

THE **DESIGN** PARTNERSHIP

MEDOWIE URBAN DESIGN REPORT



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EXECUTIVE SUMMARY

This Urban Design Report has been prepared for a proposed residential subdivision located in the suburb of Medowie.

Medowie is an inland coastal town and is home to approximately 8,843 residents¹ in which is a predominately low density residential suburb. The suburb is within the Port Stephens Local Government Area and is located 34 kilometres north of Newcastle. Residents are generally reliant on larger centres such as Raymond Terrace, Maitland and Newcastle for their shopping, services and employment². Some local services are available within Medowie on Ferodale Road but at a neighbourhood scale.

The subject site is currently zoned E2 - Environmental Conservation and is located between existing suburban residential (R2 Low Density Residential), rural residential (R5 Large Lot Residential) and the Medowie State Forest. The subdivision will form the eastern extension of the existing low density residential framework.

The development proposes 206 residential lots of varying sizes, designed to meet existing and future market demand. The development will be accessed from Coachwood Drive and via an upgrade to the unformed section of Ferodale Road.

The subdivision integrates water sensitive urban design measures into the public domain. (NEED TO ELABORATE WHEN WE RECEIVE THE WSUD REPORT)

The design outcome provides attractive places for walking, riding and play.

1. Australian Bureau of Statistics 2011

WIDER CONTEXT ASSESSMENT

Medowie lies north of Newcastle, midway between Stockton Beach and the Pacific Highway. It's major centres are Newcastle, Raymond Terrace and Maitland. Connections to Medowie are via the Pacific Highway and Nelsons Bay Road with local connections from Richardson Road and Medowie Road.

West of the suburb is Grahamstown Dam, to the east are State significant wetlands and to the north are State forests. The RAAF base is located at Williamstown and the suburb is home to a number of employees.

The urban framework of Medowie is defined by a north south (Medowie Road) and an east west (Ferrodale Road) axis. Existing services are located close to the intersection on Ferrodale Road. This area is identified in the Medowie Strategy 2009 as the future town centre hub. Two primary schools are also located on this road.

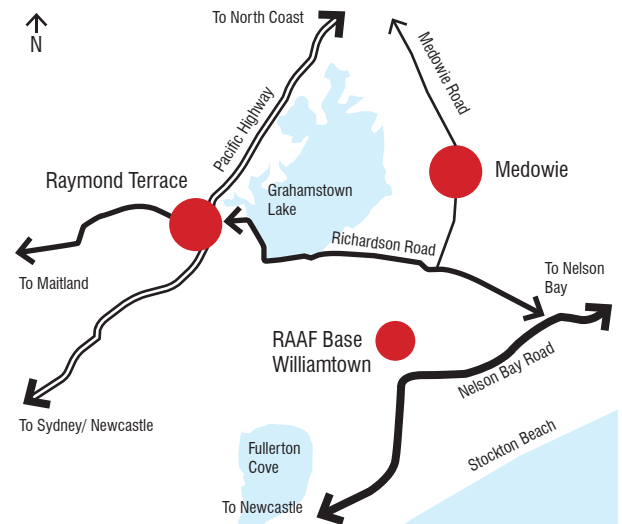


Fig. 1 Context Plan

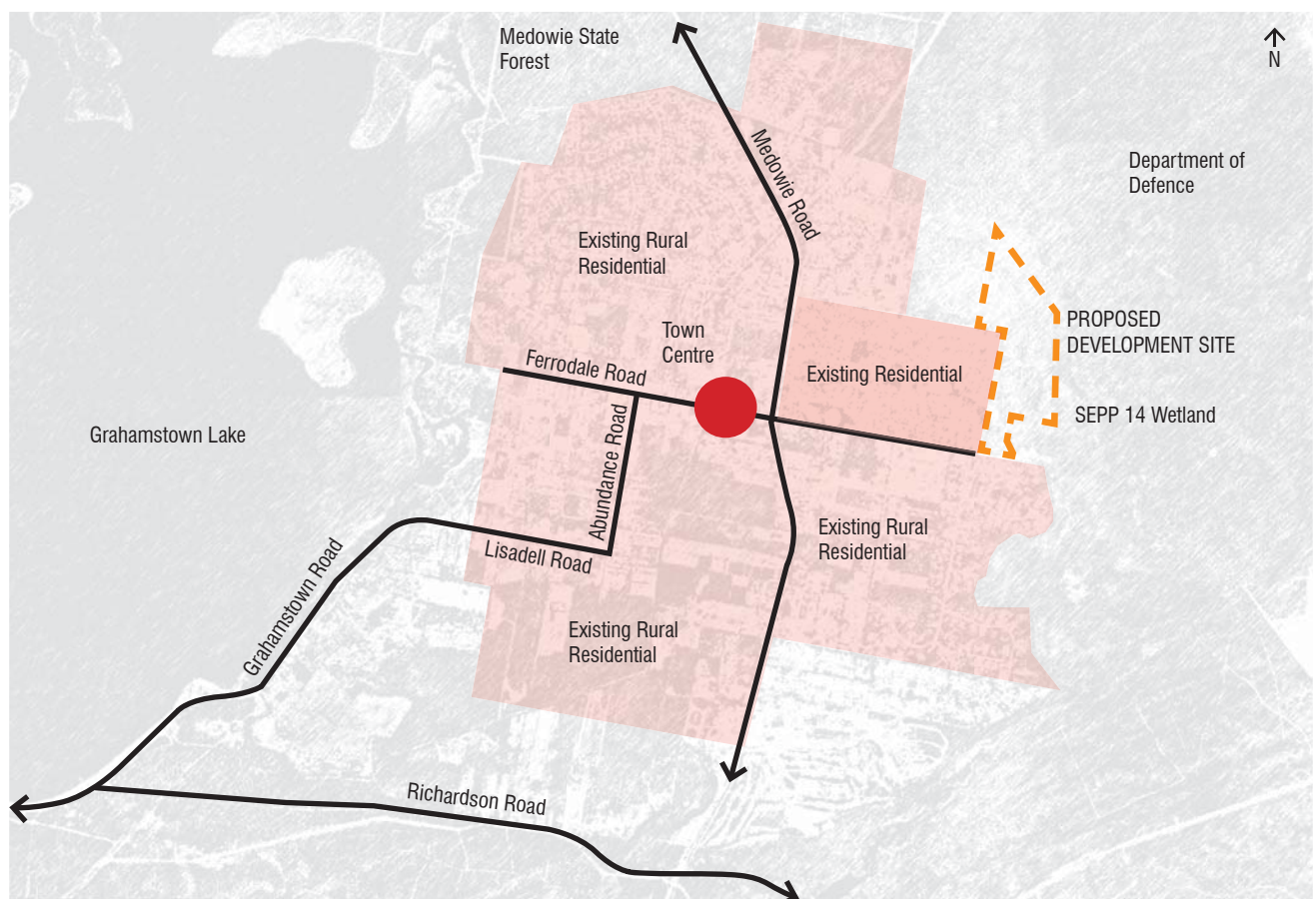


Fig. 2 The Suburb of Medowie



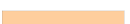

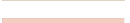

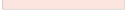



SURROUNDING CONTEXT

The map below shows the variety of land uses within the eastern quadrant of the Medowie axis. Ribbons of open space lie scattered within residential land to the west of the

site. There is existing connectivity between these spaces via roads, formal and informal paths. Larger blocks of state forest and conservation land lie to the north and the west



Fig. 3 Land Zoning Map (Port Stephens LEP 2013)

Zone:	
B2 Local Centre	
E1 National Parks & Reserves	
E2 Environmental Conservation	
IN2 Light Industrial	
R2 Low Density Residential	
R5 Large Lot Residential	
RE1 Public Recreation	
RU2 Rural Landscape	
SP1 Special Activities	
SP2 Infrastructure	

URBAN CHARACTERISTICS ASSESSMENT

URBAN FRAMEWORK

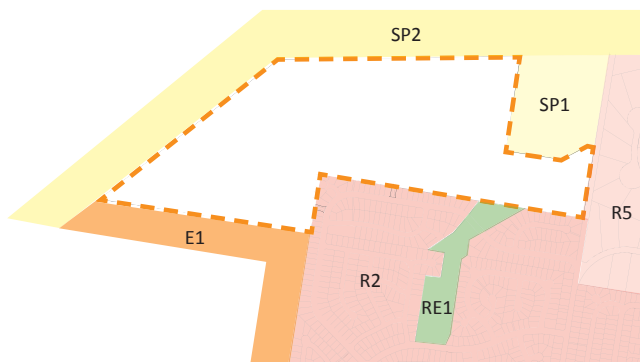
- The pattern language of adjoining low density residential land is typical of 1980's organic cul-de-sac developments
- Adjoining large lot rural residential to the south has a similar curving road network
- Ferrodale Road is first in the road hierarchy, followed by Coachwood Drive. There are two existing access points into the site from Coachwood Drive



LAND USES AND ZONINGS

- The site is located between four land zoning and uses including:

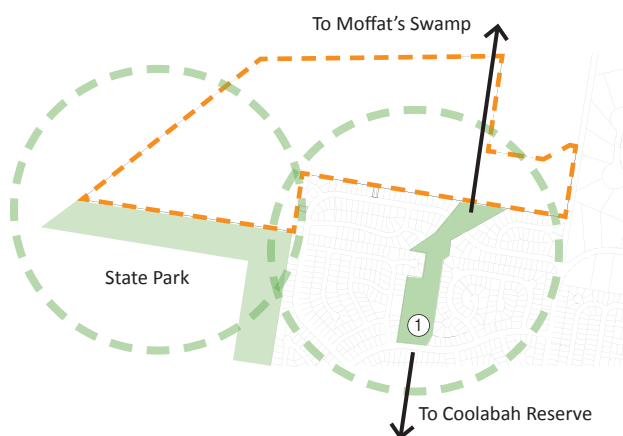
	R2 Low Density Residential
	R5 Large Lot Residential
	SP1 Special Activities - Hunter Water
	RE1 Public Recreation - Park, Field
	SP2 Defence/ Infrastructure
	E1 National Parks & Reserves



NEIGHBOURHOOD OPEN SPACE

- An open space network connects the Medowie State Conservation Area with a corridor of existing sporting fields, playgrounds and natural areas. The spaces include, Kindlebark Oval (1) which comprise athletics field, amenities block, barbeque and pre-school. Further to the east (outside the diagrams radius) is Coolabah Reserve which features a children's playground and off leash dog area

--- 5 Minute Walk Radius

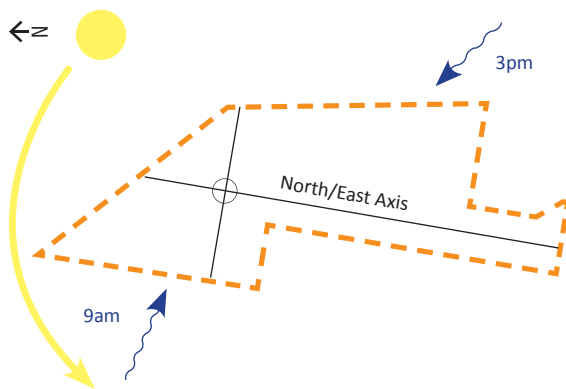
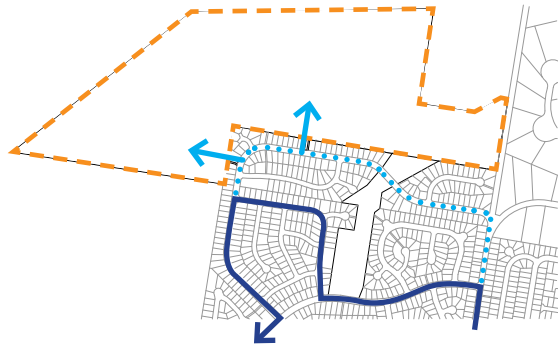


LOCAL SITE CHARACTERISTICS

SERVICES

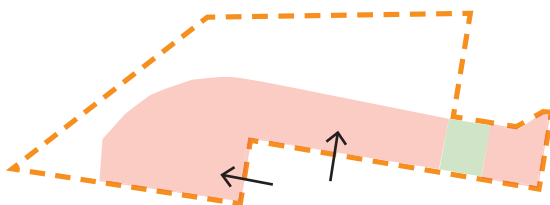
- The site is approximately 2 kilometres from local shops, comprising a Bi-Lo, video store and other speciality stores. This distance equates to a 25 minute walk or an 8 minute leisurely bike ride.
- A bus service runs along Laurina Street - Coachwood Drive. An extension to the service could easily capture the subject site

- Potential Bus Route
- Existing Bus Route
- ← Site Gateway



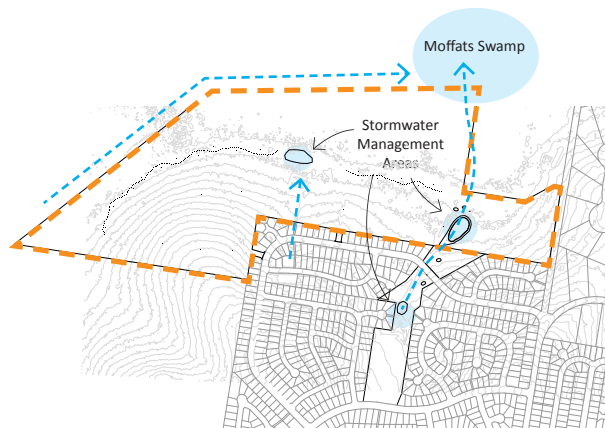
SUN AND WIND

- The site runs on a north-south axis. The majority of lots may have a northern orientation for the longer boundary, thus minimising the length of wall exposed to the western sun
- The site is located within the Coastal Climate Zone
- At 9am north westerly winds will reach the site, while at 3pm south easterlies will cool it down. Note: these are the annual figures from Bureau of Meteorology



DEVELOPABLE AREA

- The developable area will be an extension of existing low density residential framework to the east
- The developable footprint has been defined by the ecological and flooding constraints. This footprint is generally visible in aerial photographs as roads and trails mark these perimeters
- Open Space shown in green will connect with the existing open space corridor to the east









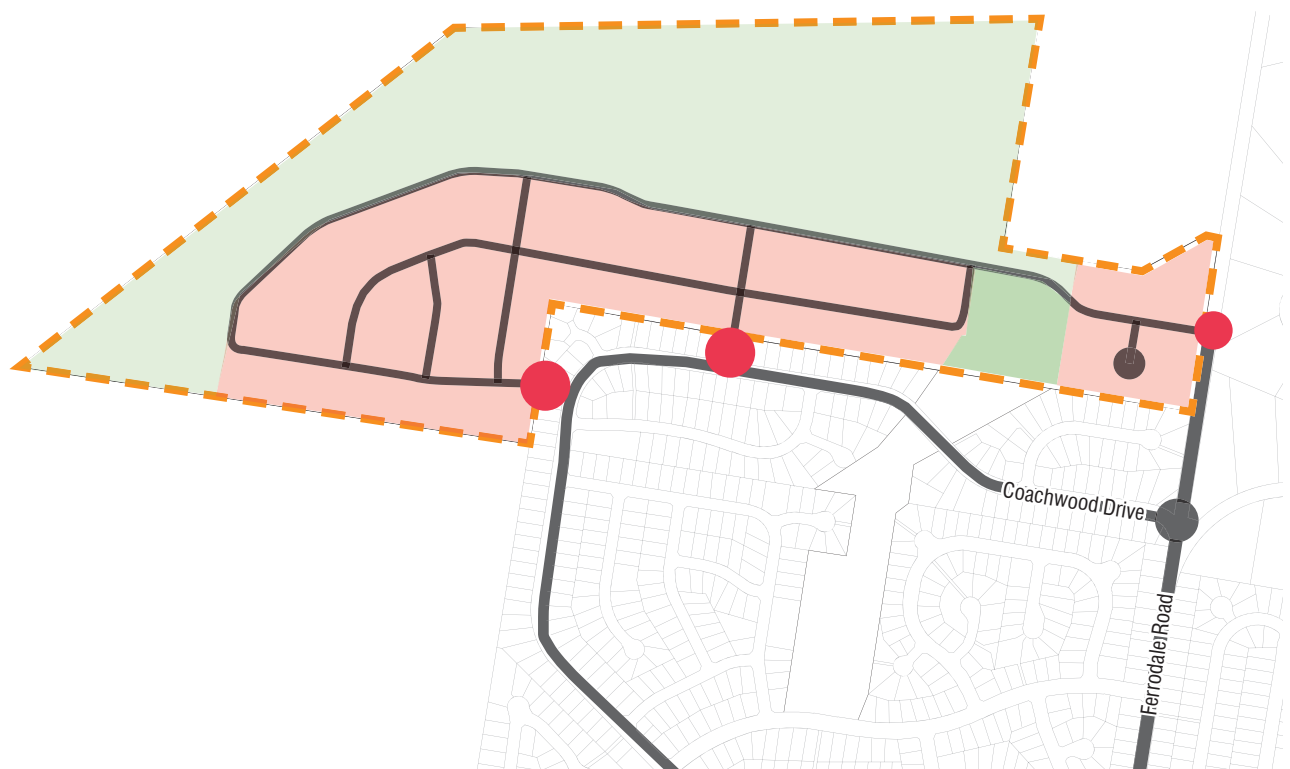
OVERLAND FLOW, TOPOGRAPHY & WSUD

- The identified overland flow is a combination of natural and man made movements
- Moffetts Swamp to the north is part of a SEPP 14 wetland. The sequence of overland flow paths terminate at this point. They form a series of connected parks, open space corridors and pedestrian links
- The site falls away to the north east and east towards Moffetts Swamp. The fall is generally an even grade which is good for residential development as it will limit the need for extensive cut and fill

STRUCTURE PLAN

The Structure Plan identifies the overall approach to the urban framework. The Structure Plan is to be read in conjunction with the elemental design opportunities identified on the following page - these opportunities develop the finer grain of the development.

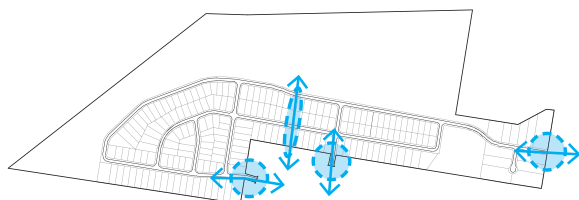
- | | |
|--|---|
|  Residential lots with predominately north south axis. Lots to have larger boundary to the north which reduces the extent of wall facing east/west. This maximises passive solar design. |  Internal road network responds to the topography, boundaries, constraints and buffers. |
|  Perimeter road provides separation between conservation buffer and residential development. Instance of backyards with direct interface with buffer have been minimised |  Existing easements to provide vehicle and pedestrian gateways to the residential community from Coachwood Drive. A hierarchy between the two entries will be established. |
|  The Reserve connects to the existing open space corridor. This area is used to address Water Sensitive Urban Design requirements and provides amenity and outlook for the existing and proposed neighbourhood. |  New vehicle gateway proposed off Ferrodale Road to provide third entry/egress point. This will require an extension to Ferrodale Road. |



ELEMENTAL DESIGN OPPORTUNITIES

During the design process a number of opportunities were identified. The opportunities will integrate the new community into the existing urban framework and provide the existing residents new amenity that will enhance their lifestyles.

The opportunities were considered in light of the Medowie Structure Plan 2009. The opportunities are integrated into the following public domain and landscape masterplan.



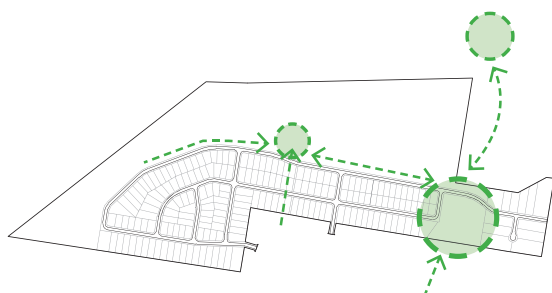
GATEWAYS - GO THROUGH PLACES

Purpose:

- Creates a sense of arrival and establishes a hierarchy of gateways

Opportunities:

- Wayfinding Elements such as signage and interpretive artworks
- Use of Landscape Elements to create a sense of place, and arrival



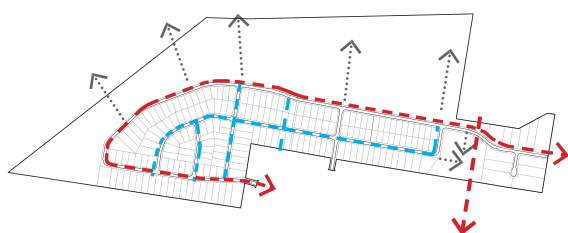
DESTINATIONS - GO TO PLACES

Purpose:

- Provide a series of spaces for both passive and active recreational uses
- Create a sense of place and ownership
- Improve Passive Surveillance

Opportunities:

- Spaces for play
- Spaces for fitness/ wellbeing activities
- Educational elements
- Nestboxes, birdwatching/ feeding



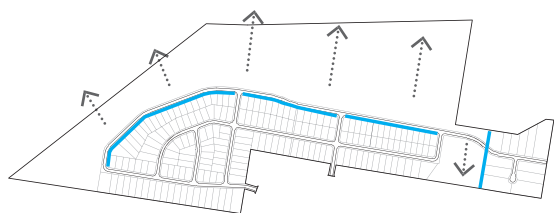
MOVEMENT - CYCLE AND FOOTPATH NETWORK

Purpose:

- Improve Connectivity with surrounding area
- Encourage Health and wellbeing through cycling or walking
- Improve Passive Surveillance in streets

Opportunities:

- Placement of Cycleway on outer road avoids need to cross driveways
- The porous nature of the framework allows for strong pedestrian and cyclist connections via roads, paths and trails



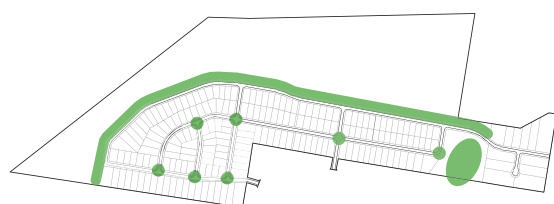
EDGES - HOUSES FRONTING ECOLOGICAL AREAS

Purpose:

- Improves Passive Surveillance
- Provides clear definition between public and private land and creates a sense of environmental areas being available to all

Opportunities:

- Restricts potential for property 'creep' and reduces potential environmental damage caused by 'garden extensions'

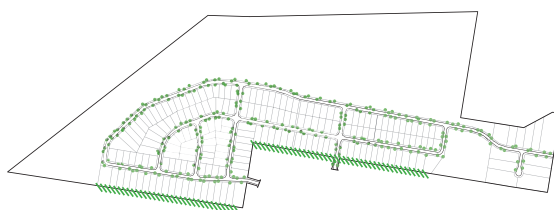


WATER SENSITIVE URBAN DESIGN ELEMENTS

Purpose:

Opportunities:

- Provide education elements for greater understanding of water systems
- Use best practice for stormwater detention and treatment
- WSUD area, together with road and cycleway provides a strong buffer zone between development and ecological areas



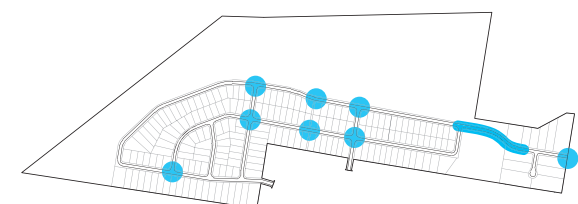
LANDSCAPE TREATMENT:

Purpose:

- Provide an urban landscape that is sympathetic with the natural environment and the urban context

Opportunities:

- Informal streetscape planting, in keeping with site context to avoiding creating a generic 'anywhere landscape'
- Use of locally endemic species
- Use a mix of species types and sizes within each street to provide variety
- Reduce extent of turf within verges, and replace with native understorey planting
- Provide green buffer between new and existing developments
- Clean existing edges and reduce property creep
- Reduce exposure to sun and wind with a well considered landscape scheme



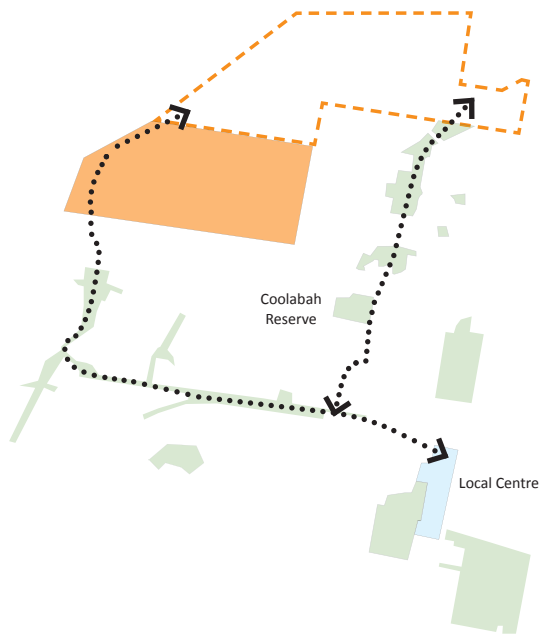
TRAFFIC CALMING:

Purpose:

- Reduce traffic related incidents, and create a more pedestrian friendly neighbourhood

Opportunities:

- Raised thresholds and intersections
- Use of landscape elements to calm traffic



EXTERNAL CONNECTIONS:

Purpose:

- Provide pedestrian/ cycle connections to the wider area

Opportunities:

- Opportunities exist to link to the external network of greenspace. This could be achieved through use of trails in the State Park and signage

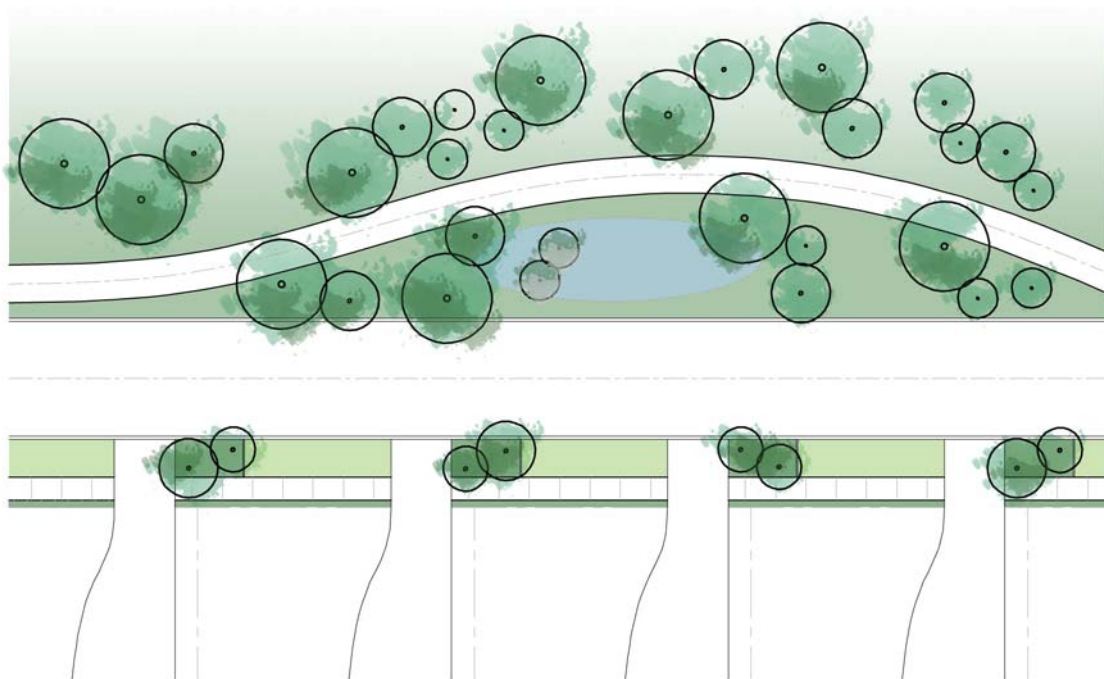
PUBLIC DOMAIN AND LANDSCAPE PLAN (A3 FOLD OUT)



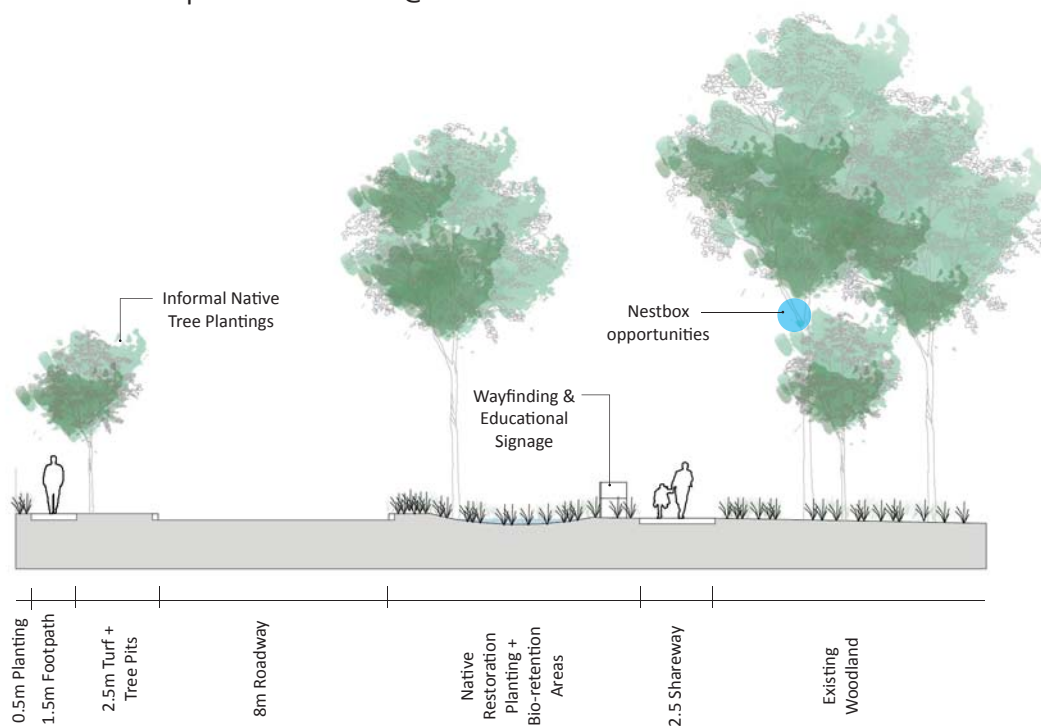
Fig x: The Reserve

KEY:

1. Modified pond with perimeter wetland/ biofilter
2. Recreation space and Play Area
3. Fitness Stations
4. Shared Cycle & Pedestrian link between development, and existing sports oval to the west
5. Informal woodland trail
6. Existing woodland to be retained with selective tree thinning, weed removal, remedial planting and inclusion of interpretive art or signage.
7. Raised threshold/ road crossing
8. Formal on street parking opportunities
9. Potential pedestrian link through to Moffats Swamp wetland area
10. Overland stormwater route
11. Low or semi-transparent property fencing for greater passive surveillance
12. Jetty or boardwalk feature
13. Opportunity for water cascade at pond entry



Perimeter Road - Option 1 Plan 1:500@A3



Perimeter Road - Option 1 Section 1:250@A3