

8.6 (OPEN SPACE 6) - WATERS EDGE CONCEPT PLAN

DESIGN INTENT

There is an opportunity to create a strong lateral landscape connection between the Smiths Paddock open space and Wetland Park detention basin that creates landscape harmony through the varied spatial elements of the project. It will combine a high amenity pedestrian corridor within a Water Sensitive Urban Design element that provides not only an important outlook for the residents to southern side of the water body but also an significant visual amenity to the community. Progressive engineering will ensure that the water level within the channel is maintained through a series of weirs under normal conditions while allowing for limited fluctuation and detention during regular storm events.

The southern boundary of the canal will consist mainly of a urban hard edge feel to the waters edge through a series of terraced steps allowing for safe interaction with the water and emergency egress if necessary. The promenade is raised above the 100 year storm event and allows for both promenading and private access to the residential apartments. The linear movement of the space can be marked by the rhythm of trees and concrete or steel lookout points that invite the walker to stop and contemplate the space before continuing.

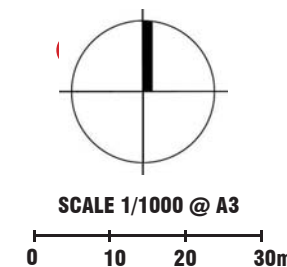
The northern edge provides high quality pedestrian movement corridor to the side of the water and allows clear movement through the space without disturbance to the residence to the south. The perimeter of the water body is addressed with aquatic gardens within the canal to soften the edge. Off form concrete walls retain the northern embankment and provides opportunities for seating and the creation of mass planting and turf breakout spaces.

Pedestrian access to the canal is provided through a series of connecting ramps from the upper levels of the roads and pedestrian bridge traversing the canal.



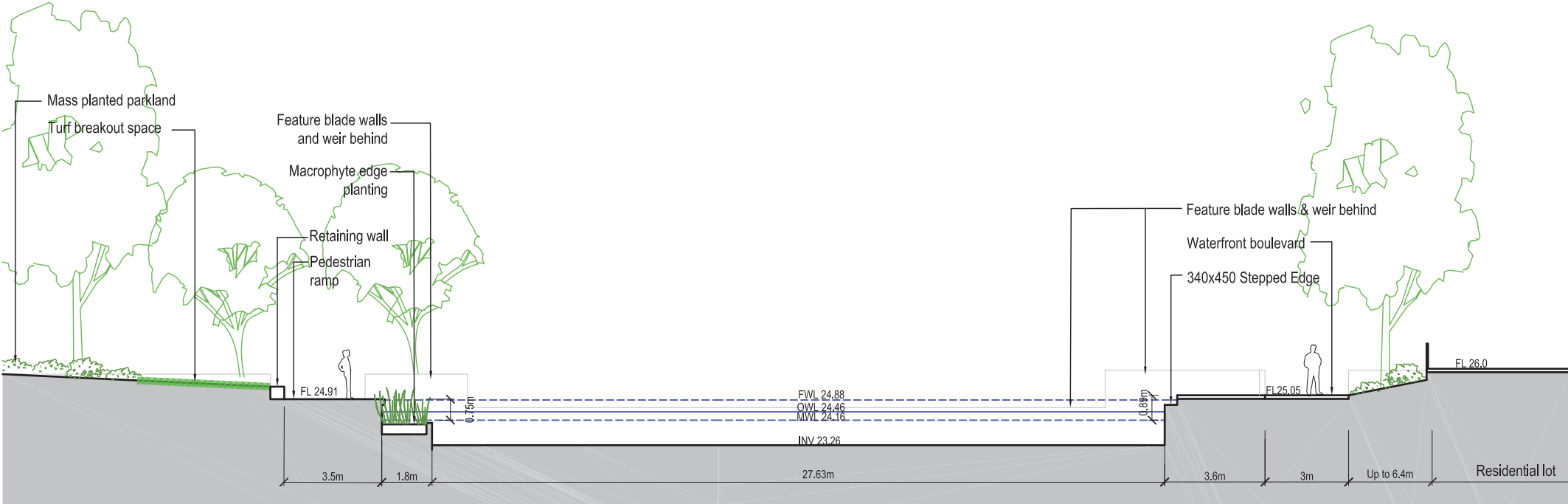
LEGEND

- | | |
|---|-------------------------------------|
| ① Permanent water body | ⑧ Concrete terraces |
| ② Water control weirs / landscape blade walls | ⑨ Concrete egress stairs |
| ③ Timber viewing decks | ⑩ Off form concrete retaining walls |
| ④ Pedestrian / cycle way bridge. | ⑪ Through site link |
| ⑤ Turf / mass planting breakout spaces | ⑫ Mass planting |
| ⑥ Level pedestrian promenade | ⑬ Turf breakout space |
| ⑦ Access ramps | ⑭ Macrophyte planting to canal edge |

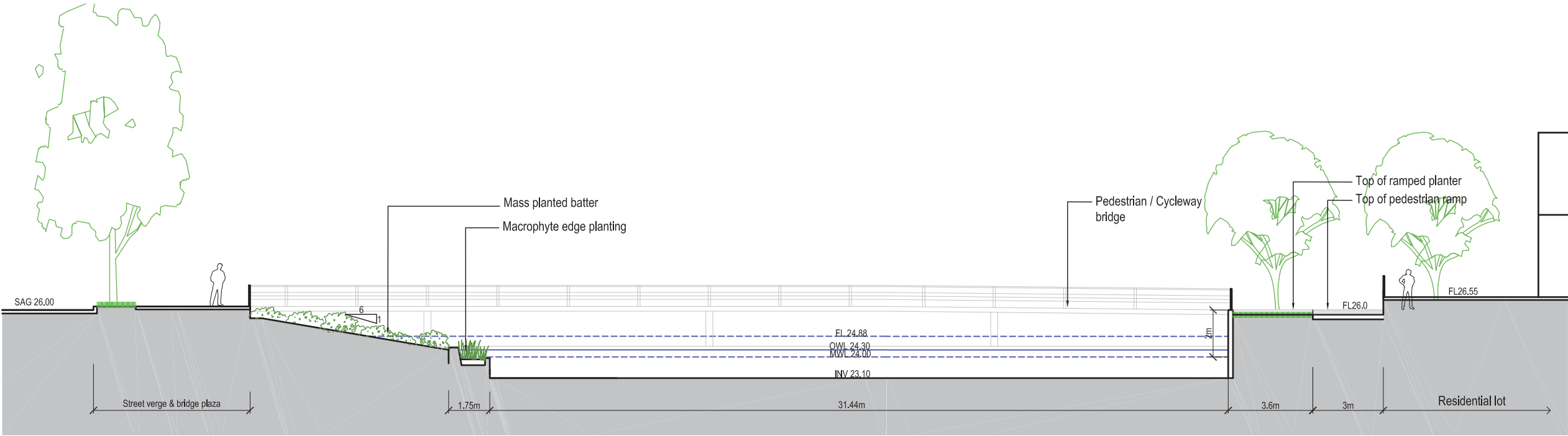


LEGEND

- MWL - Minimum Water Level
- OWL - Operational Water Level
- FWL - Flood Water Level (ARI 1:100)



SECTION AA

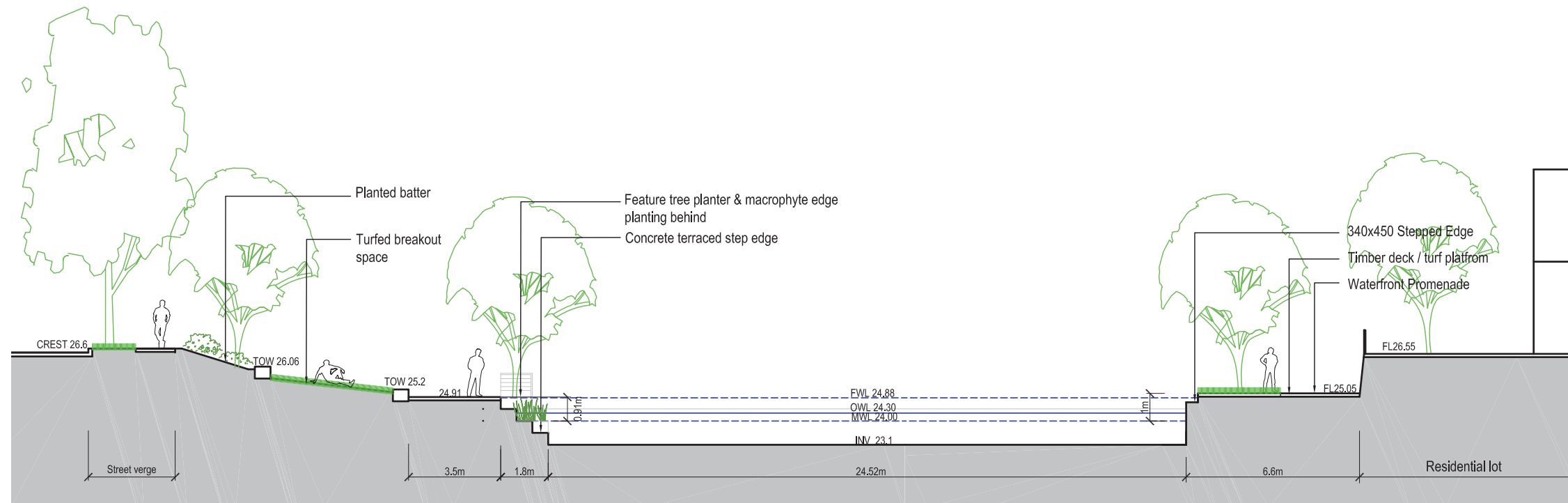


SECTION BB

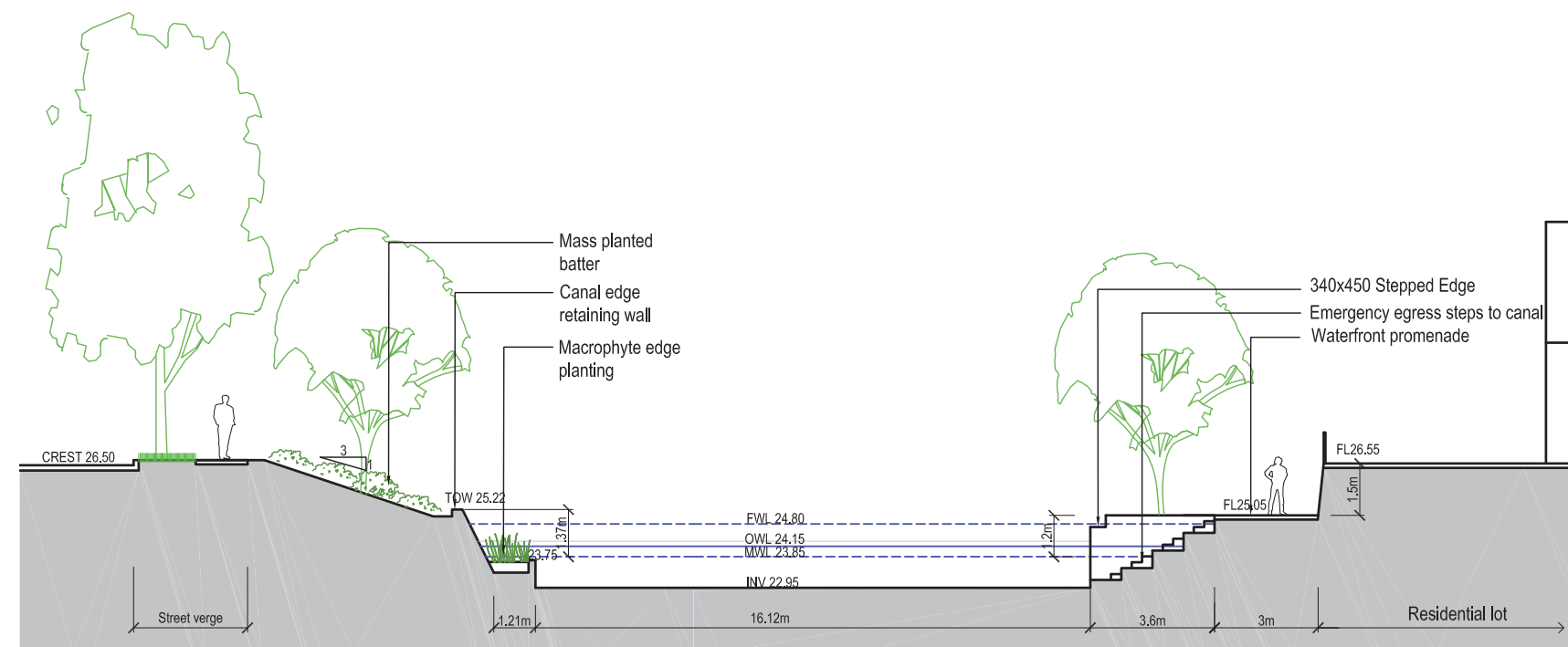


SCALE 1:200 @ A3

8.8 (OPEN SPACE 6) - WATERS EDGE SCHEMATIC EDGE TREATMENT SECTIONS



SECTION CC



LEGEND

MWL - Minimum Water Level

OWL - Operational Water Level

FWL - Flood Water Level (ARI 1:100)

SECTION DD

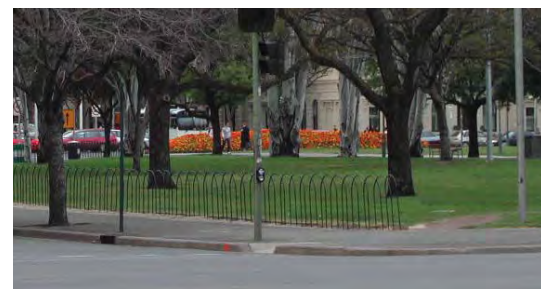


DESIGN INTENT

This small town parks has been located in an opportunistic space close to the commercial center of the development. The location of the park has enabled the retention of two of the sites existing trees to provide immediate amenity and to service the more urban residential communities that surround the park. The main emphasis of this park will be on soft landscaping for passive recreation and the provision a sloping sunning lawn for quite contemplation or small gatherings.

LEGEND

- 1 Central focal point with sculptural sunning lawn / blade wall
- 2 Informal passive recreation turf area
- 3 Seating against hedge planting
- 4 Direct access path
- 5 Accent / colour mass planting
- 6 Existing Eucalyptus species retained
- 7 Feature Paving
- 8 Red Tiled seating Wall
- 9 Deciduous Feature Tree
- 10 New Eucalypt Tree
- 11 Asphalt Footpath



8.10 (OPEN SPACE 8) - STATION SQUARE - CONCEPT PLAN



LEGEND

- 1 Stone paved plaza
- 2 Feature stone banding
- 3 Linear foam jet water feature
- 4 Raised, undulating sculptural lawn & feature tree
- 5 Taxi rank kiss & ride drop off
- 6 Sinuous concrete seating
- 7 Mass planting
- 8 Avenue of deciduous trees
- 9 Raised pedestrian threshold
- 10 Through site link / arcade
- 11 Optional shade structure (by Architects)
- 12 Colonnade walkway to station steps
- 13 Penrith train station
- 13a Stair access to train station
- 13b Lift access to train station
- 14 Bicycle racks
- 15 Public art sculpture
- 16 Way Finding Signage location

DESIGN INTENT

This Transit Square is the hub of the development and is the final destination point for commuters travelling to work via the public transport network. The influx of commuters at certain times of the day has defined the design of the space with retail and commercial located to the very edge of the space while the Square is generally open to allow multiple avenues of approach to the station without obstruction or unnecessary clutter.

The design intent is to encourage activation of the external retail spaces by clear separation of pedestrian movement via the retail colonnade. Deciduous trees located in mass planting and flush within the paved surface coupled with an expansive raised, undulating turf platform provides a green juxtaposition to the very openness of the Square and will help delineate spaces of greater movement as well as provide visitors with greater visual amenity.

The Square's design provides a focus on the provision of safe multi functional hardscape plaza areas that are suitable for both informal and formal gatherings and are enhanced by the careful integration of a linear water feature and a Public Art sculpture that is unique to the project site. The Square's water feature is conversant with the theme of water movement on site which is also found in the other open spaces throughout the project.



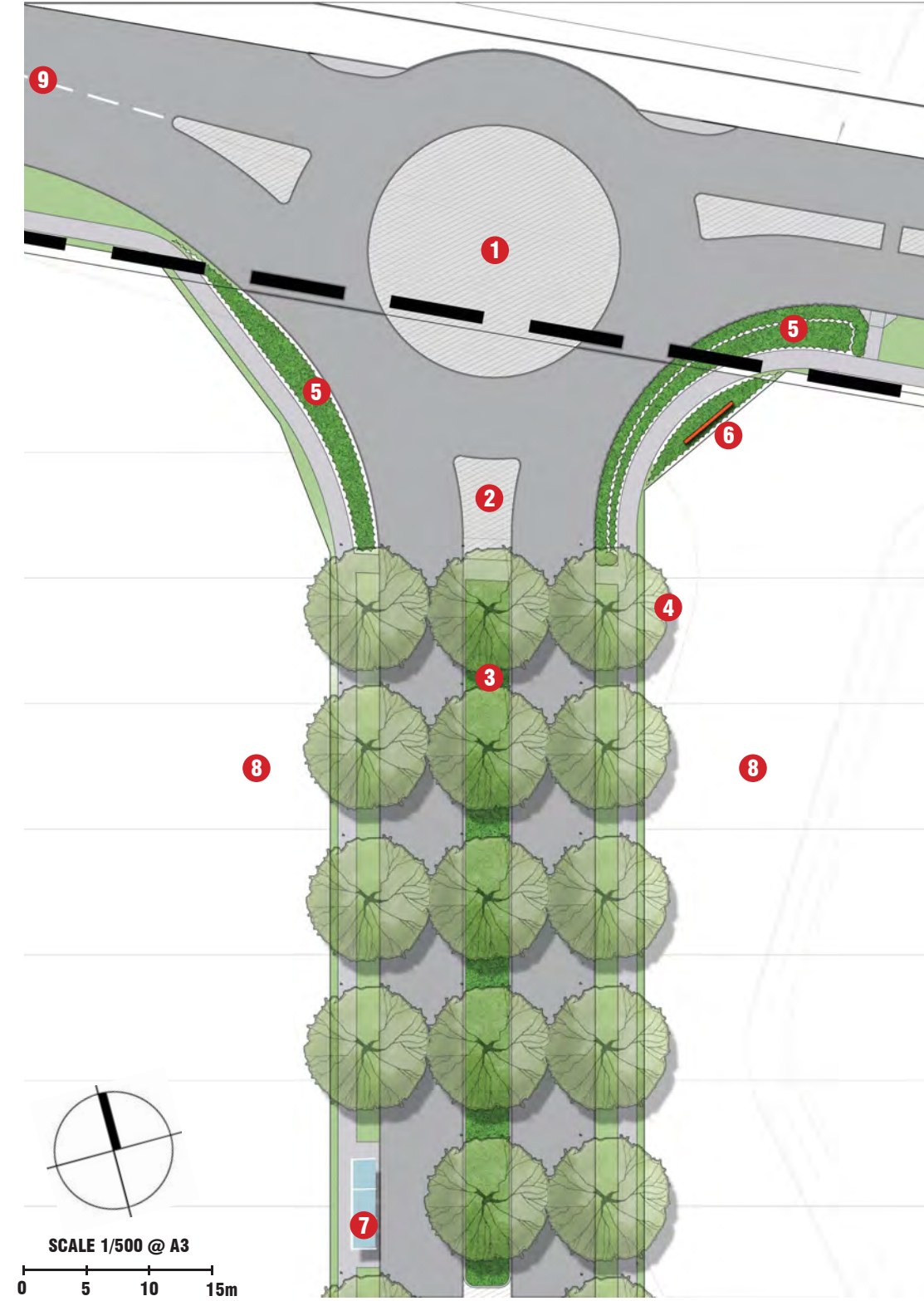
DESIGN INTENT

Both Landcom and Penrith Council will be keen to ensure a lack of visual exclusivity of the site at each of the entrance precincts. This includes the design of the main vehicle access point that enters the project site from Coreen Avenue in the north. Subtle, yet colourful low level plantings to the entry road verges ensures that the street frontage does not alienate or give the impression of exclusion but is careful to present to the street with a simple, welcoming feel. Subtle signage wall set within the low, colourful planting will relate directly to the site branding will be a more appropriate response that meets the needs of the existing street frontage, the development and client.

Heading south along the main entry street a triple row of London Plane trees evokes the feel of a central boulevard leading the visitor or resident into the site. The understory of the raised median is again planted out with colourful ground covers and low level hedge species adding the first layer to the European Village character developed for the site.

LEGEND

- 1 Mountable Concrete Roundabout
- 2 Mountable Concrete / Stone Median
- 3 Raised Planted Central Median
- 4 Triple Row of Street Trees to signify entry to Sydney Smith Drive
- 5 Low mass planting to signify entry point
- 6 Low Signage Wall in Mass planting
- 7 Bus Stop
- 8 Residential Lots
- 9 Coreen Avenue



9.0 STREETSAPES

The North Penrith Village Streetscape Character will be defined by the selection of tree species which will translate as providing the site with an over arching European Village character whilst accommodating the requirements of council along with the functional needs of pedestrian/cycle and vehicular movements along each of the roads.

The streetscapes are to enhance the idea of a European styled landscape and reinforce the road hierarchy, through their arrangement, size and species selection. The streets provide green links and view corridors throughout the site, making connections with and between other open spaces.

The streetscape character will reinforce and enhance the road hierarchy to create subtle but distinctive streetscape precincts. The formal planting of mid to large size trees will occur mainly within the street verges and located primarily within the primary streets including the Boulevard, Main and Collector Streets. Smaller deciduous species will be introduced and primarily located within the verges of the Local and Minor Local streets.

Deciduous trees will dominate the selection of street trees to the internal roads while supplementary plantings of natives such as eucalypts found within the remnant Cumberland Plain Woodland community will be planted to enhance the existing indigenous woodland experience currently found contained within a small community along the eastern fringe of the project site.

Streets are designed to provide an appropriate level of on street parking with priority given to pedestrians and cyclists to provide a pleasant environment to promote walking and social activity.

Some key points are listed below;

Aspect and Views

- Strong visual associations with the significant European historical cultural associations used to define the site
- Use of increased densities of tree species to clearly identify entry points into the development.
- Strong emphasis to avenue planting with spacings of trees to enable canopies to touch when trees are mature.

Accessibility

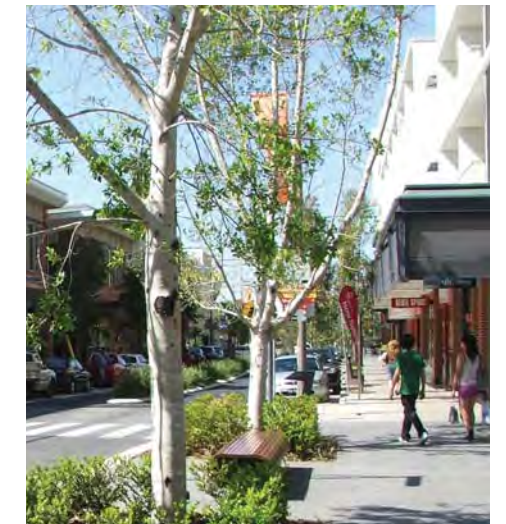
- Continuity of and connectivity to local and recreational paths linking the entire site.

Materials:

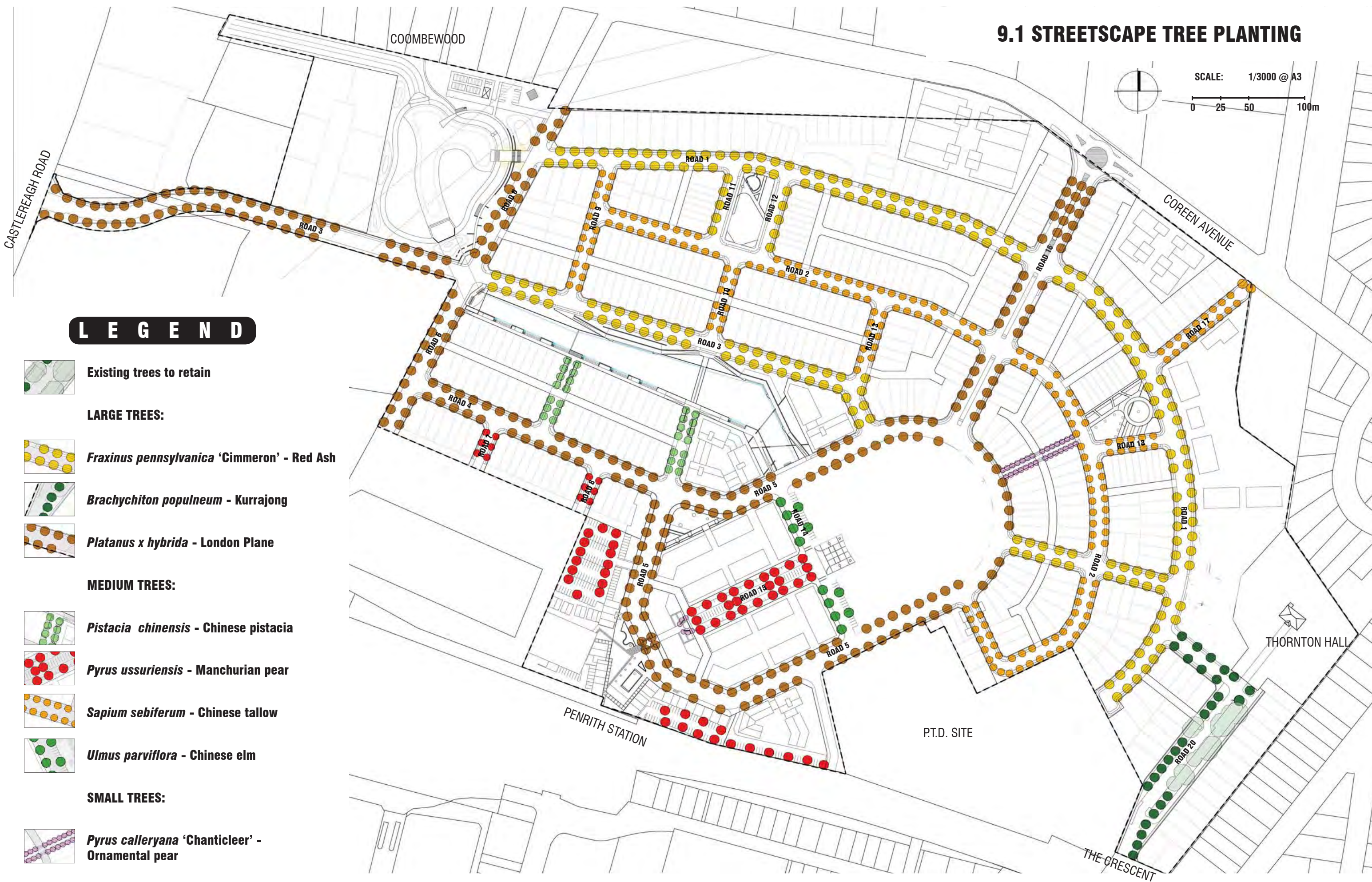
- Civic footpaths will consist mainly of asphalt with inlaid areas of porphyry stone setts at key junctions points and banding to the rear of kerbs.
- Pathways will predominantly be robust contemporary materials such as lightly exposed aggregate concrete. All driveway cross overs are to be of the same material in order to ensure visual continuity.

Plantings:

- Maximise landscaping in all streets while tailoring species selection to that of the local and site context.
- Preservation of plantings of culturally and environmentally significant species to enhance the historic 'sense of place'
- Canopy trees to provide shade and visual amenity.
- Low shrub and ground cover planting using a mix of exotic formal and low maintenance native plant species



9.1 STREETSCAPE TREE PLANTING



9.2 STREET TREE SPECIES PALETTE

Brachychiton populneum:
Kurrajong



Height: 12m
Spacings: 10m
Location:
Road 20:
Local Street (Heritage)

Fraxinus pennsylvanica ‘Cimmzam’ Cimmeron
Red Ash



Height: 15m
Spacings: 10m
Location:
Roads 1, 3, 11, 12, & 19:
Local, Local (Heritage) & Minor
Local Streets

Pistascia chinensis
Chinese Pistacia



Height: 10m
Spacings: 7m
Location:
Waters Edge
Through Site Links

Platanus x hybrida
London Plane



Height: 15m
Spacings: 12m
Location:
Roads 4, 5, 6 & 16:
Boulevard, Main and
Collector Streets

Pyrus calleryana ‘Chanticleer’
Ornamental Pear



Height: 8m
Spacings: 8m
Location:
Pedestrian / Cyclist
Through Site link

Pyrus ussuriensis
Manchurian Pear



Height: 10m
Spacings: As Shown
Location:
Road 15: Public and Private
car parking areas

Sapium sebiferum
Chinese Tallow



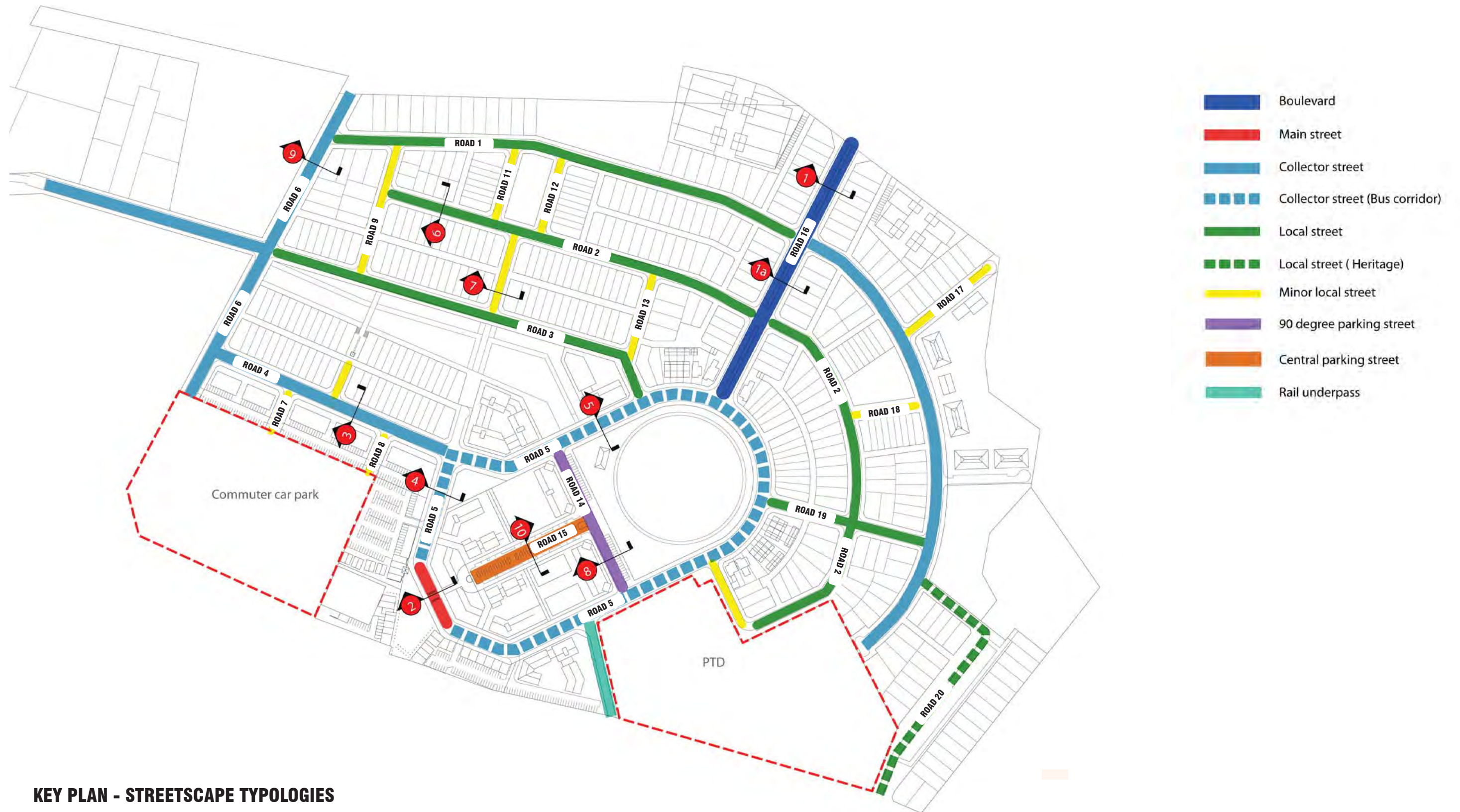
Height: 10m
Spacings: 10m
Location:
Roads 2, 9, 10, 13, 17 & 18
Minor Local Streets

Ulmus parvifolia
Chinese Elm



Height: 12m
Spacings: As Shown
Location:
Road 14: Local Street to
Village Green

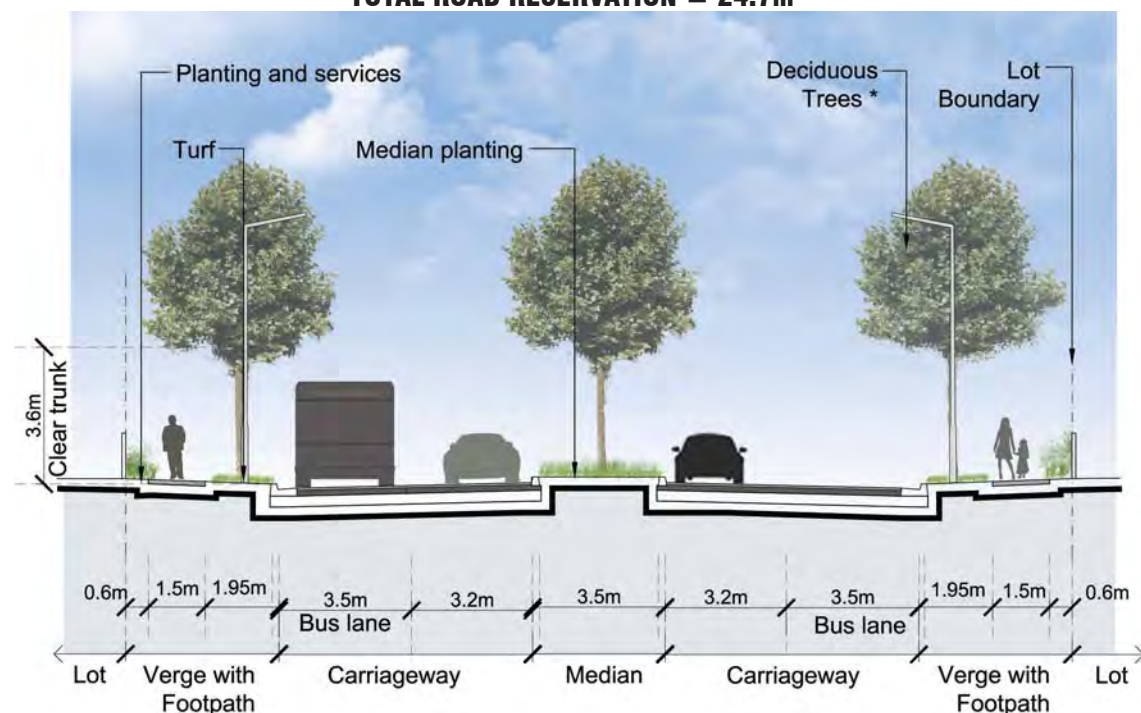




KEY PLAN - STREETSCAPE TYPOLOGIES

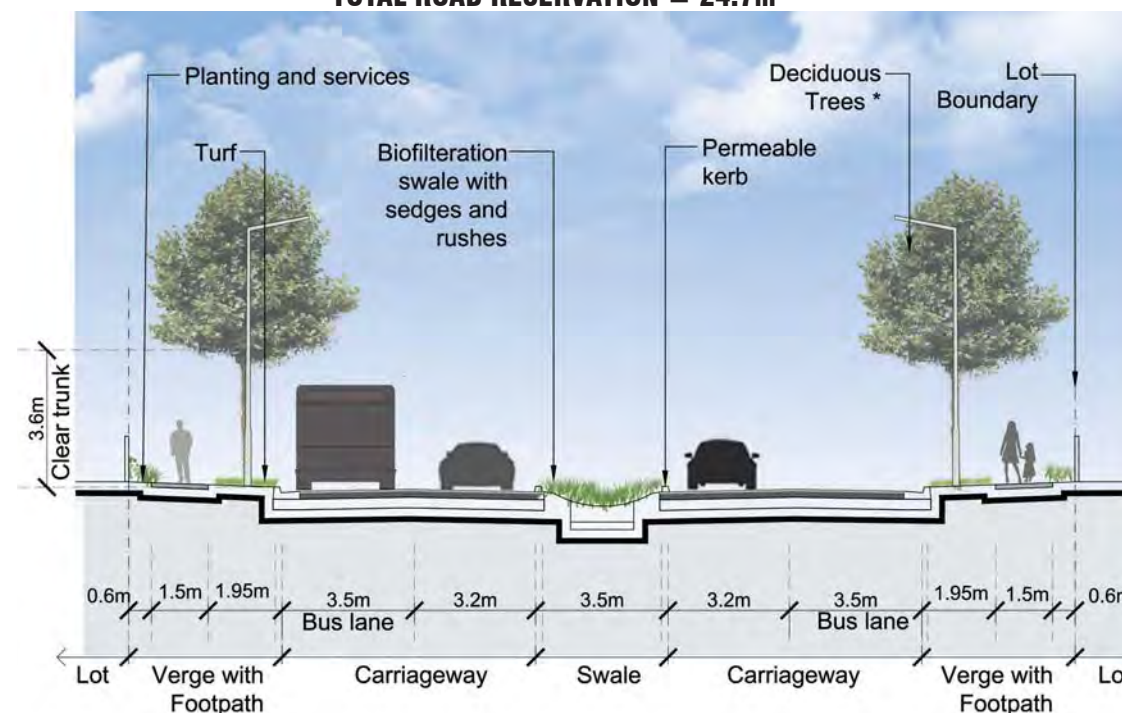


TOTAL ROAD RESERVATION = 24.7m



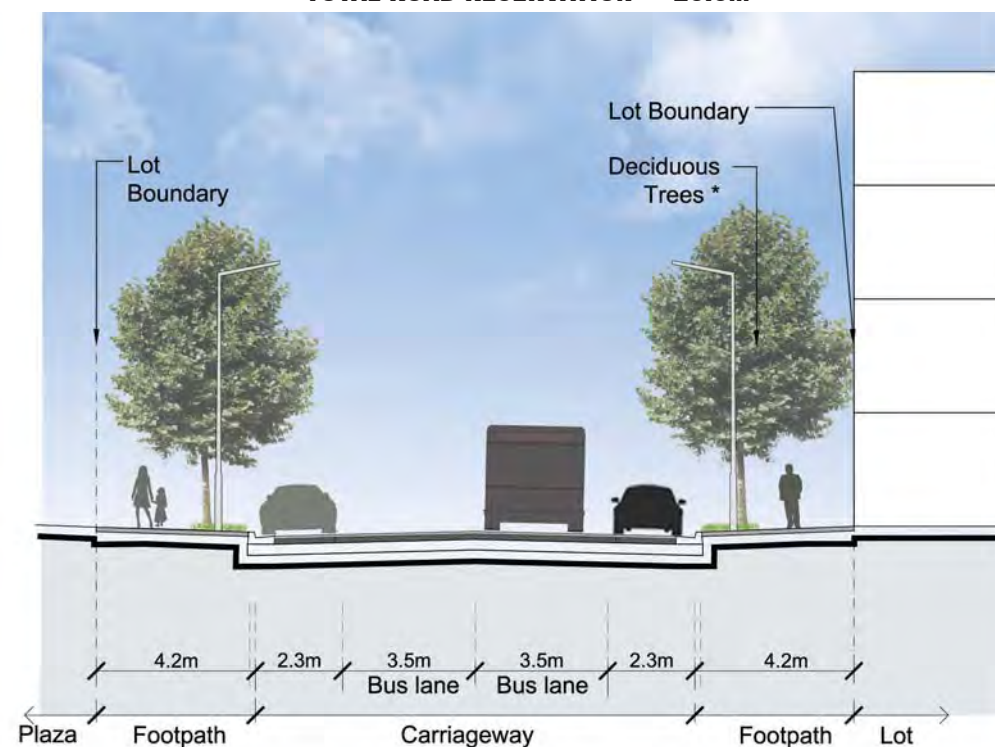
MAIN ENTRY ROAD - BOULEVARD ENTRY (SECTION 1)

TOTAL ROAD RESERVATION = 24.7m



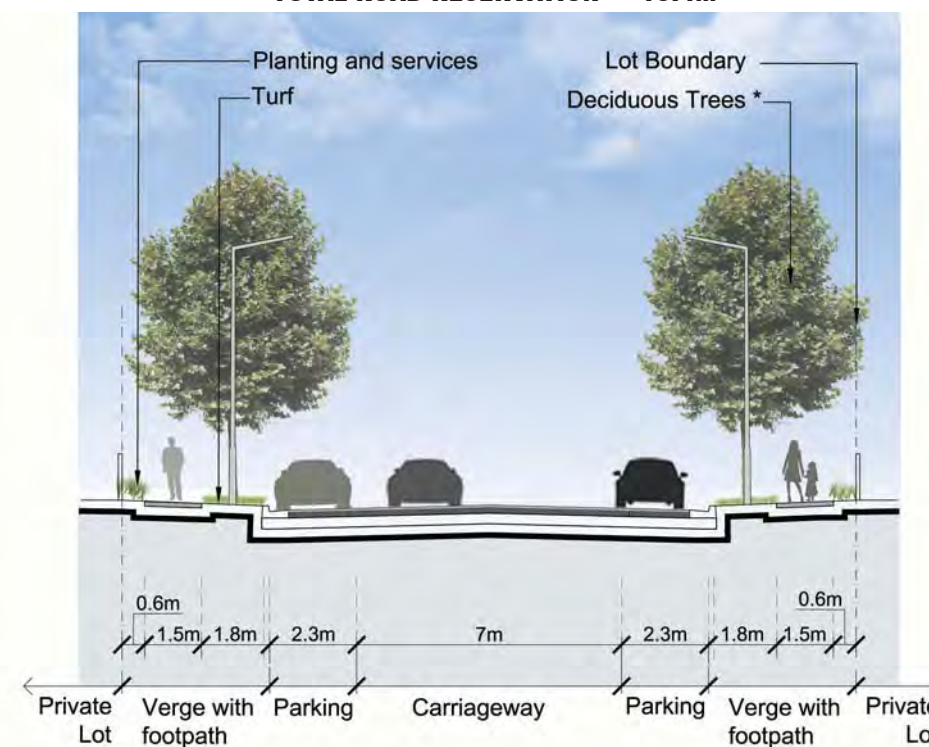
MAIN ENTRY ROAD - BOULEVARD WSUD (SECTION 1a)

TOTAL ROAD RESERVATION = 20.0m



MAIN STREET (SECTION 1) (SECTION 2)

TOTAL ROAD RESERVATION = 19.4m

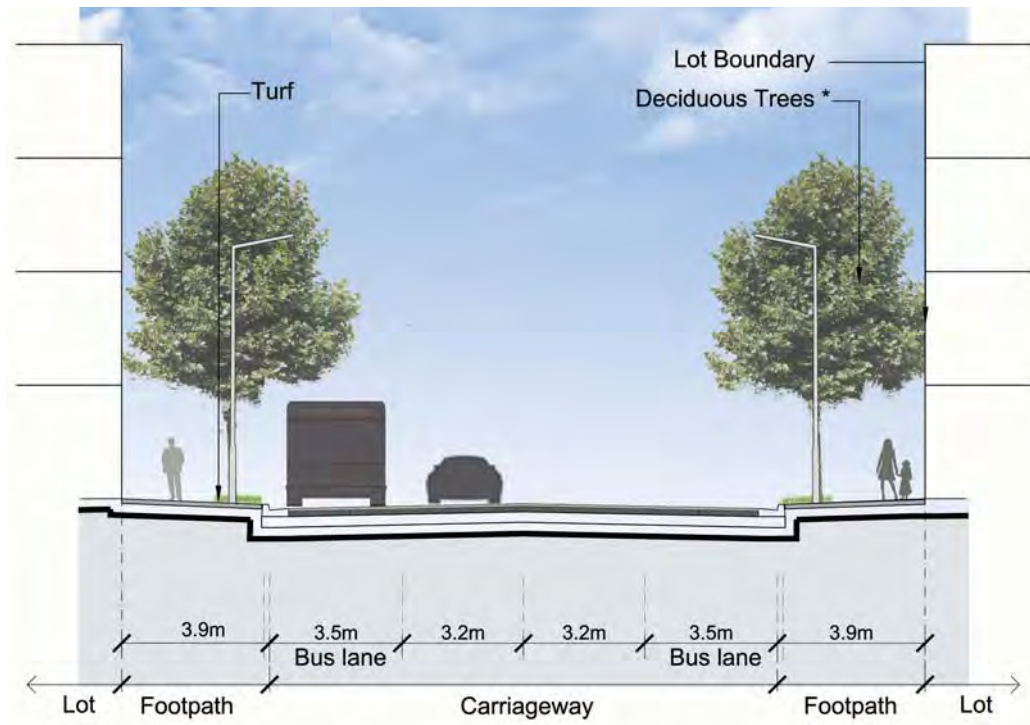


COLLECTOR STREET (SECTION 3)

Note * Refer to streetscape planting plan

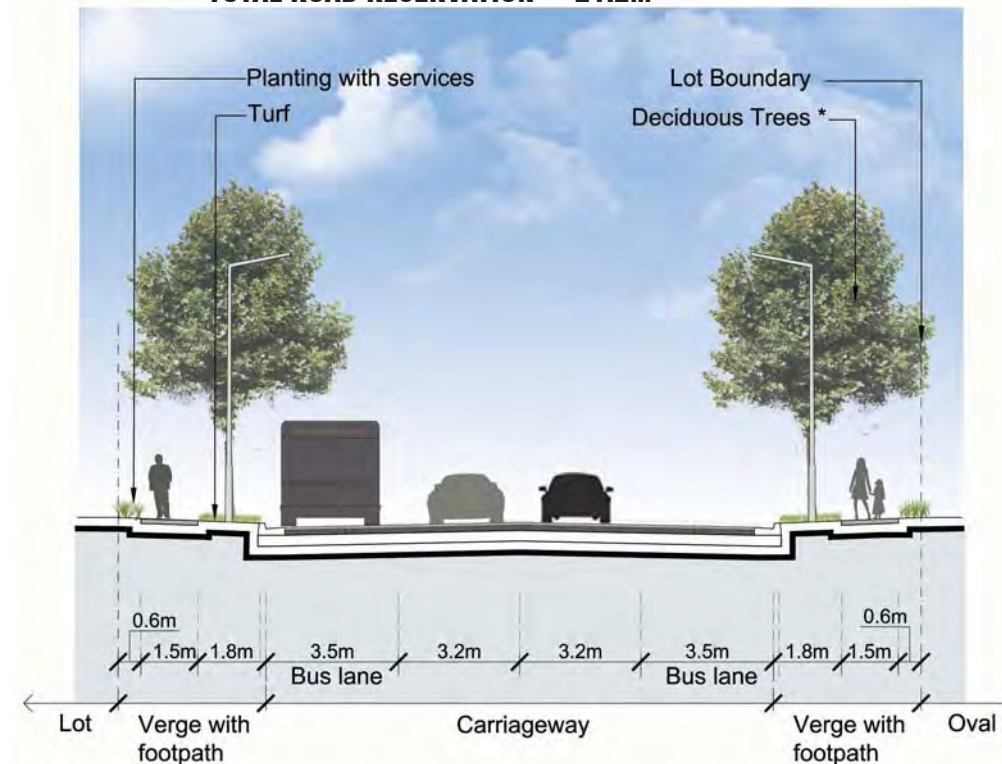


TOTAL ROAD RESERVATION = 21.2m



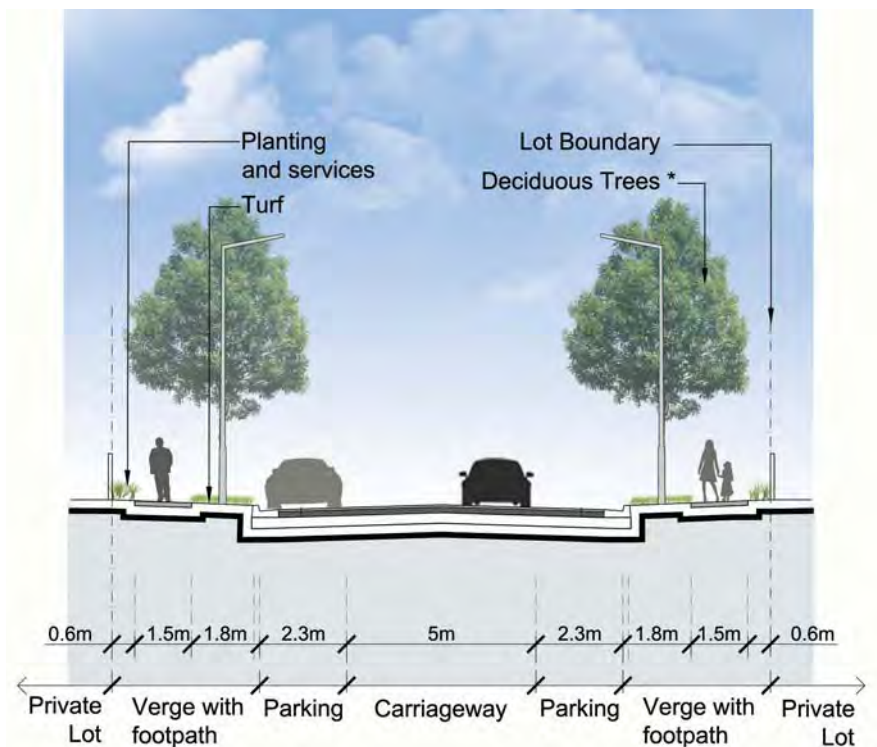
COLLECTOR STREET - WITH BUS CORRIDOR (SECTION 4)

TOTAL ROAD RESERVATION = 21.2m



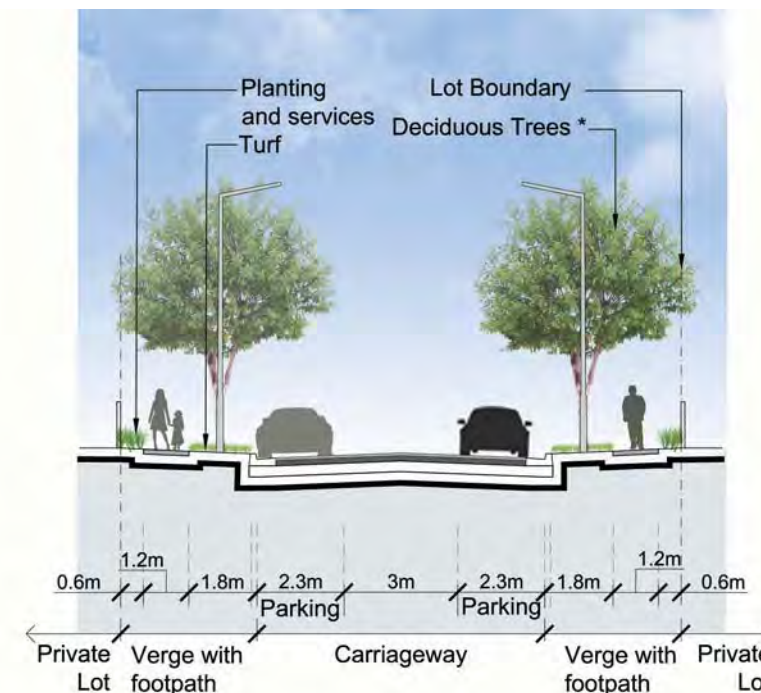
COLLECTOR STREET - WITH BUS CORRIDOR (SECTION 5)

TOTAL ROAD RESERVATION = 17.4m



LOCAL STREETS (SECTION 6)

TOTAL ROAD RESERVATION = 14.8m

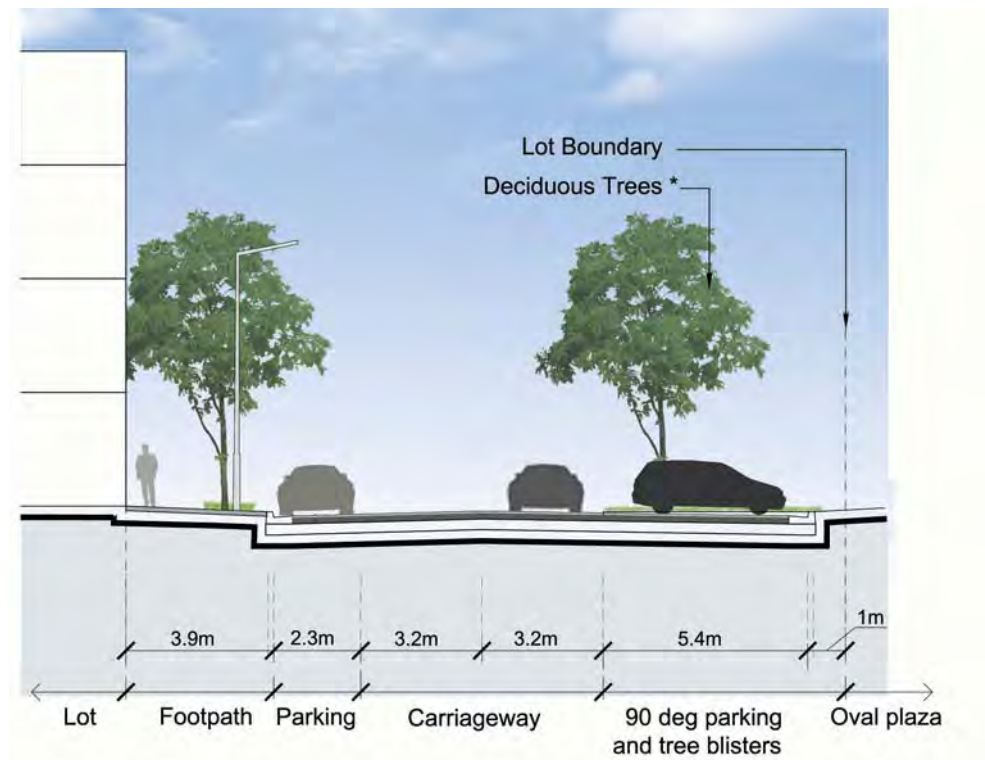


MINOR LOCAL STREETS (SECTION 7)

Note * Refer to streetscape planting plan

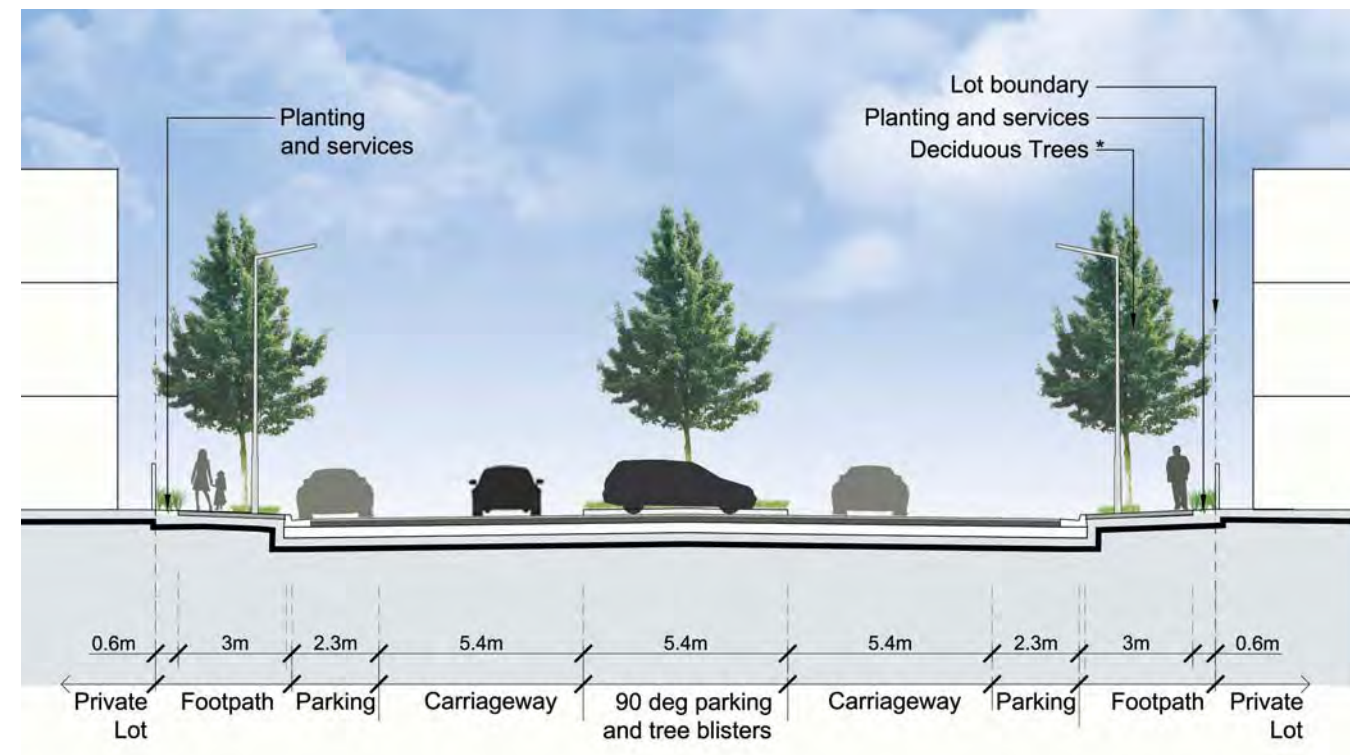


TOTAL ROAD RESERVATION = 19.0m



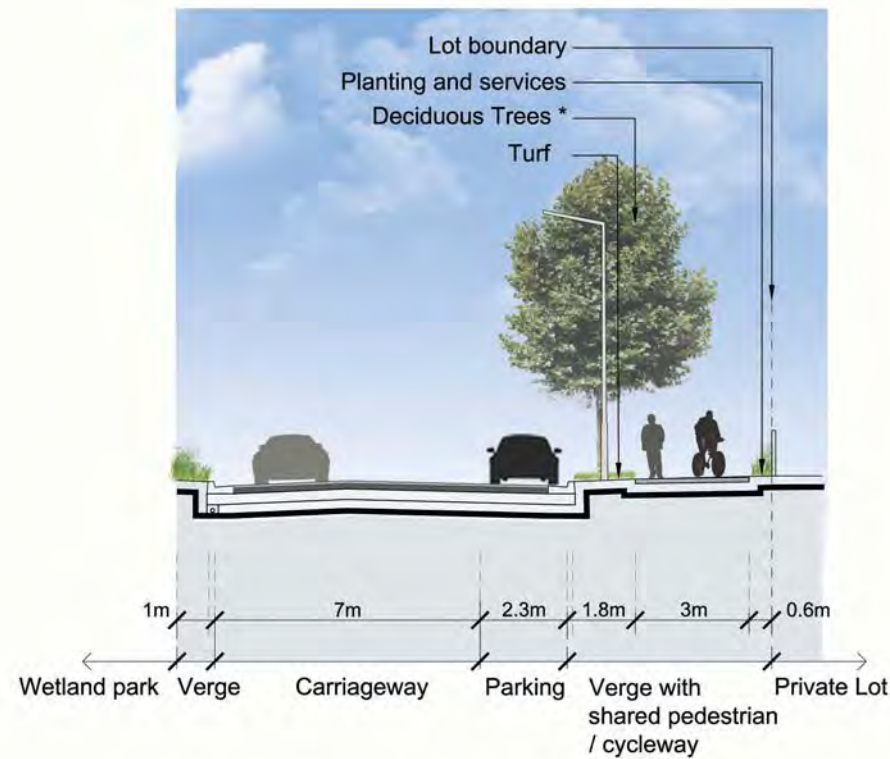
ROAD ALONGSIDE OVAL (SECTION 8)

TOTAL ROAD RESERVATION = 28.0m



ROAD BETWEEN T5 & T6 (SECTION 9)

TOTAL ROAD RESERVATION = 15.7m



COMMUTER CARPARK ROAD (SECTION 10)

Note * Refer to streetscape planting plan



10.0 INDICATIVE PLANTING SCHEDULE

INDICATIVE STREET TREE SCHEDULE:

SYM	BOTANICAL NAME	COMMON NAME	HEIGHT	SPACING	POT SIZE
COREEN AVENUE ENTRY / BOULEVARDE					
	Plantanus x hybrida	London Plane	20m	12m	200L
COLLECTOR (BUS ROUTE) & MAIN STREET					
	Plantanus x hybrida	London Plane	20m	15m	200L
SECONDARY ENTRY COLLECTOR STREETS					
	Plantanus x hybrida	London Plane	20m	15m	200L
COLLECTOR & LOCAL STREETS					
	Fraxinus pennsylvanica 'Cimarron'	Green Ash	15m	As Shown	100L
	Ulmus parvifolia	Chinese Elm	15m	As Shown	100L
LOCAL & MINOR LOCAL STREETS					
	Saplum serbiferum	Chinese Tallow	7m	6m	100L
	Pyrus ussuriensis	Manchurian Pear	9m	6m	100L
THROUGH SITE LINK					
	Pyrus calleryana 'Chanticleer'	Ornamental Pear	7m	6m	100L
CAR PARKS					
	Pyrus ussuriensis	Manchurian Pear	9m	6m	100L

INDICATIVE OPEN SPACE PLANTING SCHEDULE:

SMITHS PADDOCK (OPEN SPACE 1)					
SYM	BOTANICAL NAME	COMMON NAME	HEIGHT	SPACING	POT SIZE
DECIDUOUS TREES					
	Fraxinus oxycarpa 'Raywood'	Claret Ash	15m	As Shown	200L
	Pistacia chinensis	Chinese Pistachia	15m	As Shown	200L
	Platanus x hybrida	London Plane	25m	As Shown	400L
	Pyrus calleryana 'Chanticleer'	Ornamental Pear	7m	As Shown	200L
	Pyrus calleryana 'Bradford'	Ornamental Pear	7m	As Shown	200L
	Sapium serbiferum	Chinese Tallowood	12m	As Shown	100L
	Ulmus parvifolia	Chinese Elm	20m	As Shown	400L
EVERGREEN TREES					
	Brachychiton populneus	Kurrajong	20m	As Shown	100L
	Cupaniopsis anacardioides	Tuckeroo	10m	As Shown	100L
	Eucalyptus melliodora #	Yellow Box	25m	As Shown	100L
	Syncarpia glomulifera	Turpentine	25m	As Shown	100L
	Tristaniopsis laurina 'Luscious'	Water Gum	12m	As Shown	75L
	Waterhousia floribunda	Weeping Lilly Pilly	15m	As Shown	100L
SHRUBS					
	Acmena smithii 'Hedgemaster'	Lilly Pilly	1m	500mm	25L
	Alternanthera dentata	Ruby Leaf Alternanthera	1.5m	300mm	200mm
	Buxus microphylla	Japanese Box	1.5m	300mm	200mm
	Callistemon citrinus 'Anzac'	Drawf Bottlebrush	1.0m	4m2	5L
	Callistemon viminalis 'Little John'	Drawf Bottlebrush	1.0m	4m2	5L
	Grevillea 'Honey Gem'	Grevillea	3m	1m2	25L
	Gardenia augusta 'Florida'	Gardenia	1.5m	3m2	25L
	Lavandula dentata	French Lavenda	1m	300mm	5L
	Murraya paniculata	Orange Jessamine	3m	750mm	25L
	Rosmarinus officinalis	Rosemary	1.5m	500mm	25L
	Syzygium sp.	Lilly Pilly	3m	1.0m	25L
	Viburnum odoratissimum	Sweet Viburnum	6m	500mm	25L
	Westringia 'Wynyabbie Gem'	Coastal Rosemary	1m	500mm	25L
GRASSES & GROUND COVERS					
	Beschorneria yuccoides	Mexican Lily	1.0m	3m2	200mm
	Dianella 'Breeze'	Paroo Lily	0.3m	7/m²	75mm Tube
	Dianella 'Little Rev'	Paroo Lily	0.3m	9/m²	75mm Tube
	Dianella 'Little Jess'	Paroo Lily	0.4m	7/m²	75mm Tube
	Dietes grandiflora	Wild Iris	0.6m	7/m²	75mm Tube
	'Hymenocallis littoralis'	Swamp Lilly	1.5m	4m2	5L
	Imperata cylindrica	Blady Grass	0.6m	7/m²	75mm Tube
	Juniperus conferta	Shore Juniper	0.3m	4m2	200mm
	Liriope muscari 'Evergreen Giant'	Turf Lily	0.7m	5/m²	150mm
	Lomandra 'Tanika'	Mat Rush	0.7m	7/m²	75mm Tube
	Lomandra 'Katrinus'	Mat Rush	0.7m	7/m²	75mm Tube
	Pennisetum alopecuroides 'Nafray'	Swamp Foxtail	0.7m	7/m²	75mm Tube
	Poa labillardieri 'Eskdale'	Tussock Grass	0.6m	9/m²	75mm Tube
	Trachelospermum jasminoides	Star Jasmine	0.6m	5/m²	150m
	Viola hederacea	Native Violet	0.2m	5/m²	100mm

- Denotes that this stock may need to be provenance stock sourced from the local area if not commercially available.

ORNAMENTAL RAIN GARDENS					
TREES					
	Melaleuca quinquenervia	Broad Leaved Paperbark	15m	As Shown	75L
	Melaleuca styphelloides	Prickly-Leaved Paperbark	12m	As Shown	75L
SHRUBS					
	Melaleuca thymifolia	Honey Myrtle	0.5m	5m2	150mm
SEDGES & RUSHES					
	Carex appressa	Tall Sedge	0.6m	5/m²	75mm Tube
	Isolepis nodosa	Club Rush	0.7m	5/m²	75mm Tube
	Juncus usitatus	Common Rush	0.7m	7/m²	75mm Tube
	Lomandra longifolia 'Katrinus'	Mat Rush	0.7m	7/m²	75mm Tube

THORNTON PARK FORMAL PLANTING (OPEN SPACE 2)					
SYM	BOTANICAL NAME	COMMON NAME	HEIGHT	SPACING	POT SIZE
SHRUBS					
	Acmena smithii 'Hedgemaster'	Lilly Pilly	1m	500mm	25L
	Alternanthera dentata	Ruby Leaf Alternanthera	1.5m	300mm	200mm
	Euphorbia characias 'wulfenii'	Spurge	1.5m	3m2	5L
	Lavandula dentata	French Lavenda	1m	300mm	5L
	Rosmarinus officinalis	Rosemary	1.5m	500mm	25L
	Syzygium sp.	Lilly Pilly	3m	1.0m	25L
	Viburnum odoratissimum	Sweet Viburnum	6m	500mm	25L
	Westringia 'Wynyabbie Gem'	Coastal Rosemary	1m	500mm	25L
GRASSES & GROUND COVERS					
	Cerastium tomentosum'	Snow in Summer	0.3m	5/m²	150mm
	Dianella 'King Alfred'	Paroo Lily	0.5m	7/m²	75mm Tube
	Dianella 'Silver Streak'	Paroo Lily	0.6m	5/m²	150mm
	Dietes grandiflora	Wild Iris	0.6m	7/m²	75mm Tube
	Gardenia jasminoides 'Radicans'	Creeping Gardenia	0.5m	4m2	150mm
	Liriope muscari 'Evergreen Giant'	Turf Lily	0.7m	5/m²	150mm
	Trachelospermum jasminoides	Star Jasmine	0.6m	5/m²	150m
THORNTON PARK CUMBERLAND PLAIN WOODLAND REVEGETATION					
SYM	BOTANICAL NAME	COMMON NAME	HEIGHT	SPACING	POT SIZE
EVERGREEN TREES					
	Eucalyptus moluccana #	Grey Box	20m	As Shown	25L
	Eucalyptus terebincomis#	Forest Red Gum	20m	As Shown	25L
SHRUBS					
	Acacia parramattensis #	Sydney Green Wattle	3-4m	1m2	125x90x90
	Bursaria spinosa #	Blackthorn	3m	2m2	125x90x90
	Davisia ulicifolia #	Goarse Bitter Pea	2m	3m2	125x90x90
	Dillwynia sieberi #	Prickly Parrot Pea	2m	2m2	125x90x90
	Dodonaea viscosa sub. cuneata #	Sticky Hop Bush	3m	2m2	125x90x90
	Indigofera australis #	Austral Indigo	2m	2m2	125x90x90
	Pultenaea microphylla #	Spreading Bush Pea	4m	1m2	125x90x90
GRASSES & GROUND COVERS					
	Austrodanthonia tenuior #	Wallaby Grass	0.7m	5m2	125x50x50
	Dianella 'Breeze'	Paroo Lily	0.6m	5m2	75mm Tube
	Dianella longifolia #	Smooth Flax Lily	0.5m	5m2	125x50x50
	Dichelachne parva #	Plume Grass	0.8m	5m2	125x50x50
	Eragrostis leptostachya #	Paddock Lovegrass	0.8m	5m2	125x50x50
	Lomandra filiformis #	Mat Rush	1.0m	5m2	125x50x50
	Lomandra multiflora #	Mat Rush	1.0m	5m2	125x50x50
	Lomandra 'Tanika'	Mat Rush	0.7m	7/m²	75mm Tube
	Microlaena stipoides var stipoides#	Weeping Grass	0.5m	7m2	125x50x50
	Pennisetum alopecuroides 'Nafray'	Swamp Foxtail	0.7m	7/m²	75mm Tube
	Poa labillardieri 'Eskdale'	Tussock Grass	0.6m	9/m²	75mm Tube
	Themeda australis #	Kangaroo Grass	0.7m	5m2	125x50x50

- Denotes that this stock is to be provinceance stock sourced from the local area to maintain the genetic integrity of the threatened native vegetation communities. All species and revegetation works under taken in these zones are to be read in conjunction with the Vegetation Management Plan supplied by the Environmental Consultant

