Design+
Planning

Urban Design Report

Rosalind Park

Menangle Park, NSW

AUGUST 2022

LEDA

Urban Design Report

Rosalind Park, Menangle Park

August 2022

Prepared for: LEDA

Prepared by: Design+Planning

Suite 304, 171 Clarence Street

Sydney NSW 2000

P: 02 9290 3636

E: nigelm@designandplanning.com.au

Document Status

Version	Prepared by	Reviewed by	Review date	Approved by	Issue date
Rev A	BM	NM	18/08/2022	D+P	18/08/2022

Table of Contents

Design+Planning acknowledge the important contribution that Aboriginal and Torres Strait Islander people make in creating a strong and vibrant Australian society.

We respectfully acknowledge the Tharawal people as the traditional custodians of this land and pay our respects to their Elders, past, present and emerging.

1. Introduction

1.1 Overview

This Urban Design Report (UDR) has been prepared on behalf of LEDA Holdings and presents the detailed site analysis review and the urban design response to ensure the sites unique characteristics are embodied in the urban design and ultimate development of the site for the benefit of the future community. The urban design process has culminated in the production of the Rosalind Park Structure Plan which is underpinned by best practice urban design and place making principles and which has evolved through input from a broad multidisciplinary consulting team.

The Structure Plan seeks to establish a contemporary and vibrant community built on the principles of healthy living, sense of place and community pride. The successful development of Rosalind Park will contribute to Campbelltown's vision for the area, as a component of, and addition to, the emerging Greater Macarthur Growth Area.

The Structure Plan has been informed by extensive specialist consultant studies and will comprise approximately 1,450 dwellings and an estimated population of 4,900 people within a thriving community supported by:

- Easy access to jobs in the Campbelltown and south west region;
- Local convenience shops, community uses and proximity to the services offered in the Campbelltown City Centre, Macarthur and remaining areas of the LGA;
- 14.4ha of open space amenity including, sporting fields, local parks, playgrounds, green links and other nature-based recreation areas;
- An integrated pedestrian and cycle network;
- Water quality;
- Services infrastructure; and
- A K-6 primary school.

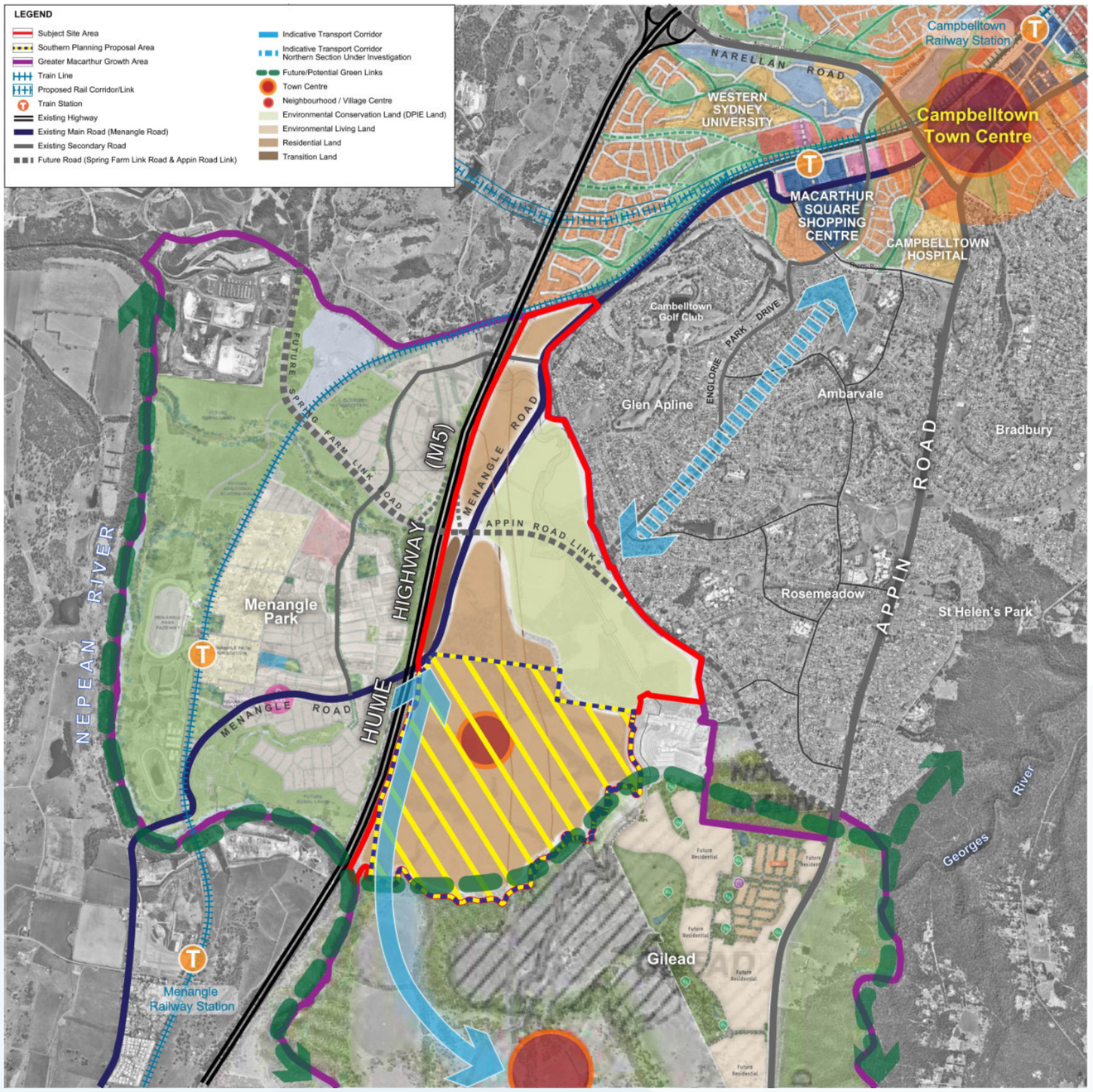


Figure 1 Locality Plan

1.2 The Site

Site Context

Rosalind Park is in the suburb of Menangle Park within the Campbeltown Local Government Area (LGA). The site is approximately 25km south of the Western Sydney (Nancy-Bird) Airport, 5km Southwest of Campbelltown, 65km southwest of the Sydney CBD and is within the northern portion of the Greater Macarthur Growth Area.

The site is bound by the Hume Motorway and Medhurst Road to the west; Menangle Road to the north west; Broughton College and Office of Strategic Land holdings (Sugarloaf Farm) to the north; Menangle Creek which runs along the eastern and southern boundaries; and the Upper Nepean Water Canal which adjoins the north east boundary of the site. Rosalind Park sits adjacent the master planned developments of Menangle Park, Mount Gilead Estate and One Tree Hill Estate (Refer to Figure 1).

Land Parcel Overview

The site is approximately 264 hectares and has formed part of a farming enterprise for several decades. Rosalind Park includes the following land parcels (Refer to Figure 2):

- Lot 1 DP589241
- Lot 1 DP622362
- Lot 3 DP622362
- Lot 35 DP230946
- Lot 2 DP622362
- Lot 58 DP632328

Figure 2 Cadastral Plan

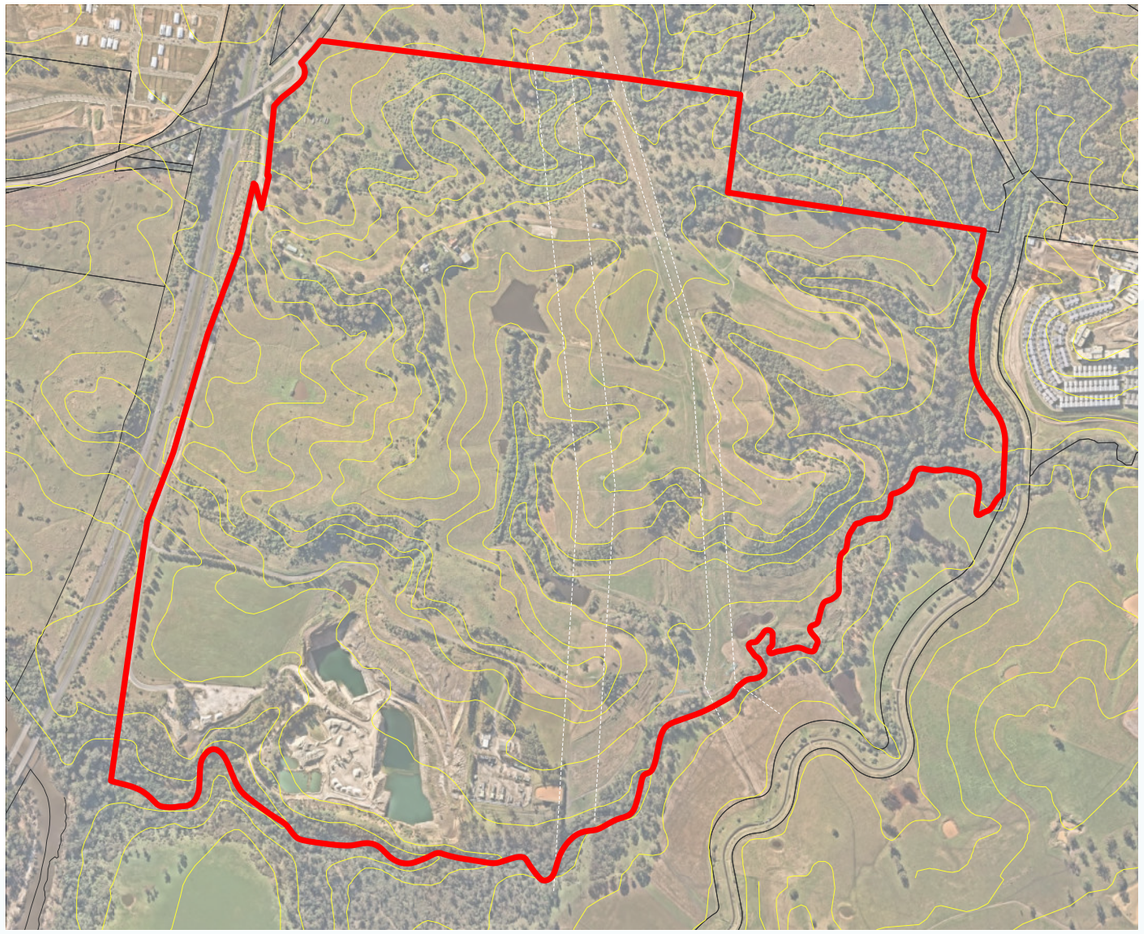


Figure 3 Site Plan

Site Characteristics

Rosalind Park is characterised by open undulating slopes containing grassland and pockets of woodland, areas of densely vegetated valleys and scattered farm dams. The site contains existing easements for regional infrastructure including 330kV and 132kV electrical easements and an easement for underground gas and water.

The site also contains an operational quarry, an AGL gas processing plant, several former coal seam gas wells and a communications tower. The northern ridgeline also includes an existing house and associated farm buildings.

1.3 Historical Context

The Rosalind Park site is within the lands of the Tharawal people who named the wider locality ‘Menangle’, meaning ‘the place of many swamps’ after the lagoons which occur naturally in the area. The Tharawal people utilised the locality’s ridgelines as vantage points and for travel, while also depending on the regions water sources of the Nepean River and its tributaries such as Menangle Creek.

The earliest European activity within the vicinity of Menangle Park occurred almost immediately following settlement at Sydney Cove when ‘the Cowpastures’ was established after two bulls and five cows escaped from the colony. The herd was found in 1795 having grown in numbers by thriving on the grasslands along the Nepean River near Camden. European settlers first utilised the fertile lands for grazing and agricultural activities, after land grants were issued in 1805.

The property was operated in a pastoral and dairying capacity from the 1860’s. The farming and agricultural endeavours of the site have continued into the twentieth century with the main activities comprising land clearing, fencing and construction of dams.

Historical record shows the quarry located within the southern portion of Rosalind Park was developed during the 1970’s. The Hume Motorway was also constructed during the late 1970’s and into the 1980’s.

The site forms part of the Western Sydney Cumberland Plain region and contains landscape features which have a connection to Country and cultural identity.

1.4 Urban Design Process and Principles

The urban design approach and process has been built on three pillars of best practice: Context; Structure; and Best Practice. Each of these pillars comprise urban design principles which have been embodied into the urban design process and Structure Plan, detailed in the Urban Design Process and Principles below.

Phase 1 Context

Understand the existing characteristics of the site and its surrounds.

Creating great places relies on a deep appreciation of the site and its context to existing areas and places, including a strong appreciation of what elements and characteristics create the ingredients for designing and establishing a place that is uniquely local and meaningful.
Design for the place is about understanding the various elements that influence the experience of place, which is greater than just the built environment.

PRINCIPLE 1: CLIMATE

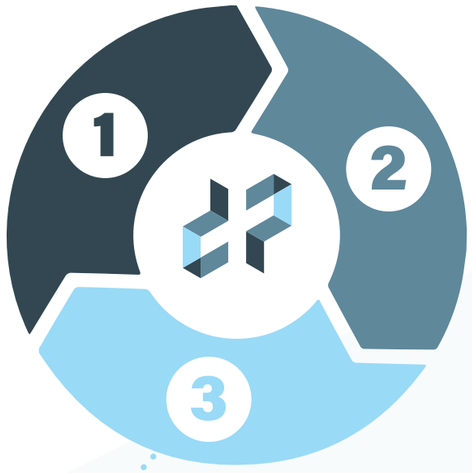
Climate responsive design is essential in managing the environmental impacts of urban areas and establishing resilient communities of the future.

PRINCIPLE 2: LOCAL CHARACTER, FORM AND CULTURE

Memorable places, with their own identity, reflect the distinctive qualities of their physical setting, heritage and community values.

PRINCIPLE 3: WORK WITH NATURE AND LANDSCAPE CHARACTER

Integrating the local natural and landscape character of the site into the design of the new community is essential. To do this we must first recognise what is the ‘sense of place’ with the challenge then to build and embody the critical components into making place.



Phase 2 Structure

Establish a robust structure of integrated and connected land uses to enable the future community to flourish.

Creating place is delivering a rich mix of local needs for the future community, designed in a meaningful and purposeful way to ensure the community flourishes in perpetuity.
Experience demonstrates that creating great places is achieved through designing for the place and ensuring that the local community needs are safely and conveniently accessible.

PRINCIPLE 4: CREATE A LEGIBLE AND CONNECTED PUBLIC REALM

Design the road and public realm to ensure it creates convenient and inviting connections to places people want and need to go. Design with the public realm experience in mind, ensuring everyone who interfaces with a space is given equal opportunity to enjoy it in a meaningful way.

PRINCIPLE 5: DESIGN FOR PEOPLE

Establishing great living environments relies on ensuring that the variety of daily needs of the local residents is achieved within or close to their community. The full complement of local needs such as recreation, business, parks and education are convenient and highly accessible. These are the essential pillars of establishing a well balance, integrated and friendly community.

PRINCIPLE 6: DELIVER DIVERSE DEVELOPMENT FORMS AND DENSITY

Vibrant places require a rich mix of building types, a quality public realm and contemporary architectural solution to support sustainable population densities, encourage diversity, and assist in creating a strong sense of local identity.

PRINCIPLE 7: EMBED OPPORTUNITIES FOR ADAPTATION AND CHANGE

The most resilient places are those that can be re-purposed and re-occupied; they are places that are capable of adapting easily to changing social, economic and environmental influences.

Phase 3 Best Practice

Demonstrate best practice and leading-edge design and place making – design to create ‘place’.

To achieve great places relies on engagement with specialists to draw together the interdisciplinary influences that create better solutions and meet the urban challenges of the future, innovation and collaboration are important.

PRINCIPLE 8: TAKE THE LEAD

Innovation in creating great places is the challenge that ensures that you achieve a sustainable urban outcome. Urban design is the art of bringing together all the relevant elements associated with a place to result in an outcome that embodies resilience and adaptability over time as the place evolves from initial establishment through to maturity.

PRINCIPLE 9: ENGAGE

Engagement is the key to success. It is essential that urban design draws together the precious essence of all the various multidisciplinary elements to create a robust and adaptable place. It is essential that urban design provides the foundation for communication and engagement with decision makers and interested parties to bring places to life.

2. Site Investigations and Analysis

2.1 Connection to Country

The undulating terrain, vegetated areas, creeklines (including Menangle Creek) and internal and external views provide the robust natural elements for establishing strong connection to country within the Rosalind Park site.
The Structure Plan captures the cultural values of Menangle Park through strong connections with the wider landscape and integrates the site features into the daily life of the future community.

Strategy For Connecting with Country

Kayandel has prepared a Connecting with Country (CwC) Report to inform and support the development of the Rosalind Park Structure Plan in a way that promotes CwC. The assessment involved consultation with the Cubbitch Barta Native Title Claimants Aboriginal Corporation (CBNTCAC) whose representatives imparted a recognition for the travel routes and vantage points along the site's ridgelines and the importance of Menangle Creek as a water source and for rock shelters suitable for occupation.

The CwC report provided four recommendations to guide the future development of Rosalind Park. These include:

- Place Naming – Place naming throughout public spaces to contribute to cultural celebration through acknowledging Country and celebrating culture. These include street names and public spaces.
- Artwork Installations - Celebrate culture through artwork, mural installations, or presentation of key artefacts found during future heritage assessments.
- Cultural Design – Embed culture and celebrate local stories through the design and layout of places and buildings.
- Aboriginal Place – Space within Rosalind Park for Aboriginal communities to gather and connect to culture and Country. This includes native gardens and artworks.

The design evolution of the Rosalind Park Structure Plan has captured the CwC recommendations, with the existing landscape features being the main influence of the layout. The Structure Plan integrates open space which celebrates local and external views to the Razorbacks and the Greater Macarthur landscape, including distant views to the Southern Highlands. Additionally, local flora will be utilised in the revegetation of the Menangle Creek riparian corridor and where appropriate utilised throughout the open spaces and street verges of the project.

2.2 Cool Suburbs

The urban heat island effect is reported to have compounding impacts on communities, economies, and ecosystems, particularly in western and south western Sydney.

The built environment can mitigate the impact of the urban heat Island effects by implementing 'Cool Suburbs' strategies which seek to reduce the average ambient temperature. The Rosalind Park Structure Plan will implement, respond and adapt to the Cool Suburbs strategies through:

- Provision of green open spaces;
- Meaningful tree canopy cover within streets;
- Retention and enhancement of existing green corridors; and
- Incorporating best practice approaches to water sensitive urban design.

2.3 Healthy Town

Rosalind Park is within a scenic parkland setting which provides a unique opportunity to embrace 'Healthy Town' design initiatives.

The greenspaces on offer at Rosalind Park will motivate its residents to utilise, engage and connect in healthy ways within their community. Residents can enjoy the scenic landscape views and abundant parklands within a walking distance from home, with these spaces supporting, connection to country, cultural appreciation and visual interest. The open spaces and path networks are designed so that residents can legibly navigate the landscape easily and safely whilst also enjoying the aesthetic scenery of the charming surroundings. The diverse and interconnected landscape network will utilise Healthy Town design principles to promote longer walks and community interactions around key natural assets and activity nodes.

2.4 Access

Rosalind Park is accessed via Medhurst Road, which is located along the western boundary of the site running parallel to the Hume Motorway. Medhurst Road connects with Menangle Road which provides the primary access point and is located in the north west corner of the site (Refer to Figure 4).

The Greater Macarthur Structure Plan identifies infrastructure upgrades which improve access to the Rosalind Park site and Gilead Precinct, these include:

- North south arterial road for a Rapid Transit Corridor for Menangle Park and Gilead.
- Spring Farm Parkway Link Road to connect Menangle Park Development to the Hume Motorway.
- A connection between the Hume Motorway and Appin Road at Rosemeadow.
- Hume Motorway upgrades and Spring Farm parkway interchange.
- Widening of Menangle Road.

The Greater Macarthur Structure Plan and Campbelltown LSPS include an east west connection from Spring Farm Parkway to Appin Road via a new interchange on the Hume Motorway (north facing ramps only). This link will increase access to development areas in the Camden and South West Growth Area and facilitate growth of the Gilead Precinct. The proposed infrastructure upgrades will ensure Rosalind Park has improved access arrangements within the precinct and wider regional context. It is noted that the works have recently commenced to construct the overpass on the Motorway.

The rapid transit corridor has been identified to align north south along the western boundary of the site. The rapid transit corridor creates a strategic link to Campbelltown Railway Station, improving resident access to public transport. Rosalind Park presents an opportunity to position development densities around key transport nodes and respond to the infrastructure upgrades identified in the Greater Macarthur Structure Plan. A collector road network within Rosalind Park will connect residents to future infrastructure works including the rapid transit corridor.

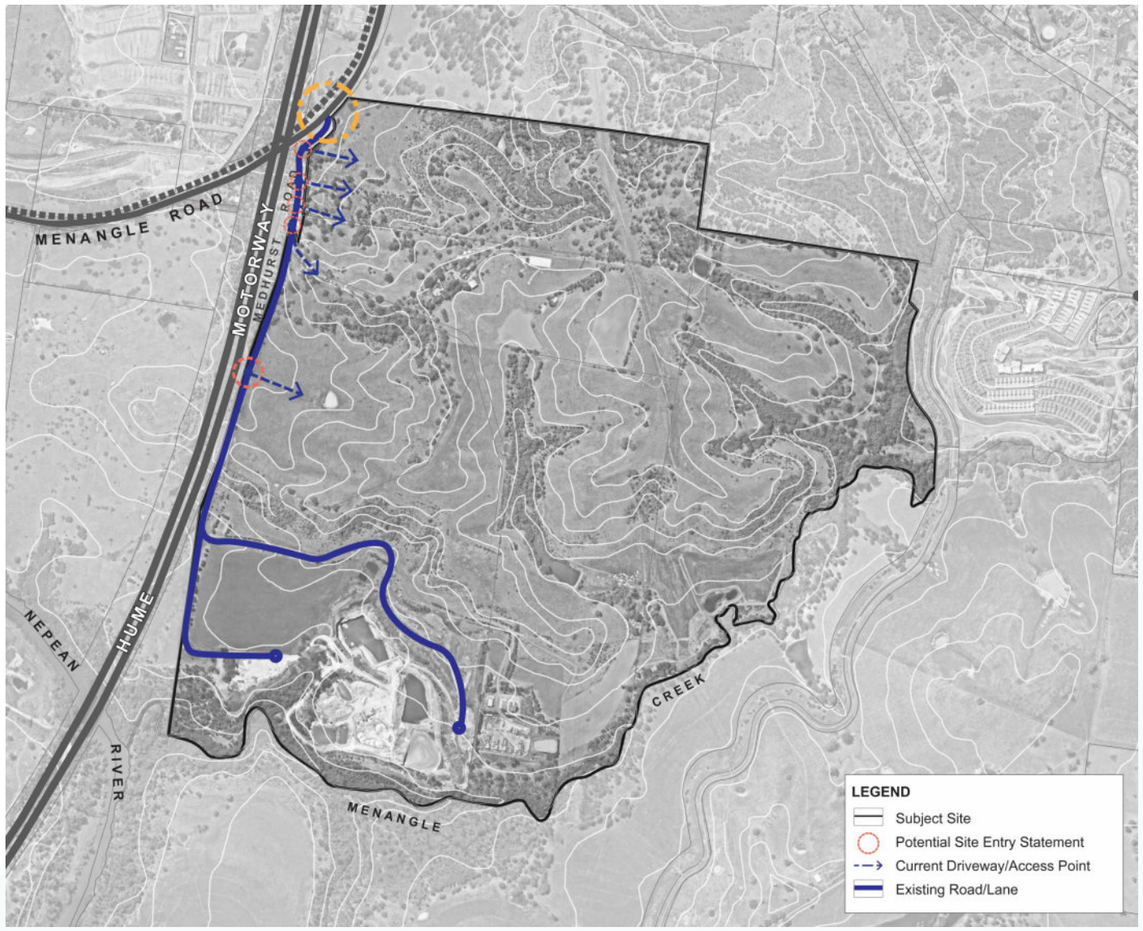


Figure 4 Access Map

Intersection of Medhurst Road and Menangle Road and view of Menangle Road crossing over Hume Hwy

2.5 Hydrology

The topography of the site is characterised by steep sloping ridgelines which fall to several valleys and natural watercourses. The major watercourse is Menangle Creek which forms the southern and eastern boundary of the site. Menangle Creek drains to the west into the Nepean River which flows to the north through Camden and into the Hawkesbury. The site also drains to the north and west, though the majority of the site drains to Menangle Creek via lower order streams.

Applying the Strahler stream classification system to the hydrolines identified, the watercourses range from Category 1 through to Menangle Creek which is a Category 4 watercourse (Refer to Figure 5). An assessment of the quality and suitability of the water courses has been undertaken to identify areas suited for preservation and integration with green space corridors.

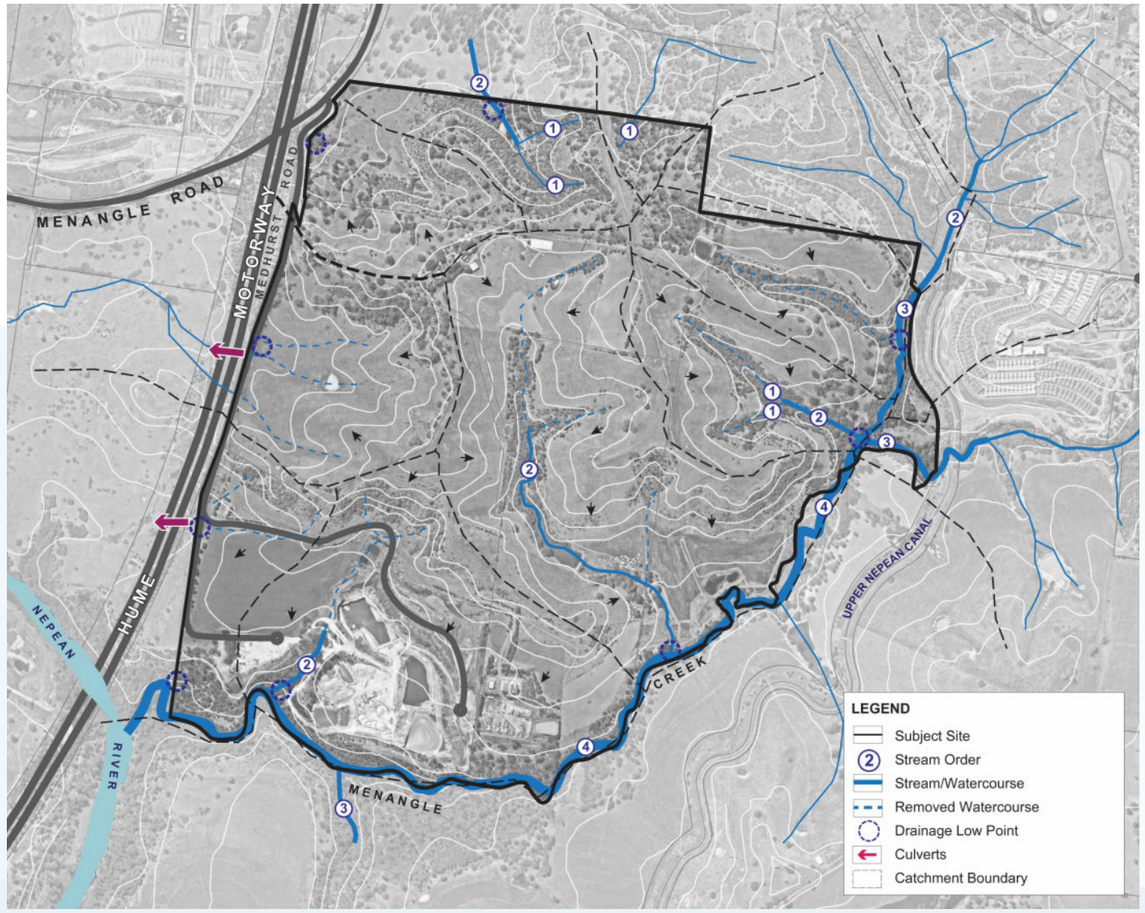


Figure 5 Hydrology Map

2.6 Ecology

There are several dispersed and interconnecting clusters of vegetation in the central, southern, northern, and eastern potions of the site. Generally the vegetation is found along drainage lines and in isolated pockets. There is continuous vegetation along Menangle Creek in the south of the site (Refer to Figure 6).

The Cumberland Plain Conservation Plan (CPCP) identifies areas of strategic conservation. Strategic conservation areas frame the northern boundary and the eastern boundary which includes Menangle Creek. These areas have important ecological value to the Cumberland subregion which include native vegetation and areas with ecological restoration potential.

A Koala conservation corridor is also identified onsite, within the southeast CPCP conservation area. This corridor is required to have a koala fence in line with the State Environmental Planning Policy (Biodiversity and Conservation) 2021.

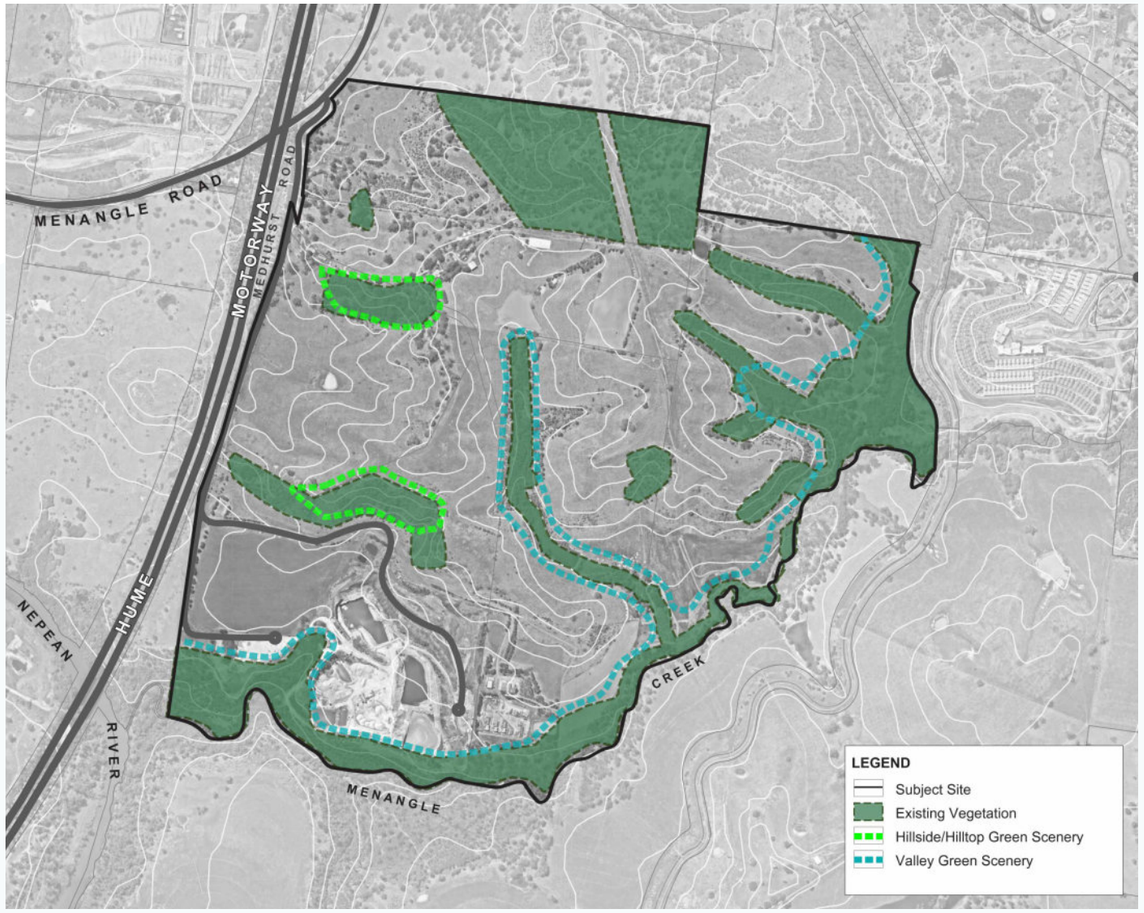


Figure 6 Vegetation Map

2.7 Landform, Topography & Views

The most prominent site characteristic is its landform, which is distinguished by several connected ridgelines. The two most prominent ridgelines traverse the site in parallel from the north to the south before splitting into several smaller fingers with corresponding valleys and watercourses (Refer to Figure 7).

The highest ridgeline is located in the central area of the site and peaks at RL173. This landform provides unique opportunities for intimate internal views within Rosalind Park, while also providing regional views toward the Razorbacks and Greater Macarthur.

Menangle Creek is another prominent feature in the landscape and follows the southern and eastern boundaries of the site before connecting with the Nepean River to the west. Menangle Creek forms the lower land at approximately RL80 in the south west corner of the site.The quarry located in the south and adjoining Menangle Creek is also a prominent site feature and located on an area of the site with the gentlest terrain and gradients.

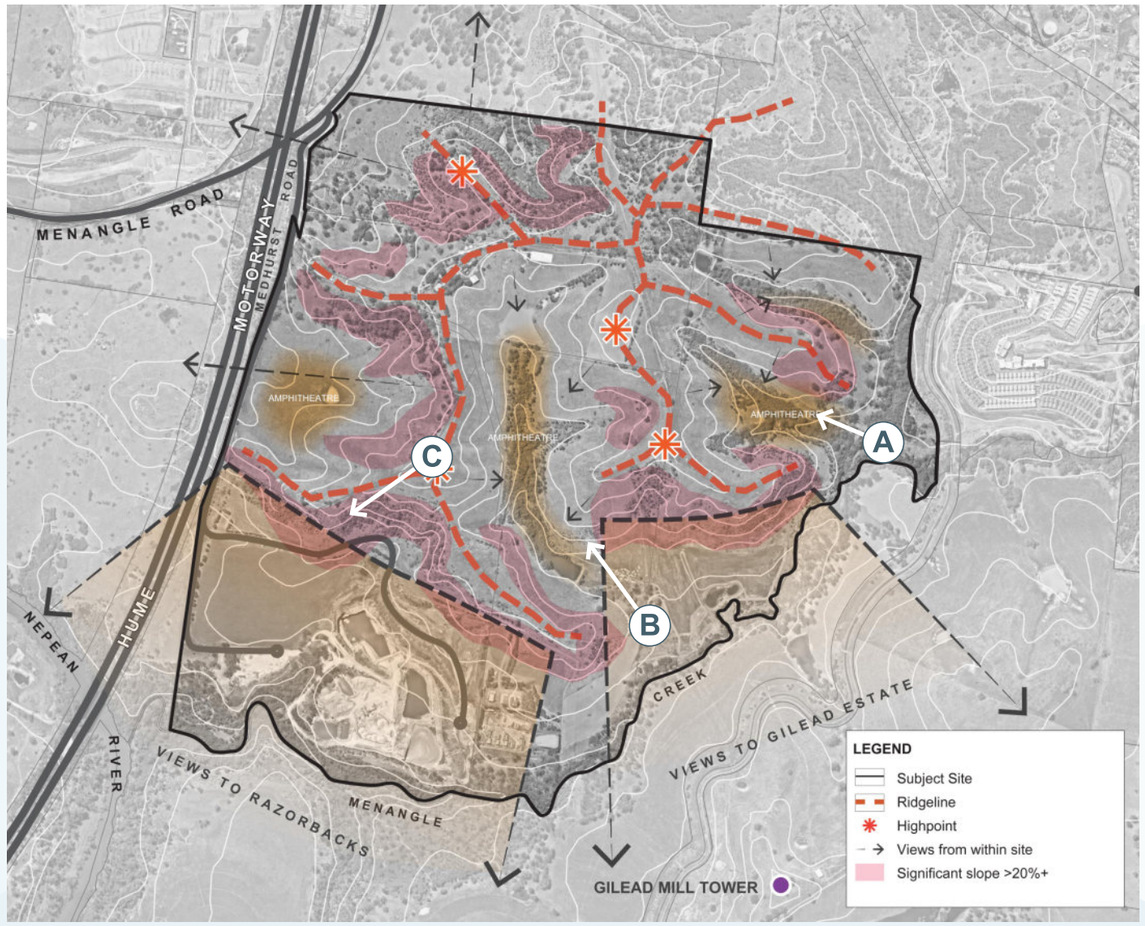


Figure 7 Landform and Views Map

Design+ Planning

2.8 Existing Infrastructure & Easements

Existing site infrastructure includes a 330kv powerline easement and a 132kV powerline easement adjoining this to the west, both align north-south through the centre of the site (Refer to Figure 8). A separate north-south easement containing a gas pipeline and a water pipeline also traverse the site to the east of the powerline easements.

The site also includes an operational quarry and an AGL gas processing plant located in the south of the site adjacent to Menangle Creek. The quarry and processing plant are proposed to be decommissioned and remediated ahead of development for urban purposes. The site also includes several decommissioned gas wells scattered throughout.

A telecommunication tower is located on the northern ridgeline of the site between the two north-south infrastructure easements.

The north eastern boundary of the site also adjoins the corridor of the Upper Nepean Water Canal.

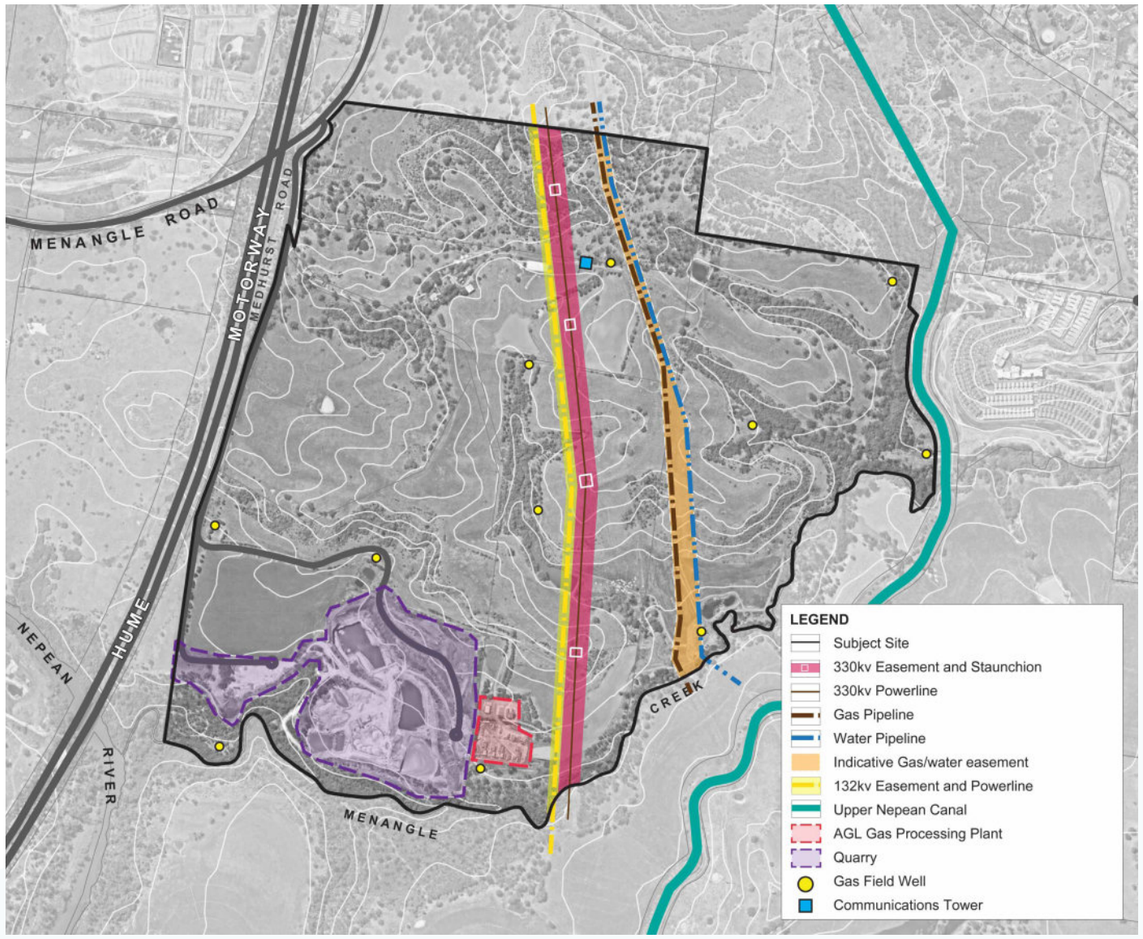
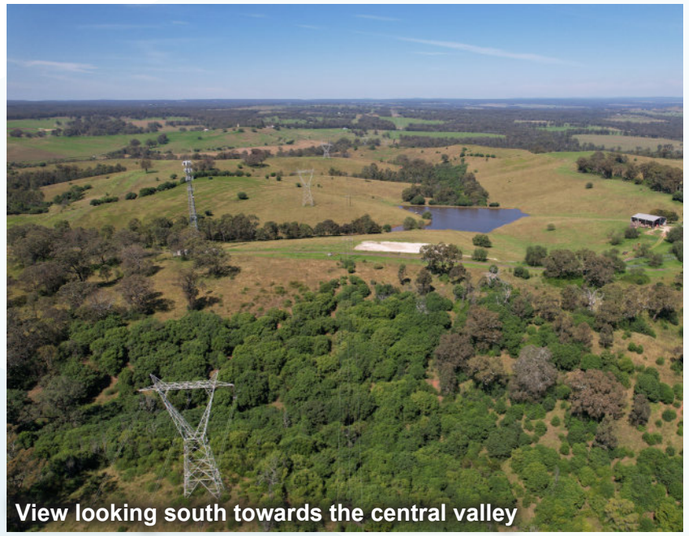


Figure 8
Infrastructure Map


The quarry and AGL gas plant


View looking south towards the central valley


Existing homestead and farm buildings

2.9 Flooding & Water Cycle Management

A Flooding and Water Cycle Management Assessment has been undertaken by Craig and Rhodes to inform the urban design and support the Planning Proposal.

The flood modelling indicates that flood impacts within Rosalind Park are well contained within the three watercourses and that development of the site will have no downstream impacts (Refer to Figure 9). The site analysis also determined that the development should not include detention basins as this ensure that the peak flows from the site do not coincide with the peak flows of Menangle Creek or the upper catchment of the Nepean River.

The location of the proposed water quality facilities have been incorporated into the Rosalind Park Structure Plan.

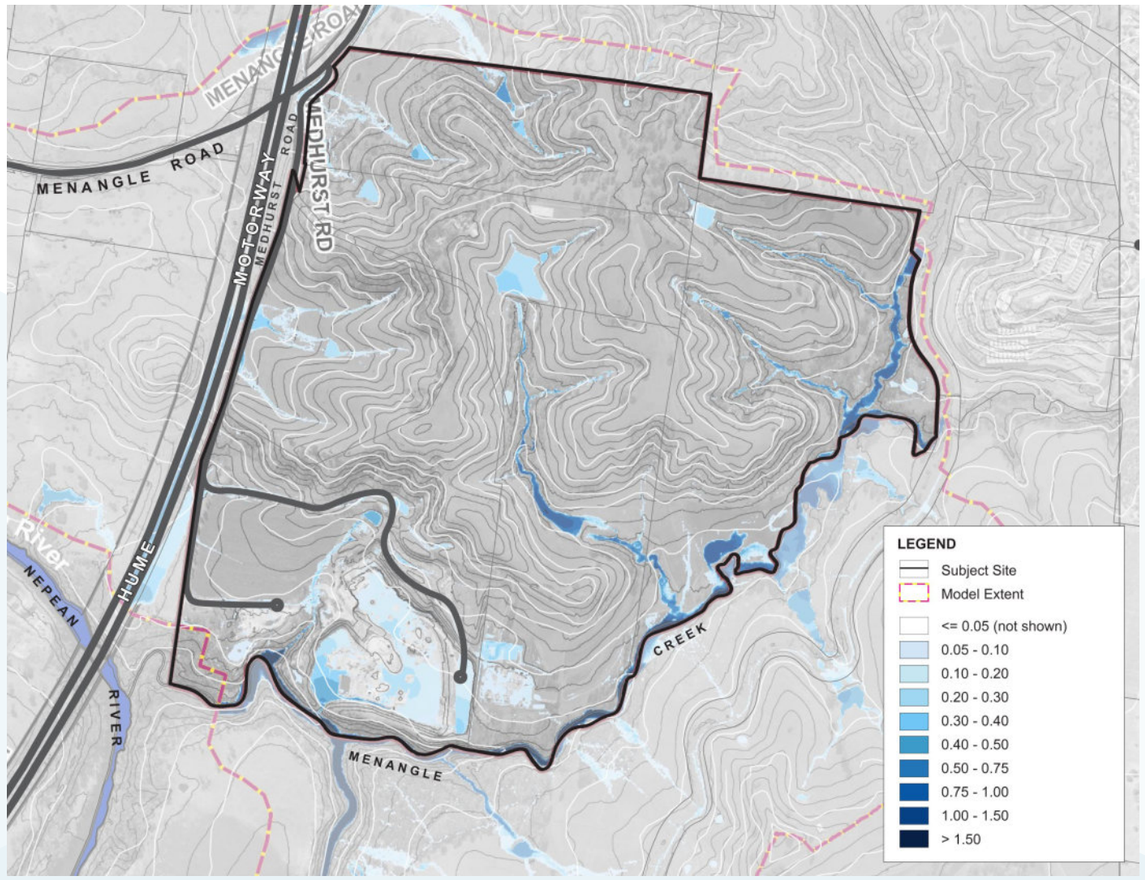


Figure 9 Flooding Map

2.10 Social Infrastructure

As the land has been historically used for farming and agricultural purposes, there is presently no social infrastructure to support urban development on the site. Rosalind Park is in proximity to existing and emerging areas that will provide social infrastructure items to support and complement the infrastructure to be provided as part of the development of the Rosalind Park site.

A Social Infrastructure Needs Assessment completed by Urbis identified the nearby Town Centres and Neighbourhood Centres in Menangle Park, Macarthur Square and Campbeltown CBD are highly accessible from the site. With the understanding that Rosalind Park will house approximately 4,900 residents the assessment also determined the community centres, libraries, leisure centres and cultural facilities can be met by existing and planned provision in neighbouring developments. Based on the size of the development and expected future population, the assessment also determined the incoming population will generate the need for 13.8ha of open space (comprising 6.7ha active and 7.1ha of passive).

The Social Infrastructure Needs Assessment acknowledges that Schools Infrastructure NSW require a primary school to support the primary school age population projected for Rosalind Park, however, secondary school and childcare facilities can be met by existing and planned development in surrounding areas.

2.11 Site History & Heritage

An Historic Heritage Assessment by Ecological Australia indicates there are no heritage listed items or historical archaeological sites within Rosalind Park. Documentary evidence suggests the study area was used to operate dairy activities from the 1860's. Historical records indicate that no associated buildings were located on the property.

The Sydney Water Upper Canal (SHR 01373); Sugarloaf Farm (SHR 01389); Mount Gilead (SHR02020) and Menangle Landscape Conservation Area (WLEP 2011 Item No.C6) heritage items are located within the vicinity (600m) of the study area. The assessment indicates that Rosalind Park is unlikely to cause any direct or indirect impact to those heritage items.

An Aboriginal Heritage Due Diligence Assessment prepared by Kayandel Archaeological Services was conducted and confirmed that no further assessment of Aboriginal Heritage within the subject area is required.

2.12 Bushfire

A Strategic Bush Fire Study undertaken by ABPP determined that future development of the site can be achieved with the inclusion of Asset Protection Areas (APZs) to reduce the external bushfire risk.

The risk of bushfire was determined to exist from the proposed riparian corridors and Menangle Creek, along with potential risk from open spaces areas within the site. The Strategic Bushfire Study determined the width of APZs associated with the characteristics of the likely source of fire risk to future residential development (Refer Figure 10).

In addition, a Rural Fire Station is recommended within Rosalind Park to provide coverage for the estate and surrounding developments.

2.13 Infrastructure Servicing

A Servicing Report has been undertaken by Infrastructure & Development Consulting, to analysis the current and required services for the development. Currently the site is not serviced by a reticulated potable water, sewer or gas supply.

Consultation with Sydney Water and Endeavor Energy indicates the surrounding area is undergoing a strategic planning phase and that the Rosalind Park site can access these services through a variety of options with little to no impact to the proposed Structure Plan.

The expansion and enhancement of existing services in the area are planned and will be undertaken as required to cater to the increasing demand.

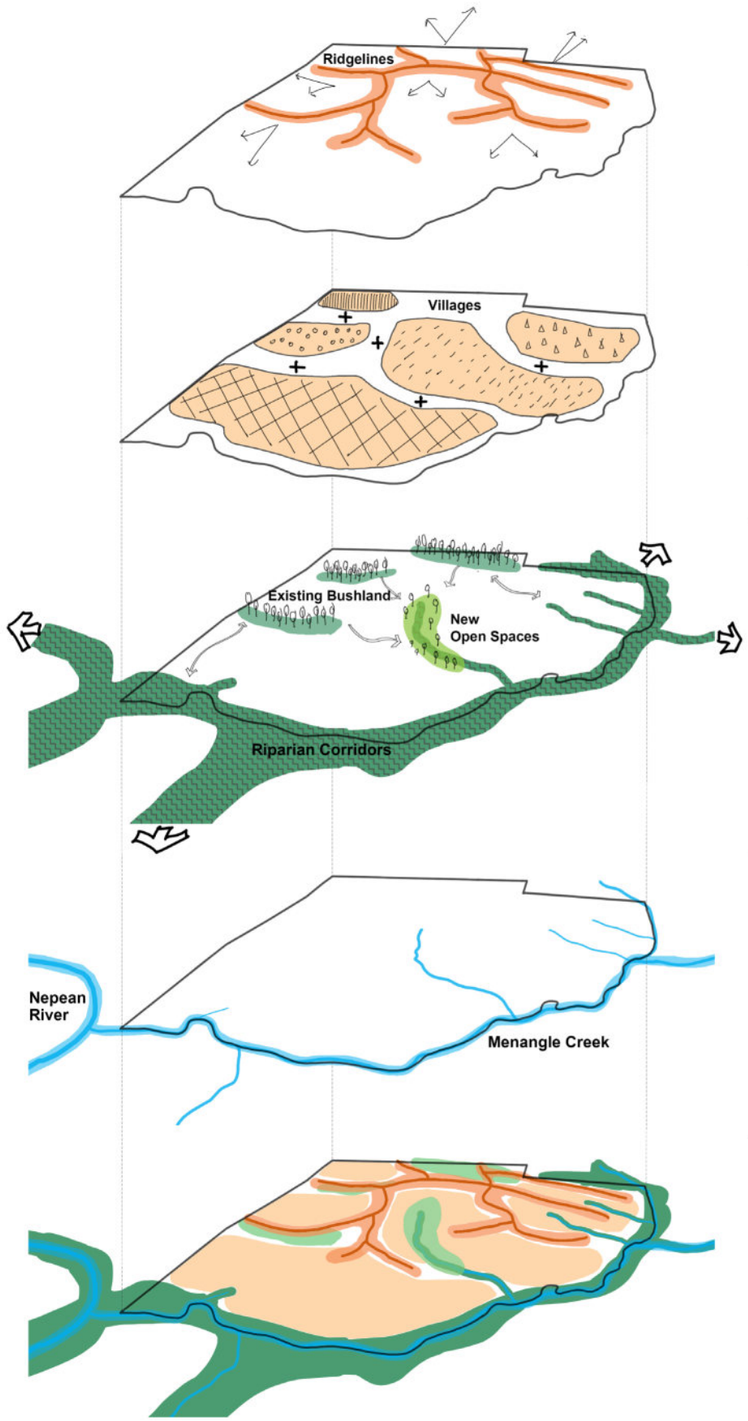
Figure 10 Asset Protection Zones

3. Urban Design Response

Site Specific Design Considerations

1. Ensure the design responds to Country and celebrates the unique cultural features of the site.
2. Respond to the unique site topography by celebrating the central corridor and leveraging view corridors both internal and external to the site.
3. Preserve and integrate areas of ecological value and riparian corridors (including Menangle Creek) with public open spaces.
4. Integrate accessible local parks into the established villages which promote community interaction and healthy living.
5. Create a logical road network which links identified villages and significant local land uses.
6. Provide a diverse mix of allotment types which contribute to housing diversity while responding to the unique site topography including larger lots along the ridgelines, with smaller allotments focused on transport corridors, the neighbourhood and village centres, the school and playing fields.
7. Create a network of interconnected pedestrian and cycle paths which direct people where they want to go and promote active transport for local trips.
8. Where possible embellish infrastructure easements and integrate them into the open space and pedestrian network promoting active transportation.
9. Provide active recreation space to cater for the growth and recreation demands of Rosalind Park.

Design+ Planning



Upper Storey

Ridgeline homes and areas of amenity enjoying scenic views across South West Sydney.

Mid Storey

Interconnected neighhourhoods distinctly nestled into the landscape.

Under Storey

Homes and urban network integrated into the natural greenery and open spaces.

Creek Floor

Create cultural and spiritual connection to the waterways.

Rosalind Park

A prestigous and picturesque new community, nestled into the Menangle hills and waterways.

3.1 Rosalind Park Vision & Design Principles

The vision for Rosalind Park has been shaped by design principles which seek to enhance and promote the site-specific natural features of the land and integrate them into the urban fabric for the benefit of the future community. Rosalind Park will be a prestigious and picturesque residential community nestled into the Menangle hills with the built form interfacing with regionally significant vegetation and waterways to provide the future community with connectivity to these elements as a foundation of creating a strong sense of place.

Rosalind Park will be a unique self-contained family focussed community which enjoys good connectivity to the parkland ambience via shaded streetscapes and active transport routes to support a healthy lifestyle. Residents are a short walk from public transport to areas where people work, learn and play. The green network and scenic views will inspire and strengthen the connection with the landscape. The Rosalind Park Neighbourhood Centre and Village Centre will offer the day-to-day convenience needs of the community which will be supported by a primary school, active open space and a diversity of housing, with opportunities for aging in place.

The key elements which shaped the vision of the Precinct are:

Housing Diversity and Viable Densities

The Rosalind Park vision proposes housing densities which provide a prestigious residential offering and diversity to a range of home buyers. The vision includes opportunity for low and medium density dwelling outcomes which are in response to the unique character and topography of the site. This vision is reinforced by the utilisation of natural assets to create a Cool Suburb, Healthy Town that has a strong Connection with Country and the historic context of the site.

Accessible Healthy Town

Rosalind Park provides the opportunity for active transport through an interconnected pedestrian and cycling network within the diverse green space areas. Urban density will be located near key transport nodes and public transport. A central green corridor, linking the Village Centre in the north to the active open space, school and Neighbourhood Centre in the south.

The central green corridor underpins the focus of creating a Healthy Town, supported by other linkages achieved throughout the road network.

Ecological Conservation and High-Quality Public Realms

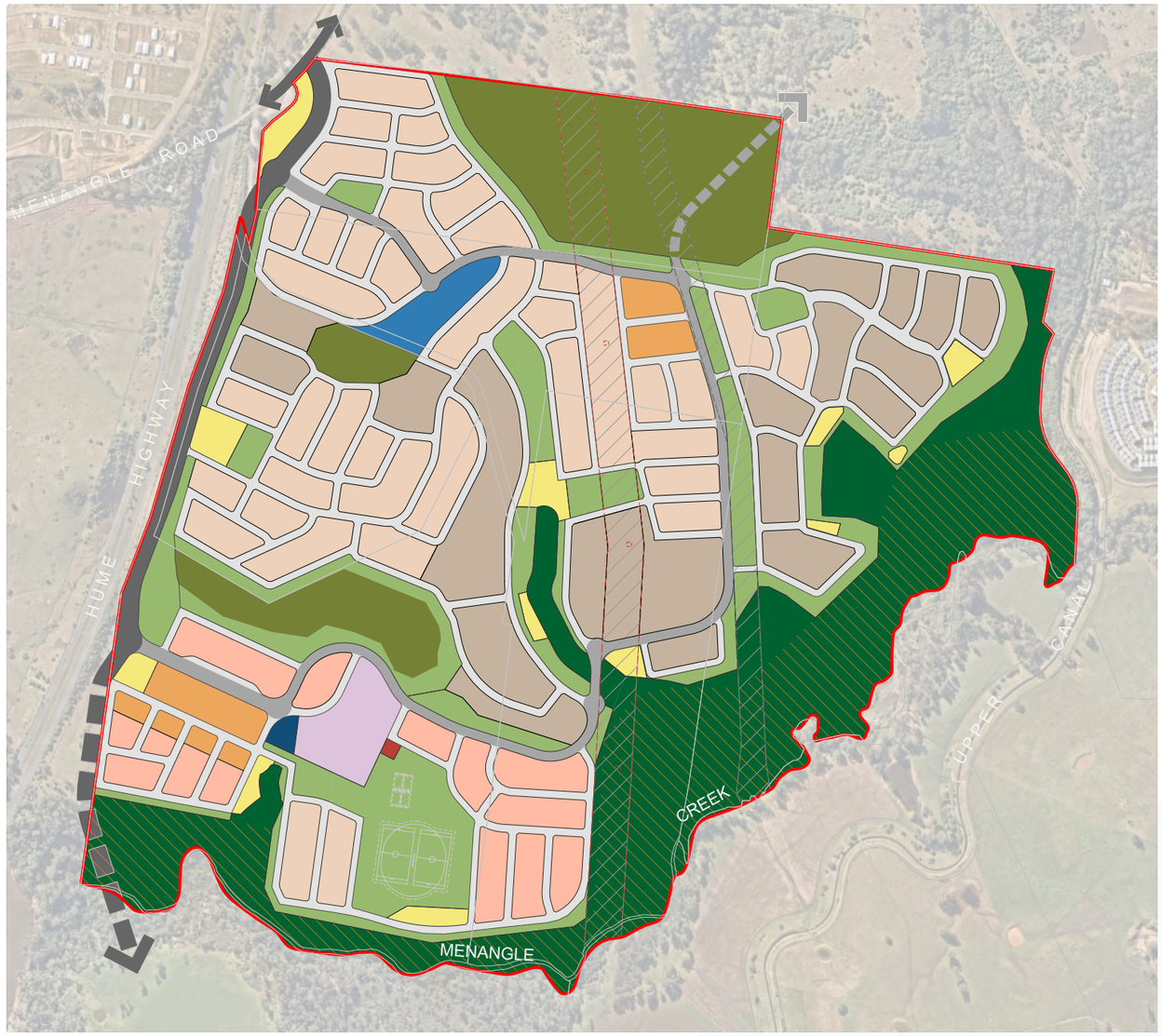
Rosalind Park offers residents access to an abundance of high quality public amenities, allowing for seamless integration between home and nature. Rosalind Park creatively embeds natural assets and conservation elements into a scenic urban setting. The open spaces are highly integrated creating green links and visual corridors to existing natural assets including Menangle Creek, ridgelines, woodlands, and natural valleys across the site.

The interconnected green spaces are supported by recreational opportunities including fitness equipment, playing fields and multipurpose hard courts.

Rural/Urban Amenity

Rosalind Park creates a unique destination for South West Sydney boasting the best of country and suburban through the integration of well-defined Village and Neighbourhood Centres. More broadly, the locality provides new residential, commercial, and recreational land uses within its unique rural landscape.

Design+ Planning



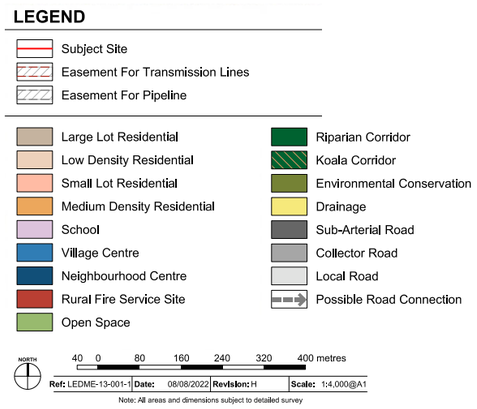


Figure 11 Structure Plan

3.2 Rosalind Park Structure Plan

The Rosalind Park Structure Plan has been specifically tailored to ensure all land uses are compatible with their specific location and respond to the site-specific urban design considerations (Refer to Figure 11).

The Structure Plan demonstrates the land use arrangement and intended development outcome envisaged for the site and comprises an expected yield of approximately 1,450 dwellings and a population of approximately 4,900 people.

The key features of the Structure Plan are noted below:

- Rosalind Park includes a site area of 264 ha.
- The site provides easy access to the jobs afforded within the South West Region, including the future opportunities presented by the Western Sydney Aerotropolis.
- Infrastructure upgrades have been proposed as part of the Greater Macarthur Structure Plan which will support the future community of Rosalind Park.
- The development will include local shops, community uses and services, and will be supported by its proximity to a future centre in Menangle Park and the existing Macarthur/Campbelltown City Centre areas.
- Rosalind Park will include 118.4ha of open space comprised of:
  - Passive open space (7.3ha);
  - Active open space (7.1ha).
  - Easement open space (2.9ha);
  - Landscape/verge open space (18.8ha);
  - Drainage (5.6ha); and
  - Conservation and riparian corridors (76.4ha).
- The open space network will be supported by playgrounds, fitness equipment, playing fields and multipurpose hard courts and will be seamlessly connected by an extensive pedestrian and cycle path network.
- A Village Centre with approx. 20,600m2 of commercial floor space.
- A Neighbourhood Centre with 3,500m2 of commercial floor space.
- Water cycle management basins and other stormwater infrastructure which is integrated where possible with the open space network.

The low density residential urban environment proposed is framed by conservation woodlands in the north, valleys and ridgelines in the centre and Menangle Creek in the south. The existing rural and ecological character is maintained to create a unique green interface with the various

residential areas. The social fabric of Rosalind Park is reinforced by a Koala Conservation Corridor in the south, which forms part of a broader corridor with is proposed to link the Georges and Nepean Rivers. The blue/green grid and pedestrian network celebrate and integrate the community with the surrounding environment to create a truly unique urban environment.

The embellished Jemena Gas pipeline easement and a central riparian corridor will connect the northern Cumberland Plain conservation area to the Menangle Creek riparian corridor. These conservation and riparian corridors serve multiple purposes including mitigating the impacts of flooding, enhancing local biodiversity and the health of the ecosystem, providing recreational opportunities for the community, increasing tree canopy cover, and improving the visual appeal of the precinct.

The Structure Plan places residential neighbourhoods and densities in response to the undulating topography. Higher density development is proposed on the flattest areas in the south, while the lowest densities are in the areas with steeper topography. The Structure Plan leverages the unique topography and retains view corridors across the eastern peripheries to Menangle Creek, including south west to the Razorbacks and south over Gilead towards the Southern Highlands.

The concentration of residential development has also been in proximity to activity nodes and transport corridors. This includes provision of medium density and small lot residential around the active open space area, school and Neighbourhood Centre. It is envisaged that this will create a unique neighbourhood atmosphere underpinned by Healthy Town principles.

The Village Centre repurposes the existing homestead by placing a commercial area on a central ridgeline and maintaining views over the central valley to the south. The Village Centre is also located on the collector road, near active transport and close to the northern entry making it easily accessible for visitors and residents.

Table 1: Rosalind Park Land Use Allocation

Land Uses	Area (ha)	Rezoning Area
Residential	91.4	35%
Neighbourhood Centre	0.35	0.1%
Village Centre	2.05	0.8%
School	3.2	1.2%
Rural Fire Service	0.10	0.03%
Sub-Arterial Roads	4.7	1.8%
Roads (Collector and Local)	42.6	16.1%
Potential Future Roads	1.2	0.4%
Open Space	36.3 Includes: Passive OS (Parks) - 7.3 Active OS (Playing fields) – 7.1 Easement OS - 2.9 Landscape & Verge OS – 18.8	13.6%
Drainage	5.6	2.1%
Environmental Conservation	25.1	9.5%
Riparian Corridor	51.3 (includes Koala Corridor 40.67)	19.4%

3.3 Neighbourhoods

The characteristics of the Rosalind Park site create the opportunity for identifiable residential neighbourhoods to emerge. Figure 12 provides an illustration of the neighbourhoods, each of the five having their own unique character.

- **Neighbourhood 1** is characterised by low density residential development near the northern entry and Neighbourhood Centre.
- **Neighbourhood 2** includes the central densely vegetated valleys and the ridgeline containing the 330kV powerline. This area is characterised by a mix of housing typologies contained within a network of linear green spaces with fantastic access to open space and public amenity.
- **Neighbourhood 3** is in the north eastern periphery which will provide predominantly large lot dwellings in response to the topography creating a quiet neighbourhood nestled in the Menangle Hills with scenic views surrounded by a green curtain.
- **Neighbourhood 4** experiences less vehicular traffic across the central western plateau, providing predominantly low-density housing with some large lot dwellings located around the Village Centre bushland.
- **Neighbourhood 5** is in the south offering small lot residential dwellings across more gentle gradients. This area is easily walkable, promoting residents to engage with the active recreational facilities and Neighbourhood Centre.

In summary Rosalind Park will provide distinct neighbourhoods with different characteristics shaped by open space, topography and density, providing diversity of housing choice for future residents.

Figure 12 Neighbourhood Areas

Residential Densities, Lot Mix and Yield

Rosalind Park proposes approximately 1,450 dwellings with standard lot housing concentrated in the south, larger lots to the north and east (Refer to Figure 13).

The land in the southern part of the site adjacent to the neighbourhood centre, primary school and active recreation space is well suited for small lot residential (15-18 dw/h) and medium density residential (18-20 dw/h). The area surrounding the Village Centre in the north will comprise low density residential (12-15 dw/h), with the remaining areas comprising large lot residential (10-12 dw/h) responding to topography and the central green corridor.

Additional large lot residential development will be concentrated at the eastern peripheries responding to the topography, providing an opportunity for unique residential dwellings that take advantage of the natural beauty of the area.

Housing Type	Density Range (dw/ha)	Approximate Density Mix
Large Lot Residential	10-12 dw/ha	25%
Low Density Residential	12-15 dw/ha	50%
Small Lot Residential	15-18 dw/ha	15%
Medium Lot Residential	18-20 dw/ha	10%

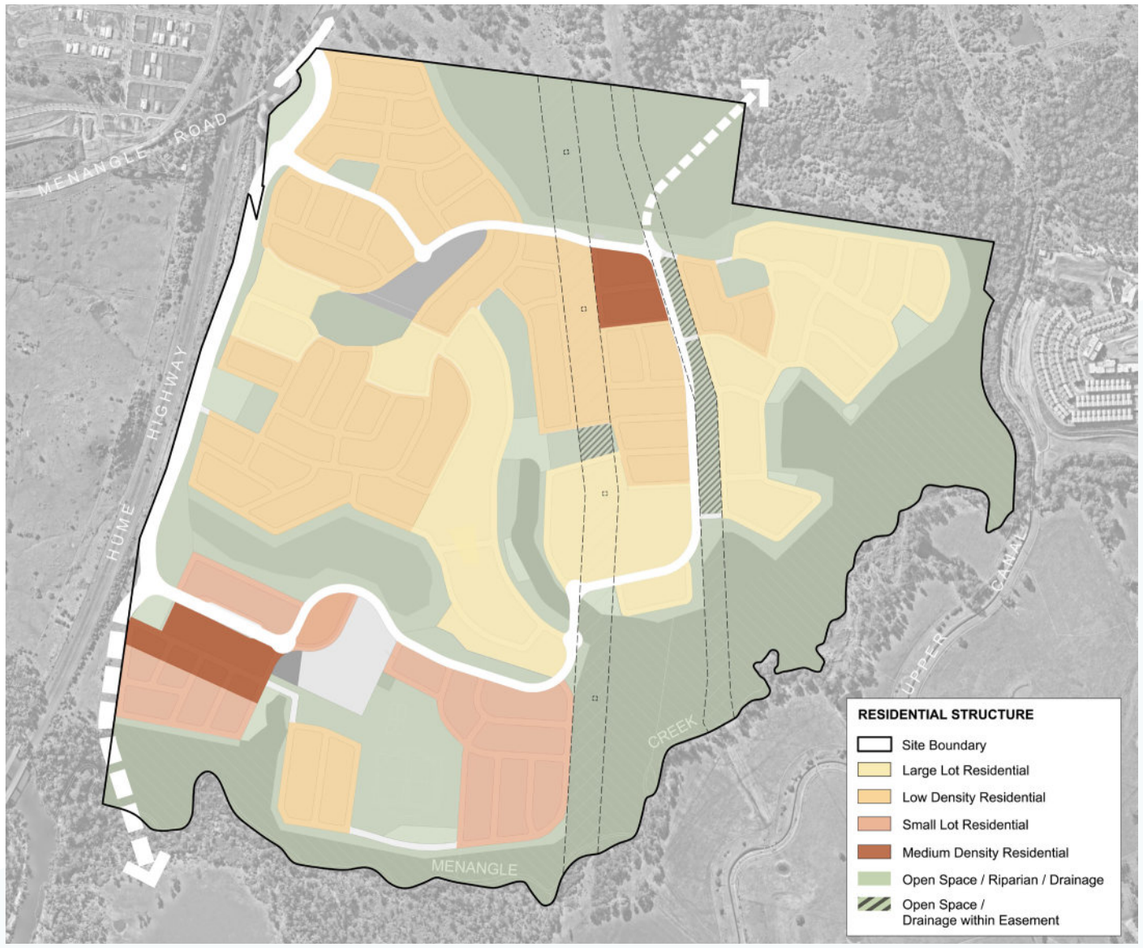


Figure 13 Density Strategy

Housing Diversity

Rosalind Park will seek to provide a broad range of dwelling types with a focus on achieving attractive residential streetscapes comprising a variety of lot sizes, shapes and types to allow a diverse range of housing styles to cater to different housing needs.

Large Lot Housing

Small Lot Housing

Low Density Housing

Medium Density Housing

3.4 Village Centre & Neighbourhood Centre

Village Centre

The Village Centre is designed to provide a mix of residential, community and commercial land uses, with an area of approximately 20,600m2 (Refer Figure 14). The Village Centre repurposes the existing homestead which is desirably located at the convergence of the central north south green corridor and collector road and will become a focal point of the precinct. This location will assist in creating a vibrant Village Centre which is highly accessible to residents seeking their convenience shopping needs and a space to meet, interact and socialise. The Village Centres location at the top of a ridgeline also creates a unique ambience and will benefit from the views over the central valley, local green spaces and beyond toward Gilead and the Razorbacks.

Figure 14 Concept Village Centre

Neighbourhood Centre

The Neighbourhood Centre is approximately 3,500m2 (Refer Figure 15), and is easily accessible by foot, bike, or public transport, providing a unifying and vibrant community hub for residents to congregate, use and enjoy. It is located at the southern entry statement, providing residents of higher density housing and the neighbouring primary school access to essential services. The Neighbourhood Centre is accessed via the collector road which is serviced by public transport and is located next to Rosalind Park's active open space precinct.

Figure 15 Concept Neighbourhood Centre

3.5 Movement Network

Road Hierarchy

The Structure Plan provides a logical and meaningful road network that responds to the topography while maximising accessibility. The proposed road layout establishes a clear hierarchy inclusive of an outer sub-arterial road, a central collector road, and a local road network (Refer to Figure 16).

Three site entrances are located on the western sub-arterial road, the two main entries are in the north and the south, with a lower order entrance in the centre.

The sub-arterial road connects to Menangle Road in the north and becomes an extension of Medhurst Road, linking to areas south of the site via a future crossing of Menangle Creek. The sub-arterial road is designed to bring people easily and efficiently into the Rosalind Park neighbourhoods and associated activity nodes.

A collector road is designed to link the northern and southern entries looping through the site connecting the Village Centre, primary school, Neighbourhood Centre, green spaces, and the residential neighbourhoods of Rosalind. This collector road caters to local traffic allowing for easy and quick commuting throughout the site. The collector road is designed to achieve gentle grades though the site.

The neighbourhood local road network gains access off the collector road to provide a well-integrated road hierarchy throughout the site. Various local roads extend off the collector road creating unique view corridors and streetscapes. The local road network has been designed to minimise the requirement for excessive cut and fill earthworks.

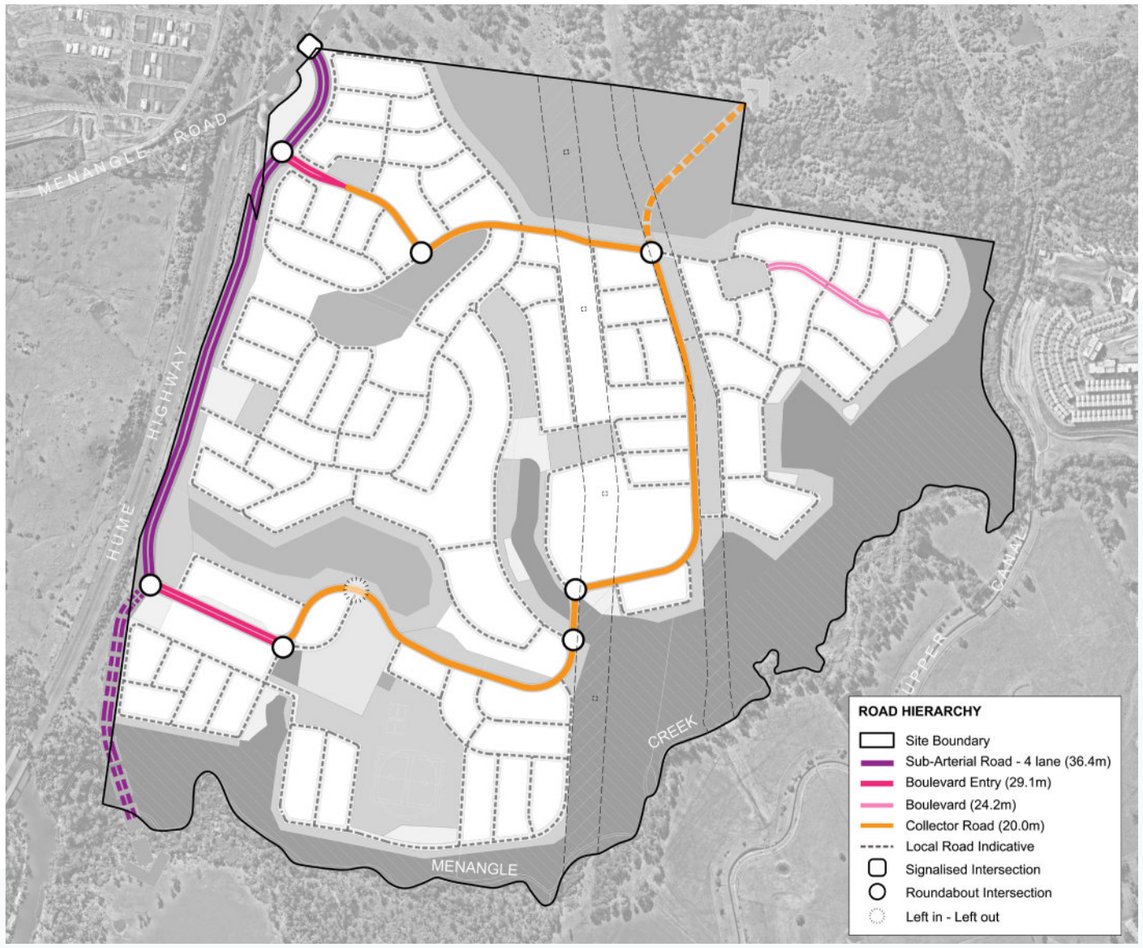


Figure 16 Road Hierarchy Plan

Road Cross Sections

The road cross sections for the Rosalind Park have been sourced from the Campbelltown Growth Centres Development Control Plan and adapted to the unique circumstances of the site where necessary.

Sub-Arterial Road

The sub-arterial road is designed to support two travel lanes and a combined pedestrian and cycle path traveling in either direction with a road reserve width of 36.4m. The verges are 7.5m wide with trees lining both sides of the 4.0m wide combined pedestrian and cycle path (Refer to Figure 17). This level of tree canopy cover will provide shade to the sharepath and road pavement encouraging its use all year-round.

The combined pedestrian and cycle path also contributes to the regional bicycle network connecting to precincts in the north and south. The 6.7m carriage ways are dedicated for vehicle travel with no on street parking or direct driveway access. The 8m wide central median is dedicated for the future rapid transit way identified in the Greater Macarthur 2040 Interim Plan and Campbelltown LSPS.

The carriageway width ensures that public transport linkages can be achieved via a 3.5m lane in both directions to encourage bus transit usage by residents within and beyond Rosalind Park.

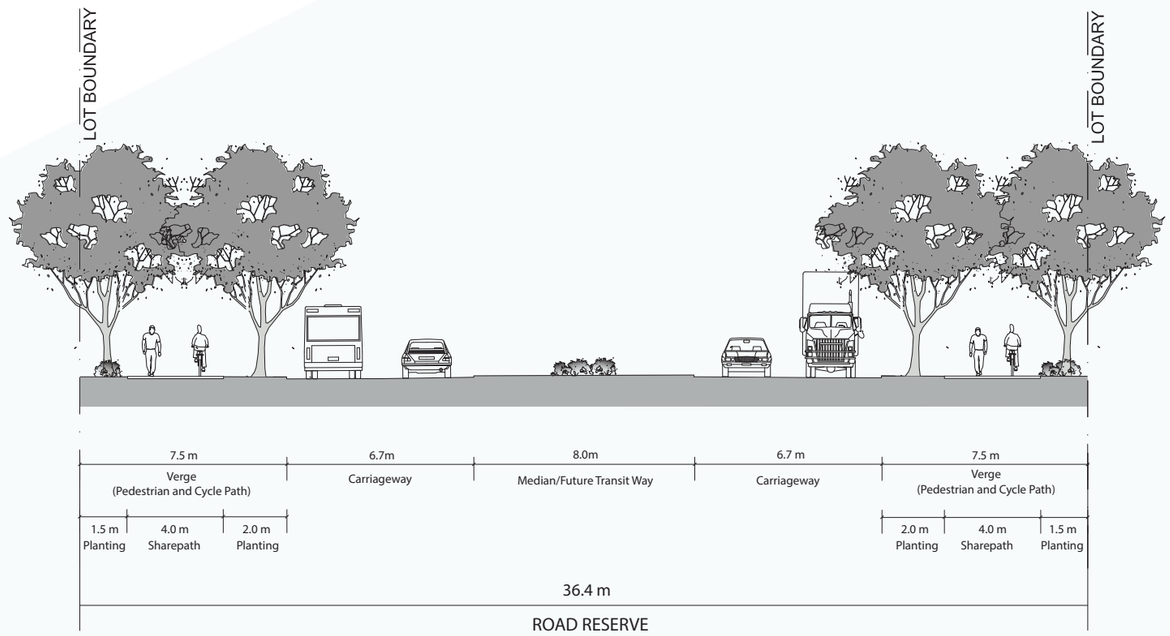


Figure 17 Sub-Arterial Road

Boulevard Entry (Collector Road)

The boulevard entry roads are designed to create densely manicured landscaped arrivals to the Rosalind Park development and are located at the northern and southern connections off Medhurst Road. The boulevard entries provide a road reserve width of 29.1m, inclusive of two 7.75m carriageways separated by a 4.2m median and with 4.7m verges (Refer to Figure 18).

The median and verges will be densely tree planted to assist with overall tree canopy and Cool Suburb initiatives, while providing an instant sense of place as you enter Rosalind Park. The verges will support 2.5m sharepaths to each side. The design includes no on street parking or direct driveway access.

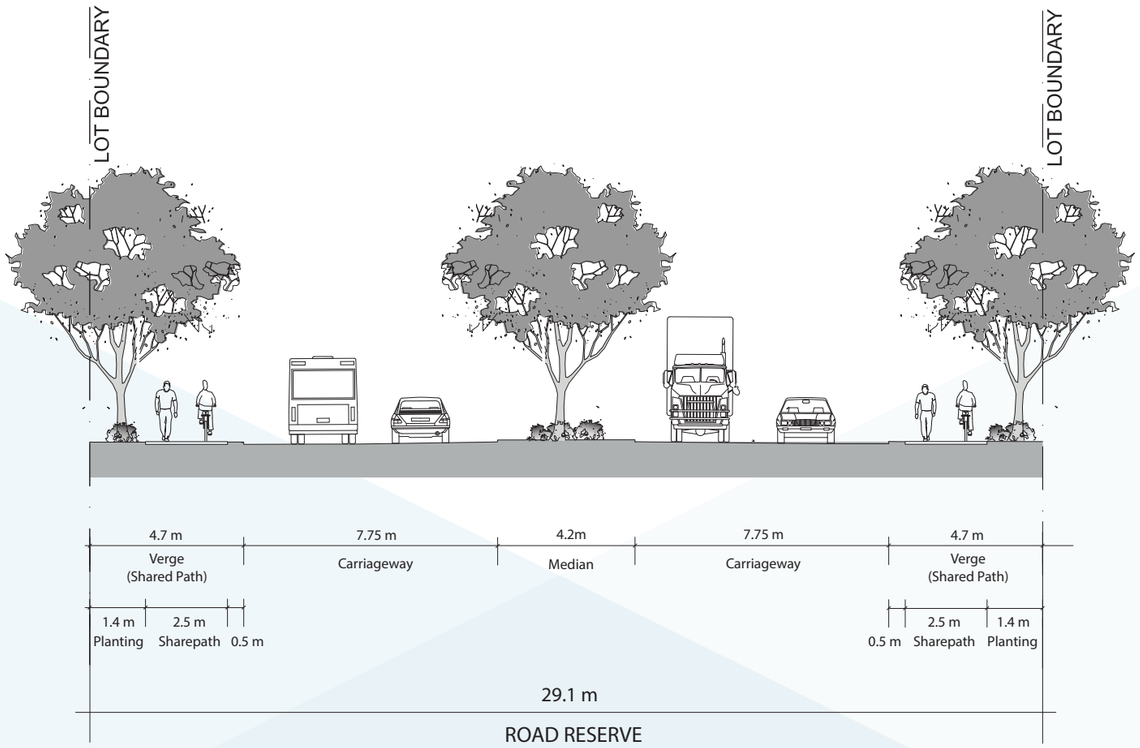


Figure 18 Boulevard Entry (Collector Road)

Boulevard Road (Local Street)

The boulevard local street provides a road reserve width of 24.2m, inclusive of two 5.5m carriageways separated by a 4.2m median and 4.5m verges (Refer to Figure 19). The verges allow for a tree lined street inclusive of 2.5m sharepaths to both sides. The 5.5m carriageways allow for one way travel and kerb side parking in either direction.

The kerb side street tree planting and central median vegetation creates a unique road cross section that establishes a consistent tree canopy and reinforces a connection to the surrounding vegetation and sense of arrival.

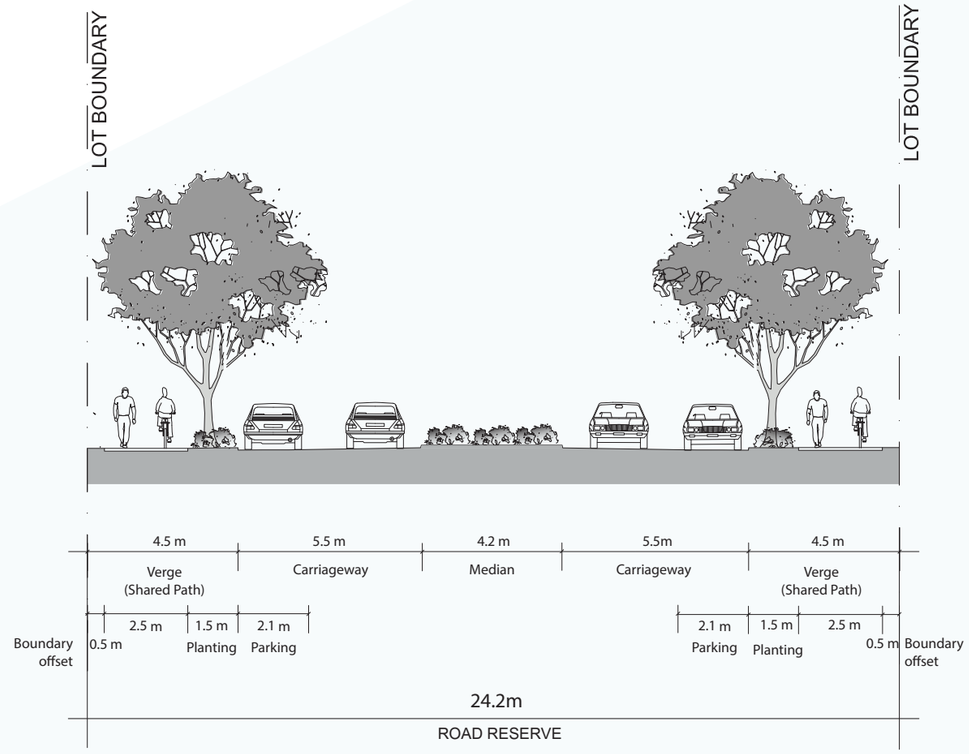


Figure 19 Boulevard Road (Local Road)

Collector Road

The collector road provides a road reserve width of 20m, inclusive of a two-way 11.0m carriageway with 4.5m verges. The verges allow for a tree lined street inclusive of 2.5m sharepaths to both sides (Refer to Figure 20). The 11.0m carriageways allows for one way travel and kerb side parking in either direction and support bus movements throughout the project.

The tree lined street supports a legible street network with continuous tree canopy cover while connecting the distinct Rosalind Park neighbourhoods, open spaces and activity nodes.

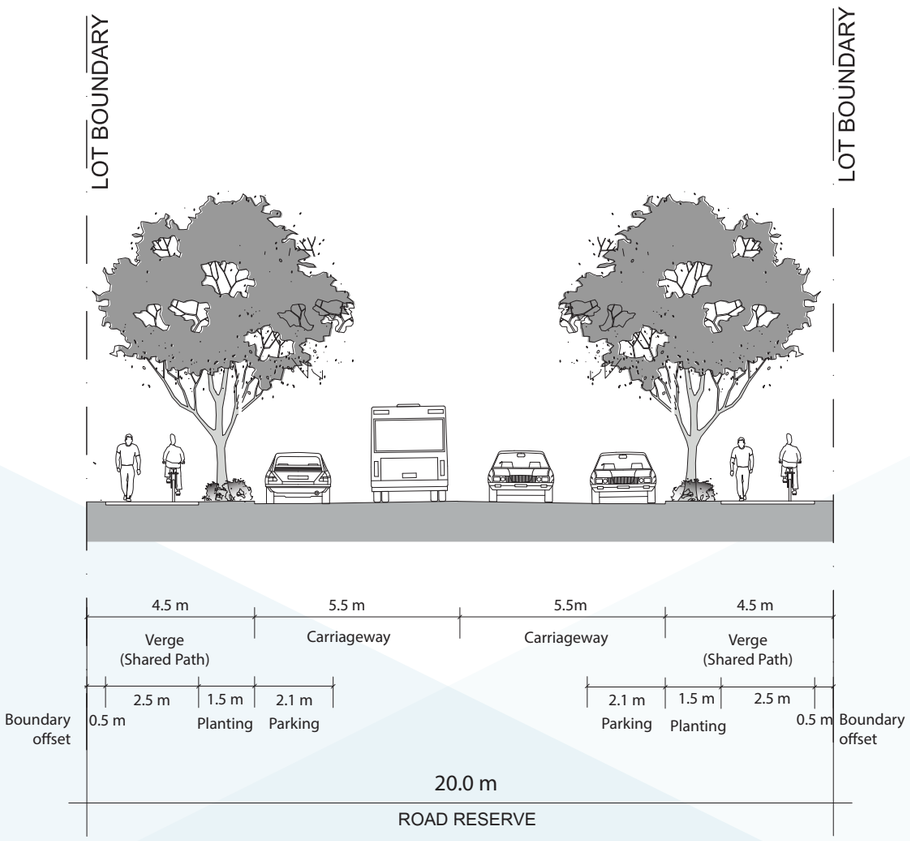


Figure 20 Collector Road

Local Road

The local road provides a road reserve width of 16m. The carriageway is provided at 9.0m and includes two-way travel and kerb side parking (Refer to Figure 21). The verges are 3.5m wide and will provide a tree lined street inclusive of a 1.5m footpath on one side which connects to the sharepath network of the higher order roads and open spaces.

The local street network is based on a modified grid layout ensuring legibility and permeability and will provide a continuous tree canopy stretching throughout every neighbourhood within Rosalind Park.

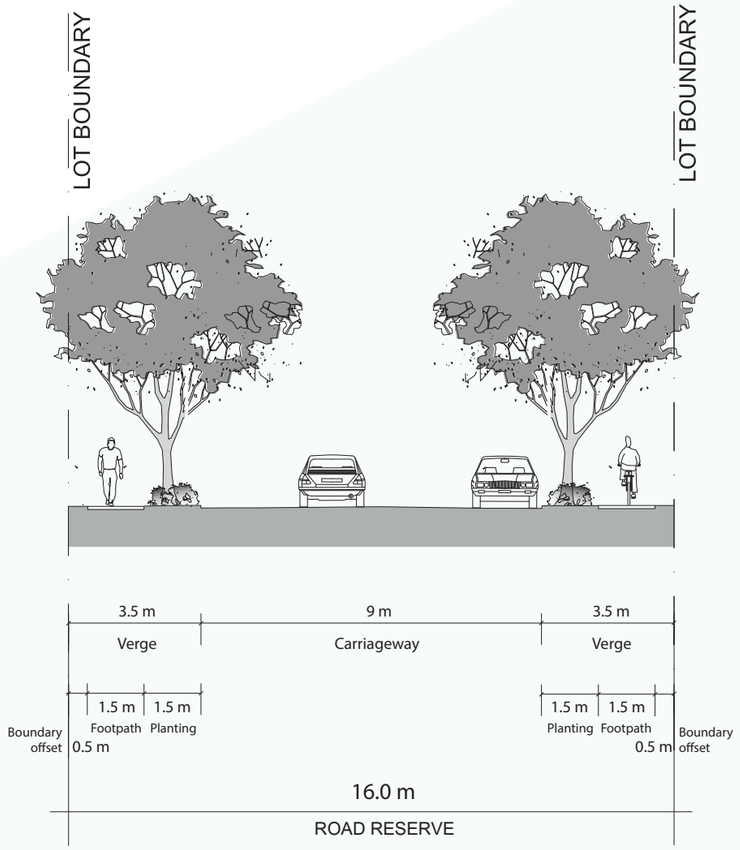


Figure 21 Local Road

APZ Perimeter Road

The APZ perimeter road is designed as an interface between the residential areas and potential bushfire risks such as riparian corridors or Cumberland Plain conservation areas.

The APZ perimeter roads provide a clear 8.0m two-way path of travel for fire protection purposes and an additional 2.1m for kerbside parking on the neighbourhood side, producing a carriageway width of 10.1m or 6m (Refer to Figure 22 and Figure 23).

The neighbourhood side verge is 3.5m and will provide a tree lined street inclusive of a 1.5m footpath which will connect to the sharepath network of the higher order roads and open spaces.

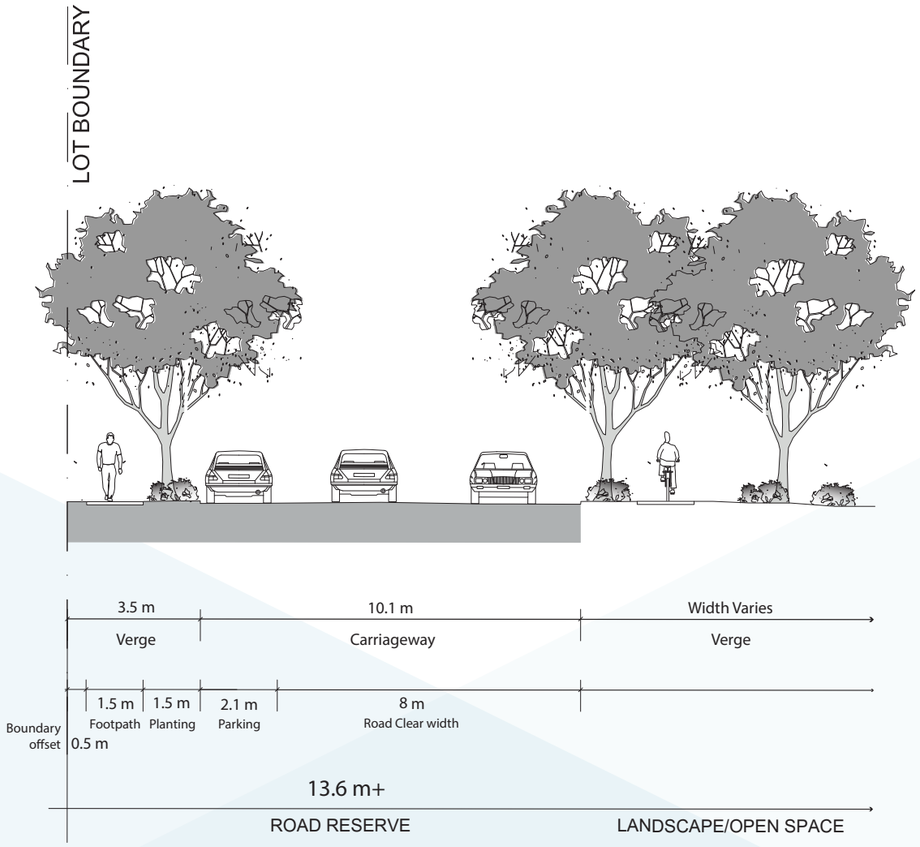


Figure 22 APZ Perimeter Road with Parking

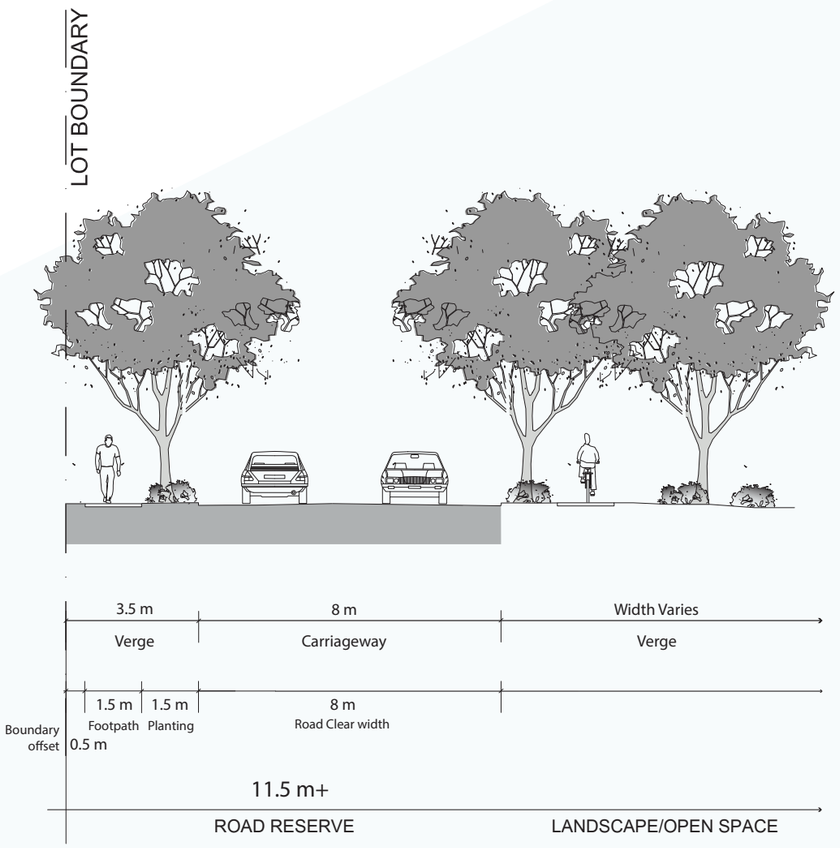


Figure 23 APZ Perimeter Road without Parking

Public Transport

The road network within the Rosalind Park Structure Plan provides roads that are bus capable for the future delivery of public transport serves in consultation with the local bus service provider/s. The bus capable roads comprise the internal collector road which connects the northern and southern entry boulevards off Medhurst Road (Refer to Figure 24).

The public transport network accesses the Village Centre in the north and the Village Centre, primary school, and active open space area in the south. The relationship between the open space corridors and the collector road bus stops ensures the active transport network links with the public transport network and the wider land uses within Rosalind Park.

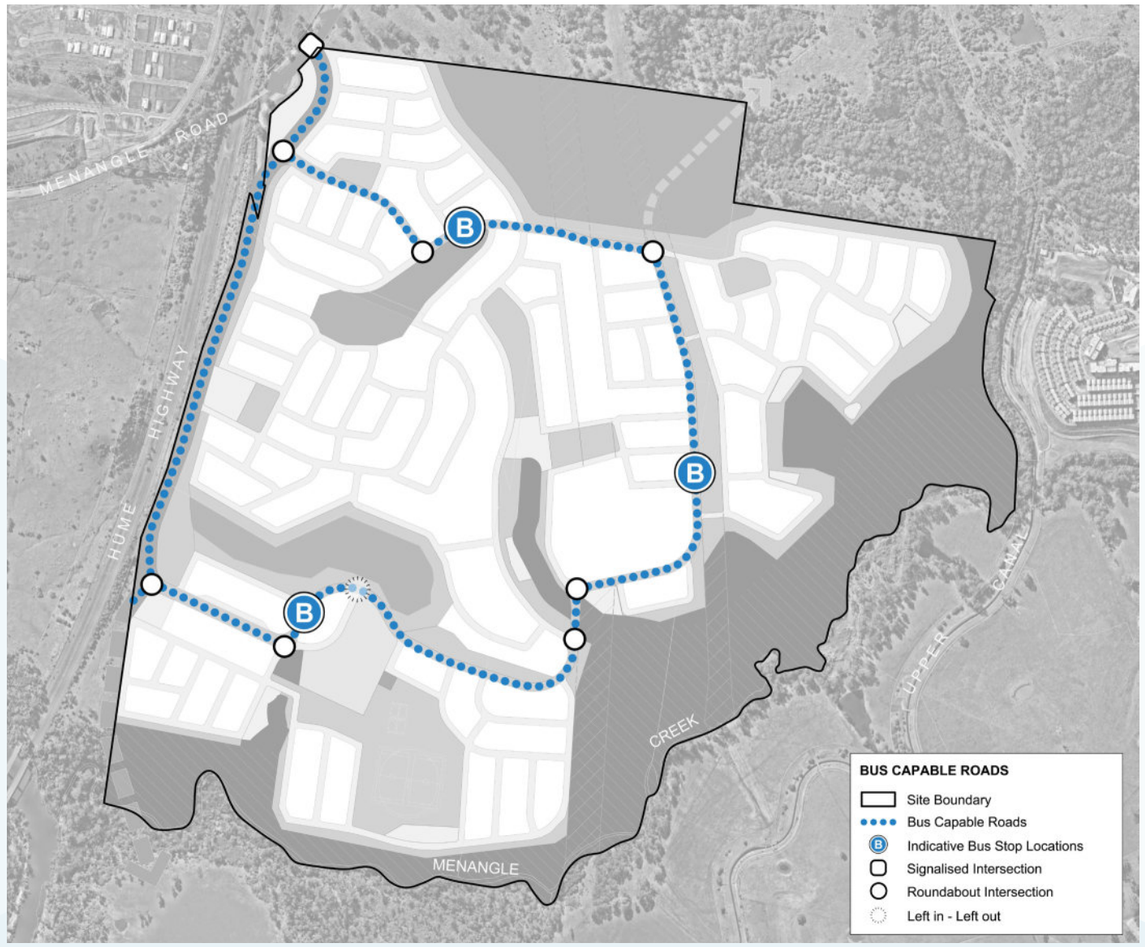


Figure 24 Bus Capable Roads

Active Transport

The active transport network has been designed to achieve a hierarchy that prioritises the movement of pedestrians and cyclists throughout Rosalind Park and connects with the wider regional network (Refer Figure 25).

All streets will be provided to ensure equitable access for all residents, including the disabled or vision impaired. All dwellings are connected to the network which in turn connects to the higher order roads, green corridors and open spaces. Tree lined streets and green corridors will provide the active transport network with suitable tree canopy and shade, encouraging use all year-round. The extensive active transport network underpins the Healthy Town initiatives by promoting longer walks and community interactions around key natural assets and activity nodes.

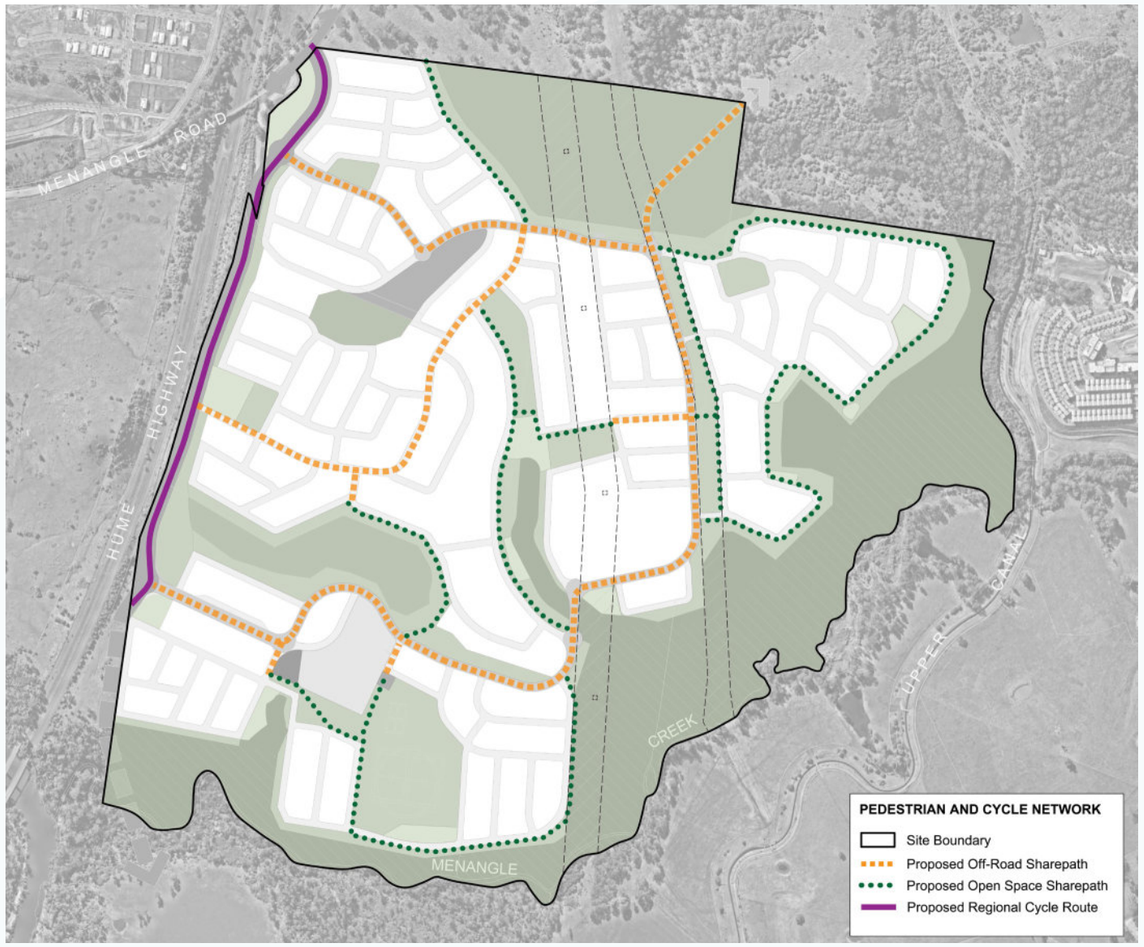


Figure 25 Active Transport Network

3.6 Open Space

The Precinct includes an extensive open space and lineal corridor network which comprises a total of 118.4ha. The open space areas comprise the following:

- Passive open space (7.3ha);
- Active open space (7.1ha).
- Easement open space (2.9ha);
- Landscape/verge open space (18.8ha);
- Drainage (5.6ha); and
- Conservation and riparian corridors (76.4ha).

Active & Passive Open Space

Rosalind Park will contain a large active open space area inclusive of a double playing field, multipurpose hard courts, a playground and active transport links. The active open space area has been strategically located in the south to utilise what will become a flat landscape over the existing quarry, while also taking advantage of good linkages vis the active transport network through the site.

Passive open spaces areas have been located across the site to provide each neighbourhood with good access to local parks, playgrounds and other passive recreation opportunities. The passive open space areas have been designed to be used by residents for a variety of social interactions and recreational activities, including dog off leash areas, multi-purpose courts, playgrounds and skate park elements. All open space areas are highly integrated by the extensive active transport network.

Conservation Areas

The Rosalind Park Structure Plan retains conservation areas for the enhancement of local biodiversity including Cumberland Plain Woodland.

These conservation areas provide a backdrop to the urban development that will contribute to the rural character and amenity of the project, enhance the sense of place for residents and the overall tree canopy to assist with reducing urban heat island affects. The conservation areas are described as (Refer to Figure 26):

- The bushland in the north of the site,
- Bushland adjacent to the Village Centre,
- Bushland in the south of Lot 1 DP 622362, and
- Menangle Creek riparian corridor and tributaries.

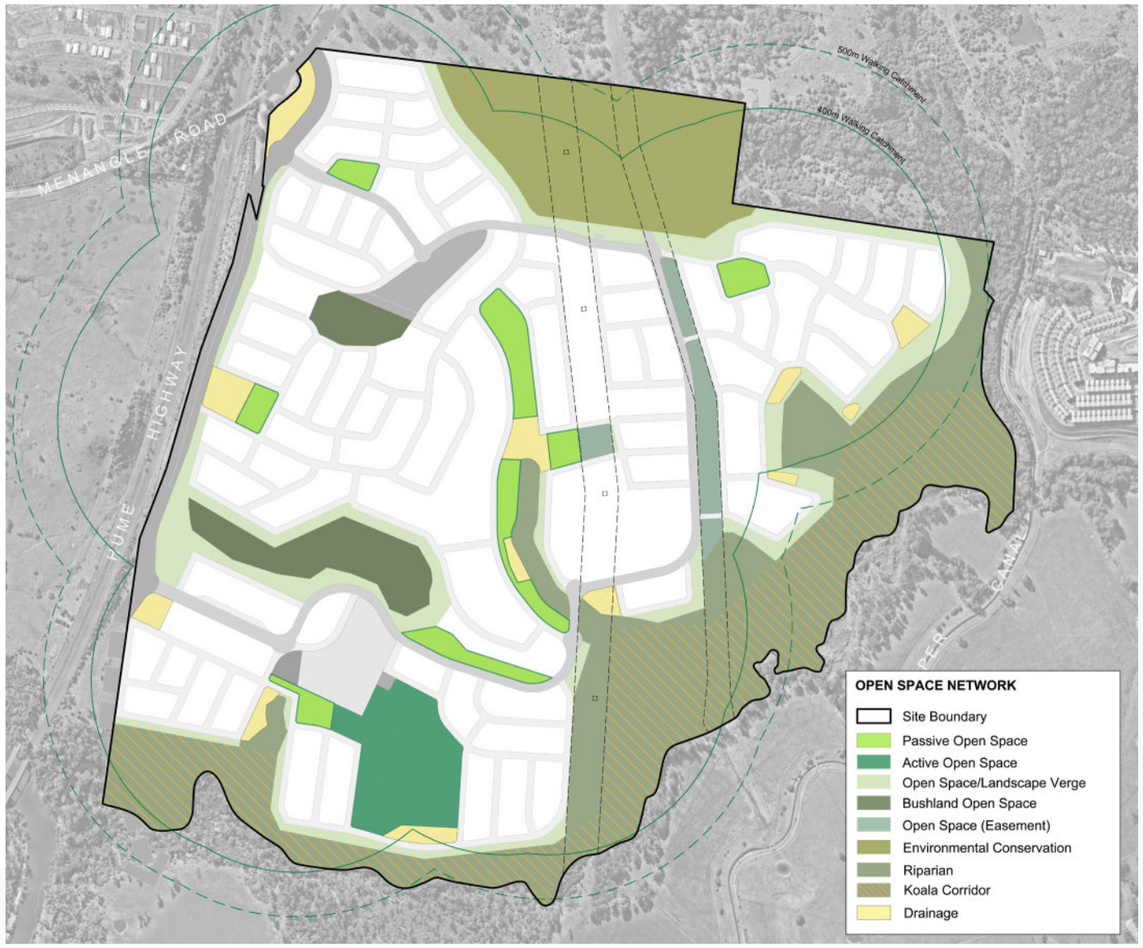


Figure 26 Open Space Network Plan

A Koala corridor has been identified on site which follows the Menangle Creek riparian corridor. The Koala corridor is retained in accordance with the State Environmental Planning Policy (Biodiversity and Conservation) 2021.

The Creek corridors contain the Koala Corridor, with an additional corridor extending through the centre of the site. The Creek corridors will be retained and enhanced in accordance with the Natural Resource Access Regulator (NRAR), Guidelines for Riparian Corridors on Waterfront Land, with environmental conservation areas retained in accordance with the Cumberland Plan Conservation Plan.

Lineal Corridors

The site characteristics of long north south valleys and infrastructure easements linking the Environmental Conservation area in the north with Menangle Creek to the south has been enhanced through the urban design response for the site. Additional open spaces have been positioned to connect with these landscape features, including the provision of active transport routes providing safe and convenient access to the surrounding community focused land uses.

The linear corridors realise Healthy Town principles and the project vision, by providing active transport infrastructure within a scenic landscape setting which connects people where they want to go.

Drainage

Drainage facilities for water quality purposes have been incorporated into the layout of the Structure Plan to accommodate the necessary nutrient polishing before discharge off-site.

The drainage facilities are located to minimise the maintenance required and in parts have been integrated within APZ areas. The final design of the drainage facilities will be undertaken to ensure that they seamlessly integrate into the landscape and positively contribute to the amenity of the surrounding areas.

3.7 Asset Protection Zones

The Rosalind Park Structure Plan applies Asset Protection Zones (APZs) in accordance with the Strategic Bushfire Study prepared by ABPP (Refer Figure 27).

The APZs are proposed to create a buffer between vegetated areas and built form, with the majority of the APZs being within road reserve and front setbacks of residential allotments. Drainage facilities and pathways are proposed to be contained within the APZ areas in accordance with RFS standards.

Figure 27 Structure Plan
Asset Protection Zones

LEGEND

- Subject Site
- Koala Corridor

Asset Protection Zone (APZ)

- 56m
- 45m
- 36m
- 32m
- 24m
- 23m

3.7 Development on Sloped Land

The topography of the Rosalind Park site requires some areas to have built form alternatives to assist with managing slope within future allotments. In areas where slope is evident, it is anticipated that purposefully designed dwellings which efficiently respond to the site topography.

Figures 28a & 28b illustrates how slope can be handled within the property and as part of the dwelling construction. In the case of front to back slope (Figure 28a), this provides residents with elevated living areas above garages, assisting to capture the local and district views. Where side to side slope on lots is present (Figure 28b), the opportunity for the house to sit over the garage provides good visual surveillance of the street and distant views. It is anticipated that specific controls on the built form and number of storeys of a dwelling will be included in a site specific Development Control Plan and built form guidelines which would be provided to prospective purchasers.

The inclusion of built form outcomes assists with earthwork cut and fill outcomes across the site, reduces the need for excessively high retaining walls.

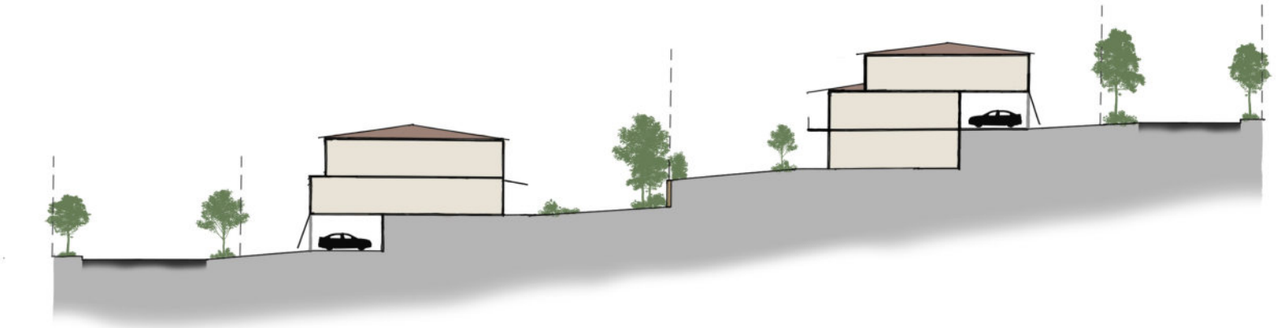


Figure 28a Development on front to back-sloped land

Figure 28b Development on side-sloped land

3.8 Social Infrastructure

The Rosalind Park Structure Plan has been specifically designed to locate key pieces of social infrastructure at accessible locations and areas of high amenity. The provision of local and district facilities will include:

- A public primary school;
- A Rural Fire Service station;
- A variety of retail and commercial services, including entertainment and leisure facilities;
- Possible childcare centre(s);
- Playgrounds, public open spaces and an extensive active transport network; and
- Sporting fields and multipurpose hard courts.

The active playing fields area will be achieved by the filling of the existing quarry and embellishment of the area for a variety of active recreational pursuits (Refer Figure 29)

Figure 29 Active Recreation Area Concept (Source: Distinctive)

MULTI-SPORTSFIELDS

PUMPTRACK SKATEPARK

BASKETBALL / NETBALL COURTS

CHILDREN'S PLAYGROUND

OUTDOOR EXERCISE EQUIPMENT NODES

3.9 Staging

The staged delivery of the Rosalind Park ensures major placemaking elements are delivered to support the different housing catchments and establish strong local community foundations from the beginning, which are continually fostered as the project develops.

The Indicative Staging Plan shows Rosalind Park being delivered in nine stages (Refer to Figure 30). The first stage is located in the north-eastern portion of the site, including the intersection of Menangle Road and Medhurst Road and the northern Precinct gateway entry statement. The Village Centre is also proposed as part of the first stage to allow residents access to self-contained facilities from inception. The staging then generally moves eastwards before heading south.

The staging strategy generally reflects the neighbourhood areas, with each stage providing critical open space and active transport connections to service the developing community.

The final stage will include the southern portion of the site incorporating the quarry and AGL activities, allowing time for these land uses to be appropriately decommissioned and repurposed in readiness for the intended urban development, particularly the filing of the quarry to a suitable level to provide the active recreational facilities.

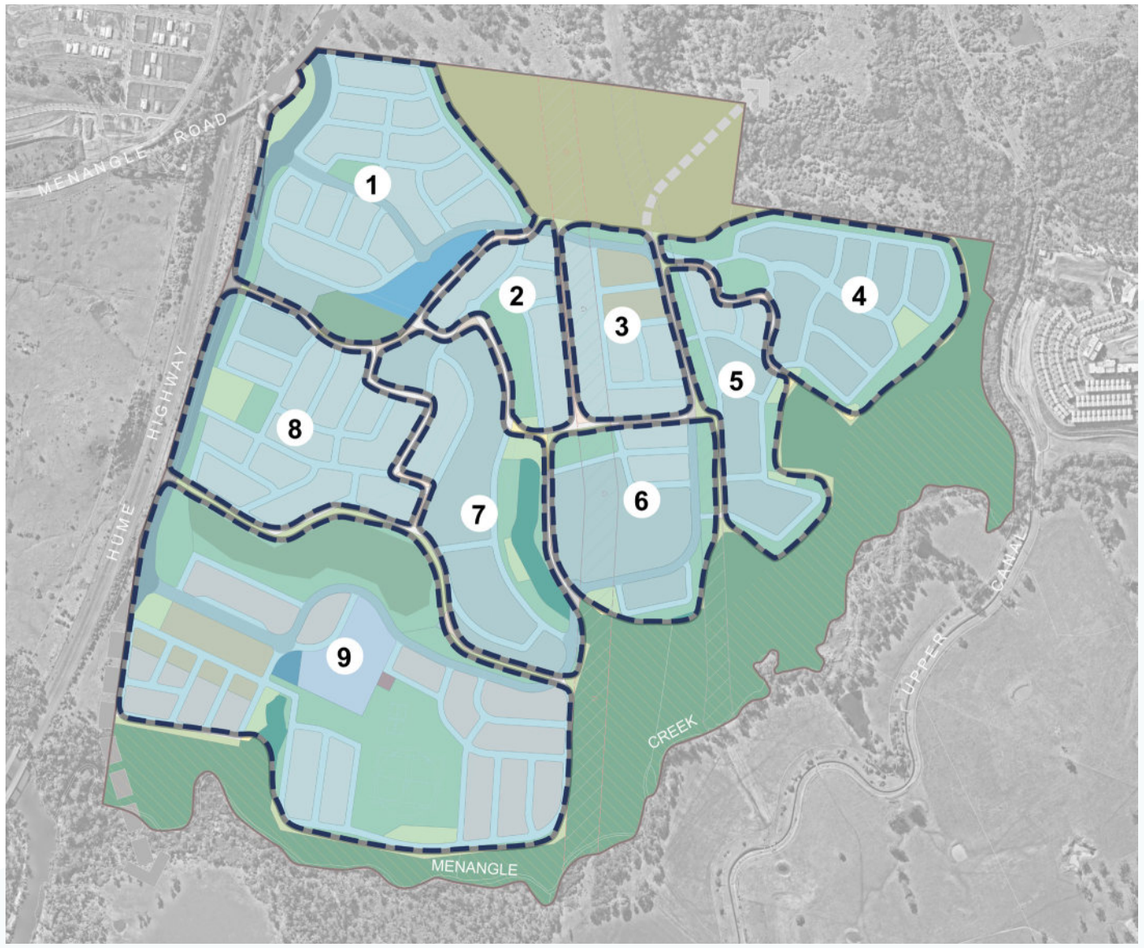


Figure 30 Indicative Staging Plan

4. Conclusion

The vision for Rosalind Park is to deliver a unique prestigious development in south west Sydney which encapsulates the site characteristics for a picturesque community boasting excellent connectivity to commercial/community facilities and an abundance of high-quality public amenity which creatively embeds natural assets and conservation elements into a scenic urban setting. The site has several physical considerations, specifically sloping land, infrastructure easements and ecology that all provide the opportunity to capitalise these attributes to deliver on the vision. One of the uniquely beneficial attributes of the site is its elevation in the surrounding landscape which affords sweeping views extending from the north through to the west, south and south west, capturing views of the Blue Mountains, Razorback Ranges and across the Greater Macarthur area towards the Southern Highlands.

The bringing together all the outputs of the specialist consultant investigations results in a Structure Plan that achieves the following key attributes:

- A village centre to deliver cultural enhancement for the community;
- A neighbourhood centre to provide convenience shopping;
- A primary school;
- Open space that is highly accessible to ensure a healthy place;
- Conservation of flora and fauna across the site (Cumberland Plain Woodland & Koala Corridor); and,
- High quality Public Realms and streetscapes

The Rosalind Park Structure Plan has been designed to create a unique urban environment delivering approximately 1450 dwellings nestled into the Menangle hills.

The integration of an extensive network of pathways has been a strong design principle for the Structure Plan. Active transport pursuits are achieved by an interconnected network of pedestrian and cycling paths which link residents to the variety of land use activities and amenities across the site.

The community comprises a diversity of housing types which extend from a low-to-medium residential offering in the northern and central areas of the site, to medium density housing adjacent to the neighbourhood centre, school and active play space in the south, all enjoying good access to public transport.

Overall, the Rosalind Structure Plan provides the necessary urban amenity to deliver a vibrant, healthy and connected community that has high accessibility to Campbelltown, south west Sydney and emerging employment opportunities in the Aerotropolis and Western Sydney Airport.

Design+
Planning

Contact Us

Suite 304, 171 Clarence Street

PO Box 1778

Sydney NSW 2000

02 9290 3636

admin@designandplanning.com.au

www.designandplanning.com.au