



Wingecarribee Shire **MEDIUM DENSITY STUDY**

Final Report
Prepared by Studio GL for Wingecarribee Shire Council
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Chapter 1

Introduction

1-1 Overview

1-2 The Study Area

1-1 Overview

Purpose of this study

In 2020, Wingecarribee Shire Council adopted its Local Housing Strategy (LHS) which addresses the long-term housing needs of the growing community with increased housing stock and housing diversity that is in keeping with the community's expectations. The Council recognised that there is a growing demand for a greater mix of housing types within the LGA, particularly for smaller houses, and a desire to retain the local character of the Shire's towns and villages.

The LHS contains a specific action to review the existing Medium Density Development Control Plans (DCP) to remove any unnecessary barriers to facilitating more diverse housing options in appropriate locations.

In 2022, Wingecarribee Shire Council commissioned Studio GL to undertake a review of Wingecarribee Shire Council's Medium Density Development Controls. This review is expected to inform a new comprehensive Medium Density DCP chapter that is currently being prepared by Council, that will address medium density development across the LGA.

The overarching aim is to encourage appropriate, well designed and well integrated development that enhances and supports the character of the study area, whilst also recognising the benefits that can be gained by providing attractive medium density dwellings in this location.

The Study area

The focus of this review is on areas where existing medium density is located across the LGA. Currently medium density only occurs in the towns of Bowral, Mittagong, Moss Vale and Bundanoon.

Methodology

The process began with a wide ranging and comprehensive review of the current Local Environmental Plan (LEP) and Development Control Plan (DCP) planning documents. The review highlighted key issues relating to development that was occurring in the Local Government Area (LGA) and the impact on local character.

A photographic study of the study area was also undertaken which has helped to identify the character of the area (i.e. building heights, setbacks, driveways, fences and materials) and provided insights into potential applicable development controls for the area.

This study was supported by a spatial analysis of the study area which identified existing urban design qualities such as the street and block structure, built form patterns, street proportions (width and height), heritage character, built form age and use, and the topography, landform and intersection density.

A series of workshops were held with Council staff, local community members, landowners and developers. These workshops allowed the findings and preferred direction to be discussed and tested.



Figure 1 Wingecarribee town centres with medium density investigated for this study

1-2 The Study Area

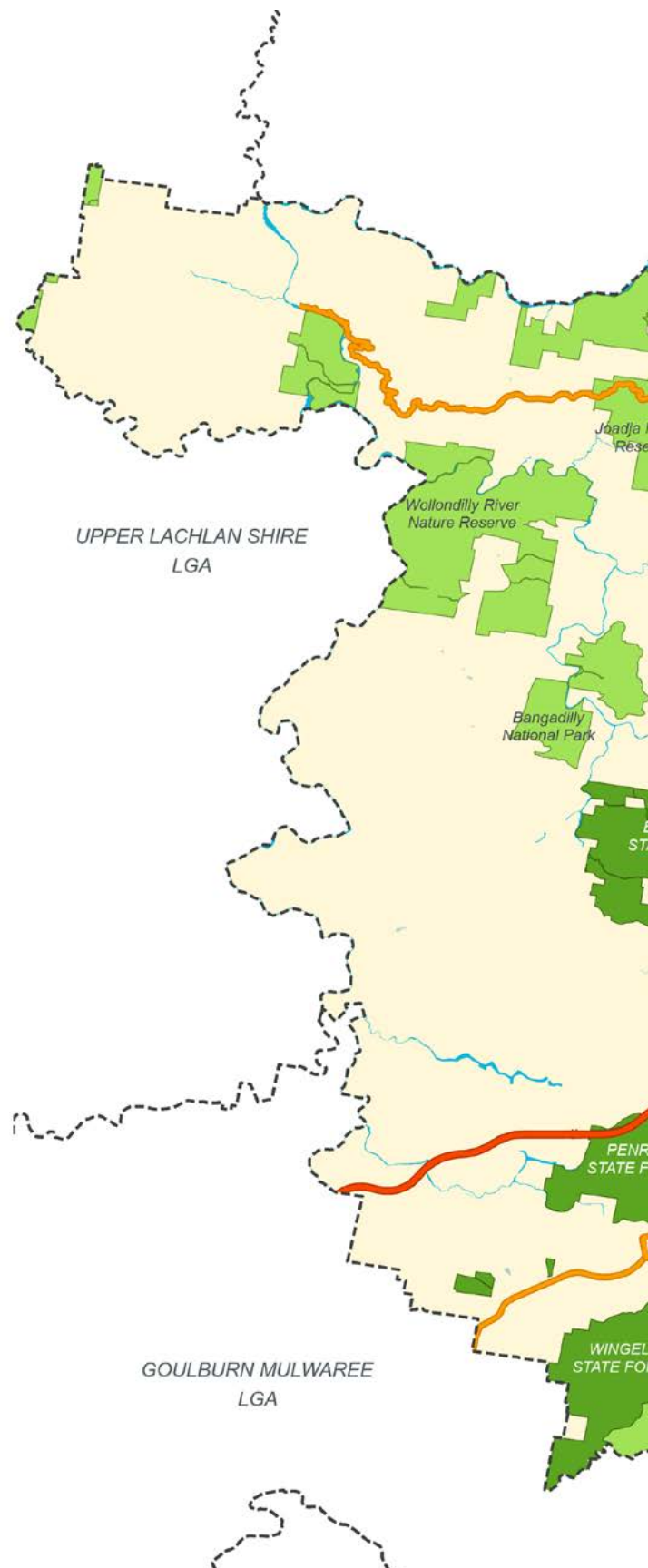
Wingecarribee LGA is situated in the Southern Highlands Region of New South Wales. The Shire covers an area of approximately 2700km².

The LGA is located within the Sydney – Canberra – Melbourne transport corridor on the Southern railway line, and is 110km southwest of Sydney (approximately a 1.5 hour drive). The area is also within close proximity to the major metropolitan and regional centres of Canberra and Wollongong.

Approximately 38% of the LGA is either national park or nature reserve. The Shire is bound by the Morton National Park in the south, the rugged Eucalypt bushland of Nattai National Park in the north, the heavily forested areas of the metropolitan catchment areas surrounding Lake Nepean, Avon and Cataract to the north east; and Belanglo State Forest to the west.

The landform and topography is gently undulating in the central region with few major ridges. Surrounding mountains and a series of hills form major topographic landmarks visible from much of Wingecarribee. The Wingecarribee River bisects the LGA, running from west of Berrima south-east into the Wingecarribee reservoir.

The LGA is rural in character consisting of a number of small towns and villages separated by agricultural land. This study focuses on Wingecarribee's major towns which include Mittagong, Bowral, Moss Vale, and Bundanoon.



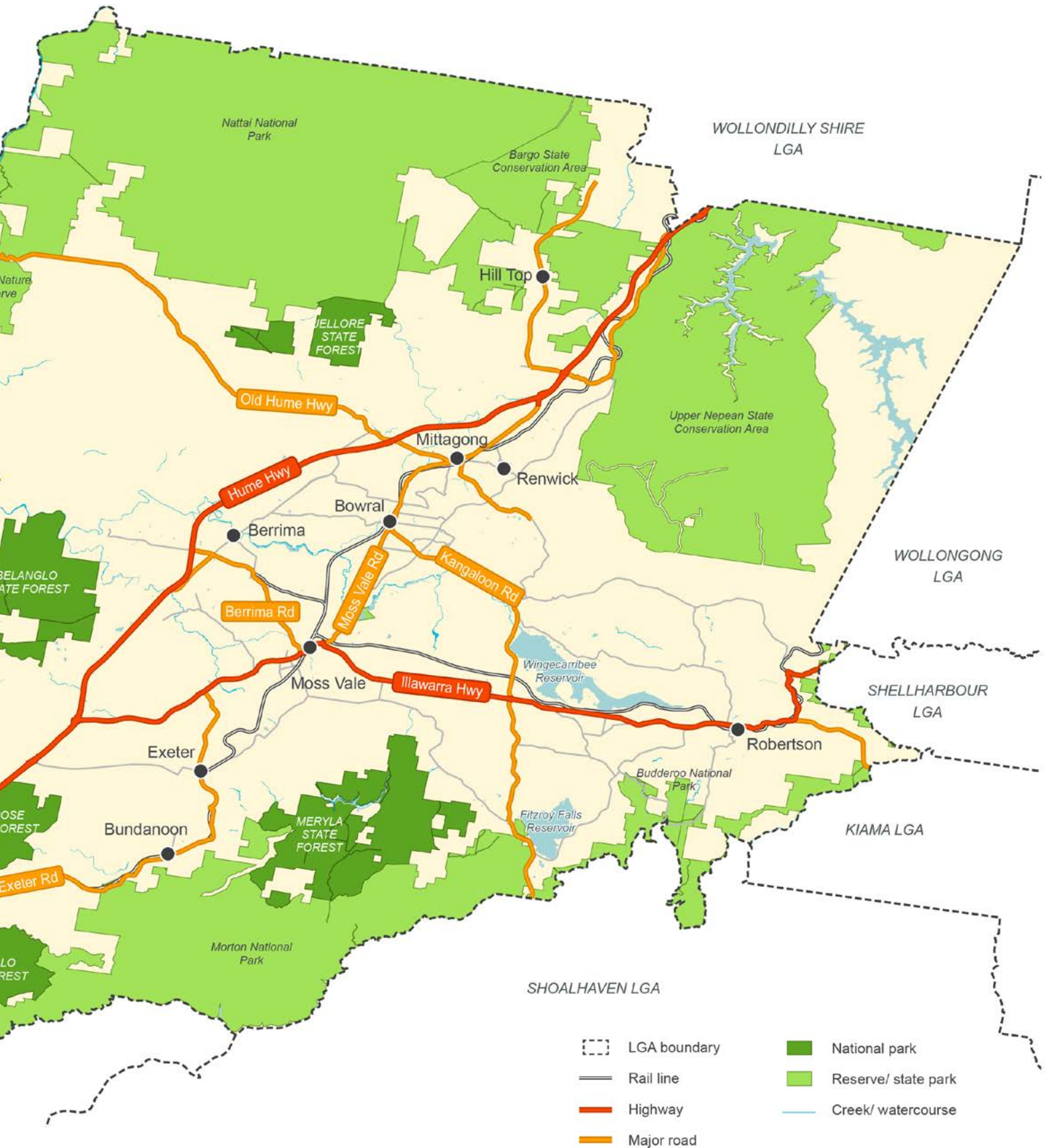


Figure 2 Wingecarribee Regional Context Map



Chapter 2 Local Character

2-1 Defining Local Character

2-2 Mittagong

2-3 Bowral

2-4 Moss Vale

2-5 Bundanoon

2-1 Defining Local Character

The Contributing Elements

In order to understand and define neighbourhood or local character, it is necessary to understand that character is influenced by more than just built form. Character is comprised of a number of different elements which can be grouped into three domains:

- The underlying land form
- The urban structure
- The buildings

1. The underlying land form

The character of any place starts with the underlying quality of the land. The geology defines what can be built, the character of the vegetation and the maximum height of any trees. The topography determines the areas of steep and flat land, where the water flows along natural drainage lines and where it collects, the views from the high points and up to local features. The location of the land influences the climate of the area, the natural ecology and what will grow where.

2. The urban structure

The next layer is the urban structure of streets, blocks and lots that is overlaid over the land. The streets can be laid in a gridded and regular pattern - or organic and curving, often following the topography. Streets can be narrow or wide, generally equal in size or hierarchical with wide main roads and narrower minor roads and lanes. The blocks of land created by the pattern of streets can be square, rectangular or highly irregular. Lots within the blocks can be wide and shallow or deep and narrow or a variable combination of sizes.



3. The buildings

The buildings form the final element. The type of building use (i.e. residential, commercial), the type of dwelling (detached, attached, villa, townhouse or apartment) and the style and age of the building all play a role in defining the character of a place. The height of a building, the roof form and the materials all play their part.

Where the building is located on the site, the front, rear and side setbacks and the quality and character of public private interfaces (materials, style, fence, height) also contribute. In suburban areas that rely on private cars, the location of car parking and its arrangement are also critical.

“Neighbourhood character is essentially the combination of the public and private realms. Every property, public place or piece of infrastructure makes a contribution, whether great or small. It is the cumulative impact of all these contributions that establishes neighbourhood character.”

Understanding Neighbourhood Character. Planning Practice Note 43 (Vic)

2-2 Mittagong

The Land Form

Topography and views

- Area north of the railway line sits on low-lying land and is subject to flooding risks.
- Area south of the railway gently slopes up towards Mount Gibraltar located south-west of the study area.
- Local views up streets and towards the mountains to the south.

Open space

- Limited areas of open space are found within the study area.
- Reserves and parks such as Ironmines Oval and Lake Alexandra Reserve can be found on the edges of the town.
- The area is also surrounded by hills such as Mount Gibraltar and Mount Alexandra, where open space has a bushland character.

Garden style

- Windbreak planting of pine or cypress is common along the boundaries.
- Most houses have traditional established front gardens.



02 Local Character

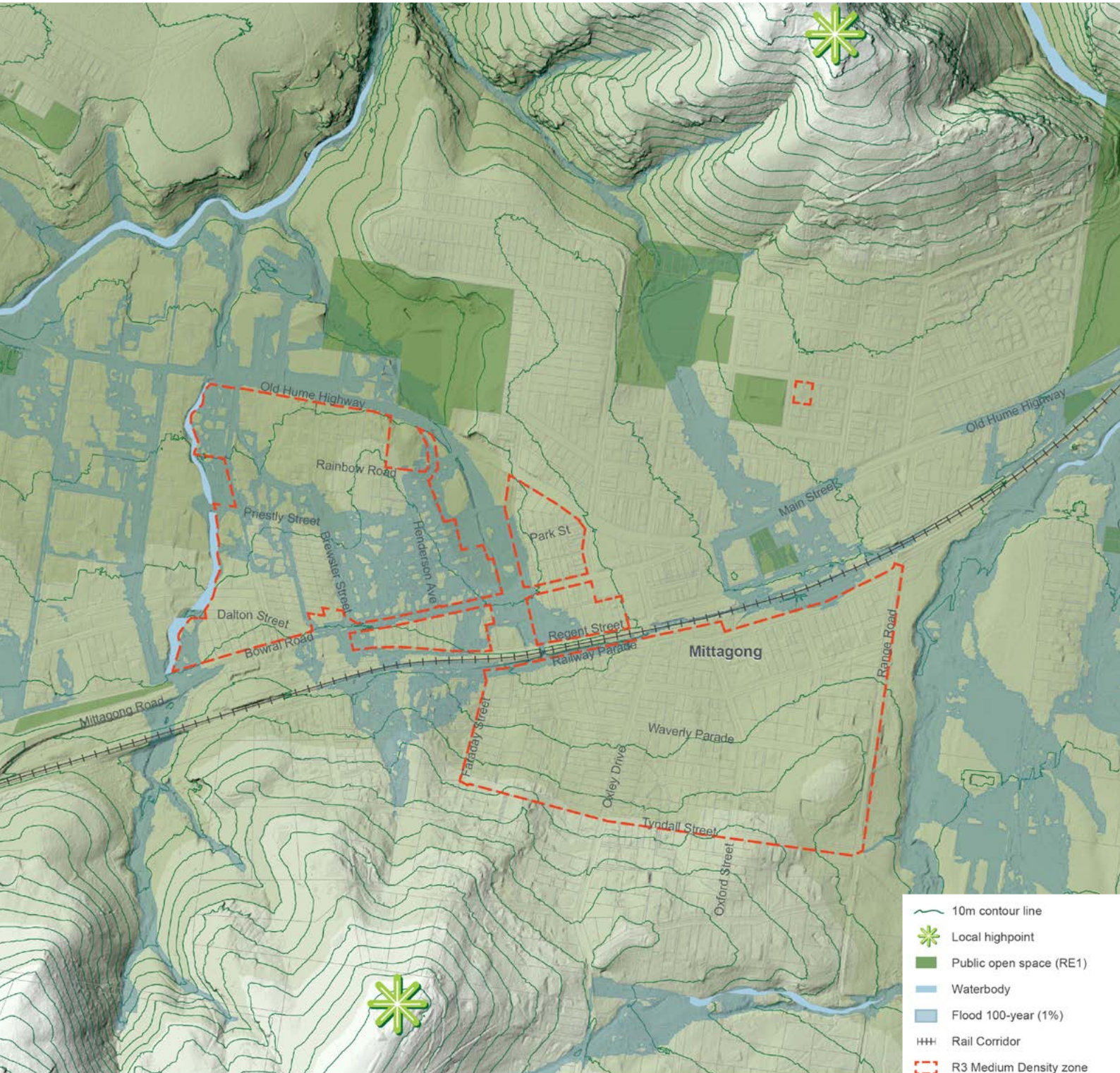


Figure 3 Topography and land form map, Mittagong



2-2 Mittagong

The Urban Form

Street pattern

- Irregular connected grid street structure with limited cul-de-sacs.

Block pattern

- Orientation of blocks generally responsive to slope of land
- Irregular size and shape of blocks with mid-range intersection density (i.e. large blocks).

Street character

- Street widths are typically 20m across the road reserve with some street reserves only 15m wide.
- Width of street verge and carriageways vary along different streets. Dedicated parking lanes only found on some streets.
- Most streets have wide grassed verges some with street trees including deciduous trees.
- Footpaths are absent on most streets.
- Heritage buildings with large setbacks on a number of corner sites. Few terminating views (i.e. a gridded street structure).

Street hierarchy

- Two arterial roads running through the area, Bowral Road and Old Hume Highway, with a network of streets, lanes and multiple optional routes.

Lot pattern

- Wide range in shape and size of lots. In general, lots are narrow and deep.
- A high number of narrow E/W lots which can create overshadowing issues with taller development.
- A few lots north of the railway line are at an angle to the street, where the dwellings form a triangular setback fronting the street.

Community facilities

- Community and civic facilities within the study area include a large school and a church.



Figure 4 Mittagong urban structure



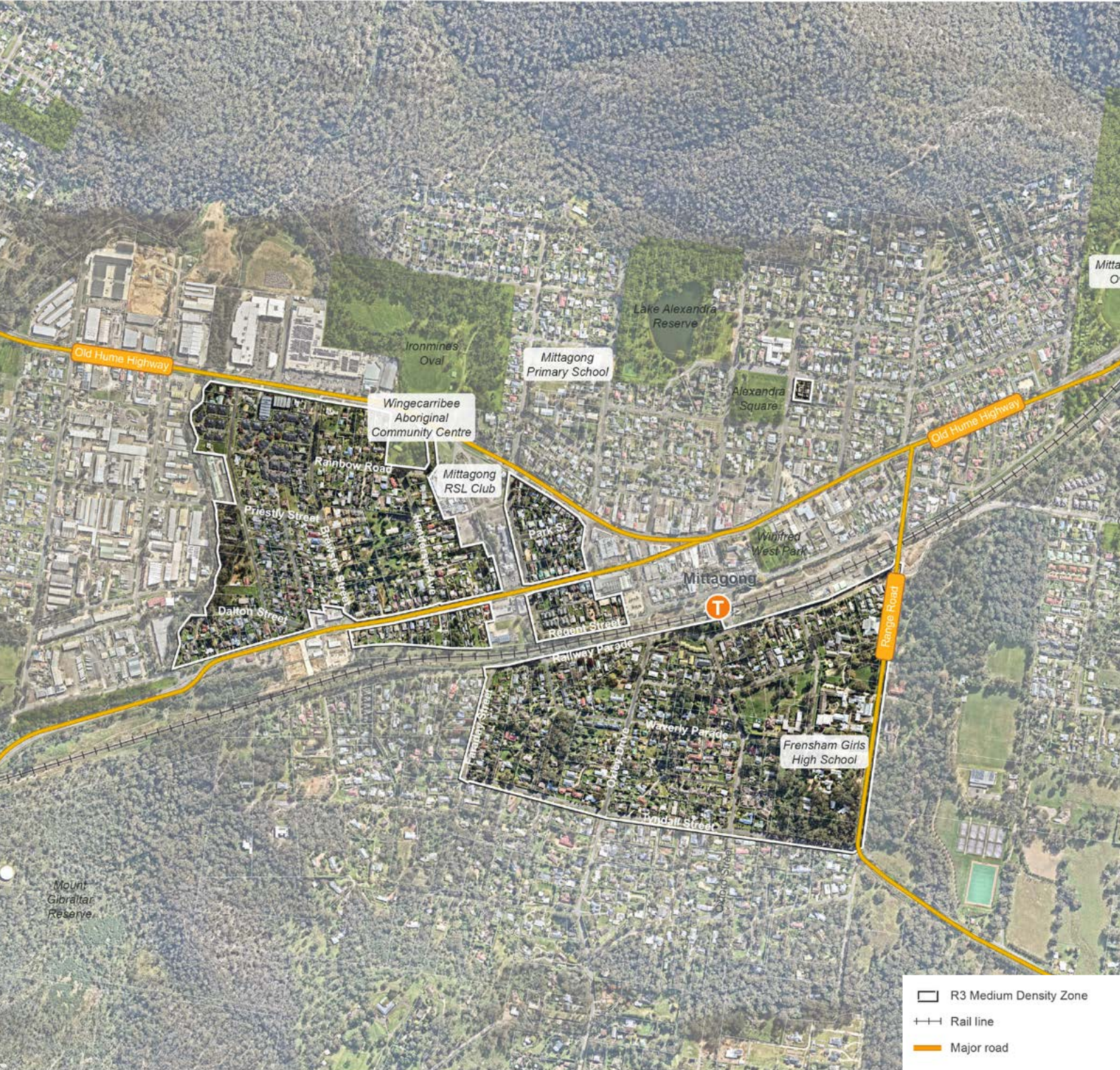


Figure 5 Mittagong aerial (base source: Nearmap, 2022)



2-2 Mittagong

The Built Form

Dwelling type

- Predominantly, detached dwelling (traditional) with increasing numbers of villa developments.

Materials

- Predominant materials in older buildings are brick, weatherboard and timber.
- Recent development is typically brick veneer or weatherboard.

Roof

- Most dwellings have simple roof forms with a roof pitch of between 20-30 degrees.
- Traditional roofing materials include flat metal sheet (not Colorbond), galvanised ripple iron, flat or low profile tile materials or timber shingles.

Height

- Predominant building height is 1 to 2 storeys.

Setbacks

- Front setbacks are generally large with well landscaped front lawns.
- Narrow side setback often wider on one side.

Front fencing

- Range of fencing types found throughout the area.

Car Parking

- Along fence lines there are often hedgerows, particularly where they are abutting the public roads.
- Majority of parking is on grade along the sides of properties.
- Wide concrete driveways along the sides or through the centre are commonly found in recent medium density housing developments.

Heritage

- Heritage Conservation Area located around Park Street
- Frensham School on Range Road is heritage listed





Figure 6 Mittagong built form, heritage and strata map

2-2 Mittagong

Opportunities and Constraints Analysis

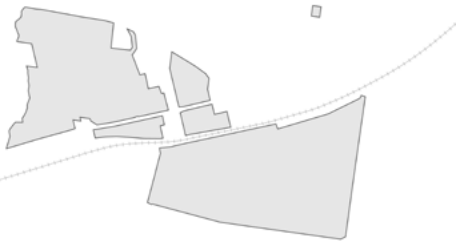


Figure 7 Sites zoned R3 in Mittagong



Figure 8 R3 sites with a frontage under 25m



Figure 9 Heritage and strata sites in R3 zone

The spatial map (Figure 10) represents the theoretical potential for medium density housing within the existing unconstrained R3 Medium Density Zoned land in Mittagong with consideration of lot width, heritage, strata, flooding and slope.

Under the Wingecarribee DCP controls for medium density housing, medium density sites need to have a minimum lot frontage of 25m. Further, given the limited potential of sites identified as heritage, located within a heritage conservation area, or those which have already developed as strata-titled sites, these sites have been filtered out to identify the remaining unconstrained sites. These sites have been overlayed with flooding and topography constraints (showing areas where slope is greater than 18°) to illustrate potential challenges to the construction of medium density housing.

Given the identified constraints, approximately 76% of current R3 zoned lots are not unconstrained. A percentage of suitably sized lots are potentially impacted by flooding.

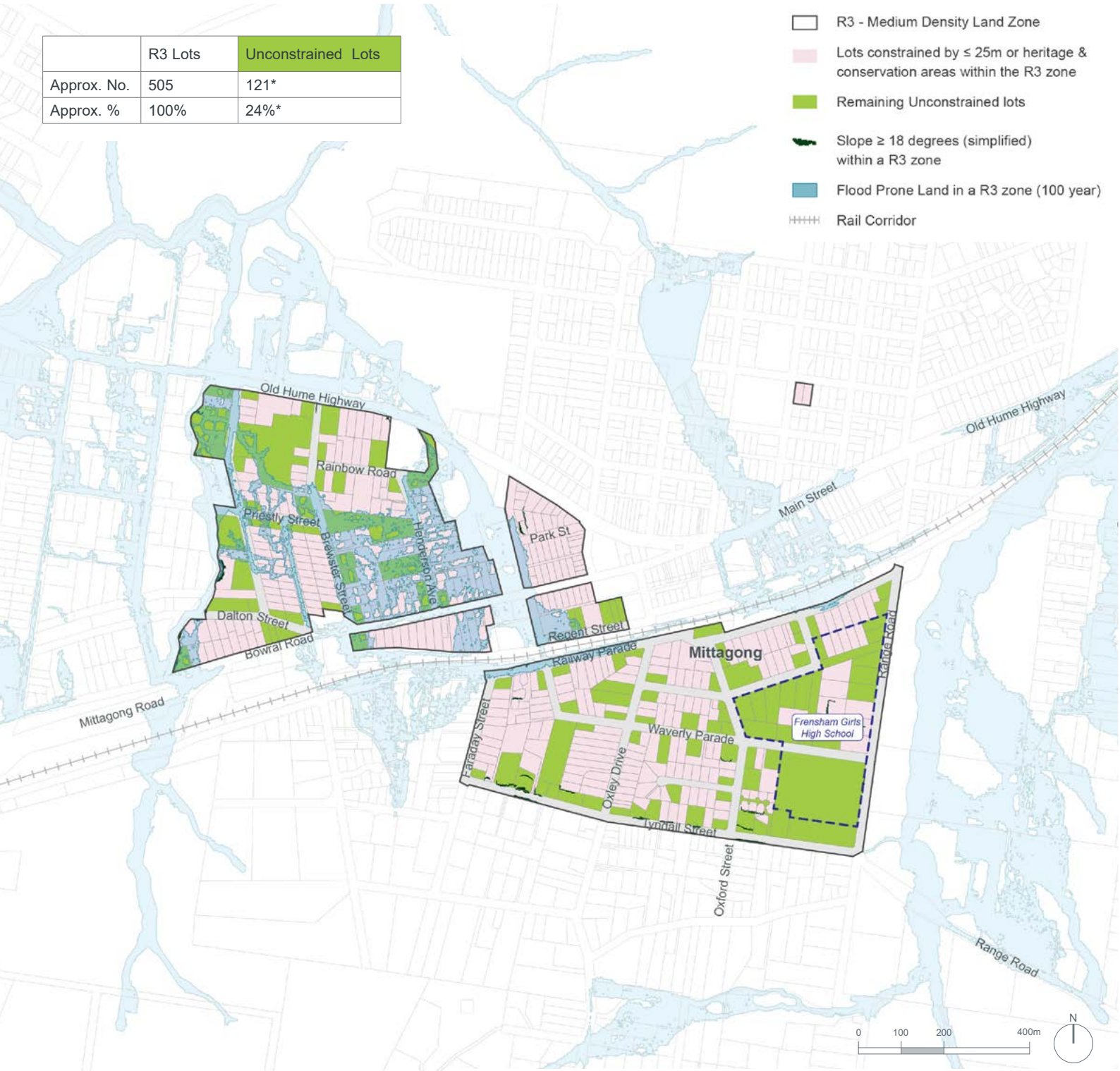
Further, some of the large sites in the adjacent diagram contain large recent development and schools.



02 Local Character

	R3 Lots	Unconstrained Lots
Approx. No.	505	121*
Approx. %	100%	24%*

- R3 - Medium Density Land Zone
- Lots constrained by $\leq 25m$ or heritage & conservation areas within the R3 zone
- Remaining Unconstrained lots
- Slope ≥ 18 degrees (simplified) within a R3 zone
- Flood Prone Land in a R3 zone (100 year)
- Rail Corridor



*Note: The development potential of the unconstrained lots may be further impacted by slope, flooding, recently developed sites, schools, and retirement and aged care centres.

Figure 10 Potential medium density opportunity sites in Mittagong

2-3 Bowral

The Land Form

Topography and views

- Area is moderately steep towards the north (where Mount Gibraltar is located) and west.
- Part of the study area is situated along the floodplain of Mittagong Creek and is subject to flood risks.
- A local highpoint is located very close to part of the study area towards the north.

Open space

- Large expanses of open spaces are found immediately adjacent to the study areas. These include many parks along the creek, sports grounds such as Bradman Oval, and golf courses such as Bowral Golf Club.
- The area is also surrounded by hills such as Mount Gibraltar, where open space has a bushland character.

Garden style

- Most houses have traditional established front gardens, with larger mature conifers and broadleaf trees.
- Windbreak planting of pine or cypress is common along the boundaries.



02 Local Character

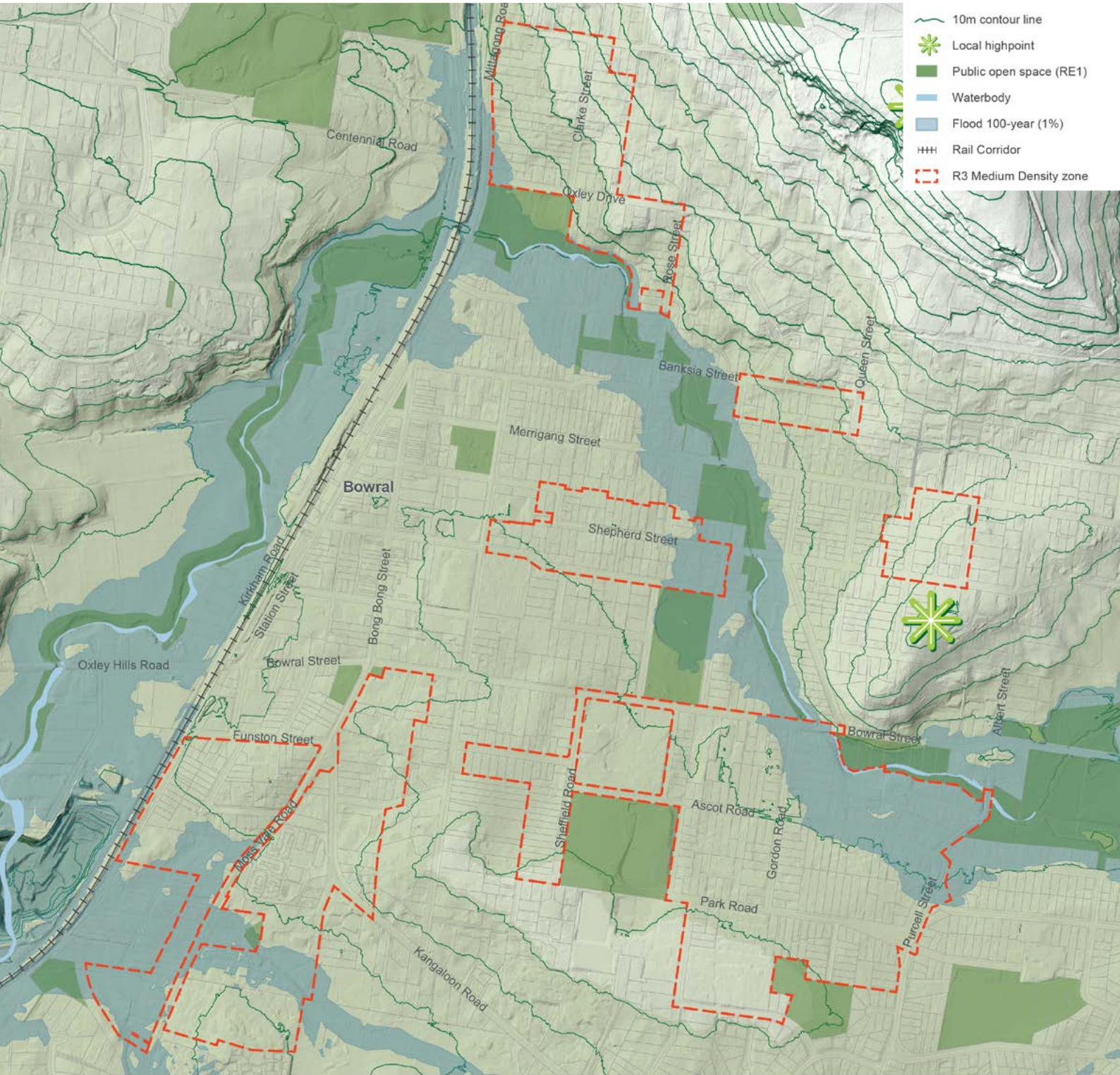


Figure 11 Topography and land form map, Bowral



2-3 Bowral



Figure 12 Bowral urban structure



The Urban Form

Street pattern

- Older subdivision layout was based on Darling's Grid of 300 x 66 ft (100x 20m) blocks.
- Further town expansion resulted in an irregular connected grid street structure with a few cul-de-sacs.

Block pattern

- Orientation of blocks generally responsive to slope of land. The creek forms the boundary of many blocks within the study area.
- Irregular size of blocks with mid-range intersection density (i.e. large blocks). Typically blocks closer to the railway station are smaller.

Street character

- Street widths are typically 20m across the road reserve.
- Width of street verge and carriageways vary along different streets. Dedicated parking lanes only found on most local streets.
- Footpaths are absent on some streets within the study area.
- Streetscapes have significant planted avenues, with strong plantings of flowering trees and shrubs, high walls, hedges and long driveways.

Street hierarchy

- Arterial roads running through the area include Moss Vale Road, Kangaloon Road and Centennial Road. A network of streets, two lanes and multiple optional routes can also be found.

Lot pattern

- Wide range in shape and size of lots. In general, lots are narrow and deep.
- A high number of narrow E/W lots which can create overshadowing issues with taller development.

Community facilities

- While there are no community/ civic facilities within the study area, many exist in the vicinity including Bowral and District Hospital, Bowral Swimming Centre, Bradman Museum, and Bowral High School. The study area also includes a number of retirement villages.





Figure 13 Bowral aerial (base source: Nearmap, 2022)



2-3 Bowral

The Built Form

Dwelling type

- Predominantly, older cottages and detached dwellings (traditional) with increasing numbers of medium density development.
- Wide range of ages and architectural styles (Victorian, Colonial and Federation).

Materials

- Predominant materials in older buildings are brick and timber.
- Recent development is typically brick veneer, weatherboard or rendered masonry.

Roof

- Most dwellings have simple roof forms with a roof pitch of between 20-30 degrees.
- Traditional roofing material include flat metal sheet (not Colorbond), galvanised ripple iron, flat or low profile tile materials or timber shingles.

Height

- Predominant building height is 1 to 2 storeys.

Setbacks

- Front setbacks are generally large with well landscaped front lawns.
- Narrow side setback often wider on one side.

Front fencing

- Range of fencing types found throughout the area. Older areas tend to have low front fences (timber picket, low brick walls).
- Along fence lines there are often hedgerows, particularly where they are abutting the public roads.

Car Parking

- Majority of parking is on grade along the sides of properties. Basement parking is uncommon.
- Wide concrete driveways along the sides or through the centre are commonly found in recent medium density housing developments.

Heritage

- Heritage Conservation Area along Shepherd Street



02 Local Character



Figure 14 Bowral built form heritage and strata map

2-3 Bowral

Opportunities and Constraints Analysis



Figure 15 Sites zoned R3 in Bowral



Figure 16 R3 sites with a frontage under 25m



Figure 17 Heritage and strata sites in R3 zone

The spatial map (Figure 18) represents the theoretical potential for medium density housing within the existing unconstrained R3 Medium Density Zoned land in Bowral with consideration of lot width, heritage, strata, flooding and slope.

Under the Wingecarribee DCP controls for medium density housing, medium density sites need to have a minimum lot frontage of 25m. Further, given the limited potential of sites identified as heritage, located within a heritage conservation area, or those which have already developed as strata-titled sites, these sites have been filtered out to identify the remaining unconstrained sites. These sites have been overlayed with flooding and topography constraints (showing areas where slope is greater than 18°) to illustrate potential challenges to the construction of medium density housing.

Given these constraints, approximately 83% of current R3 zoned lots are not unconstrained. A percentage of suitably sized lots are potentially impacted by flooding.

Further, some of the large sites in the adjacent diagram contain large recent development and retirement and aged care centres.



02 Local Character

	R3 Lots	Unconstrained Lots
Approx. No.	545	91
Approx. %	100%	17%*



- R3 - Medium Density Land Zone
- Lots constrained by $\leq 25m$ or heritage & conservation areas within the R3 zone
- Remaining Unconstrained lots
- Slope ≥ 18 degrees (simplified) within a R3 zone
- Flood Prone Land in a R3 zone
- Rail Corridor

*Note: The development potential of the unconstrained lots may be further impacted by slope, flooding, recently developed sites, schools, and retirement and aged care centres.

Figure 18 Potential medium density opportunity sites in Bowral

2-4 Moss Vale

The Land Form

Topography and views

- Area is moderately steep towards the south-east.
- The Whites Creek catchment passes through the Moss Vale urban area and is subject to flood risks.
- Local views down streets towards the hills located west of the area.

Open space

- Large expanses of open spaces are found immediately adjacent to the study areas. These include parks such as Broulee Park, Henderson park; playgrounds such as Moss Vale Community Field; and a golf course called Moss Vale Golf Club.

Garden style

- Most houses have traditional established front gardens, with larger mature conifers and broadleaf trees.
- Windbreak planting of pine or cypress is common along the boundaries.



02 Local Character

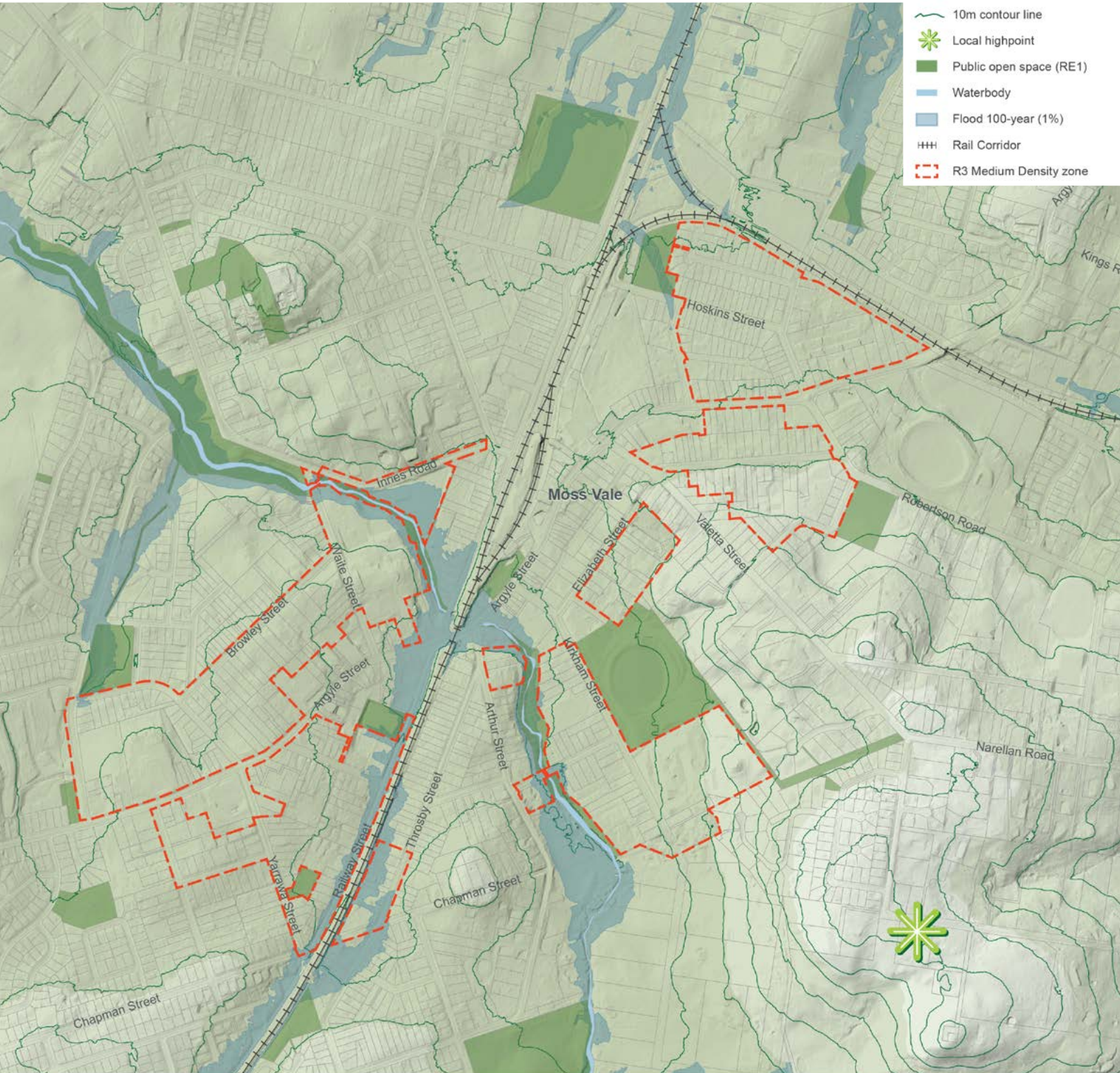


Figure 19 Topography and land form map, Moss Vale



2-4 Moss Vale



Figure 20 Moss Vale urban structure



The Urban Form

Street pattern

- Older subdivision layout was based on a standard block size of 300 x 66 ft (100x 20m), however the layout was not confined to the Darling Grid Plan.
- The road layout is largely the result of development along the railway and major road corridors.
- The urban form responds to the constraints of transport routes and topography, resulting in a sporadic pattern of growth and development.

Block pattern

- Irregular size and shape of blocks with mid-range intersection density (i.e. large blocks).
- Orientation of blocks generally responsive to slope of land. Whites Creek forms the boundary of a few blocks within the study area.

Street character

- Street widths are typically 20m across the road reserve, with some street reserves only 17m wide.
- Most streets have wide grassed verges some with street trees including deciduous trees.
- Footpaths are absent on some streets within the study area.

Street hierarchy

- Illawarra Highway and Argyle Street form the major highways crossing through the town. Waife Street is an arterial road running through the area.

Lot pattern

- Wide range in shape and size of lots. In general, lots are narrow and deep.

Community facilities

- Community/ civic facilities within the study area include Moss Vale Public School, St. Paul's International College, Wingecarribee Shire Council, TAFE NSW Moss Vale and University of Wollongong- Southern Highlands Campus.



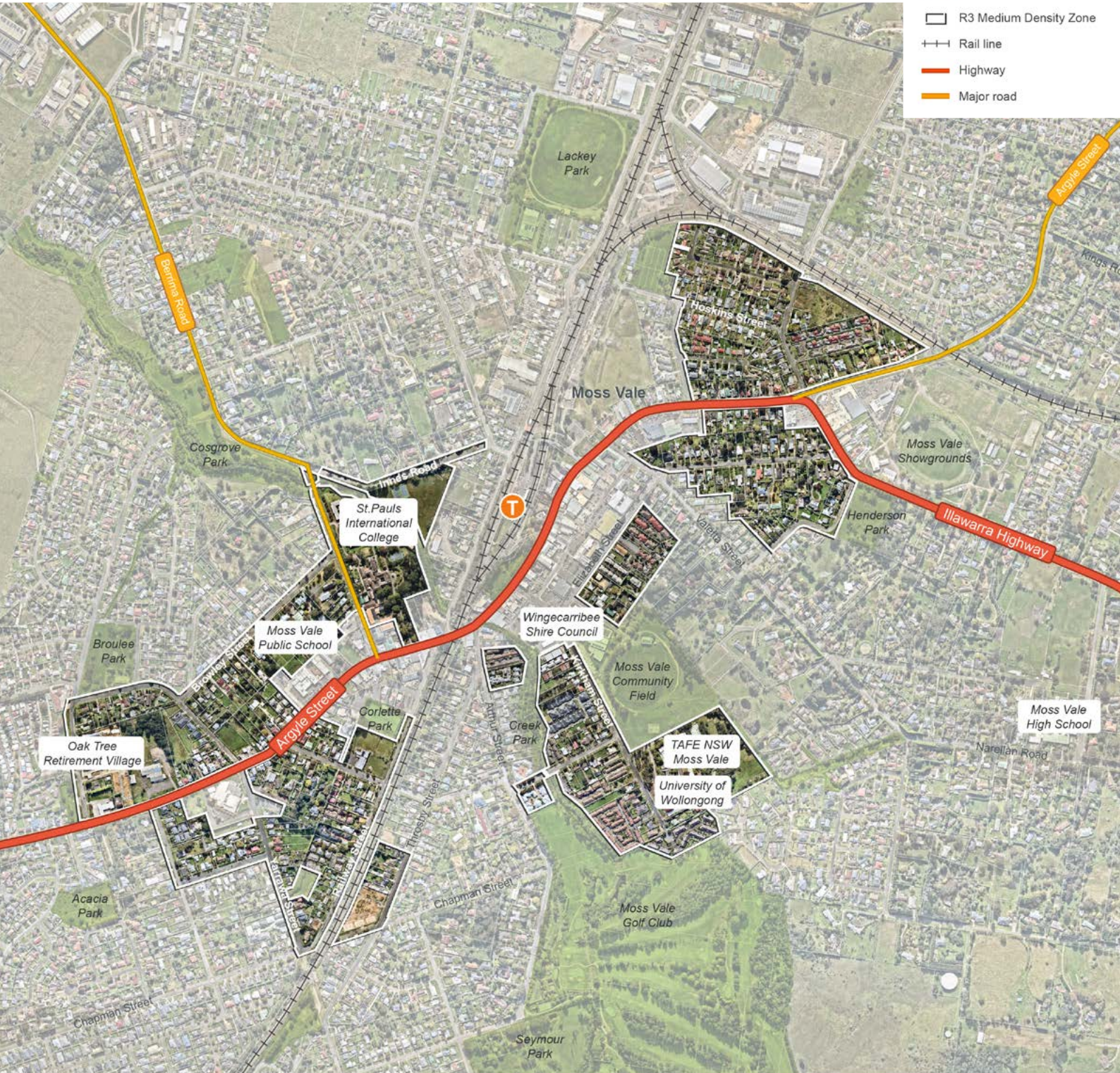


Figure 21 Moss Vale aerial (base source: Nearmap, 2022)



2-4 Moss Vale

The Built Form

Dwelling type

- Predominantly older, large, town and country houses, and detached dwellings (traditional) with a few medium density development scattered throughout the study area.
- Wide range of ages and architectural styles (Victorian, Inter-war and Federation).

Materials

- Predominant materials in older buildings are brick and timber.
- Recent development is typically brick veneer, weatherboard or rendered masonry.

Roof

- Most dwellings have simple roof forms with a roof pitch of between 20-30 degrees.
- Traditional roofing material include flat metal sheet (not Colorbond), galvanised ripple iron, flat or low profile tile materials or timber shingles.

Height

- Predominant building height is 1 to 2 storeys.

Setbacks

- Front setbacks are generally large with well landscaped front lawns.
- Narrow side setback often wider on one side.

Front fencing

- Range of fencing types found throughout the area. Older areas tend to have low front fences (timber picket, low brick walls).
- Along fence lines there are often hedgerows, particularly those that are abutting the public roads.

Car Parking

- Majority of parking is on grade along the sides of properties. Basement parking is uncommon.
- Wide concrete driveways along the sides or through the centre are commonly found in recent medium density housing developments.

Heritage

- Large amounts of Heritage Conservation Area to the west of train line including St Paul's International College



02 Local Character



Figure 22 Moss Vale built form, heritage and strata map



2-4 Moss Vale

Opportunities and Constraints Analysis

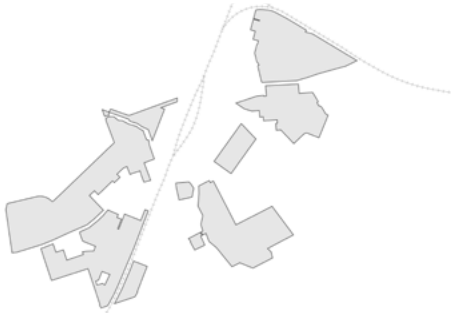


Figure 23 Sites zoned R3 in Moss Vale



Figure 24 R3 sites with a frontage under 25m



Figure 25 Heritage and strata sites in R3 zone

The spatial map (Figure 26) represents the theoretical potential for medium density housing within the existing unconstrained R3 Medium Density Zoned land in Moss Vale with consideration of lot width, heritage, strata, flooding and slope.

Under the Wingecarribee DCP controls for medium density housing, medium density sites need to have a minimum lot frontage of 25m. Further, given the limited potential of sites identified as heritage, located within a heritage conservation area, or those which have already developed as strata-titled sites, these sites have been filtered out to identify the remaining unconstrained sites. These sites have been overlayed with flooding and topography constraints (showing area where slope is greater than 18°) to illustrate potential challenges to the construction of medium density housing.

Given these constraints, approximately 86% of current R3 zoned lots are not unconstrained. A percentage of suitably sized lots are potentially impacted by flooding.

Further, some of the large sites in the adjacent diagram contain large recent development, schools/ universities and retirement and aged care centres.

02 Local Character



*Note: The development potential of the unconstrained lots may be further impacted by slope, flooding, recently developed sites, schools, and retirement and aged care centres.

Figure 26 Potential medium density opportunity sites in Moss Vale

2-5 Bundanoon

The Land Form

Topography and views

- Gently sloping land towards south-east.
- Deep gullies located south of the study area also from a characteristic feature of the area.

Open space

- Areas of open space that are found in the immediate vicinity of the study area include Bundanoon Oval and the Nancy Kingsbury Memorial Park.
- To the south of the area lies the Morton National Park, which includes many walking tracks and lookouts, located approximately a 5-minute drive away from Bundanoon village centre.

Garden style

- Windbreak planting of pine or cypress is common along the boundaries.
- Most houses have traditional established front gardens.



02 Local Character

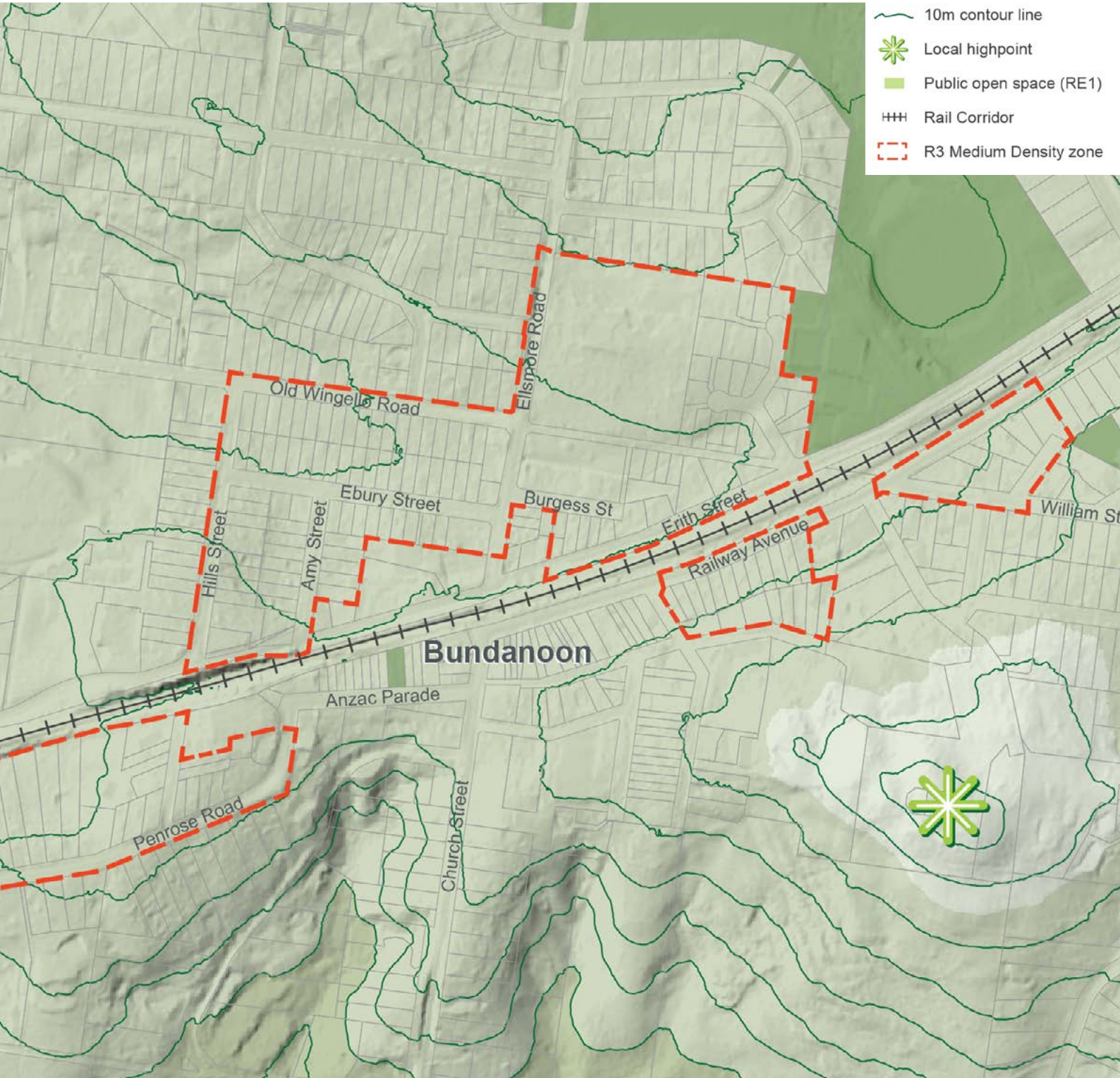


Figure 27 Topography and land form map, Bundanoon



2-5 Bundanoon

The Urban Form

Street pattern

- Bundanoon is a linear village developed along the railway line, with modern grid subdivision to the south west and east around the railway station. A number of cul-de-sacs can be found throughout the study area.

Block pattern

- In general, regular size and shape of blocks with smaller blocks around the station.

Street character

- Street widths are typically 20m across the road reserve, with some street reserves only 15m wide.
- Most streets have wide grassed verges some with street trees, including native and exotic deciduous trees.
- Footpaths are absent on most streets.

Street hierarchy

- Railway Avenue forms the only arterial road running through the area.

Lot pattern

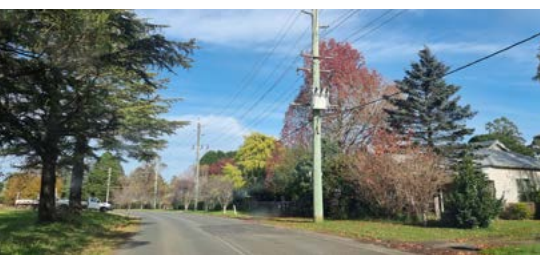
- Lots within the study area are generally rectangular in shape, with the exception of corner lots which have irregular shapes.
- In general, lots are narrow and deep.

Community facilities

- Community facilities surrounding the study area include schools as well as sports and recreational facilities such as Bundanoon Skate Park, Men's Shed, Tennis Club and Swimming Centre. A large site located within the study area, north of the railway line, belongs to a non-profit organization.



Figure 28 Bundanoon urban structure



02 Local Character



Figure 29 Bundanoon aerial (base source: Nearmap, 2022)



2-5 Bundanoon

The Built Form

Dwelling type

- Predominantly, small cottages and detached dwelling houses (traditional).

Materials

- Housing consists of brick modern houses with the older buildings of white and cream timber and some stone.
- Recent development is typically brick veneer, and rendered masonry.

Roof

- Most dwellings have a roof pitch of between 20-30 degrees.
- Light coloured metal roofs are popular with a few tiled roofs.

Height

- Predominant building height is 1 storey.

Setbacks

- Front setbacks are generally large with well landscaped front lawns.
- Narrow side setback often wider on one side.

Front fencing

- Range of fencing types found throughout the area.
- Along fence lines there are often hedgerows of varying heights, particularly those that are abutting the public roads.

Car Parking

- Majority of parking is on grade along the sides of properties.

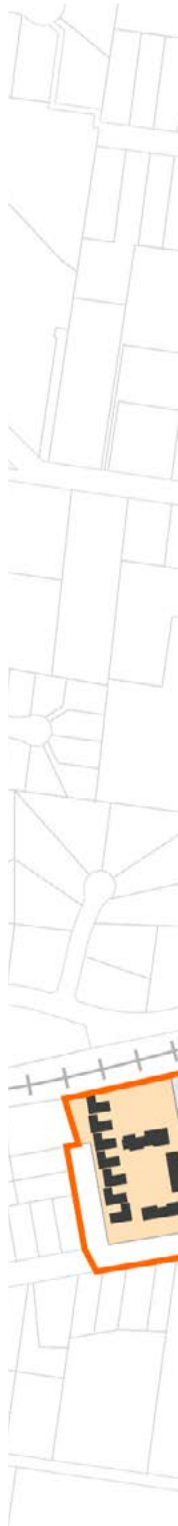




Figure 30 Bundanoon built form, heritage and strata map



2-5 Bundanoon

Opportunities and Constraints Analysis

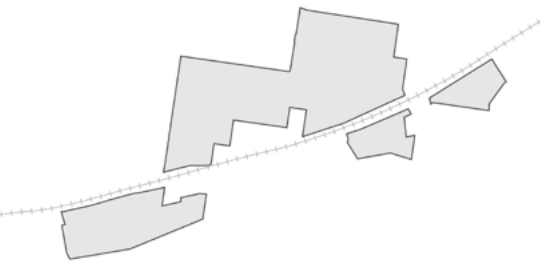


Figure 31 Sites zoned R3 in Bundanoon

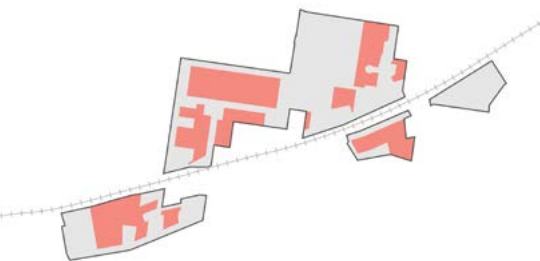


Figure 32 R3 sites with a frontage under 25m

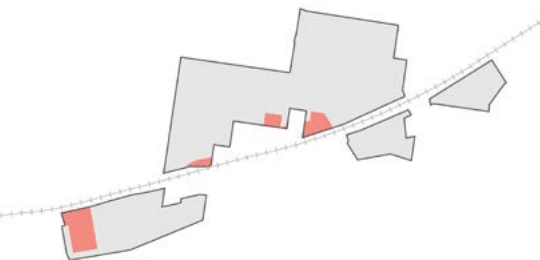


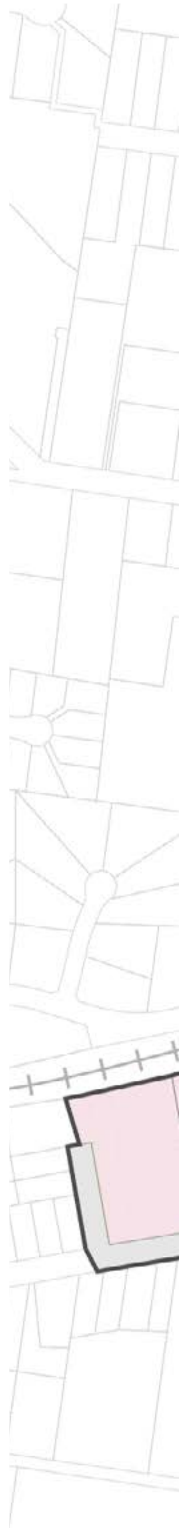
Figure 33 Heritage and strata sites in R3 zone

The spatial map (Figure 34) represents the theoretical potential for medium density housing within the existing unconstrained R3 Medium Density Zoned land in Bowral with consideration of lot width, heritage, strata, flooding and slope.

Under the Wingecarribee DCP controls for medium density housing, medium density sites need to have a minimum lot frontage of 25m. Further, given the limited potential of sites identified as heritage, located within a heritage conservation area, or those which have already developed as strata-titled sites, these sites have been filtered out to identify the remaining unconstrained sites. These sites have been overlayed with flooding and topography constraints (showing area where slope is greater than 18°) to illustrate potential challenges to the construction of medium density housing.

Given these constraints, approximately 72% of current R3 zoned lots are not unconstrained.

Further, some of the large sites in the adjacent diagram may contain large recent development.



02 Local Character



*Note: The development potential of the unconstrained lots may be further impacted by slope, flooding, recently developed sites, schools, and retirement and aged care centres.

Figure 34 Potential medium density opportunity sites in Bundanoon



Chapter 3 General Recommendations

- 3-1 General Observations
- 3-2 Overview of the Planning Controls
- 3-3 LEP Recommendations

3-1 General Observations

Community Understanding

It is recommended that the need and purpose for medium density housing in Wingecarribee is clearly communicated to the community to improve the understanding of the current context and any potential future changes. There is also value in informing the community of existing medium density zoned land, the underlying reason for the zoning and its potential impacts.

The population forecasts for the Wingecarribee Shire predict a growth of approximately 12,500 residents in Wingecarribee by 2041 (Forecast ID), 61% of which are anticipated to live in households that are made up of 2 persons or less (as shown in Figure 35). The decreasing household sizes emphasise a need for smaller dwelling sizes.

Census 2021 identified 90.4% of the existing houses to be a dwelling house, with the majority of houses consisting of 3+ bedrooms (83% of total dwellings), and only 8.7% being medium density (semi-detached, row or terrace house, townhouse etc.). An increase in the diversity of housing supply is thus needed to accommodate the future population in Wingecarribee, which could be supplied by medium density housing.

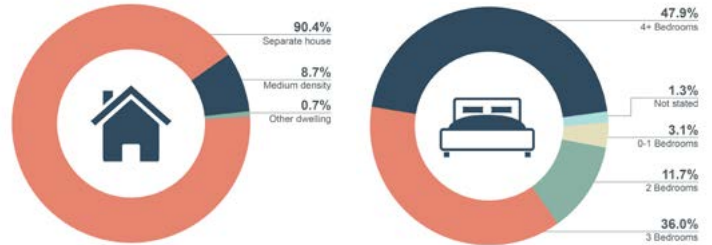


Figure 36 Wingecarribee dwelling types and number of bedrooms
Source: Census 2021, Profile ID and Forecast ID.

Upgrading Current Infrastructure

Some of the significant challenges identified by the community and industry to the intensification of housing density relates to the current inadequacy of existing infrastructure; such as sewer and storm water drainage, roads and social infrastructure, to support additional population growth. For example, a need for improvements in public transport services throughout the LGA has been identified.

In addition, a number of streets within the medium density zones are considered to be too narrow and therefore unable to accommodate an increase in traffic generated by additional housing. Initiatives such as road widening programs or other means to divert traffic will need to be considered.

It is recommended that any increase in density should be supported by appropriate infrastructure and council should ensure that these larger systems are upgraded in conjunction with medium density development in an area. It is acknowledged that these are challenges that cannot be overcome without significant support from a number of State agencies.

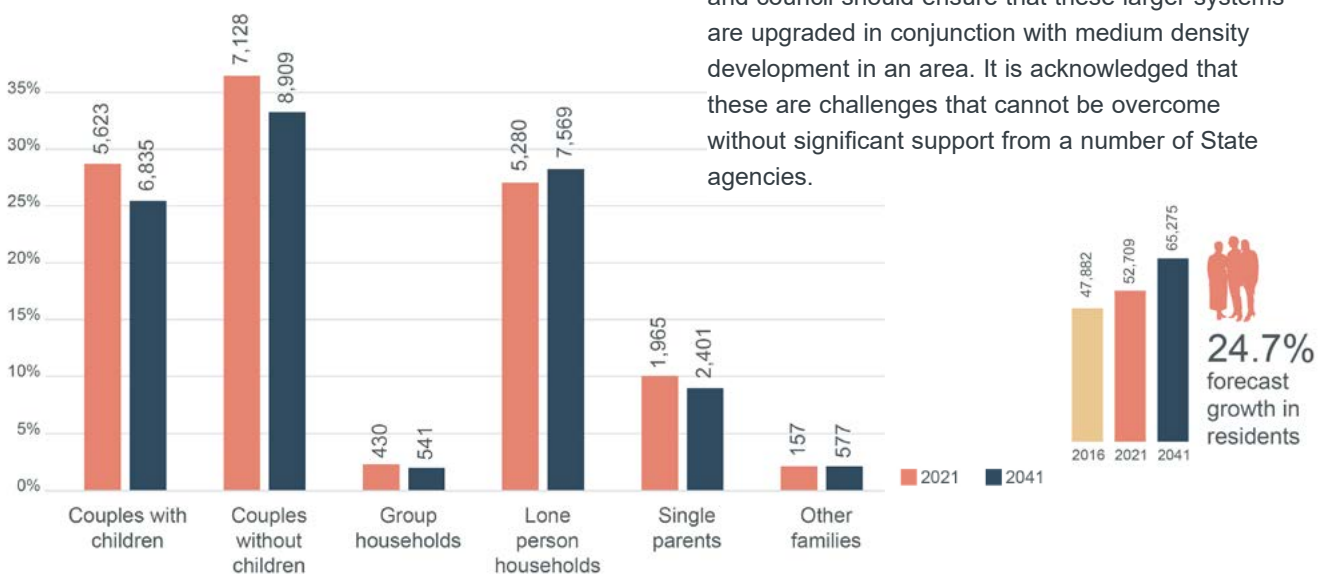


Figure 35 Wingecarribee demographic change. Source: Census 2021, Profile ID and Forecast ID.

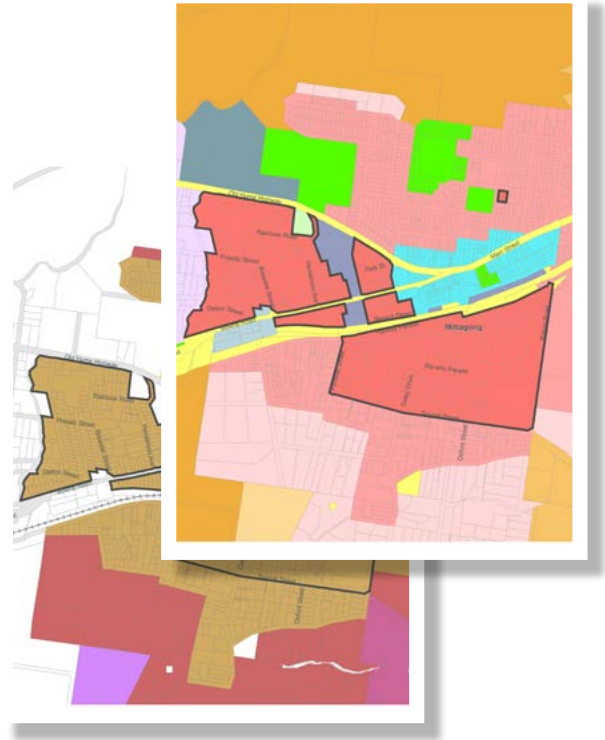
3-2 Overview of the Planning Controls

Planning controls establish the scale, intensity and use of future buildings, and outline where a particular type of development is encouraged and seen as desirable, for example by defining land use zones and maximum building heights. In NSW each LGA has a Local Environmental Plan (LEP) that guides development. LEPs are prepared by local Councils and the current Wingecarribee LEP commenced in 2010.

The Development Control Plan (DCP) supports the LEP and identifies additional development controls and standards for addressing development issues at a more detailed level. Development controls build on the overarching LEP planning controls and go into more detail, aiming to ensure that buildings are designed in such a way that their location, size and appearance all help to improve the character of a street or entire area. For example, they may identify minimum setbacks, upper level setbacks, the location of car parking or the minimum landscaped area of a site.

The current Wingecarribee LEP 2010 makes provisions for Land use zoning, Heritage and Conservation areas and Lot sizes within the LGA. Typically, the Floor Space Ratio (FSR) and Building Height controls in the majority of areas are regulated by an LEP. However, the FSR and building heights for residential development in Wingecarribee are set out within the DCP, which have less weight and significance than the environmental planning instruments.

It is important that a consistent approach to the identification and application of height and FSR controls is utilised so that these controls are clearly understood by development and community interests alike. In order to do so, it is recommended that the FSR and building height controls for residential development is set out within the LEP rather than the DCP. This would also provide certainty with respect to these key development standards and to ensure that any variations comply with the provisions of clause 4.5– Variation to development standards.



In order to define the future development controls for the study area, the following planning controls have been reviewed as part of this study:

- Land use zoning
- FSR
- Building heights
- Lot size

Outcomes of the review of selected controls are summarised on the following pages. Recommended changes to LEP controls for Mittagong, Bowral and Moss Vale have been provided. It is suggested that recommendations be integrated into the LEP.

No changes to the LEP have been recommended for Bundanoon as the centre has medium density sites which currently have an FSR of 0.5:1. Given the context, size and available amenities of the centre, the existing FSR controls are considered appropriate.

3-3 LEP Recommendations

Land use zones

The table below outlines the permitted residential building types under the Wingecarribee LEP 2010:

Relevant Uses - permitted with consent	Land Use Zones	
	R2	R3
Dwelling Houses	X	X*
Dual occupancies	X	X*
Attached Dwellings		X
Semi-Detached Dwelling		X*
Multi Dwelling Housing		X
Residential Flat Buildings		X*
Shop-top Housing		X*

* Not explicitly prohibited. Under permitted it says 'Any other development not specified in item 2 or 4'

From the above table, the following typologies are considered medium density building types and their Standard Instrument definitions are as follows:

- **Attached dwelling** (Torrens titled) means a building containing 3 or more dwellings, where (a) each dwelling is attached to another dwelling by a common wall, and (b) each of the dwellings is on its own lot of land, and (c) none of the dwellings is located above any part of another dwelling
- **Multi dwelling housing** (Strata) 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
- **Residential flat building** means a building containing 3 or more dwellings, but does not include an attached dwelling, co-living housing or multi dwelling housing.

Building heights

Building heights for medium density development within the Wingecarribee LGA are currently set within the DCP and differ as per building typologies:

Applies To:	Requirement (max.)
Residential Flat Buildings	3 storeys or 12m (third floor within roofline)
Other medium density housing	2 storeys or 9m
All medium density housing in HCAs	1 storey or 6m (additional spaces allowed within roof form)

The above heights prescribed by the DCP are considered to be quite high. Residential buildings typically have ceiling heights between 2.4m-2.7m high which creates a floor to floor height of between 2.8-3.1m. A maximum building height of 7.5-8.5m accommodates a two storey building with a pitch roof while a maximum height of 11m can accommodate a 3 storey building, including a three storey apartment building.

It is recommended that the maximum building heights be amended in relation to the FSR as follows:

FSR	Building Height (max.)
0.4	1 storey 6m (additional spaces allowed within roof form)
0.5	2 storeys or 9m (with 3rd storey permissible within the roof)
0.6	3 storeys or 11m

3-3 LEP Recommendations

Mittagong

Identification of new medium density sites

Under the current LEP, medium density typologies are only permissible within the R3 Medium Density zone (R3 zone). As shown in Figure 10, there are approximately 505 lots zoned R3 Medium Density in Mittagong, only 121 of which are unconstrained. Even fewer sites are available when recently developed sites and communities facilities such as schools are eliminated. The limited potential of existing R3 zoned sites that can be developed for medium density, highlights the need for the identification of additional sites for medium density in Mittagong.

FSR/Heights

Under the current DCP, all land zoned R3 Medium Density Residential has been divided into three sub-zones – Zones A, B and C which are linked to density controls. To increase certainty and clarity it is recommended that FSR and Height controls are linked to the sub zones and included in the LEP as follows

Sub-zone	Max. FSR	Max Height
A	0.4:1	6m
B	0.5:1	9m
C	0.6:1	11m

In addition the following recommendations are made to amend the controls for some of the areas in the town to better reflect their existing context.

Recommendation

Depending on the findings of additional feasibility studies it may be advisable to:

Land zoning	
1	Investigate changing the zoning of the block to the east of the study area, along Evans St, Southey St and Oaklands St from R2 Low Density Residential to R3 Medium Density. The area consists of a significant number of medium density developments. Up-zoning the area would have little impact on the existing character of the area, while supporting the need for additional medium density sites.
FSR	
2	<p>Reduce the maximum FSR for the following sites from 0.6:1 to 0.4:1-</p> <ul style="list-style-type: none"> Block along Bowral Rd and Park St, south of Old Hume Highway and east of Bessemer St; Two lots located at the corner of Alice Street and Alfred Street. <p>These sites are currently located within the Mittagong Conservation Area or have been listed as heritage items, and are unlikely to be developed into medium density with a density of 0.6:1.</p>
3	Consider decreasing the FSR of the sites along Regent Street from 0.6:1 to 0.5:1. These sites are surrounded by the Mittagong Conservation Area. Reducing the density on these sites would enable a sympathetic transition from the HCA to the surrounding higher density residential areas.

03 General Recommendations



Figure 37 Existing FSR diagram with recommendations for Mittagong



Diagram showing impact of FSR recommendations

03 General Recommendations

3-3 LEP Recommendations

Bowral

Identification of new medium density sites

Under the current LEP, medium density typologies are only permissible within the R3 Medium Density zone (R3 zone). As shown in Figure 38, there are approximately 545 lots zoned R3 Medium Density in Moss Vale, only 91 of which are unconstrained. Even fewer sites are available when recently developed sites and existing aged care centres are eliminated. The limited potential of existing R3 zoned sites that can be developed for medium density, highlights the need for the identification of additional sites for medium density in Bowral.

Lot Size

Under the current LEP, all of the medium density sites in Bowral have a minimum subdivision lot size of 700m². This requirement enables landowners to subdivide large lots instead of encouraging the amalgamation of lots for the development of medium density. It is recommended that the minimum subdivision lot size be increased to 1000m² to discourage such subdivision.

FSR/Heights

Under the current DCP, all land zoned R3 Medium Density Residential has been divided into three sub-zones – Zones A, B and C which are linked to density controls. To increase certainty and clarity it is recommended that FSR and Height controls are linked to the sub zones and included in the LEP as follows

Sub-zone	Max. FSR	Max Height
A	0.4:1	6m
B	0.5:1	9m
C	0.6:1	11m

In addition the following recommendations are made to amend the controls for some of the areas in the town to better reflect their existing context.

Recommendation

Depending on the findings of additional feasibility studies it may be advisable to:

FSR

- 1 Consider decreasing the FSR of the medium density sites along Shepherd Street from 0.5:1 to 0.4:1. These sites are located within or are immediately adjacent to the Bowral Conservation Area and are unlikely to be developed into medium density with a density of 0.5:1.

03 General Recommendations

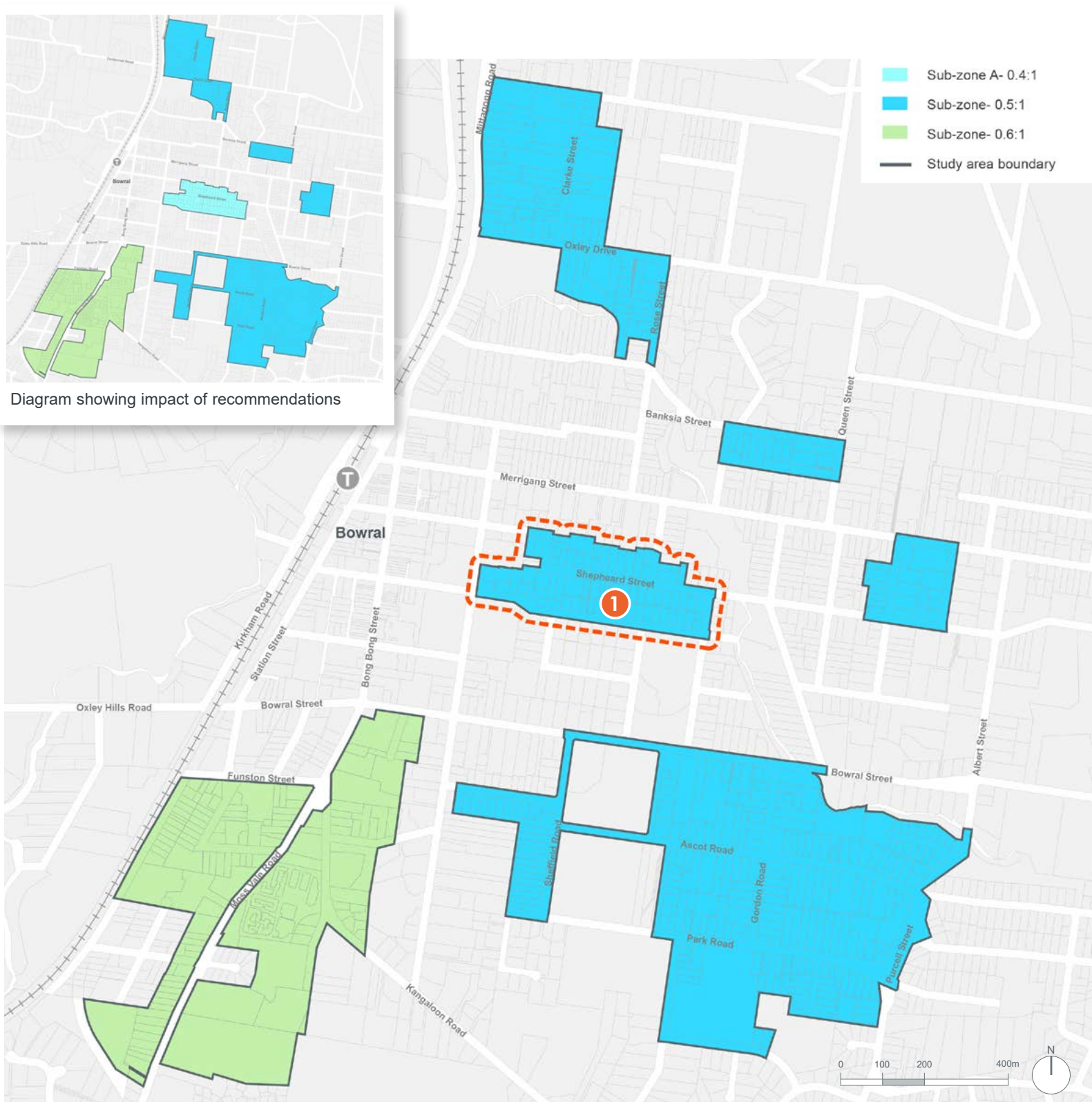


Diagram showing impact of recommendations

Figure 38 Existing FSR diagram with recommendations for Bowral

3-3 LEP Recommendations

Moss Vale

Identification of new medium density sites

Under the current LEP, medium density typologies are only permissible within the R3 Medium Density zone (R3 zone). As shown in Figure 39, there are approximately 420 lots zoned R3 Medium Density in Moss Vale, only 58 of which are unconstrained. Even fewer sites are available when recently developed sites and existing aged care centres are eliminated. The limited potential of existing R3 zoned sites that can be developed for medium density, highlights the need for the identification of additional sites for medium density in Moss Vale.

Lot Size

Under the current LEP, all of the medium density sites in Moss Vale have a minimum subdivision lot size of 700m². This requirement enables landowners to subdivide large lots, instead of encouraging the amalgamation of lots for the development of medium density. It is recommended that the minimum subdivision lot size be increased to 1000m² to discourage such subdivision.

FSR/Heights

Under the current DCP, all land zoned R3 Medium Density Residential has been divided into three sub-zones – Zones A, B and C which are linked to density controls. To increase certainty and clarity it is recommended that FSR and Height controls are linked to the sub zones and included in the LEP as follows

Sub-zone	Max. FSR	Max Height
A	0.4:1	6m
B	0.5:1	9m
C	0.6:1	11m

In addition the following recommendations are made to amend the controls for some of the areas in the town to better reflect their existing context.

Recommendation

Depending on the findings of additional feasibility studies it may be advisable to:

FSR	
1	Consider increasing the FSR of the medium density sites along Argyle Street between the Moss Vale-Unanderra Railway line, Hawkins Street and Goode Park from 0.4:1 to 0.5:1. The area forms the northern gateway to Moss Vale Town Centre and fronts an existing highway and major road. Given the location and amenity surrounding the sites, increasing the density on these sites would enable development that provides a gradual increase in height from the surrounding low density residential zones towards the town centre.
2	Consider decreasing the FSR of the sites southwest of Elizabeth Street from 0.6:1 to 0.5:1. These sites are surrounded by the Valetta St Conservation Area. Reducing the density on these sites would enable a sympathetic transition from the HCA to the town centre facilities.
3	Under the current controls, three medium density lots along Arthur Street do not have an existing FSR. It is recommended that these sites have an FSR of 0.5:1 to enable a gradual transition from the HCA to the surrounding higher density residential areas.
4	Consider increasing the FSR of the medium density sites south of Mack Street from 0.5:1 to 0.6:1, given the high amenity surrounding the site including the proximity of the area to the retail centre and public transport.
5	Consider reducing the maximum FSR for the medium density sites east of Waife Street from 0.6:1 to 0.4:1. The large site is listed as heritage item and currently accommodates the St Paul's International College. The site is unlikely to be developed into medium density with a density of 0.6:1.

03 General Recommendations

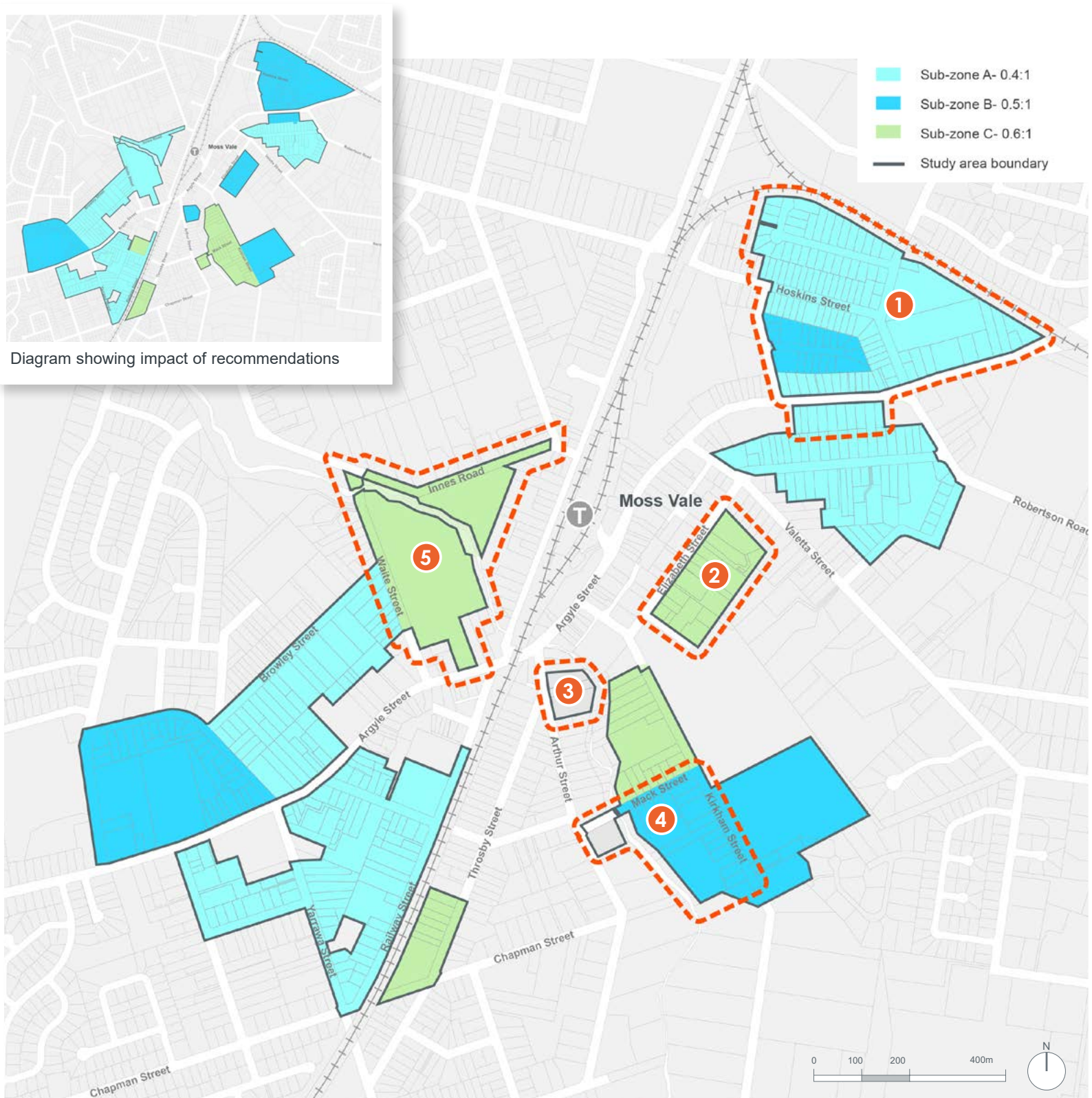


Diagram showing impact of recommendations

Figure 39 Existing FSR diagram with recommendations for Moss Vale



Chapter 4

DCP Recommendations

- 4-1 Influence of the DCP
- 4-2 Site Amalgamation & Minimum Frontage Requirements
- 4-3 Site Planning
- 4-4 Density and Site Coverage
- 4-5 Street Presentation
- 4-6 Front Setbacks
- 4-7 Side Setbacks
- 4-8 Rear Setbacks
- 4-9 Building Heights
- 4-10 Building Design
- 4-11 Dwelling Mix
- 4-12 Privacy
- 4-13 Materials and Colours
- 4-14 Landscaped Open Space
- 4-15 Parking, Garaging, Driveways and Common Paved Areas
- 4-16 Other Issues
- 4-17 Sub-zone A Overview
- 4-18 Sub-zone B Overview
- 4-19 Sub-zone C Overview

4-1 Influence of the DCP

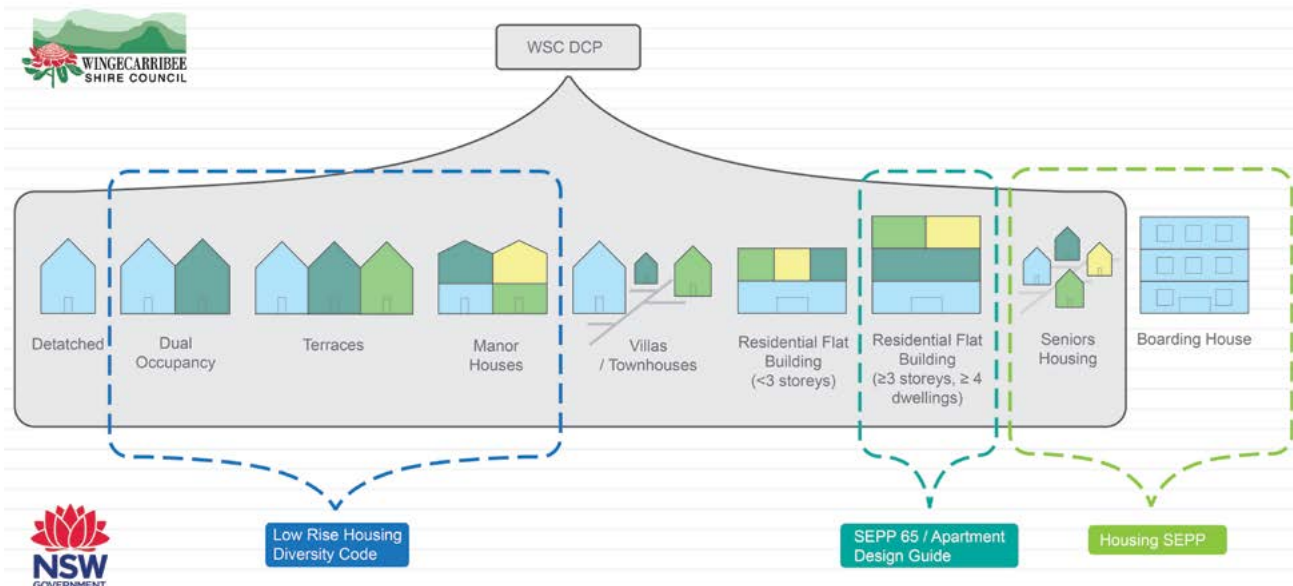


Figure 40 The Wingecarribee DCP is one of many planning controls that helps shape the outcome of medium density development in the Shire

The scale, type and character of medium density housing that can occur within a R3 Medium Density zone in the Wingecarribee Shire is controlled by a combination of both local and state government planning controls and legislation.

Medium density villas, townhouses, and residential flat buildings (under 3 storeys high or 3 storeys but less than 4 dwellings) are the typologies where Council has the most opportunity to influence the design as they are currently only required to consider the Wingecarribee Shire Development Control Plan (DCP).

Other medium density typologies such as dual occupancies, terraces and manor houses can follow the DCP controls or may be able to be approved as complying development under the Low Rise Housing Diversity Code. If the proposal complies with all the relevant requirements in the State Environmental Planning Policy (Exempt and Complying Development Codes) 2008 (Codes SEPP).

Additionally, under the Housing SEPP, other dwelling types such as Co-Living Housing and Build to Rent are permitted, where a residential flat building is permitted, and Independent Living Units and Boarding Houses are permitted in R3 - Medium Density zones if the site meets specific requirements.

Residential Flat Buildings that are 3 or more storeys and have 4 or more dwellings are required to also address SEPP 65 and the Apartment Design Guide. These developments are required to comply with a combination of Local Council and State Government controls.

The following chapter includes recommendations proposed for the Wingecarribee Shire Council DCP 'Section 3 - Medium Density Development'. These recommendations focus on changes that can be made to the DCP to help improve the outcomes of medium density development within R3 zones. However, it is acknowledged that the DCP is just one tool to help shape the built form outcomes and other approval pathways may create differing types of medium density dwellings in the Shire.

4-2 Site Amalgamation & Minimum Frontage Requirements

Stakeholder Commentary

Consultation identified that the requirement for a 25m minimum lot width was a barrier to medium density development, and the control is difficult to interpret for irregular shaped lots and isolated sites. The minimum lot size was also being interpreted as the minimum site area for development.

Incentives for amalgamation was raised as a way of encouraging medium density housing as some lots are 100m deep with a 20m frontage. It was also identified that a minimum site area for integrated housing, that allowed subdivision after development, would allow Torrens title for some types of development such as terraces.

Selected controls for review

Current Control		Commentary	Modified/ New Control
C3.1.2 (e)	<i>.....Within the R3 zones, Council would prefer to encourage site amalgamation of redevelopment to provide newer housing stock with the potential for more housing choice and the opportunity to provide an appropriate standard of infrastructure.</i>	Consider incentives that encourage site amalgamation, such as an increase in FSR/ height for larger sites. Amalgamated sites typically have greater opportunities to achieve the maximum FSR/height while still providing adequate vegetation, parking and setbacks.	<i>In accordance with the bonus provisions in the LEP, amalgamated sites over 3000m² located in Zone B or C (see Figure 64 and Figure 69) may be eligible for an increase in +0.1:1 maximum FSR and a +2m maximum increase in height for development that is more than 10m off any site boundary.*</i> <i>*Subject to Council satisfaction that the proposed development meets the objectives and other controls contained in this section of the Plan.</i>
C3.2.2 (a)	<i>Medium density development must have "at least 25 metres of site frontage to a public street or other appropriate public place".</i>	It is recommended that the minimum 25m site frontage is not modified as it has helped reduce the number of poorly designed developments in the shire (See Figure 41). Consider adding a note that acknowledges variations may be considered by Council if all other objectives/controls are met, however achieving the maximum FSR may not be possible.	<i>.....For irregular shaped or isolated sites where a variation is proposed, Council must be satisfied that the development meets the objectives and other controls contained in this section of the Plan.</i> <i>Note: On smaller or irregularly shaped sites it may not be possible to achieve the maximum FSR.</i>
C3.2.2 (d)	<i>In the case of a battle-axe block, Council will consider a street frontage of less than 25 metres provided: (i) the width of the block at the end of the access handle is at least 25 metres in its entirety, and (ii) that width is parallel to the street, and (iii) the area of the site provides for a development which meets the objectives and other controls contained in this section of the Plan.</i>		Figure 42 proposed to help illustrate battleaxe requirements.
new	new	New control to guide the development of isolated sites.	<i>Development of existing isolated sites may not be able to achieve the minimum site frontage requirements or the maximum site potential, particularly for height and floor space. Assessment of isolated sites will be on merit.</i> <i>The development of isolated sites is not to detract from the character of the streetscape, and is to provide the minimum required landscaping and maintain satisfactory levels of amenity for residents.</i>



Figure 41 Amalgamating sites can reduce the amount of driveways required and increase the potential area for landscaping.

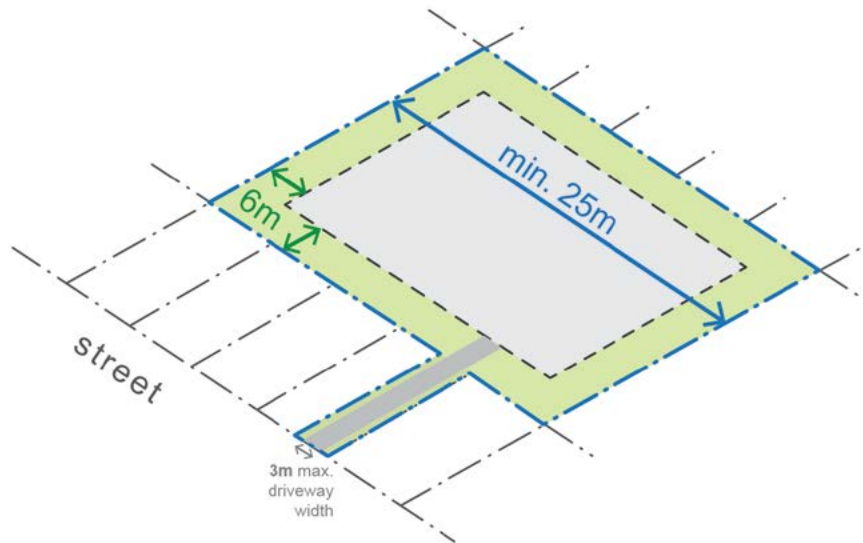


Figure 42 Minimum requirements for battle-axe medium density developments

4-3 Site Planning

Selected controls for review

			New Objective
new	new	New objective to consider existing topography and excavation impacts when site planning.	<i>Consider the existing topography and slope and minimise the impact of excavation on the natural landform and adjoining properties.</i>
Current Control		Commentary	Modified/ New Control
C3.3.2 (d)	<i>Limits the proportion of dwellings which are more than 50 metres from a public street.</i>	Comments indicated that this control is not typically applied. Development to the rear of the site is to be minimised via minimum rear setback requirements (see 4-8 Rear Setbacks).	Remove.
new	new	Consider requiring all large development sites to involve an Urban Designer (or similar professional) to strengthen the site planning outcomes.	<p><i>Development sites over 10,000m² should be designed in conjunction with a qualified Urban Designer (or similar professional) to ensure development creates a high quality outcome that responds to the character of the site and mitigates impacts on neighbours. A design verification statement should be submitted along with the application that:</i></p> <ul style="list-style-type: none"> <i>verifies the designer designed, or directed the design of the development</i> <i>outlines how the building(s) creates a high quality outcome, responds to the local context and maintains or improves the amenity of neighbours</i>
new	new	New control that aims to limit the amount of excavation and ensure new development responds to surrounding context.	<i>The design of the building footprint minimises cut and fill, and establishes ground floor levels that generally correspond to those of adjoining buildings.</i>

04 DCP Recommendations

4-4 Density and Site Coverage

See section '3-3 LEP Recommendations' for proposed changes to the FSR controls.

4-5 Street Presentation

Selected objectives/ controls for review

New Objective		Commentary	New Objective
new	new	New objective to strengthen the streetscape character and improve passive surveillance.	<i>To ensure new development addresses and defines the street through entrances, lobbies, windows, balconies and thoughtful facade design.</i>
new	new	New objective to promote consistent front fencing and strengthen the streetscape character.	<i>To ensure fences, in particular along the public street, support the neighbourhood character.</i>
New Control		Commentary	New Control
new	new	New control to strengthen the streetscape character and improve passive surveillance.	<i>Each dwelling that has a street frontage is to be designed so that access to the front door is clearly identifiable and visible from the public street and has at least one habitable room with a window overlooking the street.</i>
new	new	New controls to ensure appropriate front fencing and to strengthen the streetscape character.	<i>Front fences should be picket, wrought iron or masonry style with a minimum transparency of 25% and a maximum height of 1.0m. Posts or piers may extend above this height by 0.2m. Hedges integrated with the fence can be to a height of 1.2m maximum.</i>
new	new		<i>Return fences (the side fence between the front boundary and front elevation of the house) are to be the same height and design as front fences/ or coordinated with neighbour.</i>
new	new		<i>Closed front fences with a maximum height of 1.8m may be considered where the site adjoins a busy road or other undesirable noise sources. These fences should be screened by landscaping.</i>
new	new		<i>The use and/or design of fences and walls in streetscapes of significance are appropriate to the heritage or environmental context.</i>

4-6 Front Setbacks

Front setbacks an integral part of the streetscape and their treatment is fundamental to the amenity and character of a neighbourhood. Combined with building height and road reserve width, they define the proportion, scale and visual enclosure of the street. The setbacks also provide for landscaping, entries to dwellings and deep soil areas, enhance the setting of the dwelling(s), enable views from the building to and from the street, and provide a transition between public and private space.

Stakeholder Commentary

Consultation identified solar access as a key criteria for development in regional areas, with regard to private open space (POS) as well as overshadowing along the streets for footpaths, and comments were made that it should be reflected more prominently in the controls. Current controls for front setback also do not take into consideration areas with a deep front setback, and should provide clear direction for areas undergoing transition.

Selected controls for review

Current Control		Commentary	Modified/ New Control
C3.6.2 (c)	<p><i>Where properties immediately adjacent to the proposed development do not feature a consistent front setback:</i></p> <p><i>(i) If the difference between existing front setbacks is 2 metres or greater, new buildings can adopt a setback within the range established by adjacent buildings.</i></p> <p><i>(ii) If the difference between existing front setbacks is greater than two (2) metres, new buildings will adopt an average of the existing setbacks.</i></p>	<p>Requiring new development to be setback to the average of neighbouring development or 7m, whichever is the lesser, will change the character of some streets with generous existing setbacks, by bringing the buildings forward. However this will help to transition R3 zones towards supporting more medium density dwellings. This should only occur outside of conservation zone(s).</p> <p>The introduction of a 45 degree angled plane should help to reduce the bulk and scale of new development when viewed from the street.</p>	<p><i>Front setbacks are to be the average of neighbouring built form on each side (where relevant) or a minimum of 7m from the primary street boundary, whichever is the lesser.</i></p> <p><i>In addition, where an upper storey is permissible, built form including roofs must be within the 45 degree angular plane from a vertical distance above ground level of 4.5m (Sub-zone A) or 7.5m (Sub-zone B & C) at the minimum primary street setback as illustrated in Figure 45 and Figure 46.</i></p> <p><i>Note: Notwithstanding compliance with the other controls in this DCP, Council may require building setbacks to be increased on developments located within the vicinity of a heritage item and/or adjoining a conservation area, to minimise any adverse impacts on the heritage significance or distinctive character of such items.</i></p>
C3.6.2 (d)	<p><i>In the case where adjacent setbacks are not relevant, the minimum front setback for:</i></p> <p><i>(i) Residential flat buildings will generally be nine (9) metres.</i></p> <p><i>(ii) Multi dwelling housing, other than other than residential flat buildings, will generally be eight (8) metres.</i></p>	<p>Different setbacks and heights for different typologies creates inconsistent built form along a street.</p> <p>It is recommended that all medium density developments have the same front setback requirements (see above).</p>	

04 DCP Recommendations

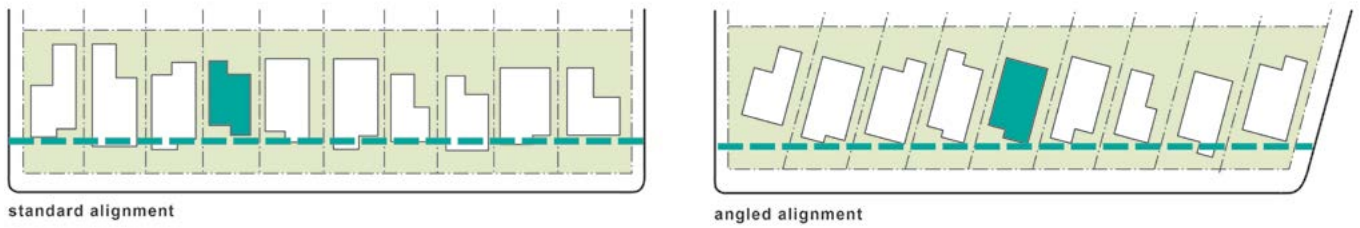


Figure 43 Front setbacks of new development will be consistent with those of the buildings immediately adjacent to the site and to those in the immediate vicinity.

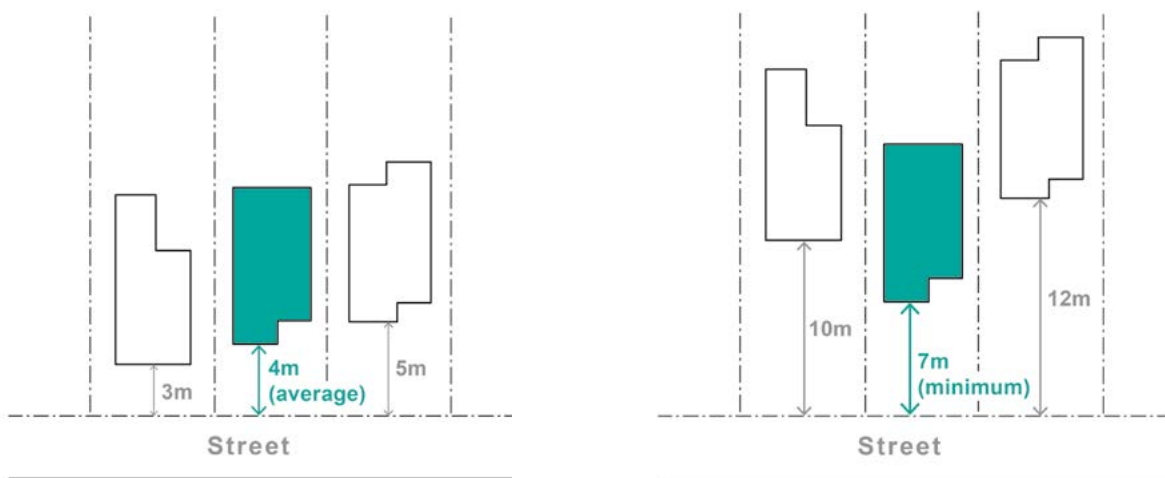


Figure 44 Front setbacks are to be the average of neighbouring built form on each side (where relevant) or a minimum of 7m from the primary street boundary whichever is the lesser.

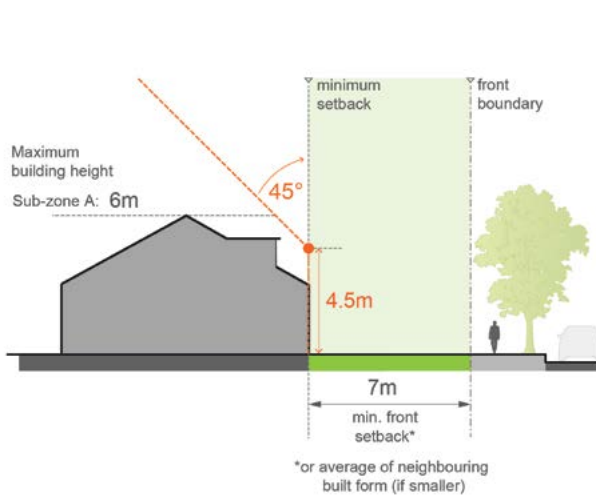


Figure 45 Proposed front setback control (Sub-zone A)

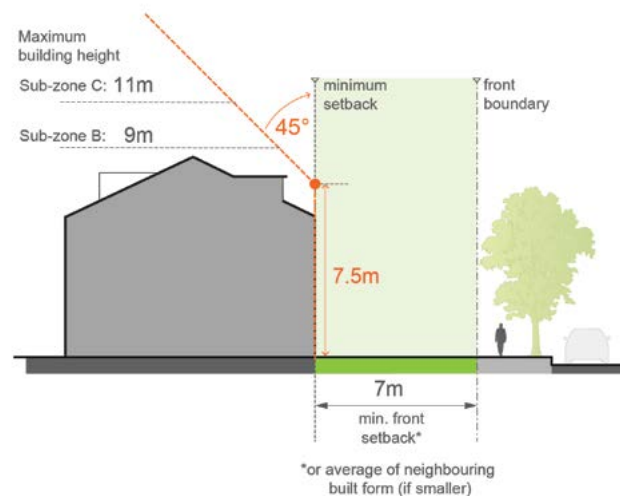


Figure 46 Proposed front setback control (Sub-zone B and C)

4-7 Side Setbacks

Side setbacks are particularly important in residential neighbourhoods that experience an increase in density, as they provide separation to neighbouring sites to allow for sunlight access, and visual and acoustic privacy. Adequate separation distances also allow airflow around properties which helps to reduce the heat island effect.

Stakeholder Commentary

Consultation identified solar access as being a key criteria for development in regional areas, with regard to private open space (POS) and overshadowing of neighbouring sites and should be reflected more prominently in the controls. There was also concerns expressed regarding privacy and overlooking where the rear or "backs" of new development overlooked adjoining properties.

Selected controls for review

Current Control		Commentary	Modified/ New Control								
C3.7.2 (b) , (d) - (e)	<table border="1"> <tr> <th>Applies To:</th> <th>Side Setback</th> </tr> <tr> <td>Development with relevant adjacent setbacks</td> <td> Generally consistent with the immediate adjacent context. Min. requirements for RFBs: <ul style="list-style-type: none"> • 1.5 metres + height of the building in metres. Min. requirements for Multi-dwelling housing: <ul style="list-style-type: none"> • 2m side setback for buildings up to 3m. • 3.5m setback for buildings higher than 3m. </td> </tr> <tr> <td>RFBs where adjacent setbacks are not relevant</td> <td>Satisfies min. requirement + Based on merit</td> </tr> <tr> <td>Other multi dwelling housing where adjacent setbacks are not relevant</td> <td>Satisfies min. requirement + Based on merit</td> </tr> </table>	Applies To:	Side Setback	Development with relevant adjacent setbacks	Generally consistent with the immediate adjacent context. Min. requirements for RFBs: <ul style="list-style-type: none"> • 1.5 metres + height of the building in metres. Min. requirements for Multi-dwelling housing: <ul style="list-style-type: none"> • 2m side setback for buildings up to 3m. • 3.5m setback for buildings higher than 3m. 	RFBs where adjacent setbacks are not relevant	Satisfies min. requirement + Based on merit	Other multi dwelling housing where adjacent setbacks are not relevant	Satisfies min. requirement + Based on merit	<p>New diagrams prepared to help illustrate existing controls.</p> <p>Existing minimum side setbacks are appropriate but the addition of a 45 degree angled plane would help minimise bulk and scale of upper levels.</p>	<p>Where upper storeys are permissible, built form including roofs must be within a 45 degree angular plane taken from a vertical distance of 3.6m (Sub-zone A) or 5.0 metres (Sub-zone B and C) above ground level from the minimum side boundary setback. Refer Figure 47 and Figure 48.</p>
Applies To:	Side Setback										
Development with relevant adjacent setbacks	Generally consistent with the immediate adjacent context. Min. requirements for RFBs: <ul style="list-style-type: none"> • 1.5 metres + height of the building in metres. Min. requirements for Multi-dwelling housing: <ul style="list-style-type: none"> • 2m side setback for buildings up to 3m. • 3.5m setback for buildings higher than 3m. 										
RFBs where adjacent setbacks are not relevant	Satisfies min. requirement + Based on merit										
Other multi dwelling housing where adjacent setbacks are not relevant	Satisfies min. requirement + Based on merit										

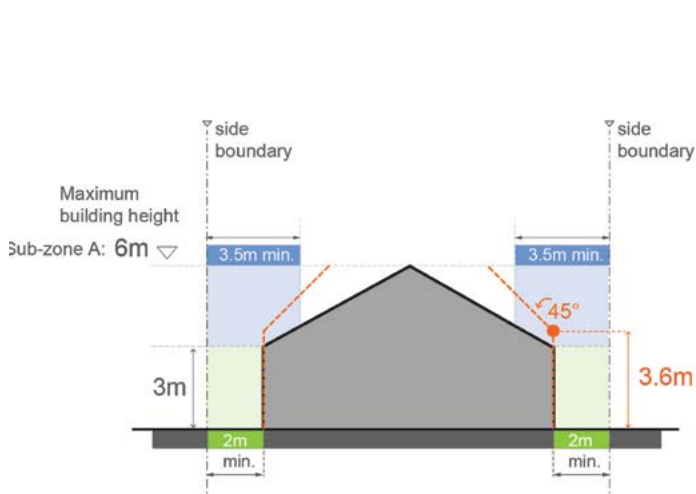


Figure 47 Minimum side setback controls (Sub-zone A)

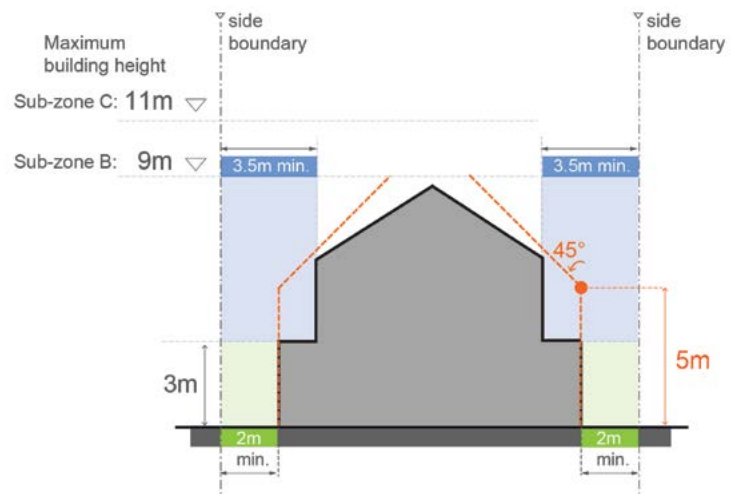


Figure 48 Minimum side setback controls (Sub-zone B and C)

4-8 Rear Setbacks

Rear setbacks can provide the opportunity for connected areas of deep soil, enable mature trees and habitat corridors which increase biodiversity and residential amenity and improve the local micro climate. Often these mature trees can be seen from the street which adds to the desired 'garden suburb' neighbourhood character.

Stakeholder Commentary

Consultation identified that rear setbacks should be increased compared to the current requirement, to allow the opportunity to locate landscaped and deep soil areas. This will create landscaped corridors to the rear of properties in conjunction with neighbouring sites.

Selected controls for review

Current Control		Commentary	Modified/ New Control
C3.8.2 (b)	<i>Rear setbacks of new development will be generally consistent with those of existing adjacent development.</i>	Consider adding a quantitative minimum rear setback dimension to protect opportunities for tree retention and connected deep soil zones.	<i>Rear setbacks of new development will be generally consistent with those of existing adjacent development.</i> <i>Notwithstanding, minimum rear setback for all medium density housing is 6m.</i> <i>All setbacks within battle-axe developments must be a minimum of 6m as shown in Figure 42.</i>
new	new	New control and diagram proposed to strengthen rear setback controls and minimise overshadowing and protect privacy of neighbours.	<i>Built form including roofs must be within a 45 degree angular plane from the rear site boundary as illustrated in Figure 49.</i>
new	new	Small scale structures that have a minimal impact on privacy/overshadowing may potentially be located within the rear setback.	<i>Note: Single storey small ancillary structures, such as carports, garages or sheds may potentially be able to encroach into rear setback (subject to Council approval) if they contribute positively to the overall design and do not impact deep soil plantings, existing trees or the amenity of neighbours.</i>

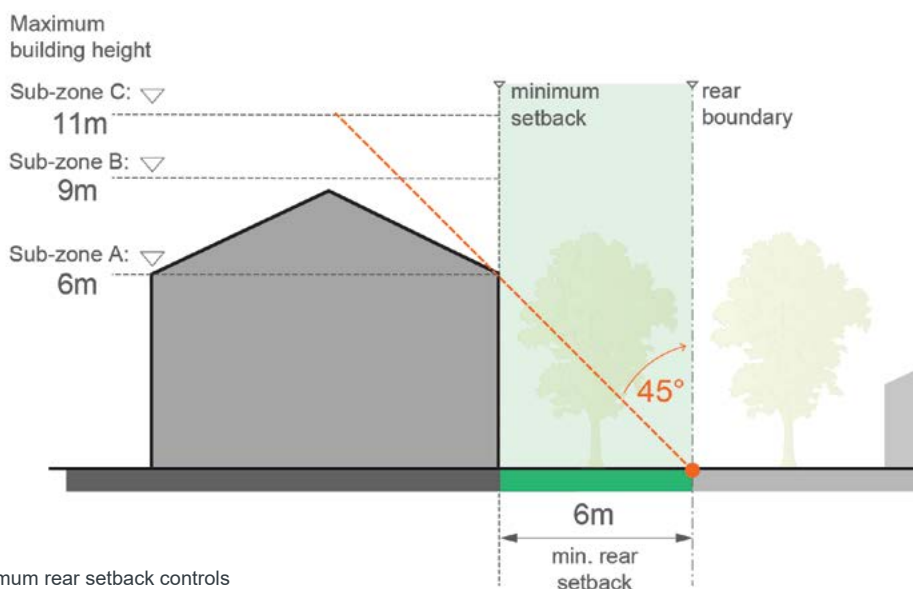


Figure 49 Minimum rear setback controls

4-9 Building Heights

Building heights shape the desired future character of neighbourhoods and define the level of enclosure, and the scale and proportions of streets and public spaces. In conjunction with setbacks and site coverage requirements, they are a key control for the basic building envelope within which development can occur and provide certainty around the intensity of future built form to the community, landowners and developers.

Stakeholder Commentary

Consultation identified overshadowing of buildings as a key concern for the community, especially when it comes to comparing increased building footprint and increased building height. Comments indicated that applying an overall height limit is better than varying height per typology and heights could be varied according to precincts or sub-zones. There was a need for controls for addressing overshadowing with stepped built form, especially when adjacent to low-density properties.

Selected objectives/ controls for review

Current Objective		Commentary	Modified Objective	
C3.9.2 (c)	<i>To minimise overshadowing of neighbouring properties by new development.</i>	It was highlighted that public streets and footpaths should also not be overshadowed.	To minimise overshadowing of neighbouring properties and public spaces/streets by new development.	
Current Control		Commentary	Modified/ New Control	
C3.9.3 (a) - (c)	Maximum building heights		<i>Development is to conform with the maximum building heights as shown in Figure 51 and Figure 52.</i>	
	Applies To:	Maximum (storeys)		Maximum (m)
	Residential Flat Buildings	3 storeys (third floor within roofline)		12m
	Other medium density housing	2 storeys		9m
	All medium density housing in HCAs	1 storey (additional spaces allowed within roof form)	6m	
C3.9.3 (b)	<i>The maximum height of a residential flat building shall not exceed three (3) storeys in height as defined above, the third storey being located within the roofline.....</i>	As building heights are proposed to be shown on a map and no longer based on typologies, other typologies (such as terraces) could potentially become three storeys. This control should be modified to ensure any three storey dwelling in Sub-zone B has the upper storey integrated within the roofline.	<i>Any additional storey (i.e. room in the roof) in Sub-zones A and B must be set within the roof line and conform with the overall maximum building envelopes shown in Figure 52.</i>	

04 DCP Recommendations

Current Control		Commentary	Modified/ New Control
C3.9.3 (d)	<i>The roof pitch shall reflect the dominant roof forms of the existing streetscape.</i>	A maximum roof pitch is suggested to be added to ensure a consistent outcome.	<i>The roof pitch shall reflect the dominant roof forms of the existing streetscape and should not exceed 35°.</i>
new	new	A control to acknowledge that building heights may need further refinement in response to heritage items.	<i>Development in a heritage conservation area, or in close proximity to a heritage item or conservation area, should respond appropriately to the visual curtilage of heritage items. Development may be required to transition in height at sensitive interface areas adjacent to heritage items and/or have increased setbacks and/or landscaping.</i>



Figure 51 Proposed maximum building height sub-zone maps

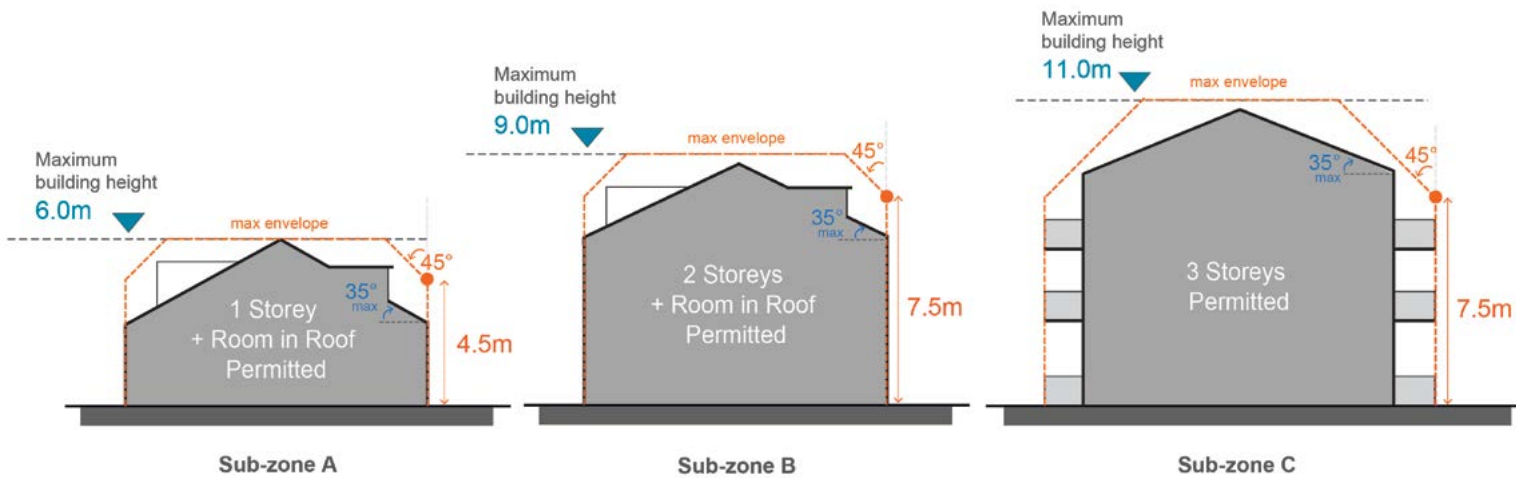


Figure 52 Proposed maximum building envelopes

4-10 Building Design

Stakeholder Commentary

To achieve well designed medium density outcomes, it is recommended that the controls consider specifications for facade articulation, breaks between continuous built-form to offer views of the landscape, and address scale and style of buildings that reflect the local character and heritage of the area.

Consultation also identified that the location and design of services is not addressed in the current controls, which leads to poor design and placement of services. It is recommended that services should carefully located with consideration to visual impact utilising landscaping and fencing treatment where appropriate.

Selected controls for review

Current Control		Commentary	Modified/ New Control
C3.11.2 (h)	<i>All buildings in the development shall be generally of brick, brick veneer or masonry construction, allowing that a proportion of the external cladding may be of special feature material.</i>	These materials have been highlighted as being in need of an update in 2022, including removing brick veneer.	Recommend relocating this control from 'Building Design' to 'Materials and Colours'.
C3.11.2 (l)	<i>A balcony shall not encroach more than 2 metres or 25 percent, whichever is the lesser, on the setback to the front, rear and side boundaries. No part of any means of enclosure of a balcony shall exceed a height of 1.2 metres.</i>	Recommend modifying this control to ensure balconies do not encroach into any <u>side setbacks</u> to protect the privacy and sensitivity of neighbouring properties.	<i>A balcony shall not encroach more than 2 metres or 25 percent, whichever is the lesser, into the front or rear setbacks. A balcony shall not encroach into side setbacks unless more than 6m off the boundary. No part of any means of enclosure of a balcony shall exceed a height of 1.2 metres.</i>
new	new	New control that encourages developments to activate the street with individual building entries.	<i>All ground floor dwellings facing the street should have individual pedestrian entries to the street.</i>
new	new	To provide a quantitative control to promote building articulation.	<i>Façades should be well articulated and have no more than 10m of unarticulated length. Roof forms should also be modulated.</i>
new	new	Provide a control that addresses corner sites.	<i>For corner sites, buildings should be designed to address both street frontages and views of both street façades should be well considered. The building form must consider how it 'turns' the corner and responds to prominent views from different angles.</i>

04 DCP Recommendations

Current Control		Commentary	Modified/ New Control
new	new	Provide a control that addresses the visibility of building services.	<i>Building services, such as drainage pipes, fire hydrants and protection services, vent shafts, substations, air conditioning units and any security devices, should have minimal visual impact on the street and their location shown on the development application plans.</i>
new	new		<p><i>Structures such as paths, letter boxes, garbage storage and the like are permitted in the front setback where:</i></p> <ul style="list-style-type: none"> <i>The structures are thoughtfully sited and designed to integrate with the building or the fence, minimise the impact on the streetscape and contribute to the character of the streetscape.</i> <i>The garbage storage structures are screened where possible.</i> <i>Sufficient areas for deep soil landscaping are retained.</i>
new	new	New control to ensure external clothes drying areas are suitably located.	<i>Each dwelling is to have an outdoor clothes drying area that has access to sunlight, and is located in a secure place and screened from public view.</i>
new	new	Provide a control to ensure building access areas are easy to identify.	<i>In residential flat buildings, lift lobbies should be clearly visible from the street and communal spaces.</i>
new	new	Provide a control that encourages well designed and appropriately defined ceiling heights.	<i>Ceiling heights should allow for sufficient daylight penetration into the room and achieve minimum floor to ceiling heights as shown in Figure 53.</i>

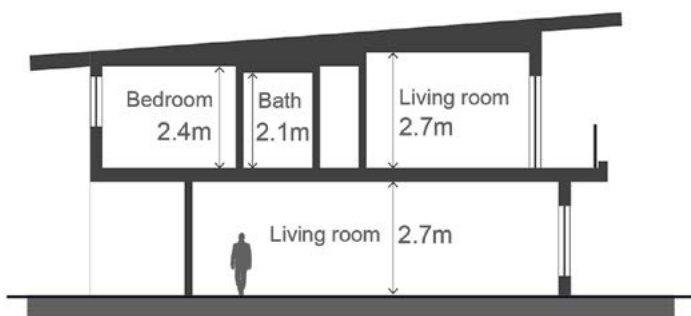


Figure 53 Minimum floor to ceiling heights

4-11 Dwelling Mix

A key requirement of medium density development in the LGA is that it provides for smaller households. Ideally new development should provide a mix of dwelling sizes to cater for a range of different household types and improve housing choice for all types of people.

Stakeholder Commentary

Consultation identified that new developments have not been delivering a wide mix of dwelling sizes and there is a need to encourage the delivery of smaller units (responding to the demographic trend in smaller households) to offer greater housing diversity. In addition, it is anticipated that there will be a need to accommodate those in the area who are ageing in place.

Selected controls for review

Current Objective		Commentary	Modified Objective
C3.12.1 (a)	<i>Provide a range of dwellings types and sizes.</i>	It is recommended that a mix of dwelling sizes, that encourages smaller dwellings, is provided.	<i>Provide a range of dwellings types and sizes including studio, one, two and three bedroom dwellings; in accordance with the planning priorities identified in the Wingecarribee Local Housing Strategy.</i>
Current Control		Commentary	Modified Control
C3.12.2 (a)	<i>Multi dwelling housing that proposes more than eight (8) dwellings should provide a mix of dwelling sizes, both in terms of both the number of bedrooms and the size of the rooms.</i>	Dwelling mix should be more widely encouraged eg. for all multi dwelling housing over 4 dwellings.	<i>Multi dwelling housing that proposes more than four (4) dwellings should provide a mix of dwelling sizes, both in terms of the number of bedrooms and the size of the rooms.</i>
<i>new</i>	<i>new</i>	New control to specify the minimum requirements for smaller dwelling types.	<p><i>Developments should include a mix of 1, 2 and 3 bedroom dwellings:</i></p> <ul style="list-style-type: none"> <i>Where 4 or more dwellings are proposed in a medium density development, 1 in every 4 dwellings must be 2 bedrooms or less and no greater than 85m².</i> <i>Where 6 or more dwellings are proposed in a medium density development, 1 in every 6 dwellings must be 1 bedroom or less and no greater than 65m².</i> <p><i>For example, where a total of 7 dwellings are proposed in a development, at least one 2 bedroom (or less) dwelling and one 1 bedroom dwelling shall be provided.</i></p> <p><i>Where a total of 12 dwellings are proposed in a development, at least three 2 bedroom dwellings (or less) and two 1 bedroom dwellings shall be provided.</i></p>
<i>new</i>	<i>new</i>	To encourage the delivery of smaller dwellings, it is also recommended that smaller private open spaces are required for smaller dwellings.	(Refer 4-14 Landscaped Open Space recommendations)

4-12 Privacy

Stakeholder Commentary

Consultation with the community noted that medium density development, especially two-storey development backing on to private back gardens (i.e. the rear of one property backing onto the side of an existing property), is impacting privacy and should be taken into consideration.

Selected controls for review

Current Control		Commentary	New Control
new	new	New quantitative control to strengthen the privacy of neighbours by increasing the setbacks between neighbours and living spaces.	<p><i>Living room windows on the ground floor that have a sill height of <1.5m can face the side boundary only if set back by a minimum of 4m.</i></p> <p><i>Living rooms (with a window sill height of <1.5m) and balconies located above the ground floor should be setback a minimum of 6m from any site boundary. (See Figure 54)</i></p> <p><i>Note: Living room, as defined in the Low Rise Housing Diversity Design Guide, includes a living, lounge room, dining room, family room, rumpus or any combination of the above. It excludes the kitchen component of a combined living / dining / kitchen space.</i></p>

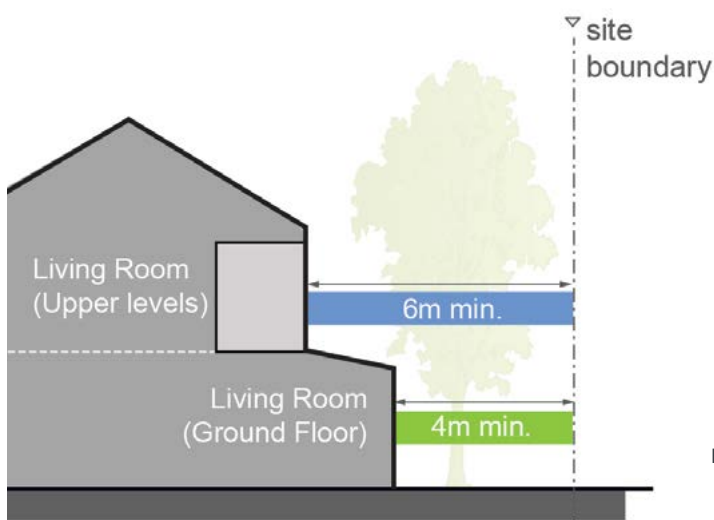


Figure 54 Ground level and upper level living rooms should have greater setbacks to neighbours to improve privacy

4-13 Materials and Colours

Each building visible from the street makes a contribution to the streetscape character of the neighbourhood. The quality of materials and their compatibility to the surrounds plays a significant role in the overall success of any development. The robustness, durability, energy performance and compatibility to the surrounds should also be considered when selecting materials, textures, finishes and colours.

Stakeholder Commentary

It is recommended to include blue-stone walls and Bowral blue bricks in the materials specifications as they are a key part of the built-form character of the Southern Highlands, which work well against light weight structures.

Specifying colour palettes for the town(s) was also recommended at the consultation.

Selected controls for review

Current Objective		Commentary	Modified/ New Objective
C3.14.1	<i>The control described below is intended to encourage the use of materials in the construction of residential developments that are compatible with adjoining dwelling houses and the streetscape in terms of type, colour and form.</i>	Objective modified slightly to accommodate the inclusion of new objectives.	<i>To encourage the use of materials in the construction of residential developments that are compatible with adjoining dwelling houses and the streetscape in terms of type, colour and form.</i>
new	new	New objective that encourages materials to be more than just "compatible".	<i>To ensure the architectural appearance of new development provides visual interest and contributes to the streetscape character.</i>
new	new	New objective that encourages materials to consider quality and maintenance.	<i>To promote the use of high quality and durable materials that are suitable for the local climatic conditions.</i>
Current Control		Commentary	New Control
new	new	Encourage the usage of a mix of materials that are also complementary to the character of the street.	<i>Incorporate a mix of materials to reduce the appearance of building bulk and to integrate the building within the materials and colour palettes of the local area and complement the character of the street.</i> <i>Materials should be textured to improve visual interest such as timber, bagged or face brickwork, and natural stonework like basalt/ bluestone.</i>
new	new	Promote a consistent colour palette that is reflective of surrounding context.	<i>Colours should be compatible with predominant colours of the existing surrounding buildings (and, in the case of heritage conservation areas, the heritage context). Bright feature colours should be avoided where possible.</i>
new	new	New control to promote sustainability and energy efficiency through the choice of building materials.	<i>External finishes should contain a combination of non-reflective materials and light colours to minimise reflection and heat retention.</i>
new	new	New control to ensure materials are durable and low maintenance.	<i>External walls/ facades should be constructed of high quality, low maintenance and durable materials.</i>

4-14 Landscaped Open Space



Landscaping of medium density developments plays an important role in integrating them into the surrounding streetscape and context, and increases the amenity for neighbours and future residents. Landscaping and buildings need to be integrated and designed together. As such, landscaped areas should not be generated by 'left-over spaces' resulting from a buildings location. Tree canopy cover helps to create summer shade, has a positive impact on the local micro-climate and urban ecology, and adds to the aesthetic character of the streetscape.

A portion of the landscaped area is required to be deep soil which is free of structures (including underground structures), suitable for the growth of mature trees and vegetation and allows water to be absorbed by the soil (infiltration).

Two storey medium density typologies can create a more desirable landscape outcome than single storey dwellings, because they generally have a smaller building footprint which provides greater opportunities for landscaped areas.

Stakeholder Commentary

The 50% landscaping requirement was identified during consultation as important and generally considered to be working well, however it was highlighted that some areas were narrow and unusable leftover spaces and the focus should be on front and rear setbacks to allow canopy tree planting opportunities.

It was also suggested that there would be value in specifying planting in the controls: height, colour, plant and tree types, hedges, and retaining existing mature trees, as the country garden character of the towns is largely dependant on mature trees and landscaped front gardens.

It was noted that revising the controls to define proportions (min. width x length) would result in more usable spaces. Also it was highlighted by local builders/ developers that the requirement for private open space (POS) is the same for smaller dwellings - studios, one and two bedroom dwellings as it is for larger dwellings, and linking it to dwelling size would make developments with smaller dwellings more desirable. It was also suggested that there could be value in including requirements for communal open space for large developments.

Selected controls for review

Current Control		Commentary	Modified/ New Control									
C3.15.1 (a)	<i>Fifty per cent (50%) of any site developed for multi dwelling housing, including residential flat buildings, shall comprise Open Space and be landscaped to the satisfaction of Council.</i>	Consider reducing this to a minimum of 40% of landscaping area per site and introduce a new control that defines minimum dimensions (1.5m) required for a landscaped area to be calculated in this percentage. This should ensure the open spaces are larger and not just the 'left over' spaces being counted towards the landscaping total.	<i>Forty per cent (40%) of any site developed for multi dwelling housing, including residential flat buildings, shall comprise Open Space and be landscaped to the satisfaction of Council.</i>									
new	new		<i>Calculation of Open Space/ landscaped/ deep soil areas is not to include any land that has a length or a width of less than 1.5m.</i>									
new	new	Quantitative control for deep soil requirements proposed.	<i>50% of the required Open Space/ landscaped area should be deep soil landscaping to support mature trees.</i>									
new	new	Provide new control that encourages landscaping in the front and rear setbacks.	<i>Landscaped areas, tree planting and deep soil zones should be provided in all setbacks, with a focus in the front and rear setbacks.</i>									
C3.15.1 (r)	<i>Driveways shall be located a minimum of one (1) metre from any side boundary.</i>	Consider moving this to the following 'Parking, Garaging, Driveways and Common Paved Areas' section.	Control to be moved to 'Parking, Garaging, Driveways and Common Paved Areas'									
C3.15.1 (e-g)	<table border="1"> <thead> <tr> <th>Applies To:</th> <th>Minimum area</th> <th>Minimum dimension</th> </tr> </thead> <tbody> <tr> <td>Residential Flat Buildings:</td> <td>Dwellings on ground floor: 30m² Dwellings above ground floor: 15m²</td> <td>Dwellings on ground floor: 4m Dwellings above ground floor: 3m</td> </tr> <tr> <td>Other medium density housing</td> <td>50m²</td> <td>5m</td> </tr> </tbody> </table>	Applies To:	Minimum area	Minimum dimension	Residential Flat Buildings:	Dwellings on ground floor: 30m ² Dwellings above ground floor: 15m ²	Dwellings on ground floor: 4m Dwellings above ground floor: 3m	Other medium density housing	50m ²	5m	<p>It is recommended that the required Primary Private Open Space (PPOS) is linked to the dwelling size (i.e. reduced rates for studios, one and two bedroom dwellings). This is aimed at encouraging the delivery of smaller units (responding to the demographic trend in smaller households) to offer greater housing diversity and choice close.</p> <p>A minimum dimension for the PPOS should also be proposed.</p>	<i>See proposed controls on following page.</i>
Applies To:	Minimum area	Minimum dimension										
Residential Flat Buildings:	Dwellings on ground floor: 30m ² Dwellings above ground floor: 15m ²	Dwellings on ground floor: 4m Dwellings above ground floor: 3m										
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Current Control		Commentary	Modified/ New Control																													
See above			<table border="1"> <thead> <tr> <th colspan="4">Proposed Minimum Private Open Space Requirements</th> </tr> <tr> <th>Applies To:</th> <th colspan="2">Minimum area</th> <th>Minimum dimension</th> </tr> </thead> <tbody> <tr> <td rowspan="6">All medium density development</td> <td colspan="3">Dwellings on ground floor:</td> </tr> <tr> <td>Studio/ one bedroom:</td> <td>min. 20m²</td> <td rowspan="3">4.0m x 4.0m</td> </tr> <tr> <td>Two bedroom:</td> <td>min. 30m²</td> </tr> <tr> <td>Three+ bedrooms:</td> <td>min. 35m²</td> </tr> <tr> <td colspan="3">Dwellings on upper levels (i.e. balconies):</td> </tr> <tr> <td>Studio/ one bedroom:</td> <td>min. 8m²</td> <td rowspan="3">2.0m x 3.0m</td> </tr> <tr> <td>Two bedroom:</td> <td>min. 10m²</td> </tr> <tr> <td>Three+ bedrooms:</td> <td>min. 12m²</td> </tr> </tbody> </table>	Proposed Minimum Private Open Space Requirements				Applies To:	Minimum area		Minimum dimension	All medium density development	Dwellings on ground floor:			Studio/ one bedroom:	min. 20m ²	4.0m x 4.0m	Two bedroom:	min. 30m ²	Three+ bedrooms:	min. 35m ²	Dwellings on upper levels (i.e. balconies):			Studio/ one bedroom:	min. 8m ²	2.0m x 3.0m	Two bedroom:	min. 10m ²	Three+ bedrooms:	min. 12m ²
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			<table border="1"> <thead> <tr> <th colspan="4">Communal Open Space</th> </tr> </thead> <tbody> <tr> <td rowspan="7">new</td> <td rowspan="7">new</td> <td rowspan="7">Controls for communal open space should be included to foster social connections and provide spaces for shared facilities such as community gardens, barbecues, play equipment and shaded seating. The size and requirements for communal open space should be linked to the size of the proposed development.</td> <td> <p>Where more than 10 dwellings are proposed, one Primary communal open space is to be provided as follows:</p> <ul style="list-style-type: none"> • have a minimum area of 72.0m² ; and • have a minimum dimension of 8.0m. <p>(see Figure 56)</p> </td> </tr> <tr> <td> <p>Where more than 20 dwellings are proposed, 144m² of communal open space is to be provided with a minimum dimension of 8.0m. This may be provided as:</p> <ul style="list-style-type: none"> • a single Primary communal open space; or • a Primary communal open space, with minimum requirements as per above and a Secondary communal open space with minimum dimension of 8.0m. </td> </tr> <tr> <td>Communal open spaces should preferably be co-located with any deep soil zones on the site.</td> </tr> <tr> <td>The location of communal open spaces should optimise solar access, orientation, summer shade, visibility and outlook; and consider the privacy of the adjacent onsite residents and the neighbours to the development site.</td> </tr> <tr> <td>At least 50% of the communal open space area is to receive direct sunlight for at least three hours between 9am and 3pm on June 21.</td> </tr> <tr> <td>The design of communal open space should provide opportunities for social and recreational activities and this may include, but is not limited to, community gardens, barbecues, shaded seating and play equipment.</td> </tr> <tr> <td>The design of communal open spaces should promote safe spaces by minimising opportunities for concealment, entrapment and antisocial behaviour and ensuring passive surveillance is provided.</td> </tr> </tbody> </table>	Communal Open Space				new	new	Controls for communal open space should be included to foster social connections and provide spaces for shared facilities such as community gardens, barbecues, play equipment and shaded seating. The size and requirements for communal open space should be linked to the size of the proposed development.	<p>Where more than 10 dwellings are proposed, one Primary communal open space is to be provided as follows:</p> <ul style="list-style-type: none"> • have a minimum area of 72.0m² ; and • have a minimum dimension of 8.0m. <p>(see Figure 56)</p>	<p>Where more than 20 dwellings are proposed, 144m² of communal open space is to be provided with a minimum dimension of 8.0m. This may be provided as:</p> <ul style="list-style-type: none"> • a single Primary communal open space; or • a Primary communal open space, with minimum requirements as per above and a Secondary communal open space with minimum dimension of 8.0m. 	Communal open spaces should preferably be co-located with any deep soil zones on the site.	The location of communal open spaces should optimise solar access, orientation, summer shade, visibility and outlook; and consider the privacy of the adjacent onsite residents and the neighbours to the development site.	At least 50% of the communal open space area is to receive direct sunlight for at least three hours between 9am and 3pm on June 21.	The design of communal open space should provide opportunities for social and recreational activities and this may include, but is not limited to, community gardens, barbecues, shaded seating and play equipment.	The design of communal open spaces should promote safe spaces by minimising opportunities for concealment, entrapment and antisocial behaviour and ensuring passive surveillance is provided.															
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Legend

- Primary Private Open Space (PPOS)
- Living Area
- Direct Access to PPOS
- At least 3h sunlight in mid winter to 50% of PPOS

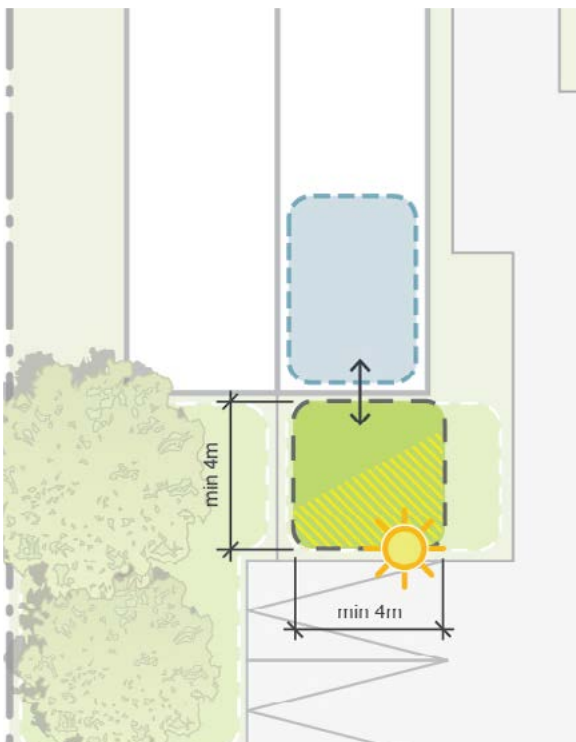


Figure 55 Living areas and private open spaces are best located towards the north to maximise solar access to these areas.



Figure 56 Communal open space should be provided where more than 10 dwellings are proposed

4-15 Parking, Garaging, Driveways and Common Paved Areas

The location and design of car access and parking areas has a significant impact on the character of a neighbourhood and can potentially have a greater impact than the built form. It is critical that new medium density development is not dominated by car related uses.

Vehicle access and movement areas must not dominate the streetscape nor compromise the privacy and amenity of the site or neighbouring dwellings. At the same time, car parking needs to be safe and convenient and efficient, not dominating the site layout and reducing the landscaped areas.

Stakeholder Commentary

During consultation the number of parking spaces per dwelling and the parking requirements for RFBs were highlighted as an issue by local builders/ developers. The current requirements are higher than industry standards. Basement parking is also rare in the LGA and, as it can allow for increased landscaped areas, it may be helpful to encourage this type of development. Consultation also identified that a number of streets within areas zoned R3 zone are too narrow to accommodate additional traffic and parking and new development on these streets is creating conflicts.

Selected existing controls for consideration

New Objective		Commentary	New Objective								
new	new	Proposed new objective that aims to balance the need for car parking with other forms of transport.	<i>To promote the benefits of public transport and active transport such as bicycles and walking.</i>								
new	new	New objective that aims to prepare future buildings for the requirements of electric vehicles.	<i>To encourage and support increased usage of electric vehicles.</i>								
Current Control		Commentary	Modified/ New Control								
C3.16.2 (a)	Off street parking requirements:		Off street parking requirements: <table border="1"> <thead> <tr> <th>Applies To:</th> <th>Requirement (min/max.)</th> </tr> </thead> <tbody> <tr> <td>1-2 bedroom dwellings</td> <td>1 space</td> </tr> <tr> <td>3+ bedroom dwellings</td> <td>2 spaces</td> </tr> <tr> <td>Visitor Parking</td> <td>1 space per 5 dwellings</td> </tr> </tbody> </table> <p><i>Note: Visitor parking is not required for developments of 4 dwellings or less where the adjoining road carriageway is ≥9m and no street parking restrictions are in place.</i></p>	Applies To:	Requirement (min/max.)	1-2 bedroom dwellings	1 space	3+ bedroom dwellings	2 spaces	Visitor Parking	1 space per 5 dwellings
	Applies To:	Requirement (min/max.)									
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Applies To:	Requirement (min/max.)										
1-2 bedroom dwellings	1 space										
3+ bedroom dwellings	2 spaces										
Visitor Parking	1 space per 3 dwellings										
		The visitor parking rate could be reduced to be closer to rates used by other Councils: <ul style="list-style-type: none"> • 0.2 visitor spaces/dwelling (Central Coast Council). • Visitor parking: 1 space per 4 units (Ku-ring-gai Council). • 1 visitor space per 5 medium or high density dwellings (Hornsby Shire Council). 									

04 DCP Recommendations

Current Control		Commentary	Modified/ New Control
new	new	Additionally consider a reduction/ exception to visitor parking requirements for smaller medium density developments that do not have a common driveway.	<p><i>For multi-dwelling housing developments that do not have a shared common driveway, visitor parking is not required where:</i></p> <ul style="list-style-type: none"> • <i>Torrens title subdivision is proposed; and</i> • <i>each lot / dwelling has full street frontage; and</i> • <i>each dwelling has provided the minimum parking requirements outlined above and is accessed by a separate driveway.</i>
new	new	<p>New control to provide adequate bicycle parking that is safe and easily accessible.</p> <p>Bicycle parking rates used by other Councils include:</p> <ul style="list-style-type: none"> • 1 space per 5 dwellings (Hornsby Shire and Ku-ring-gai Councils). • 1 space per 3 dwellings (Wilton DCP). 	<p><i>Secure bicycle parking and storage facilities should be provided on site as per the following minimum rates:</i></p> <ul style="list-style-type: none"> • <i>1 bicycle parking space per 5 dwellings; and</i> • <i>1 bicycle parking space (in the form of a bicycle rail) per 10 dwellings for visitors</i> <p><i>Bike parking is to be provided in accordance with requirements for layout, design and security as set out in the Australian Standard AS 2890.3 -1993 Parking facilities– Bicycle parking facilities.</i></p>
new	new	New control that requires new residential development to be designed and constructed with appropriate electrical infrastructure to facilitate the future installation of electric vehicle charging points.	<p><i>Integrate electric circuitry to accommodate 'Level 2' electric vehicle charging points into all off-street car parking in new residential development.</i></p> <p><i>'Level 2' charging in a domestic context, as defined by the NSW Electric and Hybrid Vehicle Plan- Future Transport 2056 (21 January 2019), consists of a single phase power point with a rating of 7kW.</i></p>
C3.16.2 (j)	<i>Driveway and verge crossing materials shall complement the current streetscape, and shall be preferably of compacted earth, gravel, stone cobble or plain concrete surface. Strong textures and bright colours, including stamped concrete, shall not be permitted on driveways or verge crossings.</i>	Permeable driveway surface treatments should also be encouraged to help minimise driveway paving.	<i>Driveway materials shall complement the current streetscape, and shall be preferably of compacted earth, gravel, stone cobble or plain concrete surface. Permeable driveway solutions are encouraged. The verge crossing materials (i.e. outside the site boundary) is to be plain concrete and match the footpath. Strong textures and bright colours, including stamped concrete, shall not be permitted on driveways or verge crossings.</i>

04 DCP Recommendations

Current Control		Commentary	Modified/ New Control
new	new	New control proposed to ensure basement parking doesn't visibly extend above ground and create undesirable streetscape outcomes.	<i>Basement car parking should not extend more than 1.0m above ground and should be screened or integrated with the building design so as to be visually recessive.</i>
new	new	New control proposed to minimise the visual dominance of driveways.	<i>Where a gun-barrel driveway cannot be avoided, the driveway must be curved and landscaped to Council's satisfaction to break up the appearance of the gun-barrel design.</i>
new	new	New control that provides specific controls for battle-axe driveways.	<p><i>Driveways for battle-axe sites, should:</i></p> <ul style="list-style-type: none"> <i>generally be a maximum of 3.0m width;</i> <i>driveways that are 30m or longer require a passing bay to be provided every 30m. To provide a passing bay, driveways shall be widened to 5.0m for a distance of at least 10m.</i> <i>provide a minimum of 0.5m wide landscaping to side boundaries to facilitate screening.</i>

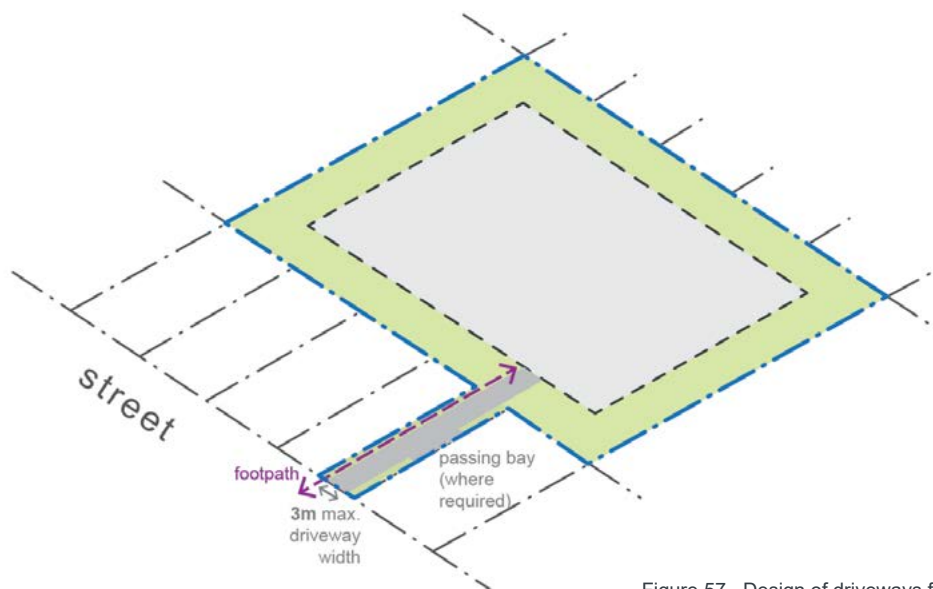


Figure 57 Design of driveways for battle-axe sites

4-16 Other Issues

No DCP changes have been proposed with regards to the existing medium density controls for dwelling orientation, pedestrian access, waste collection and adaptable housing, which are considered appropriate.

Commentary by the community, industry and council members identified other issues that need to be addressed within the DCP, including appropriate response to topography, preserving significant views, and stormwater retention. These topics are currently located in Part A of the DCP which applies to all land within the LGA.

Public Views and Vistas

(A2.2.7 Public Views and Vistas)

It is recommended that the Council, upon further investigation and consultation with the community, update the residential precincts map and identify significant views and vistas from streets and public reserves which strongly contribute to a sense of place and cultural identity. Objectives and controls to protect these views can be integrated within the character statement for each precinct. This would also help to minimise the visual impact of new development, particularly when viewed from, bushland, open space and the public domain.

Landform and excavation

(A7.4 Cut and Fill)

Stakeholders have highlighted the need to address the extent of excavation carried out by certain development. It is recommended that the Council investigate the provision of controls that regulate the maximum volume of excavation permissible for medium density development. For example, Woollahra Municipal Council specifies a maximum volume of excavation permitted for the development of residential flat buildings, manor houses, multi dwelling housing, multi dwelling housing (terraces), or attached dwelling development (including attached and detached garaging) based on the site area.

Character areas

Defining the future local character can play an important role in shaping new development. While character continues to evolve into the future with the addition of housing typologies, new development must also be sensitive to the existing local character, rather than simply replace or alter it.

Key planning controls such as height, setbacks and landscaped area are important, however other finer details are also required to ensure quality development is achieved that addresses the specific character of an area. Materiality, roof scape, trees and landscaping, fencing and even where the dwelling is positioned on the block can all shape how a neighbourhood and a street is perceived.

Some SEPP's and types of development approved under a complying development pathway rely on a local character statement. For example the DA Guide requires all Complying Development Certificate (CDC) approved development to be consistent with the local character statement.

It is recommended that the Council work with the community to identify local character areas within the Shire. Character area statements could be incorporated into the DCP, identifying objectives relevant to preserving or shaping the character in an area, with the goal of allowing for growth that is sensitive to the character of the area. Identification of critical character elements will help protect elements that mirror the long-term aspirations of the Wingecarribee community and maintain those elements in future development.

Water Management Stormwater and flooding (Part A4)

On-site stormwater retention for large sites prevents stormwater entering the already at-capacity drainage system. Requiring development to introduce stormwater management measures would help control localised flooding, stormwater quality and quantity, and improve the visual and environmental impact of stormwater drainage. The design of these areas needs to be carefully considered at the application stage to ensure the areas can be suitably landscaped and make a positive contribution to the character of the area.



Figure 58 Stormwater management should be considered as functionally and visually integrated into the overall design

4-17 Sub-zone A Overview	Max. FSR	Max. Building Height
	0.4:1	6m (1 storey + 2 rd storey in roof)

Sites located in Sub-zone A have been allocated the lowest building heights and maximum FSR controls for medium density development as these locations generally feature the most sensitive interfaces such as heritage items, heritage conservation zones and land uses not expected to undergo change, such as schools.



Figure 59 SGL suggested amended Sub-zone A locations

Sub-zone A Key Controls

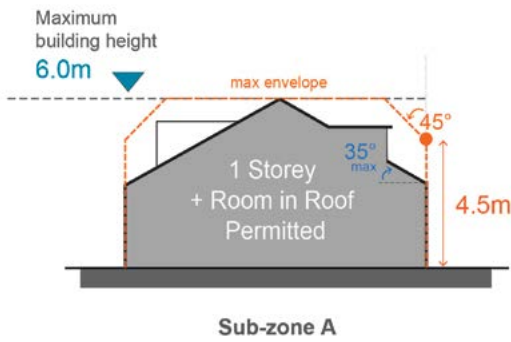


Figure 60 Maximum building envelope, Sub-zone A

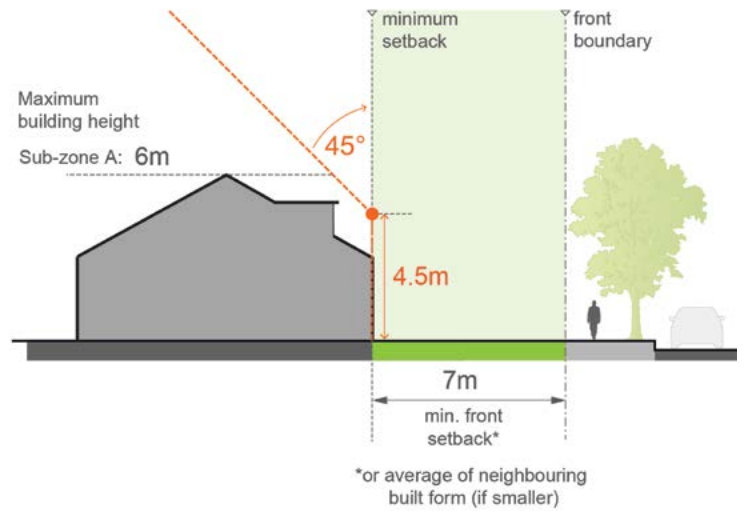


Figure 61 Minimum front setback, Sub-zone A

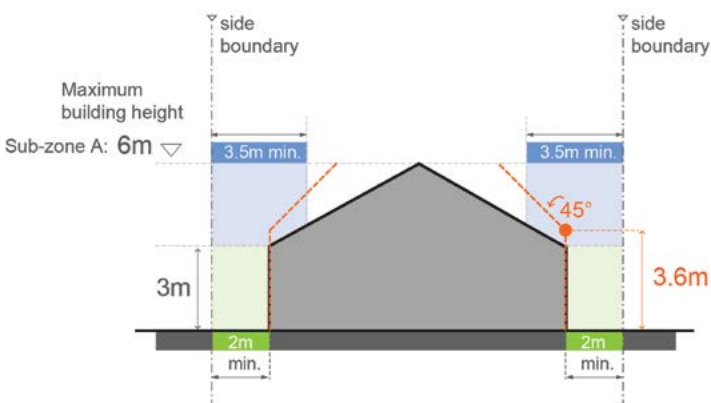


Figure 62 Minimum side setbacks, Sub-zone A

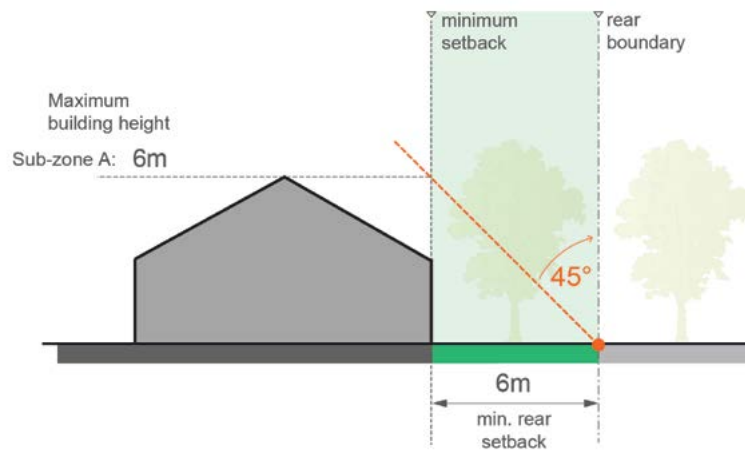


Figure 63 Minimum rear setbacks, Sub-zone A

4-18 Sub-zone B Overview	Max. FSR	Max. Building Height
	0.5:1	9m (2 storeys + 3rd storey in roof)

Sub-zone B sites are identified as having the capacity to enable medium density development which provides a gradual increase in height from the surrounding low density residential zones.



Figure 64 SGL suggested amended Sub-zone B locations

Sub-zone B Key Controls

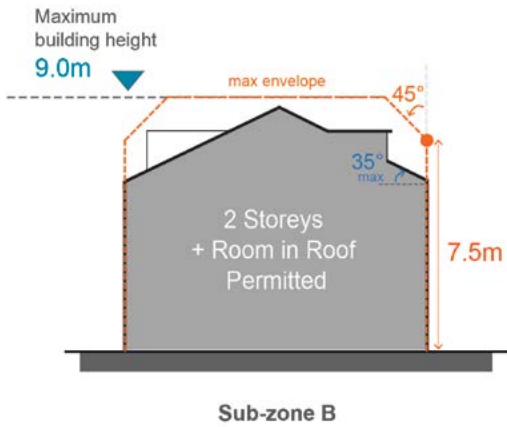


Figure 65 Maximum building envelope, Sub-zone B

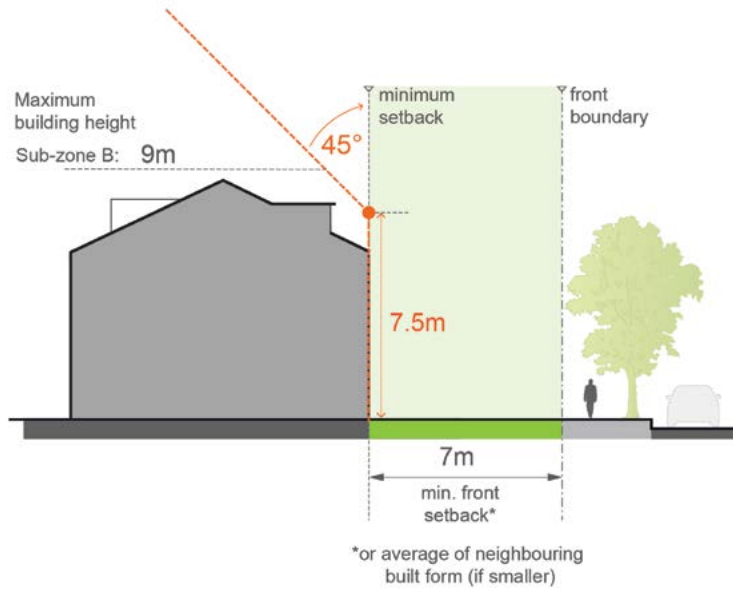


Figure 66 Minimum front setback, Sub-zone B

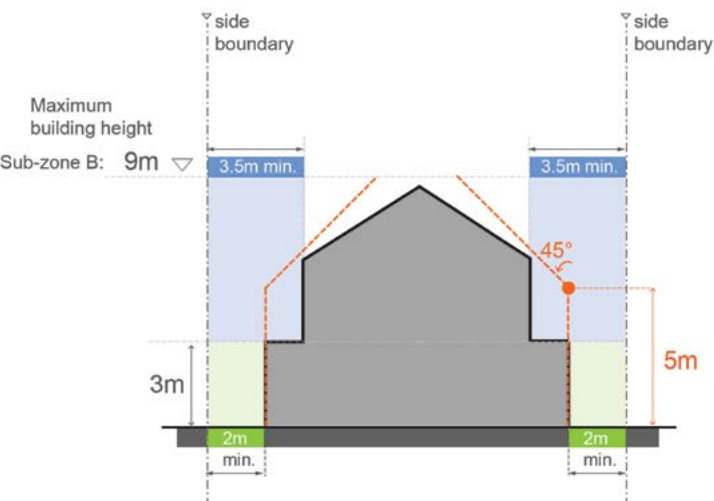


Figure 67 Minimum side setbacks, Sub-zone B

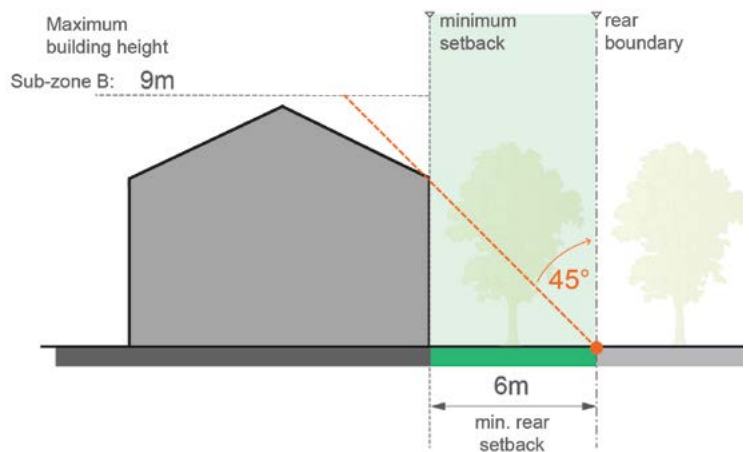


Figure 68 Minimum rear setback, Sub-zone B

4-19 Sub-zone C Overview	Max. FSR	Max. Building Height
	0.6:1	11m (3 storeys)

Sub-zone C is considered the best location for the intensification of medium density development given its close proximity to high amenity areas such as retail centres, public transport nodes and green open spaces. It is considered the most suitable location for larger scale medium density development.



Figure 69 SGL suggested amended Sub-zone C locations

Sub-zone C Key Controls

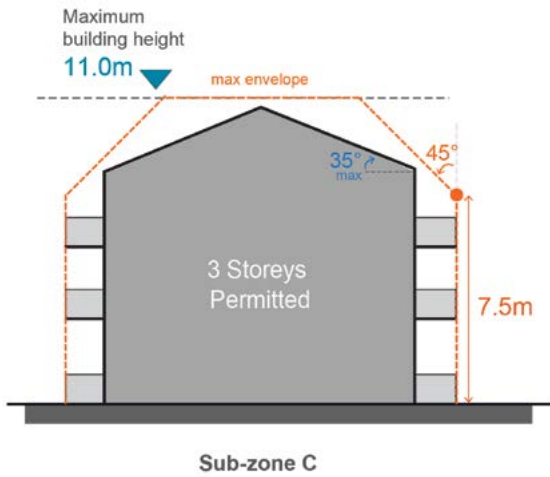


Figure 70 Maximum building envelope, Sub-zone C

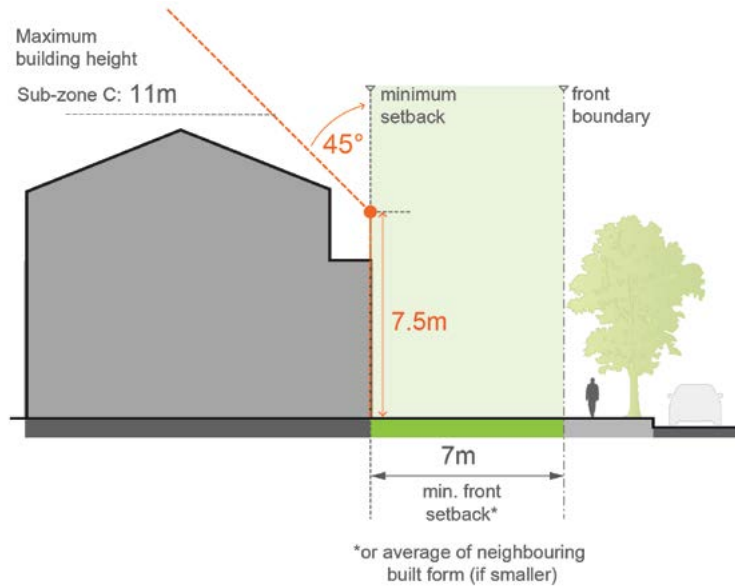


Figure 71 Minimum front setback, Sub-zone C

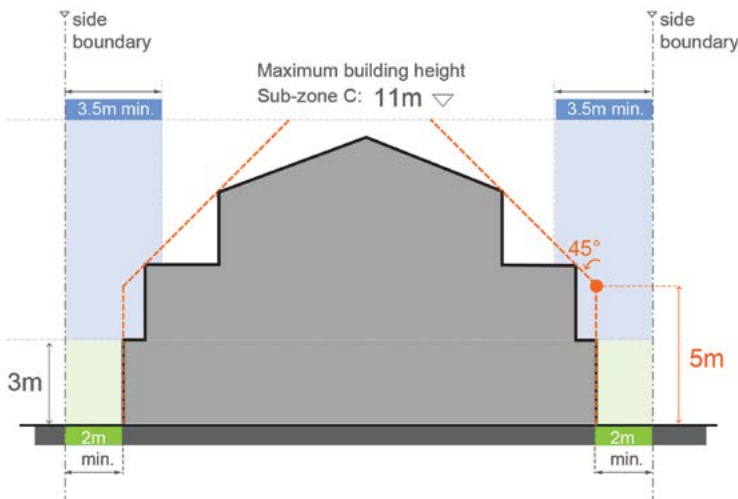


Figure 72 Minimum side setbacks, Sub-zone C

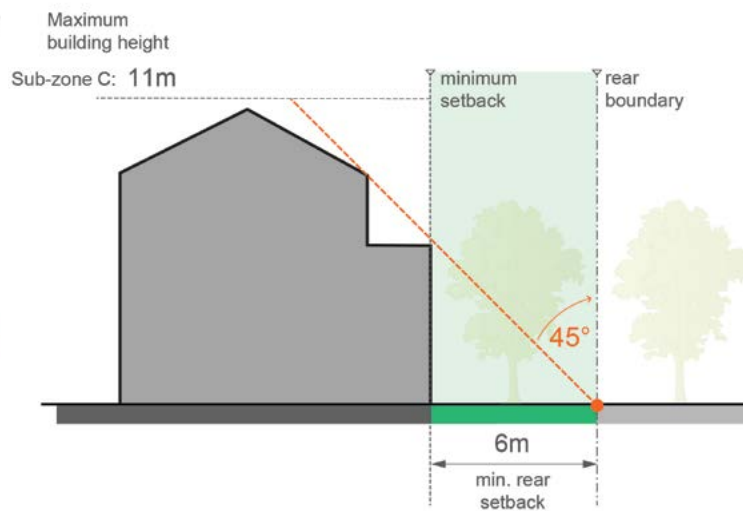


Figure 73 Minimum rear setback, Sub-zone C



Appendix A Planning Controls

A-1 Specific LEP & DCP Provisions

A-2 Wingecarribee DCP 2010

A-3 Low Rise Housing Diversity Guide

A-4 SEPP 65 and the Apartment Design Guide

A-1 Specific LEP & DCP Provisions

Mittagong

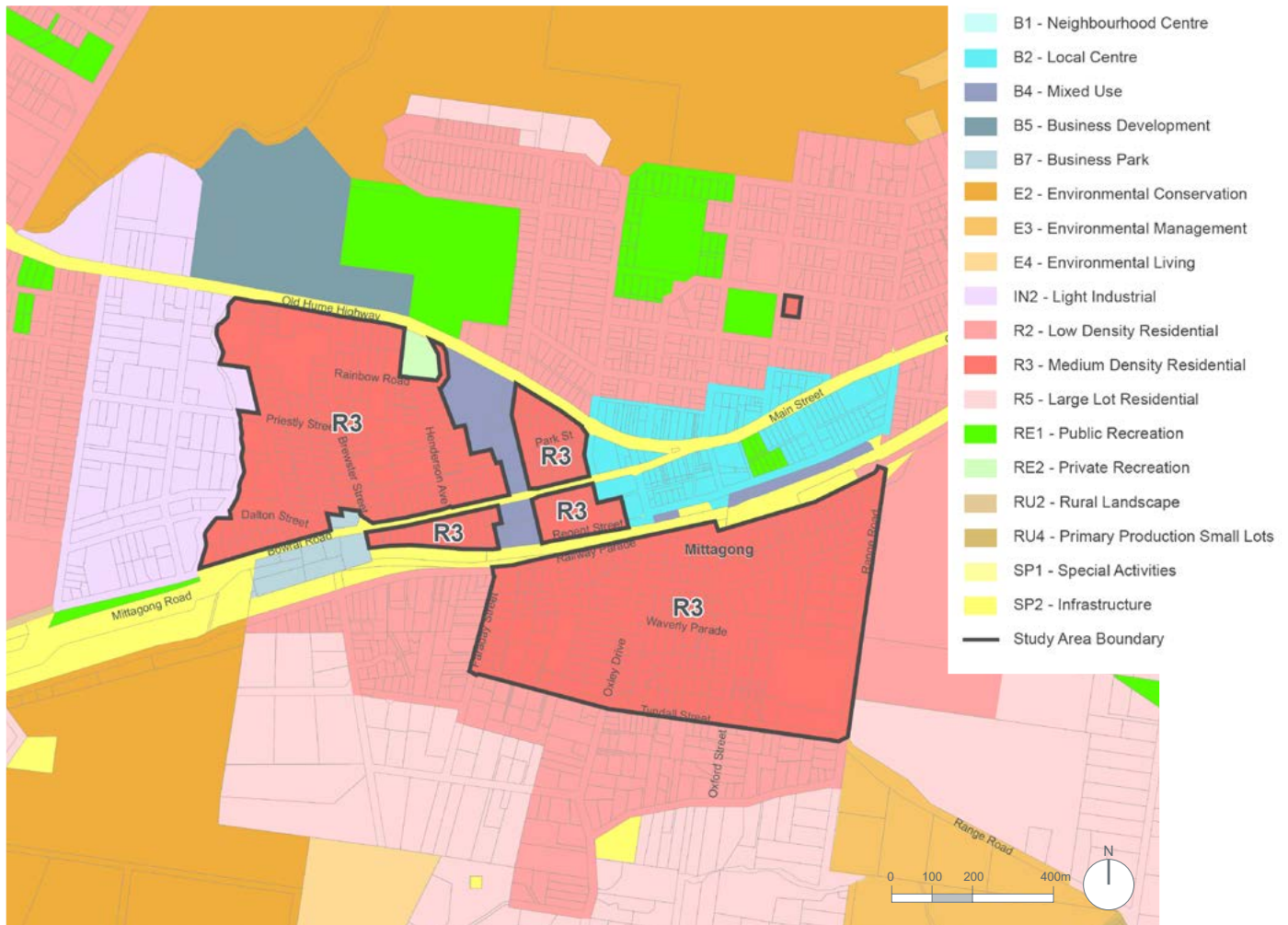


Figure 74 Mittagong Land Zone Map (Wingecarribee Local Environmental Plan 2010)

Land Zone

There are approximately 505 lots zoned R2 Medium Density Residential that are distributed on either side of the railway line. Two isolated lots zoned R3 Medium Density Zone are located on the corner of Alice and Alfred Street.

The objectives of this zone are:

- To provide for the housing needs of the community within a medium density residential environment.
- To provide a variety of housing types within a medium density residential environment.

- To enable other land uses that provide facilities or services to meet the day to day needs of residents.

Residential development permitted with consent under this zone include attached dwellings, boarding houses, group homes, multi dwelling housing, and seniors housing. Development of dwelling houses, dual occupancies, semi-detached dwellings and residential flat buildings is not explicitly prohibited.

Surrounding land zones include B4 Mixed Use, R2 Low Density Residential, IN2 Light Industrial and B2 Local Centre.

A-1 Specific LEP & DCP Provisions

Mittagong

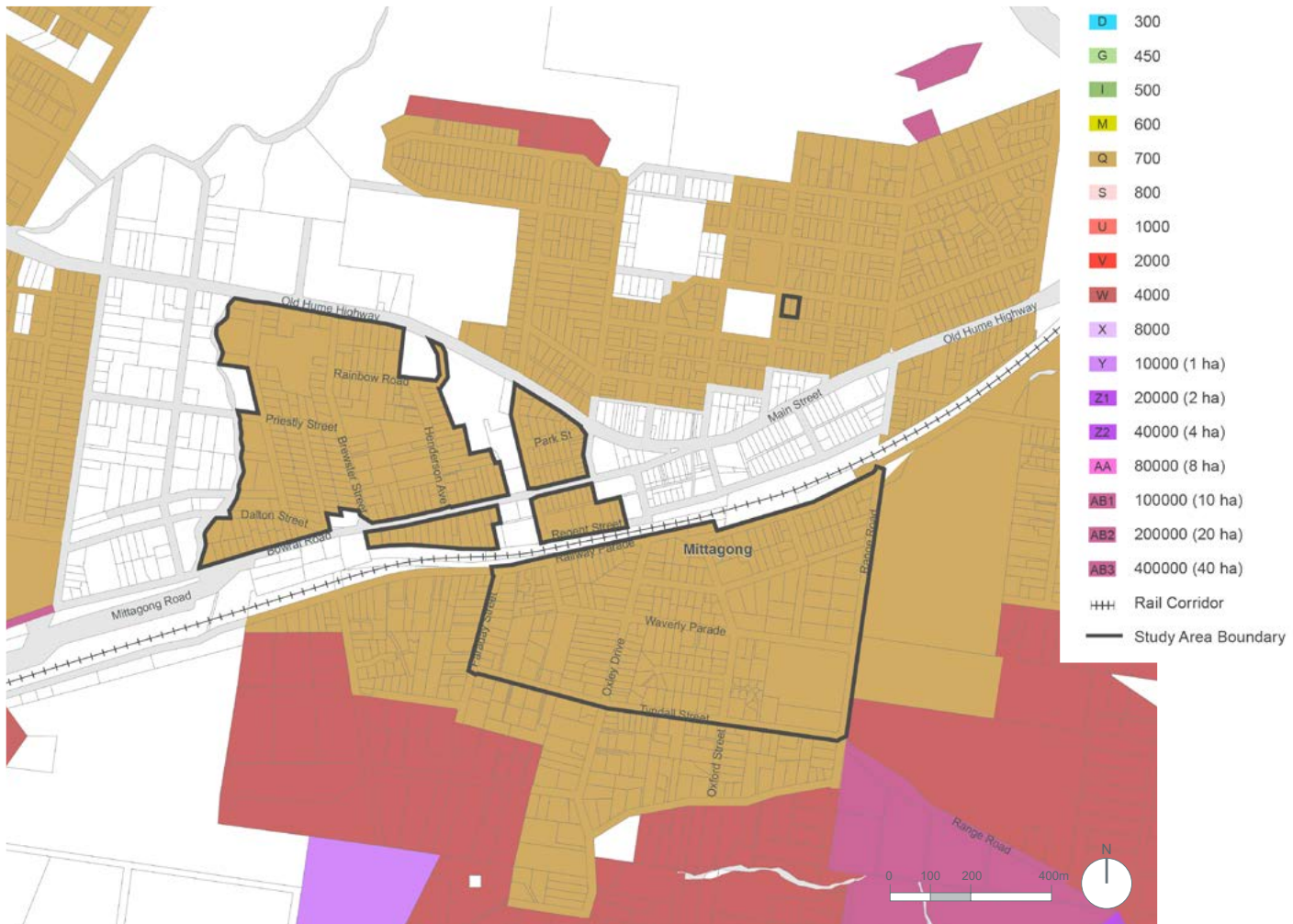


Figure 75 Mittagong Minimum Lot Size Map (Wingecarribee Local Environmental Plan 2010)

Minimum Lot Size

Minimum lot size is established by the LEP and relates to the resultant size of a lot after subdivision. The objectives of this control seek to ensure that development is consistent with the desired future character of the neighbourhood, lots have a minimum size to retain or enhance amenity by providing useable areas for building and landscaping and identifies locations that are suitable for increased development density.

All lots zoned R3 Medium Density Residential within the study area have a minimum lot size of 700m². For dual occupancy development within the R3 zone, a minimum area of 1,000 m² is required.

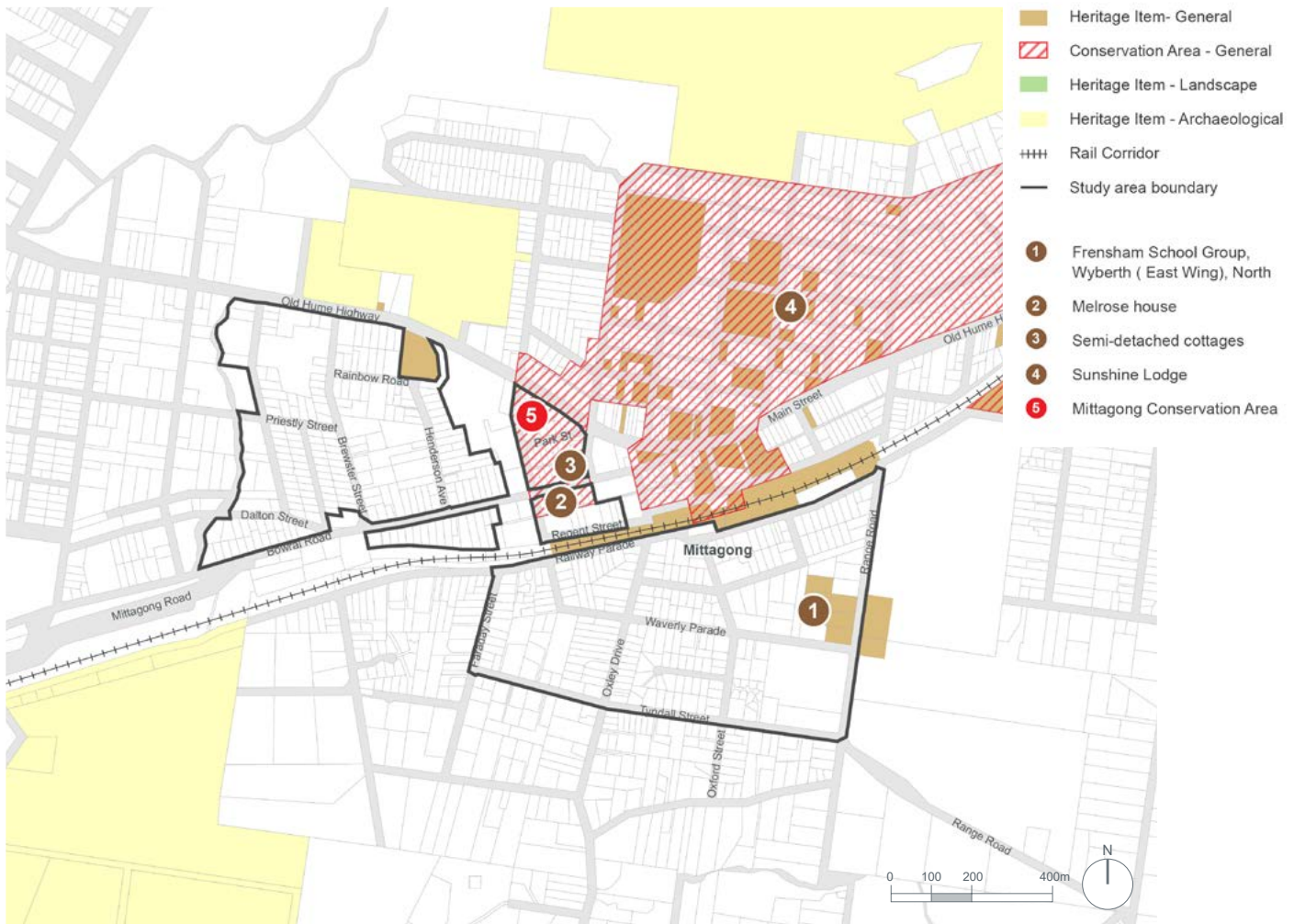


Figure 76 Mittagong Heritage Map (Wingecarribee Local Environmental Plan 2010)

Heritage

A number of sites within the R3 Medium Density Residential zone have been identified as heritage items. This includes the Frensham Girls School located south of the railway line, and a number of cottages located along Bowral Road.

A few of the sites along Park Street and Bowral Road are part of the Mittagong Conservation Area.



Figure 77 Map of Mittagong in 1891 (Mittagong Real Estate Leaflet)

A-1 Specific LEP & DCP Provisions

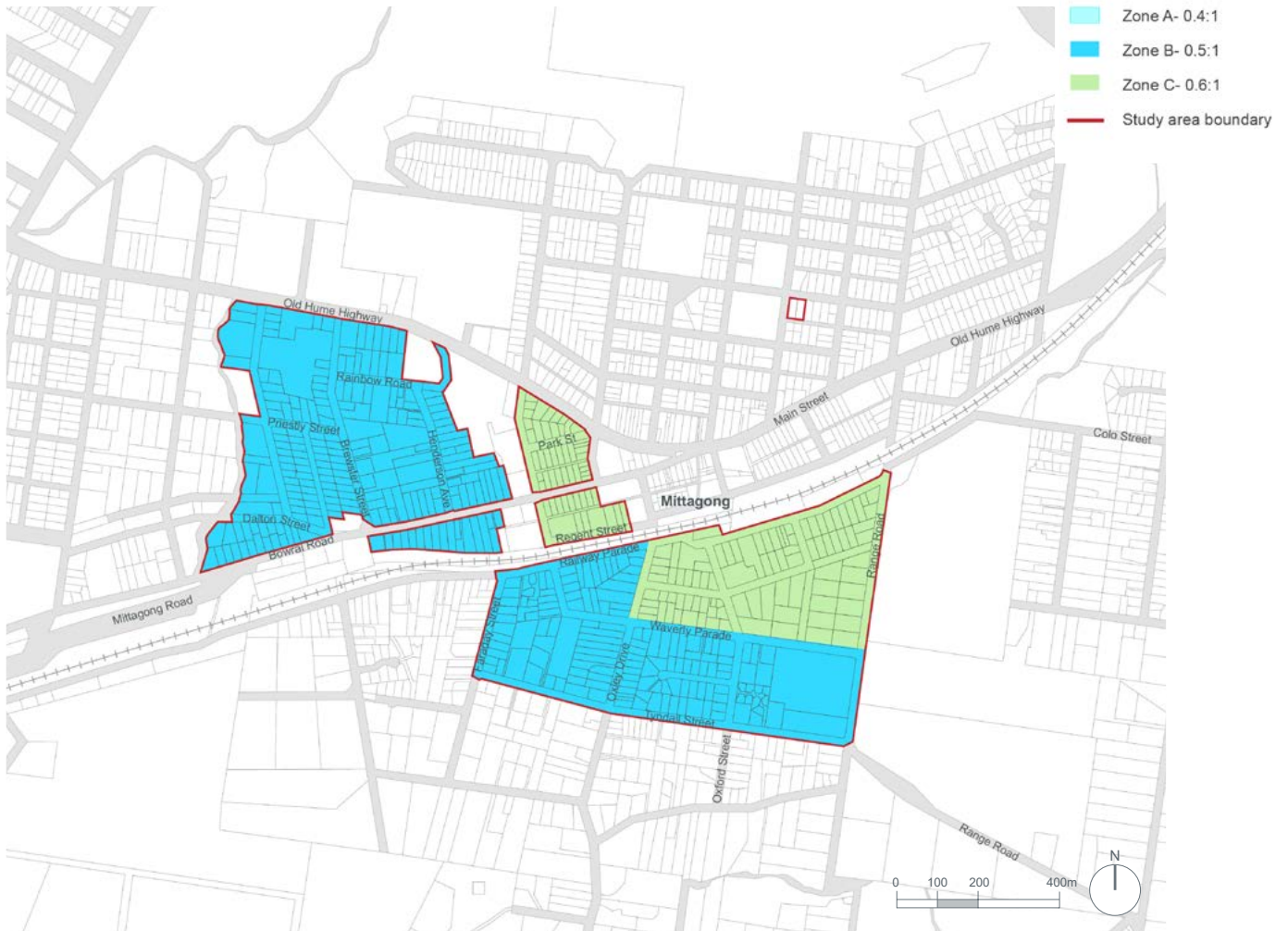


Figure 78 Mittagong FSR Sub-zone map (Wingecarribee Development Control Plan)

FSR Sub-zones - DCP

Density regulations are expressed as a floor space ratio (FSR). The objectives for density controls within Mittagong aim to ensure:

- the site is developed to provide adequate amenity for future residents.
- the development maintains the amenity of existing residents.
- the impacts upon existing streetscapes of the local area are minimised.

Under the current DCP, all land zoned R3 Medium Density Residential has been divided into three sub-zones – A, B and C with FSRs of 0.4, 0.5 and 0.6 respectively.

In Mittagong, only Sub-zones B and C apply. Sub-zone C is the only location where residential flat buildings will be considered by Council.

Bowral

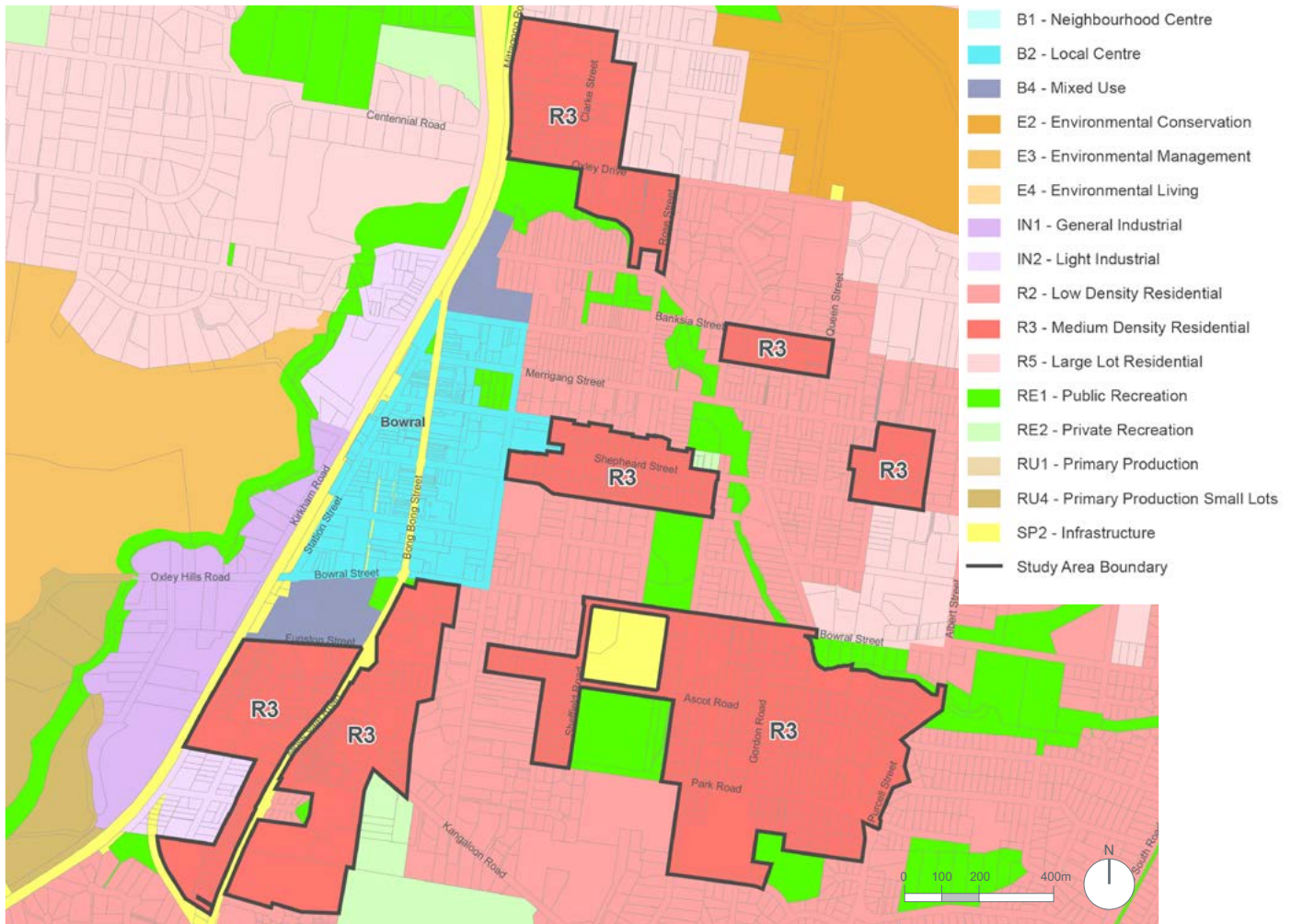


Figure 79 Bowral Land Zone Map (Wingecarribee Local Environmental Plan 2010)

Land Zone

There are approximately 545 lots zoned R2 Medium Density Residential that are located in fragments east of the railway line. The entrance to the town via Moss Vale Road and Mittagong Road is marked by two expanses of medium density zoned land.

The objectives of this zone are:

- To provide for the housing needs of the community within a medium density residential environment.
- To provide a variety of housing types within a medium density residential environment.

- To enable other land uses that provide facilities or services to meet the day to day needs of residents.

Residential development permitted with consent under this zone include attached dwellings, boarding houses, group homes, multi dwelling housing, and seniors housing. Development of dwelling houses, dual occupancies, semi-detached dwellings and residential flat buildings is not explicitly prohibited.

Surrounding land zones include, R2 Low Density Residential, R5 Large Lot Residential, B4 Mixed Use and B2 Local Centre.

A-1 Specific LEP & DCP Provisions

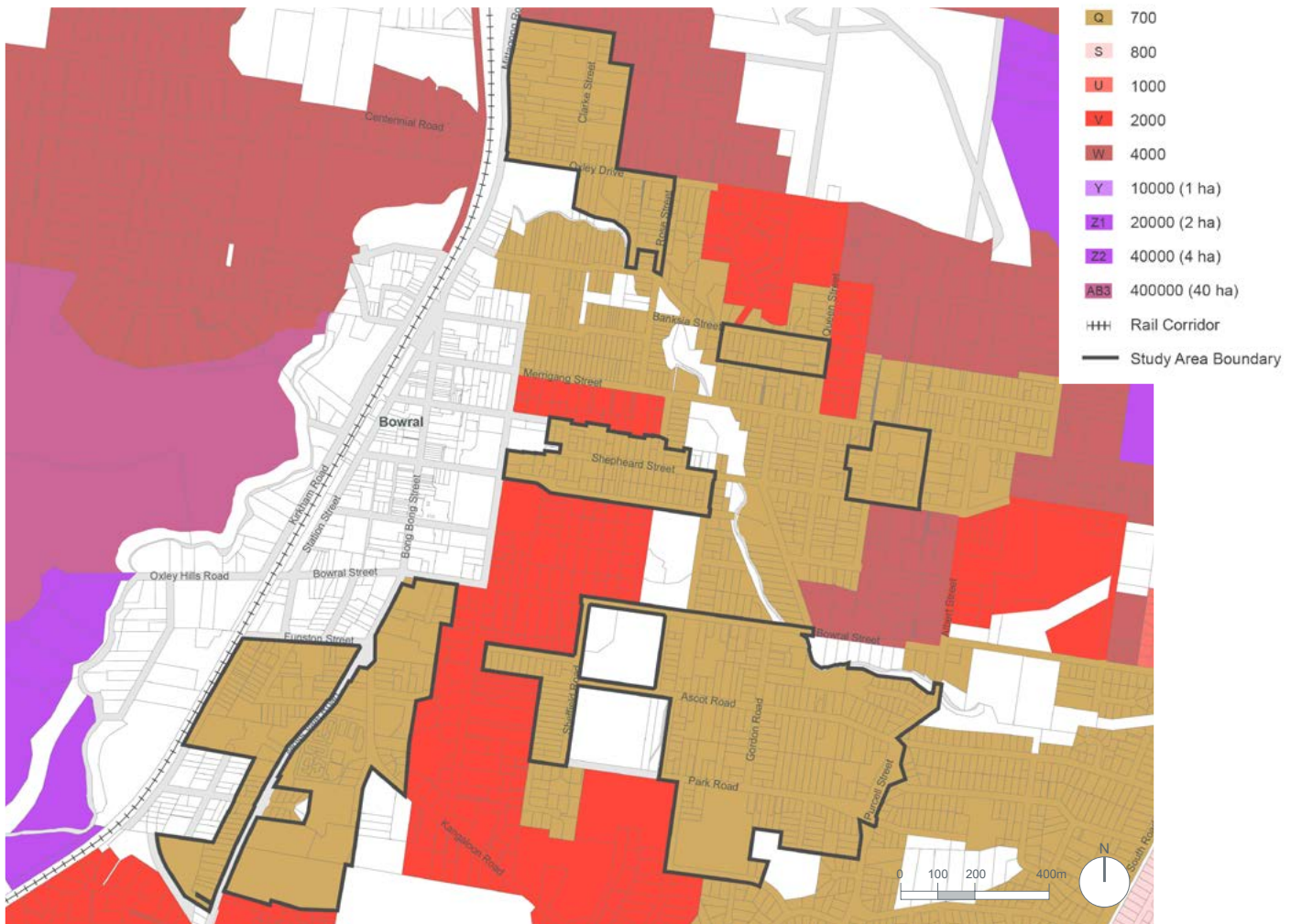


Figure 80 Bowral Minimum Lot Size Map (Wingecarribee Local Environmental Plan 2010)

Minimum Lot Size

Minimum lot size is established by the LEP and relates to the resultant size of a lot after subdivision. The objectives of this control seek to ensure that development is consistent with the desired future character of the neighbourhood, lots have a minimum size to retain or enhance amenity by providing useable areas for building and landscaping and identifies locations that are suitable for increased development density.

All lots zoned R3 Medium Density Residential within the study area have a minimum lot size of 700m². For dual occupancy development within the R3 zone, a minimum area of 1,000 m² is required.

Bowral

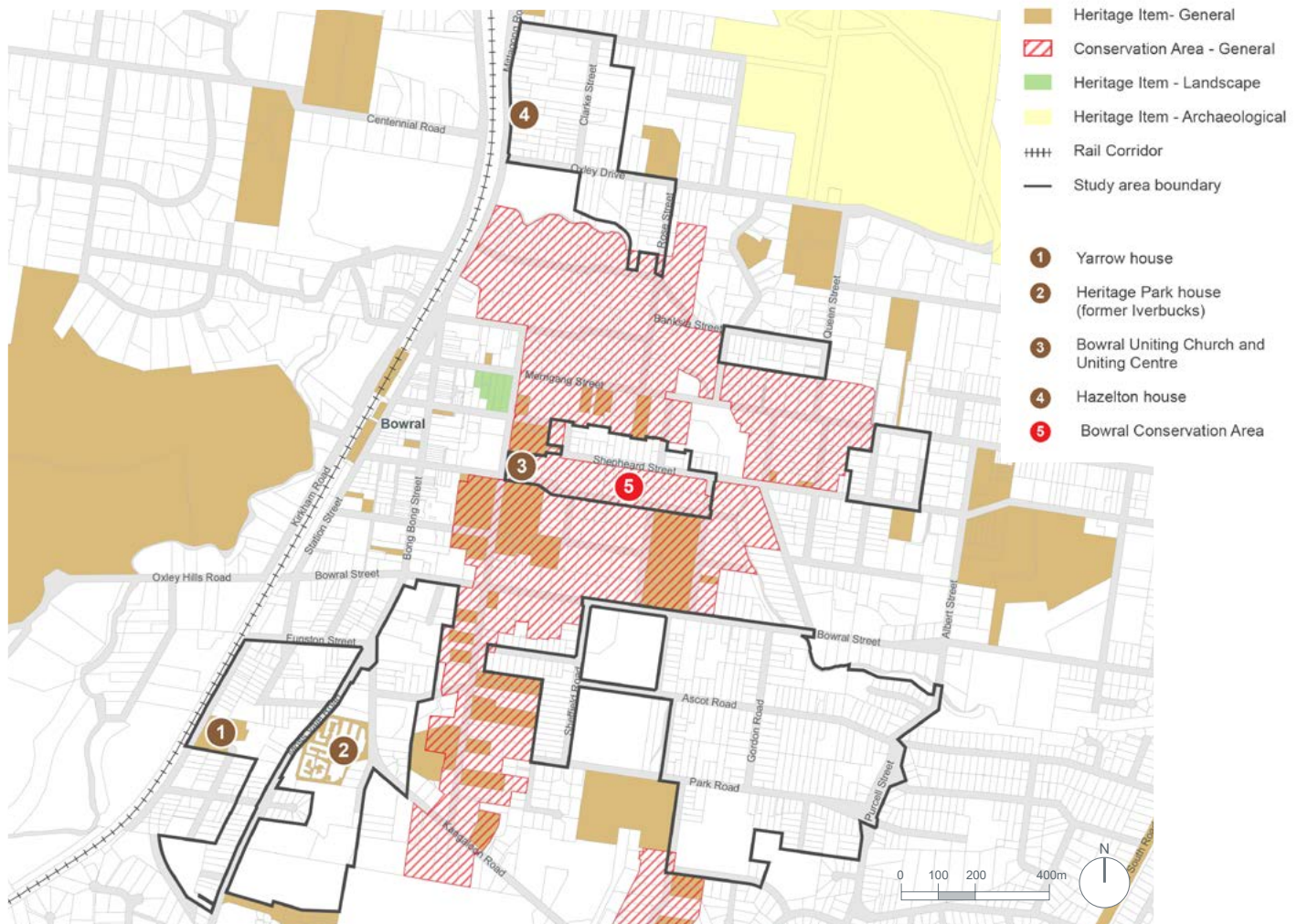


Figure 81 Bowral Heritage Map (Wingecarribee Local Environmental Plan 2010)

Heritage

A number of sites within the R3 Medium Density Residential zone have been identified as heritage items. This includes the Bowral Uniting Church and Uniting Centre and a number of houses throughout the centre.

A few of the medium density sites along Shepherds Street are part of the Bowral Conservation Area.



Figure 82 The significance of Bowral Streetscape as identified in the Wingecarribee heritage study 1991

A-1 Specific LEP & DCP Provisions

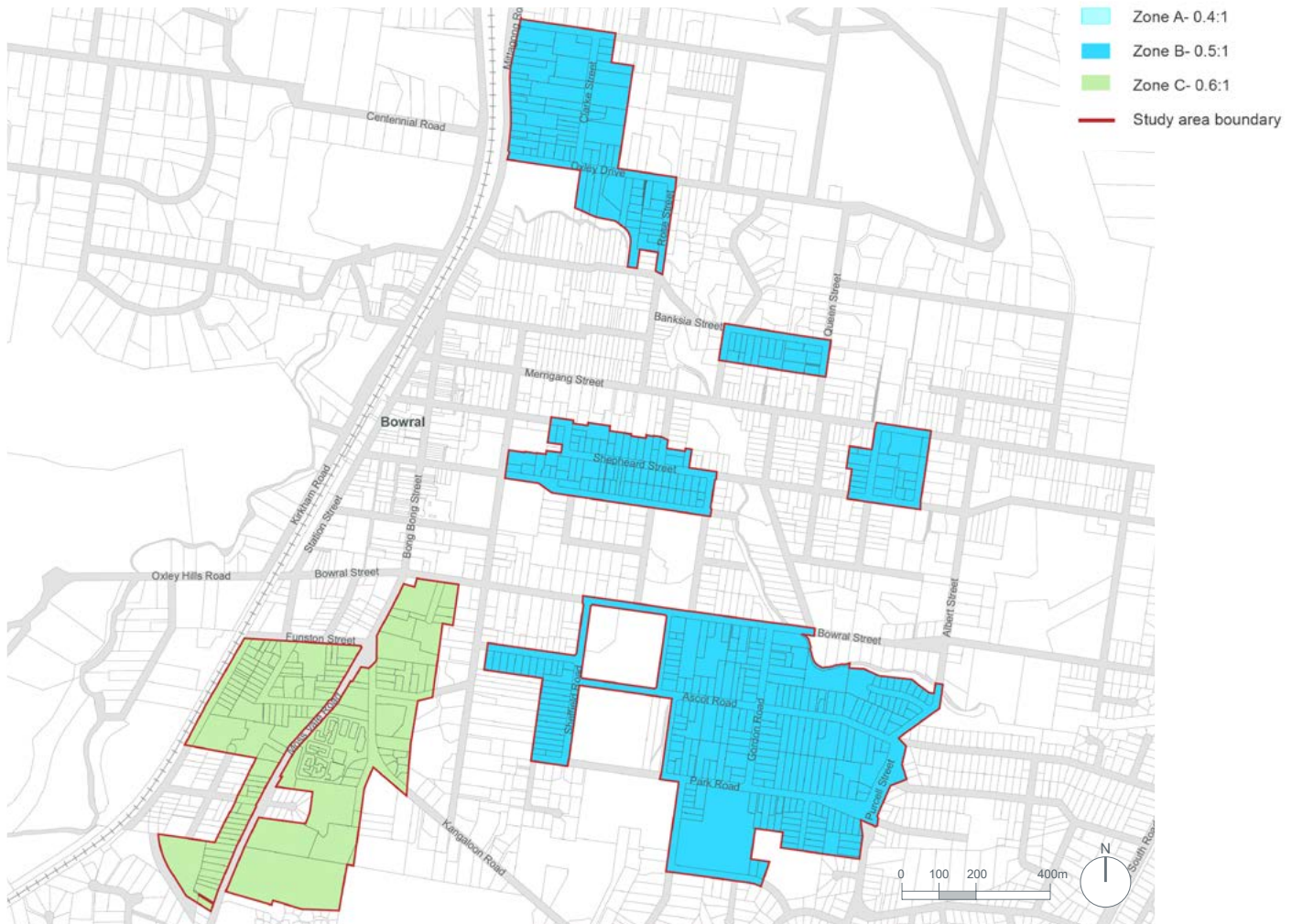


Figure 83 Bowral FSR Sub-zone map (Wingecarribee Development Control Plan)

FSR Sub-zones - DCP

Density regulations are expressed as a floor space ratio (FSR). The objectives for density controls within Bowral aim to ensure:

- the site is developed to provide adequate amenity for future residents.
- the development maintains the amenity of existing residents.
- the impacts upon existing streetscapes of the local area are minimised.

Under the current DCP, all land zoned R3 Medium Density Residential has been divided into three sub-zones – A, B and C with FSRs of 0.4, 0.5 and 0.6 respectively.

In Bowral, only Sub-zones B and C apply. Sub-zone C is the only location where residential flat buildings will be considered by Council.

Moss Vale

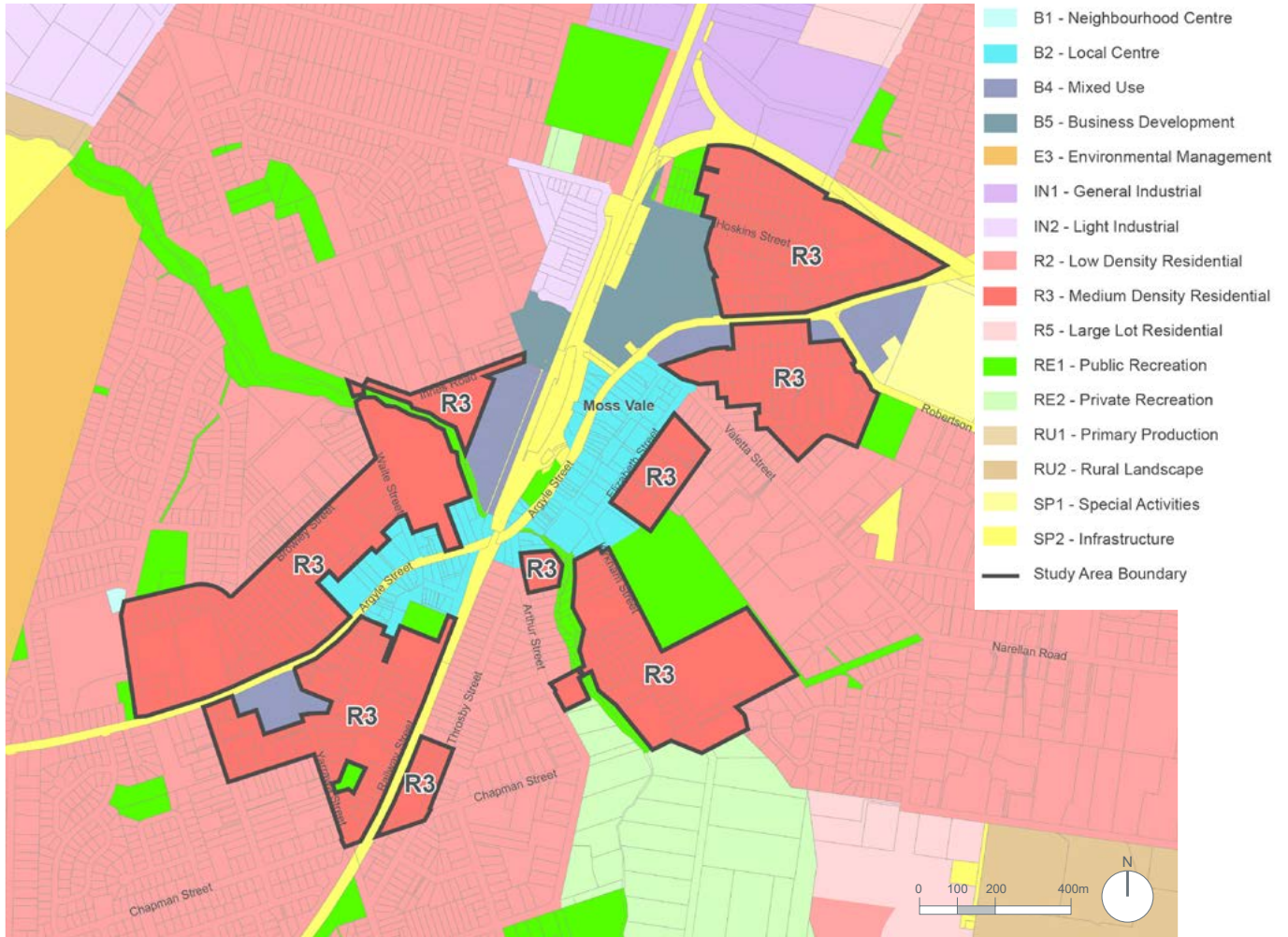


Figure 84 Moss Vale Land Zone Map (Wingecarribee Local Environmental Plan 2010)

Land Zone

There are approximately 420 lots zoned R2 Medium Density Residential that are located on either side of the railway line. The entrance to the town north and south via Argyle Street is marked by two large expanses of medium density zoned land.

The objectives of this zone are:

- To provide for the housing needs of the community within a medium density residential environment.
- To provide a variety of housing types within a medium density residential environment.

- To enable other land uses that provide facilities or services to meet the day to day needs of residents.

Residential development permitted with consent under this zone include attached dwellings, boarding houses, group homes, multi dwelling housing, and seniors housing. Development of dwelling houses, dual occupancies, semi-detached dwellings and residential flat buildings is not explicitly prohibited.

Surrounding land zones include, R2 Low Density Residential, B4 Mixed Use and B2 Local Centre.

A-1 Specific LEP & DCP Provisions

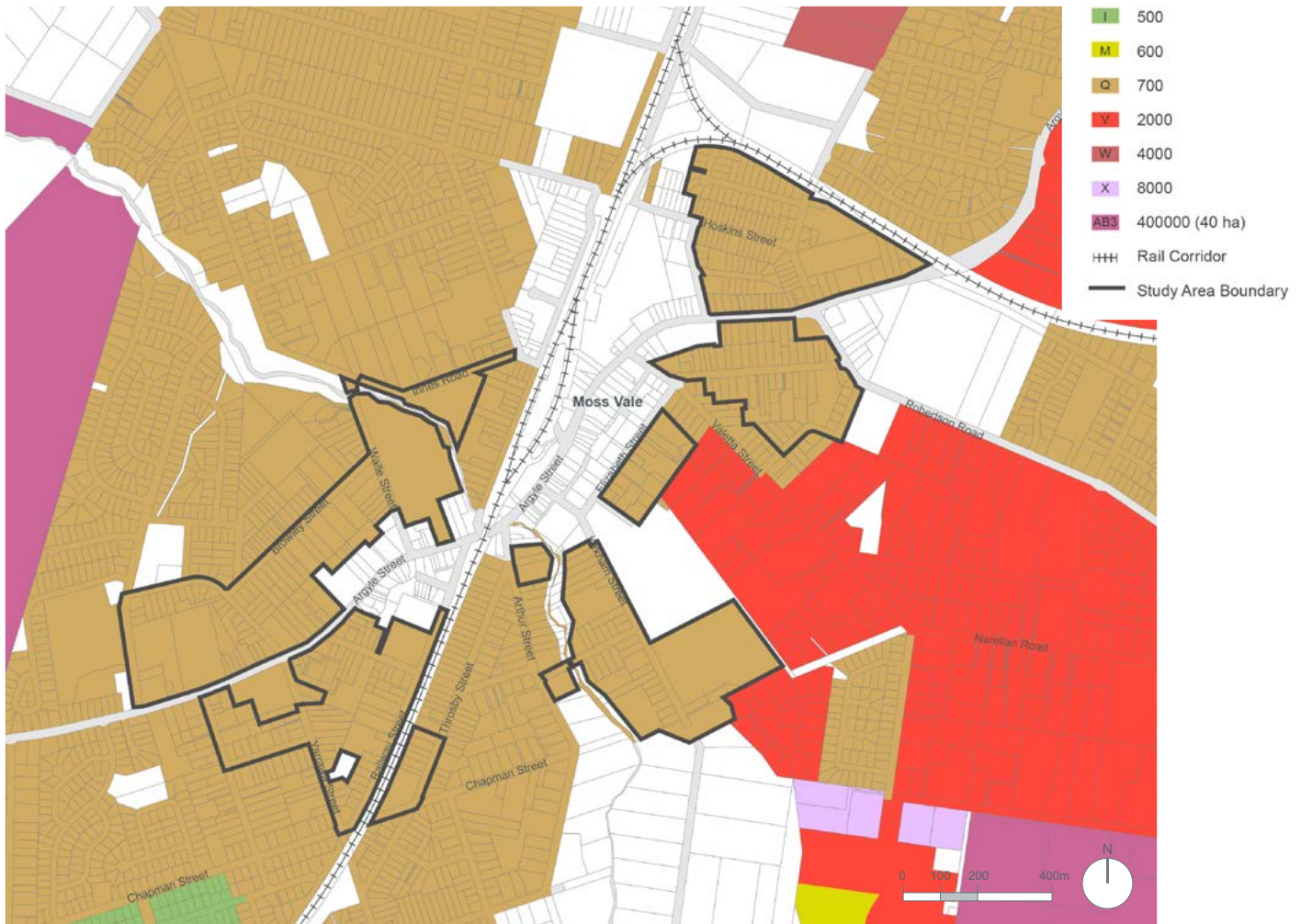


Figure 85 Moss Vale Minimum Lot Size Map (Wingecarribee Local Environmental Plan 2010)

Minimum Lot Size

Minimum lot size is established by the LEP and relates to the resultant size of a lot after subdivision. The objectives of this control seek to ensure that development is consistent with the desired future character of the neighbourhood, lots have a minimum size to retain or enhance amenity by providing useable areas for building and landscaping and identifies locations that are suitable for increased development density.

All lots zoned R3 Medium Density Residential within the study area have a minimum lot size of 700m². For dual occupancy development within the R3 zone, a minimum area of 1,000 m² is required.

Moss Vale

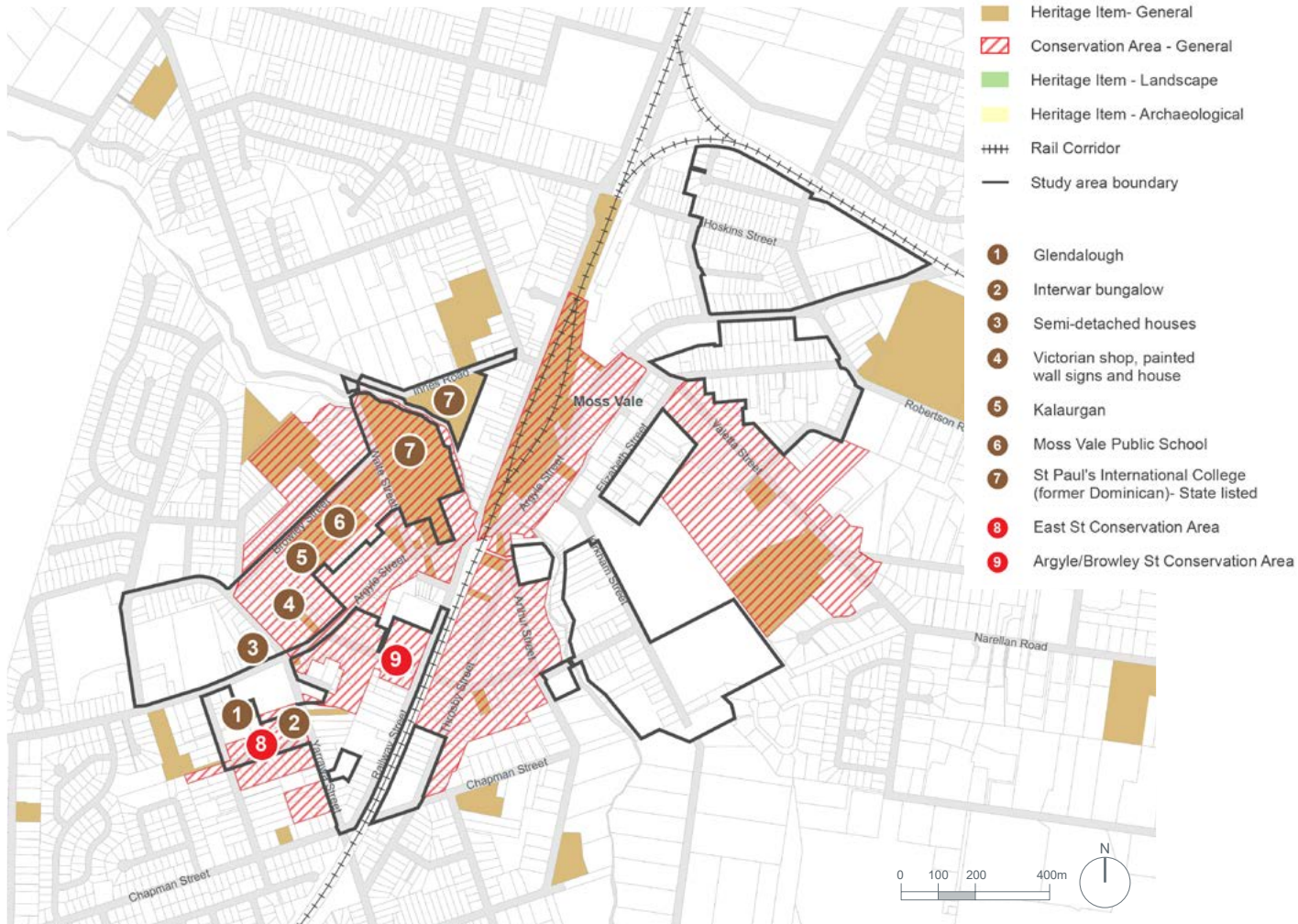


Figure 86 Moss Vale Heritage Map (Wingecarribee Local Environmental Plan 2010)

Heritage

A number of sites within the R3 Medium Density Residential zone have been identified as heritage items. This includes St Paul's International College, which is both state and local heritage listed, Moss Vale Public School and a number of houses located west of the railway line throughout the centre.

Part of the medium density zone, located west of the railway line, also fall within two Heritage Conservation Areas, namely, East St Conservation Area and Argyle/Browley St Conservation Area.



Figure 87 Heritage Listed Glendalough House
Source: First National Moss Vale

A-1 Specific LEP & DCP Provisions

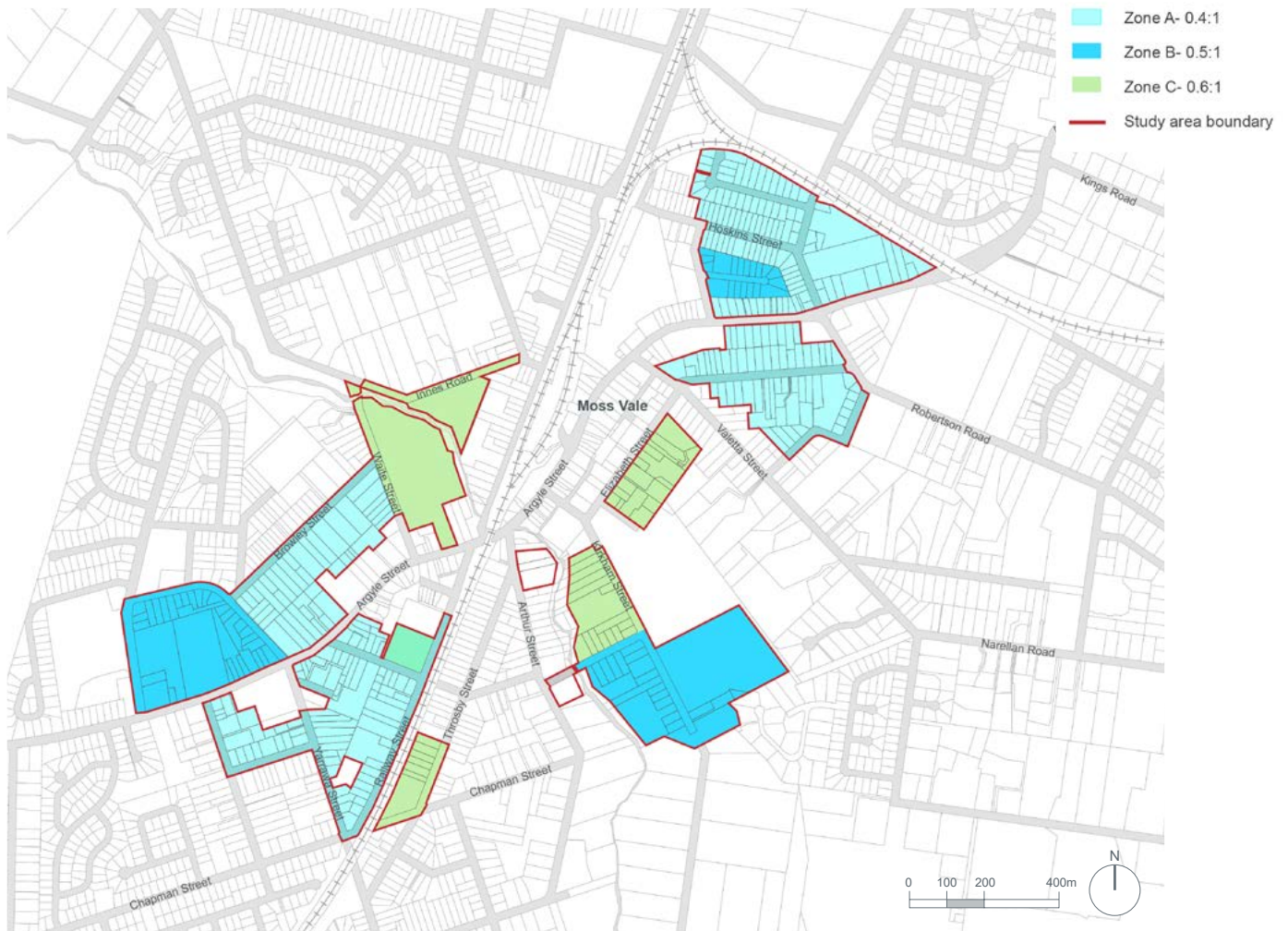


Figure 88 Moss Vale FSR Sub-zone map (Wingecarribee Development Control Plan)

FSR Sub-zones - DCP

Density regulations are expressed as a floor space ratio (FSR). The objectives for density controls within Moss Vale aim to ensure:

- the site is developed to provide adequate amenity for future residents.
- the development maintains the amenity of existing residents.
- the impacts upon existing streetscapes of the local area are minimised.

Under the current DCP, all land zoned R3 Medium Density Residential has been divided into three sub-zones – A, B and C with FSRs of 0.4, 0.5 and 0.6 respectively.

In Moss Vale, Sub-zones A, B and C apply. Sub-zone C is the only location where residential flat buildings will be considered by Council. The site located at the corner of Spring Street and Railway Street is currently within the FSR Sub-zones of A and C.

Bundanoon

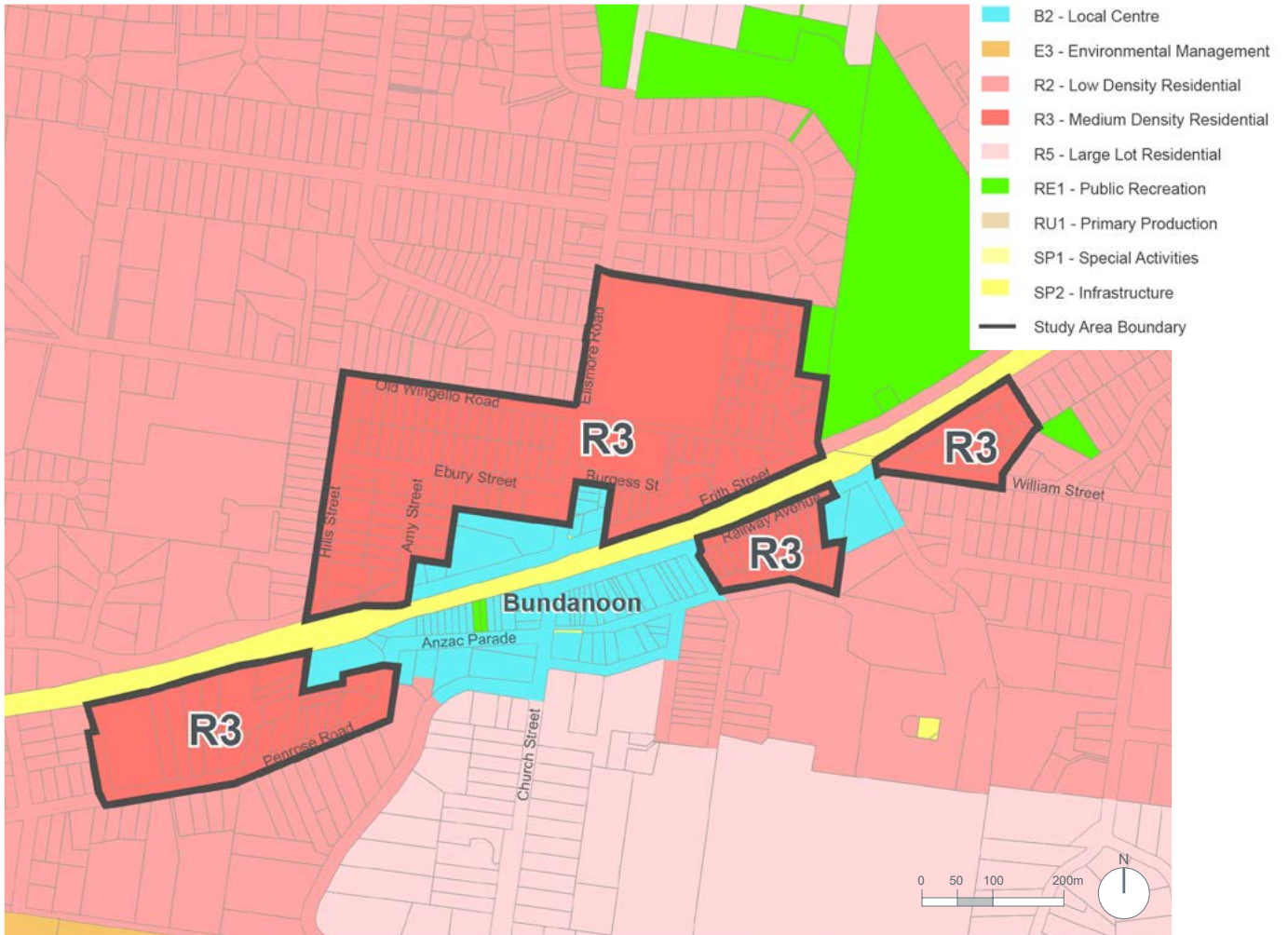


Figure 89 Bundanoon Land Zone Map (Wingecarribee Local Environmental Plan 2010)

Land Zone

There are approximately 170 lots zoned R2 Medium Density Residential that are distributed on either side of the railway line.

The objectives of this zone are:

- To provide for the housing needs of the community within a medium density residential environment.
- To provide a variety of housing types within a medium density residential environment.
- To enable other land uses that provide facilities or services to meet the day to day needs of residents.

Residential development permitted with consent under this zone include attached dwellings, boarding houses, group homes, multi dwelling housing, and seniors housing. Development of dwelling houses, dual occupancies, semi-detached dwellings and residential flat buildings is not explicitly prohibited.

Surrounding land zones include R2 Low Density Residential, and B2 Local Centre.

A-1 Specific LEP & DCP Provisions

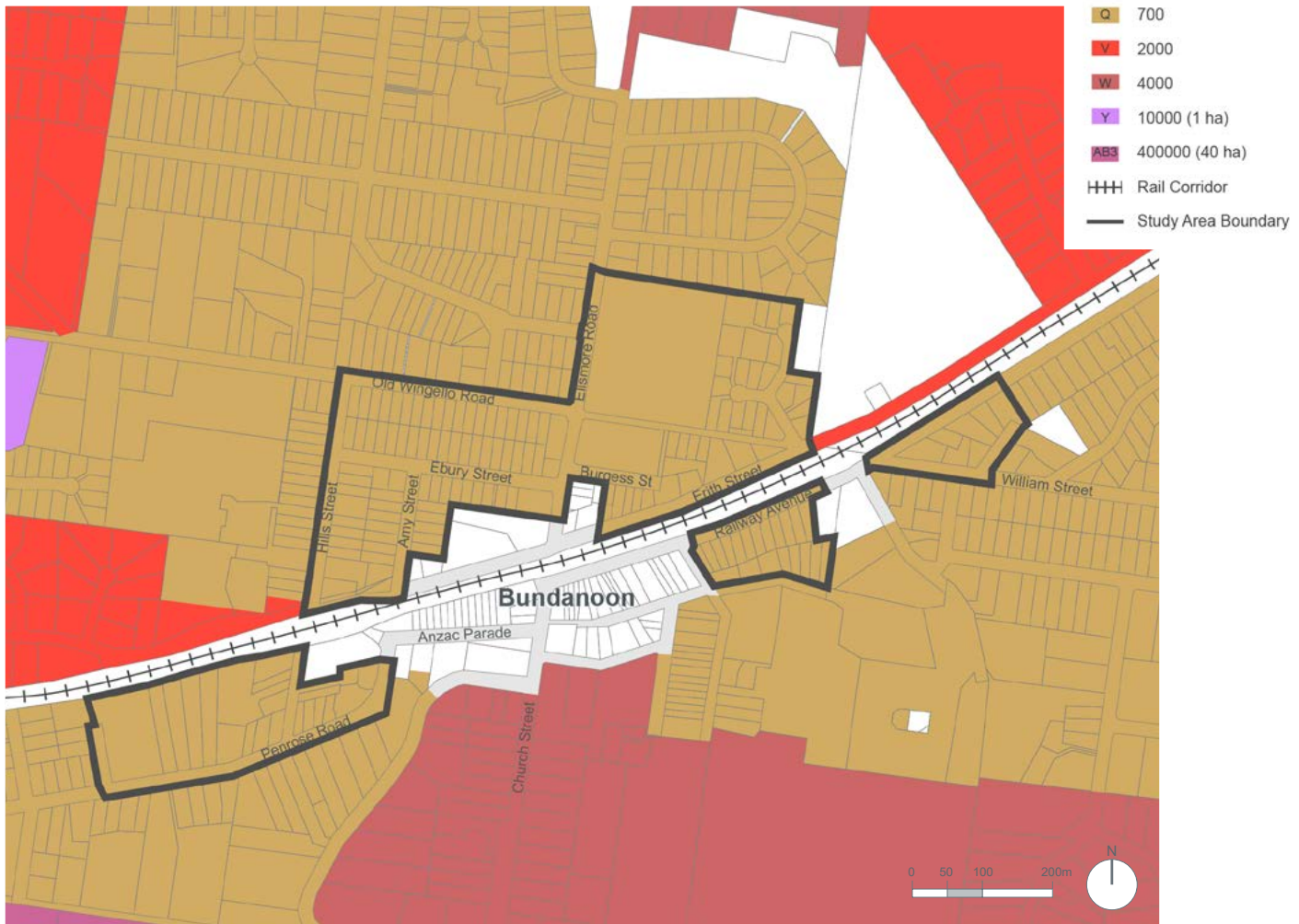


Figure 90 Bundanoon Minimum Lot Size Map (Wingecarribee Local Environmental Plan 2010)

Minimum Lot Size

Minimum lot size is established by the LEP and relates to the resultant size of a lot after subdivision. The objectives of this control seek to ensure that development is consistent with the desired future character of the neighbourhood, lots have a minimum size to retain or enhance amenity by providing useable areas for building and landscaping and identifies locations that are suitable for increased development density.

All lots zoned R3 Medium Density Residential within the study area have a minimum lot size of 700m². For dual occupancy development within the R3 zone, a minimum area of 1,000 m² is required.

Bundanoon

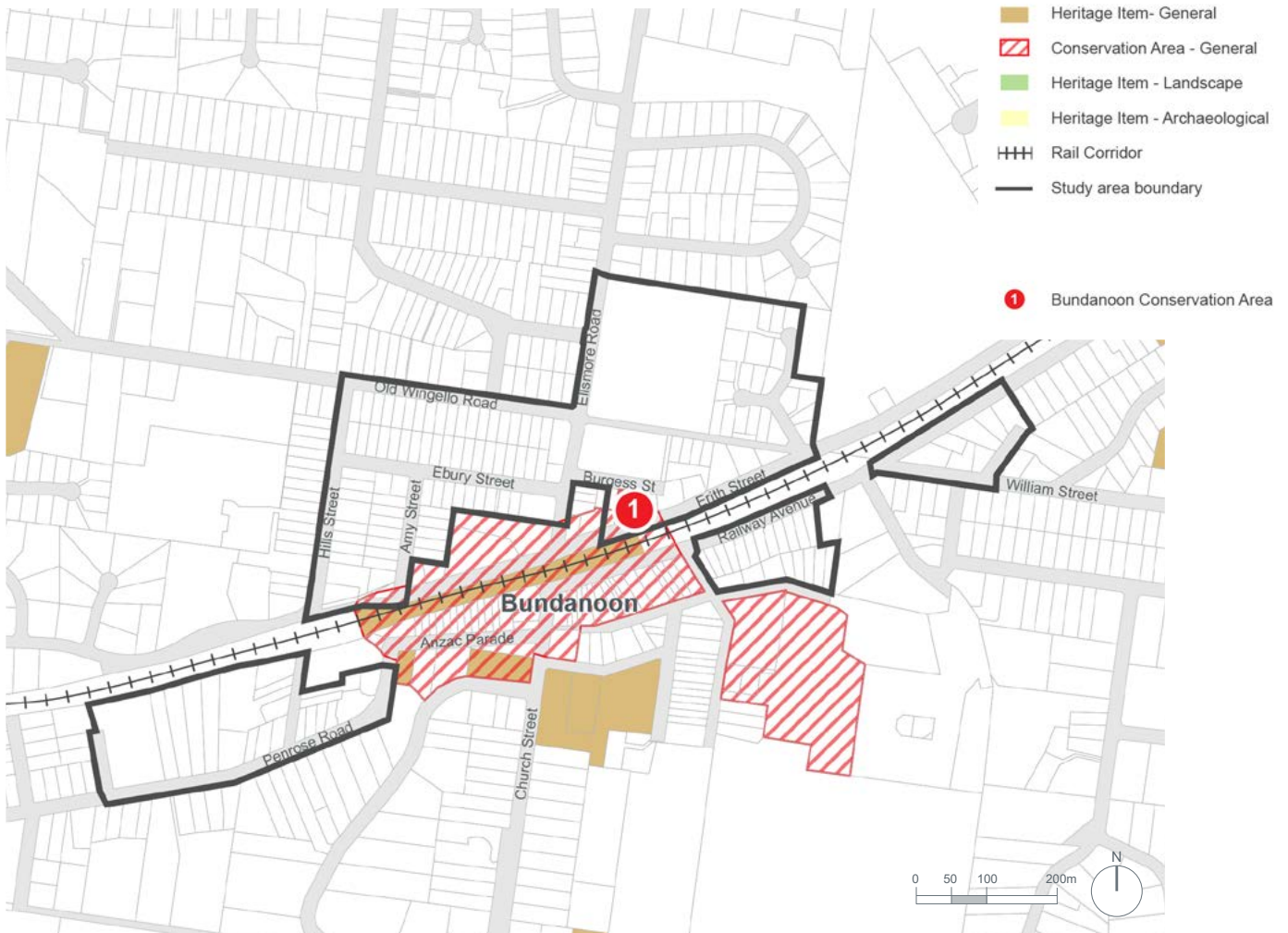


Figure 91 Bundanoon Heritage Map (*Wingecarribee Local Environmental Plan 2010*)

Heritage

There are no heritage items identified within the study area. A few sites zoned R3 Medium Density Residential along Erith Street are located within the Bundanoon Conservation Area.



Figure 92 Development in Bundanoon parallel to the Railway Line and part of the HCA as identified in the *Wingecarribee heritage study 1991*

A-1 Specific LEP & DCP Provisions

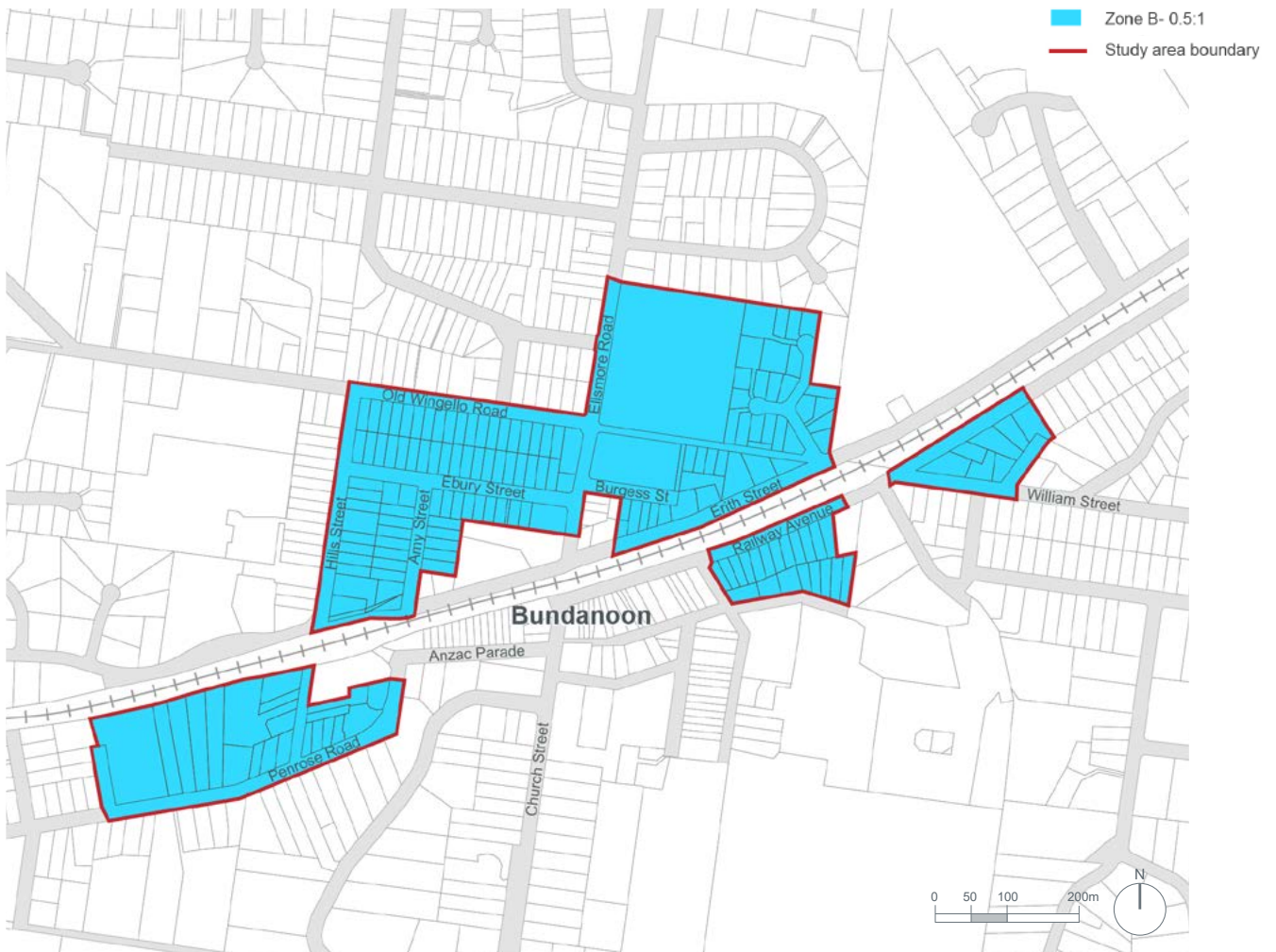


Figure 93 Bundanoon FSR Sub-zone map (Wingecarribee Development Control Plan)

FSR Sub-zones - DCP

Density regulations are expressed as a floor space ratio (FSR). The objectives for density controls within Bundanoon aim to ensure:

- the site is developed to provide adequate amenity for future residents.
- the development maintains the amenity of existing residents.
- the impacts upon existing streetscapes of the local area are minimised.

Under the current DCP, all land zoned R3 Medium Density Residential has been divided into three sub-zones – A, B and C with FSRs of 0.4, 0.5 and 0.6 respectively.

In Bundanoon, only Sub-zone B applies. No residential flat buildings allowable under Sub-zone C are found within Bundanoon.

A-2 Wingecarribee DCP 2010

The Wingecarribee Development Control Plans 2010 (WDCP) provide more detailed provisions for development to achieve the purpose of the Wingecarribee LEP 2010 and identifies general and site specific controls for development within the Shire.

The Council currently has individual DCPs for each of its towns and villages and for specific land use zones. Key policies for medium density development from the most relevant Town Plan DCPs are summarised in the following sections:

In general, the objectives for all residential development within the four towns are to ensure that the residential amenity is maintained and improved, the unique characteristics of the existing residential areas are conserved, and all new residential development is sustainable and sympathetic to the existing or desired streetscape character. In addition, all development are to achieve the residential diversity objectives:

“(a) Promote a mix of housing types to increase residential choice within the town, particularly around bus and rail connections.

(b) Encourage appropriate site amalgamation and redevelopment to provide a range of residential opportunities throughout the town.”

The controls and guidelines for medium density development apply to multi dwelling housing and residential flat buildings within the R3 Medium Density Residential Zone.

Minimum Frontage Requirements

All multi dwelling housing are to have a minimum of 25 metres of site frontage to a public street or other appropriate public place. Battle- axe blocks may have a street frontage less than 25m, provided the width of block at the end of the access handle amounts to 25m and is parallel to the street.

Site planning and street orientation

The maximum length of building is 25m and the proportion of dwellings located beyond 50m from the public street is limited. Dwellings in a medium density development, located closest to the street are required to maintain the same dwelling orientation as in the existing street pattern.

Height

The maximum building height controls for residential zoned land across the Shire are dictated by the WDCP and referred to in terms of the maximum number of ‘storeys’. For single (1) storey development, the height is generally six (6) metres. For two (2) storey development, the height is nine (9) metres. For three (3) storey development, it is twelve (12) metres.

Applies To:	Requirement (max.)
Residential Flat Buildings	3 storeys (third floor within roofline)
Other medium density housing	2 storeys
All medium density housing in HCAs	1 storey (additional spaces allowed within roof form)

A-2 Specific LEP & DCP Provisions

Building design

The development is required to be designed to provide attractive on-site visual variation by use of staggered building setbacks, variation of roof lines, curved driveways and access roads, landscaping and the like.

Buildings are to ensure that courtyard areas of the same and adjoining dwellings receive direct sunlight during the major part of daylight hours. Living areas and private open space should be located to the north and west to maximise solar access. Habitable rooms are to be screened and separated from communal areas, neighbouring windows and private open spaces of adjoining development.

Balconies can encroach into the setback for a maximum of 2 metres or 25 per cent, whichever is the lesser. No part of any means of enclosure of a balcony shall exceed a height of 1.2 metres.

Setbacks

Minimum setback distances measured from the outermost projection of buildings (excluding balconies) to the site boundary are as follows:

Applies To:	Front	Side	Rear
Development with relevant adjacent setbacks	Determined by the difference between the setbacks of adjacent dwellings: If distance is equal or <2m: the front setback of new dwellings can be set within the established range If distance is >2m: the front setback of new dwellings is to be the average of the two existing setbacks.	Generally consistent with the immediate adjacent context. Min. requirements for RFBs is 1.5 metres + height of the building in metres. Min. requirements for Multi-dwelling housing: <ul style="list-style-type: none"> • 2m side setback for buildings upto 3m. • 3.5m setback for buildings higher than 3m. 	Generally consistent with the immediate adjacent context.
RFBs where adjacent setbacks are not relevant	9m	Satisfies min. requirement + Based on merit	Based on Merit
Other multi dwelling housing where adjacent setbacks are not relevant	8m	Satisfies min. requirement + Based on merit	Based on Merit
Corner blocks	Generally ½ of primary setback	Same as above	Same as above

Dwelling orientation

The dwelling orientation should maximise sunlight and ensure that the living area and 50% of the primary private open space of the new dwelling and the adjacent dwellings receives a minimum of 3 hours of direct sunlight on June 21st.

Mix of Dwelling

Any development with more than 8 dwellings should provide a mix of dwellings ranging in number and size of bedrooms.

Privacy

Where windows are located less than 9m from adjoining dwellings, they:

- Should be offset from the edge of windows of adjoining dwellings by a minimum of 0.5m; or
- Should have a sill height of minimum 1.7m above the floor or have fixed obscure glazing in any part of the window less than 1.7 metres above the floor.

Landscaped Open Space

The total area of Open Space includes paths, patios and soft landscaped areas. Areas consisting of building footprint, driveways, car parking, and garbage storage areas and the like, are not considered as Open Space.

A minimum of 50% of the total site area is to be provided as Landscaped Open Space for all medium density housing.

All primary private open space should be directly accessible from the primary living area. Minimum requirements for Private Open Spaces:

Applies To:	Minimum area	Minimum dimension
Residential Flat Buildings:	Dwellings on ground floor: 30m ² Dwellings above ground floor: 15m ²	Dwellings on ground floor: 4m Dwellings above ground floor: 3m
Other medium density housing	50m ²	5m

Driveways are to be located at a minimum of 1m from the side boundary. The driveway-vehicular crossover should be located at a minimum of 3m from any street tree.

All boundaries having a frontage to a public road, public place or public open space; and parts of the site which remain undeveloped, are required to have appropriate treatment. Treatment methods may include the planting of trees, shrubs, plants and lawns (the species of which may be specified by Council), the erection of fences, walls and screens, or the exclusion thereof.

Street trees of compatible existing species are to be provided on the footpath or verge area where none currently exists.

Materials and colours

In general, all buildings should incorporate brick, brick veneer or masonry construction. Special feature materials will be allowed for a proportion of the external cladding. Use of galvanised steel is subject to specific Council consent. The use of zincalume in buildings is prohibited.

Driveway and verge crossing materials are to be consistent with current streetscape, preferably of compacted earth, gravel, stone cobble or plain concrete surface. Strong textures and bright colours, including stamped concrete, shall not be permitted on driveways or verge crossings.

Parking, Garaging, Driveways and Common Paved Areas

Requirement for off street parking:

Applies To:	Requirement (min/max.)
1-2 bedroom dwellings	1 space
3+ bedroom dwellings	2 spaces
Visitor Parking	1 space per 3 dwellings

At least one parking space per dwelling shall be a covered parking space. Where garages form part of the dwelling, they shall be located at least 1.2 metres behind the main building façade and should not exceed more than 40% of the dwelling frontage.

Double garages to the street frontage shall be avoided in preference to tandem parking or single garage and car port options.

The width of driveways will be limited to 25% of the frontage to a public street.

Adaptable Housing

Provision of Adaptable housing at a ratio of 1:3 dwellings for all Medium density housing is required and is to be constructed to a minimum standard of Class C level as stipulated in Australian Standard 4299 – Adaptable Housing.

A-3 Low Rise Housing Diversity Guide



Cover and extract of the recently released draft Medium Density Guide prepared by DP&I

The Low Rise Housing Diversity Code (the Code) forms part of the State Environmental Planning Policy (Exempt and Complying Development Code) 2008 and permits a range of medium density housing typologies including Dual Occupancies, Manor Houses and Terraces, to be achieved through a complying development certificate process.

It allows medium density typologies to be built as 'complying development' if they are permissible with consent in the land use zone under the LEP. Complying development establishes an 'as of right' development potential – but only if all standards are met. However, aspects of a development application can be assessed on their merits and may not comply with all controls as set out in a DCP.

Complying development is not permitted on environmentally sensitive land, in heritage conservation areas or on the same land as a heritage item. On this basis complying development is restricted in application compared to the development potential under the DA pathway – mainly in relation to heritage conservation areas.

The next section compares the controls for three typologies: dual occupancy, manor house and terraces; permissible within the R3 Medium Density Residential Zone and complying under the Low Rise Housing Diversity Code.

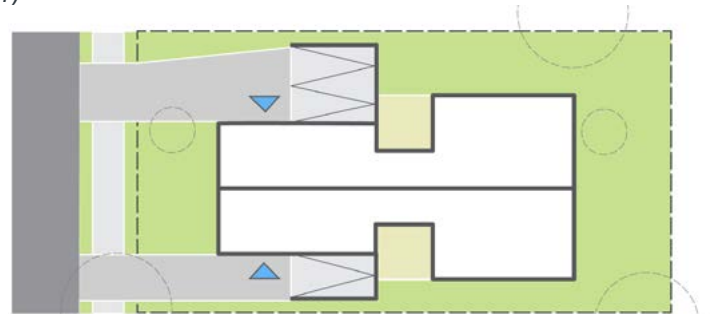
As detailed in the following sections, the Code permits medium density typologies, particularly manor houses and terraces, that are not restricted by the minimum lot width, that would be larger than that allowable under the current controls in the Wingecarribee DCP and would be required to provide lesser landscaped areas. This could potentially alter the character of the Shire.

From 1 July 2020 the Code went into operation across NSW with no further deferrals supported by the State Government. The application of the Code in Wingecarribee has the potential to influence the supply of dwellings by increasing the feasibility of developing multi dwelling housing, particularly terraces, in the region.



Dual Occupancy (*Detached, attached, mid-block, corner*)

Dual occupancies locate two dwellings on one lot which can be arranged side by side facing the same street frontage, behind each other with the rear dwelling accessed by a driveway, or located on corner lots where (ideally) one dwelling addresses the primary road and the other the secondary road.



Attached asymmetrical dual occupancy side by side with both dwellings accessed from the primary street

Characteristics	DCP	LRHDC																
Max building height	9m (2 storeys)	Maximum height 8.5m (2 storeys)																
Minimum lot size	1000m ² minimum subdivision lot size	As per the Environmental Protection Instrument (EPI), if not specified 400m ²																
Minimum lot width	25m	15m/ 12m (where car parking is at the rear of lot)																
Max FSR	0.5:1 / 100m ² max floor area)	<table border="1"> <thead> <tr> <th>Lot Size</th> <th>Max GFA</th> </tr> </thead> <tbody> <tr> <td>400- 2000m²</td> <td>25% of lot area + 300m²</td> </tr> <tr> <td>>2000m²</td> <td>800m²</td> </tr> </tbody> </table>	Lot Size	Max GFA	400- 2000m ²	25% of lot area + 300m ²	>2000m ²	800m ²										
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400- 2000m ²	25% of lot area + 300m ²																	
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Min landscaped area	50% of site area	50% of the parent lot area minus 100m ²																
Min front setback (Primary road)	Set within the difference/ average of adjacent front setbacks/ 8m	Average of the two closest dwellings within 40m																
Min front setback (Secondary road)	50% of primary setback	<table border="1"> <thead> <tr> <th>Lot Size</th> <th>Min. Setback</th> </tr> </thead> <tbody> <tr> <td>400- 900m²</td> <td>2m</td> </tr> <tr> <td>>900-1500m²</td> <td>3m</td> </tr> <tr> <td>>1500m²</td> <td>5m</td> </tr> </tbody> </table>	Lot Size	Min. Setback	400- 900m ²	2m	>900-1500m ²	3m	>1500m ²	5m								
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>36m	0- 8.5m	2.5m																
Parking provision	1 space for upto 2 bedrooms and 2 spaces for 3+ bedrooms.	Min. 1 car parking space per dwelling																
Private open space	50m ² per dwelling (min. length of 5m)	16m ² per dwelling (min. length of 3m)																



A-3 Low Rise Housing Diversity Guide

Manor Houses

Manor house or multi-plex developments typically contain three to four dwellings integrated into a single or two storey built form. The two storey form can have the appearance of a large detached house that integrates well with the character of existing low density residential areas. This typology was a popular housing form across Sydney in the Art Deco and Interwar periods but recent examples are relatively rare.



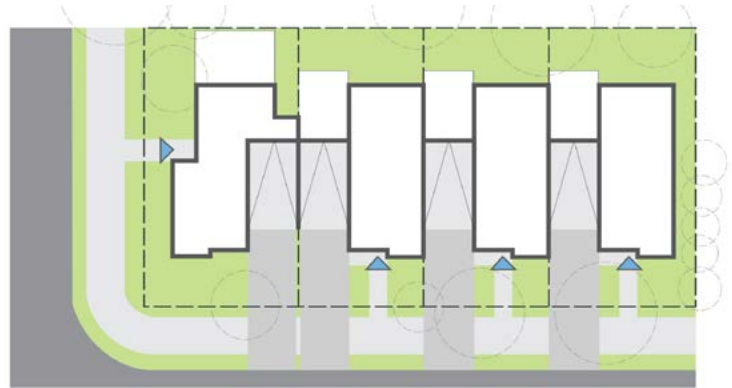
Manor House development with a single frontage to the street and on grade car parking to the rear

Characteristics	DCP	LRHDC																								
Max building height	9m/ 12m (RFBs- third floor within roofline)	8.5m																								
Minimum lot size	700m ² minimum subdivision lot size	As per EPI, if not specified 600m ²																								
Minimum lot width	25m	15m																								
Land title	Strata	Strata																								
Max FSR*	0.4:1/ 0.5:1/ 0.6:1	25% of lot area + 150m ² to a maximum of 400m ²																								
Min landscaped area	50% of site area	50% of the parent lot area minus 100m ²																								
Min front setback (Primary road)	Set within the difference/ average of adjacent front setbacks/ 8m / 9m (RFB)	Average of the two closest dwellings within 40m																								
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Parking provision	1 space for upto 2 bedrooms and 2 spaces for 3+ bedrooms.	Min. 1 car parking space per dwelling																								
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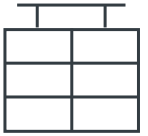
Terraces

Terraces locate multiple dwellings in a row, generally facing the same street frontage, with shared party walls. Vehicular access can be from the front as per this example, or from the rear, via a laneway or shared driveway.



Front loaded terraces on a corner lot

Characteristics	DCP	LRHDC												
Max building height*	9m (2 storeys)	9m (2 storeys)												
Minimum lot size*	700m ² minimum subdivision lot size	As per EPI, if not specified 600m ²												
Minimum lot width*	25m	21m												
Land title	Strata	Strata or Torrens												
Max FSR*	0.4:1/ 0.5:1/ 0.6:1	0.8:1												
Min landscaped area*	50% of site area	With subdivision: each resulting lot - 20% of lot area Without subdivision: 20% of the parent lot area of which 36m ² allocated to each dwelling												
Min front setback* (Primary road)	Set within the difference/ average of adjacent front setbacks/ 8m	3.5m												
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Min rear setback*	Consistent with the immediate adjacent context/ Based on merit	<table border="1"> <thead> <tr> <th>Lot Size</th> <th>GF Min. Setback</th> <th>2nd Floor Min. Setback</th> </tr> </thead> <tbody> <tr> <td>600- 900m²</td> <td>3m</td> <td>8m</td> </tr> <tr> <td>>900-1500m²</td> <td>5m</td> <td>12m</td> </tr> <tr> <td>>1500m²</td> <td>10m</td> <td>15m</td> </tr> </tbody> </table>	Lot Size	GF Min. Setback	2nd Floor Min. Setback	600- 900m ²	3m	8m	>900-1500m ²	5m	12m	>1500m ²	10m	15m
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Min side setback*	Consistent with the immediate adjacent context/ Based on merit/ 2m for height upto ≤3m and 3.5m for height >3m	1.5m												
Parking provision*	1 space for upto 2 bedrooms and 2 spaces for 3+ bedrooms.	Min. 1 car parking space per dwelling												
Private open space	50m ² per dwelling (min. length of 5m)	16m ² per dwelling (min. length of 3m)												



A-4 SEPP 65 and the Apartment Design Guide



The NSW Government developed the State Environmental Planning Policy No.65 - Design Quality of Residential Apartment Development (SEPP 65) and the Apartment Design Guide (ADG) to promote better apartment design across NSW. The policy establishes a consistent approach to the way apartment designs are assessed by councils and the guide explains how to apply SEPP 65's design principles.

SEPP 65 outlines nine Design Quality Principles to improve the attractiveness and amenity of residential flat buildings, shop top housing and mixed use developments. These are:

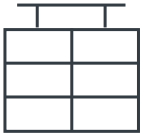
- Principle 1: Context and neighbourhood character
- Principle 2: Built form and scale
- Principle 3: Density
- Principle 4: Sustainability
- Principle 5: Landscape
- Principle 6: Amenity
- Principle 7: Safety
- Principle 8: Housing diversity & social interaction
- Principle 9: Aesthetics

The ADG provides detail and design guidance for residential apartment development to meet the SEPP's principles, including visual privacy, solar and daylight access, common circulation and spaces, apartment size and layout, ceiling heights, private open space, natural ventilation, and storage. The requirements of the SEPP 65 and the ADG are important considerations for future apartment designs with more than 4 units that are at least 3 storeys high within the study area.

In the development of planning controls, the guide recommends site-specific building envelopes and heights be provided within the DCP that address development on large or complex sites, such as those impacted by excessive slope or flooding. It also identifies how corner, or wide shallow sites could have different floor space capacities.

The guide sets design criteria that provide the measurable requirements for how an objective can be achieved. The key design criteria include:

- Minimum separation distances between buildings upto 4 storeys (12m) should be 6m between habitable rooms and balconies and 3m between non-habitable rooms.
- Provide a minimum area equal to 25% of the site for communal open space.
- Provide minimum deep soil area equal to 7% of the site.
- Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid winter.
- At least 60% of apartments are naturally cross ventilated and overall depth of a cross-over or cross-through apartment does not exceed 18m.
- Design criteria also provide minimum requirements for the size of apartments, private open spaces and storage areas to each unit.



An example of a low rise apartment development in Newhall UK



Low rise contemporary apartments of 2 storeys in Mittagong offering basement car park and lift access



Example of low rise apartments in Bowral with basement car parking



Example of an apartment block in Mittagong with on grade car parking

Relevance to this study

With the growing need for smaller housing and urban intensification to accommodate the projected growth in Wingecarribee, low rise apartments provide an efficient means of increasing density while maintaining the character of the Shire. Currently the controls do not allow for the development of medium to high rise forms within the LGA. However, a few recent or upcoming developments of low rise apartments, which are permitted under the controls, can be found within the centres of Mittagong, Bowral and Moss Vale.

To ensure the quality and amenity of such developments and their neighbouring properties, the local planning controls need to consider the objectives and influence of the ADG. Some controls set within the DCP, such as those for side setbacks, prescribe higher requirements than those set within the ADG. On the other hand, there are no requirements for amenities such a communal open space and deep soil zone set under the DCP. A closer alignment with the ADG would help achieve better housing outcomes.



Appendix B Stakeholder Engagement

- B-1 Stakeholder Engagement Overview
- B-2 Comments from workshop with Council staff
- B-3 Comments from workshop with Community and Industry Representatives

B Stakeholder Engagement

B-1 Stakeholder Engagement Overview



For the stakeholder engagement for medium density housing development controls, two workshops were undertaken: one to engage with Wingecarribee Council staff, and the second one to hear from community and industry representatives.

The workshop with Council staff was attended by 8 staff members. The team discussed detailed input into the various components of the medium density controls in a SWOT analysis format, looking at what works and what needs to change, as well as the opportunities and threats moving forward.

The community and industry representatives workshop was attended by almost 50 participants. Following a short presentation on the project, people were encouraged to circulate between three activity stations: ideas & issues (writing ideas and concerns on post-its), vision board (creating a vision board for the Shire using the images and text provided); and place-based discussions (discussion around maps for the four towns).

The following comments are a summary of the feedback from both workshops, and will support the review of Medium Density Housing Development Controls for the four towns of Bowral, Mittagong, Moss Vale and Bundanoon.

B Stakeholder Engagement

B-2 Comments from workshop with Council staff



Strengths of the Medium Density Controls

50% landscaping requirement works well - helps preserve the prominent landscaped visual character of the towns as well as control the bulk and scale of the built form (4)

A key strength of the DCP is how consistently it is applied; and the Council should continue to be strict on following the controls

Due to strict application of controls, most R3 development looks like its surrounding R2 and blends in well

Applying an overall height limit (as currently applied) is better than varying height per typology

25m minimum width requirement takes into consideration that most lots are around 20m width; thus requiring consolidation and hence, a better site proportion for layout (a number of lots are around 100m deep)

Residential Flat Building (RFB) height of two storeys plus third storey within the roof form works well

Weaknesses of the MD Controls

Controls are not easy for people to understand and/or interpret because of confusing language; need more DCP diagrams and less ambiguity

Dwelling mix is currently only required for 8 or more dwellings; that should be reduced to promote more diversity

Some controls need to move to LEP - DCP controls are difficult to defend in Land and Environmental Court

25m frontage is a significant barrier to entry for medium density housing as it requires consolidation with adjacent sites

Developers have found a way to work around the 25m frontage requirement - by targeting development of battle axe properties

Most recent development is low medium density housing; a safer option than RFBs (only 1-2 RFB DAs currently in progress)

Consider reducing number of parking spaces per dwelling; current requirement is higher than industry standards

Materials specifications are over 10 years old; need update, including getting rid of brick veneer, which is undesirable

Flood prone R3 medium density areas are a problem, especially if they include basement parking

Current control limiting development beyond 50m from the front lot line isn't practical or followed; consider taking it out

Building height v/s bldg footprint: overshadowing is a key concern and north facing exposure is important

B Stakeholder Engagement

Location and visibility of services is not addressed in the controls - it leads to poor design and execution for placement of services which are often an eyesore

Examples of inappropriate landscaping and plant selection; suitable types of trees, planting and hedges needs to be specified in the controls

Developers have often complained that seniors housing, which prefers single storey construction does not allow for achieving FSR while retaining 50% landscaping at the same time

For sub-zone B in R3, there is some pressure to increase FSR; for all other zones, current FSR is sufficient

Moss Vale currently has a pre DA application that has bad site design, minimum diversity, low quality layout and open space; the controls need more definition on how to achieve high quality medium density development to prevent badly designed, low-quality and low-amenity development

Opportunities for the MD Controls

Address minimum lot size with integrated housing clause - to allow Torrens title for subdivisions, especially for Terraces development

Add more defined controls for mature vegetation and trees on site; need to strike a balance between tree retention v/s achieving medium density development

Consider bonus FSR for large sites; there is none in practice yet

Add controls to address overshadowing with stepped built form when adjacent properties are low density

Consider expanding on the R3 sub-zones for more articulated and nuanced controls - creating precincts and varying controls for setbacks, landscaping requirements (esp where existing setbacks are inconsistent with future character)

On-site stormwater retention to be considered for large sites to prevent stormwater going into the drainage system that is already at capacity

Protection of key views to be included within the controls - views of heritage items such as those of Oxley Hill (Wingecarribee House on a hill) are important and could be affected with insensitive development

Southern part of the railway line in Mittagong is zoned R3 - north-facing slope; explore opportunities to incentivise medium density here

Victoria St development uses lipping to deal with flood issues by using a berm for the basement

Good example of RFB - Bowral basement carparking, 0.6:1 FSR, 3rd floor within roof

Investigate if 25m frontage is still appropriate or could be reduced - accommodate irregular lots with descriptive rather than numerical controls

Consider colour palette(s) for the towns

Incentivise basement parking for RFBs

B Stakeholder Engagement

B-2 Comments from workshop with Council staff

Opportunities for the MD Controls (contd.)

Reference: Ku-RIng-Gai Council controls have good description for planting. Variety in planting and fencing to be included in the controls

A key part of Southern Highlands character are the blue stone walls and Bowral blue bricks, which work well against light weight structures - include these in the controls for materials

More clarity in the controls for front setbacks for areas undergoing transition

Include controls for sustainability initiatives like wind turbines and solar panels

Prefer buildings to go higher than reduce the 50% landscaping requirement

Contemporary design for terraces not appropriate for Southern Highlands character

Current private open space (POS) of 50m² is working well. Controls to define proportions (min. width x length) for private open spaces and communal open spaces for larger developments

Specify planting: height, colour, plant & tree types, hedges, retaining existing mature trees

Incentivise amalgamation to increase viable lots for MDH

Local Planning Panel is very prescriptive - stick to what's written in the controls - detailed controls will lead to fewer undesirable outcomes

Tandem parking is discouraged in general, but tandem preferred instead of double garage

Include controls for communal open space, especially for large developments

Built-form controls to consider facade articulation, deep shadows, breaks between continuous built form to offer views of the landscape

Consider special precinct controls for Oxley Drive with consideration to stepping of buildings to prevent overshadowing

Threats for the MD Controls

Pretty houses with heavy landscaping is a key characteristic of the Southern Highlands - excessive R3 medium density could change that

Solar access is a very important criteria for residential development in regional areas; for POS as well as overshadowing along the streets for footpaths

Controls around solar access and PV panels need to be updated, especially in the Heritage Conservation Areas (HCA)

Bowral Clarke St and Moss Vale - R3 zones have technical problems due to topography; a large amount of cut and fill is required

Ascot St most lots are very narrow and long: 100m deep with 20 frontage

Max 25m continuous built form requirement is too long resulting in long monotonous buildings; it should be shorter

Pressure to get rid of large trees; with the excavation in some developments it is difficult to keep large trees alive

Adding restriction with width x depth for lots could add hurdles for development

Transitional sub-zones approach is needed - we don't want Dee Why happening on Oxley Drive

B Stakeholder Engagement

B-3 Comments from workshop with Community and Industry Representatives

Mittagong and Bowral

Need more robust objectives and specific controls, especially around vegetation

Seniors housing works well for MDH in the area - Mt Eymard in Bowral (Moss Vale Road), Annesley on Aitken Road (between Park Rd and Westwood Dr) and Mereau Village at the end of Kirkham Street Moss Vale

Good example: Rosevale – 500 Moss Vale Road Bowral

The country garden character of the towns is being lost by allowing mature landscaping to be removed

Consideration to be given to the width and slope of roads when assessing for MDH E.g. Waverley Parade in Mittagong - serves MDH, bus route, street parking

Incentivise site amalgamation

Shoalhaven Council's character assessment tool is a great reference

Heritage components of the DCP are well-nuanced and could be good reference

Moss Vale and Bundanoon

Address major traffic problems if density of housing is to be intensified

Hoskins Street identified as ideal for Medium Density

Medium density development along Elizabeth Street would be difficult as it would have to consider the transition from an HCA

Heights can be increased along Elizabeth Street where the zone is adjacent to neighbourhood shops

Rose Vale and other medium density development have been forced to become strata

Seniors housing development generally looks inwards with blank walls along adjacent streets and neighbouring properties

Exclusion of driveways from the 50% landscape control leads to a very small medium density footprint, requiring increased height

Medium density zoned land between Throsby Street and the Railway line has an FSR of 0.6:1 (which allows RFBs) and 0.4:1

Contours on a corner lot between Yarrowa St and Railway St did not allow for medium density housing development



B Stakeholder Engagement

B-3 Comments from workshop with Community and Industry Representatives

Vision Board A vision for future medium density development in the Shire using the images and text



Vision Board - DISLIKES

New developments that favour yield rather than amenity

Contemporary developments are often noise generating with the A/C on the property boundary

Garages that are too prominent in style and location and detract from the street scape

New development is often 'inward' looking with disregard for streetscape and amenity

Flat roof designs

Walled estates which create unfriendly streets

Developments that are too modern often do not reflect or reference the heritage or local character of the area

The removal or absence of trees

Designs that do not show consideration for pedestrians



B Stakeholder Engagement

Vision Board - LIKES

Placing value on heritage and ensuring it is preserved

Trees as critical elements that contribute to the character of the environment

Deciduous trees should be favoured to embrace the winter sun

Garages to be positioned at the rear of properties

Scale and style of buildings that reflect the local character and heritage of the area

Developments should be predominantly outward looking

Protection of country town garden character

Creating connection and diversity within the community to cater to different ages and demographics

Using natural materials; good green design with low impact

Retaining trees where possible

Encourage hidden services

Use of hedges within landscaping

High-quality sustainable designs

Weatherboard as a form of affordable material with an aesthetic quality

Muted colours

Outward looking development

More cottages, verandah close to the street

Provide more 1 & 2 bedroom dwelling options



