



SITE PHOTOGRAPHS

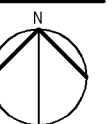


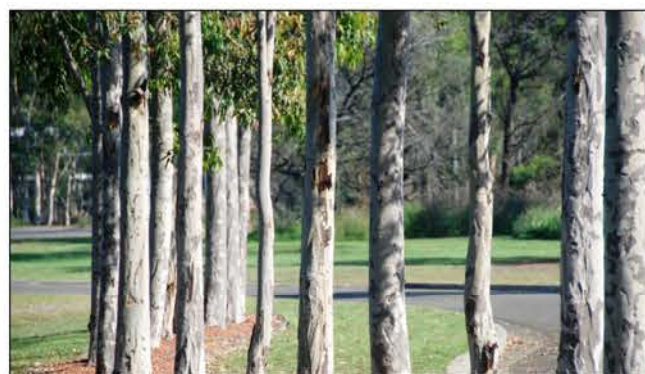
LOCALITY PLAN

SITE:
LOT 1, DP 1021332
Part LOT 458, DP 1063107

DRAWING LIST

- | | |
|----|---|
| 01 | Cover Sheet & Locality Plan |
| 02 | Landscape Philosophy |
| 03 | Site Master Plan |
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| 06 | Landscape Principles - Materials and Colour |
| 07 | Landscape Principles - Water Sensitive Urban Design |
| 08 | Landscape Principles - Public Open Space |
| 09 | Carriageway Cross Sections |





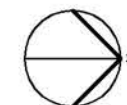
LANDSCAPE PHILOSOPHY

Integrate the principles of a sense of place, sense of community, enriched biodiversity and well resolved water sensitive urban design.

The primary aim underpinning the landscape design throughout the Mundamia Subdivision is to achieve a quality landscape resolution, which acts as a fabric uniting streetscapes with public open space and the commercial zone. The intention is to achieve continuity and containment providing a high quality setting for the housing development. The road network surrounding and within the subdivision is unified with street trees, which when mature, will be the most prominent landscape element. They are intended to help define boundaries, reduce traffic speeds, provide shade and habitat for fauna, and be integrated with stormwater management systems. Mundamia Subdivision will be formed by green streets, which contribute to creating an enjoyable sense of place.

Principles which underpin the landscape Masterplan

- Maximise landscaping in all streets. Native trees have been included in all streets.
- The landscape masterplan (including species selection, tree spacing and open space design) has been undertaken to reflect the surrounding natural area and local context. The planting and material palette pick up on the existing native bushland and geology in the land immediately surrounding and bordering the proposed development.
- Included in the avenue streetscape planting are larger scale native (evergreen) trees with canopies which will touch when mature.
- Included in the local streetscape is tree planting in scale with the road reserve allowing for a mix of pathways, bioswales whilst maintaining clear sight lines.
- Potential conflicts with other street elements, such as street lights, bollards, bioswales and car doors being opened onto tree trunks have been considered in the selection and placement of planting.
- Where appropriate the landscape plan integrates with water sensitive urban design systems.
- Provide pedestrian and vehicular connectivity to proposed adjoining subdivision and neighbouring University Campus.
- Minimize impact on surrounding vegetation specifically endangered ecological communities and specifically the Spring Tiny Orchid and the Nowra Heath Myrtle located outside of the subject site.
- Promote biodiversity through careful plant selection throughout the subdivision and integration of landscaped bioswales and water sensitive urban design.
- Provide opportunity for passive recreation in the open space heart of the subdivision which will promote and encourage social interaction and connectivity.
- Provide a safe environment in a landscaped setting.
- Encourage community art that represents the character of the area by engaging local and indigenous artists.
- Provide landscaped entrances and roundabouts to the development with native grass planting and sculpture utilising the natural elements of the area.



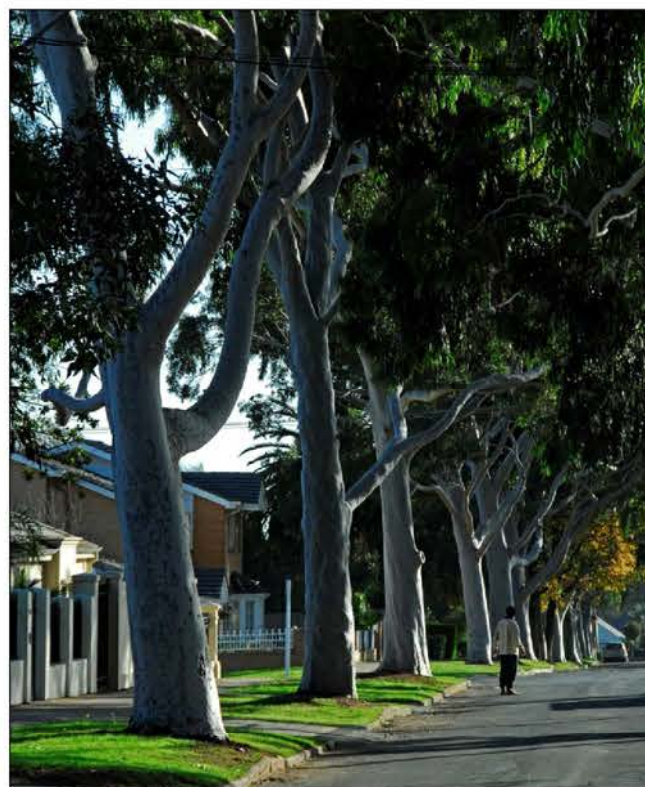
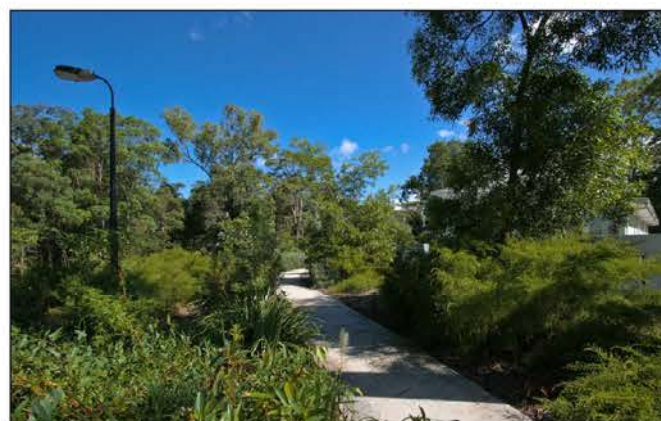


RETENTION BASIN
To be 20m wide minimum
(Area to be determined)

LEGEND

	Residential Lot		Open Space		Tree Species #1 Road 2 and 3		Tree Species #5 George Evans Road		Tree Species #6 Outside Scope of Works		Bioswale (3m wide)		Extent of subdivision
	Mixed Use Development		Native Gardens		Tree Species #2 Unformed Crown Road		Tree Species #6 Jonsson Road		Tree Species #2 Outside Scope of Works		Water (conceptual)		Sewer (conceptual)
	Dual Occupancy Lot		Retention Basin		Tree Species #3 Road 1 and 6		Tree Species #5 Outside Scope of Works		Pathway (2m wide)		Informal Pathway (1.5m wide)		
	Commercial				Tree Species #4 Road 4 and 5								



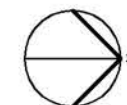


STREETSCAPE

The design principles for the road reserve are to assist in creating streets that are calm, easy to navigate and enjoyable to use. The streetscape design is paramount in encouraging connectivity throughout the subdivision by crating a pleasant environment and a meaningful sense of place in context with the Mundamia surrounds.

PRINCIPLES WHICH UNDERPIN THE STREETSCAPE LAYOUT

- Provide a sufficiently wide carriageway to allow vehicles to pass safely.
- The design of street lighting and landscaping is integrated to avoid conflicts and the treatment of street trees, heights of front fences, and verges are consistent throughout the subdivision.
- Pedestrian footpaths have been included (unless the street is a share-way for vehicles, pedestrians and cyclists, or where vehicular traffic levels are very low).
- Driveway cross-overs of the verge are in similar materials and colour as the footpath to achieve visual continuity.
- Pathway network to integrate into carriageway providing safe way-finding to and through the subdivision
- On quiet local streets with no dedicated footpath pedestrian movement will be via the road.
- Unify all streets with landscape. In maturity the trees will be the dominant feature of the streets.
- Provide a hierarchy of streets to reinforce the natural character of the area
- Incorporate water sensitive urban design into the streetscapes and open public space.
- Houses located on corners will be encouraged to address both street frontages to add to the overall streetscape appeal. Low-medium hedging will be encouraged where privacy to the front yard is desired
- Provide continuity and consistency in the streetscape with linear elements such as trees, colour of pathway, garden and materials, ensuring it continues through the intersections.
- Use of appropriate street furniture will ensure a sense of place and promote the open space as meeting place.
- Edgestrip and bollard to be used to create delineation between carriageway and verge. It will also assist in preventing parking on verge and support WSUD.
- Streets throughout this proposed subdivision have been designed to suit their purpose. They accommodate Shoalhaven City Council's DCP 100.





VEGETATION

The planting palette for Mundamia Subdivision streetscape and public open space is drawn from the existing remnant native vegetation in the surrounding area. The paperbark, stringybark and scribbly gum woodlands dominate over a forest floor scattered with dry heathland and grasses. The gnarly dry forest provides the backdrop for the selection of a predominantly native plant palette for the open spaces and residential homes throughout the subdivision.

STREET TREES:

GEORGE EVANS ROAD - Tree Species #5 - *Eucalyptus punctata*, Grey Gum

JONSSON ROAD - Tree Species #6 - *Glochidion fernandi* 'Cheese Tree'

UNFORMED ROAD - Tree Species #2 - *Eucalyptus maculata*, Spotted Gum

LOCAL STREET BORDERING PUBLIC OPEN SPACE

Tree Species #1 (Road 2 and 3)

- *Melia azedarach* 'Caroline', White Cedar cultivar

LOCAL STREETS IN RESIDENTIAL AREA

- *Tristania laurina* 'Luscious', Brushbox cultivar - Tree Species #4 (Road 4 and 5)
- *Cupaniopsis anacardioides*, Tuckeroo - Tree Species #3 (Road 1 and 6)

LOCAL PARKS & SUBDIVISION ENTRYWAY

- *Eucalyptus scoparia*, Wallangarra White Gum
- *Corymbia citridora* 'Lemon Squash', Lemon Scented Gum cultivar
- *Eleocarpus reticulatus*, Blueberry Ash
- *Glochidion fernandi* 'Cheese Tree'
- *Melaleuca decora*

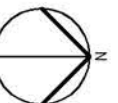
- *Angophora hispida* - Dwarf Apple
- *Banksia robur* - Swamp Banksia (use near water/boggy spots) 1-2m high x 5-7m wide)
- *Doryanthes excelsa* - Gynea Lily
- *Crinum flaccidum* - Darling Lilly
- *Banksia* 'Giant Candles'
- 'Grey Box' TM *Westringia fruticosa* a
- *Agonis flexuosa* 'Weeping wonder' (900mm x 2m)
- 'Double Gold' TM *Gazania* a

- *Nafay* - *Pennisetum alopecuroides* PA300
- *Purple Lea* - *Pennisetum alopecuroides* PA400
- *Kingsdale* - *Poa poaformis* PP500
- *Eskdale* - *Poa labillardieri*
- *Shara TM* *Lomandra fluviatilis*
- *Tanika TM* - *Lomandra LONGIFOLIA*
- *Wingarra TM* - *Lomandra centerfolia*

- *Pandorea pandorana* 'Lady Di'
- *Clematis aristata* - Old Man's Beard

BIOSWALE PLANTS:

- *Carex appressa*
- *Isolepis nodosa*
- *Juncus usitatus*
- *Caustis flexuosa*





MATERIALS AND COLOURS

The Mundamia Subdivision Masterplan colour and materials palette draws from the surrounding bushland and geology. From the sandstone bluffs and boulders, which line the Shoalhaven River not more than 500m away to the stony gravel creekbeds and heathland interspersed with Eucalypts and grasses which cover the site, the character is typically textural and craggy. Mundamia lends itself to a palette comprising rugged natural materials and earthy colours with the occasional contrasting complimentary splash of colour drawn from the sun setting in the west over Cambewarra Mountain or the delicate green stem of a native orchid.

The material palette is a response to the sandstone and ironstone found scattered over the site and nearby. The textures likewise also tend to mimic the stony finish of the forest floor, the papery bark of the Melaleucas, the dimples of the Spotted Gums.

It is intended that the colours used in both the public open spaces, streetscaping and throughout the residential housing should be in harmony with the surrounding native bushland with an occasional vibrant cheeky splash of colour for contrast.

Colorbond® Jasper	Colorbond® Headland	Colorbond® Manor Red	Colorbond® Sandbank	Colorbond® Paperbark
Colorbond® Loft	Colorbond® Monument	Colorbond® Bushland	Colorbond® Windspray	Colorbond® Evening Haze

DRIVEWAYS & PATHWAYS - Concrete Colour Systems CCS

CCS® Savannah	CCS® Driftwood	CCS® Apollo	CCS® Ghost Gum	CCS® Paperbark

OPEN SPACE ACCENT COLOURS

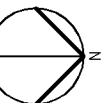
Dulux® Macdonnell Ranges	Dulux® Pedirka Desert	Dulux® Great Sandy Desert	Dulux® Kuranda	Dulux® Franklin River

MATERIAL PALETTE

Timber - Ironbark stained and/or weathered

Sandstone - chiseled, boulders and/or saw cut

Metal - powdercoat in accent colours and/or powdercoat to resemble rusticated steel





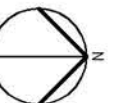
WATER SENSITIVE URBAN DESIGN (WSUD) PRINCIPLES

The bioswales incorporated in the overall design of the Mundamia Subdivision ensures the development complies with designated targets for stormwater pollution control and flow attenuation. WSUD elements have been integrated into the open space area and in certain streetscapes to collect and treat runoff prior to discharge.

The bioswale elements aim to maximise the visual and recreational amenity of the Mundamia Subdivision whilst providing surface runoff and stormwater management in a considered and more natural manner.

- In the small reserves indicated on plan as Lots 19, 77 and 90 acts as either bioretention street planters or additional flow control features.

The street or driveway crossovers of bioretention swales are either at grade or incorporate a culvert crossing.





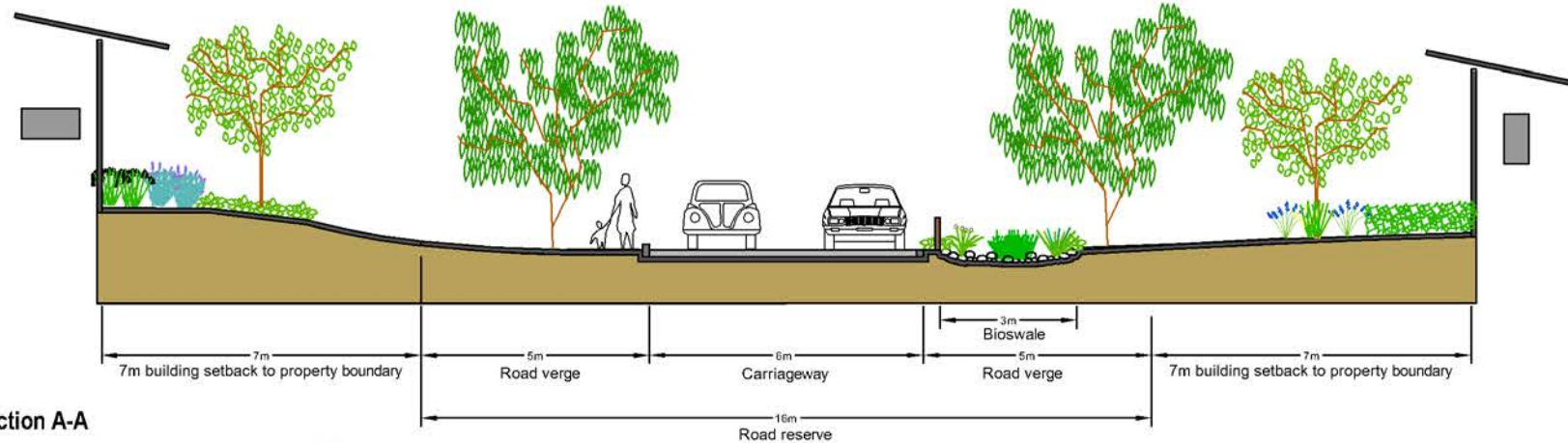
PUBLIC OPEN SPACE

A 8645m² (lot 25) centrally located passive open space has been dedicated to act as a unifying green square. This community space is accessed by a pathway network designed to create safe and enjoyable way finding around the subdivision.

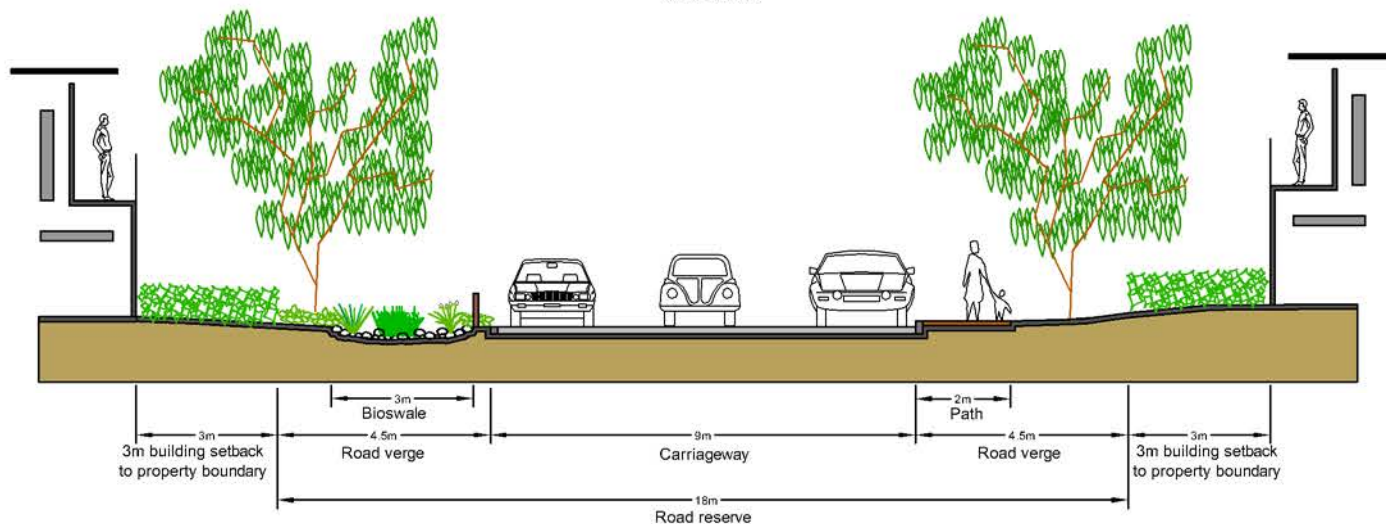
The open space area proposes the following elements;

- Rock lined water body to act as a detention/retention basin to filter stormwater runoff and harvest overland flow
- Incorporate water sensitive urban design - Bioswale meandering through the passive open space connecting to the bioswales elsewhere on site.
- Pathways through open space to link into adjacent streetscape network to be natural in appearance, blend in with the landscape.
- Modern and sculptural play equipment for all ages
- Open turf area for play, and relaxing
- Public seating situated to encourage socialising
- Shade trees and native bushland gardens incorporating local rock and plant species to attract and nurture local fauna.
- Encourage the visual and physical link through to the commercial area, streetscapes and adjacent bushland
- Landscaped vistas into, through and out of site will provide a greater connection to surrounds and will enhance the aesthetic appeal of the development.
- Access to the commercial zone and public open space will be by pathways and adjacent carparking.
- Landscaping of the road reserves fronting the commercial area will further enhance the overall appeal of the subdivision.
- Provide a parkland escape for occupants of medium density and dual occupancy development throughout the subdivision
- Materials and colour used in the public open space and planting to compliment the Australian native bush theme.

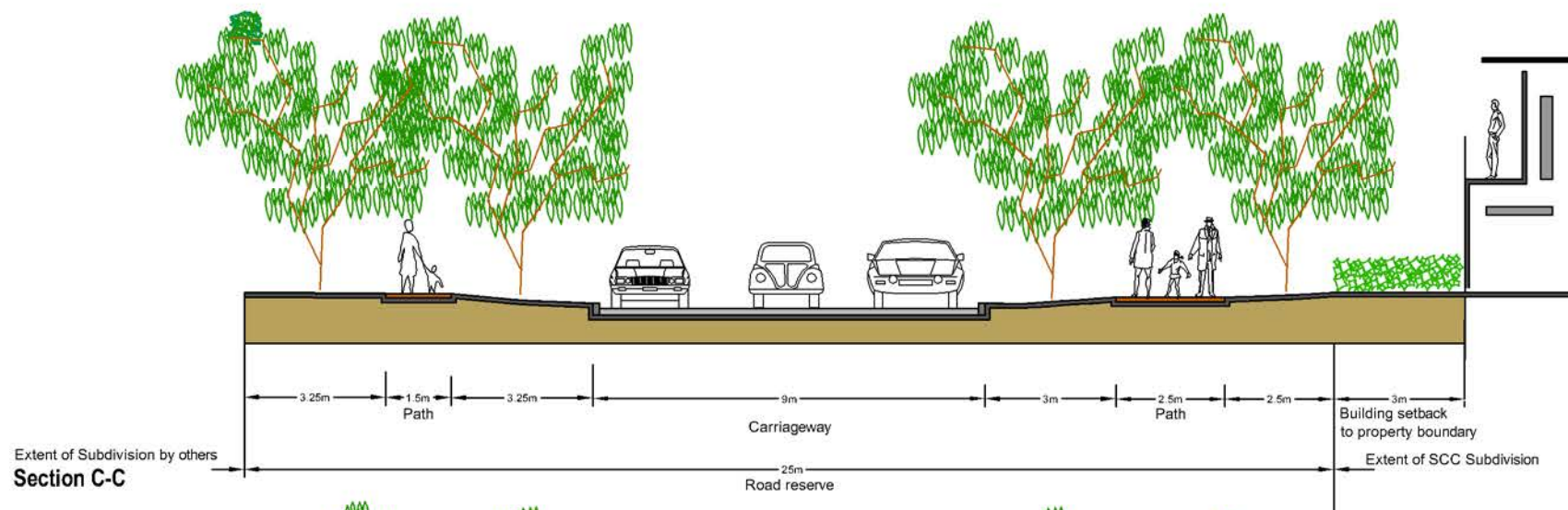
Section A-A



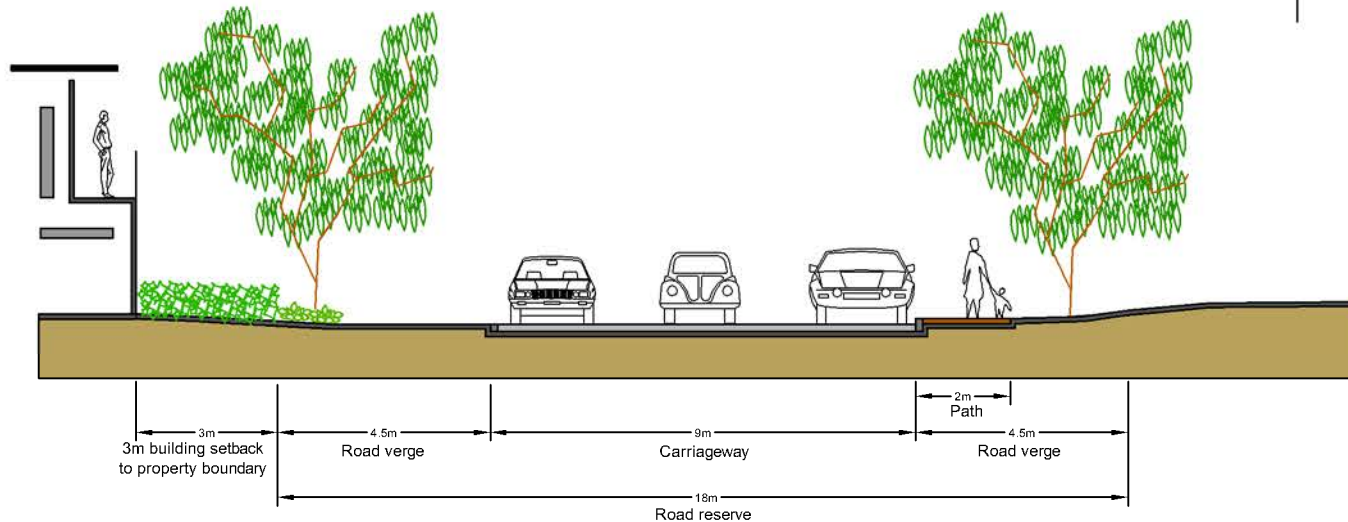
Section B-B



Section C-C



Section D-D



ROAD RESERVE & CARRIAGEWAY (STREET PAVEMENT)

Road reserve

The land set aside for a street carriageway and verge incorporating the full width from property line to opposite property line.

- The 'unformed Crown Road' (from roundabout to Lot 24/commercial lot) = 25m. (see Section C-C)
- George Evans Road and Jonsson Road = 22m to 25m (varies) allow for on street parking on both sides of a two-way street, footpath and landscape.
- Local street = 18m road reserve shown on plan as Road 1 (northern end), Road 2, Road 3, which allows for on street parking to one side of a two-way street with a footpath included in a landscaped verge. (see Sections B-B & D-D)
- Local road = 16m road reserve shown on plan as Road 4, Road 5, Road 6, and Road 1 (southern end) which allows for landscaping, bioswale treatment and bioswale within the verge with no designated footpath or street parking. (see Section A-A)
- Lane 1 = 7m road reserve shown on plan as Lane 1, which allows for one way vehicular movement with no on street parking or landscaping.

Carriageway

The part of the road reserve that is used for vehicle travel and parking.

- The 'unformed Crown Road' = 9m
- George Evans Road and Jonsson Road = 9m
- Road 1 (northern end), Road 2, Road 3 = 9m
- Road 1 (southern end), Road 4, Road 5, Road 6 = 6m
- Lane 1 = 4m

Verge / Footpath

That part of the street reserve between the carriageway and the boundary of adjacent lots (or other limit to street reserve). It may accommodate public utilities, footpaths, bioswales, storm water flows, street lighting poles and landscaping.

