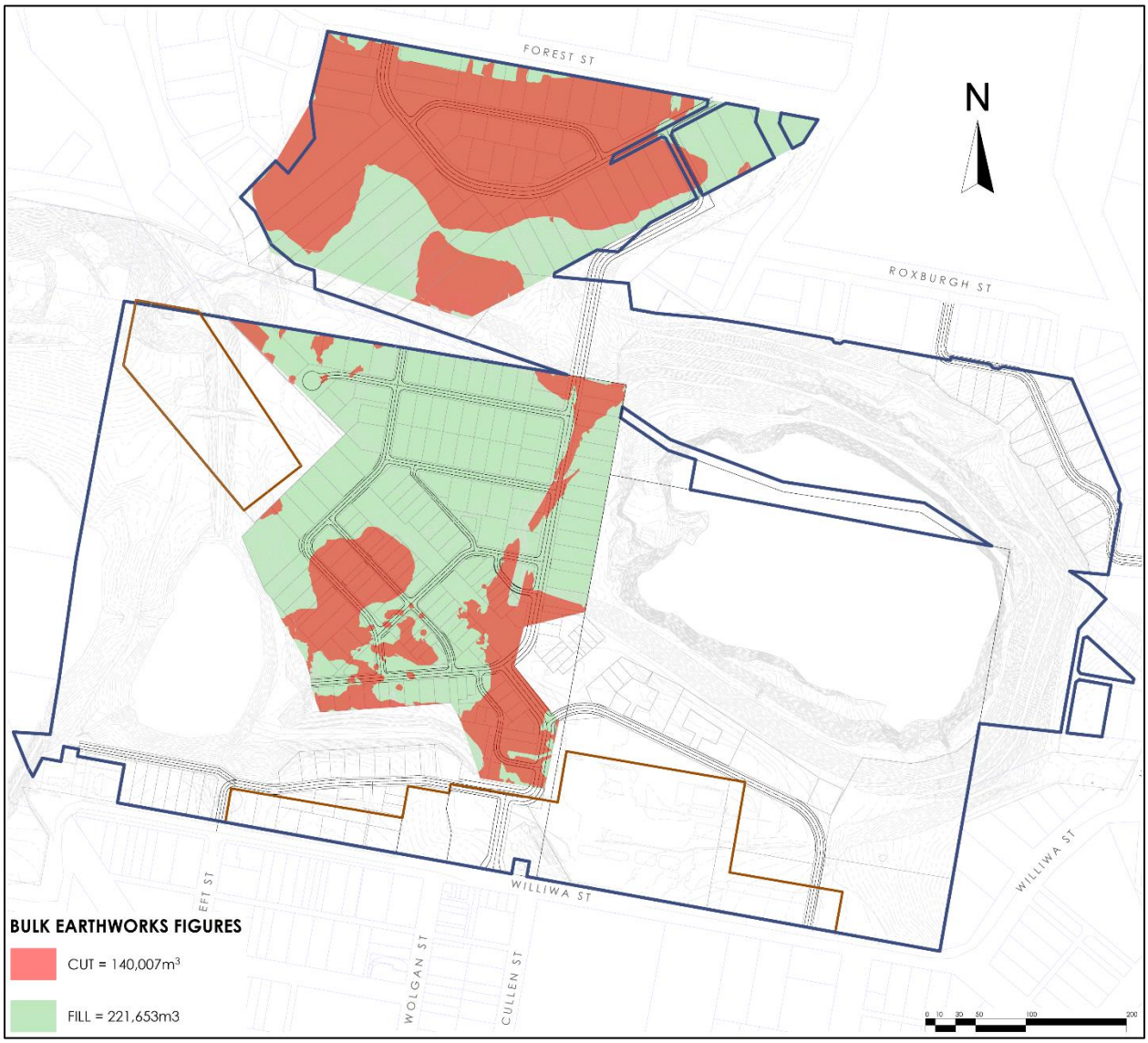


Figure 17. Bulk Earthworks Plan

Part 5 RESIDENTIAL SUBDIVISION

5.1 RESIDENTIAL TARGETS

Objectives

To provide a diversity of housing choice accommodating all lifestyle choices within a master planned community.
To provide a diversity of lots similar in land area to time-proven precedents located across the LGA, particularly as demonstrated in the townships of Portland and Lithgow

Controls

The residential dwelling target for the Foundations Site is 350 dwellings spread between the development stages as follows:

- Stage 1 – 30-35 Lots
- Stage 2 – 55-60 Lots
- Stage 3 – 35-40 lots
- Stage 4 – 40-45 lots
- Stage 6 – 20-25 lots
- Stage 7 – 50-55 Lots

Subject to agreement of Council the dwelling yield for each stage may be varied as long as it meets the objectives of this DCP and ILP.

Housing diversity is to be achieved generally in accordance with the Indicative Layout Plan (ILP) Figure 4.

5.2 STREET BLOCK AND LOT CONFIGURATION

Objectives

To establish a clear urban structure that promotes a 'sense of neighbourhood' and encourages walking and cycling.
To efficiently utilise land and achieve the target dwelling yield for the site.
To respect and emphasise the natural and built attributes of the site and reinforce precinct identity.
To optimise outlook, solar access and proximity to parks, green spaces and community facilities with increased residential density in proximity to those areas.
To encourage variety in dwelling size, type and design to promote housing choice and create attractive streetscapes with distinctive character.

Controls

Subdivision layout is to create a legible and permeable street hierarchy that responds to the natural site topography, the location of existing significant site features, place making opportunities and solar design pricniples.

The orientation and configuration of lots is to be generally consistent with the following subdivision principles:

- Smallest lots achievable for the given orientations fronting parks and open space with the larger lots in the back streets;
- Larger lots on corners;
- North to the front lots are either the widest or deepest lots, or lots suitable for residential development forms with private open space at the front. Narrowest lots with north to the rear.

Preferred block orientation is established by the road layout on the Indicative Layout Plan (IDP) Optimal lot orientation is east-west, or north-south. Alternative lot orientation may be considered where other amenities such as views and outlook over open space are available, and providing appropriate solar access and overshadowing outcomes can be achieved.

A range of residential lot types (area, frontage, depth, zero lot and access) must be provided to ensure a mix of housing types and dwelling sizes and to create a coherent streetscape with distinctive character across the site.

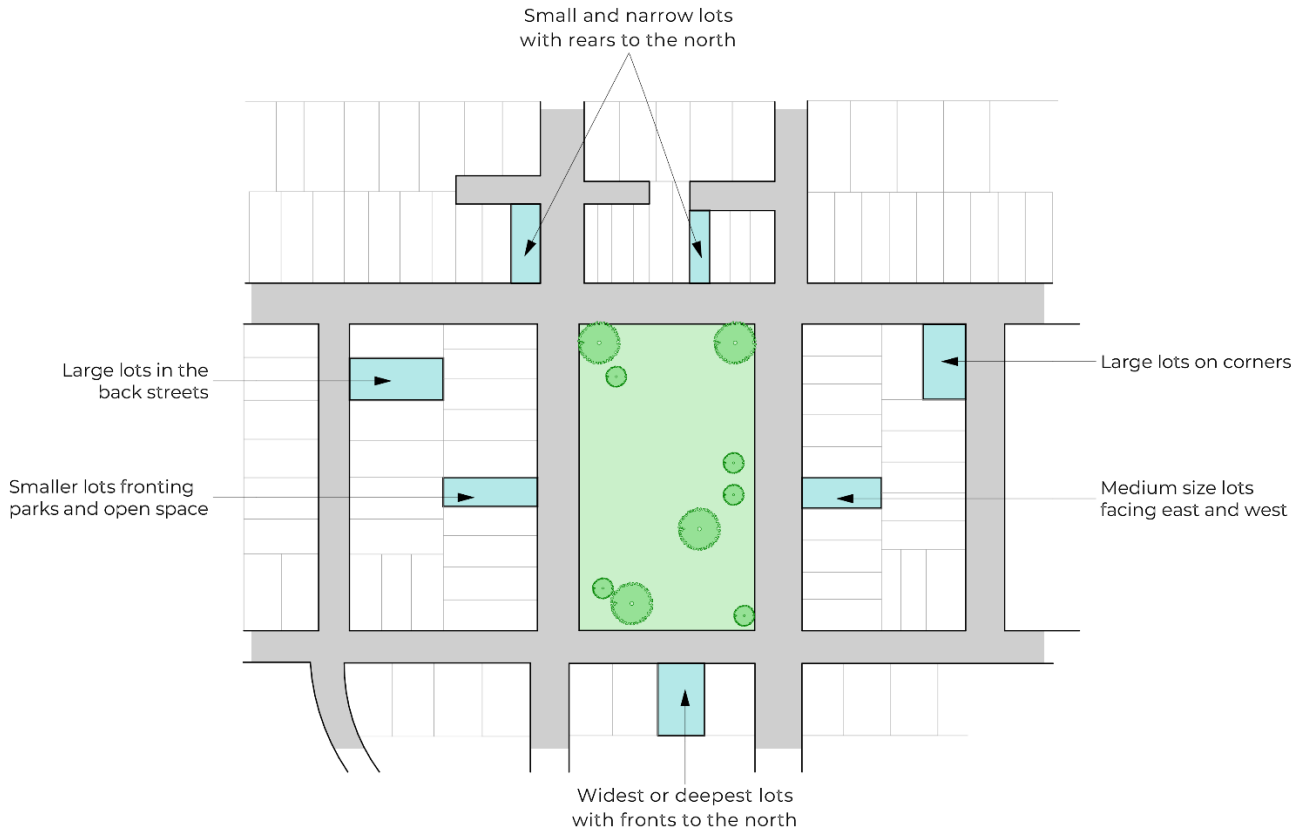


Figure 18. Subdivision, Lot Orientation and Lot Frontage Variation Principle

Subdivision should maximise the number of regular shaped lots (rectangular). Where lots are an irregular shape, they should be large enough and orientated appropriately to enable dwellings to meet the controls of this DCP.

Subdivision techniques including, interior corner lots, offset lot frontages, and lot boundaries that are not perpendicular to the curb line are desirable

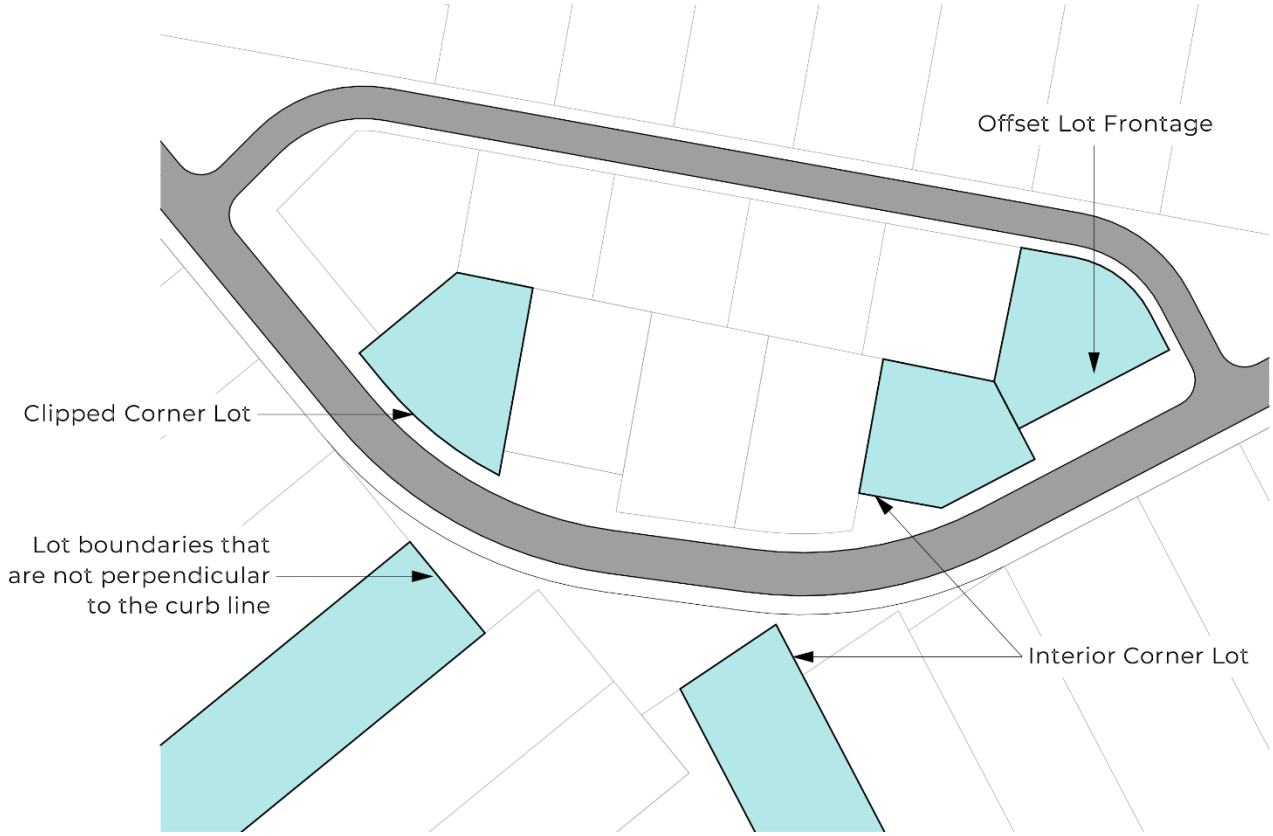


Figure 19. Preffered Subdivision Techniques

5.3 BATTLE-AXE LOTS

Objectives

To limit the number of battle-axe lots
To provide battle-axe lots that can accommodate residential development
To ensure that where a battle-axe lot is proposed the amenity of the lot and the amenity of the neighbouring lots or public domain is not compromised.

Controls

A battle-axe lot should be considered only where:

- It has a minimum lot area of 600m² (excluding the access handle)
- A building envelope is provided which demonstrates compliance with the provisions of solar access, private open space, setbacks an site coverage of this DCP
- A satisfactory building envelope is provided with adequate distance from existing or proposed dwellings, to ensure privacy

Dual occupancy development must not be located on a battle-axe lot.

Battle-axe handles must:
Be at least 4.5m wide if servicing one additional lot
Be at least 6.0m wide is servicing two lots
Not service more than 2 lots

Have a maximum length of 60m and have reciprocal rights of way
Have a 3m x3m splay.

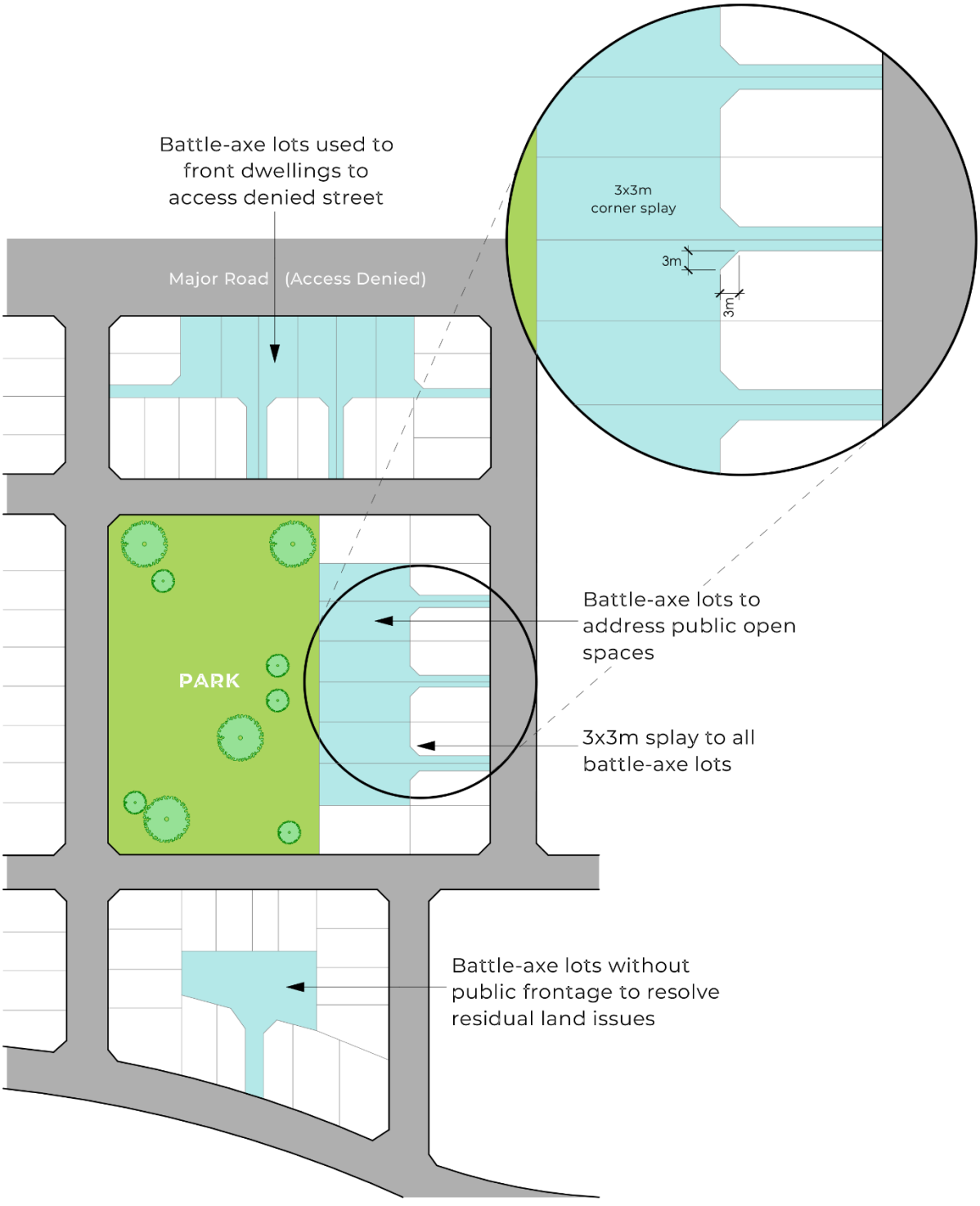


Figure 20. Examples of locations of battle-axe lots

5.4 ZERO LOT LINE DEVELOPMENT

Note: Zero lot line development has zero lot line on one side boundary only.

Objectives

To ensure that where zero lot boundaries are proposed the amenity of the lot and the amenity of the neighbouring lots are not compromised.

Controls

Zero lot line development is only permitted on lots less than 300m².

On all lots where a zero lot line is permitted, the side of the allotment that may have a zero lot alignment must be shown on the approved subdivision plan.

An easement is required on the neighbouring lot where a zero lot line is nominated on an allotment on the subdivision plan, the adjoining (burdened) allotment is to include a 900mm easement for single storey zero lot walls and 1200mm easement for two storey zero lot walls to enable servicing, construction and maintenance of the adjoining dwelling.

The location of the zero lot line is to be determined primarily by topography and should be on the low side of the lot to minimise water penetration and termite issues. Other factors to consider include dwelling design, adjoining dwellings, landscape features, street trees, vehicle crossovers and the lot orientation.

The S88B instrument for the subject (benefited) lot and the adjoining (burdened) lot must include a note identifying the potential for a building to have a zero lot line. The S88B instrument supporting the easement is to be worded so that Council is removed from any dispute resolution process between adjoining allotments.

Subdivision for Attached or Abutting Dwellings

Subdivision of lots for Torrens Title attached or abutting dwellings must take into account that construction will be in sets. A ‘set’ is a group of attached or abutting dwellings built together at the same time that are designed and constructed independently from other dwellings.

The maximum number of attached or abutted dwellings permissible in a set is six.

The composition of sets needs to be determined in the subdivision design to take into account the lot width required for side setback to the end dwellings in each set.

Figure 21. Two examples of lot subdivision for 'sets' of attached or abutting dwellings

5.5 RESIDUE LOTS

Objectives

To ensure that any residue lot created as part of any subdivision can meet the requirements of this DCP.

Controls

Any development proposal including creation of residue lots for future subdivision must:

Include documentation demonstrating the remaining lot yield to be achieved through future subdivision.

Demonstrate how the future development of each residue lot can be consistent with the desired future character of the precinct in terms of built form, dwelling types, bulk and scale, height and other public domain considerations.

Demonstrate that the residue lot can be serviced and accessed in accordance with the Indicative Layout Plan (IDP) Figure 7.

Demonstrate that the development of the residue lot can be undertaken without compromising the other objectives and controls of this DCP.

5.6 SUBDIVISION APPROVAL PROCESS

Objectives

To facilitate a diversity of housing sizes and products.
To ensure that subdivision and development on smaller lots is undertaken in a co-ordinated manner.
To ensure that all residential lots achieve an appropriate level of amenity.

Controls

The land subdivision approval process is to be consistent with the requirements of Table 3

Subdivision of land creating residential lots less than 225m² or lots less than 10m wide shall include a dwelling design as part of the subdivision development application. The dwelling design is to be included on the S88B instrument attached to the lot.

A public domain plan should be provided at subdivision stage, where applicable.

TABLE 3. SUBDIVISION APPROVAL PROCESS

Approval Pathway	DA for subdivision Pathway A1	DA for subdivision with Building Envelope Plan Pathway A2	DA for Integrated Housing (integrated Assessment with subdivision prior to construction of dwellings) Pathway B1	DA for Integrated Housing Pathway B2
Application	Lots equal to or greater than 300m²	Lots less than 300m² and equal to or greater than 225m² in area, and with a width equal to or greater than 10m	Dwelling construction involving detached or abutting dwellings on lots less than 225m², or lots with a width less than 10m	Dwelling construction involving common walls (i.e. attached dwellings) on lots less than 225m², or lots with a width less than 10m
Dwelling plans required	As part of future DA or CDC	As part of a future DA or CDC	Yes as part of the subdivision application	Yes as part of the subdivision application
Dwelling design S.88B restriction required	No	Yes	Yes, only approved dwelling can be built	Yes, only approved dwellings can be built
Timing of subdivision (release of linen plan)	Pre-construction of dwellings	Pre-construction of dwellings	Prior to the issue of the CC	Post-construction of dwellings

Subdivision applications that create lots smaller than 300m² and larger than or equal to 225m² must be accompanied by a Building Envelope Plan (BEP).

The BEP should be at a legible scale and include the following elements:

- Lot numbers, north point, scale drawing title and site labels
- Maximum permissible building envelope (setbacks, storeys, articulation zones)
- Preferred principal private open space
- Preferred location of secondary dwellings
- Preferred location of two storey development locations
- Garage size (single or double) and location
- Zero lot line boundaries

A BEP should be fit for purpose and include only those elements that are necessary for the proposed subdivision development. Other elements that may be relevant to show include;

- Special fencing requirements
- Easements and utility services
- Retaining Walls
- Preferred entry/frontage (e.g. corner lots)

- Access denied frontages
- Indicative yield on residue or super lots.

Figure 22. Example of a Building Envelope Plan

Figure 23. Example of a Public Domain Plan

PART 6 RESIDENTIAL DESIGN

6.1 SITE ANALYSIS

Site analysis for each individual lot is an important part of the development process. Development proposals need to illustrate design decisions are based on careful analysis of the site conditions and their relationship to the surrounding context. By describing the physical elements of the locality and the conditions impacting the site, opportunities and constraints for development can be understood and addressed in the design.

The Site Analysis should show the existing features of the site and its surrounding area, together with supporting written material. A Site Analysis Plan must show the following features:

- The location, boundary dimensions, site area, including the north point and scale bar;
- The position of the proposed building in relation to site boundaries and any other structures and existing vegetation and trees on the site
- Any easements over the land, services, existing infrastructure and utilities
- Location of existing street features adjacent to the property, such as trees, planting , street lights
- Contours and existing levels of the land in relation to buildings, roads and, whether the proposed development will involve any changes to these levels
- Location and uses of buildings on sites adjoining the land;
- A stormwater concept plan (where required)
- Existing topographic and locations features such as solar orientation, prevailing winds and interface conditions

6.2 RESIDENTIAL DESIGN PRINCIPLES

Objectives

(a) To promote housing choice, variety and affordable housing.

(b) The rhythm of the street frontage should be considered, with variations in setbacks, heights, and landscaping to create a dynamic and interesting streetscape.

(c) A built form which exhibits good proportions and a balanced composition of elements, refecting the internal layout and structure. Buildings use an appropriate variety of materials, colours and textures.

(d) Architectural features such as canopies, awnings, fenestration patterns, and material changes should be used to add depth and texture to facades.

(e) The public domain ‘edge’ is well-defined with a building street wall along each side of the street and/or public park. The streetscape still promotes variety with strategic variations in setbacks, heights, and landscaping to create a dynamic and interesting streetscape.

(f) To strategically locate the smaller lot typologies to protect the character of existing areas and maximise the amenity

(g) To ensure that appropriate levels of service and amenity are provided correlating to the delivery of density

(h) Good amenity includes access to sunlight (internal and external spaces), natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, service areas and ease of access for all age groups and degrees of mobility;

(i) Deliver housing which is site responsive and sensitive to natural and physical environments;

(j) To encourage a high standard of design to make a positive contribution to the aesthetic quality, functionality, enriched amenity and experience of the urban environment; and

(k) To provide casual surveillance to rear lanes for improves safety.

Controls

New residential dwellings, including a residential component within a mixed-use building and serviced apartments intended or capable of being strata titled will be accompanied by a BASIX Certificate and will incorporate all commitments stipulated in the BASIX certificate.

The primary street facade of a dwelling should address the street and must incorporate at least two of the following design features:

a. entry feature or verandah;
b. window hoods or similar features;
c. balcony treatment to any first-floor element;
d. recessing or projecting architectural elements;
e. bay windows or similar features; or
f. verandahs (including Juliet balconies), pergolas or similar features above garage doors.

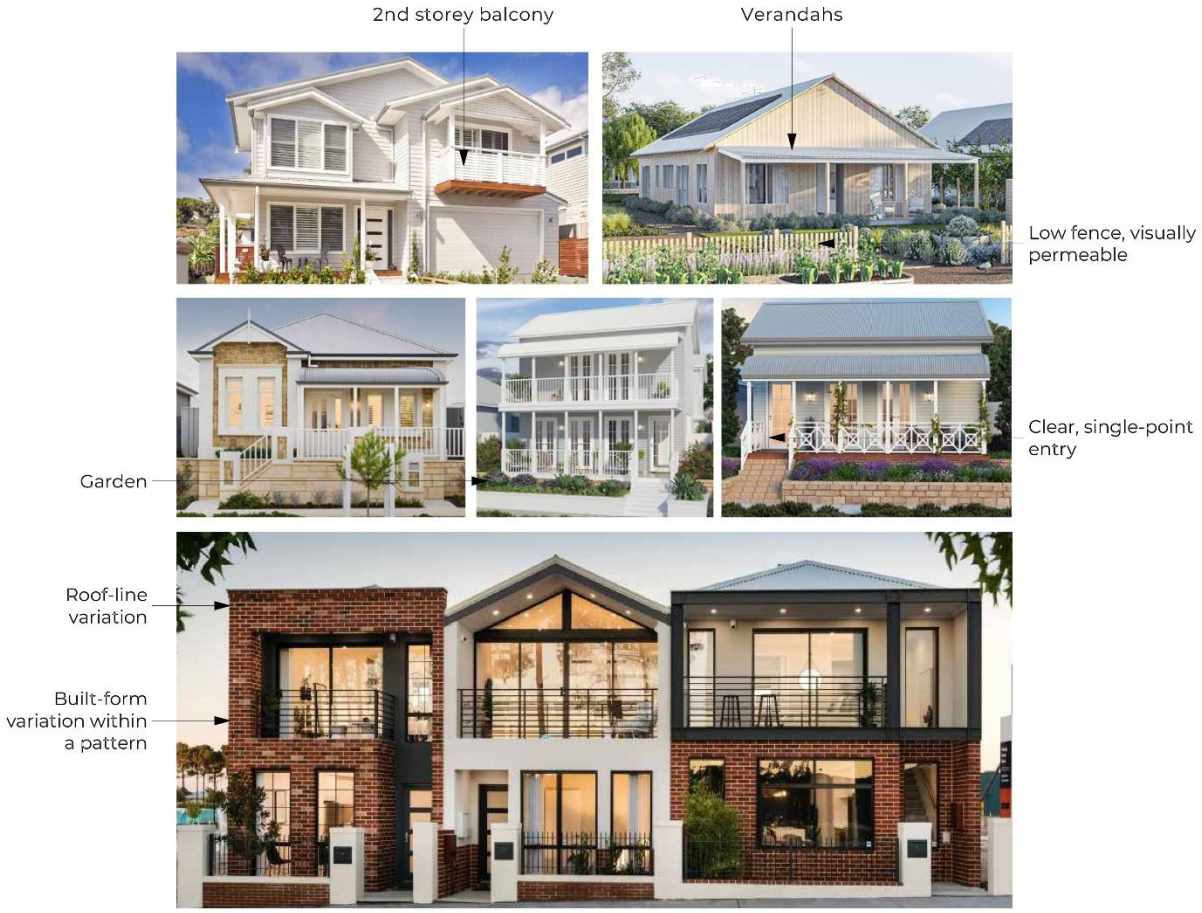


Figure 24. Architectural Design Elements

Dwellings on corner lots shall address the primary and secondary street frontage and incorporate at least two design features listed in Figure 24 above along the secondary street frontage. Landscaping in the front primary street setback should continue into the secondary street setback.

Modulation and treatment of façade is to be integrated into the design of the building, and relate to the internal layout and functions, rather than unrelated attached elements.

Eaves shall provide sun shading, protect windows and doors and provide aesthetic interest. Except for walls built to the boundary, eaves should have a minimum of 450mm overhang (measured to the facia board).
Street facades will feature at least one habitable room with one window onto the street for lots less than 12 metre frontage. Lots having a frontage of more than 12 metres will have at least two habitable rooms with a window onto the street.

Varied rooflines incorporating different roof forms such as gabled, flat, or hipped roofs to create an interesting skyline is encouraged within each block and along each segment of streetscape. Pitched roofs and other design cues from the local architectural heritage and vernacular is preferred, and flat roofs should not be the dominate or majority roofline along any streetscape.

Carports and garages will be designed and constructed of materials and finishes that complement the main dwelling.

On corner lots, garages are encouraged to be accessed from the secondary street or a rear lane.
The character of houses and streets should be consistent with the objectives and the desired future character statement of the Precinct within which they are located.

6.3 SUMMARY OF KEY CONTROLS

The following tables 4 - 7 summarise the types of lots and housing.

The key controls should be read in conjunction with the clauses that follow.

Large Lots:

Large lots are generally located within the Pinetree Ridge Precinct, due to the significantly sloped nature of this area, they offer ample space to deliver housing with minimal flat areas of land able to be developed. The intention of these lots is to allow standard dwellings houses with alternative solutions to deliver useable spaces for dwellings. The following controls pertain to development within these lot typologies.

Lifestyle Lots:

Lifestyle lots are found largely within the Pinetree Ridge precinct and the intention is for the delivery of standard larger dwellings on these lots. Lifestyle lots are located throughout other precincts where they allow for a mixture of dwellings types and ensure open space views and vistas through to the Lakes. The following controls pertain to development within these lot typologies.

TABLE 4. KEY CONTROLS FOR LARGE LOTS			
Standard		**Large Lot**	**Lifestyle Lot**
Site Requirements	Lot size	> 1000m^2	800-1000m^2
	Lot Frontage (min)	18m	18m
Building Height (max)		9m	9m
Number of Storeys		2	2
Primary Street Setback		Prevailing setback or where a building line is not established in accordance with the below: Between 4.5m - 6m (building façade) and in general accordance with Figure 31: Front Setback Control Plan With the exception of sloping or extreme sloping sites to be considered on merit 1m (garage setback behind building façade)	Prevailing setback or where a building line is not established in accordance with the below: Between 4.5m - 6m (building façade) and in general accordance with Figure 31: Front Setback Control Plan With the exception of sloping or extreme sloping sites to be considered on merit 1m (garage setback behind building façade)
Secondary Street Setback		3m (building façade)	- 3m (building façade)
Side Setback (min)		1.5m	1.5m
Rear Setback (min) (Where regular shaped lots)		Ground Floor: 8m Upper Storey: 8m	Ground Floor: 6m Upper Storey: 6m
Building Footprint (max)		45% of lot area	60% of lot area
Landscaped Area* (min)		30% of lot area (1.5m min dimension)	30% of lot area (1.5m min dimension)
Landscaped Area* Forward of Building Line if applicable (min)		70% OR 35% where a front verandah is proposed.	65% OR 30% where a front verandah is proposed.
Principal Private Open Space (min)		50m^2 (uncovered and 4m min dimension)	24m^2 (uncovered and 4m min dimension)
Tree Planting within front setback (min)		1 medium and 2 small trees for above 2m front setback	1 medium and 2 small trees for above 2m front setback
Resident Parking (min)		2 spaces	2 spaces
Garage access		Primary Street or secondary street	Primary street or secondary street

*Landscaped area excludes paved outdoor areas and pools

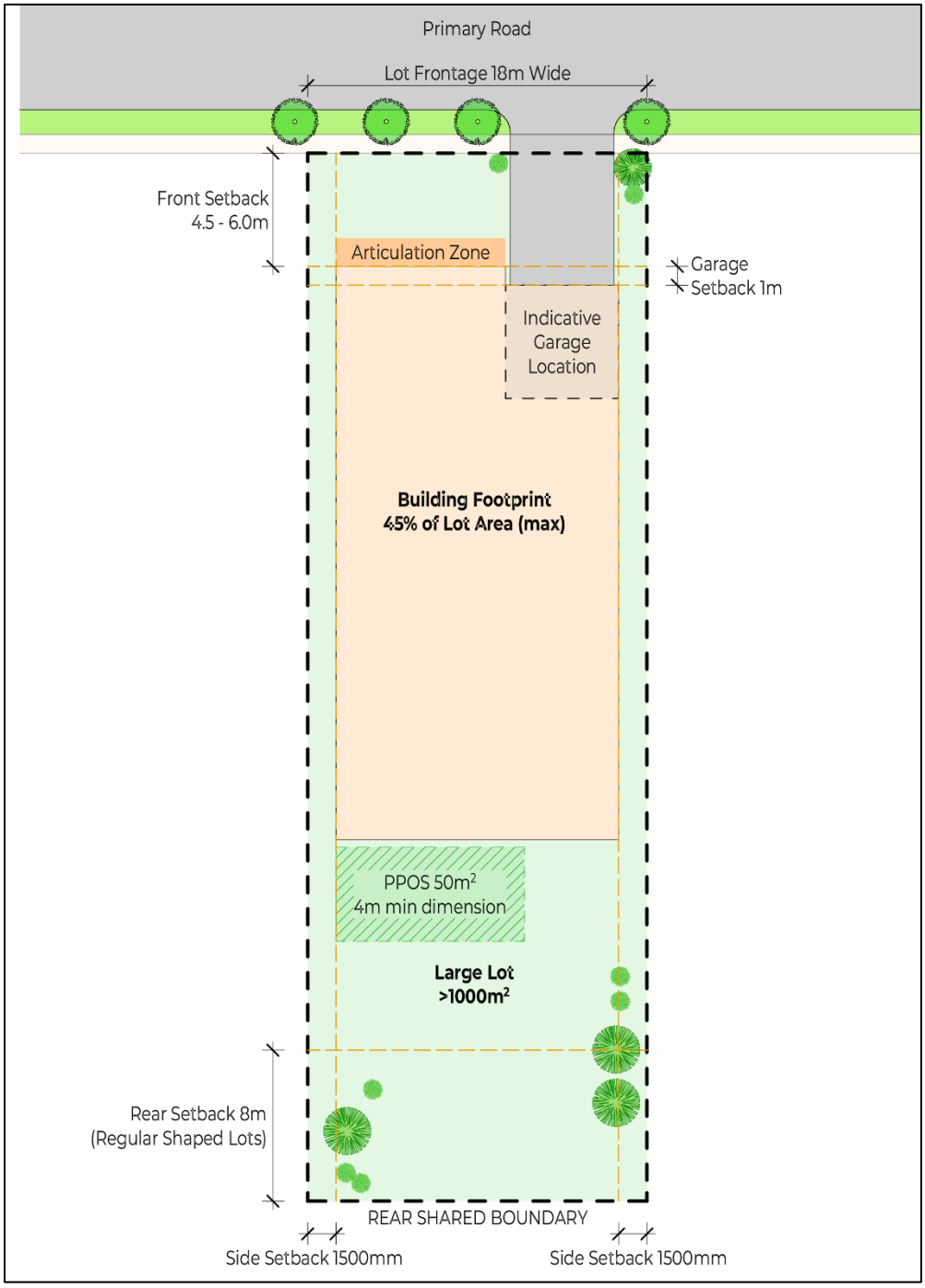


Figure 25. Large Lot

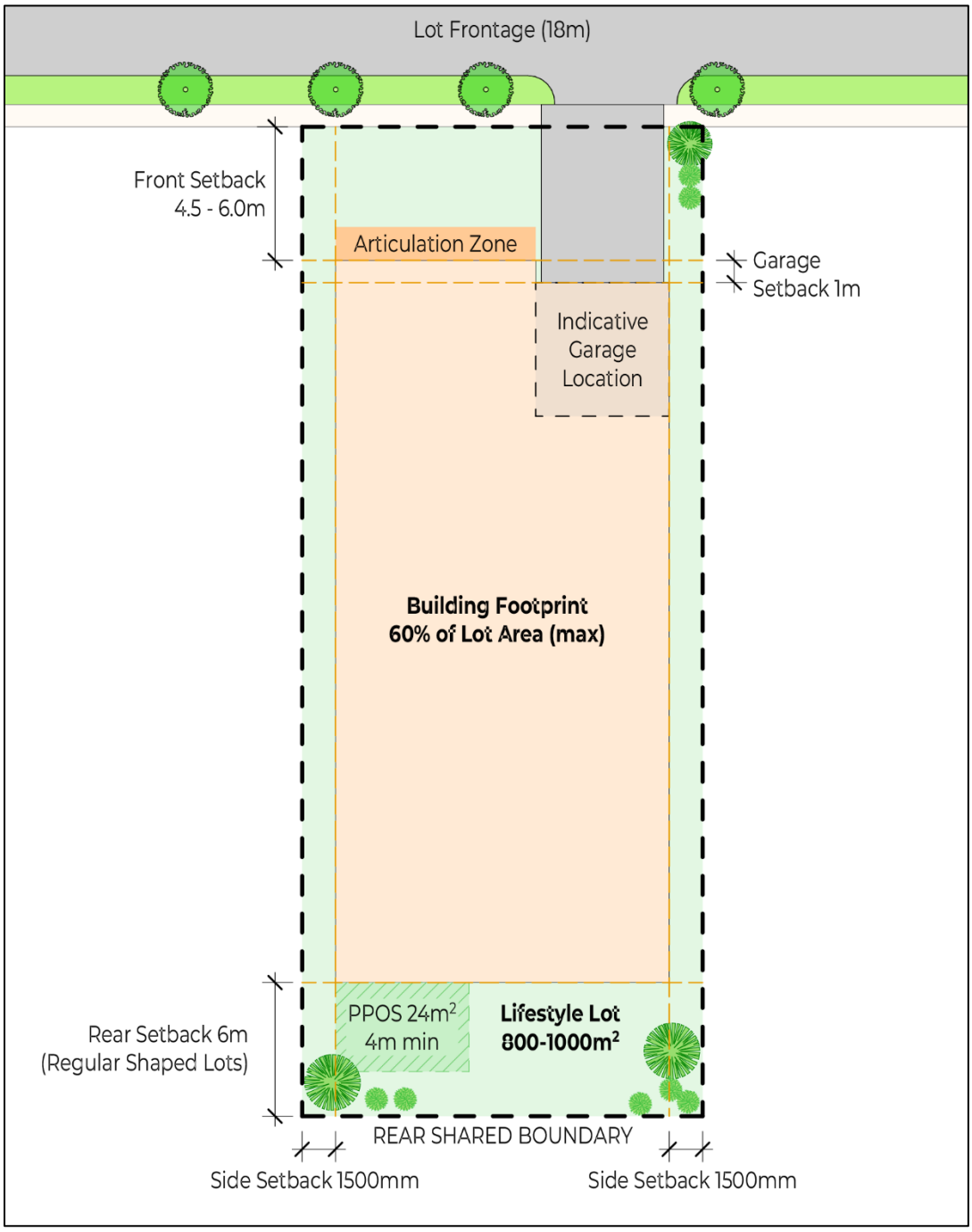


Figure 26. Lifestyle lot

Traditional Lots

Traditional lots are those typical to accommodate low density dwelling houses, terraces or attached dwellings. The following controls pertain to development within these lot typologies.

TABLE 5. KEY CONTROLS FOR TRADITIONAL LOTS				
Standard		**Family Traditional**	**Traditional**	**Traditional (rear garage)**
Site Requirements	Lot size	600-800m^2	450- 600m^2	450- 600m^2
	Lot Frontage (min)	15m	15m	15m
Building Height (max)		9m	9m	9m
Number of Storeys		2	2	2
Primary Street Setback (min-max)		Between 3m-4.5m (building façade) and in general accordance with Figure 31: Front Setback Control Plan 1m (garage setback behind building façade)	Between 3m-4.5m (building façade) and in general accordance with Figure 31: Front Setback Control Plan 1m (garage setback behind building façade)	Between 3m - 4.5m (building façade) and in general accordance with Figure 31: Front Setback Control Plan
Secondary Street Setback (min)		2m	2m	2m
Side Setback (min)		Ground Floor: 0.9m and 3.5m or 1.5m both sides Upper Storey: 1.5m	Ground Floor: 0.9m Upper Storey: 1.5m Where two or more attached dwellings – Nil	Ground Floor: 0.9m Upper Storey: 1.5m Where two or more attached dwellings – Nil
Rear Setback (min)		Ground Floor: 4m Upper Storey: 6m	Ground Floor: 4m Upper Storey: 6m	0.5m
Building Footprint (max)		60% of lot area	60% of lot area	60% of lot area
Landscaped Area* (min)		30% of lot area (1.5m min dimension)	30% of lot area (1.5m min dimension)	30% of lot area (1.5m min dimension)

Landscaped Area* Forward of Building Line (min)	60% OR 30% where a front verandah is proposed.	60% OR 30% where a front verandah is proposed.	90% OR 45% where a front verandah is proposed.
Principal Private Open Space (min)	24m^2 (uncovered and 4m min dimension)	24m^2 (uncovered and 4m min dimension)	24m^2 (uncovered and 4m min dimension)
Tree Planting within front setback (min)	1 medium tree and 2 small trees for > 3.5m front setback 2 small trees for <3.5m front setback	1 medium tree and 1 small tree for > 3.5m front setback 2 small trees for <3.5m front setback	1 medium tree and 1 small tree for > 3.5m front setback 2 small trees for <3.5m front setback
Resident Parking (min)	1 space	1 space	1 space
Garage access	Primary street Corner lots – secondary street	Primary street Corner lots- secondary street	Rear laneway

*Landscaped Area excludes paved outdoor areas and pools

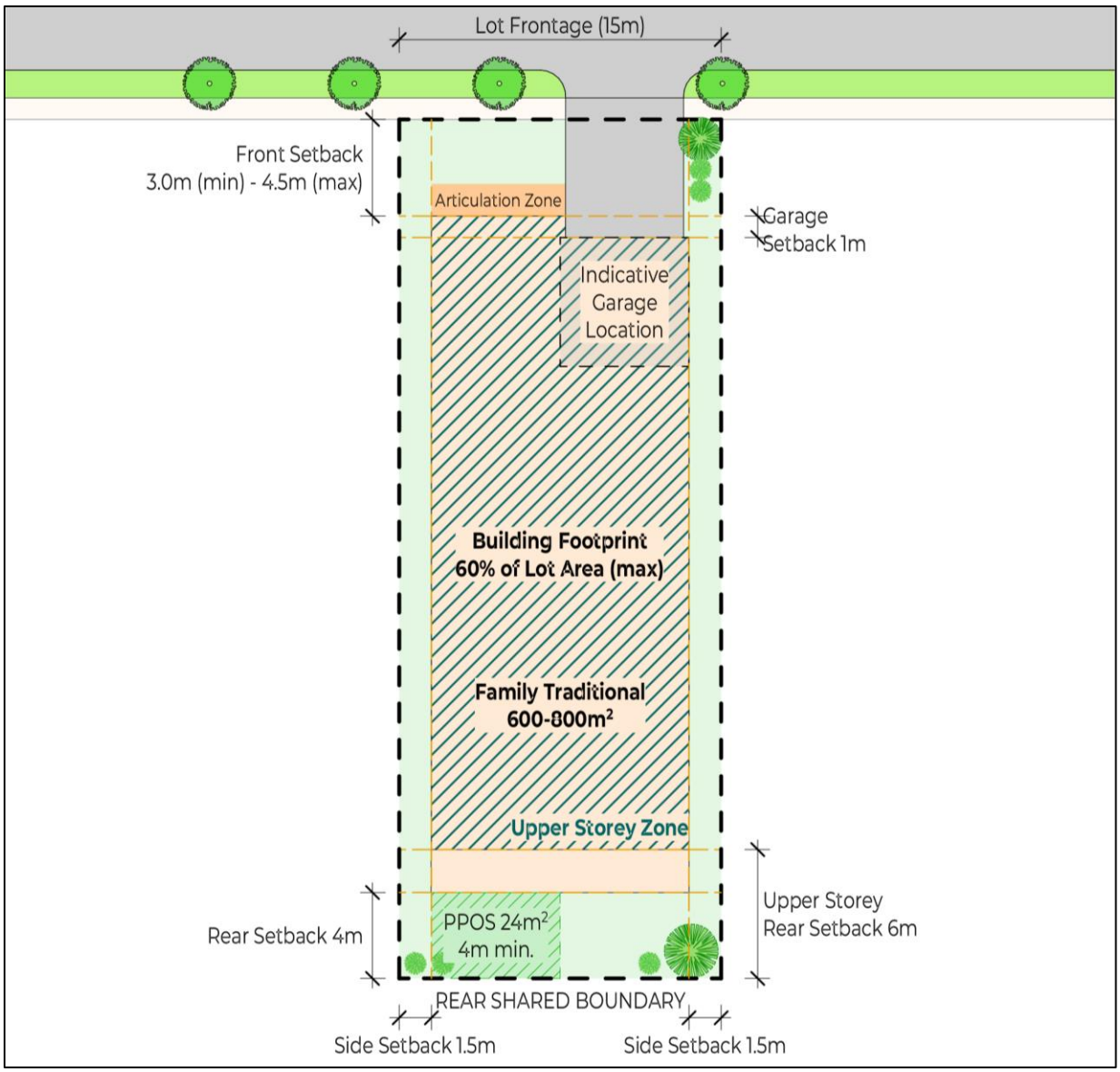


Figure 27. Family Traditional Lot

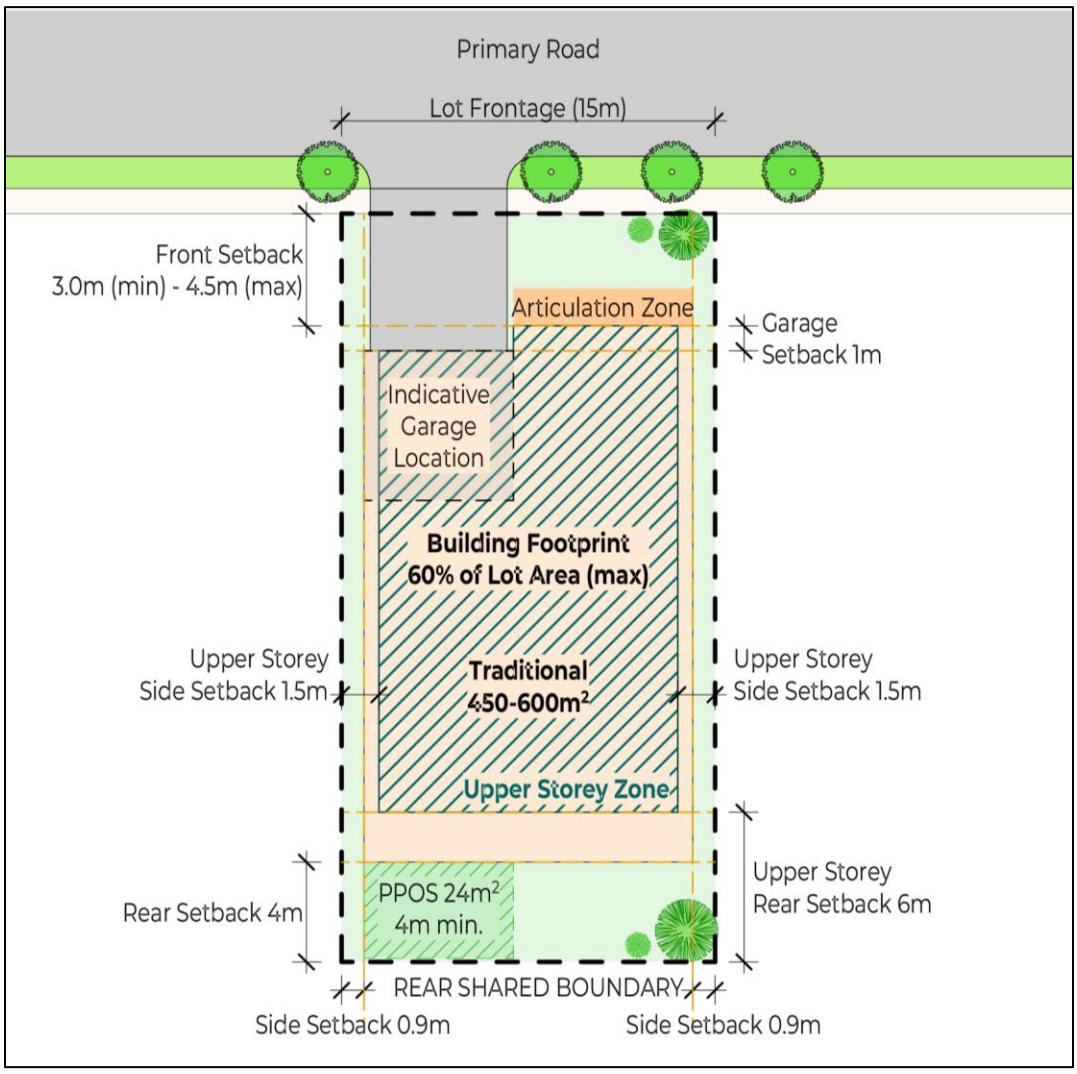


Figure 28. Traditional Lot

Small Lots

Small lots are to accommodate alternative housing typologies, including smaller dwellings, terraces, attached or semi detached dwellings. The following controls pertain to development within these lot typologies.

Lots smaller than 300sqm shall be located to meet the following criteria:

- Within 50m of the central village green
- Within 400m of retail (daily convenience) and/ or community use such as a community or cultural facility
- In the areas with greater use of laneways
- Optimise the number of east west oriented lots
- In other areas justified by best practice urban design.

Where there is an inconsistency between Table 6 and the Section 6.18 – 6.21, the controls in Table 6 will prevail.

TABLE 6. KEY CONTROLS FOR HOUSING TYPOLOGIES - SMALL LOTS					
Standard		**Cottage**	**Cottage (rear garage)**	**Townhouse Cottage**	**Superlots/Multi Dwelling housing**
Site Requirements	Lot size	300 - 450m^2	300 - 450m^2	125m^2 - 300m^2	Refer to Sections 6.20-6.21
	Lot Frontage (min)	10m	10m	5m	18m minimum for Terraces (Multi-Dwelling Housing) 20m minimum for Multi-Dwelling Housing 5m for each resulting allotment from Torrens title subdivision
Building Height (max)		9m	9m	9m	9m
Number of Storeys		2	2	2	2
Primary Street Setback (min-max)		Between 0m-3m (building façade) and in general accordance with Figure 31: Front Setback Control Plan 1m (garage setback behind building façade)	Between 0m-3m (building façade) and in general accordance with Figure 31: Front Setback Control Plan	Between 0m-3m (building façade) and in general accordance with Figure 31: Front Setback Control Plan	Between 0m-3m (building façade) and in general accordance with Figure 31: Front Setback Control Plan
Secondary Street Setback (min-max)		0m (min) – 1.5m (max) (building façade)	0m (min) – 1.5m (max) (building façade)	0m (min) – 1.5m (max) (building façade)	0m (min) – 1.5m (max) (building façade)
Side Setback (min)		Nil	Nil	Nil	Nil
Rear Setback (min)		Ground Floor: 4m Upper Storey: 6m	0.5m	0.5m	0.5m
Building Footprint (max)		60% of lot area	60% of lot area	80% of lot area	60% of lot area

Landscaped Area* (min)	30% of lot area (1.5m min dimension)	30% of lot area (1.5m min dimension)	20% of lot area (1.5m min dimension)	30% of lot area (1.5m min dimension)
Landscaped Area* Forward of Building Line if applicable (min)	60% OR 30% where a front verandah is proposed.	60% OR 30% where a front verandah is proposed.	60% OR 30% where a front verandah is proposed.	60% OR 30% where a front verandah is proposed.
Principal Private Open Space (min)	16m^2 (uncovered and 3m min dimension)	16m^2 (uncovered and 3m min dimension)	16m^2 (uncovered and 3m min dimension)	16m^2 (uncovered and 3m min dimension)
Tree Planting within front setback (min)	2 small trees for above 2m front setback	2 small trees for above 2m front setback	1 small tree for above 2m front setback	1 small tree for above 2m front setback
Resident Parking (min)	1 space	1 space	1 space	1 space
Garage access	Primary street Corner lots – secondary street	Rear laneway	Rear laneway	Rear laneway

*Landscaped area excludes paved outdoor areas and pools

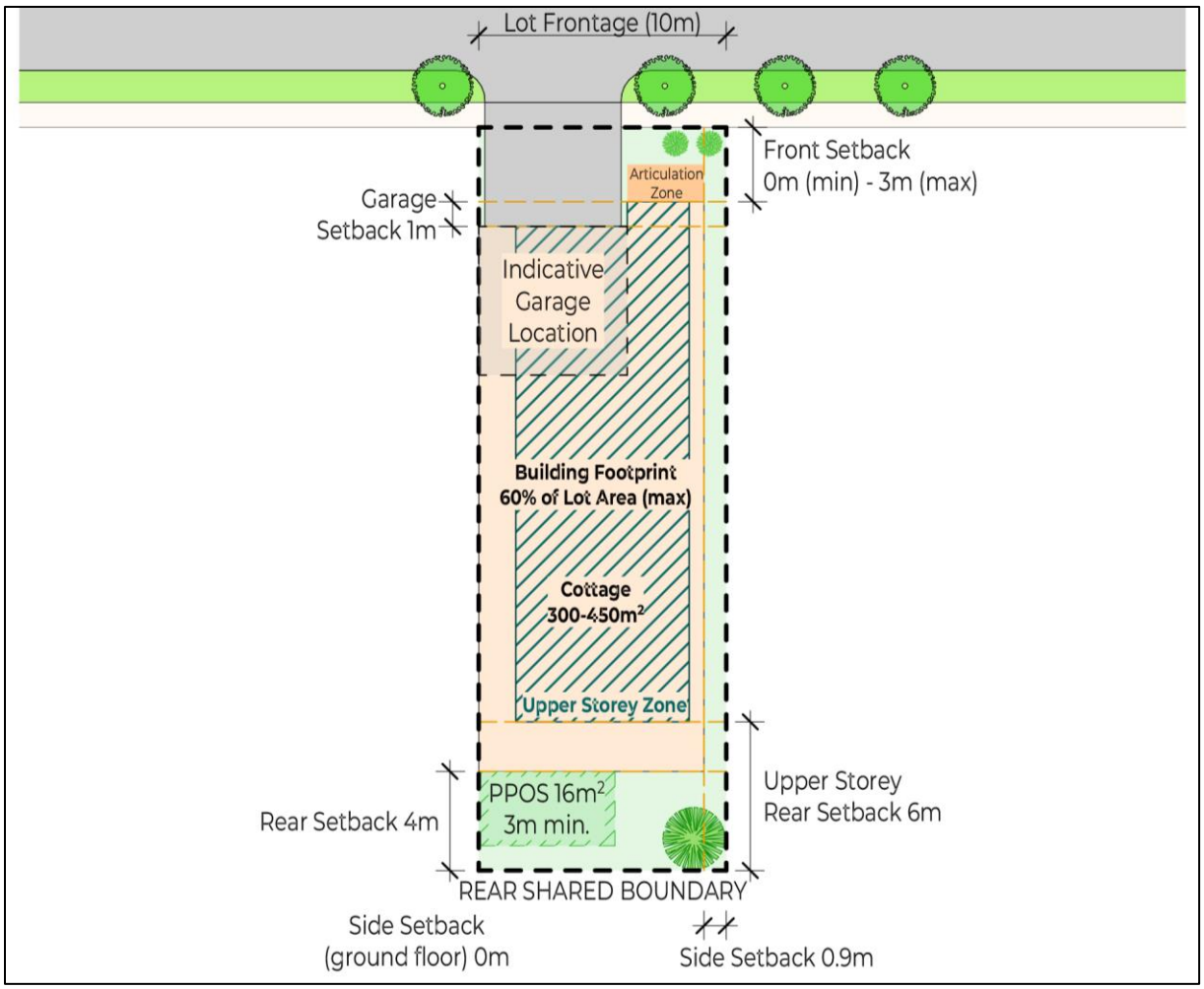


Figure 29. Cottage (front garage)

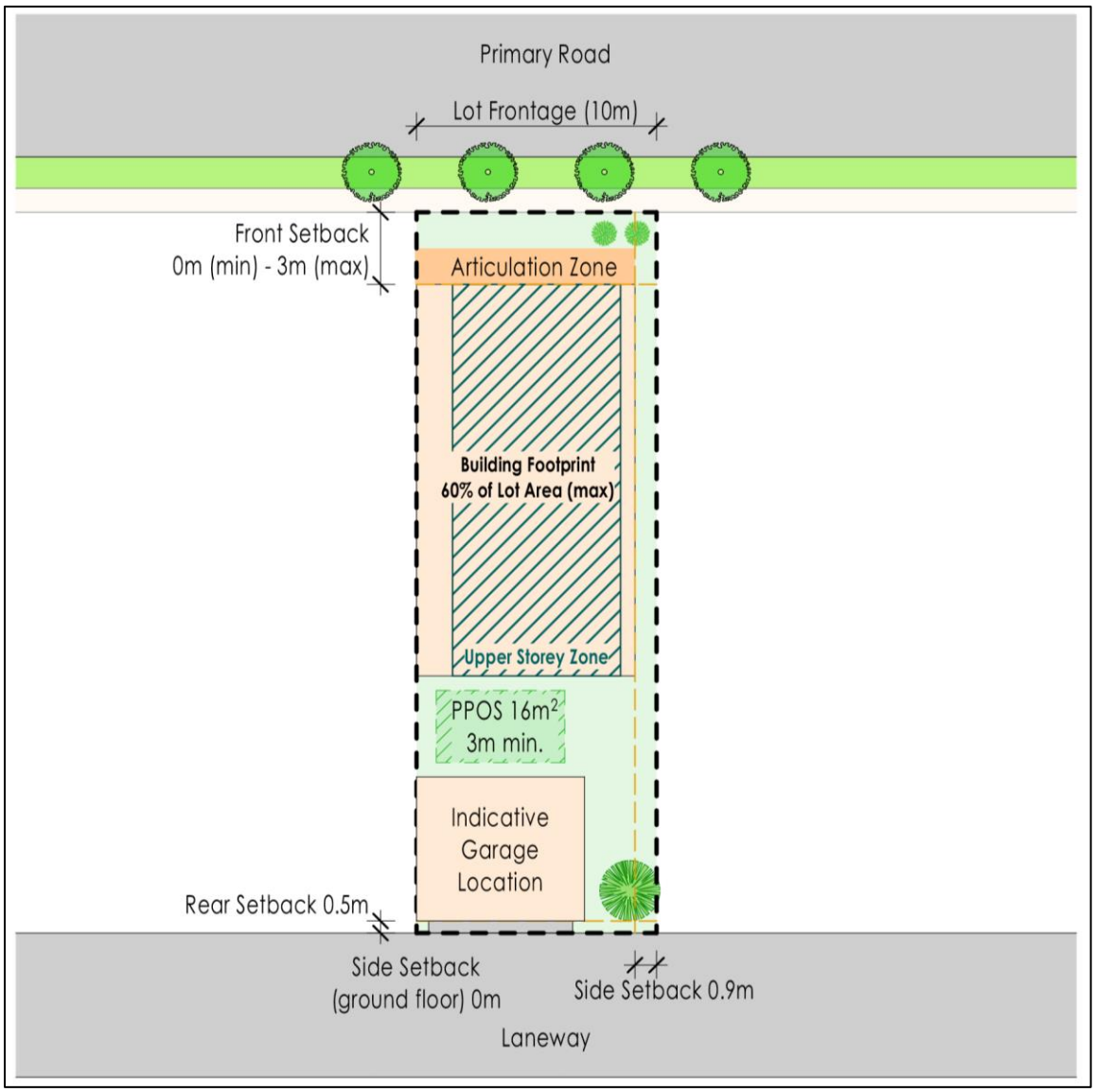


Figure 30. Cottage (Rear garage)

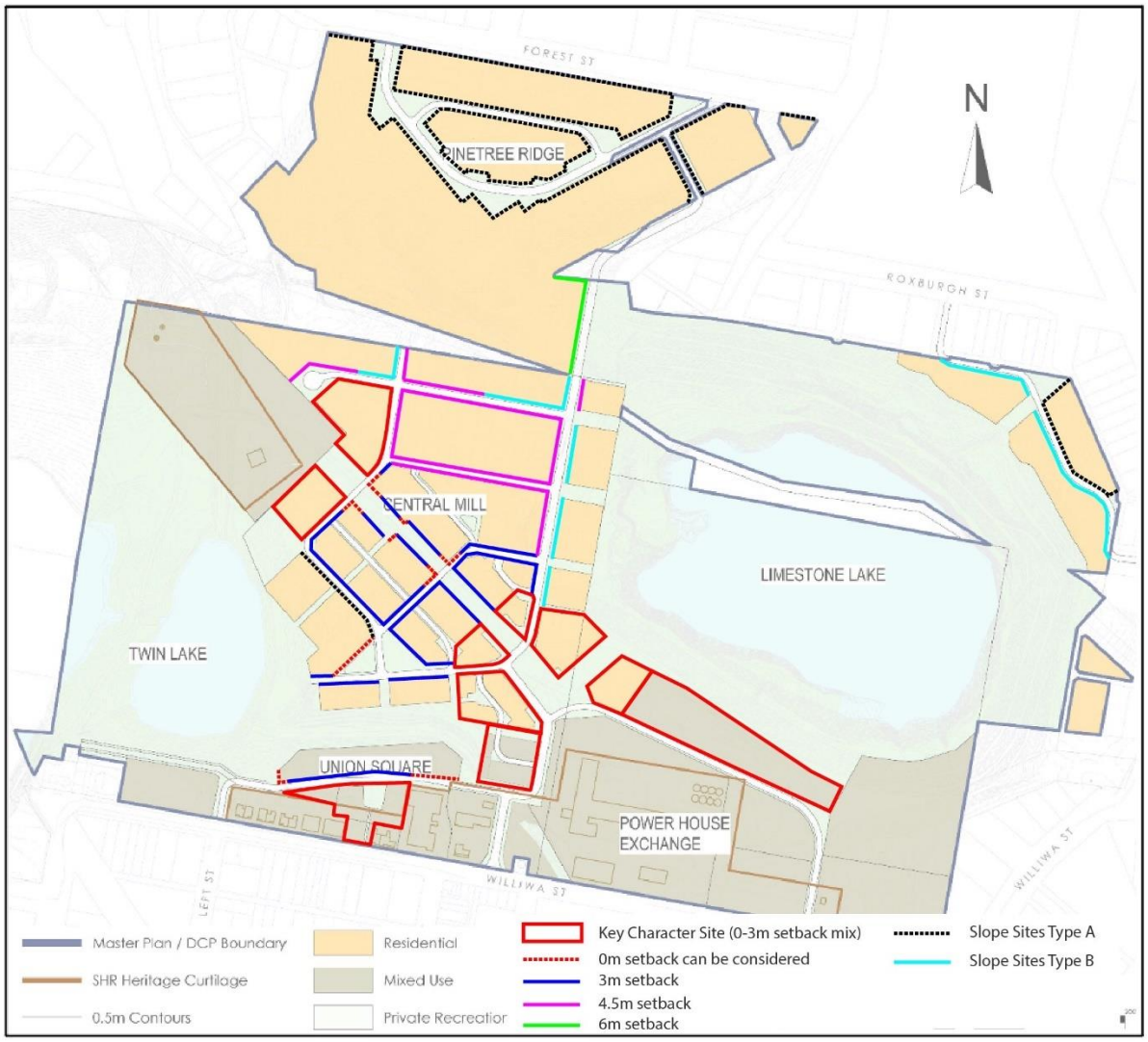


Figure 31. Front Setback Control Plan

Note: refer to Figure 32: Sloping Sites for additional information on Slope Types A and Slope Types B

6.4 GENERAL CONTROLS:

BUILDING SETBACKS

Objectives

Provide space between buildings and streets to maintain and reinforce streetscape character and provide for air flow, sunlight , landscaping and general amenity.

Provide areas of deep soil to allow for the planting and growth of trees on private property
Minimise the impacts of development on neighbouring properties with regard to views, privacy and overshadowing

Ensure garages do not dominate streetscape

Ensure buildings on corner lots provide an appropriate secondary street setback to maintain sight lines for the safety of pedestrians and vehicles.

Controls

Dwellings will be consistent with the setback controls in Section 5.3 Summary of key controls

Setbacks will be measured between the principal wall closest to the boundary and the boundary line, excluding any architectural building design element encroachments as permitted by this DCP.

Verandahs and architectural building elements may encroach up to a maximum of 2.5m into the prescribed articulation zone, where it can be demonstrated that such elements have a positive impact on the streetscape.

For steeply sloping sites the setbacks specified in this clause may need to be varied. The siting of buildings on sloping sites need to take into consideration the grade of resultant access driveways and potentially allow for batters and retaining walls. Where development seeks to vary front setbacks for sloping sites, applications are to be accompanied by a justification statement.

Garages and carports, including attached garages will be setback at least one metre from the main building line, except where garages are rear loaded.

Walls along the side boundary setbacks will be articulated to avoid the appearance of excessively long walls. Articulation may be provided in the form of a window, wall return or architectural feature.

In the case of attached or semi -detached dwellings, the side setback only applies to the end of a row of attached housing, or the detached side of a semi-detached house.

The minimum side boundary setback to public open space or land for the specific purpose of drainage will be 3m.

6.5 ZERO LOT LINE DEVELOPMENT

To facilitate the most efficient use of land on smaller lots, a dwelling may be designed so that a wall of the dwelling is built on or close to the side boundary. This is referred to as ‘zero lot line’ development.
Note; Zero lot line development has a zero lot line on one side boundary only. This is distinct to semi-detached dwellings or attached dwellings which may also be attached to other dwellings/s.

Objectives

Maximise the efficient use of small allotments where no adverse impact is created for adjoining properties

To ensure that the benefitted party can reasonably access and use the easement for its intended purpose.

Controls

An easement for ‘support and maintenance’ (servicing, construction and maintenance) of the zero lot line wall (and any services along the side of the dwelling) is to be provided on the adjoining property. The easement is to be 900mm for single storey and 1200mm for two storey development.

Projections will be permitted to encroach on zero lot line easements where:

- The encroachment will not impede the benefitted party from reasonably using the easement for its intended purpose

- The encroachment will not have adverse amenity impacts on the adjoining lot
- There is an unobstructed vertical clearance of 5m from the underside of any eave, to the finished ground level of the adjacent benefitted lot, whichever is higher and
- Servies will not impede the ability to undertake maintenance

For single storey development, walls must not exceed 50% of the length of the boundary that the zero lot line applies to.

For two storey development, walls must not exceed 30% of the length of the boundary that the zero lot line applies to.

Excavation is not permitted within an easement for support and maintenance' (servicing and construction maintenance). All filling adjacent to an easement for 'support and maintenance' must be contained within the building footprint i.e. drop edge beams.

Access to the rear yard of a zero lot line development must be provided via a minimum 0.9m side setback on the opposite side of the dwelling, or via a garage door provided as a drive through garage'.

6.6 BUILDING HEIGHT MASSING AND SITING

Objectives

(a) To ensure development is of a scale appropriate to protect residential amenity;
(b) To ensure building heights achieve built form outcomes that reinforce quality urban and building design.
(c) To provide for a scale of development that balances the village scale of town and grandiose scale of the site's heritage items.
(d) To minimise the potential impact of development on views, particularly from residential development and to heritage items.
(e) To achieve an appropriate relationship between the scales of village, heritage items and lakes.
(f) To ensure adequate solar amenity to the public realm and neighbours.
(g) To encourage generous floor to ceiling heights.

Controls

1. All development is to comply with the maximum height and site coverage indicated in Tables 4- 7 Summary of key controls.
2. Dwellings are to be generally a maximum of 2 storeys high except as otherwise provided in this DCP
3. Where a 3rd storey is proposed, the design should satisfy that the dwelling is not likely to impact adversely on the existing or future amenity of any adjoining land on which residential development is permitted, having regard to overshadowing, visual impact and any impact on privacy. It includes demonstrating that at least 50% of any adjacent open space that already achieves 3hours of continues solar access, will continue to achieve 3hours continuous solar access in mid-winter.

6.7 LANDSCAPED AREA AND PRINCIPAL PRIVATE OPEN SPACE

Objective

To ensure that each site has sufficient area for landscaping, including deep soil planting areas, to facilitate the establishment of attractive and functional streetscapes;

To enhance the quality of the built environment by providing opportunities for landscaping; and

To create the desired street character
To provide a high level of residential amenity with opportunities for outdoor recreation and relaxation within the property
To enhance the spatial quality, outlook and usability of private open s\pace
To facilitate solar access to the living areas and private open space of the dwelling

Controls
Each site is to be provide with a landscaped area and area of Principal Open Space consistent with the requirements of Tables 4-7 in Summary of Key Controls

1. The location of PPOS is to be determined having regard to dwelling design, allotment orientation, adjoining dwellings, landscape features and topography. The PPOS must be designed to offer a reasonable level of privacy for their users.
2. The PPOS is required to be conveniently accessible from the main living area of a dwelling or alfresco and have a maximum gradient of 1:10. Where part of all of the PPOS is permitted as a semi-private patio, balcony or rooftop area, it must be directly accessible from a living area.
3. Open space at the front of the dwelling can only be defined as PPOS where this is the only means of achieving the solar access requirements. PPOS at the front of a dwelling must be designed to maintain appropriate privacy (for example raised level above footpath or fencing or hedging). To balance privacy and streetscape activation/ surveillance; fencing, hedging and/ or courtyard walls shall not exceed 1.5m where adjoining private open space.
4. A minimum requirement of 15% of the POS area should be deep soil planting.

6.8 SOLAR ACCESS

Objective
To facilitate solar access to the living areas and private open space areas of the dwelling
To ensure that dwellings are designed to minimise overshadowing of adjacent properties and to protect minimum standards of sunlight access to private outdoor living spaces of adjacent dwellings.

Controls
Dwellings must be orientated to maximise solar access to living rooms having regard to future and existing site constraints.

At least one living area must receive a minimum of 3 hours of direct sunlight between 9,00am and 3.00pm on 21 June. For Townhouse Cottage lot typologies and Key Character Sites, the control may be decreased with a supporting justification statement to a minimum of 2 hours of direct sunlight between 9.00am and 3.00pm on 21 June.

Direct sunlight must reach at least 50 % of the PPOS of both the subject dwelling and any adjoining dwelling, for not less than 3 hours between 9,00am and 3.00pm on 21 June. For Townhouse Cottage lot typologies and Key

Character Sites, the control may be decreased with a supporting justification statement to a minimum of 2 hours of direct sunlight between 9.00am and 3.00pm on 21 June.

At least one window to a living area of dwellings on neighbouring properties must receive a minimum of 3hours of sunlight between 9.00am and 3.00pm 21 June.

Note: Shadow diagrams to show the impact of shadows resulting from existing and proposed building works will be required to demonstrate achievement of the above controls for all development above 1 storey in height.

6.9 VISUAL AND ACOUSTIC AMENITY

Objective

To site and design dwellings to meet requirements for visual and acoustic privacy, whist minimising visual and acoustic impacts of development on adjoining properties.

Controls

Direct overlooking of main habitable areas and private open spaces of adjacent dwellings should be minimised through building layout, window and balcony location and design, and the use of screening devices, including landscaping.

Habitable room windows with a direct sightline to the habitable room windows in an adjacent dwelling within 9m are to: −

be obscured by fencing, screens or appropriate landscaping, or
be offset from the edge of one window to the edge of the other by a distance sufficient to limit views into the adjacent window, or
have a sill height of 1.7m above floor level, or
have fixed obscure glazing in any part of the window below 1.7m above floor level, or
fixed screen or opaque windows can be built closer than non-habitable room windows

At least one window for each habitable room is provided without the need for a privacy screen.

Where privacy screens are provided to windows, they must not cover part of the window required to meet the minimum daylight or solar access requirements or restrict ventilation.

The design of dwellings must minimise the opportunity for sound transmission through the building structure, with particular attention given to protecting bedrooms and living areas.

In attached dwellings, bedrooms of one dwelling are not to share walls with living spaces or garages of adjoining dwellings, unless it is demonstrated that the shared walls and floors meet the noise transmission and insulation requirements of the Building Code of Australia.

The internal layout of residential buildings, window openings, the location of outdoor living areas (i.e. courtyards and balconies), and building plant should be designed to minimise noise impact and transmission.

6.10 SAFETY AND SURVEILLANCE

Objectives

To ensure that the siting and design of buildings and spaces decreases the opportunities for committing crime through casual surveillance

To ensure that development encourages people to use streets, parks and other public spaces without fear of personal risk.

Controls

Dwellings should be designed to have at least one habitable room to overlook streets, lanes and other public or communal areas to provide for casual surveillance. In the case of corner lots, habitable windows are to be orientated to overlook both street frontages.

The design of all developments, in particular the public domain and community facilities is to enhance public surveillance of public streets and open space/conservation areas.

Encourage a sense of community ownership of open space (e.g., parks, footpaths, etc through appropriate design of publicly accessible areas.

Use of roller shutters other than garages is not permitted on doors and windows facing the street. Any security railings must be designed to complement the architecture of the building.

Developments are to avoid the creation of areas for concealment and blank walls facing the street.

Pedestrian and communal areas are to have sufficient lighting to ensure a high level of safety. These areas must be designed to minimise opportunities for concealment.

All development should aim to provide casual surveillance of the street as a means of passive security. This should be achieved by maximising outlooks and views but minimising the overlooking of neighbouring properties. Opportunities for casual surveillance from dwellings/secondary dwellings/studios are to be incorporated into the design of shared driveways and where rear access is proposed from laneways.

All developments are to incorporate the principles of Crime Prevention through Environmental Design (CPTED).

6.11 RESIDENTIAL PARKING GARAGES AND SITE ACCESS

Objective

Provide safe and secure parking for residents and visitors

Reduce the visual impact of garages, carports and parking areas on the streetscape ad improve dwelling presentation.
Ensure the design of garages do not dominate the frontage of the house

Controls
At least one car parking space must be located behind the building façade line where the car parking space is accessed from the street on the front property boundary.
Note: A car space may include a garage, carport or other hard stand area constructed of materials suitable for car parking and access. The required car parking spaces specified above may be provided using a combination of these facilities, including use of the driveway (within the property boundary only) as a parking space.

Vehicular access is to be integrated with site planning from the earliest stages of the project to eliminate / reduce potential conflicts with the streetscape requirements and traffic patterns, and to minimise potential conflicts with pedestrians.

Driveways are to have the smallest configuration possible (particularly within the road verge) to serve the required parking facilities and vehicle turning movements and shall comply with AS2890.

The location of driveways is to be determined with regard to dwelling design and orientation, street gully pits and trees and is to maximise the availability of on-street parking. Notes: Section 5.6 requires plans of subdivision to nominate driveway locations and preferred building envelopes. The design of dwellings should refer to the approved subdivision plans and be consistent with the nominated driveway locations to the greatest practical extent.

Driveways are not to be within 1m of any drainage facilities on the kerb and gutter.

Planting and walls adjacent to driveways must not block lines of sight for pedestrians, cyclists and motorists.

Driveways are to have soft landscaped areas on either side, where practicable, suitable for water infiltration
.
Garage design and materials are to be consistent with the dwelling design. For front loaded garages:

Single garage doors should be a maximum of 3m wide and double garage doors should be a maximum of 6m wide.

Minimum internal dimensions for a single garage are 3m wide by 5.5m deep and for a double garage 5.6m wide by 5.5m deep.

Garage doors are to be visually recessive through use of materials, colours, and overhangs such as second storey balconies.

For garages accessed from a laneway or shared driveway a minimum garage door width of 2.4m (single) and 4.8m (double) is required.

One (1) Covered bicycle parking space is to be provided for the secure storage of at least 1 bicycle per dwelling.

6.12 BUILDING MATERIALS AND FINISHES

Objectives

(a) To encourage a high standard of architectural design through the selection of appropriate building materials and finishes
(b) To provide an attractive and interesting streetscape that integrates the architectural design of the building with the landscape design of the setbacks and surrounding areas
(c) To encourage the use of sustainable building materials and fixtures to minimise the potential environmental impacts

Controls

1. Building facades are to incorporate finishes and materials which provide visual relief to the built form.
2. A maximum of 1 dominant and 2 complimentary materials are permitted to the external facade of the dwellings plus glass.
3. The same material/ colour should be consistently used for one individual level, at the front, side and rear walls.
4. Colours of external finishes of buildings should be sympathetic to the rural landscape and the overall Foundations character.

FENCING

Objective

To ensure boundary fencing is of a high quality and does not detract from the streetscape.
To encourage the active use of front gardens through provision of secure areas
To ensure that rear and side fencing will assist in providing privacy to private open spaces areas.
To ensure that fence height, location and design will not affect traffic and pedestrian visibility at intersections.

Controls

Front fencing not to exceed 1.2 metres in heigh and shall

a. not appear solid, bulky or obtrusive
b. be highly integrated with landscape design and allow filtered views into the site
c. not be constructed of pre-coloured metal or solid materials
d. to be consistent with the main façade design in terms of colour and material

Fences on corner lots facing the secondary street frontage, must have a maximum height of 1.8m to a point which is a minimum of 2m behind the primary building line. Any fencing forward of this point must comply with Control 1, having a maximum height of 1.2 incorporating an open style design. The location of corner lot fencing must be shown in the submitted site plan or landscape plan.

Front fences and walls are not to impede safe sight lines for traffic.

6.13 OUTBUILDINGS

Objective

Ensure outbuildings in the residential zones are appropriately sited and designed to minmise impacts on adjoining properties, the streetscape and the character of the locality.

Ensure the visual impact of the outbuilding is minimised and integrated into the existing surrounding environment.

Controls

Unless otherwise approved by Council,, the use of the outbuilding must be of domestic storage and hobby use only, which is ancillary to the use of the dwelling on the site.

Outbuildings should be sited so as they are not to encroach of impact on any existing service infrastructure,.

The floor area of an outbuilding on a lot must not be more than the following;

- 36m², if the lot has an area of less than 300m2
- 45m², if the lot has an area of 300m² but less than 600m²
- 60m² if the lot has an area of 600m² but less than 900m²
- 100m² if the lot has an area of at least 900m²

The maximum height of an outbuilding or alterations and additions to an existing outbuilding must not be more than 4.8m above ground level (existing). Council may consider an attic above a one storey structure to a maximum height of 5,4m provided amenity to adjacent sites is maintained.

Stormwater discharge must be disposed of soley within the property boundary without causing nuisance to adjacent properties.

For outbuildings greater than 20m² in floor area, stormwater must be collected and discharged to:

- Existing onsite stormwater lines,or
- To a collection tank with an overflow connected to the existing onsite stormwater lines

All outbuildings must comply with the cut and fill requirements of Section 4.2 of this DCP.

6.14 ANCILLIARY DEVELOPMENT – WATER TANKS SPAS AND SWIMMING POOLS

Objective

To ensure that water tanks, pools and spas are appropriately located and designed:
To minimise visual impacts from a street or public domain and integrate with the residential development;

To minimise impacts on a heritage conservation area or nearby heritage items (if applicable);
To minimise noise impacts from associated machinery or the use of pools/spas near sensitive areas of adjacent development;

To ensure that materials and colours are compatible with the surrounding character (if visible from a public domain).

Controls

Swimming pools or spas should be no higher than 1.4m above ground level and should be located in the rear yard with a minimum setback of 1m from any boundary. A setback from a secondary road should be largely consistent with the setback of the dwelling house from the secondary road.
Water tanks and located behind the front building line.

1. Pumps, filtration equipment, generators, heat pumps or air-conditioning units are located away from sensitive areas such as adjoining dwellings and are screened from view where possible.
2. Where development consent is required, a material and colour palette should be provided from a shed or outbuilding.

6.15 SPECIFIC CONTROLS: SLOPING SITES

Objectives

(a) To promote development that respect the natural surroundings of the site for lots identified in Figure 31.
(b) To minimise cut and fill (notwithstanding earthworks proposed under **4.13**).
(c) To ensure the amenity of adjoining residents is not unduly affected by built form responses to slope.

Controls

1. Development on these sites are still subject to the Residential Design Principles in Section 5.2 of this document.
2. Maximum cut and fill of 1m (following completion of bulk earthworks stage). Council will consider up to a maximum of 1.5m on severe sloping sites where a justification statement is provided with the application.
3. All fill required should be Virgin Excavated Natural Material (VENM) ENM or exempt material approved by the Environmental Protection Authority.
4. Built form responses including split-level homes and pole homes are to be considered to minimise earthworks on site.

5. The design of any retaining walls visible from primary and secondary street frontages, must have architectural merit and comprise of appropriate materials / elements (including landscaping elements) that compliment the dwelling design and natural setting (e.g local stone or face brick or timber) .
6. To minimise the visual impact when viewed from any primary or secondary street frontage, retaining walls having a height greater than 1.5m, should be restricted to subfloor / undercroft foundation areas and be suitably screened by the building form.
7. To minimise the visual impact of built form, poles and/or decks from downslope views, particularly from key public open spaces and streets, back lot revegetation or structural screens should be provided to ensure visual screening of built form.
8. A reduction in private open space should be considered on steep sloping sites (15-20%) where large balconies or decks are the only useable space available.
9. Building design to have regard to increased bushfire hazard on steeper sites and to incorporate suitable materials to meet the requirements of AS3959 on bushfire prone land.
10. Underfloor void areas of pole homes to be appropriately screened.
11. Building heights up to 12m can be considered for any development on sloping sites, to cater for the fall of natural ground, as long as they present at no more than 2 storeys to the Street, with any 3rd storey setback from the street
12. Reduced front setbacks or build to front boundary development may be considered on sloped sites on merit.
13. Development should generally be in accordance the diagrams provided Figure 31 – Figure 37

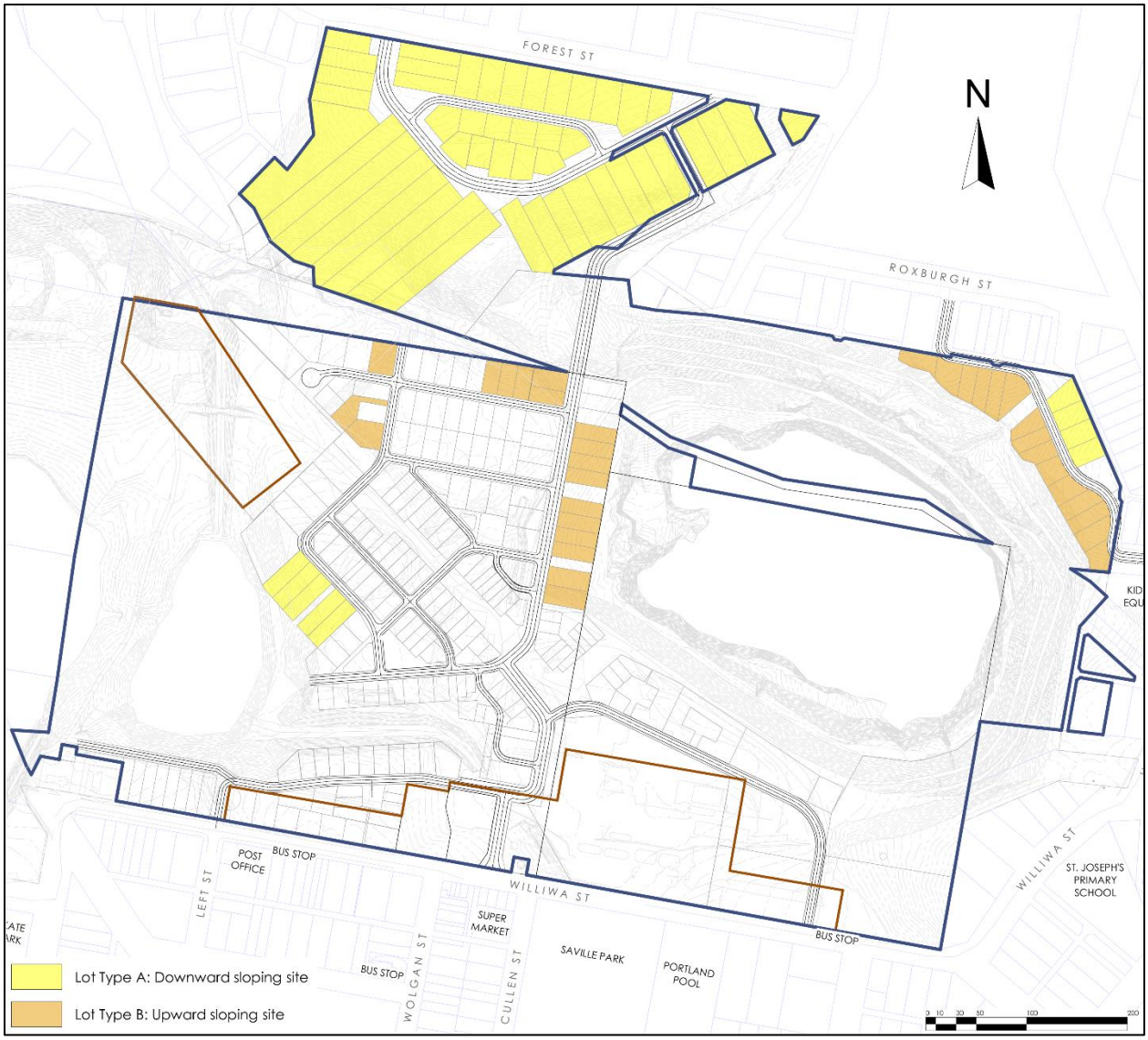


Figure 32. Sloping sites

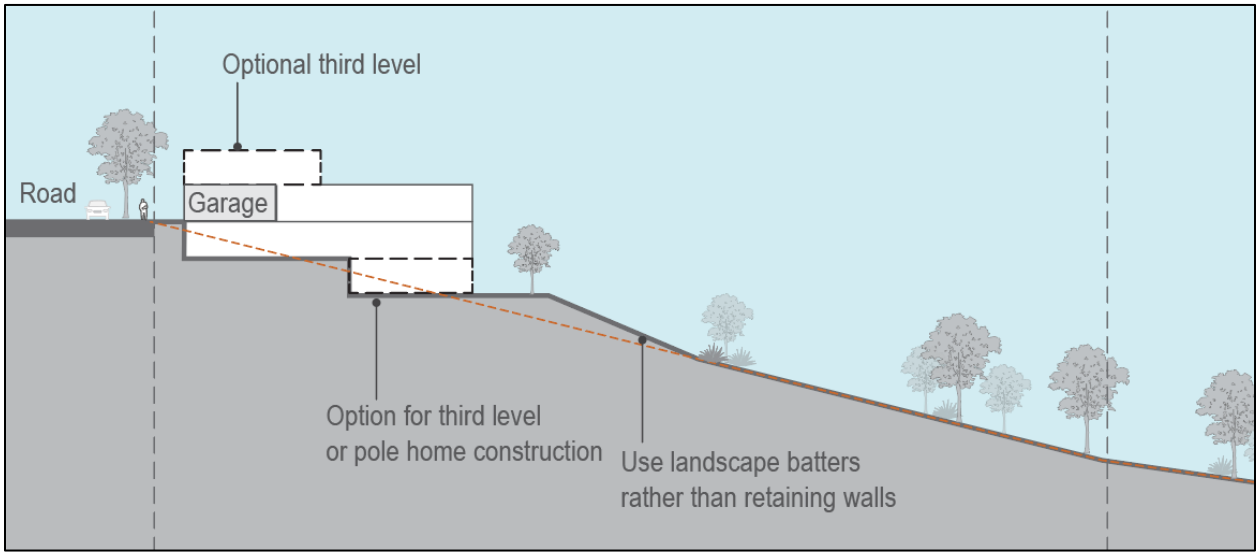


Figure 33. Type A downward sloping lot

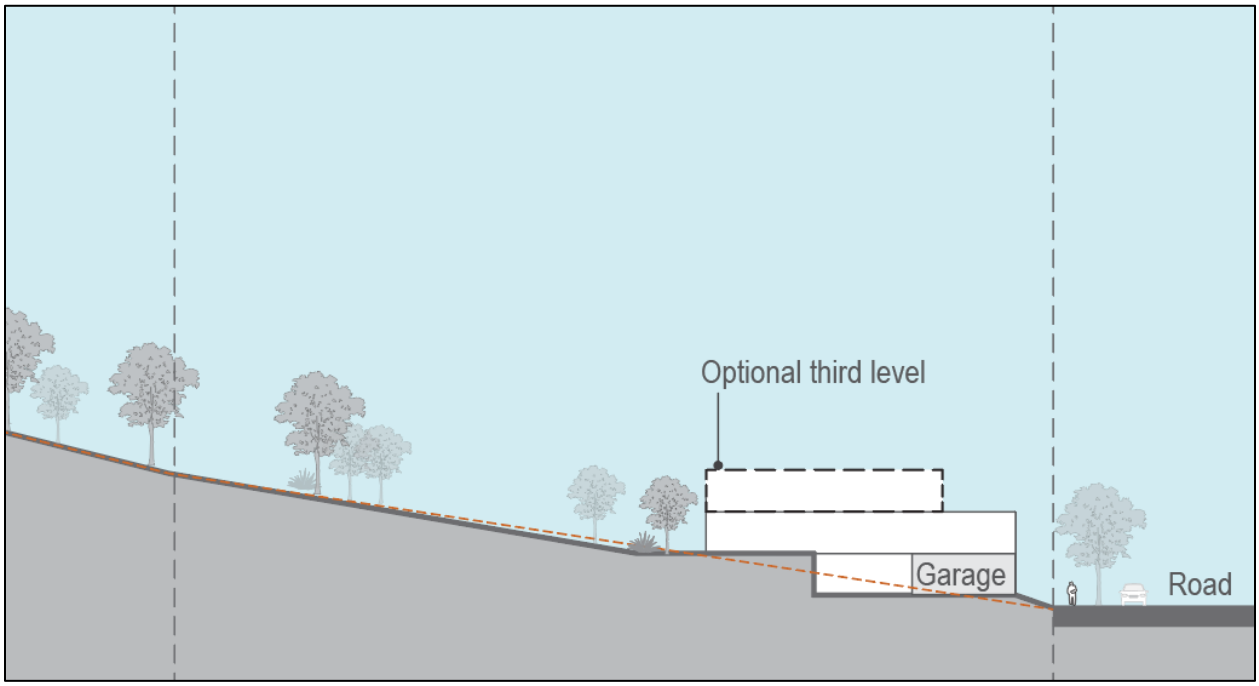


Figure 34. Type B Upward sloping lot

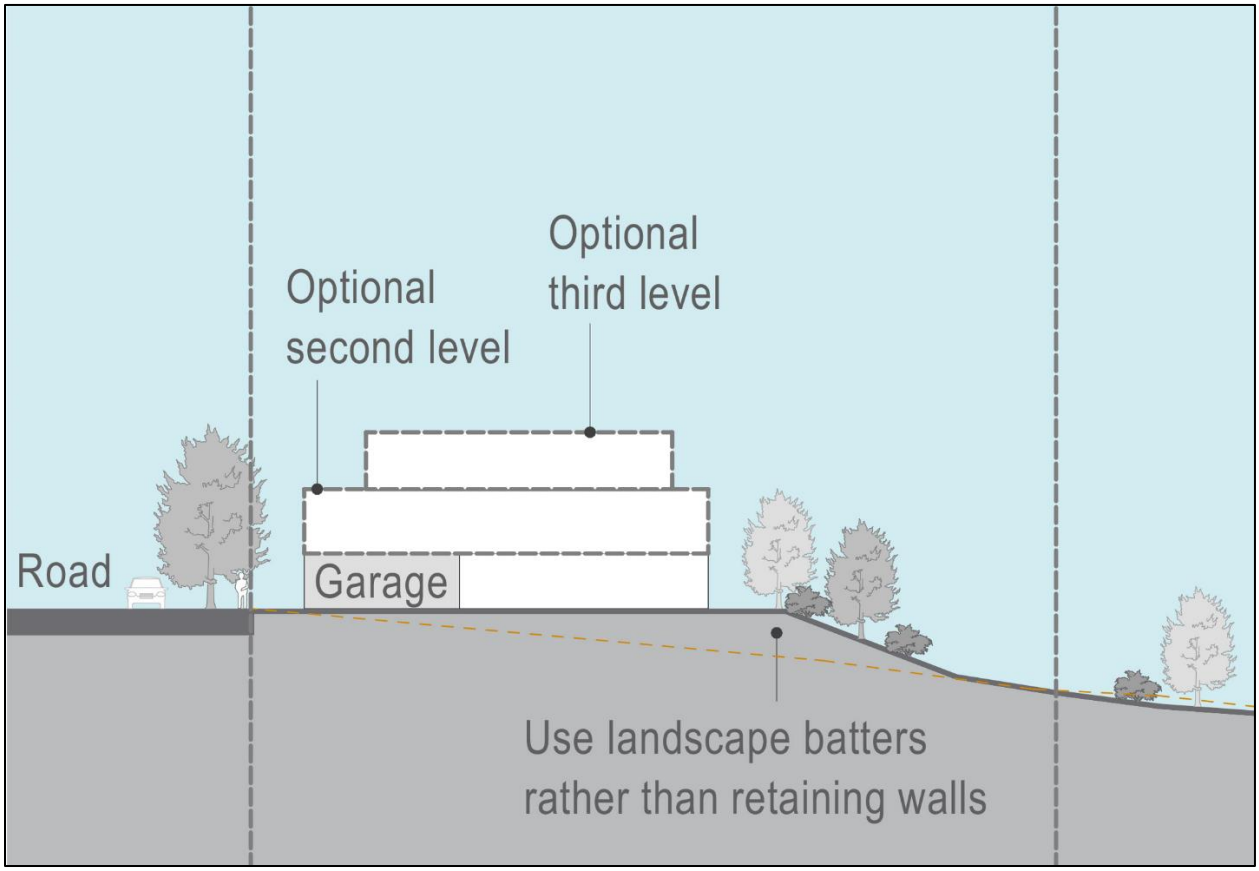


Figure 35. Type A Moderate Downward sloping lot

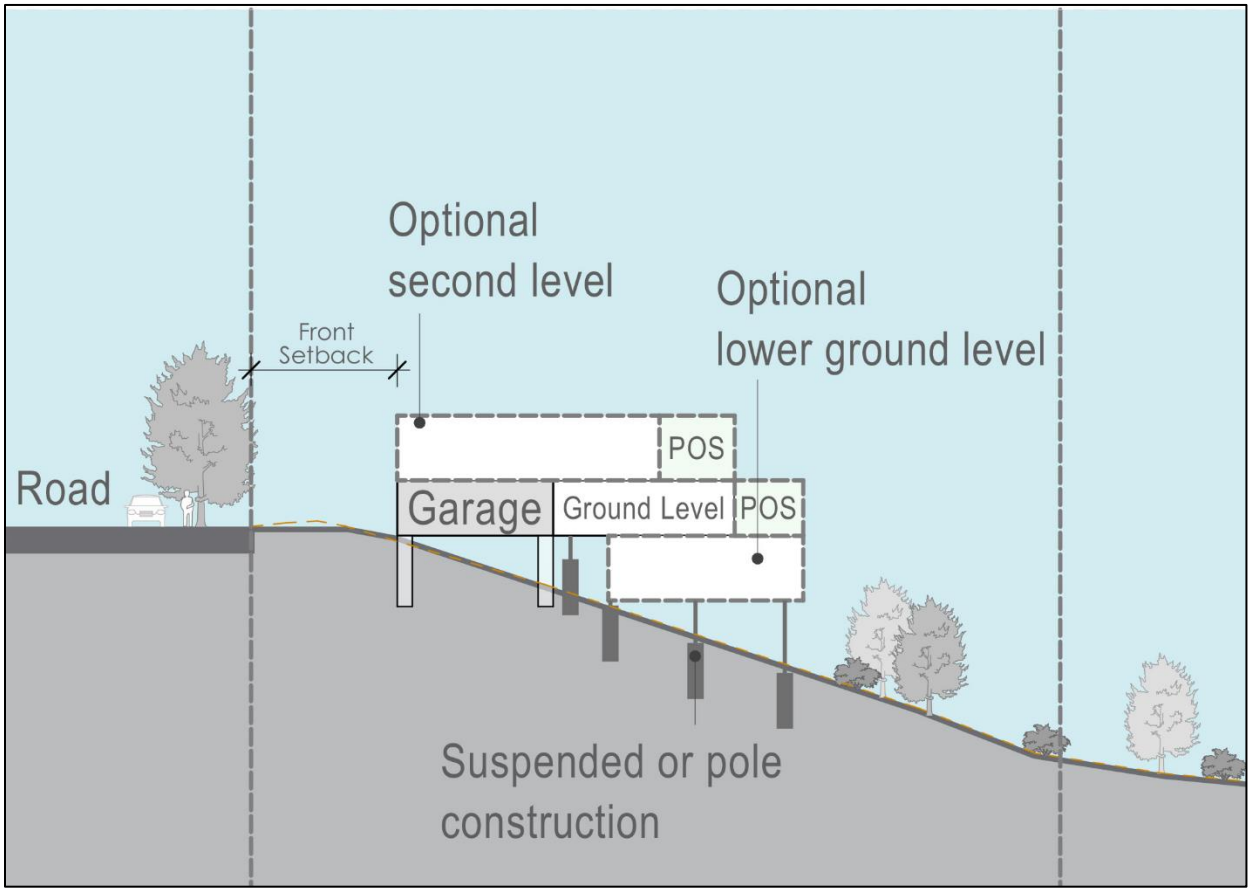


Figure 36. Type B Extreme Sloping Lot

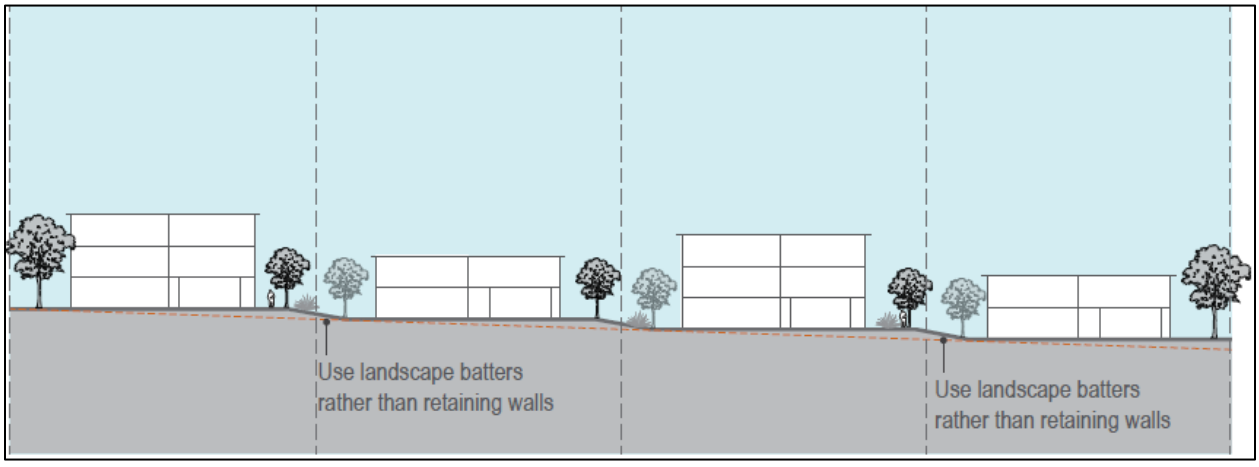


Figure 37. Side Boundary Slope Treatment

6.16 SPECIFIC CONTROLS: KEY CHARACTER SITES

Objectives

(a) To promote unique development that reflects requires design creativity and special considerations due to their strategic location within the Site. Here, strategic location refers to sites adjacent or surrounding heritage buildings, along key open space corridors and gateway sites

Controls

1. Development on these sites are subject to the following where applicable:
    a. Residential Design Principles in this DCP
    b. Superlots/Multi Dwelling housing typology controls
    c. Low-Rise Housing Diversity Guidelines for DAs
2. The following controls can provide additional flexibility to meet the Key Character Site Objectives and can prevail over the above
    a. Development on key character sites to have no FSR controls
    b. Allow for decoupled parking arrangements for both cars and cycling (see Figure 38 below). This can take the form of a shared parking lot/facility, ideally accessed via rear lane
    c. Height is to be a maximum of 12m
    d. Primary building frontages can attach onto park space, internal courtyards, pedestrian walkways and/or streets.

Figure 38. Key Character Site example development arrangement (3D). (Source: Opticos Design)

Figure 39. Key Character Site Images

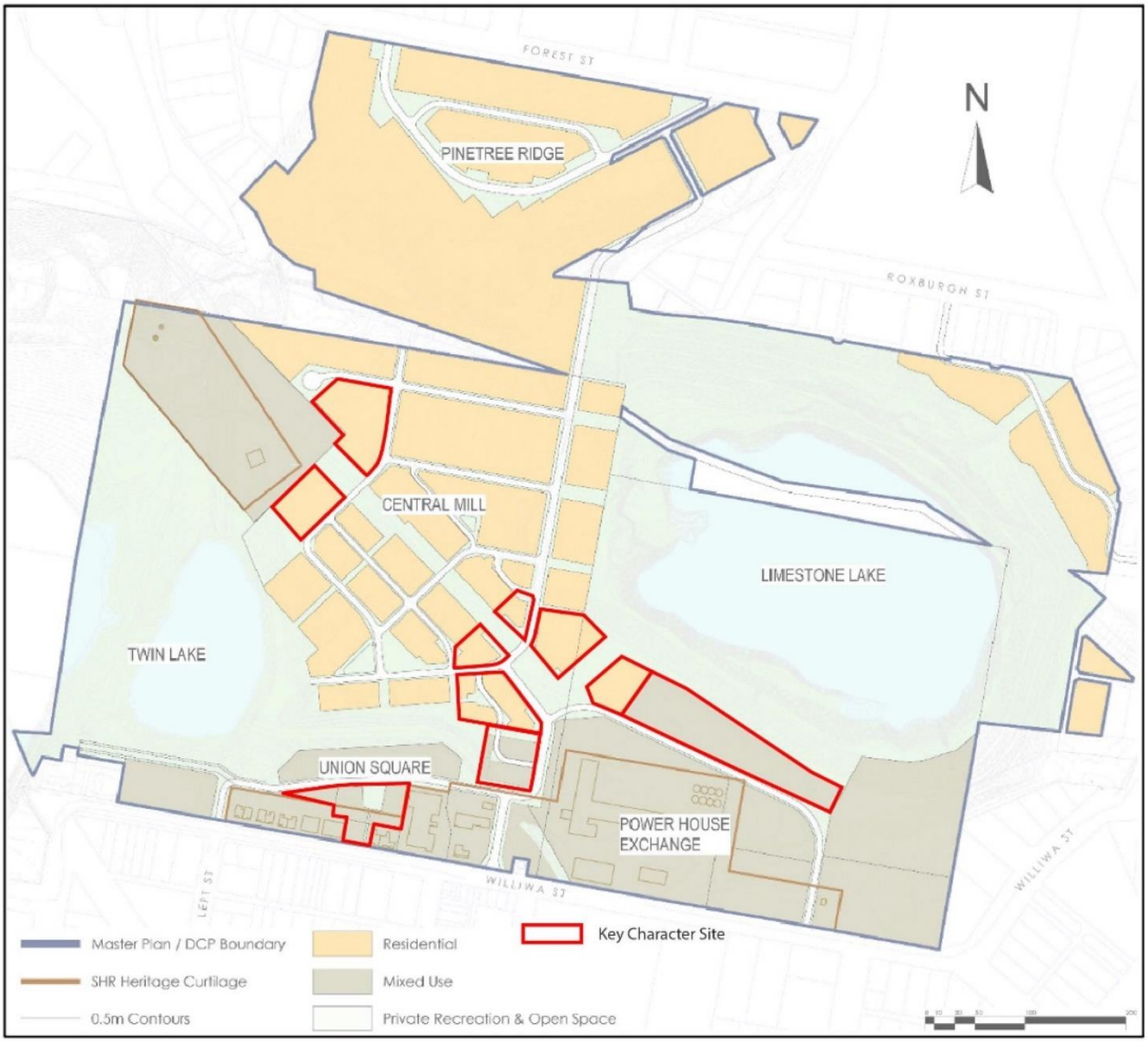


Figure 40. Key Character Site approximate locations (red outline).

6.17 SPECIFIC CONTROLS: LOW RISE MEDIUM DENSITY HOUSING

The NSW Government (DPIE) has prepared the Low Rise Housing Diversity Design Guide for development applications (July 2020) (Design Guide for DAs). This is found on line on NSW Government Planning and Environment site at :

https://www.planning.nsw.gov.au/policy-and-legislation/housing/low-rise-housing-diversity-code/design-guides-for-low-rise-housing-diversity

This DCP utilises the *Design Guide for DAs* as the controls for all development that contains two or more dwellings and is no more than two storeys in height including (see definitions below):

- Dual occupancies *(including conversion of an existing dwelling house into a* dual occupancy*);*
- Manor houses *and 'one above the other'* dual occupancies'*;*
- Multi-dwelling housing (Terraces)*;*
- Multi-dwelling housing *(town houses and villas).*

Range of residential types the Design Guide for DAs *applies to (Guide Figure 1-1).*

Use of the *Design Guide for DAs* ensures that there are consistent and in integrated controls for these development types.

Applicants can choose to comply with the *Complying Development* requirements under the *Codes SEPP* (https://www.legislation.nsw.gov.au/view/html/inforce/current/epi-2008-0572#pt.3B) along with the *Low-Rise Housing Diversity Design Guide (July 2020) (HD Design Guide).*

If applicants cannot meet the *Complying Development* controls then they can lodge a *Development Application (DA)* under the *Design Guide for DAs.*

Definitions:

Dual occupancy: means a dual occupancy (attached) or a dual occupancy (detached) (see examples on following page):

- **Dual occupancy (attached):** means two (2) dwellings on one lot of land that are attached to each other, but does not include a secondary dwelling; and
- **Dual occupancy (detached):** means two (2) detached dwellings on one lot of land, but does not include a secondary dwelling.

Dual occupancies (side-by-side – either attached or detached) are usually characterised by two dwellings on a corner lot with one dwelling facing the primary road and one facing the secondary road or two attached dual occupancies side-by-side facing the same road (see example on following page).

Manor houses: means – a building containing 3 or 4 dwellings, where:

a) Each dwelling is attached to another dwelling by a common wall or floor, and

b) At least 1 dwelling is partially or wholly located above another dwelling, and

c) The building contains no more than 2 storeys (excluding any basement).

Multi-dwelling housing (MDH): means – 3 or more dwellings (whether attached or detached) on one lot of land, each with access at ground level, but does not include a residential flat building.

Multi-dwelling housing (Terraces) means 3 or more dwellings on one lot of land where:

a) Each dwelling has access at ground level;

b) No part of a dwelling is above any part of any other dwelling, and,

c) Dwellings face, and generally follow, the alignment of one or more public roads.

6.18 DUAL OCCUPANCIES (SIDE BY SIDE AND REAR)

<table>
<tr><th colspan="2">6.5.3A Building Envelopes</th></tr>
<tr><th>Objectives</th><th>Design Criteria</th></tr>
<tr><td>Objective 6.5.3A(1)
The building height is consistent with the desired scale and character of the street and locality and provides an acceptable impact on the amenity of adjoining properties.</td><td>Where the LEP or DCP does not include a maximum building height, that height of buildings is:
8.5m, or
For detached dual occupancies in a battle axe arrangement, the dwelling furthest from the street: 5.4m.</td></tr>
<tr><td rowspan="2">Objective 6.5.3A(2)
The development provides a setback from the front boundary or public space that:
defines the street edge;
creates a clear threshold and transition from public to private space;
assists in achieving visual privacy to ground floor dwellings from the street;
contributes to the streetscape character and landscape; and
relates to the existing streetscape and setback pattern or the desired future streetscape pattern if different to the existing.</td><td>The maximum number of storeys excluding basements is:
2, or
For detached dual occupancies in a battle-axe arrangement, the dwelling furthest from the street: 1</td></tr>
<tr><td>Where the DCP does not contain front setback controls the following apply:
Where existing dwelling houses or dual occupancies are within 40m of the development - average of the two closest dwelling houses or dual occupancies.
Where no existing dwelling houses or dual occupancies are within 40m of the development then the following apply:
Lot Area (m²) Setback
0 - 900 4.5m</td></tr>
</table>

<table>
<tr>
<td></td>
<td>
>900 - 1500 6.5m
>1500 10m

Where the DCP does not contain setback controls for secondary roads the following apply:
Lot Area (m²) Setback
0 - 900 2m
>900 - 1500 3m
>1500 5m

Setback from a boundary with a parallel road: 3m, unless in the case of a dual occupancy (detached), 1 of the dwellings in the dual occupancy faces the parallel road, in which case the setback is to be the same as a primary road.

Setback from classified road: 9m.

Setback from public reserve: 3m.
</td>
</tr>
<tr>
<td>Objective 6.5.3A(3)
The development provides side boundary setbacks that reflects the character and separation of buildings within the surrounding area.</td>
<td>
Where the DCP does not contain side setback controls the following apply:
<table>
<tr><th>Lot width at the building line (m)</th><th>Building height at any height</th><th>Minimum required setback from each side boundary</th></tr>
<tr><td>0-24</td><td>0m – 4.5m</td><td>0.9m</td></tr>
<tr><td></td><td>> 4.5m – 8.5m</td><td>= (building height – 4.5m) ÷ 4 + 0.9m</td></tr>
<tr><td>> 24 - 36</td><td>0m – 4.5m</td><td>1.5m</td></tr>
<tr><td></td><td>> 4.5m – 8.5m</td><td>= (building height – 4.5m) ÷ 4 + 1.5m</td></tr>
<tr><td>> 36</td><td>0m – 8.5m</td><td>2.5m</td></tr>
</table>
</td>
</tr>
<tr>
<td>Objective 6.5.3A(4)
The development provides a rear boundary setback that provides opportunity to retain and protect or establish significant landscaping and trees in deep soil areas.</td>
<td>
Where the DCP does not contain rear setback controls the following apply:
<table>
<tr><th>Lot width at the building line (m)</th><th>Building height at any height</th><th>Minimum required setback from each side boundary</th></tr>
<tr><td>0-900</td><td>0m – 4.5m</td><td>3m</td></tr>
<tr><td></td><td>> 4.5m</td><td>8m</td></tr>
<tr><td>>900 – 1500</td><td>0m – 4.5m</td><td>5m</td></tr>
<tr><td></td><td>> 4.5m</td><td>12m</td></tr>
<tr><td>>1500</td><td>0m – 4.5m</td><td>10m</td></tr>
<tr><td></td><td>> 4.5m</td><td>15m</td></tr>
</table>
The setback to a lane is 0m.
</td>
</tr>
<tr>
<td colspan="2">
Notes:

When applying primary road, secondary road and rear setbacks – the lot area refers to the lot area prior to any subdivision.
The side setbacks only apply to the side boundaries of the lot prior to any subdivision.
Setbacks do not apply to the following: access ramps, down pipes, driveways or hard standard spaces, electricity or gas meters, fascias, fences, gutters, light fittings, pathways and paving, privacy screens fixed to the building.

</td>
</tr>
</table>

4. If a dual occupancy on a corner lot has dwelling fronting different roads, the rear of each dwelling is to be treated as a side for the purposes of determining the setbacks required under this clause.
5. Refer to Section 3 of the *Low Rise Diversity Housing Code Design Guide for Development Applications* for an explanation of the application of setbacks.

6.5.3B Gross Floor Area/Floor Space Ratio

Objectives	Design Criteria
Objective 6.5.3B(1) ***To ensure that the bulk and scale is appropriate for the context, minimises impacts on surrounding properties and allows for articulation of the built form.***	Where the LEP or DCP do not contain an FSR or Gross floor area the following maximum gross floor area applies for all development on the site: **Lot Area (m²)** — **Maximum GFA** 0 – 2000: — 25% of lot area + 300m^2 >2000: — 800m^2

6.5.3C Landscaped Area

Objectives	Design Criteria
Objective 6.5.3C(1) ***To provide adequate opportunities for the retention of existing and provision of new vegetation that:*** ***- contributes to biodiversity;*** ***- enhances tree canopy; and*** ***- minimises urban runoff.***	Where the LEP or DCP does not contain a minimum landscaped area the minimum landscaped area is: 50% of the parent lot area minus 100m^2.
	The minimum dimension of any area to be included in the landscaped area calculation is 1.5m.
	At least 25% of the area forward of the building line is to be landscaped area. At least 50% of the required landscaped area must be behind the building line.
Objective 6.5.3C(2) ***Landscape design supports healthy plant and tree growth and provides sufficient space for the growth of medium sized trees.***	An ongoing maintenance plan is to be provided as part of the landscape plan.
	Minimum soil standards for plant sizes are provided in accordance with the Table below: **Tree Size** — **Height** — **Spread** — **Min Soil Area** — **Min Soil Depth** Large trees — >12m — >8m — 10 x 10m — 1.2m Medium trees — 8-12m — 4-8m — 6 x 6m — 1.0m Small trees — 5-8m — <4m — 3.5 x 3.5m — 0.8m Shrubs — 0.5-0.6m Groundcover — 0.3-0.45m Turf — 0.2m
	If the DCP does not specify tree planting of a particular size or species the following is to be provided: • Front: 1 tree with mature height of 5m if the primary road setback is greater than 3m. • Rear: 1 tree with mature height of 8m.
Objective 6.5.3C(3) ***Existing natural features of the site that***	Mature trees are to be retained, particularly those along the boundary, (except those where approval is granted by Council for their removal).

contribute to neighbourhood character are retained, and visual and privacy impacts on existing neighbouring dwellings are reduced.	Existing Landscape features including trees and rock outcrops are to be retained where they contribute to the streetscape character or are located within the rear setback.
Objective 6.5.3C(4) ***Landscape design contributes to a local sense of place and creates a microclimate.***	The landscape plan proposes a combination of tree planting, for shade, mid height shrubs, lawn and ground covers.
	The landscape plan indicates that at least 50% of the overall number of trees and shrubs are species native to the region.

6.5.3D Local Character and Context

Objectives	Design Criteria
Objective 6.5.3D(1) ***The built form, articulation and scale relates to the local character of the area and the context.***	Provide a description in the Statement of Environmental Effects (SEE) of how the built form of the development contributes to the character of the local area, using the guidance in Section 3D Local Character and Context of the *Low Rise Housing Diversity Design Guide for Development Applications*.

6.5.3E Public Domain Interface

Objectives	Design Criteria
Objective 6.5.3E(1) ***Provide activation and passive surveillance to the public streets.***	The front door of each dwelling is to be directly visible from the public street.
	Windows from habitable rooms are to overlook the public domain.
Objective 6.5.3E(2) ***Front fences and walls do not dominate the public domain instead they respond to and complement the context and character of the area (including internal streets).***	Private courtyards within the front setback are located within the articulation zones and / or behind the required front building line.
	Front fences: • Are visually permeable (no more than 50% of the allowable fence area will be solid masonry, timber or metal). • Average height no greater than 1.2m. • Have a consistent character with other front fences in the street. • Are not to be constructed of solid metal panels or unfinished timber palings.
	High solid walls are only used to shield the dwelling from the noise of classified roads. The walls are to have a maximum height of 2.1m and be setback at least 1.5m from the property boundary. Landscape planting is to be provided between the wall and the boundary, with a mature height of at least 1.5m.
	Retaining walls greater than 600mm within the front setback are softened by planting for a minimum depth of 600mm on the low side of the retaining wall.

Objective 6.5.3E(3) ***The secondary frontage of a development positively contributes to the public domain by providing an active edge and semi-transparency to the boundary treatment.***	Where the development adjoins public parks, open space, bushland, or is a corner site, the design positively addresses this interface using any of the following design solutions: • Habitable room windows facing the public domain. • Street access, pedestrian paths and building entries. • Paths, low fences and planting that clearly delineate between communal/private open space and the adjoining public open space. • Walls fronting the public spaces are to have openings not less than 25% of the surface area of the wall.

6.5.3F Pedestrian and Vehicle Circulation

Objectives	Design Criteria
Objective 6.5.3F(1) ***Ensure there is adequate space for vehicle circulation and of-street parking.***	Vehicle circulation complies with AS2890.1.
	Where on street parking is currently available in front of the development, the proposed driveways are located so that at least one car space remains.
	Vehicular crossing is to have a maximum width of 3.5m at the street boundary.

6.5.3G Orientation, Siting and Subdivision

Summary LEP Development Standards	
Minimum lot size for carrying out dual occupancy development.	The minimum lot area and / or minimum lot width as specified in the LEP.
Minimum lot size resulting from the subdivision of a dual occupancy.	The minimum subdivision lot area and / or minimum lot width as specified in the LEP.
Objectives	**Design Criteria**
Objective 6.5.3G(1) ***To achieve planned residential density consistent with the Lithgow LEP 2014.***	Where the LEP or DCP does not contain a minimum lot area, the minimum lot area is 400m^2. The minimum lot area for the R2 Low Density Residential zone set by the Lithgow Local Environmental Plan 2014: Attached: 1,000m^2 Detached: 1,000m^2 Where the LEP or DCP does not contain a minimum lot width, the minimum lot width is: • 12m measured at the building line where parking is provided from a secondary road, parallel road or lane, or • 15m measured at the building line where parking is accessible from a primary road.

Objective 6.5.3G(2) ***To ensure that lots created resulting from the subdivision of land have sufficient area for the dwelling, vehicle access, landscaping, parking and amenity and are consistent with the desired future character of an area.***	The area of each resulting lot must be at least— (i) the minimum size specified for the subdivision of land for the purpose of a dual occupancy in the environmental planning instrument that applies to the land, or (ii) (ii) if no minimum size is specified— 200m2
	The ground floor footprint of the strata area is not less than 180m2 for each dwelling.
	The following provisions apply if no minimum lot width is specified in the LEP or DCP on R1, R2, & RU5 zoned land: • Garages not fronting primary road - 6m • Garages fronting primary road - 7.5m
	A dwelling on a proposed battle-axe lot (whether strata or Torrens title) must be a part of a detached dual occupancy and have a lot with minimum dimensions as required by the DCP or LEP. If the DCP or LEP has no control, then the minimum dimensions are: • 4.5m wide access to the primary road • Minimum dimension of 18m x 18m.
Objective 6.5.3G(3) ***The built form, articulation and scale relates to the local character of the area and the context.***	The dwelling frontage is to be at least 5m.
	Each dwelling on a corner lot is to have a frontage to a different street.
Objective 6.5.3G(4) ***Reasonable solar access is provided to the living rooms and private open spaces of adjoining dwellings.***	A window that is more than 3m from the boundary to a living room of an adjoining dwelling is to receive more than 3 hours of direct sunlight between 9am and 3pm on the winter solstice (June 21). If the window currently receives less than 3hrs – direct sunlight is not reduced. **Note**: Direct sunlight is measured consistent with Design Criteria 51 and is only required to one window serving the living room
	Where the location of the living room windows of an adjoining dwelling cannot be verified, the proposed development is accommodated within a building envelope defined by a 35° plane springing from 3.6m above the boundary.
Objective 6.5.3G(5) ***The development responds to the natural landform of the site, reducing the visual impact and avoiding large amounts of cut and fill and minimises the impacts of retaining walls.***	Dwellings are located to step with the topography.
	Unless a dwelling is over a basement, the ground floor is not more than 1.3m above ground level, and no more than 1m below ground level.
Objective 6.5.3G(6) ***The development minimises impacts to vegetation on adjoining properties and allow for vegetation within the setbacks.***	Basement car parking should not be provided within the setbacks described in the table in Section 2.1A.
Objective 6.5.3G(7) ***Independent services and utilities are available to service each lot.***	All lots must have access to reticulated water, sewer, electricity, telecommunications and where available, gas.

Objective 6.5.3G(8) ***Provide adequate separation between buildings to allow for landscape, provide visual separation and daylight access between buildings***	For a dual occupancy (detached) the minimum separation between two dwellings that is 3m.

6.5.3H Solar and Daylight Access

Objectives	Design Criteria
Objective 6.5.3H(1) ***To optimise sunlight received to habitable rooms and private open spaces. Solar access enables passive solar heating in winter and provides a healthy indoor environment.***	A living room or principal private open space in each dwelling is to receive a minimum of 3 hours direct sunlight between 9 am and 3 pm on the winter solstice (June 21). Note: Direct sunlight is achieved when 1m^2 of direct sunlight on the glass is received for at least 15 minutes. To satisfy 3 hours direct sunlight, 12 periods of 15 minutes will need to be achieved, however the periods do not need to be consecutive
Objective 6.5.3H(2) ***To provide good access to daylight suited to the function of the room, minimises reliance on artificial lighting, and improves amenity.***	Daylight may not be borrowed from other rooms, except where a room has a frontage to a classified road.
	No part of a habitable room is more than 8m from a window.
	No part of a kitchen work surface is more than 6m from a window or skylight
	Courtyards are to: • Be fully open to the sky; and • Have a minimum dimension of one third of the perimeter wall height, and an area of 4m^2.
	A window is visible from 75% of the floor area of a habitable room.

6.5.3I Natural Ventilation

Objectives	Design Criteria
Objective 6.5.3I(1) ***All habitable rooms are naturally ventilated.***	All habitable rooms are naturally ventilated.
	Each dwelling is naturally cross ventilated.

6.5.3J Ceiling Height

Objectives	Design Criteria
Objective 6.5.3J(1)	Minimum ceiling heights are: • 2.7m to ground floor habitable rooms. • 2.7m to upper level living rooms.

Ceiling height achieves sufficient natural ventilation and daylight access and provides spatial quality.	• 2.4m to upper level habitable rooms (excluding living rooms). The ceiling height is measured from finished floor level to finished ceiling level.

6.5.3K Dwelling Size and Layout

Objectives	Design Criteria
Objective 6.5.3K(1) ***The dwelling has a sufficient area to ensure the layout of rooms is functional, well organised and provides a high standard of amenity.***	Dwellings are to have the following minimum internal floor areas: • 1 bed: 65m^2 • 2 beds: 90m^2 • 3+ beds: 115m^2
	The minimum internal areas outlined above only include one bathroom. The minimum area of each additional bathroom is 5m^2 added onto the minimum dwelling area.
	The minimum area of any additional bedroom is 12m^2. The area of each additional bedroom is then added to the minimum internal floor area contained in Design Criteria 60.
	Kitchens are not part of a circulation space, such as a hallway.
Objective 6.5.3K(2) ***Room sizes are appropriate for the intended purpose and number of occupants.***	One bedroom is to have a minimum area of 10m^2, excluding wardrobe space.
	Bedrooms have a minimum length and width of 3m, excluding wardrobe space.
	Combined living and dining rooms are to have a minimum area of: • 1 and 2 bed: 24m^2 • 3+ bed: 28m^2
	Living room or lounge rooms are to have a minimum length and width of 4m, excluding fixtures.

6.5.3L Principal Private Open Spaces

Objectives	Design Criteria
Objective 6.5.3L(1) ***Dwellings provide appropriately sized private open space and balconies to enhance residential amenity.***	The area of principal private open space provided for each dwelling is at least 16m^2 with a minimum length and width of 3m.
Objective 6.5.3L(2) ***Principal private open space and balconies are appropriately located to enhance liveability for residents.***	The principal private open space is located behind the front building line.
	The principal private open space is located adjacent to the living room, dining room or kitchen to extend the living space.
	25% of the private open space is to be covered to provide shade and protection from rain.

6.5.3M Storage

Objectives	Design Criteria
Objective 6.5.3M(1) ***Adequate, well-designed storage is provided in each dwelling.***	In addition to storage in kitchens and bedrooms, the following storage with a minimum dimension of 500mm is provided: • 1 bed: 6m^3 • 2 beds: 8m^3 • 3+ beds: 10m^3
	At least 50% of the required storage is located inside the dwelling.
	Storage not located in dwellings is secure and clearly allocated to specific dwellings, if in a common area.

6.5.3N Car and Bicycle Parking

Objectives	Design Criteria
Objective 6.5.3N(1) ***Car parking is provided appropriate for the scale of the development.***	Car parking is to be provided at the rate required for a dual occupancy within the DCP that applies to the land. If there is no rate in the DCP - 1 space per dwelling is to be provided.
	Car parking spaces and circulation are to comply with AS 2890.1:2004.
Objective 6.5.3N(2) ***Parking facilities are provided for bicycles***	Covered space is to be provided for the secure storage of at least 1 bicycle per dwelling.
Objective 6.5.3N(3) ***Visual and environmental impacts of car parking and garages do not dominate the streetscape and have an appropriate scale in relationship with the dwelling.***	Basement car parking is not to protrude more than 1m above finished ground level except at the entrance to the car park.
	The maximum dimensions of any basement car park entry is to be 2.7m high by 3.5m wide.
	Where a driveway is adjacent to an existing tree, it is either outside the drip line or complies with the recommendations in a report prepared by a qualified arborist.
	The setback of a car space from a primary, secondary or parallel road is to be at least: **Setback of Dwelling from Road** — **Minimum Of-Street Parking Setback from Road** <4.5m — 5.5m 4.5m or more — 1m behind the building line
	The maximum width of all garage doors facing a primary, secondary or parallel road: **Lot Width** — **Maximum Width of Garage Door Openings** 12m - 15m — 3.2m >15m - 20m — 6m >20m — 9.2m

	>25m 12m Note: Lot width refers to the completed Torrens title lot or in the case of a strata subdivision being the development site.
	The maximum width of all garage doors facing a parallel road: **Lot Width** / **Maximum Width of Garage Door Openings** 12m - 15m / 6m >15m - 20m / 9.2m >20m / 12m

6.5.3O Visual Privacy

Objectives	Design Criteria
Objective 6.5.3O(1) ***The separation of windows and terraces, decks and balconies within a site and to adjoining existing or future buildings provide a degree of visual privacy without the reliance on fixed screening.***	Orientate living room windows, primary private open space to the street front or rear.
	At least one window for each habitable room is provided without the need for a privacy screen.
	A privacy screen is required when: **Distance from Boundary** / **Finished Floor Level Above Ground Level (Existing)** <3m / 1 - 3m <6m / >3m **Distance from Windows in Dwelling on Same Lot** / **Finished Floor level Above Ground Level (Existing)** <6m / 1 - 3m <12m / >3m Note: This does not apply to a habitable room with a floor level not more than 1m above ground level (existing), bedroom windows that have an area less than $2m^2$ or windows that have a frontage to a road or public open space.
	A privacy screen is required at the edge of that part of a terrace, deck, balcony or verandah that is parallel or faces towards a side or rear boundary. **Distance from Boundary** / **Finished Floor Level Above Ground Level (Existing)** <3m / 1 - 3m <6m / >3m **Distance from Windows in Dwelling on Same Lot** / **Finished Floor Level Above Ground Level (Existing)** <6m / 1 - 2m <12m / >2m

	Note: This does not apply to a terrace, deck, balcony or patio that has an area less than 3m^2 or has a frontage to a road or public open space.
Objective 6.5.3O(2) ***Site and building design elements increase privacy without compromising access to light and air, and balance outlook and views from habitable rooms and private open space***	Where privacy screens are provided to windows, they must not cover part of the window required to meet the minimum daylight or solar access requirements or restrict ventilation.

6.5.3P Acoustic Privacy

Objectives	Design Criteria
Objective 6.5.3P(1) ***Noise transfer is minimised through the siting of buildings and building layout.***	Electrical, mechanical, hydraulic and air conditioning equipment is housed so that it does not create an 'offensive noise' as defined in the *Protection of the Environment Operations Act 1997* either within or at the boundaries of any property at any time of the day.

6.5.3Q Noise and Pollution

Objectives	Design Criteria
Objective 6.5.3Q(1) ***Ensure outside noise levels are controlled to acceptable levels in living and bedrooms of dwellings.***	Any development within the 20 ANEF contour is to be constructed to comply with AS 2021:2015 Acoustics – Aircraft Noise Intrusion.
	Dwellings that are within 100m of a classified road or 80m from a rail corridor are to have LAeq measures not exceeding: • In any bedroom: 35dB(A) between 10pm-7am. • Anywhere else in the building (other than a kitchen, garage, bathroom or hallway): 40dB(A) at any time. This is achieved by: • Providing a full noise assessment prepared by a qualified acoustic engineer; and • Complying with relevant noise control treatment for sleeping areas and other habitable rooms in Appendix C of RMS *Development Near Rail Corridors and Busy Roads - Interim Guideline.*
Note: Development that is on land immediately adjacent to a rail corridor and development that involves penetration of the ground to a depth of 2m within 25m of a rail corridor may be integrated development and *State Environmental Planning Policy (Infrastructure) 2007* applies.	

6.5.3R Architectural Form and Roof Design

Objectives	Design Criteria
Objective 6.5.3R(1)	Provide in the Statement of Environmental Effects (SEE) a description as to how the

The architectural form is defined by a balanced composition of elements. It responds to internal layouts and desirable elements in the streetscape.	architectural form reduces the visual bulk and provides a cohesive design response. **Note**: Refer to Section 3 of the *Low Rise Housing Diversity Design Guide for Development Applications*.
Objective 6.5.3R(2) ***The roof treatments are integrated into the building design and positively respond to the street.***	Provide in the Statement of Environmental Effects (SEE) how the roof design integrates harmoniously with the overall building form.
	Skylights and ventilation systems are integrated into the roof design.

6.5.3S Visual Appearance and Articulation

Objectives	Design Criteria
Objective 6.5.3S(1) ***To promote well designed buildings of high architectural quality that contribute to the local character.***	Provide in the Statement of Environmental Effects (SEE) a description as to how the aesthetics and articulation contribute to the character of the local area. **Note**: Refer to Section 3 for guidance.
	The development may have a primary road articulation zone that extends up to 1.5m forward of the minimum required setback from the primary road and a secondary road articulation zone that extends up to 1m forward of the minimum required setback from the secondary road. The following elements can be located in the articulation zone: • An entry feature or portico. • A balcony, deck, pergola, terrace or verandah. • A window box treatment. • A bay window or similar feature. • An awning or other feature over a window. • A sun shading feature. • An eave.

6.5.3T Pools and Detached Development

Objectives	Design Criteria
Objective 6.5.3T(1) ***The location of swimming pools and spas minimise the impacts on adjoining properties.***	Swimming pools and spas are to have a maximum height above ground level (existing): • At the water line – 1.2m, • At the top of the coping - 1.4m, and

	• Where the coping is more than 300mm wide – 600mm.
	Swimming pools and spas are to be located in the rear yard with a minimum setback of 1m from any side or rear boundary. The setback of a swimming pool from a secondary road must be consistent with the setback of a dwelling house from the secondary road boundary.
	The swimming pool pump must be located in an enclosure that is sound proofed.
Objective 6.5.3T(2) ***The location of the detached development minimises the impact on adjoining properties.***	Maximum height above ground level (existing) - 4.5m.
	A detached studio with a frontage to a rear lane or parallel road may have a height of 6m.
	Maximum floor area for detached development: • generally: 45m^2 • detached studios: 36m^2
	Side setbacks are the same as for the dwelling (see Section 6.5.1) except for the following: • side setback: 0.9m, or • side setback with wall height less than 3.3m: 0m, and adjoining lot building is <0.9m from boundary and building wall is of masonry construction with no windows, • side setback of detached studio with frontage to a lane: 0m • side setback of detached studio without a frontage to a lane: **Lot Width at building line** — **Rear setback** 0 - 18m — 900mm >18m — 1.5m
	Rear setbacks for detached development are as followed: **Lot Area** — **Rear setback** 0 - 900m^2 — 900mm >900-1500m^2 — 1.5m >1500m^2 — 2.5m
	The maximum floor level of a detached deck, patio, pergola or terrace that is less than 0.9m from the side boundary is 0.6m above ground level (existing).

6.5.3U Energy Efficiency

Objectives	**Design Criteria**
Objective 6.5.3U(1) ***The development incorporates passive environmental design.***	An outdoor area for clothes drying that can accommodate at least 16 lineal metres of clothesline is provided for each dwelling.
	Any clothes drying area are to be screened from public and communal areas.

Note: A DA for a dwelling is required to have a BASIX Certificate that applies a minimum energy consumption target.

2.1V Water Management and Conservation	
Objectives	**Design Criteria**
Objective 6.5.3V(1) ***Flood management systems are integrated into site design.***	A stormwater system must: • Comply with requirements in the DCP that applies to the land. • Be approved (if required) under s.68 of the Local Government Act 1993.
	Detention tanks are to be located under paved areas, driveways or in basements.
Note: A DA for a dwelling is required to have a BASIX Certificate that applies a minimum water consumption target.	

6.5.3W Waste Management	
Objectives	**Design Criteria**
Objective 6.5.3W(1) ***Waste storage facilities meet the needs of the residents, are easy to use and access, and enable efficient collection of waste.***	Provide storage space for the type and number of bins designated in council's waste policy.
	Where waste storage is provided in a communal area, access to this waste area is to be provided for all residents without crossing a private lot.
	Where waste storage is provided in the basement car park, a maximum ramp gradient of 1:6 is to be provided to the waste collection point.
	Where a rear lane has provision for waste collection trucks used by council, the collection point is to be from the rear lane.
	Any communal waste area is to: • provide water supply for cleaning, • have a solid floor grated to a floor waste (connected to sewer), and • be designed to meet the requirements of council's waste policy.
	Despite any requirements in council's waste policy, onsite waste vehicle access is not required. **Note**: The waste collection point is typically located on the footpath.
	If a waste collection point is provided on-site and used for permanent storage of bins it is to: • be screened from view from the public domain, • have a height no greater than 1.3m if forward of the building line, • be less than 10m from the street boundary, • be located on a surface with a gradient less than 1:20, • not require access through a security door or gate (unless this is permitted by council's waste policy), and

	• have a path that connects the collection area to the street boundary with a gradient less than 1:8 and free of steps to all for the transfer of bins to the collection vehicle.
Objective 6.5.3W(2) ***Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents***	Storage areas for rubbish and recycling bins are to be provided: • Within garages; • In a screened enclosure that is part of the overall building design; or • In the basement car park.
	Communal waste areas are to be located at least 3m from any bedroom or living room window.

6.19 MANOR HOUSES AND DUAL OCCUPANCY (ONE ABOVE THE OTHER)

6.5.4A Building Envelopes	
Objectives	*Design Criteria*
Objective 6.5.4A(1) ***The building height is consistent with the desired scale and character of the street and locality and provides an acceptable impact on the amenity of adjoining properties.***	Where the LEP or DCP does not include a maximum building height, that height of buildings is: 8.5m.
	The maximum number of storeys excluding basements is 2.
Objective 6.5.4A(2) ***The development provides a setback from the front boundary or public space that:*** • ***defines the street edge;*** • ***creates a clear threshold and transition from public to private space;*** • ***assists in achieving visual privacy to ground floor dwellings from the street;*** • ***contributes to the streetscape character and landscape; and*** • ***relates to the existing streetscape and setback pattern or the desired future streetscape pattern if different to the existing.***	Refer to the DCP for front setback or envelope controls.
	Where the DCP does not contain front setback controls the following should apply: • Where existing dwellings are within 40m - average of the two closest dwelling houses, dual occupancies or multi dwelling housing terraces. • Where no existing dwellings are within 40m then: **Lot Area (m²) Setback** 0 - 900 4.5m >900 - 1500 6.5m >1500 10m
	W here the DCP does not contain setback controls for secondary roads or to public reserves the following apply: **Lot Area (m²) Setback** 0 - 1500 3m >1500 5m
	Setback from a parallel road for manor house or dual occupancy (one above the other): 3m.
	Setback from classified road: 9m
	Setback from public reserve: 3m
Objective ***6.5.4A(3)***	Refer to the DCP for side boundary setbacks or envelope controls.

<table>
<tr><td>The development provides side boundary setbacks that reflects the character and separation of buildings within the surrounding area.</td><td>Where the DCP does not contain side setback controls the following should apply:
not more than 10m from the front building line - 1.5m
greater than 10m from front building line - building envelope defned by a 45° plane 3m above the boundary.
See Figures 3-40 to 3-43 in section 3 of this Design Guide.</td></tr>
<tr><td rowspan="3">Objective 6.5.4A(4)
The development provides a rear boundary setback that provides opportunity to retain and protect or establish significant landscaping and trees in deep soil areas.</td><td>Refer to the DCP for rear boundary setbacks or envelope controls.</td></tr>
<tr><td>Where the DCP does not contain rear setback controls the following apply:<table><tr><th>Lot area (m^2)</th><th>Building height</th><th>Minimum required setback from rear boundary</th></tr><tr><td>0 - 1500</td><td>0m – 4.5m</td><td>6m</td></tr><tr><td></td><td>> 4.5m</td><td>10m</td></tr><tr><td>>1500</td><td>0m – 4.5m</td><td>10m</td></tr><tr><td></td><td>> 4.5m</td><td>15m</td></tr></table></td></tr>
<tr><td>The setback to a lane is 0m.</td></tr>
<tr><td colspan="2"><u>Notes</u>:
When applying primary road, secondary road and rear setbacks – the lot area refers to the lot area prior to any subdivision.
The side setbacks only apply to the side boundaries of the lot prior to any subdivision.
Setbacks do not apply to the following: access ramps, down pipes, driveways or hard standard spaces, electricity or gas meters, fascias, fences, gutters, light fittings, pathways and paving, privacy screens fixed to the building.
Refer to Section 3 of the Low Rise Diversity Housing Diversity Design Guide for Development Applications for an explanation of the application of setbacks.</td></tr>
</table>

6.5.4B Gross Floor Area / Floor Space Ratio

Objectives	Design Criteria
Objective 6.5.4B(2) ***To ensure that the bulk and scale is appropriate for the context, minimises impacts on surrounding properties and allows for articulation of the built form.***	Where the LEP or DCP do not contain an FSR or Gross floor area the following maximum gross floor area applies for all development on the site: 25% of lot area + 150m2 to a maximum of 400m2.

6.5.4C Landscaped Area

Objectives	Design Criteria
Objective 6.5.4C(1) ***To provide adequate opportunities for the retention of existing and provision of new vegetation that:*** ***- contributes to biodiversity;*** ***- enhances tree canopy; and*** ***- minimises urban runoff.***	Where the LEP or DCP do not contain a minimum landscaped area the minimum landscaped area is: 50% of the parent lot area minus 100m²
	The minimum dimension of any area to be included in the landscaped area calculation is 1.5m.
	At least 25% of the area forward of the building line is to be landscaped area. At least 50% of the required landscaped area must be behind the building line.
Objective 6.5.4C(2) ***Landscape design supports healthy plant and tree growth and provides sufficient space for the growth of medium sized trees.***	An ongoing maintenance plan is to be provided as part of the landscape plan.
	Minimum soil standards for plant sizes are provided in accordance with the Table below: **Tree Size** / **Height** / **Spread** / **Min Soil Area** / **Min Soil Depth** Large trees / >12m / >8m / 10 x 10m / 1.2m Medium trees / 8-12m / 4-8m / 6 x 6m / 1.0m Small trees / 5-8m / <4m / 3.5 x 3.5m / 0.8m Shrubs / 0.5-0.6m Groundcover / 0.3-0.45m Turf / 0.2m
	The following tree plantings are to be provided: • Front: 1 tree with mature height of 5m if the primary road setback is greater than 3m. • Rear: 1 tree with mature height of 8m.
Objective 6.5.4C(3) ***Existing natural features of the site that contribute to neighbourhood character are retained, and visual and privacy impacts on existing neighbouring dwellings are reduced.***	Mature trees are to be retained, particularly those along the boundary, (except those where approval is granted by Council for their removal).
	Existing Landscape features including trees and rock outcrops are to be retained where they contribute to the streetscape character or are located within the rear setback.
Objective 6.5.4C(4) ***Landscape design contributes to a local sense of place and creates a microclimate.***	The landscape plan proposes a combination of tree planting, for shade, mid height shrubs, lawn and ground covers.
	The landscape plan indicates that at least 50% of the overall number of trees and shrubs are species native to the region.

6.5.4D Local Character and Context	
Objectives	**Design Criteria**
Objective 6.5.4D(1) ***The built form, articulation and scale relates to the local character of the area and the context.***	Provide a description in the Design Verification Statement how the built form of the development contributes to the character of the local area, using the guidance in Section 3D Local Character and Context.

6.5.4E Public Domain Interface	
Objectives	**Design Criteria**
Objective 6.5.4E(1) ***Provide high level activation and passive surveillance to the public streets.***	Pedestrian entries are to be directly visible from the public street.
	Windows from habitable rooms are to overlook the public domain.
	Direct visibility is provided along paths and driveways from the public domain to the front door.
Objective 6.5.4E(2) ***Front fences and walls do not dominate the public domain instead they respond to and complement the context and character of the area (including internal streets).***	Private courtyards within the front setback are only to be located within the articulation zones and / or behind the required front building line.
	Front fences: • Are visually permeable (no more than 50% of the allowable fence area will be solid masonry, timber or metal). • Average height no greater than 1.2m. • Have a consistent character with other front fences in the street. • Are not to be constructed of solid metal panels or unfinished timber palings.
	High solid walls are only used to shield a dwelling from the noise of classified roads. The walls are to have a maximum height of 2.1m and be setback at least 1.5m from the property boundary. Landscape planting is to be provided between the wall and the boundary, with a mature height of at least 1.5m.
	Retaining walls greater than 600mm within the front setback are softened by planting to a minimum depth of 600mm on the low side of the retaining wall.
Objective 6.5.4E(3) ***The secondary frontage of a development positively contributes to the public domain by providing an active edge and semi-transparency to the boundary treatment.***	Where development adjoins public parks, open space, bushland, or is a corner lot, the design positively addresses this interface using any of the following design solutions: • Habitable room windows facing the public domain. • Street access, pedestrian paths and building entries. • Paths, low fences and planting that clearly delineate between communal/ private open space and the adjoining public open space

	• Walls fronting the public spaces are to have openings not less than 25% of the surface area of the wall.

6.5.4F Pedestrian and Vehicle Circulation

Objectives	Design Criteria
Objective 6.5.4F(1) ***Ensure there is adequate space for vehicle circulation and of-street parking.***	Vehicle circulation complies with AS2890.1.
	Vehicular crossing is to have a maximum width of 3.5m at the street boundary.
	Where a driveway services more than 3 dwellings, the driveway must be designed to ensure all vehicles must leave the site in a forward direction.
	Only one driveway cross-over is located on the same street frontage

6.5.4G Orientation, Siting and Subdivision

Objectives	Design Criteria
Objective 6.5.4G(1) ***To achieve planned residential density consistent with the Lithgow LEP 2014.***	Where the LEP or DCP does not contain a minimum lot area and /or dimension • the minimum lot area for a dual occupancy (attached) is: 600m^2 • the minimum lot area for a manor house is: 600m^2 • minimum lot width measured at the building line is: 15m The minimum lot area for the R2 Low Density Residential zone set by the Lithgow Local Environmental Plan 2014: Attached: 1,000m^2
Objective 6.5.4G(2) ***The building is orientated to the street and provides opportunities for street surveillance and connectivity***	Dwellings orientate to the street or rear garden, not solely to the side boundary.
	The front door is visible from the public domain.
	Development is not located on a battle axe lot.
Objective 6.5.4G(3) ***Reasonable solar access is provided to the living rooms and private open spaces of adjoining dwellings.***	A window that is more than 3m from the boundary to a living room of an adjoining dwelling is to receive more than 3 hours of direct sunlight between 9am and 3pm on the winter solstice (June 21). If the window currently receives less than 3hrs – direct sunlight is not reduced. **Note**: Direct sunlight is measured consistent with Design Criteria 47 and is only required to one window serving the living room.
	Where the location of the living room windows of an adjoining dwelling cannot be verified, the proposed development is accommodated within a building envelope defined by a 35^0 plane springing from 3.6m above the boundary.

Objective 6.5.4G(4) ***The development responds to the natural landform of the site, reducing the visual impact and avoiding large amounts of cut and fill and minimises the impacts of retaining walls.***	The lowest level of the dwelling is not more than 1.3m above ground level, and no more than 1m below ground level.
Objective 6.5.4G(5) ***To minimise impacts to vegetation on adjoining properties and allow for vegetation within the setbacks.***	Basement car parking is not provided within the setbacks described in the table in Section 2.2A of the *Low Rise Housing Diversity Design Guide for Development Applications*.
Objective 6.5.4G(6) ***Independent services and utilities are available to service each lot.***	All lots must have access to reticulated water, sewer, electricity, telecommunications and where available, gas.

6.5.4H Solar and Daylight Access

Objectives	Design Criteria
Objective 6.5.4H(1) ***To optimise sunlight received to habitable rooms and private open spaces. Solar access enables passive solar heating in winter and provides a healthy indoor environment.***	At least 75% of dwellings in a development are to receive a minimum of 3 hours direct sunlight between 9am and 3pm on the winter solstice (June 21) to a living room and private open space. **Note:** Direct sunlight is achieved when there is 1m² of sunlight on the glass for a period of at least 15 minutes. To satisfy 3 hours direct sunlight, 12 periods of 15 minutes will need to be achieved - the periods do not need to be consecutive.
Objective 6.5.4H(2) ***To provide good access to daylight suited to the function of the room, minimises reliance on artificial lighting, and improves amenity.***	Daylight may not be borrowed from other rooms, except where a room has a frontage to a classified road.
	No part of a habitable room is more than 8m from a window.
	No part of a kitchen work surface is more than 6m from a window or skylight
	Courtyards are to: • Be fully open to the sky; and • Have a minimum dimension of one third of the perimeter wall height, and an area of 4m².
	A window is visible from 75% of the floor area of a habitable room.

6.5.4I Natural Ventilation

Objectives	Design Criteria
Objective 6.5.4I(1) ***All habitable rooms are naturally ventilated.***	All habitable rooms are naturally ventilated.
	Each dwelling is naturally cross ventilated.

6.5.4J Ceiling Height

Objectives	Design Criteria
Objective 6.5.4J(1) ***Ceiling height achieves sufficient natural ventilation and daylight access, and provides spatial quality.***	Minimum ceiling heights are: • 2.7m to ground floor habitable rooms. • 2.7m to upper level living rooms. • 2.4m to upper level habitable rooms (excluding living rooms). The ceiling height is measured from finished floor level to finished ceiling level.

6.5.4K Dwelling Size and Layout

Objectives	Design Criteria
Objective 6.5.4K(1) ***The dwelling has a sufficient area to ensure the layout of rooms are functional, well organised and provide a high standard of amenity.***	Dwellings are required to have the following minimum internal floor areas: • Studio: 35m^2 • 1 bed: 50m^2 • 2 beds: 70m^2 • 3+ beds: 90m^2
	The minimum internal areas outlined above only include one bathroom. The minimum area of each additional bathroom is 5m^2 added onto the minimum dwelling area.
	The minimum area of any additional bedroom is 12m^2. The area of each additional bedroom is then added to the minimum internal floor area contained in the minimum internal floor areas above.
	Kitchens are not to be part of a circulation space such as a hallway, except in studio apartments.
Objective 6.5.4K(2) ***Room sizes are appropriately sized for the intended purpose and number of occupants.***	One bedroom has a minimum area of 10m^2 excluding space for a wardrobe.
	Bedrooms have a minimum length and width of 3m excluding wardrobe space.
	Combined living and dining rooms are to have a minimum area of: • 1 and 2 beds: 24m^2 • 3+ beds: 28m^2
	Living room or lounge rooms are to have a minimum length and width of 4m, excluding fixtures.

6.5.4L Principal Private Open Spaces

Objectives	Design Criteria
Objective 6.5.4L(1)	All dwellings are to have access to principal private open space with a minimum length and width of 3m: • 1 bed or studio: 8m^2

Dwellings provide appropriately sized private open space and balconies to enhance residential amenity.	• 2+ beds: 12m^2 • Dwellings with living area at ground level: 16m^2
Objective 6.5.4L(2) ***Principal private open space and balconies are appropriately located to enhance liveability for residents.***	The principal private open space is located behind the front building line.
	The principal private open space is located adjacent to the living room, dining room or kitchen to extend the living space.
	25% of the private open space is to be covered to provide shade and protection from rain.

6.5.4M Storage

Objectives	Design Criteria
Objective 6.5.4M(1) ***Adequate, well-designed storage is provided in each dwelling.***	In addition to storage in kitchens and bedrooms, the following storage with a minimum dimension of 500mm is provided: • 1 bed: 6m^3 • 2 beds: 8m^3 • 3+ bed 10m^3
	At least 50% of the required storage is located inside the dwelling.
	Storage not located in dwellings is secure and clearly allocated to specific dwellings, if in a common area.

6.5.4N Car and Bicycle Parking

Objectives	Design Criteria
Objective 6.5.4N(1) ***Car parking is provided appropriate for the scale of the development.***	Dual Occupancies car parking is to be provided at the rate required for a dual occupancy within the DCP that applies to the land. If there is no rate in the DCP - 1 space per dwelling is to be provided.
	Manor Houses car parking is to be provided at the rate required for a Manor House within the DCP that applies to the land. If there is no rate in the DCP - 1 space per dwelling is to be provided.
	Car parking spaces and circulation are to comply with AS 2890.1:2004.
Objective 6.5.4N(2) ***Parking facilities are provided for bicycles***	Covered space is to be provided for the secure storage of at least 1 bicycle per dwelling.
Objective 6.5.4N(3) ***Visual and environmental impacts of car parking and garages do not dominate the streetscape and have an appropriate scale relationship with the dwelling.***	Basement car parking should not protrude more than 1m above finished ground level except at the entrance to the car park.
	The maximum dimensions of any basement car park entry will be 2.7m high by 3.5m wide.
	Where a driveway is adjacent to an existing tree, it is either outside the tree canopy or complies with the recommendations in a report prepared by a qualified arborist.

	The setback of a car space from a primary, secondary or parallel road is to be at least: **Setback of Dwelling from Road** / **Maximum Off-Street Parking Setback From Road** <4.5m / 5.5m 4.5m or more / 1m behind the building Line
	The maximum width of all garage doors facing a primary, secondary or parallel road: **Lot Width** / **Maximum Width of Garage Door Openings** 15m - 20m / 6m >20m - 25m / 9.2m >25m / 12m

6.5.4O Visual Privacy

Objectives	Design Criteria
Objective 6.5.4O(1) ***The separation of windows and terraces, decks and balconies within a site and to adjoining existing or future buildings provide a degree of visual privacy without the reliance on fixed screening.***	Orientate living room windows, primary private open space to the street front or rear.
	At least one window for each habitable room is provided without the need for a privacy screen.
	A privacy screen is required when: **Distance from Boundary** / **Finished Floor Level Above Ground Level (Existing)** <3m / 1 - 3m <6m / >3m **Distance from Windows in Dwelling on Same Lot** / **Finished Floor level Above Ground Level (Existing)** <6m / 1 - 3m <12m / >3m **Note**: This does not apply to a habitable room with a floor level not more than 1m above ground level (existing), bedroom windows that have an area less than $2m^2$ or windows that have a frontage to a road or public open space.
	A privacy screen is required at the edge of that part of a terrace, deck, balcony or verandah that is parallel or faces towards a side or rear boundary. **Distance from Boundary** / **Finished Floor Level Above Ground Level (Existing)** <3m / 1 - 3m <6m / >3m

	Distance from Windows in Dwelling on Same Lot — **Finished Floor Level Above Ground Level (Existing)** <6m — 1 - 2m <12m — >2m **Note**: This does not apply to a terrace, deck, balcony or patio that has an area less than 3m^2 or has a frontage to a road or public open space.
Objective 6.5.4O(2) ***Site and building design elements increase privacy without compromising access to light and air, and balance outlook and views from habitable rooms and private open space***	Where privacy screens are provided to windows, they must not cover part of the window required to meet the minimum daylight or solar access requirements or restrict ventilation.

6.5.4P Acoustic Privacy

Objectives	Design Criteria
Objective 6.5.4P(1) ***Noise transfer is minimised through the siting of buildings and building layout.***	Electrical, mechanical, hydraulic and air conditioning equipment is housed so that it does not create an 'offensive noise' as defined in the *Protection of the Environment Operations Act 1997* either within or at the boundaries of any property at any time of the day.

6.5.4Q Noise and Pollution

Objectives	Design Criteria
Objective 6.5.4Q(1) ***Ensure outside noise levels are controlled to acceptable levels in living and bedrooms of dwellings.***	Any development within the 20 ANEF contour is to be constructed to comply with AS 2021:2015 Acoustics – Aircraft Noise Intrusion.
	Dwellings that are within 100m of a classified road or 80m from a rail corridor are to have LAeq measures not exceeding: • In any bedroom: 35dB(A) between 10pm-7am. • Anywhere else in the building (other than a kitchen, garage, bathroom or hallway): 40dB(A) at any time. This is achieved by: • Providing a full noise assessment prepared by a qualified acoustic engineer; and • Complying with relevant noise control treatment for sleeping areas and other habitable rooms in Appendix C of RMS *Development Near Rail Corridors and Busy Roads - Interim Guideline.*
Note: Development that is on land immediately adjacent to a rail corridor and development that involves penetration of the ground to a depth of 2m within 25m of a rail corridor may be integrated development and *State Environmental Planning Policy (Infrastructure) 2007* applies.	

6.5.4R Architectural Form and Roof Design	
Objectives	**Design Criteria**
Objective 6.5.4R(1) ***The architectural form is defined by a balanced composition of elements. It responds to internal layouts and desirable elements in the streetscape.***	provide in the Design Verification Statement a description as to how the aesthetics and articulation contribute to the character of the local area. **Note:** Refer to Section 3 for guidance.
Objective 6.5.4R(2) ***The roof treatments are integrated into the building design and positively respond to the street.***	The roof design is integrated harmoniously with the overall building form.
	Skylights and ventilation systems are integrated into the roof design.

6.5.4S Visual Appearance and Articulation	
Objectives	**Design Criteria**
Objective 6.5.4S(1) ***To promote well designed buildings of high architectural quality that contribute to the local character.***	Provide in the Statement of Environmental Effects (SEE) a description as to how the aesthetics and articulation contribute to the character of the local area. **Note**: Refer to Section 3 of the *Low Rise Housing Diversity Design Guide for Development Applications*.
	The development may have a primary road articulation zone that extends up to 1.5m forward of the minimum required setback from the primary road. The following elements can be located in the articulation zone: • An entry feature or portico. • A balcony, deck, pergola, terrace or verandah. • A window box treatment. • A bay window or similar feature. • An awning or other feature over a window. • A sun shading feature. • An eave.

6.5.4T Pools and Detached Development	
Objectives	**Design Criteria**
Objective 6.5.4T(1)	Swimming pools and spas are to have a maximum height above ground level (existing):

The location of swimming pools and spas minimise the impacts on adjoining properties.	• At the water line – 1.2m, • At the top of the coping - 1.4m, and • Where the coping is more than 300mm wide – 600mm.
	Swimming pools and spas are to be located in the rear yard with a minimum setback of 1m from any side or rear boundary. The setback of a swimming pool from a secondary road must be consistent with the setback of a dwelling house from the secondary road boundary.
	The swimming pool pump must be located in an enclosure that is sound proofed
Objective 6.5.4T(2) **The location of the detached development minimises the impact on adjoining properties.**	Maximum height above ground level (existing) - 4.5m
	A detached studio with a frontage to a rear lane or parallel road may have a height of 6m.
	Maximum floor area for each dwelling: • generally: **Lot Area (m^2)** **Maximum GFA** 400 - 600 $45m^2$ >600 - 900 $60m^2$ >900 $100m^2$ • detached studios: $36m^2$
	Side setbacks are the same as for the dwelling except for the following: • side setback: 0.9m, or • side setback with wall height less than 3.3m: 0m, and adjoining lot building is <0.9m from boundary and building wall is of masonry construction with no windows, • side setback of detached studio with frontage to a lane: 0m • side setback of detached studio without a frontage to a lane: **Lot Width at building line** **Rear setback** 0 - 18m 900mm >18m 1.5m
	Detached development rear setbacks are as followed: **Lot Area** **Rear setback** 0 - 900m^2 900mm >900-1500m^2 1.5m >1500m^2 2.5m
	The maximum floor level of a detached deck, patio, pergola or terrace that is less than 0.9m from the side boundary is 0.6m above ground level (existing).

6.5.4U Energy Efficiency

Objectives	Design Criteria

Objective 6.5.4U(1) ***The development incorporates passive environmental design.***	Provide an outdoor area for clothes drying that can accommodate at least 8 lineal metres of clothes line for each dwelling.
	Any clothes drying area should be screened from public and communal areas.
Note: A development application for a dwelling is required to have a BASIX Certificate that applies a minimum energy consumption target.	

6.5.4V Water Management and Conservation

Objectives	Design Criteria
Objective 6.5.4V(1) ***Flood management systems are integrated into site design.***	A stormwater system must: • Comply with requirements in the DCP that applies to the land. • Be approved (if required) under s.68 of the Local Government Act 1993.
	Detention tanks are located under paved areas, driveways or in basements

6.5.4W Waste Management

Objectives	Design Criteria
Objective 6.5.4W(1) ***Waste storage facilities meet the needs of the residents, are easy to use and access and enable efficient collection of waste.***	Provide storage space for the type and number of bins designated in council's waste policy.
	Where waste storage is provided in a communal area, access to this waste area is to be provided for all residents without crossing a private lot.
	Where waste storage is provided in the basement car park a maximum ramp gradient of 1:6 is to be provided to the waste collection point.
	Where a rear lane has provision for waste collection trucks used by council, the collection point is to be from the rear lane.
	Any communal waste area is to: • provide water supply for cleaning, • have a solid floor grated to a floor waste (connected to sewer), and • be designed to meet the requirements of council's waste policy.
	Despite any requirements in council's waste policy, on-site waste vehicle access is not required. **Note**: The waste collection point is typically located on the footpath.
	If a waste collection point is provided onsite and used for permanent storage of bins it is to: • be screened from view from the public domain, • have a height no greater than 1.3m if forward of the building line, • be less than 10m from the street boundary,

	• be located on a surface with a gradient less than 1:20, • not require access through a security door or gate (unless this is permitted by council's waste policy), and • have a path that connects the collection area to the street boundary with a gradient less than 1:8 and free of steps to all for the transfer of bins to the collection vehicle.
Objective 6.5.4W(2) ***Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents.***	Storage areas for rubbish and recycling bins are to be provided: • Within garages; • In a screened enclosure that is part of the overall building design; or • In the basement car park.
	Communal waste areas are to be located at least 3m from any bedroom of living room window.

6.5.4X Universal Design

Objectives	Design Criteria
Objective 6.5.4X(1) ***Universal design features are included in dwelling design to promote flexible housing for all community members.***	At least one ground floor dwelling is to include the Silver Level Seven Core Liveable Housing Design Elements contained in the *Liveable Housing Design Guidelines.*

6.5.4Y Communal Areas and Open Space

Objectives	Design Criteria
Objective 6.5.4Y(1) ***Communal areas are designed to enhance residential amenity and maximise safety and connectivity to the dwelling and promote social interaction between residents.***	Communal open spaces are visible from habitable rooms and private open space while maintaining visual privacy.
	Any communal open space is directly accessible from the building entry and common circulation.
	For manor houses the active communal open space is at least 5% of the site area and has a maximum grade of 1:50.
	Active communal open space is at least 3m from the habitable room of a dwelling on the lot
Objective 6.5.4Y(2) ***Common circulation spaces achieve good amenity with access to daylight and ventilation.***	Common circulation above ground is provided with natural daylight and ventilation.

6.20 TERRACES

6.5.5A Building Envelopes

Objectives	Design Criteria
Objective 6.5.5A(1) ***The building height is consistent with the desired scale and character of the street and locality and provides an acceptable impact on the amenity of adjoining properties***	Where the LEP or DCP does not include a maximum building height, that height of buildings is: • R1, R2, or RU5 zoned land: 9m
	The maximum number of storeys (excluding basements) are: • R1, R2, or RU5 zoned land: 2
Objective 6.5.5A(2) ***The development provides a setback from the front boundary or public space that:*** • ***defines the street edge;*** • ***creates a clear threshold and transition from public to private space;*** • ***assists in achieving visual privacy to ground floor dwellings from the street;*** • ***contributes to the streetscape character and landscape; and*** • ***relates to the existing streetscape and setback pattern or the desired future streetscape pattern if different to the existing.***	Refer to the DCP for front setback or envelope controls.
	Where the DCP does not contain front setback controls the following apply: • Where existing dwellings are within 40m - average of the two closest dwelling houses, dual occupancies or multi dwelling housing (terraces), or • Where no existing dwellings are within 40m then the front setback is 3.5m.
	Where the DCP does not contain setback controls for secondary roads or to public reserves the following apply: **Lot Area (m²) Setback** 0 - 900 2m >900 - 1500 3m >1500 5m
	Setback from a parallel road: 3m, unless dwellings have a frontage to the parallel road, in which case the setback must be the same as if the parallel road were a primary road.
	Setback from classified road: 9m
	Setback from public reserve: 3m
Objective 6.5.5A(3) ***The development provides side boundary setbacks that reflect the character and form intent of the area where is characterised by the separation of buildings.***	Refer to the DCP for side boundary setback or envelope controls.
	Where the DCP does not contain side setback controls the side setback is 1.5m.
Objective 6.5.5A(4)	Refer to the DCP for rear boundary setbacks or envelope controls.

The development provides a rear boundary setback that provides opportunity to retain and protect or establish significant landscape trees in deep planting areas.	Where the DCP does not contain a rear setback controls the following apply: Lot area (m) / Building height / Minimum required setback from Rear boundary 0-900 / 0m – 4.5m / 3m 0-900 / > 4.5m / 8m >900 – 1500 / 0m – 4.5m / 5m >900 – 1500 / > 4.5m / 12m >1500 / 0m – 4.5m / 10m >1500 / > 4.5m / 15m The setback to a lane is 0m.

Notes:

1. When applying primary road, secondary road and rear setbacks – the lot area refers to the lot area prior to any subdivision.
2. The side setbacks only apply to the side boundaries of the lot prior to any subdivision.
3. Setbacks do not apply to the following: access ramps, down pipes, driveways or hard standard spaces, electricity or gas meters, fascias, fences, gutters, light fittings, pathways and paving, privacy screens fixed to the building.
4. Refer to Section 3 for an explanation of the application of setbacks, and exceptions to the setbacks.

6.5.5B Gross Floor Area / Floor Space Ratio

Objectives	Design Criteria
Objective 6.5.5B(1) ***To ensure that the bulk and scale is appropriate for the context, minimises impacts on surrounding properties and allows for articulation of the built form.***	Where the LEP or DCP do not contain an FSR or Gross floor area the following maximum gross floor area applies to all buildings on a lot: • R1, R2, or RU5 zoned land - 60% of lot area

6.5.5C Landscaped Area

Objectives	Design Criteria
Objective 6.5.5C(1)	Where the LEP or DCP does not contain a minimum landscaped area, the minimum landscaped area is: ***Zone*** / ***Landscaped Area*** R1, R2 and RU5 / Where concurrent subdivision is proposed:

<table>
<tr><td rowspan="5">To provide adequate opportunities for the retention of existing and provision of new vegetation that:
contributes to biodiversity;
enhances tree canopy; and
minimises urban runoff.</td><td>The minimum area that must be provided for each resulting lot - 30% of lot area.
Where no subdivision is proposed:
The minimum landscaped area that must be provided is 30% of the parent lot area of which at least 54m2 is to be allocated to each dwelling.</td></tr>
<tr><td>The minimum dimension of any area included in the landscaped area calculation is 1.5m.</td></tr>
<tr><td>At least 25% of the area forward of the building line is to be landscaped area.</td></tr>
<tr><td>At least 50% of the area behind the building line is to be landscaped.</td></tr>
<tr><td rowspan="4">Objective 6.5.5C(2)
Landscape design supports healthy plant and tree growth and provides sufficient space for the growth of medium sized trees.</td><td>An ongoing maintenance plan is to be provided as part of the landscape plan.</td></tr>
<tr><td>Minimum soil standards for plant sizes are provided in accordance with the Table below.<table><tr><th>Tree Size</th><th>Height</th><th>Spread</th><th>Min Soil Area</th><th>Min Soil Depth</th></tr><tr><td>Large trees</td><td>>12m</td><td>>8m</td><td>10 x 10m</td><td>1.2m</td></tr><tr><td>Medium trees</td><td>8-12m</td><td>4-8m</td><td>6 x 6m</td><td>1.0m</td></tr><tr><td>Small trees</td><td>5-8m</td><td><4m</td><td>3.5 x 3.5m</td><td>0.8m</td></tr><tr><td>Shrubs</td><td></td><td></td><td></td><td>0.5-0.6m</td></tr><tr><td>Groundcover</td><td></td><td></td><td></td><td>0.3-0.45m</td></tr><tr><td>Turf</td><td></td><td></td><td></td><td>0.2m</td></tr></table></td></tr>
<tr><td>The following tree plantings are to be provided:
Front: 1 tree with mature height of 5m if primary road setback is greater than 3m.
Rear: 1 tree with mature height of 8m.</td></tr>
<tr><td></td></tr>
<tr><td>Objective 6.5.5C(3)
Existing natural features of the site that contribute to neighbourhood character are retained, and visual and privacy impacts on existing neighbouring dwellings are reduced.</td><td>Mature trees are to be retained, particularly those along the boundary, (except those where approval is granted by Council for their removal).</td></tr>
<tr><td>Landscape features including trees and rock outcrops are retained where they contribute to the streetscape character or are located within the rear setback.</td></tr>
<tr><td rowspan="3">Objective 6.5.5C(4)
Landscape design contributes to a local sense of place and creates a micro climate.</td><td>The landscape plan proposes a combination of tree planting, for shade, mid height shrubs, lawn and ground covers.</td></tr>
<tr><td>On grade parking should be provided with tree planting for canopy cover at a rate of 1 tree per 4 car spaces.</td></tr>
<tr><td>The landscape plan indicates that at least 50% of the overall number of trees and shrubs are species native to the region.</td></tr>
</table>

6.5.5D Local Character and Context	
Objectives	**Design Criteria**
Objective 6.5.5D(1) ***The built form, articulation and scale relates to the local character of the area and the context.***	Provide a description in the Design Verification Statement how the built form of the development contributes to the character of the local area, using the guidance in Section 3D Local Character and Context.

6.5.5E Public Domain Interface	
Objectives	**Design Criteria**
Objective 6.5.5E(1) ***Provide activation and passive surveillance to the public streets.***	The front door of each dwelling is to be directly visible from the street.
	Each dwelling has a habitable room that faces the street or public space.
Objective 6.5.5E(2) ***Front fences and walls do not dominate the public domain instead they respond to and complement the context and character of the area (including internal streets).***	Private courtyards within the front setback are only located within the articulation zones and / or behind the required front building line.
	Front fences: • Are visually permeable (no more than 50% of the allowable fence area will be solid masonry, timber or metal). • Average height no greater than 1.2m. • Have a consistent character with other front fences in the street. • Are not to be constructed of solid metal panels or unfinished timber palings.
	High solid walls are only used to shield a dwelling from the noise of classified roads. The walls are to have a maximum height of 2.1m and be setback at least 1.5m from the property boundary. Landscape planting is to be provided between the wall and the boundary, with a mature height of at least 1.5m.
	Retaining walls greater than 600mm within the front setback are to be softened by planting for a minimum depth of 600mm on the low side of the retaining wall.
Objective 6.5.5E(3) ***The secondary frontage of a development positively contributes to the public domain by providing an active edge and semi-transparency to the boundary treatment.***	Where development adjoins public parks, open space or bushland, or is a corner site, the design positively addresses this interface using any of the following design solutions: • Habitable room windows facing the public domain. • Street access, pedestrian paths and building entries.

	• Paths, low fences and planting that clearly delineate between communal/private open space and the adjoining public open space. • Walls fronting the public spaces are to have openings not less than 25% of the surface area of the wall.

6.5.5F Pedestrian and Vehicle Circulation

Objectives	Design Criteria
6.5.5F(1) ***Internal vehicle and pedestrian circulation should function like a street, minimise the dominance of the driveway, and minimise impact on habitable spaces.***	Vehicle circulation and parking complies with AS2890.1.
	All new internal streets and lanes are to be overlooked by windows from habitable rooms and or private open space.
	Where new streets or lanes are created: • Lanes: shared or pedestrian surfaces with a width of common area including landscape - minimum 6m • Streets: width of common area including landscape - minimum 12m.
	Where less than 20 car spaces are provided reduce carriageway width to 3.5m, with passing areas as required by AS 2890.1.
	Internal vehicle circulation must be: • at least 1m setback from a fences; • at least 1m setback from another dwelling; • at least 2.5m setback from a window in a habitable room if the window exceeds 1m^2; and • the setbacks should contain plants to soften edges.
	Terminate driveways and streets with trees, open space or the window of a dwelling - not a garage or car space.
	Streets to be designed to accommodate appropriate service vehicles likely to access the site.
	Where on street parking is currently available in front of the development, the proposed driveways are located so that at least one car space remains.
	Car parking not associated with a dwelling must be: • setback from a fence is to be at least 1m • setback from another dwelling is to be at least 1m • setback from a habitable room window is to be at least 3m if the window exceeds 1m^2. • the setbacks should contain plants.
	New streets and lanes: • maximum length of a dead end laneway - 40m. • minimum width between structures - 7m.

Objective 6.5.5F(2) ***Provide safe, connected environment for pedestrians.***	Provide safe shared spaces for vehicles, cyclists and pedestrians by including measures that reduce vehicle speeds such as changes in pavement texture at entries or key nodes, reduce demarcation between pedestrian and vehicle spaces.
	Pedestrian paths that are separated from an internal road or lane by a kerb or landscaped area are to be provided where there are more than 20 dwellings.
	Where pedestrian circulation is separated from vehicle circulation the paths are still to function like streets with pavement at least 1.5m wide, clearly identifiable dwelling entrances and clear lines of sight to create a legible and safe network.
	Roads and pedestrian spaces are to have lighting designed in accordance with A1158.3.1 that avoids light spill into private spaces.

6.5.5G Orientation, Siting and Subdivision

Objectives	**Design Criteria**
Objective 6.5.5G(1) ***To achieve planned residential density consistent with the Lithgow LEP 2014.***	The minimum lot size for carrying out multi dwelling housing (terraces) is: • the minimum area for multi dwelling housing specified in the LEP or DCP that applies to the land, or, • if the LEP or DCP does not specify a minimum lot dimension - 600m2 and width measured at the building line of 18m. The minimum lot size area for the following zones to carry out multi dwelling housing (terraces) as per the Lithgow Local Environmental Plan 2014 are as follows: R1: 800m^2 R2: 1,200m^2
Objective 6.5.5G(2) ***To ensure that lots created resulting from the subdivision of land have sufficient area for the dwelling, vehicle access, landscaping, parking and amenity and are consistent with the desired future character of the area.***	If the LEP or DCP does not contain a minimum lot width the following provisions apply: On R1, R2, & RU5 zoned land: • Garages not fronting primary road - 6m • Garages fronting primary road - 7.5m.
	If the LEP or DCP does not contain a minimum lot area for subdivision of a multi dwelling (terraces), then the following provisions apply: • R1, R2, & RU5 zoned land - 200m^2
Objective 6.5.5G(3) ***The dwelling is orientated to the street and provides opportunities for street surveillance and connectivity.***	Each dwelling has a frontage to a primary, secondary or parallel road. The road must be a public road as defined by the Roads Act 1993. The frontage of each terrace is to be at least 5m.
Objective 6.5.5G(4)	A window that is more than 3m from the boundary to a living room of an adjoining dwelling is to receive more than 3 hours of direct sunlight between 9am and 3pm on the winter

Reasonable solar access is provided to the living rooms and private open spaces of adjoining dwellings.	solstice (June 21). If the window currently receives less than 3hrs - direct sunlight is not reduced. **Note**: Direct sunlight is measured consistent with Design Criteria 47 of the *Low Rise Housing Diversity Design Guide for Development Applications* and is only required to one window serving the living room.
	Where the location of the living room windows of an adjoining dwelling cannot be verified the proposed development is accommodated within a building envelope defined by a 35° plane at 3.6m above the boundary.
Objective 6.5.5G(5) ***The development responds to the natural landform of the site, reducing the visual impact and avoiding large amounts of cut and fill and minimises the impacts of retaining walls.***	Unless a dwelling is over a basement, the ground floor is not more than 1.3m above ground level, and no more than 1m below ground level.
	Dwellings are located to step with the topography.
Objective 6.5.5G(6) ***Independent services and utilities are available to service each lot.***	All lots must have access to reticulated water and sewer, electricity, telecommunications, and where available gas.
Objective 6.5.5G(7) ***Provide adequate space between buildings to allow for landscape, provide*** ***visual separation, reduce visual bulk and daylight access between buildings.***	The minimum separation between two or more buildings containing dwelling on the same lot is 3m. **Note**: Greater separation may be required for privacy.
	Provide a break of 3m between buildings more than 45m long.

6.6.5H Solar and Daylight Access

Objectives	Design Criteria
Objective 6.6.5H(1) ***To optimise sunlight received to habitable rooms and private open spaces. Solar access enables passive solar heating in winter and provides a healthy indoor environment.***	The living room or private open space in each dwelling is to receive a minimum of 2 hours direct sunlight between 9 am and 3pm on the winter solstice (June 21). **Note**: Direct sunlight is achieved when 1m^2 of direct sunlight on the glass is achieved for at least 15 minutes. To satisfy 2 hours direct sunlight, 8 periods of 15 minutes will need to be achieved - however the periods do not need to be consecutive.
Objective 6.5.5H(2) ***To provide good access to daylight suited to the function of the room, minimise reliance on artificial lighting and improve amenity.***	Daylight may not be borrowed from other rooms, except where a room has a frontage to a classified road.
	No part of a habitable room is more than 8m from a window.
	No part of a kitchen work surface is more than 6m from a window or skylight.
	Courtyards are to: • Be fully open to the sky; and

	• Have a minimum dimension of one third of the perimeter wall height, an area of 4m^2.
	A window is visible from 75% of the floor area of a habitable room.

6.5.5I Natural Ventilation	
Objectives	**Design Criteria**
Objective 6.5.5I(1) ***All habitable rooms are naturally ventilated.***	All habitable rooms are naturally ventilated. Each dwelling is naturally cross ventilated.

6.5.5J Ceiling Height	
Objectives	**Design Criteria**
Objective 6.5.5J(1) ***Ceiling height achieves sufficient natural ventilation and daylight access and provides spatial quality.***	Minimum ceiling heights are: • 2.7m to ground floor habitable rooms. • 2.7m to upper level living rooms. • 2.4m to upper level habitable rooms (excluding living rooms). The ceiling height is measured from finished floor level to finished ceiling level.

6.5.5K Dwelling Size and Layout	
Objectives	**Design Criteria**
Objective 6.5.5K(1) ***The dwelling has a sufficient area to ensure the layout of rooms are functional, well-organised and provide a high standard of amenity.***	Dwellings to have the following minimum internal floor areas: • 1 bed: 65m^2 • 2 beds: 90m^2 • 3+ beds: 115m^2
	The minimum internal areas outlined above only contain one bathroom. The minimum area of each additional bathroom is 5m^2 added onto the minimum dwelling area.
	The minimum area of any additional bedroom is 12m^2. The area of each additional bedroom is then added to the minimum internal floor area contained in Design Criteria 69 of the *Low Rise Housing Diversity Design Guide for Development Applications*.
	Kitchens are not part of a circulation space such as a hallway.
Objective 6.5.5K(2) ***Room sizes are appropriate for the intended purpose and number of occupants.***	One bedroom has a minimum area of 10m^2, excluding space for a wardrobe.
	Bedrooms have a minimum length and width of 3m in any direction, excluding wardrobe space.
	Combined living and dining rooms are to have a minimum area of: • 1 and 2 beds: 24m^2 • 3+ beds: 28m^2

	Living room or lounge rooms are to have a minimum length and width of 4m, excluding fixtures.

6.5.5L Principal Private Open Spaces

Objectives	Design Criteria
Objective 6.5.5L(1) ***Dwellings provide appropriately sized private open space and balconies to enhance residential amenity.***	The area of principal private open space provided for each dwelling is at least 45m^2 with a minimum dimension of 4m.
Objective 6.5.5L(2) ***Principal private open space and balconies are appropriately located to enhance liveability for residents***	The principal private open space is located behind the front building line.
	The principal private open space is located adjacent to the living room, dining room or kitchen to extend the living space.
	25% of the private open space is to be covered to provide shade and protection from rain.

6.5.5M Storage

Objectives	Design Criteria
Objective 6.5.5M(1) ***Adequate, well-designed storage is provided in each dwelling.***	In addition to storage in kitchens and bedrooms, the following storage with a minimum dimension of 500mm is provided: • 1 bed: 6m^3 • 2 beds: 8m^3 • 3+ beds: 10m^3
	At least 50% of the required storage is located inside the dwelling.
	Storage not located in dwellings is secure and clearly allocated to specific dwellings if in a common area.

6.5.5N Car and Bicycle Parking

Objectives	Design Criteria
Objective 6.5.5N(1) ***Car parking is provided appropriate for the scale of the development.***	A minimum of 1 off-street enclosed car parking space for one- and two-bedroom units; and A minimum of 2 off-street (one enclosed) car parking spaces for units with 3 or more bedrooms.
	Visitor parking is provided in multi dwelling housing (terraces) that are strata titled where a basement car park serves more than 10 dwellings. Provide 1 space per 5 dwellings/ units.
	Car parking spaces and circulation are to comply with AS 2890.1:2004.
Objective 6.5.5N(2) ***Parking facilities are provided for bicycles.***	Covered space is to be provided for the secure storage of at least 1 bicycle per dwelling.

Objective 6.5.5N(3) ***Visual and environmental impacts of car parking and garages do not dominate the streetscape and have an appropriate scale relationship with the dwelling.***	Basement car parking should not protrude more than 1m above finished ground level except at the entrance to the car park.
	The maximum dimensions of any basement car park entry are to be 2.7m high by 3.5m wide.
	Where a driveway is adjacent to an existing tree, it is either outside the tree canopy or complies with the recommendations in a report prepared by a qualified arborist.
	The setback of a car space from a primary, secondary or parallel road is to be at least: **Setback of Dwelling from Road** / **Maximum Of-Street Parking Setback from Road** <4.5m / 5.5m 4.5m or more / 1m behind the building line
	The maximum width of all garage doors facing a primary or secondary road: **Lot Width** / **Maximum Width of Garage Door Openings** 18m - 20m / 6m >20m - 25m / 9.2m >25m / 12m **Note**: Lot width refers to the completed Torrens title lot or in the case of a strata subdivision being the development site.

6.5.5O Visual Privacy

Objectives	Design Criteria
Objective 6.5.5O(1) ***The separation of windows and terraces, decks, and balconies within a site and to adjoining existing or future buildings provide a degree of visual privacy without the reliance on fixed screening.***	Orientate living room windows, primary private open space to the street front or rear.
	At least one window for each habitable room is provided without the need for a privacy screen.
	A privacy screen is required when: **Distance from Boundary** / **Finished Floor Level Above Ground Level (Existing)** <3m / 1 - 3m <6m / >3m **Distance from Windows in Dwelling on Same Lot** / **Finished Floor Level Above Ground Level (Existing)** <6m / 1 - 3m <12m / >3m

	Note: This does not apply to bedroom windows that have an area less than 2m^2 or windows that have a frontage to a road or public open space.
	A privacy screen is required at the edge of that part of a terrace, deck, balcony, or verandah that is parallel or faces towards a side or rear boundary **Distance from Boundary** — **Finished Floor Level Above Ground Level (Existing)** <3m — 1 - 3m <6m — >3m **Distance from Windows in Dwelling on Same Lot** — **Finished Floor Level Above Ground Level (Existing)** <6m — 1 - 2m <12m — >2m **Note**: This does not apply to a terrace, deck, balcony or patio that has an area less than 3m^2 or has a frontage to a road or public open space.
Objective 6.5.5O(2) ***Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space.***	Where privacy screens are provided to windows, they must not cover part of the window required to meet the minimum daylight or solar access requirements or restrict ventilation.

6.5.5P Acoustic Privacy

Objectives	Design Criteria
Objective 6.5.5P(1) ***Noise transfer is minimised through the siting of buildings and building layout.***	Electrical, mechanical, hydraulic and air conditioning equipment is housed so that it does not create an 'offensive noise' as defined in the *Protection of the Environment Operations Act 1997* either within or at the boundaries of any property at any time of the day.

6.5.5Q Noise and Pollution

Objectives	Design Criteria
Objective 6.5.5Q(1) ***Ensure outside noise levels are controlled to acceptable levels in living and bedrooms of dwellings.***	Any development within the 20 ANEF contour is to be constructed to comply with AS 2021:2015 Acoustics – Aircraft Noise Intrusion.
	Dwellings that are within 100m of a classified road or 80m from a rail corridor are to have LAeq measures that do not exceed: • In any bedroom: 35dB(A) between 10pm-7am. • Anywhere else in the building (other than a kitchen, garage, bathroom or hallway): 40dB(A) at any time. This is achieved by:

	• Providing a full noise assessment report prepared by a qualified acoustic engineer; and • Complying with relevant noise control treatment for sleeping areas and other habitable rooms in Appendix C of RMS *Development Near Rail Corridors and Busy Roads - Interim Guideline.*
Note: Development that is on land immediately adjacent a rail corridor and development that involves penetration of ground to a depth of 2m within 25m of a rail corridor may be integrated development. Refer to the *State Environmental Planning Policy (Infrastructure) 2007.*	

6.5.5R Architectural Form and Roof Design

Objectives	Design Criteria
Objective 6.5.5R(1) ***The architectural form is defined by a balanced composition of elements. It responds to internal layouts and desirable elements in the streetscape.***	Provide in the Design Verification Statement a description as to how the architectural form reduces the visual bulk and responds and provides a cohesive design response. **Note**: Refer to Section 3 of the *Low Rise Housing Diversity Design Guide for Development Applications*.
Objective 6.5.5R(2) ***The roof treatments are integrated into the building design and positively respond to the street.***	The roof design is integrated harmoniously with the overall building form.
	Skylights and ventilation systems are integrated into the roof design.

6.5.5S Visual Appearance and Articulation

Objectives	Design Criteria
Objective 6.5.5S(1) ***To promote well designed buildings of high architectural quality that contribute to the local character.***	Provide in the Design Verification Statement a description as to how the aesthetics and articulation contribute to the character of the local area. **Note**: Refer to Section 3 of the *Low Rise Housing Diversity Design Guide for Development Applications*.
	The development may have a primary road articulation zone that extends up to 1.5m forward of the minimum required setback from the primary road. The following elements can be located in the articulation zone: • An entry feature or portico. • A balcony, deck, pergola, terrace or verandah. • A window box treatment. • A bay window or similar feature. • An awning or other feature over a window. • A sun shading feature. • An eave.

6.5.5T Pools and Detached Development

Objectives	Design Criteria
Objective 6.5.5T(1) ***The location of swimming pools and spas minimise the impacts on adjoining properties.***	Swimming pools and spas are to have a maximum height above ground level (existing): • At the water line – 1.2m, • At the top of the coping - 1.4m, and • Where the coping is more than 300mm wide – 600mm.
	Swimming pools and spas are to be located in the rear yard with a minimum setback of 1m from any side or rear boundary. The setback of a swimming pool from a secondary road must be consistent with the setback of a dwelling house from the secondary road boundary.
	The swimming pool pump must be located in an enclosure that is sound proofed.
Objective 6.5.5T(2) ***The location of the detached development minimises the impact on adjoining properties.***	Maximum height above ground level (existing) - 4.5m
	A detached studio with a frontage to a rear lane or parallel road may have a height of 6m.
	Maximum floor area for each dwelling: • generally: 45m^2 • detached studios: 36m^2
	Side setbacks are the same as for the dwelling except for the following: • side setback: 0.9m, or • side setback with wall height less than 3.3m: 0m, and adjoining lot building is <0.9m from boundary and building wall is of masonry construction with no windows, • side setback of detached studio with frontage to a lane: 0m • side setback of detached studio without a frontage to a lane: **Lot Width at building line** — **Rear setback** 0 - 18m — 900mm >18m — 1.5m
	Rear setbacks for detached development are: **Lot Area** — **Rear setback** 0 - 900m^2 — 900mm >900-1500m^2 — 1.5m >1500m^2 — 2.5m
	The maximum floor level of a detached deck, patio, pergola or terrace that is less than 0.9m from the side boundary is 0.6m above ground level (existing).

Notes:

1. A child-resistant barrier must be constructed or installed in accordance with the requirements of the Swimming Pools Act 1992
2. Privacy and building separation and other Design Criteria still apply.

6.5.5U Energy Efficiency	
Objectives	**Design Criteria**
Objective 6.5.5U(1) ***Development incorporates passive environmental design.***	Provide an outdoor area for clothes drying that can accommodate at least 16 lineal metres of clothes line for each dwelling.
	Any clothes drying area is screened from public and communal areas.
Note: A DA for a dwelling is required to have a BASIX Certificate that applies a minimum energy consumption target.	

6.5.5U Energy Efficiency	
Objectives	**Design Criteria**
Objective 6.5.5V(1) ***Flood management systems are integrated into site design.***	A stormwater system must: • Comply with requirements in the DCP that applies to the land. • Be approved (if required) under s.68 of the Local Government Act 1993.
	Detention tanks are to be located under paved areas, driveways or in basements.
Note: A DA for a dwelling is required to have a BASIX Certificate that applies a minimum water consumption target.	
6.5.5W Waste Management	
Objectives	**Design Criteria**
Objective 6.5.5W(1) ***Waste storage facilities meet the needs of the residents, are easy to use and access, and enable efficient collection of waste.***	Provide storage space for the type and number of bins designated in council's waste policy (or DCP).
	Where waste storage is provided in a communal area, access to this waste area is to be provided for all residents without crossing a private lot.
	Where waste storage is provided in the basement car park, a maximum ramp gradient of 1:6 is to be provided to the waste collection point.
	Where a rear lane has provision for waste collection trucks used by council, the collection point is to be from the rear lane.
	Any communal waste area is to: • provide water supply for cleaning, • have a solid floor grated to a floor waste (connected to sewer), and • be designed to meet the requirements of council's waste policy.
	Despite any requirements in council's waste policy, on-site waste vehicle access is not required where: • there are less than 20 dwellings, or • the development is Torrens title subdivided
	A communal on-site waste collection point is to be provided where:

	• there are 20 or more dwellings, and • the development is strata title subdivided.
	Where vehicle access is not provided to the site, any communal on-site collection point is to: • be less than 10m from the street boundary, • be located on a surface with a gradient less than 1:20 • not require access through a security door or gate (unless this is permitted by council waste policy). • have path that connects the collection area to the street boundary with a gradient less than 1:8 and free of steps for the transfer of bins to the collection vehicle
	If the waste collection point is used for permanent storage of bins, it is to be screened from view from the public domain and any structure to have height no greater than 1.3m, if forward of the building line.
Objective 6.5.5W(2) ***Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents.***	Storage areas for rubbish and recycling bins are to be provided: • Within garages; • In a screened enclosure that is part of the overall building design; or • In the basement car park.
	Communal waste areas are to be located at least 3m from any bedroom or living room window.

6.5.5X Universal Design	
Objectives	**Design Criteria**
Objective 6.5.5X(1) ***Universal design features are included in dwelling design to promote flexible housing for all community members.***	30% of all dwellings will include the Silver Level Seven Core Liveable Housing Design Elements contained in the *Liveable Housing Design Guidelines.*

6.21 MULTI-DWELLING HOUSES

6.5.6A Building Envelopes	
Objectives	**Design Criteria**
Objective 6.5.6A(1) ***The building height is consistent with the desired scale and character of the street and locality and provides an acceptable impact on the amenity of adjoining properties.***	Where the LEP or DCP does not include a maximum building height, that height of buildings is: • R1, R2, or RU5 zoned land: 9m
	The maximum number of storeys (excluding basements) are: • R1, R2, or RU5 zoned land: 2

	On R1, R2, or RU5 zoned land the maximum height of building on the rear 40% of the site is: 5.4m.
Objective 6.5.6A(2) ***The development provides a setback from the front boundary or public space that:*** • ***defines the street edge;*** • ***creates a clear threshold and transition from public to private space;*** • ***assists in achieving visual privacy to ground floor dwellings from the street;*** • ***contributes to the streetscape character and landscape; and*** • ***relates to the existing streetscape and setback pattern or the desired future streetscape pattern if different to the existing.***	Refer to the DCP for front setback or envelope controls.
	R2 zoned land - Where the DCP does not contain front setback controls the following apply: • Where existing dwellings are within 40m - average of the two closest dwelling houses, dual occupancies or multi dwelling housing (terraces), or • Where no existing dwellings are within 40m the front setback is 3.5m.
	Where the DCP does not contain setback controls for secondary roads the following apply: **Lot Area (m²) Setback** 0 - 900 2m >900 - 1500 3m >1500 5m
	Setback from classified road: 9m.
	Setback from public reserve: 3m.
Objective 6.5.6A(3) ***The development provides side boundary setbacks that reflect the character and form intent of the area where is characterised by the separation of buildings.***	Where the DCP does not contain side setback controls the side setback is 1.5m Development that is 10m behind the front building line and greater than 4.5m above ground level (existing) - s = h - 3m 's' is the minimum setback in metres 'h' is the height of the part of the building in meters.
Objective 6.5.6A(4) ***The development provides a rear boundary setback that provides opportunity to retain and protect or establish significant landscape trees in deep planting areas.***	Refer to the DCP for rear setbacks or envelope controls.
	Where the DCP does not contain rear setback controls the rear setback is 6m.
	The setback to a lane is 0m.

Notes:

1. When applying primary road, secondary road and rear setbacks – the lot area refers to the lot area prior to any subdivision.
2. The side setbacks only apply to the side boundaries of the lot prior to any subdivision.
3. Setbacks do not apply to the following: access ramps, down pipes, driveways or hard standard spaces, electricity, or gas meters, fascias, fences, gutters, light fittings, pathways and paving, privacy screens fixed to the building.
4. For multi dwelling housing, parallel roads should be treated as primary roads and dwellings provide a frontage to them.
5. Refer to Section 3 of the *Low Rise Housing Diversity Design Guide for Development Applications* for an explanation of the application of setbacks, and exemptions to the setbacks.

6.5.6B Gross Floor Area / Floor Space Ratio

Objectives	Design Criteria
Objective 6.5.6B(1)	Where the LEP or DCP do not contain an FSR or Gross floor area the following maximum gross floor area applies to all buildings on a lot:

To ensure that the bulk and scale is appropriate for the context, minimises impacts on surrounding properties and allows for articulation of the built form.	• R1, R2, or RU5 zoned land - 50% of lot area **Note**: For the purpose of this Design Criteria the lot area excludes any new street or lane.

6.5.6C Landscaped Area

Objectives	Design Criteria
Objective 6.5.6C(1) ***To provide adequate opportunities for the retention of existing and provision of new vegetation that:*** • ***contributes to biodiversity;*** • ***enhances tree canopy; and*** • ***minimises urban runoff.***	Where the LEP or DCP does not contain a minimum landscaped area the minimum landscaped area is: • R1, R2, or RU5 zoned land - 30%
	The minimum dimension of any area included in the landscaped area calculation is 1.5m.
	At least 50% of the area forward of the building line is to be landscaped area.
Objective 6.5.6C(2) ***Landscape design supports healthy plant and tree growth and provides sufficient space for the growth of medium sized trees.***	An ongoing maintenance plan is to be provided as part of the landscape plan.
	Minimum soil standards for plant sizes are provided in accordance with the Table below. **Tree Size** / **Height** / **Spread** / **Min Soil Area** / **Min Soil Depth** Large trees / >12m / >8m / 10 x 10m / 1.2m Medium trees / 8-12m / 4-8m / 6 x 6m / 1.0m Small trees / 5-8m / <4m / 3.5 x 3.5m / 0.8m Shrubs / 0.5-0.6m Groundcover / 0.3-0.45m Turf / 0.2m
	The following tree plantings are to be provided: • Front: 1 tree with mature height of 5m if primary road setback is greater than 3m. • Rear: 1 tree with mature height of 8m.
Objective 6.5.6C(3) ***Retain existing natural features of the site that contribute to neighbourhood character, and reduce visual and privacy impacts on existing neighbouring dwellings.***	Mature trees are to be retained, particularly those along the boundary, (except those where approval is granted by Council for their removal).
	Landscape features including trees and rock outcrops are retained where they contribute to the streetscape character or are located within the rear setback.
Objective 6.5.6C(4) ***Landscape design contributes to a local sense of place and creates a micro climate.***	The landscape plan is to provide for a combination of tree planting - for shade, mid height shrubs, lawn and ground covers
	The landscape plan indicates that at least 50% of the overall number of trees and shrubs are species native to the region.

6.5.6D Local Character and Context

Objectives	Design Criteria
Objective 6.5.6D(1) ***The built form, articulation and scale relates to the local character of the area and the context.***	Provide in the Design Verification Statement a description how the built form of the development contributes to the character of the local area using the guidance in Section 3D Local Character and Context.

6.5.6E Public Domain Interface

Objectives	Design Criteria
Objective 6.5.6E(1) ***Provide activation and passive surveillance to the public streets.***	The front door of each dwelling is directly visible from the street.
	Each dwelling has a habitable room that faces the street or public space.
Objective 6.5.6E(2) ***Front fences and walls do not dominate the public domain instead they respond to and compliment the context and character of the area (including internal streets).***	Private courtyards within the front setback are only located within the articulation zones and / or behind the required front building line.
	Front fences: • Are visually permeable (no more than 50% of the allowable fence area will be solid masonry, timber or metal). • Average height no greater than 1.2m. • Have a consistent character with other front fences in the street. • Are not to be constructed of solid metal panels or unfinished timber palings.
	High solid walls are only used to shield a dwelling from the noise of classified roads. The walls are to have a maximum height of 2.1m and be setback at least 1.5m from the property boundary. Landscape planting is to be provided between the wall and the boundary, with a mature height of at least 1.5m.
	Retaining walls greater than 600mm within the front setback are to be softened by planting for a minimum depth of 600mm on the low side of the retaining wall.
Objective 6.5.6E(3) ***The secondary frontage of a development positively contributes to the public domain by providing an active edge and semi-transparency to the boundary treatment.***	Where development adjoins public parks, open space or bushland, or is a corner site, the design positively addresses this interface using any of the following design solutions: • Habitable room windows facing the public domain. • Street access, pedestrian paths and building entries. • Paths, low fences and planting that clearly delineate between communal/private open space and the adjoining public open space. • Walls fronting the public spaces are to have openings not less than 25% of the surface area of the wall.

6.5.6F Pedestrian and Vehicle Circulation

Objectives	Design Criteria
Objective 6.5.6F(1) ***Internal vehicle and pedestrian circulation should function like a street, minimise the dominance of the driveway, and minimise impact on habitable spaces.***	Vehicle circulation and parking complies with AS2890.1.
	Dwellings are to be connected by new internal streets and lanes which are overlooked by windows from habitable rooms and or private open space.
	Where new streets or lanes are created: • Lanes: shared or pedestrian surfaces with a width of common area including landscape - minimum 6m. • Streets: width of common area including landscape - minimum 12m.
	Where less than 20 car spaces are provided reduce carriageway width to 3.5m, with passing areas as required by AS 2890.1.
	Internal vehicle circulation must be: • at least 1m setback from a fences; • at least 1m setback from another dwelling; • at least 2.5m setback from a window in a habitable room if the window exceeds 1m^2; and • the setbacks should contain plants to soften edges.
	Terminate driveways and streets with trees, open space or the window of a dwelling - not a garage or car space.
	Streets to be designed to accommodate appropriate service vehicles likely to access the site.
	Where on street parking is currently available in front of the development, the proposed driveways are located so that at least one car space remains.
	Car parking not associated with a dwelling must be: • setback from a fence is to be at least 1m • setback from another dwelling is to be at least 1m • setback from a habitable room window is to be at least 3m if the window exceeds 1m^2. • The setbacks should contain plants.
	New streets and lanes • maximum length of a dead end laneway - 40m. • minimum width between structures - 6m.
Objective 6.5.6F(2) ***Provide safe, connected environment for pedestrians.***	Provide safe shared spaces for vehicles, cyclists and pedestrians by including measures that reduce vehicle speeds such as changes in pavement texture at entries or key nodes, reduce demarcation between pedestrian and vehicle spaces.
	Pedestrian paths that are separated from an internal road or lane by a kerb or landscaped

	area are to be provided where there are more than 20 dwellings.
	Where pedestrian circulation is separated from vehicle circulation the paths are still to function like streets with pavement at least 1.5m wide, clearly identifiable dwelling entrances and clear lines of sight to create a legible and safe network.
	Roads and pedestrian spaces are to have lighting designed in accordance with A1158.3.1 that avoids light spill in to private spaces.
Objective 6.5.6F(3) ***Visual and environmental impacts of car parking are minimised***	Basement car parking not to protrude more than 1m above finished ground level except at the entrance to the car park.
	Basement car park entrances to have a maximum width of 3.5m where there are less than 10 dwellings being serviced by the car park.
	The maximum height of the car park entry is to be 2.7m.
	Where driveways are adjacent a tree, it is either outside the drip line or complies with the recommendations in a report prepared by a qualified arborist.
Note: Approval for a driveway crossing will be required under the Roads Act 1993, from Council. If the development has a frontage to a classified road, driveway frontages may be restricted and concurrence will be required from Roads and Maritime Services (RMS)	

6.5.6G Orientation, Siting and Subdivision

Note: If the dwellings are proposed to be subdivided into individual Torrens title lots refer to Section 6.5.5G.

Objectives	Design Criteria
Objective 6.5.6G(1) ***To ensure that the development site area will have sufficient area for the dwelling, vehicle access, landscaping, parking and amenity and are consistent with the desired future character of the area.***	The minimum lot size for carrying out multi dwelling housing is: • the minimum dimensions for multi dwelling housing specified in an environmental planning instrument or DCP that applies to the land, or • if an environmental planning instrument or DCP does not specify a minimum lot dimension - 600m^2 and width measured at the building line of 20m. The minimum lot size area for the following zones to carry out multi dwelling housing (terraces) as per the Lithgow Local Environmental Plan 2014 are as follows: R1: 800m^2 R2: 1,200m^2
Objective 6.5.6G(2)	Each dwelling is to have a frontage to an existing public street or new pedestrian or vehicle street or lane.

The development responds to the streetscape and respect the privacy of adjoining single dwelling houses.	The frontage measured at the building line is to be at least 5m.
	Dwellings should be orientated away from side boundaries and towards the front and rear
Objective 6.5.6G(3) ***Reasonable solar access is provided to the living rooms and private open spaces of adjoining dwellings.***	A window that is more than 3m from the boundary to a living room of an adjoining dwelling is to receive more than 3 hours of direct sunlight between 9am and 3pm on the winter solstice (June 21). If the window currently receives less than 3hrs - direct sunlight is not reduced. **Note**: Direct sunlight is measured consistent with Design Criteria 63 of the *Low Rise Housing Diversity Design Guide for Development Applications* and is only required to one window serving the living room.
	Where the location of the living room of an adjoining dwelling cannot be verified the proposed development is accommodated within a building envelope defined by a 35° plane springing from 3.6m above the boundary.
Objective 6.5.6G(4) ***The development responds to the natural landform of the site, reducing the visual impact and avoiding large amounts of cut and fill and minimise the impacts of retaining walls.***	Unless a dwelling is over a basement, the ground floor is not more than 1.3m above ground level, and no more than 1m below ground level.
	Dwellings are located to step with the Topography
Objective 6.5.6G(5) ***Independent services and utilities are available to service each lot.***	All lots must have access to reticulated water and sewer, electricity, telecommunications, and where available gas.
Objective 6.5.6G(6) ***To minimise impacts to vegetation on adjoining properties and allow for vegetation within the setbacks.***	Basement car parking should not be provided within the setbacks described in 2.4A of the *Low Rise Housing Diversity Design Guide for Development Applications.*
Objective 6.5.6G(7) ***Provide adequate space between buildings to allow for landscape, provide visual separation, reduce visual bulk and daylight access between buildings.***	The minimum separation between two or more buildings containing dwelling on the same lot is 3m. **Note**: Greater separation may be required for privacy.
	Provide a break of 3m between buildings more than 45m long.

6.5.6H Solar and Daylight Access

Objectives	Design Criteria
Objective 6.5.6H(1) ***To optimise sunlight received to habitable rooms and private open spaces. Solar access enables passive solar heating in winter and provides a healthy indoor environment.***	The living room or private open space in each dwelling is to receive a minimum of 2 hours direct sunlight between 9 am and 3pm on the winter solstice (June 21). **Note**: Direct sunlight is achieved when $1m^2$ of direct sunlight on the glass is achieved for at

	least 15 minutes. To satisfy 2 hours direct sunlight, 8 periods of 15 minutes will need to be achieved - however the periods do not need to be consecutive.
Objective 6.5.6H(2) ***To provide good access to daylight suited to the function of the room and to minimise reliance on artificial lighting and improve amenity.***	Daylight may not be borrowed from other rooms, except where a room has a frontage to a classified road.
	No part of a habitable room is to be more than 8m from a window.
	No part of a kitchen work surface is to be more than 6m from a window or skylight.
	Courtyards are to be: • Be fully open to the sky; and • Have a minimum dimension of one third of the perimeter wall height, an area of 4m^2.
	A window is visible from 75% of the floor area of a habitable room.

6.5.6I Natural Ventilation

Objectives	Design Criteria
Objective 6.5.6I(1) ***All habitable rooms are naturally ventilated.***	Natural ventilation is available to each habitable room.
	Each dwelling is to be naturally cross ventilated.

6.5.6J Ceiling Height

Objectives	Design Criteria
Objective 6.5.6J(1) ***Ceiling height achieves sufficient natural ventilation and daylight access and provides spatial quality.***	Minimum ceiling heights are: • 2.7m to ground floor habitable rooms. • 2.7m to upper level living rooms. • 2.4m to upper level habitable rooms (excluding living rooms). The ceiling height is measured from finished floor level to finished ceiling level.

6.5.6K Dwelling Size and Layout

Objectives	Design Criteria
Objective 6.5.6K(1) ***The dwelling has a sufficient area to ensure the layout of rooms are functional, well organised and provide a high standard of amenity.***	Dwellings are required to have the following minimum internal floor areas: • 1 bed: 65m^2 • 2 beds: 90m^2 • 3+ beds: 115m^2
	The minimum internal areas outlined above only contain one bathroom. The minimum area of each additional bathroom is 5m^2 added onto the minimum dwelling area.
	The minimum area of any additional bedroom is 12m^2. The area of each additional bedroom is

	then added to the minimum internal floor area contained in the table above.
	Kitchens should not be part of a circulation space such as a hallway.
Objective 6.5.6K(2) ***Room sizes are appropriately sized for the intended purpose and number of occupants.***	One bedroom has a minimum area of $10m^2$ excluding space for a wardrobe.
	Bedrooms have a minimum dimension of 3m in any direction (excluding wardrobe space).
	Combined living and dining rooms are to have a minimum area of: • 1 and 2 beds: $24m^2$ • 3+ beds: $28m^2$
	Living room or lounge rooms are to have a minimum width of 4m (excluding fixtures).

6.5.6L Principal Private Open Spaces

Objectives	Design Criteria
Objective 6.5.6L(1) ***Dwellings provide appropriately sized private open space and balconies to enhance residential amenity.***	The area of principal private open space provided for each dwelling is at least $45m^2$ with a minimum dimension of 5m.
	Provide a consolidated paved area of $12m^2$ with minimum dimension of 3m.
Objective 6.5.6L(2) ***Principal private open space and balconies are appropriately located to enhance liveability for residents***	The principal private open space is located behind the front building line.
	The principal private open space is to be located adjacent to the living room, dining room or kitchen to extend the living space.
	$8m^2$ of the private open space should be covered to provide shade and protection from rain.

6.5.6M Storage

Objectives	Design Criteria
Objective 6.5.6M(1) ***Adequate, well designed storage is provided in each dwelling.***	In addition to storage in kitchens, and bedrooms, the following storage with a minimum dimension of 500mm is provided: • 1 bed $6m^3$ • 2 beds: $8m^3$ • 3+ beds $10m^3$
	At least 50% of the required storage is to be located inside the dwelling.
	Storage not located in dwellings is secure and clearly allocated to specific dwellings if in a common area.

6.5.6N Car and Bicycle Parking

Objectives	Design Criteria
Objective 6.5.6N(1)	Car parking is to be provided at the rate required for multi dwelling housing within the DCP that

Car parking is provided appropriate for the scale of the development	applies to the land. If there is no rate in the DCP - 1 space is to be provided per dwelling.
	Visitor parking is to be provided where the development contains more than 5 dwellings. Provide 1 space per 5 dwellings.
	Car parking spaces and circulation are to comply with AS 2890.1:2004
Objective 6.5.6N(2) ***Parking facilities are provided for bicycles.***	Covered space is to be provided for the secure storage of at least 1 bicycle per dwelling.
Objective 6.5.6N(3) ***Visual and environmental impacts of car parking and garages do not dominate the streetscape and have an appropriate scale relationship with the dwelling***	Basement car parking is not to protrude more than 1m above finished ground level except at the entrance to the car park.
	The maximum dimensions of any basement car park entry are to be 2.7m high by 3.5m wide.
	Where a driveway is adjacent an existing tree, it is either outside the drip line or complies with the recommendations in a report prepared by a qualified arborist
	The setback of a car space from a primary, secondary or parallel road is to be at least: **Setback of dwelling from road** — **Maximum width of garage door openings** >4.5m — 1m behind the building line <4.2m — 5.5m
	The maximum width of all garage doors facing a primary or secondary road: **Lot Width** — **Maximum Width of Garage Door Openings** 12m - 15m — 3.2m >15m - 20m — 6m >20m - 25m — 9.2m >25m — 12m

6.5.6O Visual Privacy

Objectives	Design Criteria
Objective 6.5.6O(1) ***The separation of windows and terraces, decks, and balconies within a site and to adjoining existing or future buildings provide a degree of visual privacy without the reliance on fixed screening***	Orientate living room windows, primary private open space to the street or rear.
	At least one windows for each habitable room is provided without the need for a privacy screen.
	A privacy screen is required when: **Distance from Boundary** — **Finished Floor Level Above Ground Level (Existing)** <3m — 1 - 3m <6m — >3m **Distance from Windows in Dwelling on Same Lot** — **Finished Floor Level Above Ground Level (Existing)** <6m — 1 - 3m

	<12m >3m **Note**: This does not apply to bedroom windows that have an area less than 2m^2 or windows that have a frontage to a road or public open space.
	A privacy screen is required at the edge of that part of a terrace, deck, balcony or verandah that is parallel or faces towards a side or rear boundary **Distance from Boundary** — **Finished Floor Level Above Ground Level (Existing)** <3m — 1 - 3m <6m — >3m **Distance from Windows in Dwelling on Same Lot** — **Finished Floor Level Above Ground Level (Existing)** <6m — 1 - 2m <12m — >2m **Note**: This does not apply to a terrace, deck, balcony or patio that has an area less than 3m^2 or has a frontage to a road or public open space.
Objective 6.5.6O(2) ***Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space***	Where privacy screens are provided to windows, they must not cover part of the window required to meet the minimum daylight or solar access requirements or restrict ventilation.

6.5.6P Acoustic Privacy

Objectives	Design Criteria
Objective 6.5.6P(1) ***Noise transfer is minimised through the siting of buildings and building layout***	Electrical, mechanical, hydraulic and air conditioning equipment is housed so that it does not create an 'offensive noise' as defined in the Protection of the Environment Operations Act 1997 either within or at the boundaries of any property at any time of the day.

6.5.6Q Noise and Pollution

Objectives	Design Criteria
Objective 6.5.6Q(1) ***Ensure outside noise levels are controlled to acceptable levels in living and bedrooms of dwellings***	Any development within the 20 ANEF contour is to be constructed to comply with AS 2021:2015 Acoustics – Aircraft Noise Intrusion.
	Dwellings that are within 100m of a classified road or 80m from a rail corridor are to have LAeq measures are not exceeding: • In any bedroom: 35dB(A) between 10pm-7am.

	• Anywhere else in the building (other than a kitchen, garage, bathroom or hallway): 40dB(A) at any time. This can be achieved by: • A full noise assessment prepared by a qualified acoustic engineer • Complying with relevant noise control treatment for sleeping areas and other habitable rooms in Appendix C of *Draft Guide to Infrastructure Development Near Rail Corridors Busy Roads.*
Note: Development that is on land immediately adjacent to a rail corridor and development that involves penetration of ground to a depth of 2m within 25m of a rail corridor may be integrated development. Refer to the *State Environmental Planning Policy (Infrastructure) 2007.*	

6.5.6R Architectural Form and Roof Design

Objectives	Design Criteria
Objective 6.5.6R(1) ***The architectural form is defined by a balanced composition of elements. It responds to internal layouts and desirable elements in the streetscape.***	Provide in the Design Verification Statement a description as to how the architectural form reduces the visual bulk and responds and provides a cohesive design response. **Note**: Refer to Section 3 of the *Low Rise Housing Diversity Design Guide for Development Applications*.
Objective 6.5.6R(2) ***The roof treatments are integrated into the building design and positively respond to the street.***	The roof design is integrated harmoniously with the overall building form.
	Skylights and ventilation systems are integrated into the roof design.

6.5.6S Visual Appearance and Articulation

Objectives	Design Criteria
Objective 6.5.6S(1) ***To promote well designed buildings of high architectural quality that contribute to the local character***	Provide in the Design Verification Statement a description as to how the aesthetics and articulation contribute to the character of the local area. **Note**: Refer to Section 3 of the *Low Rise Housing Diversity Design Guide for Development Applications*.
	The development may have a primary road articulation zone that extends up to 1.5m forward of the minimum required setback from the primary road. The following elements can be located in the articulation zone: • An entry feature or portico. • A balcony, deck, pergola, terrace or verandah. • A window box treatment. • A bay window or similar feature. • An awning or other feature over a window.

	• A sun shading feature. • An eave.

6.5.6T Pools and Detached Development

Objectives	Design Criteria
Objective 6.5.6T(1) ***The location of the swimming pools and spas minimise the impacts of adjoining properties***	Swimming pools and spas are to have a maximum height above ground level (existing): • At the water line – 1.2m, • At the top of the coping - 1.4m, and • Where the coping is more than 300mm wide – 600mm.
	Swimming pools and spas are to be located in the rear yard with a minimum setback of 1m from any side or rear boundary.
	The swimming pool pump must be located in an enclosure that is sound proofed.
Objective 6.5.6T(2) ***The location of the detached development minimise the impacts of adjoining properties***	Maximum height above ground level (existing) - 4.5m
	A detached studio with a frontage to a rear lane or parallel road may have a height of 6m.
	Maximum floor area for each dwelling: • generally: 45m^2 • detached studios: 36m^2
	Side setbacks are the same as for the dwelling except for the following: • side setback: 0.9m, or • side setback with wall height less than 3.3m: 0m, and adjoining lot building is <0.9m from boundary and building wall is of masonry construction with no windows, • side setback of detached studio with frontage to a lane: 0m • side setback of detached studio without a frontage to a lane: **Lot Width at building line** — **Rear setback** 0 - 18m — 900mm >18m — 1.5m
	Rear setbacks for detached development are: **Lot Area** — **Rear setback** 0 - 900m^2 — 900mm >900-1500m^2 — 1.5m >1500m^2 — 2.5m
	The maximum floor level of a detached deck, patio, pergola or terrace that is less than 0.9m from the side boundary is 0.6m above ground level (existing).

Notes:

1. A child-resistant barrier must be constructed or installed in accordance with the requirements of the Swimming Pools Act 1992.
2. Privacy and building separation and other Design Criteria still apply.

6.5.6U Energy Efficiency	
Objectives	**Design Criteria**
Objective 6.5.6U(1) ***Development incorporates passive environmental design***	Provide an outdoor area for clothes drying that can accommodate at least 16 lineal metres of clothes line for each dwelling.
	Any clothes drying area should be screened from public and communal areas.
Note: A DA for a dwelling is required to have a BASIX Certificate that applies a minimum energy consumption target.	

6.5.6V Water Management and Conservation	
Objectives	**Design Criteria**
Objective 6.5.6V(1) ***Urban stormwater is treated on site before being discharged to receiving waters***	A stormwater system is to: • Comply with requirements in the DCP that applies to the land. • Be approved (if required) under s.68 of the Local Government Act 1993).
Objective 6.5.6V(2) ***Flood management systems are integrated into site design***	Detention tanks are to be located under paved areas, driveways or in basements.
Note: A DA for a dwelling is required to have a BASIX Certificate that applies a minimum water consumption target.	

6.5.6W Waste Management	
Objectives	**Design Criteria**
Objective 6.5.6W(1) ***Waste storage facilities meet the needs of the residents, are easy to use and access and enable efficient collection of waste***	Provide storage space for the type and number of bins designated in council's waste policy.
	Where waste storage is provided in a communal area, access to this waste area is to be provided for all residents without crossing a private lot.
	Where waste storage is provided in the basement car park, a maximum ramp gradient of 1:6 is to be provided to the waste collection point.
	Where a rear lane has provision for waste collection trucks used by council, the collection point is to be from the rear lane.
	Despite any requirements in council's waste policy, on-site waste vehicle access is not required where:

	• there are less than 20 dwellings, or • the development is Torrens title subdivided
	Where vehicle access is not provided to the site, any communal on-site collection point is to: • be less than 10m from the street boundary, • be located on a surface with a gradient less than 1:20 • not require access through a security door or gate (unless this is permitted by council waste policy). • have path that connects the collection area to the street boundary with a gradient less than 1:8 and free of steps for the transfer of bins to the collection vehicle
	If the waste collection point is used for permanent storage of bins, it is to be screened from view from the public domain and any structure to have height no greater than 1.3m, if forward of the building line.
Objective 6.5.6W(2) ***Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents***	Storage areas for rubbish and recycling bins are to be provided: • Within garages; • In screened enclosure that is part of the overall building design; or • In the basement car park.
	Communal waste areas are to be located at least 3m from any bedroom of living room window

6.5.6X Universal Design

Objectives	Design Criteria
Objective 6.5.6X(1) ***Universal design features are included in dwelling design to promote flexible housing for all community members***	All dwellings are to include the Liveable Housing Design Guideline's Silver level universal design features.

6.5.6Y Communal Areas and Open Space

Objectives	Design Criteria
Objective 6.5.6Y(1) ***Adequate area for communal open space is provided that enhances residential amenity.***	Where more than 10 dwellings are proposed a communal space with minimum area of 5% of the site area with a minimum dimension of 8m is to be provided for active communal open space.
	The active communal open space is at least 3m from a habitable room of a dwelling on the lot.
	The active communal open space is to receive at least 2hrs of direct sunlight between 9am and 3pm at the winter solstice (June 21) to 50% of the required area.

Objective 6.5.6Y(2) ***Communal areas are designed to enhance residential amenity and maximise safety and connectivity to the dwelling and promote social interaction between residents***	Communal areas and open space are visible from habitable rooms and private open space while maintaining visual privacy.
	Where communal open space is provided, it has a direct connection to the internal street along the longest edge.
	Public through site links should have direct line of site between public streets.
Objective 6.5.6Y(3) ***Common circulation spaces achieve good amenity with access to daylight and ventilation***	Daylight and natural ventilation is provided to all common circulation above ground.
	Provide lighting to common spaces.

6.22 RESIDENTIAL FLAT BUILDINGS AND SHOP TOP HOUSING

Objective

To establish a high quality residential environment where all dwellings have a good level of amenity

To encourage a variety of housing forms within residential areas.

Controls

All residential flat buildings and shop top housing are to be consistent with the design quality principles outlined in SEPP NO 65 – Design Quality of Residential Apartment Development (or equivalent).

SECONDARY DWELLINGS

Objective

To enable a diversity of dwelling types;

To contribute to the availability of affordable housing

To promote innovative housing solutions that are compatible with surrounding residential environment.

Controls

Secondary dwellings must comply with the controls below in Section 5.6 (Residential Sudbivision Controls, except where the controls in this section differ, in which case the controls below will prevail).

Secondary dwellings must be designed to complement the design of the principal dwelling and be subservient to the principal dwelling in terms of visual bulk and scale.

Note: Clause 5.4 of LLEP 2014 applies to restrict the floor area of a secondary dwelling.

Windows and private open spaces of secondary dwellings must not overlook the private open space of any adjacent dwellings.

No additional carparking or private open space area is required for secondary dwellings; however, provisions must be made for clothes drying facilities in a location with adequate solar access.

The front entrance of a secondary dwelling may be located behind the primary street façade.

Internal fences separating the principal and secondary dwelling are not permitted.

Strate of Torrens title subdivision of secondary dwellings in not permitted.

The conversion of garages to a secondary dwellings may only be permitted if at least one carparking space if provided behind the front setback of the principal dwelling (in addition to one space in front of the building line).

Siting Principles within Laneway

- Located on corner lots
- Located around open space or breakout spaces within laneway
- Avoid homogenous forms (canyon effect); encourage diversity of roofscapes
- Locate where terminating and/or deflection vistas occur (avoids barrel gun effect)
- Rear-loaded homes can be mixed in with front loaded homes to avoid laneway homogeneity
- Where front loaded homes back onto a laneway, the rear-lane setback can be utilised for increased planting and greenery

TABLE 7. KEY CONTROLS FOR SECONDARY DWELLINGS

Standard	Secondary Dwellings - Studio Above Garage
Dwelling size	min 35m^2
Building Height (max)	8.5m (including garage)
Number of Storeys (max)	2 (including garage)
Lane Setback (min)	Ground Floor: 0.5m Upper Storey: Nil
Side Setback (min)	Nil
Principal Private Open Space (min)	4m^2 minimum area and 1.5m minimum dimension in the form of a balcony overlooking laneway
Internal Separation	4m minimum between studios and attached dwellings
Resident Parking (max)	1 space

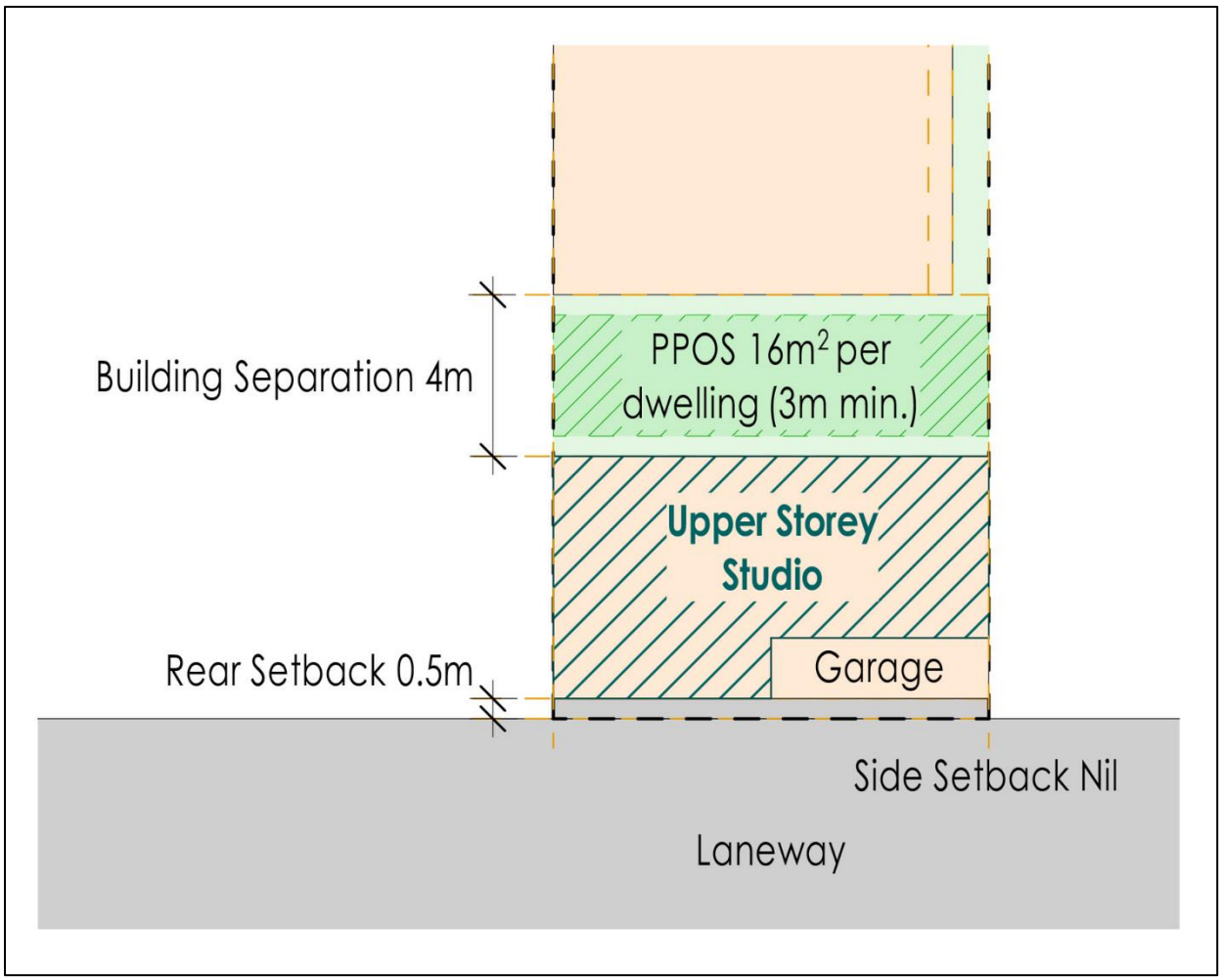


Figure 41. Studio Above garage

PART 7 COMMERCIAL AND NON-RESIDENTIAL DEVELOPMENT

7.1 USES

Objective:

(a) To ensure development is in keeping with the overall masterplan intention.
(b) To promote a mixture of uses that diversify the local economy.
(c) To encourage temporary interim uses, while the Foundations is being developed.
(d) To ensure temporary uses do not adversely impact on environmental attributes or features of the land.
(e) To ensure there is a viable night-time economy.
(f) To provide approximately 12,000m^2 of commercial and mixed use floorspace within the Foundations.

Controls:

1. Any proposed non-residential or commercial use should be generally located within Union Square, Powerhouse Exchange, Limestone Lake and Central Mill.
2. Shop top housing should be located above an active commercial, retail or other uses, where appropriate acoustic attenuation can be achieved between uses.
3. Commercial uses and temporary events should be promoted, and an Operational Management Plan submitted with any DA, this should include but is not limited to;
    a. Site plan and description of event or use;
    b. Date, times and hours
    c. Lighting and signage
    d. Traffic management measures and parking
    e. Risk assessments (such as emergency procedures), and
    f. Noise mitigation measures
4. Residential uses should not restrict the use of the Union Square and Powerhouse Exchange precincts for late night activities and temporary uses.
5. At the end of the temporary use period the land, as far as practicable, will be restored to the condition it was in before the commencement of the use.

7.2 BUILDING DENSITY

Objective:

(a) To ensure development is in keeping with the overall masterplan intention.
(b) To ensure buildings are appropriately sited and designed to respect the heritage, cultural and scenic value of the Foundations.
(c) To minimise the potential visual impact of development on the heritage and scenic values of the area.
(d) To ensure density is in accordance with the local character.

Controls:

1. Buildings to ensure they are oriented and designed to allow activation to the street and to any communal spaces.

2. Provision of at minimum of 10% landscaped area should be made for all commercial, mixed-use or any other non-residential development, where practicable.

7.3 BUILDING HEIGHT

Objectives

(a) To provide for a scale of building form harmonious with the grandiose scale of the heritage items.
(b) To provide adequate solar amenity to the public realm and adjoining buildings.

Controls

1. All non-residential uses shall be generally a maximum of 3 storeys high.
2. Generous floor-to-ceiling heights are encouraged.

7.4 BUILT FORM

Objectives

(a) To ensure that building layout, form, design and detailing:

- creates a fine-grain and / or human scale experience for pedestrians
- creates active frontage with continuous pedestrian protection from the elements
- encourage social connectedness by providing break out spaces
- incorporates a diversity of building design to provide visual interest, break up the apparent scale of built form and improve the pedestrian experience
- positively defines the public realm
- maximises engagement with the adjoining public realm, in particular at the ground level
- provides highly permeable ground floors blending indoor and outdoor spaces into a continuous pedestrian experience
- provides for adaptable ground floor uses
- integrates greenery into the built form where possible
- investigates the integration of public art into new building form where blank walls are visible from the public realm
- creates soft edges to the public realm interface providing people with the opportunity to personalise the experience of the place and endanger attachment and meaning
- retains and integrates contributory and heritage elements with new built form
- is sympathetic to the heritage values of items and contributory buildings
- designed to a high standard that contributes to the desired future character of the precinct.

Controls

1. Buildings at mixed use areas are to generally align with street edges, be articulated in their façade treatments and express corners in design.
2. Corners are to be visually prominent and may be reinforced by one and two story verandas / balconies which turn the corner in a traditional manner.

3. The interface between the building and the public domain is to be designed to create active safer streets, to encourage flexibility in design for changing uses at ground level and provide weather protection for pedestrian amenity.
4. Building facades are to be designed to accentuate key architectural features and clearly delineate points of interest such as building entries, vertical and horizontal elements.
5. Active street fronts, built to the street alignment, are required on the ground level of all retail and commercial development.
6. Large format retail such as supermarkets and parking areas are to be sleeved or hidden by retail and commercial uses.
7. Restaurants, cafes and the like are to consider providing openable shop fronts.
8. Building facades are to incorporate a variety of finishes and materials which provide visual relief to the built form.
9. A diverse palette of durable and cost efficient external materials exploring a contemporary urban character whilst representing themes of Australian local character should be used. A range of materials is to introduce a fine grain façade treatment along street edges.

7.5 ACOUSTIC AMENITY

Objectives

(a) Encourage the activation of commercial and mixed use development at all times.
(b) Ensure the ability for community events, live music or other entertainment to be held at venues or within outdoor spaces within Precincts 1, 2 and 3.

Controls:

1. Commercial or mixed use development within Precincts 1, 2 or 3 shall ensure there is allowance for night activities including live music or community events.
2. An Acoustic Report should be submitted to demonstrate that any use of buildings or outdoor spaces within Precincts 1, 2 or 3 will not have a detrimental impact on the amenity of surrounding residential dwellings.

7.6 ADVERTISING AND SIGNAGE

Objectives

(a) To provide a consistent approach to provision of adequate and effective signage for the identification and promotion of events, buildings, and businesses that enhance the economy and employment in the Foundations.
(b) To ensure that signage is appropriately sized and positioned and minimises the visual impact and/or visual clutter caused by a proliferation of excessive signage (number, size or visibility) that is inconsistent with the street character, amenity, heritage character, and scale and proportion of the building.
(c) To ensure that signage does not compromise pedestrian, cyclist or vehicle safety.
(d) To encourage signage that promotes ease-of-navigation.
(e) To ensure that signs are structurally safe and well maintained.
(f) To encourage signage of a high-quality design and finish with robust materials.

Controls:

1. Signage applications should ensure compliance with the provisions of the *State Environmental Planning Policy (Industry and Employment) 2021*.
2. The following sign types are generally not considered appropriate within the Foundations: sky or roof top signs, third party advertising, advertising on street furniture or public facilities, pole or pylon sign greater than 8m, flashing and animated (moving signs) that may impact traffic safety, illuminated signs that would cause unacceptable light spill, permanent inflatable signs.
3. Advertising structures should only be constructed where they are used in conjunction with a permissible use, on which the land is being used, unless used for navigation or has wider community benefit.
4. Commercial and retail signage: A single business premises is permitted to have a maximum number of signs on each street frontage of the building as follows:
    (a) One under awning sign;
    (b) One top hamper sign or flush wall sign;
    (c) One fascia or awing fascia sign;
    (d) One A Frame sign on the footpath;
    (e) Historic building identification signage.
    (f) Window signs (of less than 20% of the window).
5. Any community use may have one free standing advertisement within the front landscaped setback, and two integrated into the façade of the building.
6. Temporary signs on any road frontage should be less than 6m2 in surface area, located wholly withing the boundaries of the property, not higher than 5m from ground level, not permanently fixed, not illuminated and be removed 2 days after the event.
7. Any advertising associated with multi residential development or large subdivisions, with frontage to a major local road is permitted one low level free standing sign at the main entrance, being less than 8m2 in area (1.5m high or 5m long), no more than 2m above ground level and integrated with landscaping or entrance design where possible.
8. Mixed use development involving residential components, should maintain advertising outside of the residential component.

Note: Signage types are outlined within the Lithgow Development Control Plan 2021, Part 7.5.6.