Draft Shiralee DCP

Orange City Council

AUGUST 2014

ORANGE

Prepared by Orange City Council
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Contents

Figure 1. Land and Development to which this Development Control Plan applies

1.0 Introduction

1.1 Name

Draft Shiralee Development Control Plan

1.2 Commencement

This Development Control Plan commences upon adoption by Orange City Council.

Adopted Date: TBA

1.3 Land and development to which this Precinct Plan applies

The Draft Shiralee Development Control Plan incorporates the South Orange Urban Release Area Structure Plan. The Structure Plan comprises a range of maps and diagrams that illustrate the community vision for Shiralee.

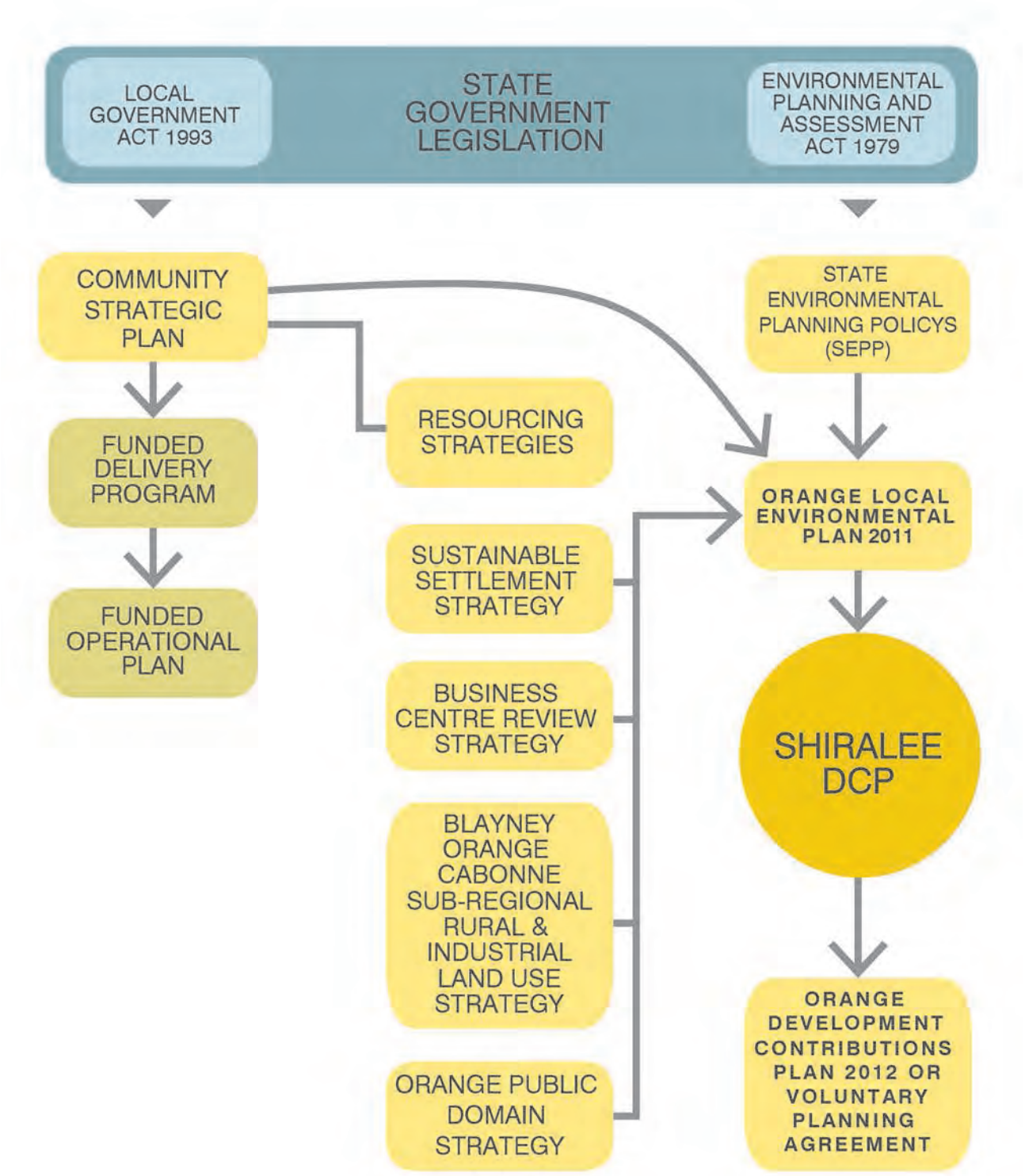


Figure 2. Draft Shiralee Development Control Plan's Relationship to select other Documents

1.4 Relationship to other planning instruments and development control plans

This Development Control Plan comprises a chapter within the Orange Development Control Plan (DCP). The Development Control Plan provides a detailed set of controls that apply only to the area identified on Figure 1. Land and Development to which the Development Control Plan applies, as the Urban Release Area "Shiralee".

Within Shiralee the contents of this Development Control Plan take precedence over any equivalent controls in other chapters of the DCP. However, on any matter not addressed in this chapter the other chapters of the DCP remain in effect.

1.5 Objectives

The objectives of this Development Control Plan are:

- To guide the urban expansion of Shiralee, south of the existing Orange urban area
- To promote a high quality urban environment with a diversity of housing and recreation opportunities
- To encourage alternative modes of transport and healthy lifestyles
- To reduce traffic congestion by providing for the day to day needs of residents within the precinct.

1.6 Information required in a Development Application

All development applications are to be made on the relevant Council form and are to be accompanied by;

- Plans,
- Site analysis,
- Statement of Environmental Effects, which is to include:
    - Likely and potential impacts of the proposal,
    - Proposed methods and design responses to the impacts identified,
    - A response to relevant sections of the Orange Local Environmental Plan,
    - A response to the relevant sections of the Development Control Plan (including this Development Control Plan)

The plans required for an application typically include:

- Subdivision plan (where relevant)
- Floor plans
- Elevation drawings
- Sectional diagrams
- Shadow diagrams for the hours between 9:00am and 3:00pm on the winter solstice. (Where an application involves any building greater than single storey, or is situated on steeply sloped land)
- Site plan with building footprints only. Due to privacy requirements and for exhibition purposes Council requires a site plan that does NOT show the internal layout of any residential part of the development – such floor plans should be provided on a separate sheet or page
- A landscape plan (1:100 or 1:200 scale) prepared by a landscape architect, identifying: all existing trees, justification for removal (if not retained) and appropriate replacement; and proposed planting locations, plant species, materials and finishes, surface drains, retaining walls, fencing locations, materials and types, any vertical screen elements, turf areas and any other features of the landscape
- Landscape plans showing all road and verge landscape treatments, referring to the Shiralee DCP and Masterplan.

Note: All plans for multi-dwelling developments and mixed use blocks (village centre) must be prepared by an architect and landscape architect.

Figures 3, 4. Existing view to Mt. Canobolas and site character

1.7 Maps

The Shiralee Masterplan through a series of maps identifies:

- a range of lot typologies
- a range of street typologies
- an overall transport movement hierarchy
- an open space and recreation network
- an overall landscape structure
- a strategy for street trees

Together the maps present an over-arching structure to the precinct. Development applications will be assessed against these maps and the provisions of the Development Control Plan. Where any matter or thing is not addressed via the maps or Development Control Plan the general provisions of the Orange DCP will apply.

1.8 Exceptional Circumstances

Development is to be generally in accordance with the Masterplan design and intent per the DCP. Legislative requirements and DCP written controls take precedence over the Masterplan. Council accepts no responsibility for any survey inaccuracies in the Masterplan. Nothing in this plan overrides, supersedes or replaces any easement, covenant or other restriction which may exist on the title of any given property. In the event of a conflict between title requirements and the Masterplan, title requirements shall prevail. Where there are no matters arising from the property title or site survey, it is expected that proposals generally reflect what is shown in the Masterplan and DCP.

Proposals must demonstrate a diversity of lot sizes and types that will support different lifestyles, housing styles and affordabilities. Lot sizes and types should also take into consideration the following factors: lot orientation; amenity (e.g. what the lot overlooks and how far it is located from the village centre); existing property and boundary alignments; and, the proposed design quality of new housing. In exceptional circumstances Council may consider some variation in lot sizes and types to what is shown the Masterplan and DCP), particularly on larger development sites, such as sites where a number of existing properties are amalgamated. The decision to consider changes to the Masterplan will be considered by Council on a case by case basis and subject to Council's satisfaction that the proposal meets or exceeds the Masterplan and DCP aims and principles.

Figure 5. Masterplan

2.0 Desired Future Character

2.1 Shiralee Character

Shiralee is a new urban village that will provide housing, amenity, recreational and educational opportunities to a diverse range of residents and visitors.

The Shiralee Master Plan is informed and underpinned by a thorough understanding of the site's natural attributes and special qualities, its contextual relationships to surrounding land uses within Orange and by the desire to create an inclusive village that enriches people's quality of life and provides housing, community services and jobs.

Community and stakeholder consultation throughout the planning process identified a strong desire to create a distinct and identifiable urban area that exemplifies best practice design while maintaining the semi-rural and natural qualities of the site. Roads and properties that frame and arrive into Shiralee will be green and open, with larger lots adjacent. Higher densities will be located within the centre of the village and in places where views and access to parkland is best. Intimate pockets of development are created to enhance a strong sense of community.

The Shiralee Master Plan:

- Has an distinct, separate identity to Orange whilst maintaining the best themes of Orange
- Is anchored by a hill-top mixed use village
- Provides housing choice that promotes a diverse community
- Provides community infrastructure to create a viable community
- Responds to existing site conditions, including natural features and man-made elements including the street grid
- Retains and enhance the unique character of the place
- Ensures development has regard to the fabric and character of each area in scale, proportion, street alignment, materials and finishes and reinforces distinctive attributes and qualities of built form
- Conserves and protect historic items and their settings
- Maintains a high level of daylight access to streets, lanes, parks and other public domain spaces
- Encourages active street frontages to the public domain
- Conserves, maintains and enhances existing views and vistas to buildings and places of historic and aesthetic significance.

- Large Lots
- Standard Lots
- Medium Lots
- Compact Lots
- Mixed Use Village Centre
- School
- Public Open Space

1. Village Centre
2. District Park
3. Mt Canobolas view line
4. Scenic hill
5. Larger lots
6. Standard lots
7. High amenity compact lots
8. Southern Feeder Road
9. Future Boulevard connection to Forest Road
10. Green connection
11. Vegetation buffer
12. Hilltop Park
13. Quarry site
14. Creek edge housing
15. Detention/retention basin
16. Private dams
17. Fauna link
18. Crown land
19. Interlot development
20. Orange Christian School
21. Sewer pump station
22. Potential school site

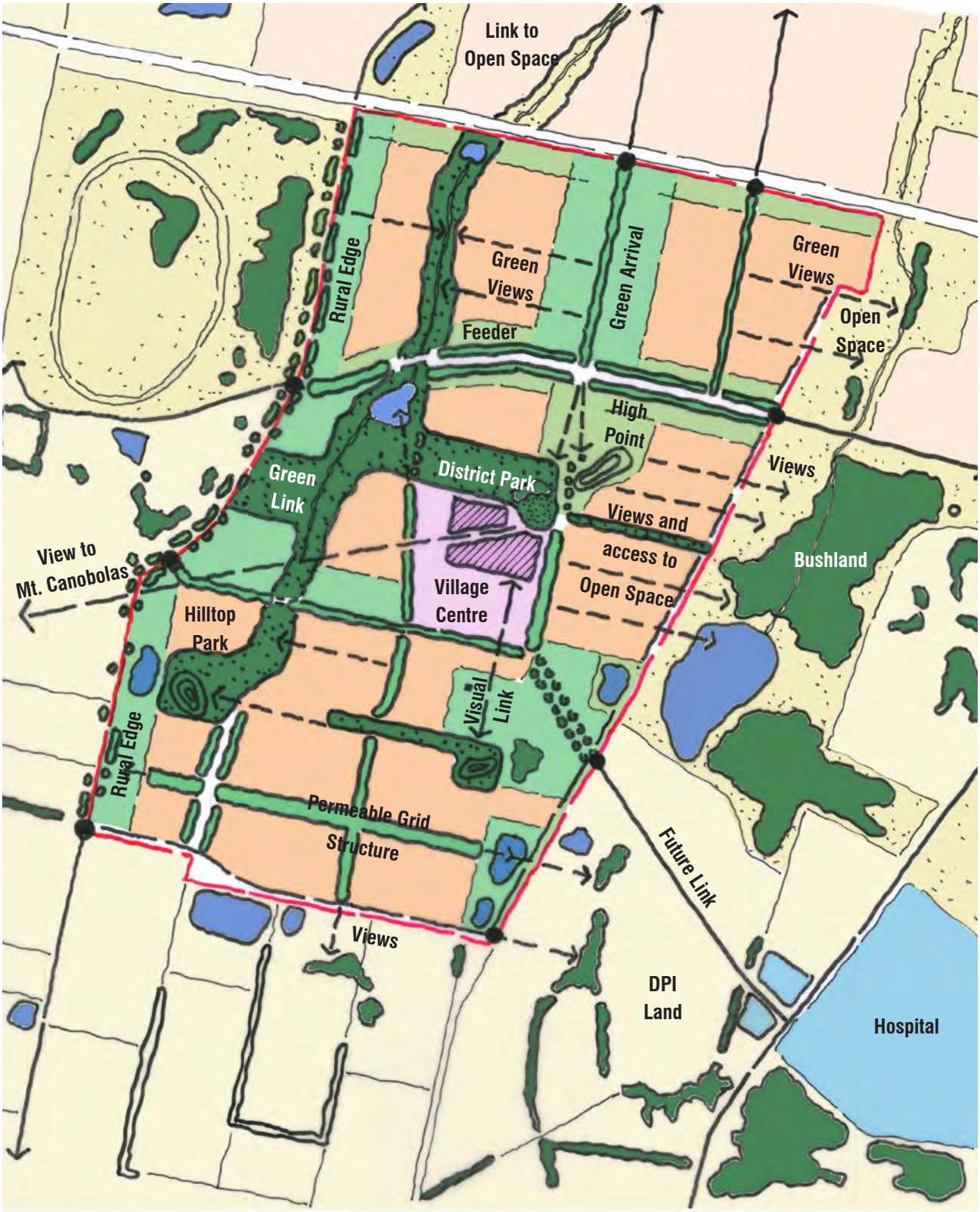


Figure 6. Masterplan Design Principles Sketch

2.2 Design Principles

Shiralee will be developed in accordance with the following Design Principles which underpin the Master Plan:

- Create a sense of arrival into a distinct and identifiable community
- Ensure the development feels separates to existing residential suburban areas north of the site
- Protect steep, visually exposed and constrained lands
- Conserve remnant vegetation
- Maintain a rural edge along Pinnacle Road
- Create a village heart with a mix of active uses
- Utilise existing road reserves
- Provide housing choice and a diversity of lot sizes as shown on the Master Plan
- Locate housing density where amenity is highest
- Develop east-west and north-south open space network through the site to link to existing and future open spaces
- Provide green streets that minimise road pavement widths and maximise green verges and trees
- Encourage walking by providing footpaths on all streets and mid-block links where shown on the Master Plan and minimise requirement for roundabouts
- Provide a connected network of public open spaces that links to existing open spaces
- Distribute public open spaces throughout the development and in varying topographic locations (hilltops and drainage lines)
- Safeguard future street links to Forest Road
- Develop Shiralee consistent with the Master Plan and this Development Control Plan
- Provide continuous awnings to retail and commercial buildings in the Village Centre
- Development must achieve and satisfy the outcomes expressed in the character statement and supporting principles
- Ensure that buildings respond to and reveal the topography by stepping with the slope
- Encourage cafes and restaurants in neighbourhood nodes to enliven the street with outdoor dining where footpath width permits.

Figure 7. Village Centre District Park

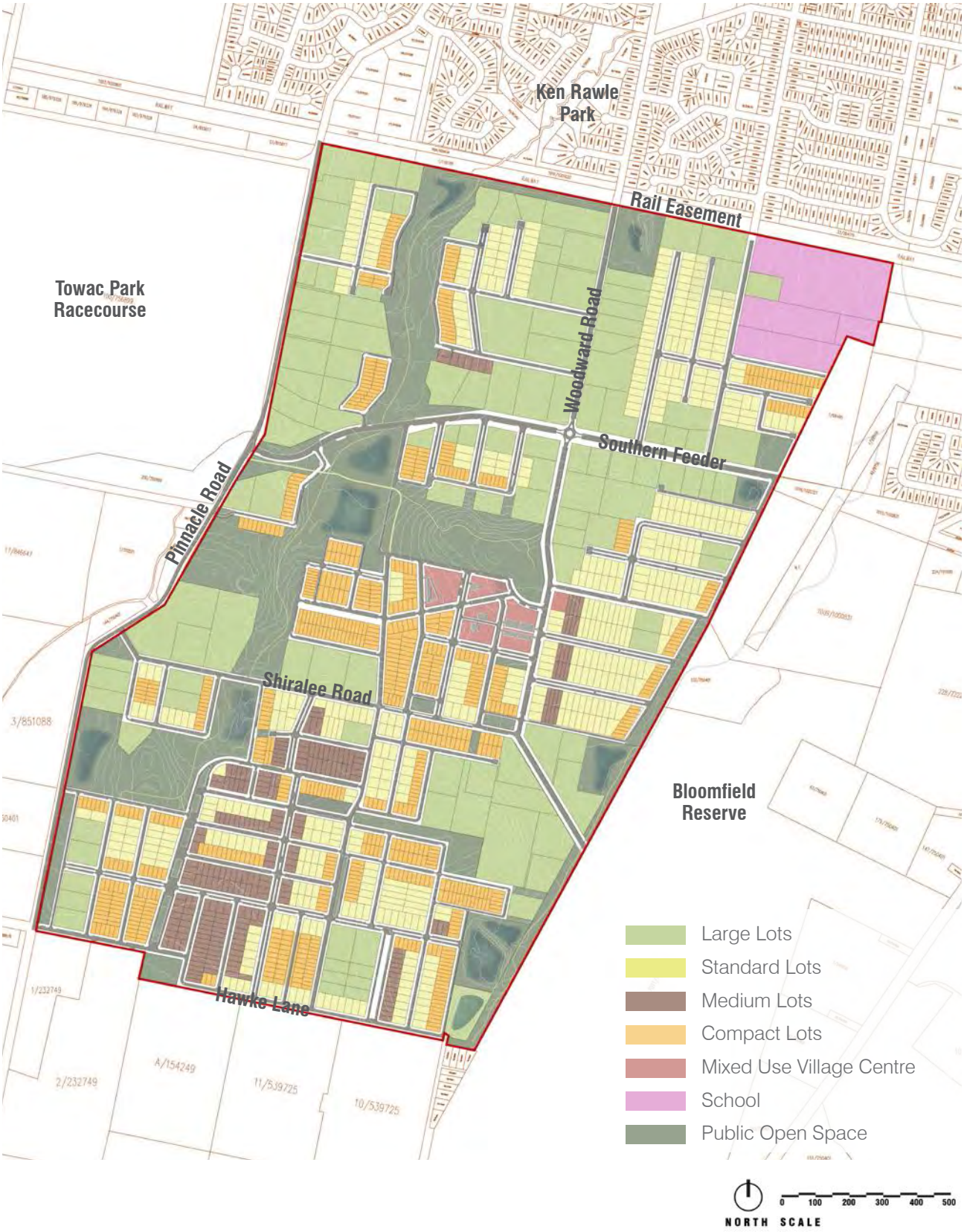


Figure 8. Shiralee Structure Plan and housing densities

2.3 Residential Densities

Shiralee is intended to provide for a wide range of housing densities and lifestyles. This is balanced with a need to provide buyers with a reasonable impression as to the character and form of the community they are joining. Accordingly, the masterplan has assigned various lot typologies in different locations. This gives buyers an understanding of what may emerge in their chosen street and has the added benefit of enabling a high quality of urban design, providing different parts of Shiralee with a built environment that responds sympathetically to the natural landforms of the area.

2.4 Subdivision

The subdivision of Shiralee is to be consistent with the layout provided in the Masterplan. The alignment of the road network in the structure plan ensures good solar access opportunities for the majority of building lots. The adoption of a grid based form ensures ease of navigation as well as enhanced pedestrian and cyclist mobility.

Due to the history of the Shiralee area being used for orchards and vineyards there is potential for the land to harbour concentrations of chemical sprays and other contaminants. Accordingly appropriate investigations are required as part of any subdivision application.

Controls:

SEPP 55 – Remediation of Land

- All subdivision applications are to be accompanied by a preliminary investigation to identify any past or present uses that have potential to contaminate the land and a preliminary assessment of any known contamination. If the results are positive, or if Council so directs, the application is to undertake a more detailed investigation.
- Subdivisions that are required to prepare a detailed investigation are to include soil analysis results for each proposed lot. If the results indicate a need to remediate the land prior to development then the application is to include an indicative remedial action plan (RAP) to demonstrate how the contamination will be quantified and remediated to a residential standard.

Subdivision Structure

Controls:

- Subdivision is to be consistent generally in accordance with the Masterplan design and intent per the DCP. Legislative requirements and DCP written controls take precedence over the Masterplan.
- Lot sizes are to be consistent with or greater than the adopted minimum lot size for the land under the LEP zoning map.
- Where an oversized lot is proposed (substantially greater than the adopted minimum lot size), plans are to nominate a building envelope.
- Building envelopes on oversized lots are to be positioned in a manner that clearly enables future subdivision of the lot to a pattern consistent with the masterplan layout and adopted minimum lot size for the land.
- Except for corner lots and where indicated otherwise on the Large Lot Classification Table, all residential lots are to have a width to depth ratio of between 1:4 and 1:2.75 with the shorter boundary being the street frontage.
- Residential corner lots are to have greater width with a ratio of between 1:3.25 and 1:2.5 to allow more opportunity for the subsequent dwelling to address both frontages.
- Roads identified for Bus Routes:
    - Intersections where the bus route turns are to be designed to accommodate full size coaches.
    - At nominated bus stop locations the road reserve is to be increased by an addition 0.5m to allow for passenger congregation and future street furniture. The front building setbacks of affected lots may be reduced by 0.25m to help preserve the pattern and rhythm of development.

Figure 9. Oblique view of the Masterplan showing Village Centre key view and relationships to open space

2.5 Lot Typologies

Residential lots are categorised on the basis of the total area of the lot, excluding the access handle for battle-axe lots.

- Large Lots, defined as lots 1,750m^2 and bigger in area, are incorporated into the Masterplan for reasons outlined further below.
- Standard Lots, defined as lots between 700m^2 and 850m^2 in area, are incorporated into the Masterplan to meet traditional demand within Orange for generous size residential lots with space for a family dwelling, double garage and front and rear gardens.
- Medium Lots, defined as lots between 400m^2 and 550m^2 in area, are incorporated into the Masterplan to further increase housing choice and to enable more efficient development on sites with differing geometries.
- Compact Lots, defined as lots between 200m^2 and 350m^2 in area, are incorporated into the Masterplan to meet demand for smaller and more affordable housing and to meet the needs of changing demographics (e.g. smaller family sizes, aging population)
- Larger lot sizes are incorporated into the Masterplan to:
    - Respond to landowner consultation and expectations regarding lot size and housing density
    - Reinforce the master plan vision for the Shiralee precinct, including providing supply of a diversity of housing options and lifestyles
    - Provide a visual and physical break from existing suburban areas to the north
    - Conserve the site's existing landscape character including its scenic character and responding to site constraints, including slope, water movement and existing vegetation
    - Respond to existing property boundaries and ensuring good housing address/access to streets
    - Respond to environmental issues (noise and vibration) in proximity to the railway corridor
    - Manage traffic flows by ensuring the more significant roads are not overburdened by private driveway cross-overs

Controls:

- Lot typologies and minimum sizes are to be consistent with the Masterplan, DCP and LEP zoning map.
- Any subdivision which creates more than 3 lots must not have any oversized lots. Oversized lots are lots that do not fit within the designated categories.
- Specific requirements for large lots within the Precinct are to be consistent with the Large Lot Classification Diagram and Large Lot Classification Table.
- Where subdivision involves the creation of a lot greater than the maximum for the lot typology, a building envelope is to be established on the title of the new lot. The dimensions of the building envelope are to be no greater than:
    - Compact Lots: the width of the lot minus 1.2m (to provide for 0.6m side setbacks) by the depth of the lot minus the front and rear setbacks.
    - Medium Lots: the width of the lot minus 2m (to provide for 1.1m side setbacks) by the depth of the lot minus the front and rear setbacks.
    - The building envelope is to be positioned consistent with the front and rear setbacks otherwise specified for the lot typology in this DCP.
- The building envelope is to be positioned consistent with the front and rear setbacks otherwise specified for the lot typology in this DCP

Note: This control applies to compact and medium lots only.

- Site coverage ratio is the ratio between the overall site area and the combined footprint of all buildings on the property. The maximum site

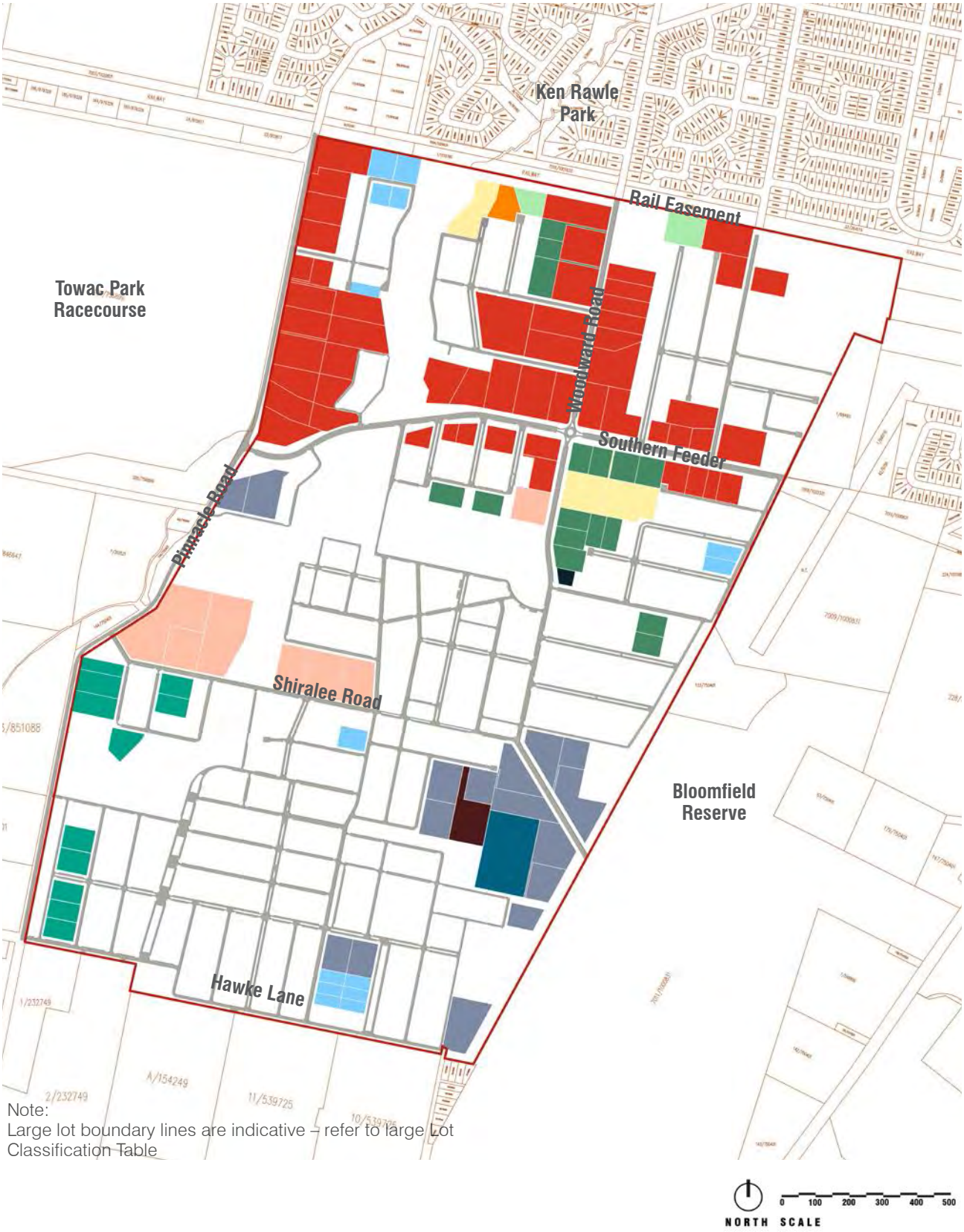
Figure 10. Oblique view of the Masterplan showing the future eastern entry

coverage ratio allowed for each type of lot is:

- 60% for compact lots
- 45% for medium lots
- 35% for standard lots
- 25% for large Lots

- All lots must have a direct street frontage to ensure good access and property amenity. Lots 3,000m^2 and larger are excepted.
- Lots without a street frontage are to have a minimum size of 3000m^2 providing that boundary landscaping is provided with any new development.
- Corner lots are to achieve high quality street frontages on the primary and secondary street.
- All compact, medium and standard lots need to achieve a solar orientation where the long axis of the lot is
  - For North-south oriented lots between 20 degrees west of north or 30 degrees east of north, or
  - For East-west oriented lots between 20 degrees north of east or 30 degrees south of east.

Figure 11. Oblique view of the Masterplan showing the Green Street connection to the hill top park



Note:
Large lot boundary lines are indicative – refer to large Lot Classification Table

Figure 12. Large Lot Classification Diagram

Large Lot Classification Table

Colour	Lot Description	Minimum Lot Size	Minimum Boundary Length or Street Frontage
	Landmark Village arrival lot. This lot is located directly opposite the District Park at the entry to the Village Centre and is large enough to accommodate generous landscape and tree planting consistent with the character of the District Park.	1,750m^2	25m Street Frontage
	Integrated lifestyle lots. . These lots provide a rural-residential lifestyle option for the Shiralee community.	2,000m^2	30m Street Frontage
	Pinnacle Road, Woodward Road, Cecil Road and Southern Feeder Road "Urban Break" Lots. These lots provide separation between existing urban housing lots north of the rail line and new urban housing lots within Shiralee. The lots also provide a rural-residential lifestyle alternative for Shiralee.	2,400m^2	40m Street Frontage OR 30m Street Frontage where vehicle access is from side or rear. For Southern Feeder Lots the minimum lot depth is 60m.
	Northern Interface Lots Area 2. These lots are larger to ameliorate access and acoustic constraints.	3,000m^2	35m Northern Boundary along rail easement
	Visually exposed and/or sloping lots. These lots retain the existing landscape character and provide a rural-residential lifestyle alternative to typical urban housing lots.	3,000m^2	65m Street Frontage (40m Street Frontage where located on Southern Feeder Road)
	South Western Lifestyle Lots. These lots retain the existing landscape character adjacent to Pinnacle Road and provide a rural-residential lifestyle alternative.	3,800m^2	45m Street Frontage
	Northern Interface Lots Area 2. These lots are larger to ameliorate access and acoustic constraints.	4000m^2	40m Street Frontage
	East and West Gateway Lots. These lots retain the existing landscape character around the peripheries of Shiralee and in some cases on higher elevations which are more visually exposed.	5,000m^2	50m Street Frontage
	Shiralee Road Lots. These lots retain the existing landscape character and provide a rural-residential lifestyle option.	7,000m^2	50m Street Frontage
	Visually Exposed and Constrained Lots. These lots retain the existing green slopes and landscape character south of the Southern Feeder Road and respond to flooding constraints adjacent to Blackmans Swamp Creek.	9,000m^2	70m Boundary Length
	Visually Exposed Hilltop Lot. This lot is a significant topographic feature within Shiralee and as such is designated as a larger lot to retain the existing landscape character.	10,000m^2	70m Boundary Length
	Highly Visually Exposed, Sloping and Vegetated Lot. This lot is highly visible from lands to the east and is heavily constrained by slope and vegetation and as such is designated as a larger lot to retain the existing landscape character.	25,000m^2	110m Street Frontage

Figures 13,14. Desired streetscape and public domain character

3.0 Local Infrastructure

3.1 Infrastructure Provisions

Controls:

- Clause 7.11 of the Orange Local Environmental Plan 2011 establishes that development is required to be provided with essential services including:

1. The supply of water
2. The supply of electricity
3. The supply of gas
4. The supply of telecommunications infrastructure
5. The disposal and management of sewage
6. Stormwater drainage or on-site conservation, and

- Suitable road access.
- Provision of essential local infrastructure is at the developers cost and in line with the Shiralee Contributions Development Plan
- The design and placement of local infrastructure is to be in accordance with the relevant authorities requirements
- All power lines are to be located underground.

3.2 Ground Levels and Excavation

All forms of development are to respond to the local topography. Excessive cutting and filling of a site is an indication of poor design and is likely to adversely impact streetscapes, alter site drainage, hinder solar access and limit view sharing opportunities.

Controls:

- Cut and fill is to be minimised with cut materials used on-site as either fill for buildings or used to even out the landforms
- Any cut is to be supported by a retaining wall or battered to a gradient of less than 1:4, provided that gradient is achievable entirely within the site boundaries
- The design of any retaining wall greater than 600mm must be accompanied by a statement from an engineer attesting that the design is fit for purpose
- Excavation for the purposes of development must not exceed a maximum depth measured from ground level (existing) of:
    - if located not more than 2m from any boundary:1m
    - if located more than 2m from any boundary: 2m
- Notwithstanding the above, excavation must not be more than 1m below ground level (existing) if the land is within 40m of a water body (natural). Such excavation must not interfere with or pose a risk of sedimentation to the water body – excavation within 40m of a water body (natural) must be accompanied by a report from a hydrologist demonstrating how the water body will be protected from harm. Refer to Figure 50. Riparian Corridor Section.
- Filling, for the purpose of erecting a dwelling house must not exceed 1m above ground level (existing)
- All excavation and/or filling that exceeds 600mm in depth/height must be contained by either:
    - a retaining wall or other form of structural support that does not extend more than 1.5m from:
    - external walls of the dwelling house,
    - decking connected to the dwelling house, or
    - principal private open space of the dwelling house,
    - an unprotected sloping embankment or batter that does not extend from the dwelling house, decking or principal private open space by more than 3m, in which case the toe of the embankment or batter must be more than 1m away from a side or rear boundary
- To facilitate assessment detailed engineering plans for retaining walls are to be supplied where the wall is intended to retain 600mm or more of material.

Figure 15. Rifle Range Exclusion Zone within Shiralee

Note: for this clause "Principal Private Open Space" means courtyard space of up to 30m^2 that is located behind the main building alignment and is in close proximity to the living and entertaining spaces of the dwelling house.

3.3 Public Domain

The public domain comprises the public street, roadside reserves, parks, sports fields, creek lines and other publicly accessible spaces. The design and embellishment of the public realm plays a significant role in establishing and supporting the character of the Precinct. All areas are important and should receive a consistent level of embellishment and enhancement. However a uniform treatment is to be avoided so that each sub-community can develop its own character in response to localised features. This should be achieved through a diversity of techniques, changes to street tree species and other features as appropriate on site.

Controls:

- Land identified for the RE1 Public Recreation Zone is to be dedicated to Council as public open space upon subdivision of the parent lot
- Compensation for the dedicated land is to be in accordance with the relevant Section 94 Development Contribution Plan
- Footpath dining in the Village Centre is encouraged, although access on the footpath must be maintained and consideration must be given to access for the vision impaired and those in wheelchairs.
- Outdoor dining furniture and signage must be approved by Orange City Council and provide a positive visual aesthetic to the streetscape.
- Ensure reasonable pedestrian / wheelchair / pram crossing ability is designed into the road and median to ensure access into the heart of the village.

Note: Refer to section 7.0 Public Domain for further information.

3.4 Staging

Staging of the Precinct shall generally be in accordance with the requirements of clause 7.11 of the LEP: *Development consent must not be granted to development unless the consent authority is satisfied that any of the following services that are essential for the proposed development are available or that adequate arrangements have been made to make them available when required: the supply of water, the supply of electricity, the disposal and management of sewage, storm water drainage or on-site conservation, suitable road access*.
Namely that essential local infrastructure needs to be available or provided by the developer. However in some locations there are additional criteria that need to be met for the safe and orderly development of the Precinct.

Controls:

- The Rifle Range exclusion zone, as shown in Figure 15. Land within the Rifle Range exclusion zone, may not be subdivided or otherwise developed until the rifle range has been decommissioned
- The Hawke Dam Lane exclusion zone may not be subdivided or otherwise developed until the dam has been decommissioned or appropriate works are undertaken to safely convey discharges from the dam into the downstream watercourse or drainage system, in such a manner as to ensure no adverse flood risk is presented to downstream properties.
  Stormwater drainage design needs to be undertaken in accordance with Councils standard subdivision design code requirements. In particular adequate provision must be made for all potential overland flows into the subdivision from adjacent land as well as overland flows within the subdivision and their safe discharge onto downstream properties. Overland flows can be accommodated within road reserves or drainage reserves utilising a minor/major drainage design approach.

Figure 16. Mixed Use Village Centre Principles

Figures 17,18. Village Centre architectural character

4.0 Village Centre

4.1 Centres Hierarchy

The Orange CBD plays an important role within the Central West of NSW and provides higher order services than any other centre in the LGA. This role and function of the CBD needs to be preserved for the benefit of the local community and the region more generally.

Outside of the CBD, Orange has two B2 Local Centre zones, one in North Orange and the other in the South on the Department of Primary Industries land (the DPI site) on Forest Road. These centres are intended to provide mid-range level of services and facilities to the nearby residents, helping to alleviate CBD traffic without undermining the trading performance of the CBD.

Accordingly while the Shiralee Precinct is of a significant size and will ultimately be home to a substantial population, its position, relative to both the CBD and the southern B2 zone, mean that only the most immediate day-to-day needs of residents should be catered for within the Precinct.

Notwithstanding this, a small compact village centre with limited commercial functions has the ability to provide a focal core for the emerging community. By providing a B1 Neighbourhood Centre alongside planned community facilities and adjacent to Lysterfield Reserve, the Precinct has the potential to develop a thriving and vibrant centre which can enhance community spirit and identity within the broader Orange context.

4.2 Neighbourhood Commercial and Retail Functions

The village centre will be zoned B1 Neighbourhood Centre to confirm its relative role in the hierarchy of Orange's commercial precincts. The scale of commercial and retail functions is therefore of a limited nature.

Controls:

- A Village Centre Masterplan, consistent with the road layout and public realm aspects of this plan, is required to be prepared by the Developer for B1 zoned land, with input from Council and relevant stakeholders, prior to submission of a DA
- All commercial and retail functions in the village centre are to include activated street frontages. A 'fine grain' building pattern is encouraged
- Ground floor primary façade is to be minimum 50% clear glazing
- Large expanses of blank, unarticulated facades are not permitted. Facades are to have architectural detail and variations in surface materials
- All commercial and retail buildings are to be designed with logical locations for outdoor advertising that complement the architectural form. Generally logical locations:
    - Are situated at awning level or below,
    - Are of a scale consistent with the building,
    - Are capable of supporting both a message face and a border or buffer,
    - All outdoor advertising is to be located within the logical locations of the building façade so that the architectural features and embellishments are not obscured.
- Balconies and verandahs are encouraged on primary frontages and street corners
- Continuous awnings are to be provided alongside retail and commercial properties
- Pedestrian access (e.g. doorways) are to be provided along primary street frontages of shops and commercial uses
- Tilt-up concrete panel construction is not permitted. Buildings should be of a human-scale and be comprised of varied materials and finishes such as brick, timber and stone
- The village centre layout, primary frontages and though-site links are to be in accordance with Figure 16. Mixed Use Village Centre Principles
- All development proposals within the village centre will be the subject of detailed design

Figure 19. Shiralee Neighbourhood Park character

Figure 20. Mixed Use Village Centre “fine grain” high street character

negotiations between the proponent and Council to ensure high quality development outcomes, including site planning, building design, massing, car parking, environmental sustainability and public domain treatments.

4.3 Safety and design

All development is vulnerable to crime and vandalism to some degree. However, nonresidential development, particularly in quiet neighbourhoods, can be subject to more frequent abuse. Therefore all nonresidential development shall, as a minimum, be required to demonstrate consistency with the following Crime Prevention Through Environmental Design principles.

- Clear sight lines between the public realm and the development shall be provided to promote passive surveillance
- Clear lighting around the approaches to doorways and windows enhance monitoring. Such lighting shall be directed and hooded to contain the illumination within the property and prevent glare spilling into neighbouring residential properties
- Landscaping shall be comprised of low ground covers, typically below 300mm in height and trees where low branches are above 1600mm in height. This approach preserves a clear line of sight through landscaping and avoids concealment opportunities
- Colour selection below the awning level should comprise bright shades so as to enhance passive surveillance
- Where a building is setback from the street boundary, the boundary is to be clearly demarcated, through either low fencing, garden beds or edging to clearly signal the difference between the public and private realm.

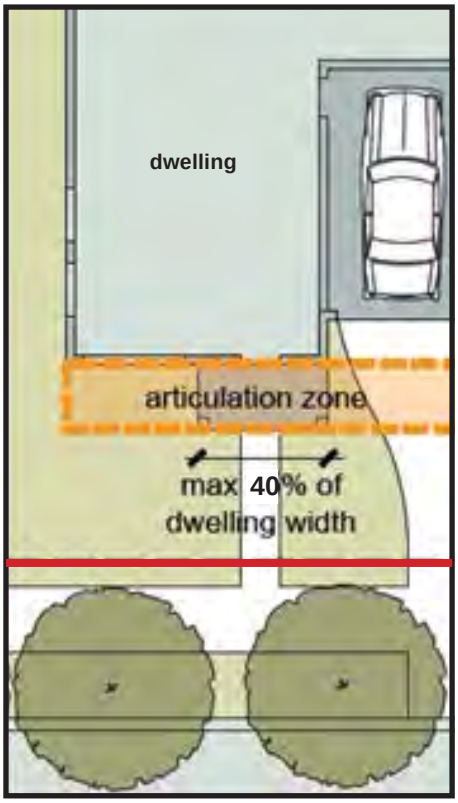
4.4 Building façades, entrances and articulation

Active Frontages

In the B1 Neighbourhood Centre zone all commercial buildings are to address public roads and any adjoining parkland or public open space with an active frontage. To be considered an active frontage the building façade must be punctuated with door and window openings. Articulation of the frontage is required to provide further interest and visual appeal.

Controls:

- All street frontages, other than service lanes, shall be provided with no less than one window or door every 4m
- Fence heights forward of the building line are to be no higher than 1.2m
- The maximum length of any unarticulated wall fronting a public street shall be no greater than 8m
- All public entrances are to be distinct, legible and of a scale consistent with the overall building
- Loading bays are to be accessed from rear laneways or secondary streets
- On-site parking is to be provided at a rate consistent with the Orange DCP and is to be situated to the rear of the premises as depicted in the Masterplan, or accessed from service laneways.



Figures 21,22. Building character: Traditional compact and medium lot Figure 23. Articulation Zone

5.0 Residential Buildings

5.1 Building Form and Layout

Setbacks

Controls:

- Building setbacks including articulation zones are to be consistent with the housing typology diagrams in Appendix B
- For large lots the following controls apply to building setbacks:

Building setback	Large Lots
Primary Front Setback	8.0m
Secondary frontage setback	3.0m
Garage / Carport setbacks	10.0m
Rear and side setback	1.5m
Rear lane setbacks	3.0m

- Upper floor side facades to be setback to achieve at least 2.4m between neighbouring houses at that upper level. This increases privacy and natural light to both houses and decreases overshadowing. This control does not apply to compact lots
- Houses along the southern feeder road are to have a minimum setback of 15m from the feeder/ property boundary
- For corner lot homes:
    - Address both street frontages.
    - On the secondary street frontage, set back the house at least 3 metres from the boundary for a maximum length of 9m otherwise a 4m setback applies.
    - Setback the front facade at least 2m from any point on the splayed corner boundary.

Note: minimum setback requirements may be reduced for alterations and additions to buildings that were originally built or approved prior to the adoption of this plan.

Articulation zone

Where a dwelling has a front setback of 3m or greater an “articulation zone” shall be deemed to exist. The articulation zone is a notional area projecting up to 2m forward of the building. The notional area is shown in Figure 23. Articulation Zone.

Controls:

- Articulation zones and setbacks are to be consistent with housing dwelling typologies in Appendix B
- Up to 40% of the articulation zone, when viewed from above, may include articulation elements. Articulation elements may include, for example, bay windows
- Awnings and other sun shading devices placed over windows are permitted in the articulation zone and are excluded from the 40% limit
- Verandahs, patios and landscape trellises are encouraged. Whilst they must not project forward of the articulation zone, there is no limit to the percentage which they occupy within the articulation zone.

Garages and carports

The DCP aims to create quality streetscapes by setting controls on garages on housing lots. Single garages are encouraged on narrower lots but innovative responses to the controls may be considered. Alternatives that retain a high level of passive surveillance and activated street frontages are more likely to be deemed acceptable than those that seek to divorce the public and private realms.

Controls:

- Garages and carports are to be setback in accordance with the building typology diagrams and the large lot setback table
- Garages and carports adjoining rear access lanes are to ensure safe vehicle manoeuvring can be achieved
- On corner lots garages facing secondary frontages are to be setback 5.5m and carports facing secondary frontages, where all sides are open and the roof form is a flat skillion are

Figure 24. Building Character: Compact Lots

Figure 25. Higher housing densities overlooking public open space

to be setback 2.0m and the uprights are to be coloured to match any secondary frontage fence

- The maximum width of any garage or carport facing a public street is 6.0m, providing the combined garage or carport width is no greater than 40% of the lot frontage
- Wider garages that are oriented side-on to the street may be considered only where the front wall is setback and designed to have a residential appearance
- Driveways must be no greater than 3m in width at the boundary line
- Driveways are to be positioned 1.0m from the side boundary to allow for driveway landscaping.

Porches and entries

These features should create a clear and visible entry area which provides shelter for those entering the house. On corner lots an entry should be on the long side of the lot to avoid a blank face to that street. These areas should form an integral part of the building.

Controls:

- Provide a covered entry to the home at least 1.5 m deep and clearly visible from the street
- On corner lots the main entry could be located on the secondary street frontage.

Outdoor living spaces:

Verandas, pergolas, balconies and terraces should provide usable external living areas for the home. They should be designed as to create a seamless link between indoor and outdoor living.

Verandahs and Balconies should be provided to all elevations that are exposed to western sun. These elements appear as an extension of the house and improve energy efficiency by shading windows. They should be made from durable materials such as timber and metal.

Balconies and terraces provide usable external living areas for the upper level of the home. These areas give additional opportunities for outlook to the street and garden, improving safety by encouraging passive surveillance.

Controls:

- Feature elements such as entries, verandahs and pergolas may extend beyond the front facade by a maximum of 1.5m.

Materiality and proportions:

Durability, detailing, appearance and diversity

Figure 26. Garage design example

Figure 27. Building Character: Compact Lot

Figures 28,29. Building Character: Traditional Compact / Medium and contemporary Standard Lot housing

Figure 30. Building Character: Medium Lot

should be considered when selecting materials to ensure a high quality appearance over time. Variety and individuality are important, and considered materials selection creates a harmonious balance on the facades of the house. Well-balanced proportions are also important for improving the appearance of the dwelling, helping to relate various elements such as doors, windows and entries. Well proportioned elements on the facade of the house significantly improve its aesthetic value.

Facades, Roofs and Roof Eaves:
Flat parapet roofs need to be considered within the overall streetscape and need to relate harmoniously with the neighbouring buildings. Importantly, low-pitched roofs behind a parapet need to successfully integrate with the side and rear elevations.
Roof eaves should provide shading and weather protection to windows and doors.

Controls:

- Eaves of at least 450mm (to the fascia) are required on all pitch roofs except where the roof portion is zero lotted. However, where practical, 600mm eaves should be considered to achieve an increased degree of shading to windows and for enhanced aesthetic appeal
- Where flat roofs are proposed, alternative shading devices are required
- Eaves are not mandatory on garages where they are located on the southern side of the main house
- Water tanks are not permitted on roofs.

5.2 Building typology, design and dwelling mix

The Shiralee Master Plan includes a wide mix of lot sizes which can accommodate semi-detached and freestanding dwellings. Compact lots, standard lots and larger lots meet a range of demographic demands, including singles, couples, families, older people and people with low and high incomes.

Controls:

- Shiralee building designs, lot typologies and dwelling mixes are to be consistent with the Master Plan and lot typologies in Appendix B.

5.3 Solar access

Well Planned homes provide a feeling of spaciousness, sunlight and privacy. Design should incorporate outlooks toward landscaped areas,

Figure 31. Building Character: Compact Lot

Figure 32. Compact Lot rear garden

Figures 33,34. Building Character: Standard Lots

provide opportunities for natural breezes to circulate throughout and avoid 'wasted spaces'.
Orient living areas to the north, facing landscaped areas where possible. Plan generously designed outdoor spaces. Ensure the sun can access internal and external living areas.

Provide generous ceiling heights to allow sufficient daylight.

The level of solar access that a neighbour may reasonably expect is based on a presumption of the likely scale of development on adjoining lands. This should not prohibit double storey development. Rather the overshadowing from any two storey (or more) development will be assessed against the likely overshadowing that would occur from a single storey dwelling occupying the same footprint and the overall size of the land involved. If the overall level of solar access fails the Orange DCP requirements then consideration will be given to the size of the lot in question.

Controls:

Subdivision

- To ensure that dwellings can be designed to provide reasonable solar access to neighbours, the width of east-west oriented compact lots must respond to the topography of the land such that:
    - Where the land is north facing (i.e. has a fall towards the north) the minimum width is 7.5m
    - Where the land is generally flat the minimum width of the lots is to be 10m
    - Where the land is south facing (i.e. has a fall towards the south) the minimum width is 12.5m
    - Where the land is east or west facing the minimum width of the lots is to be 10m

Housing

- To ensure that neighbouring properties receive a reasonable degree of solar access, designs on east-west oriented compact lots need to respond to the lot width and relative elevation of their site with that of neighbouring properties. In particular:
    - The pitch of roofs and orientation of gable ends is to minimise overshadowing of southern neighbours
    - Excessive ceiling heights that contribute to overshadowing are to be avoided
    - Wall lengths along southern boundaries are to be articulated where possible to introduce opportunities for additional solar access
    - Solar access to upper floor windows and balconies of southern neighbours is to meet minimum DCP requirements
    - Solar access to ground floors of southern neighbours that results from poor design is not permitted, however where all reasonable efforts to minimise the impact have been incorporated Council may grant a modest variation to the minimum DCP requirements.
- Sunscreens and awnings comprised of timber batterns or metal frames are encouraged. They shade and protect openings, particularly on the northern and western elevations
- Design for adequate levels of cross ventilation through the house, with windows positioned to draw breezes into the house
- Main living area to open onto private open space with glass doors to allow natural light in
- Compact lots with a north-south lot orientation may not have a lot frontage less than 10m.

5.4 Reflectivity

To ensure that development does not interfere with residential amenity and driver safety by preventing glare.

Controls:

- Exterior walls, roofs and trims of all buildings, including tanks, sheds, carports and other outbuildings are to be constructed of low reflectivity materials
- Zincalum is not to be used on any surface

Figures 35,36. Building Character: Larger Lots

visible from a road, public place or neighbouring property.

5.5 Privacy

Objective:

- To minimise the potential for privacy conflicts in the urban environment.
- All residents (neighbours and future occupants of proposed developments) should be afforded reasonable protection from overlooking of habitable rooms and primary outdoor entertainment spaces.

Controls:

- Where practicable upper floor windows of habitable rooms are to be aligned at intervals to the windows of habitable rooms in neighbouring properties
- Where a potential privacy conflict may exist upper floor habitable room windows are to be designed to restrict views below the horizontal This may be achieved by:
    - Raised window sill heights,
    - Use of attached fixed slats angled to deny views below the horizontal
    - Window boxes
    - Or any combination of the above.
- Frosted or obscure glazing is to be used for the windows of any upper floor bathroom, en suite, laundry or WC
- The primary private courtyard area should not be positioned immediately adjacent to a neighbouring primary private courtyard area, unless a solid masonry fence to 1.8m in height is provided between them
- Air-conditioning compressors and pool pumps are to be located so that noise measured at the property boundary does not exceed 5dB above ambient night-time background noise.

5.6 Universal Design

Thoughtful house design can minimise or even prevent the need for expensive modifications as the home owners age.

Controls:

- Direct and level access from the car parking space to the house
- Front door entrance with a minimum internal clearance width of 850mm
- Internal entry doorways with a minimum clearance of 820mm
- Internal entry level corridors with a minimum width of 1000mm
- Bedroom space (on ground/Entry Level) large enough for a queen size bed, wardrobe and circulation space (ie. 3.5 x 3.2m/3.0 x 3.7m)
- Window sills on the ground/entry level at a maximum height of 730mm above floor level (excluding bathroom and kitchen)

Figures 37,38,39. Setbacks, Landscaping and Fences

6.0 Private Domain Landscape

6.1 Landscape and Private Open Spaces

The design of private open space in combination with the streetscape is vital to the character of the neighbourhood. Attractive landscaped front gardens in combination with views of rear garden planting and street trees has the ability to define the street.

Controls:

- Lot landscaping is to be consistent with the lot typology diagrams in Appendix B and the controls within this Development Control Plan
- For Larger Lots landscaping is to include a range of planting types including trees which provide good shade and partial screening of development
- Existing trees are to be incorporated within lots. Dwelling configurations and ground levels should ensure existing tree health and longevity.
- In all cases private open space does not include any of the front setback
- Private open spaces are to be consistent with Lot Typology diagrams in Appendix B
- For larger and standard lots a usable area of at least 50% of the dwellings floor space is to be provided, with a minimum dimension of 6m
- For all lots at least one area of minimum dimensions of 5m by 5m directly accessible to a living area and orientated to achieve at least 3 hours of solar access between 9am and 3pm on the winter solstice
- Front and rear gardens must include at least 1 tree, installed at 75L pot size
- Bins should be concealed within a storage area so they are not visible from the street or an adjacent park.

6.2 Fences

Fencing provides a delineation between public and private realms and an essential privacy device between private properties. Fencing helps to establish defensible space and is also one of the most prominent elements in the urban environment and a major contributor to streetscapes.

Front fences are defined as the fence along the street frontage and that part of side boundaries that are forward of the building line.

Secondary frontage fencing relates to corner lots only and is defined as being that part of the longer street frontage directly between the front building alignment and rear building alignment.

Side and rear fencing relates to the side boundary between two lots behind the front building alignment, the rear boundary and that part of a secondary frontage behind the rear building alignment.

Controls:

- Front fencing (all fences forward of the building line) is to be a maximum of 1.2m in height and a minimum of 30% open
- Secondary frontage fencing is to be a maximum of 1.5m in height and the portion above 1.2m in height is to be 30% open
- Side and rear boundary fencing may be 1.8m in height
- Fences that are not visually permeable, such as colorbond, are not permitted on boundaries along open spaces or larger lots, or where visible from streets
- Demarcation of boundaries through the use of hedges and tree planting is encouraged
- Larger lots require open “rural style” fencing using post and rail, timber and wire, with visual permeability from ground up. Fences should not exceed 1.4m in height. Hedgerows and planting are encouraged along boundaries
- Where property boundary fencing is situated on a drainage easement it is to be designed with a ground clearance between the vertical supports of at least 300mm so that drainage is not hindered.

Note: Side and rear fencing between lots is subject to the Dividing Fences Act. That Act establishes the process for negotiating with neighbours in terms of reasonable standard of fencing required, cost sharing between neighbours and reasonable access to construct a dividing fence. The Dividing Fences Act does not confer any authority upon Council and disputes between neighbours are a civil matter outside of Council’s jurisdiction.

Figure 40. Passive and Active Open Space along Blackmans Swamp Creek

7.0 Public Domain

7.1 Passive and Active Recreation Network

Development of land adjoining public open space has a great influence on the usage of the public realm. Passive monitoring from dwellings into the public space actively discourages anti-social behaviour and provides a greater sense of safety and security to the area. In turn the active use of a public space helps to discourage crime and anti-social behaviour in the area, creating a cycle of positive reinforcement.

When properties are allowed to turn their back on adjoining parks it can have the opposite effect, reducing the feeling of safety, causing reduced patronage, which in turn creates a sense of abandonment and isolation. The space can then become a draw for anti-social behaviour, graffiti and vandalism.

Regional, District and Local Parks are defined within the NSW Department of Planning 'Recreation and Open Space Planning Guidelines for Local Government' with reference to catchment size and the facilities required to support that catchment. Planning of regional, district and local parks is undertaken on a city-wide basis, aiming for an equitable distribution of amenity and a manageable service level. The co-location of the district level park with Lysterfield Reserve will maximise maintenance benefits for the reserve from park management while leveraging open space amenity and recreation potential. In other locations the Master Plan has sought to incorporate and combine other functions, such as storm water management into the open space system where this does not compromise recreation outcomes.

Controls:

- Open spaces and streets facing open spaces must be provided according to the Masterplan
- Where a property adjoins a park or other public space that is not a street or road, any residential development of that property:
- Must provide at least two windows from habitable rooms to face the public space. The windows are to be a minimum 2.5m^2 in size
- May not place the side or rear walls of sheds and outbuildings any closer than 2.5m from the boundary with the public space
- Properties adjoining a public park or other public space are encouraged to include a pedestrian gate along the boundary.

7.2 Landscape

Where subdivision involves land that contains RE1 Public Recreation Zone land. The value of the RE1 land may be considered when calculating Developer Contributions.

Public open space in Shiralee is to be developed to encourage the community to use open space as much as possible. Play, recreation and alternative modes of transportation are key uses to be supported by the network, allowing for a range of types within these broad activity groups. The street network is seen as an extension of the open space network and will be developed to enhance connectivity between these spaces, homes, the village centre and other areas of the City.

A number of local play spaces have been identified within the open space network to ensure adequate play amenity for the children within Shiralee. These play spaces may be developed as a developer contribution.

Landscape planting is to be provided within the development to ensure quality visual amenity, provide habitat for fauna and to assist in management. Tree planting shall be in accordance with Section 7.4 Street Tree Strategy.

Landscape and Planting

Controls:

- Eco link streets are to have an understory planting layer of native species including shrubs, groundcovers and grasses of maximum mature height of 1.5m with planting plans to be submitted for approval by Council
- Streets with medians are to have an understory planting layer of species responding to the tree planting within the median, including shrubs, groundcovers and grasses of generally

Figures 41,42. Quality public domain accessible to everyone

maximum mature height of 1.5m and of 1m within 5m of an intersection

- Footpath verges within residential areas are to be planted with cool climate turf species, as approved by Council
- Footpath verges and tree planting zones within the village centre, may be planted with robust groundcover and grass species in keeping with a high quality street environment and as approved by Council
- A developer shall construct all footpaths, turf all verges and provide all road infrastructure planting prior to sale of building blocks
- Orange City Council will plant all street trees
- Maximum verge cross-fall from property boundary to kerb is to be 2%
- Longitudinal gradient of verge is to match the gradient of the adjacent kerb. Retaining walls are to be provided along property boundaries accordingly.

7.3 Scale of the Landscape

The Draft Shiralee Development Control Plan contains a hierarchy of public open spaces including the larger district park, hill top parks, linear reserves, and small, intimate local green spaces. The range in scale responds to the programs and locations of open spaces.

The district park “Lysterfield Reserve”, located next to the village centre, will have an important conservation role and at the eastern expanded end accommodate a grass kick-a-bout area, half basketball court, BBQ and picnic facilities and a paved court for community events.

A Council multi-purpose centre is proposed within the village centre. The building will provide essential active recreation activities for the community. The facility is located alongside the district reserve, which will help to make it more accessible.

The hilltop parks are located on topographic high points where views are best and the sense of connectedness to the surrounding landscape is strongest. The parks are primarily passive green spaces which may be used for seating, gathering and informal games. The parks provide a high level of amenity to adjacent housing.

A series of local parks, smaller in scale, are located within Shiralee. Local parks will provide places to sit, play and watch the world pass by. These smaller green spaces will be intimate, sometimes incidental, often informal and less programmed. Some will contain planted swales and wetlands.

Walking and cycling trails connect the green spaces and encourage a healthier, more social community.

The diversity in the scale of landscape within Shiralee will enrich the experience of living and visiting the place.

Figure 43. Public playground facilities

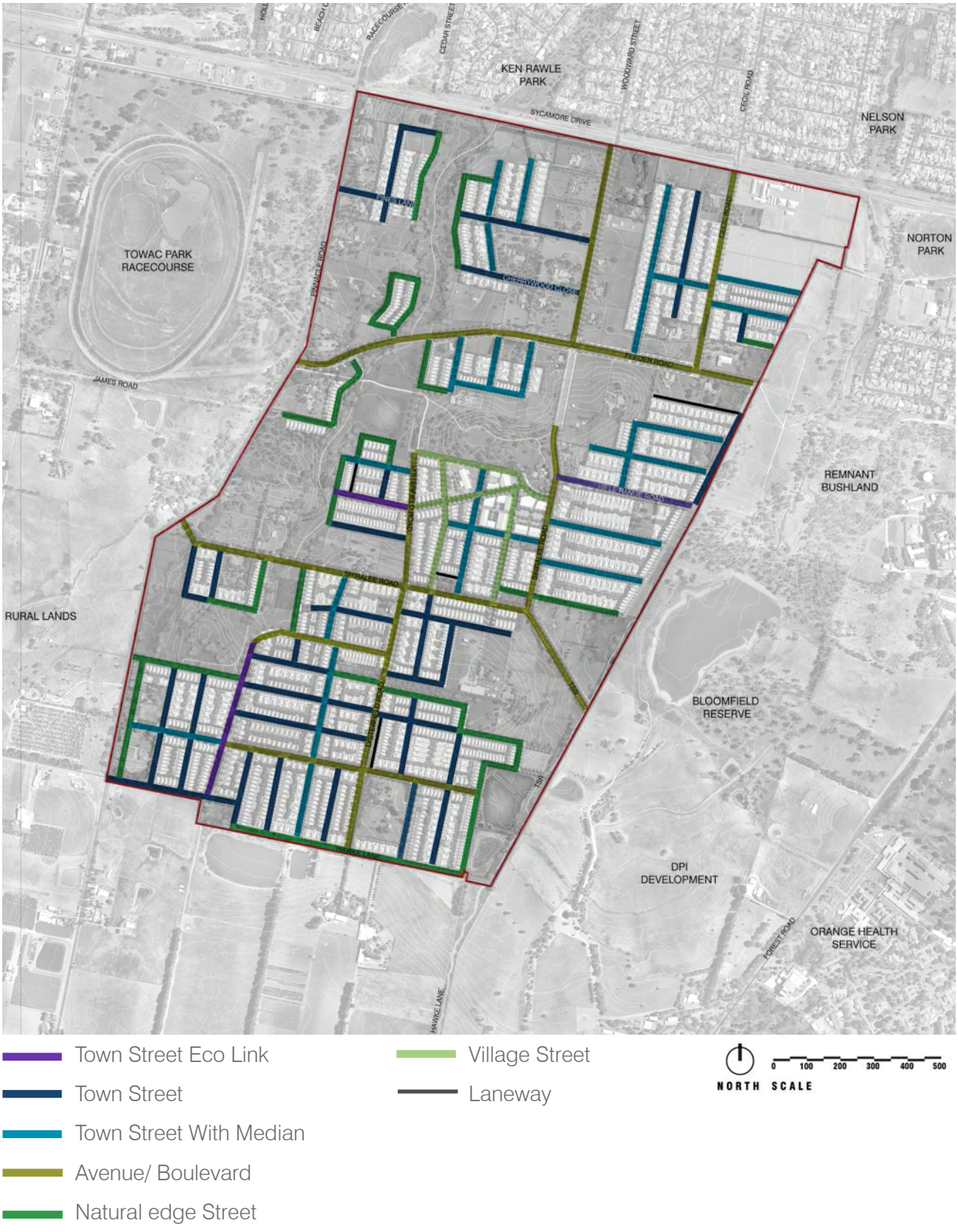


Figure 44. Street Tree Strategy and existing trees in public domain to be retained (see opposite page)

7.4 Street Tree Strategy

Street trees will be integral to the establishment of quality public domain, a recognisable character and positive environmental benefits within the Shiralee Precinct.

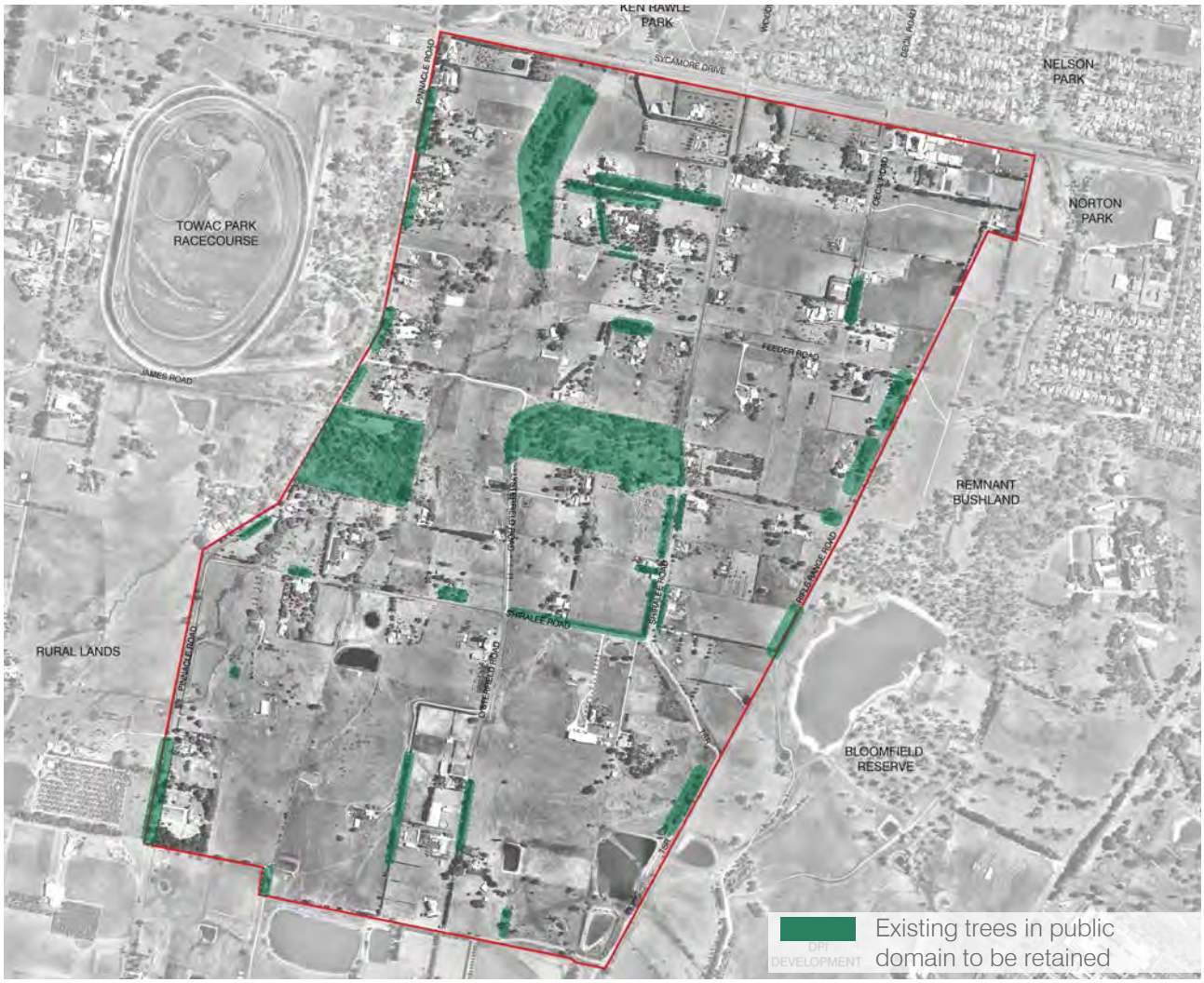
The provision of summer shade to footpaths encourage residents and visitors to walk for recreation and as a transportation alternative. Shade over streets and on building facades reduces heat build-up during summer months, while deciduous trees allow winter sun to warm surfaces when cold.

Establishment of linking native vegetation canopy between areas of remnant vegetation allows for the safe passage of avian species.

The Street Tree Strategy Diagram (Figure 44) and the Street Tree Species List (Table 1) are designed to ensure appropriate tree planting for each street typology to best meet requirements for the public domain, character and environmental ideals.

Controls:

- A minimum of one tree per lot for compact lots, two street trees for standard lots and three trees for larger lots, at even spacings along the street
- Street tree plantings are to be consistent with the Street Tree Strategy Diagram, Species List and Planting Detail and as approved by Council
- Residential street verges are to be turfed with Council approved species except where Council requires groundcover planting.



Tree Species Name Botanical Name, Common Name	Use Location			
	Town Street Eco Link	Town Street	Town Street with Median	Avenue/ Boulevard
Acer buergerianum, Trident Maple		x	x	
Acer palmatum, Japanese Maple		x	x	
Acer platanoides 'Crimson King', Purple Norway Maple		x		
Acer platanoides 'Crimson Sentry', Upright Purple Norway Maple		x		
Acer platanoides, Norway Maple		x	x	x
Acer rubrum, Red Maple		x		
Acer saccharinum, Silver Maple		x	x	
Acer x freemanii, Autumn Blaze Maple		x	x	x
Aesculus hippocastanum, Horse Chestnut		x	x	x
Albizia julibrissin, Persian Silk Tree		x		
Betula nigra 'Dura Heat', River Birch		x		
Callistemon viminalis, Weeping Bottlebrush		x		
Cercis canadensis, Forest Pansy		x	x	
Eucalyptus bridgesiana, Apple Box	x	x		x
Eucalyptus viminalis, Ribbon Gum	x	x		x
Fraxinus americana, White Ash		x	x	
Fraxinus excelsior ‘Aurea’, Golden Ash		x	x	
Fraxinus x 'Raywoodii', Claret Ash		x	x	x
Koelreuteria paniculata, Golden Rain Tree		x	x	
Lagerstroemia indica, Crepe Myrtle		x		
Liquidambar styraciflua, Liquidambar		x	x	x
Liriodendron tulipifera, Tulip Tree		x	x	x
Livistonia australis		x	x	
Malus tschonoskii, Pillar Crabapple		x		
Melaleuca linariifolia, Snow in Summer		x		
Parrotia persica, Persian Ironwood Tree		x		
Pistacia chinensis, Chinese Pistachio		x	x	
Platanus orientalis, Oriental Plane Tree			x	x
Platanus x hybrida, London Plane			x	x
Populus simonii, Simon's Poplar				x
Prunus cerasifera ‘Nigra’, Purple Leaf Plum		x		
Prunus cerasifera 'Oakville Crimson Spire', Ornamental Plum		x		
Prunus persica, Peach		x		
Pyrus calleryana, Callery Pear		x		
Pyrus calleryana 'Capital', Capital Callery Pear		x		
Pyrus ussuriensis, Manchurian Pear		x		
Quercus coccinea, Scarlet Oak		x	x	x
Quercus palustris, Pin Oak		x	x	x
Quercus robur 'Fastigiata', Cypress Oak		x	x	
Tilia cordata, Small Leafed Lime		x		
Tilia x europaea, Lime Tree			x	x
Ulmus glabra 'Lutescens', Golden Elm		x	x	x
Ulmus glabra, Scotch Elm		x		
Ulmus parvifolia, Chinese Weeping Elm		x	x	x
Ulmus procera, English Elm		x	x	x
Washingtonia robusta, Fan Palm		x	x	
Zelkova serrata, Japanese Zelkova		x	x	

Table 1. Street Tree Species List

Natural Edge Street	Village Street	Laneway	Tree Characteristics		
			Size	Height x Crown Estimate (m)	Form
x	x		Small	6 x 6	Small dome
x	x	x	Small	8 x 3	Globe
			Large	15 x 7	Globe
		x	Small	7 x 4	Broadly columnar
	x		Large	15 x 8	Broad rounded
			Medium	12 x 9	Medium dome
	x		Medium	12 x 7	Upright vase
	x		Medium	12 x 9	Orval to rounded
			Large	25 x 12	Oval round
			Small	4 x 4	Broad vase
			Medium	10 x 6	Pyramidal
x		x	Small	6x4	Narrow oval
x	x		Small	7x7	Broad dome
			Medium	12x12	Broad dome
			Large	30x15	Narrow oval
	x		Medium	11 x 8	Medium Oval
	x		Small	7 x 7	Globe
	x		Medium	12 x 9	Oval to rounded
	x		Medium	10 x 10	Broad dome
x		x	Small	6 x 3	Upright vase
			Large	15 x 7	Broad dome
			Large	25 x 10	Broad oval
	x	x	Small	20x3	Palm
x		x	Small	7 x 4	Narrow oval to pyramidal
x		x	Small	7x4	Narrow oval
x			Medium	10 x 3	Small Dome
x	x	x	Small	8 x 6	Rounded
			Large	15 x 10	Rounded
			Large	20 x 20	Pyramidal
			Large	15 x 5	Upright narrow
x			Small	4 x 4	Rounded
x		x	Small	6 x 2	Fastigate
			Small	4 x 4	Oval dome
			Medium	11 x 8	Pyramidal
			Medium	11 x 3	Columnar to strongly upright
			Medium	9 x 7	Rounded
			Large	17 x 12	Round crown
			Large	15x12	Pyramidal
	x		Large	15 x 4	Round columnar
			Medium	12 x 8	Medium dome
	x		Large	35 x 15	Broad dome
	x		Medium	10 x 12	Broad dome
			Large	30 x 25	Large dome
			Medium	10 x 11	Broad Dome
			Large	14 x 11	Rounded
	x	x	Small	20x3	Palm
	x		Medium	14 x 12	Vase

Character	Species		Spacing
	Botanic name	Common name	mm
Grass			
	Bothriochloa macra	Red-leg Grass	300
	Carex inversa		600
	Dianella revoluta	Flax-Lily	300
	Lomandra longifolia 'Tanika'	Tanika Lomandra	500
	Lomandra multiflora		500
	Poa labillardieri	Tussock Grass	500
	Poa sieberiana	Snow Grass	500
	Themeda australis	Kangaroo Grass	250
Groundcover			800
	Dichondra repens	Kidney Weed	500
	Grevillea Bronze Rambler	Prostrate Grevillea	300
	Hardenbergia violacea	Native Sarsaparilla	800
	Wahlenbergia sp.	Native Bluebell	800
Shrubs			
	Acacia rubida	Wattle	500
	Banksia integrifolia	Coast Banksia	2m
	Banksia marginata	Silver Banksia	800
	Corria reflexa 'Dusky Bells'	Dusky Bells Corria	500
	Thryptomene sp.	Thryptomene	600
	Philotheca myoporoides 'Flower Girl'	Native Wax Flower	600
	Prostanthera ovalifolia	Mint Bush	600
	Westringia fruiticosa	Coastal Rosemary	800

Table 2. Median Understory Species List

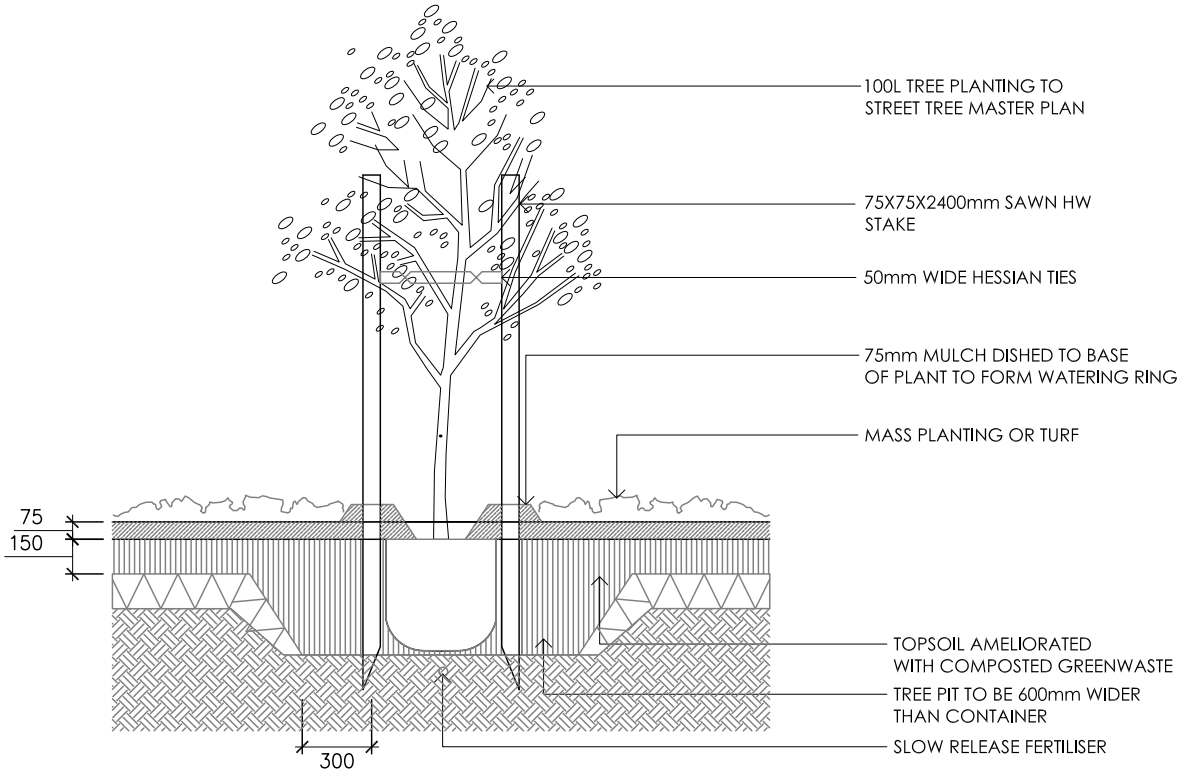


Figure 45. Orange City Council Tree Planting Detail

Tree Species Name Botanical Name, Common Name	Tree Characteristics Size	Height x Crown Estimate (m)	Form
Acer buergerianum, Trident Maple	Small	6 x 6	Small dome
Acer palmatum, Japanese Maple	Small	8 x 3	Globe
Acer platanoides 'Crimson King', Purple Norway Maple	Large	15 x 7	Globe
Acer platanoides 'Crimson Sentry', Upright Purple Norway Maple	Small	7 x 4	Broadly columnar
Acer platanoides, Norway Maple	Large	15 x 8	Broad rounded
Acer rubrum, Red Maple	Medium	12 x 9	Medium dome
Acer saccharinum, Silver Maple	Medium	12 x 7	Upright vase
Acer x freemanii, Autumn Blaze Maple	Medium	12 x 9	Orval to rounded
Aesculus hippocastanum, Horse Chestnut	Large	25 x 12	Oval round
Albizia julibrissin, Persian Silk Tree	Small	4 x 4	Broad vase
Betula nigra 'Dura Heat', River Birch	Medium	10 x 6	Pyramidal
Callistemon viminalis, Weeping Bottlebrush	Small	6x4	Narrow oval
Cercis canadensis, Forest Pansy	Small	7x7	Broad dome
Eucalyptus bridgesiana, Apple Box	Medium	12x12	Broad dome
Eucalyptus viminalis, Ribbon Gum	Large	30x15	Narrow oval
Fraxinus americana, White Ash	Medium	11 x 8	Medium Oval
Fraxinus excelsior ‘Aurea’, Golden Ash	Small	7 x 7	Globe
Fraxinus x 'Raywoodii', Claret Ash	Medium	12 x 9	Oval to rounded
Koelreuteria paniculata, Golden Rain Tree	Medium	10 x 10	Broad dome
Lagerstroemia indica, Crepe Myrtle	Small	6 x 3	Upright vase
Liquidambar styraciflua, Liquidambar	Large	15 x 7	Broad dome
Liriodendron tulipifera, Tulip Tree	Large	25 x 10	Broad oval
Malus tschonoskii, Pillar Crabapple	Small	7 x 4	Narrow oval to pyramidal
Melaleuca linariifolia, Snow in Summer	Small	7x4	Narrow oval
Parrotia persica, Persian Ironwood Tree	Medium	10 x 3	Small Dome
Pistacia chinensis, Chinese Pistachio	Small	8 x 6	Rounded
Platanus orientalis, Oriental Plane Tree	Large	15 x 10	Rounded
Platanus x hybrida, London Plane	Large	20 x 20	Pyramidal
Populus simonii, Simon's Poplar	Large	15 x 5	Upright narrow
Prunus cerasifera ‘Nigra’, Purple Leaf Plum	Small	4 x 4	Rounded
Prunus cerasifera 'Oakville Crimson Spire', Ornamental Plum	Small	6 x 2	Fastigate
Prunus persica, Peach	Small	4 x 4	Oval dome
Pyrus calleryana, Callery Pear	Medium	11 x 8	Pyramidal
Pyrus calleryana 'Capital', Capital Callery Pear	Medium	11 x 3	Columnar to strongly upright
Pyrus ussuriensis, Manchurian Pear	Medium	9 x 7	Rounded
Quercus coccinea, Scarlet Oak	Large	17 x 12	Round crown
Quercus palustris, Pin Oak	Large	15x12	Pyramidal
Quercus robur 'Fastigiata', Cypress Oak	Large	15 x 4	Round columnar
Sapium sebiferum, Chinese Tallow Tree	Small	8 x 8	Round crown

Table 3. Suitable Trees for small and medium sized yards

Figures 46,47,48. Using Water Sensitive Urban Design to improve amenity

8.0 Environmental Management

8.1 Ecologically Sustainable Development

Orange Council values the embedding of ecologically sustainable development (ESD) principles into all aspects of the Shiralee development. Implementing the principles of ESD means that the development will be designed and constructed so that it complies with the following objectives:

Greenhouse gas emissions will be reduced and low carbon and renewable energy use will be increased.

Waste will be reduced and recycling of waste and use of products from recycled sources will be increased.

Potable water use will be reduced.

The environmental impact from building materials will be reduced through reduction, re-use and recycling of materials, resources and building components.

Indoor environmental quality will be improved.

The biodiversity will be improved.

Controls:

- Maximize the energy efficiency of house designs by:
    - predominantly orientating roofs to allow for efficient use of solar collectors
    - providing opportunities for natural cross ventilation through building design and orientation, reducing the need for mechanical cooling
    - encourage the collection of rainwater and re-use of grey water irrigating gardens.

- Design houses that positively contribute to community friendly streetscapes by:
    - ensuring garages do not dominate the streetscape by locating them at least 900mm behind the main building line and limiting their width to no more than 40% of the building frontage
    - creating a storey component over garages on narrow lots where the garage width may exceed 50% of the lot width
    - locating garages on the low side of lots or if on flat land, locating them on the southern side of the lot if possible
    - locating garages off secondary frontages for corner lots
    - providing street activation to laneways by periodically locating garages with granny flats/studios over.

- Articulate the building form to provide interest and respond to the lot location by:
    - designing houses using a range of architectural elements that respond to the internal plan and provide environmental benefits. Elements may include external sun shading, verandahs and windows of varying sizes and should be integrated in the design of the whole house rather than just the front facade
    - designing corner lots or lots with a secondary frontage on open space to address both primary and secondary frontages.

- Design houses using a range of high quality materials that:
    - provide compositional variety and respond to the site's rural setting and architectural vernacular
    - have insulating properties to provide thermal comfort, reducing the need for mechanical heating and cooling
    - provide appropriate acoustic insulation, this is particularly important in dense neighbourhoods where buildings are attached or closely situated
    - have low embodied energy.

- Design houses which have high internal amenity making them enjoyable to live in by:
    - considering the spatial quality of each room both individually and as a sequence of spaces. The size and scale of spaces, the height of ceilings and the quality of light all contribute to spatial quality.

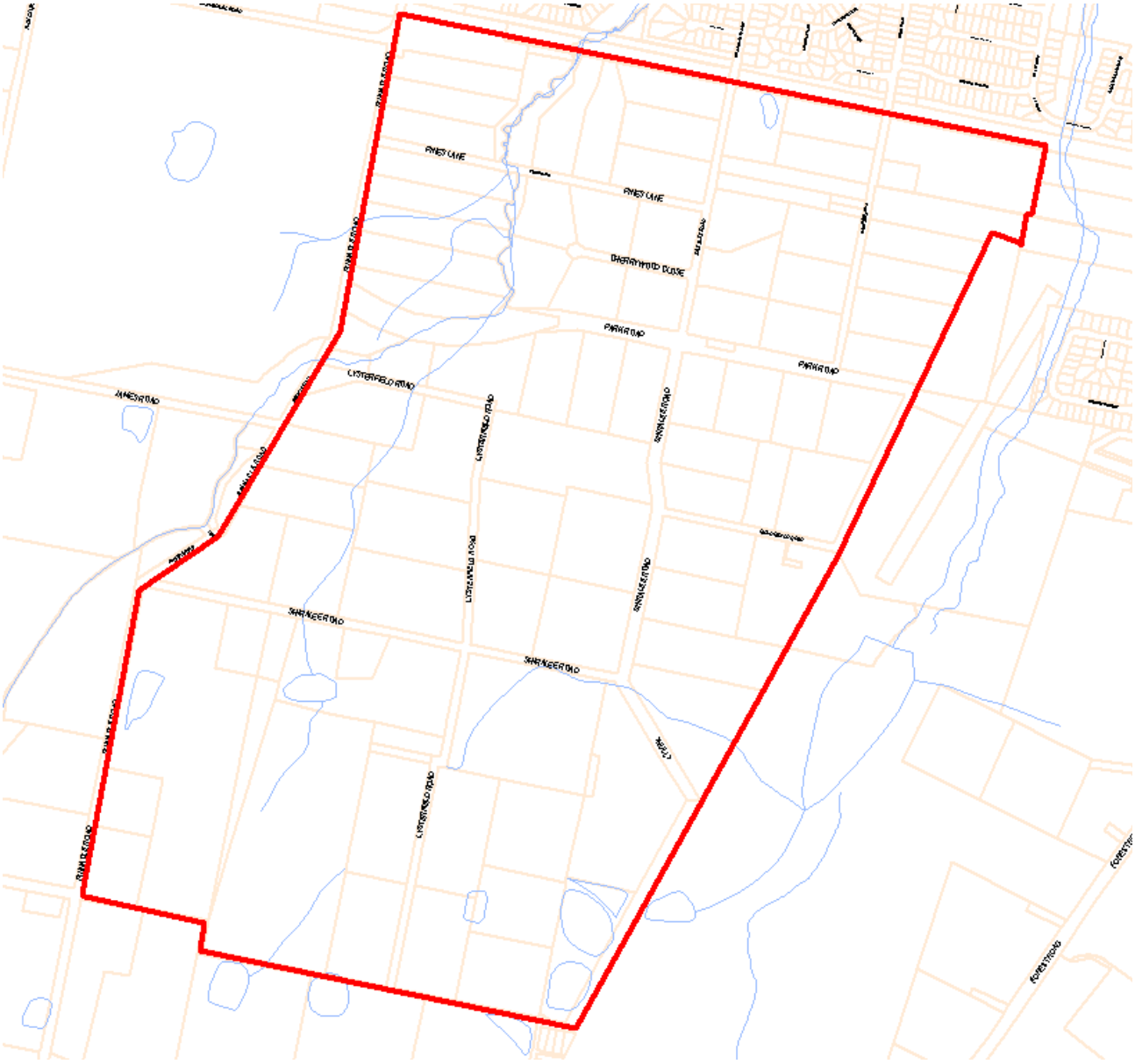


Figure 49. Existing Watercourses

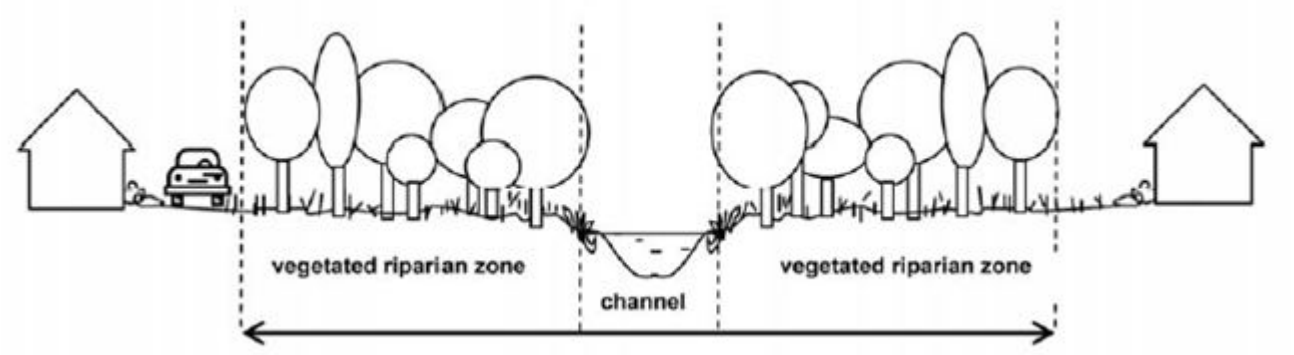


Figure 50. Riparian Corridor

8.2 Stream Classification

The blue lines on Figure 49 indicate watercourses that are officially recognised by NSW Office of Water (NOW). NOW uses the Strahler ordering method of classifying the significance of a stream. This is described in Figure 51 and text below.

Numbering begins at the top of a catchment with headwater ('new') flow paths being assigned the number 1. Where two flow paths of first order join, the section downstream of the junction is referred to as a second order stream. Where two second order streams join, the waterway downstream of the junction is referred to as a third order stream, and so on. Where a lower order stream (e.g. first order) joins a higher order stream (e.g. third order), the area downstream of the junction will retain the higher number (i.e. it will remain a third order stream).

NOW have produced guidelines for riparian corridors on waterfront land. Riparian corridors are to provide a transition zone between the land and the river or watercourse as shown in Figure 50.

The width of the vegetated riparian zone (VRZ) on each side of the channel is proportional to the stream order. Generally speaking the VRZ needs to be 10m on each side of the channel for a 1st order stream, 20m on each side for a 2nd order stream, 30m on each side for a 3rd order stream and 40m on each side for a 4th or greater order stream.

Development within these VRZ's may be classed as integrated development requiring a controlled activity approval under the Water Management Act and will be referred to NOW for assessment. Integrated development requires an additional fee for the referral and is subject to a 21 day referral period.

Generally speaking to be considered a watercourse the "stream" needs to have a defined channel rather than just being an area of overland flow. NOW have acknowledged that some of the topographic mapping showing 1st order streams in NSW may not be entirely accurate. If an applicant wants to contest a 1st order stream (according to the Strahler system) on a topographic map, they will need to supply NOW with evidence and request that they make a determination.

This may involve a NOW staff member inspecting the site or the applicant providing detailed supplementary information, such as on-site photos. NOW will determine if the watercourse will be considered a 1st order stream for the purposes of a controlled activity approval under the WM Act. Where NOW provide an exemption to the WM Act requirements written confirmation of the exemption is to be included in the Development Application to Council.

More details on the NOW guidelines and requirements can be found by searching the NOW website www.water.nsw.gov.au

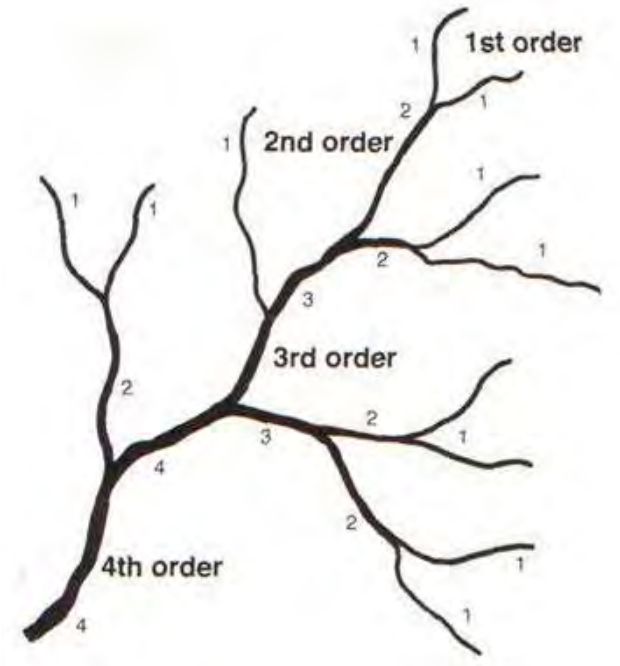


Figure 51. Strahler ordering method of classifying stream significance

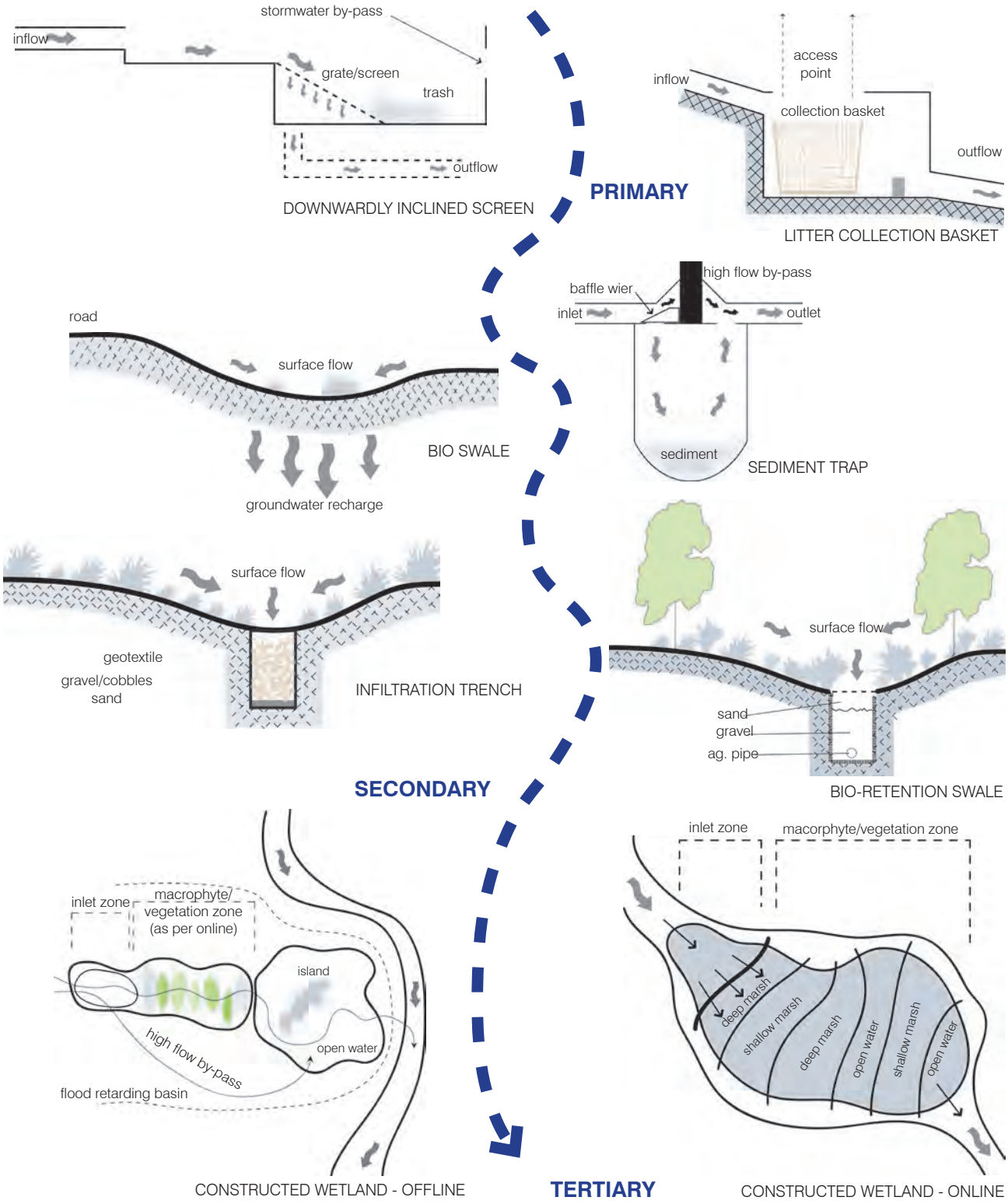


Figure 52. Stages of storm water treatment

8.3 Stormwater and Water Sensitive Urban Design (WSUD)

The Shiralee Structure Plan promotes current 'best practice' Water Sensitive Urban Design (WSUD) principles. WSUD will augment a traditional pit and pipe system. A series of north south streets, linear open spaces and public open spaces will facilitate WSUD and water detention.

The main focus of WSUD treatment at Shiralee will be the protection of natural systems, the integration of storm water treatment into the landscape, the protection of water quality, and the reduction of runoff and peak flows. In order to meet the objectives of all of these goals, the treatment process is broken down into three main categories – primary, secondary, and tertiary, refer Figure 50. Stages of storm water treatment. Treatment will be most effective when the primary, secondary, and tertiary systems are used in conjunction.

Controls:

- A comprehensive site-wide WSUD strategy is implemented for Shiralee
- Streets and public spaces incorporate best practice WSUD elements including swales, rain gardens and detention/ retention basins.
- WSUD elements are to incorporate native planting.

8.3 Environmental Hazards

Controls:

- Bushfire, flooding and other environmental hazards are to be assessed for each development site to ensure safety and compliance with all relevant codes, regulations and laws.

Figure 53. WSUD Street

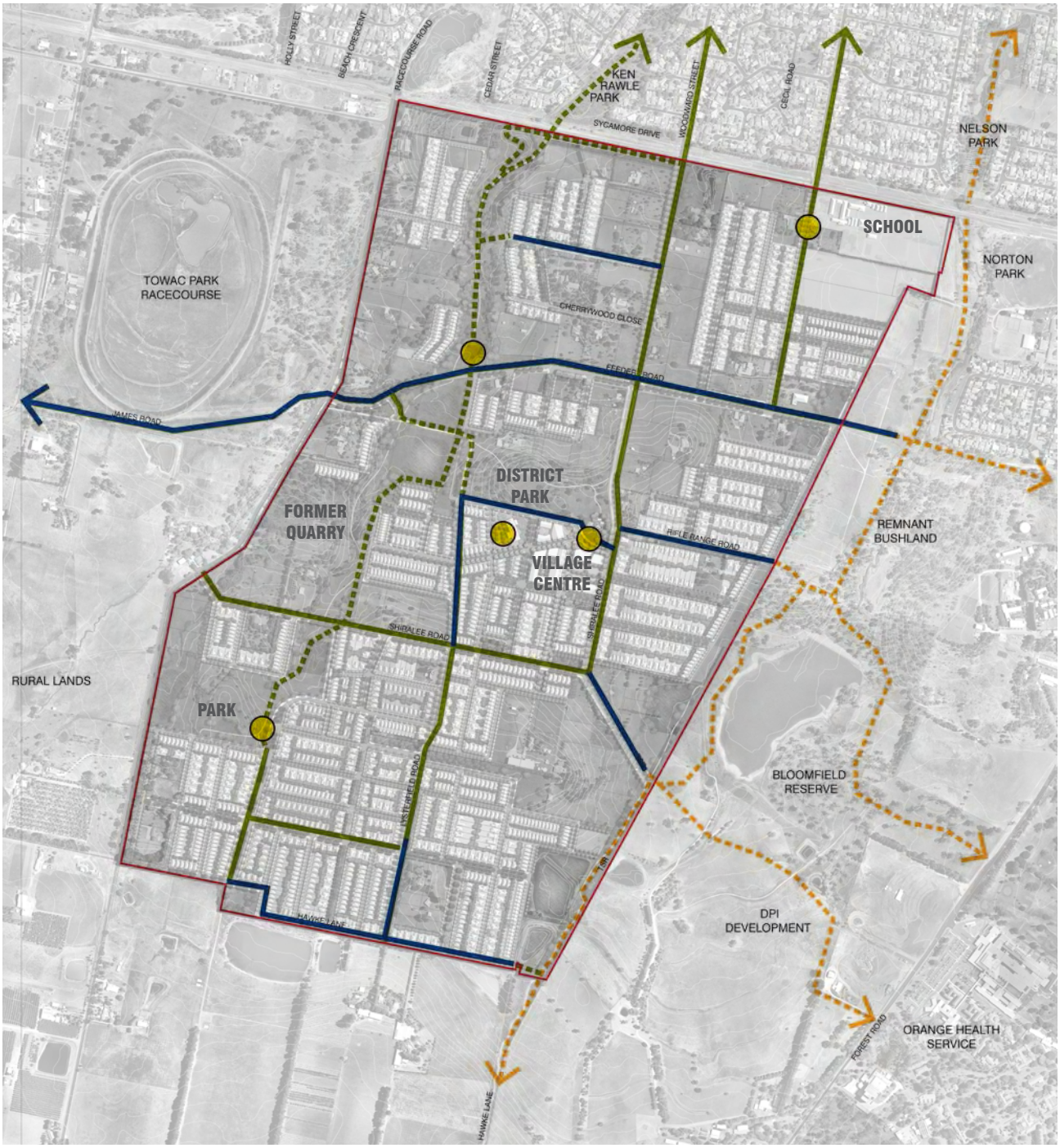


Figure 54. Cycle Network

9.0 Movement Networks

9.1 Transport Movement Hierarchy

The transport hierarchy within the Precinct favours alternative modes (cycling and walking) of transport first, then public transport routes, then private transport. Notwithstanding this, the future Southern Feeder Road is located within the precinct and plays a significant role for the broader community. Accordingly, the safe and effective operation of the Southern Feeder Road must be maintained.

9.2 Pedestrian and Bicycle Network and associated facilities

Cycling is an essential transport mode that encourages healthy living, social interaction and a more environmentally responsible alternative to cars.

A connected commuter and recreation bicycle network is embedded within the Shiralee Masterplan, as described in Figure 54. Cycle Network.

Controls:

- A cycle network is to be implemented in accordance with Figure 54. Cycle Network and be designed in accordance with Austroads Standards and RMS Guidelines
- Footpaths to be provided on both sides of the street consistent with the street sections in Appendix C
- Safe road crossings (e.g. marked crossings) are to be provided according to 9.4 Street Network Access Controls. Also refer indicative intersection treatments, Figures 64 and 65
- Universal access to be provided throughout the precinct in accordance to AS.1428.1
- On-road cycle routes are to be clearly line marked and sign posted
- Any development that is assessed as requiring an on-site parking area or at least 5 spaces shall also be required to provide bicycle parking
- Bicycle parking is to be provided at the ratio of 1 bicycle space per 15 car parking spaces (or part thereof)
- All bicycle spaces are to be provided with a fixed rack or other feature to facilitate chain locking the bicycle
- Bicycle spaces are to be positioned so as to avoid conflict with car and service vehicle circulation
- Bicycle spaces are to be clearly delineated from other parking areas by means of lane marking and/or signage.

Figures 55,56. Cycleways and Facilities

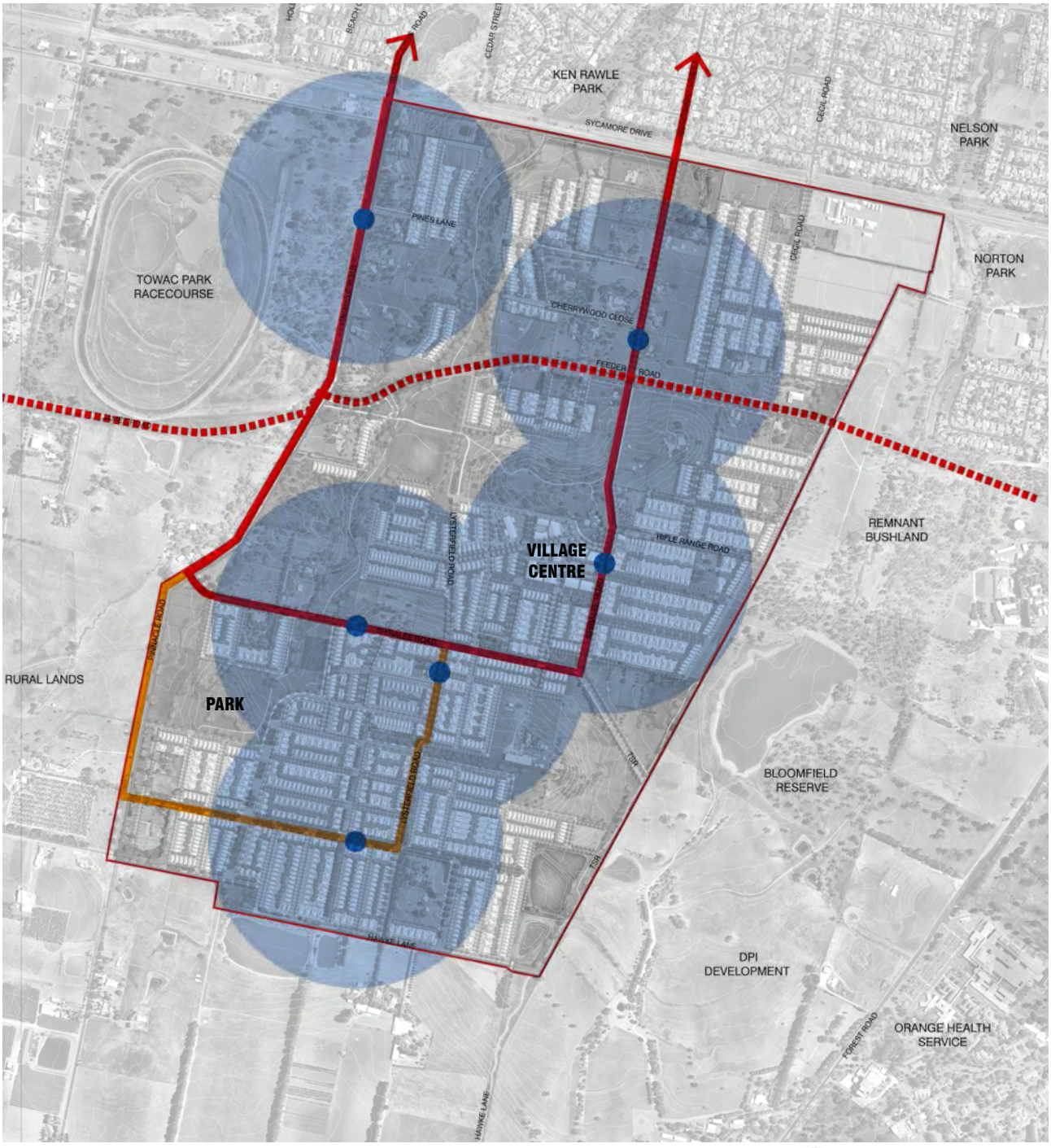


Figure 57. Bus Network

9.3 Public Transport Network

Providing a range of public transport options within Shiralee is considered an essential catalyst for growth of the township and population, as well as an effective means of connecting the Orange town centre with the new Mixed Use Village Centre. The gridded street network is well suited to the design of an efficient, accessible public transport network.

Controls:

- Bus routes and stops are to be positioned in accordance with Figure 57. Bus Network
- All bus stops must have a shelter that includes:
    - seating with arm rests and
    - lighting
- Bus shelters are to be positioned on either side of the street at all stops indicated on Figure 57. Bus Network
- Pedestrian crossings must be provided within 30m of all stops
- Continuous accessible paving must be provided from the shelter to pedestrian crossing.

Figures 58,59. Public Transport Facilities

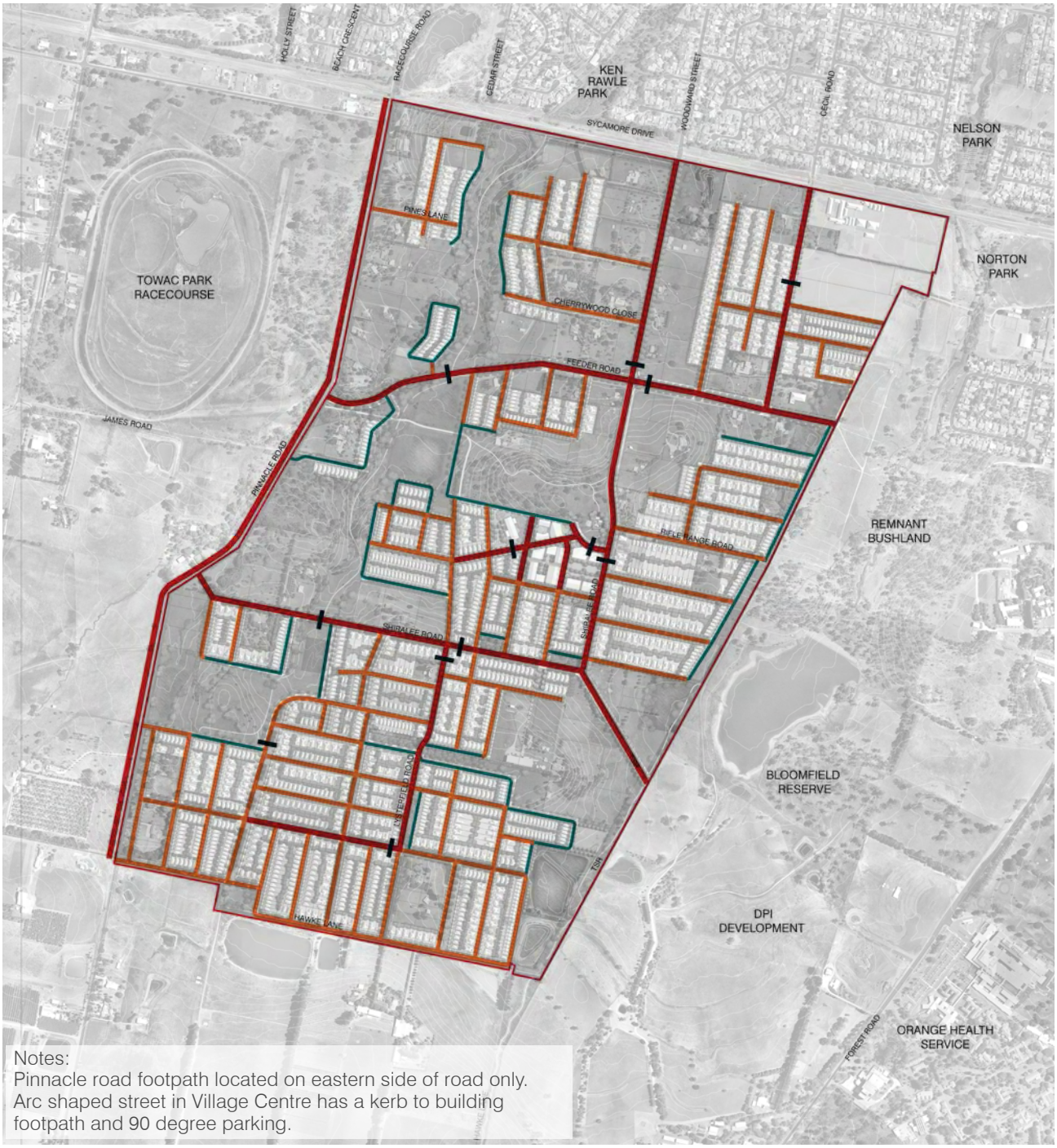


Figure 60. Footpath Network

Figure 61. Trees will play a vital role within Shiralee's public domain

Figures 62,63. Footpaths on both sides of the street encourage a healthy community

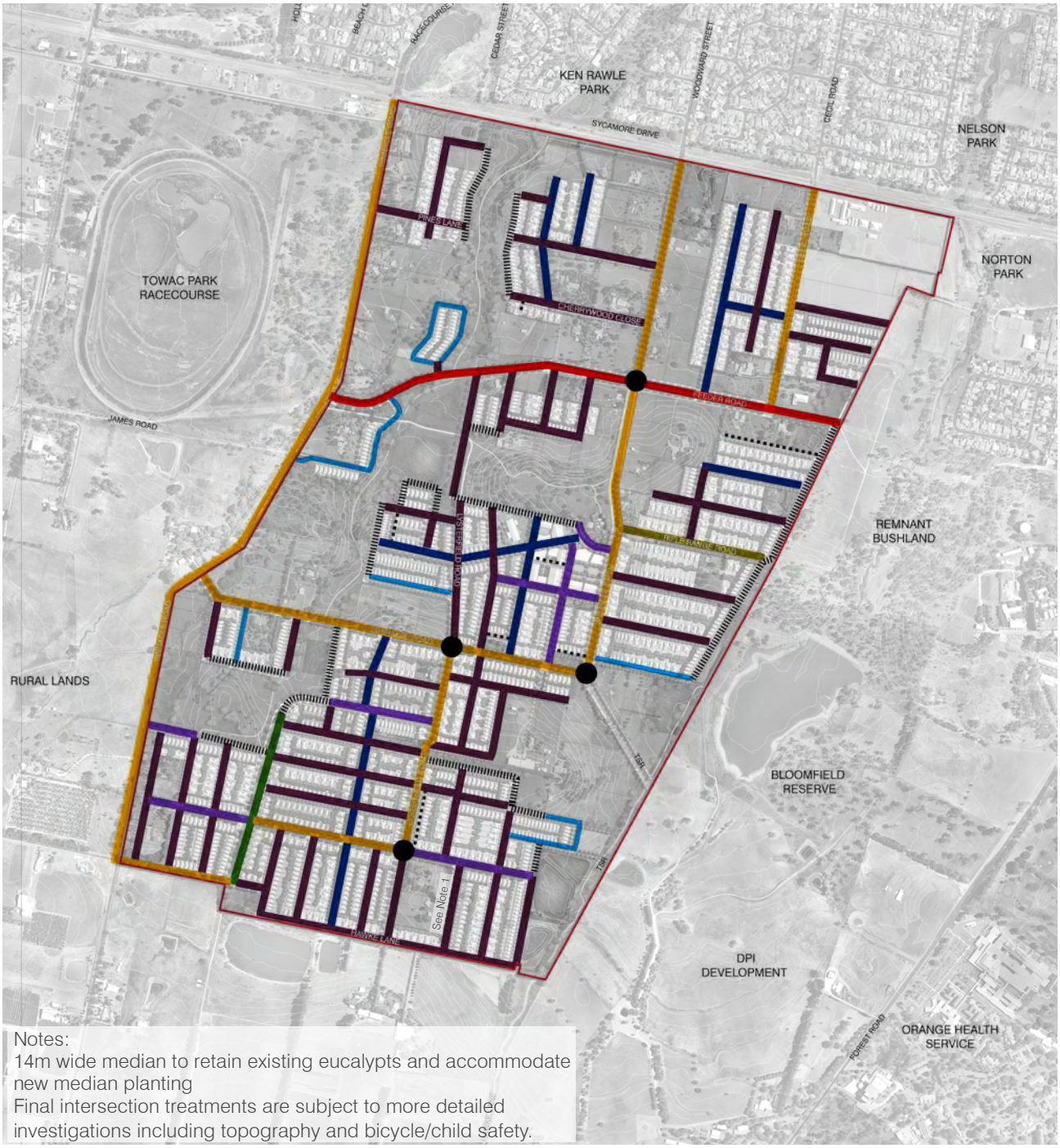


Figure 64. Street Hierarchy

9.4 Street Network and Access

The layout of the street network has a substantial affect upon the orderly functioning and development of the Precinct. The network layout seeks to encourage alternative transport modes, such as cycling and walking as well as influencing the efficient movement of traffic.

The network incorporates a clear street hierarchy, which is described in Figure 64. Street Hierarchy and the Street Sections in Appendix C, it is designed to efficiently manage traffic loads, however the network is intended to be as permeable as possible to encourage quick dispersal of traffic throughout the development area. Establishing streets with a human scale and encouraging use by pedestrians and cyclists will be key factors in reducing traffic speeds. Key documents for use when planning new streets are:

- Landcom, 'Street Design Guidelines' (2008)
- Western Australian Planning Commission's 'Liveable Neighbourhoods' (2009), in particular, Element 2: Movement Network
- Austroads 'Guide to Road Design' latest editions

The network has been designed to integrate with the existing urban fabric of Orange and projected future developments on the DPI lands.

The network has also been designed to reduce the potential for one landowner to stymie the development potential of others. This is achieved by aligning "two stage" roads along existing property boundaries. In such cases the first landowner to develop shall be required to provide a stage one road design which includes a median buffer strip. The road may be operated as a one-way lane, becoming a dual direction road only when the second landowner develops.

Controls:

- Other than where specified in the Masterplan there are to be no cul-de-sacs or no-thru roads
- Where new roads are aligned along existing property boundaries the first property to develop is to include stage one of the shared road including any central median reserve
- All streets indicated on the Masterplan are to be designed and constructed in accordance with the relevant street typology diagram
- Intersections are to be designed to maximise ease of movement for pedestrians and cyclists and to slow vehicular traffic. Indicative intersection treatments for four way and 'T' intersections are shown in Figure 65 and 66. Indicative Intersection Treatments
- Traffic calming measures will be implemented in suitable locations to reduce vehicle speeds. Traffic calming measures include passive measures such as intersection narrowing, minimising width of road pavements, designation of slow speed streets and use of rumble strips at pedestrian crossing points and intersections
- The principles of water sensitive urban design are to be incorporated in the road network for any new streets
- Driveway crossovers are to be a maximum of 3m wide and are not to be constructed within 6m of an intersection. Crossover pavement is to match the adjacent footpath material
- Garages and carports on corner lots are to be accessed from the longer street frontage and the crossover is to be aligned adjacent to the boundary furthest from the intersection
- Marked Crossings, Refuge Islands and /or traffic signals are to be provided at street intersections on:
    - Collector Streets
    - the Southern Feeder Road, and
    - Intersections of the 'off road shared cycle and pedestrian path'.

Two stage roads

- On development of the first stage of a two stage road the design shall include a buffer strip alongside the neighbours existing boundary. This strip is to be created as a Torrens lot and vested with Council to ensure Council can maintain control over access arrangements.

On development of the second stage of a two stage road, Council will convert the buffer strip from a lot to

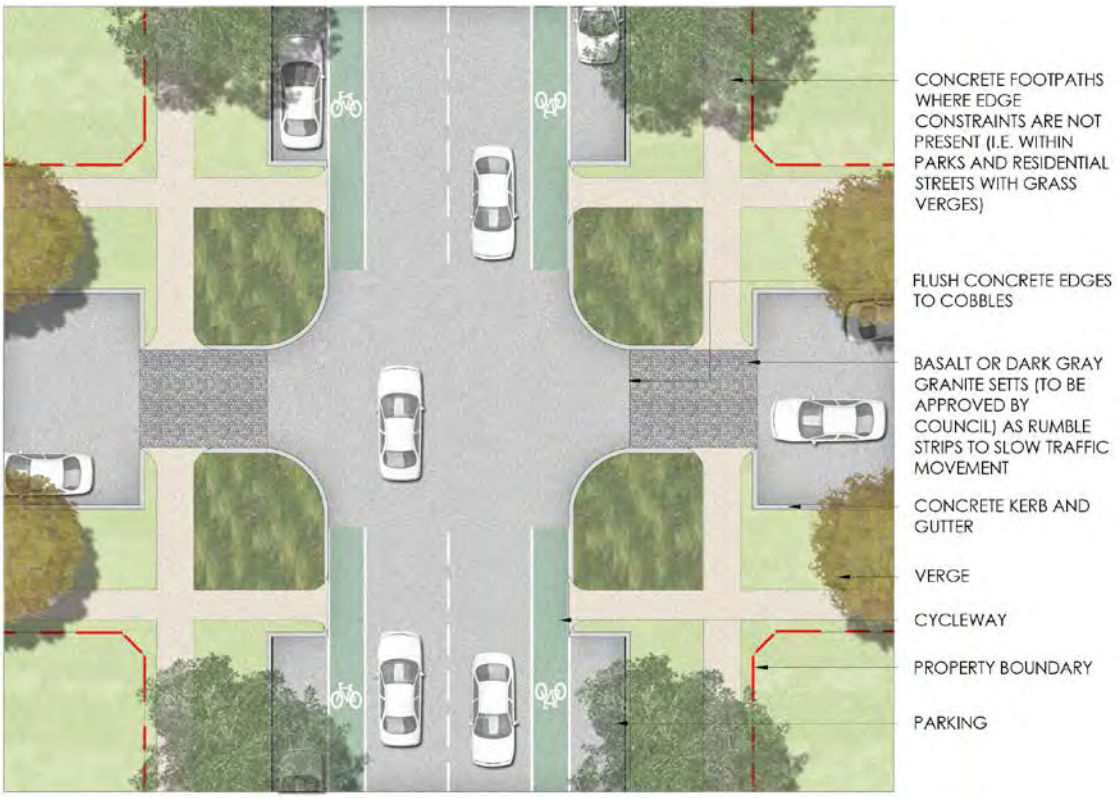


Figure 65. Typical Intersection Treatment

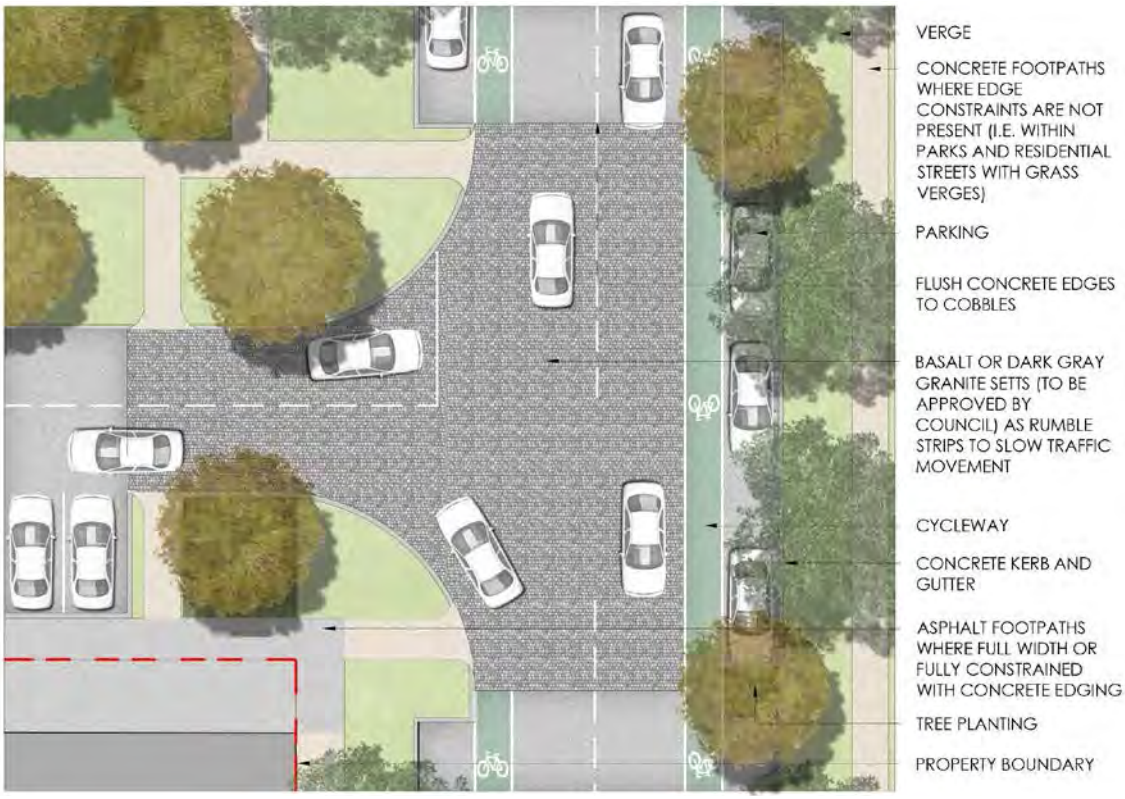


Figure 66. Typical Village Centre Intersection Treatment

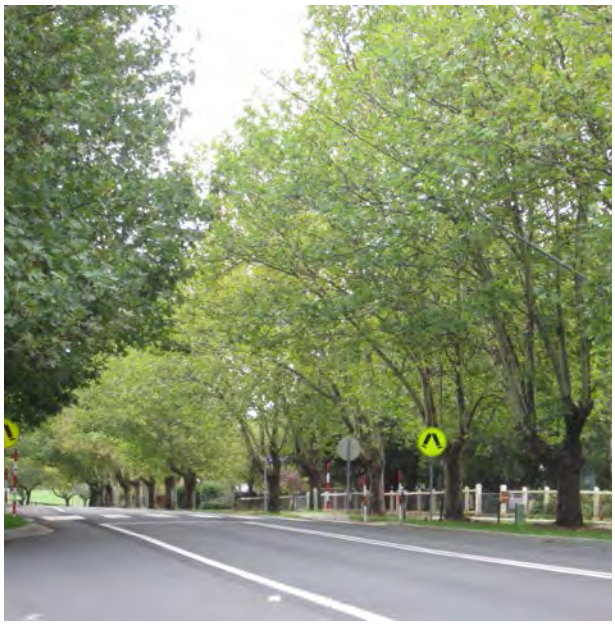
a road reserve to enable the construction of turning bays as part of the development.

Note: Final intersection design is subject to more detailed traffic analysis to be provided with each subdivision application. The traffic analysis is to outline anticipated traffic volumes for each intersection with a collector street or distributor road. Where analysis indicates a service class of B or below Council may require a redesign of the intersection. In the event that such a redesign requires land acquisition either for road widening or intersection treatment, such land as is required shall be provided by the developer with no cost to Council or the RMS.

9.5 Traffic Management

Controls:

- Key intersections shown on the management plan are to be designed to Council's requirements
- Intersections along nominated bus routes are to be designed to accommodate the turning arc of coach buses
- Marked crossings, refuge islands and/or traffic signals are to be provided at street intersections on: Collector streets, the Southern Feeder Road and intersections of the off road shared cycle and pedestrian path. This will improve pedestrian and bicycle safety
- All streets except for Collectors and the Southern Feeder Road are to have a maximum 40km per hour speed limit
- All street kerbs are to be upright not roll kerbs. Broken upright kerbs should be used where required for WSUD function.



Figures 67,68. Street Character through generous street planting

Figure 69. Landscape screening of service vehicle loading

Figures 70,71. Landscape incorporated within carpark designs to provide shade and amenity

10.0 Vehicle Parking and Servicing

10.1 Vehicle parking

On street car parking is encouraged. Refer to Street Typologies in Appendix C.

Controls:

- Driveway crossovers are to be a maximum of 3m wide and are not to be constructed within 6m of an intersection. Crossover pavement is to match the adjacent footpath material
- Garages and carports on corner lots are to be accessed from the longer street frontage and the crossover is to be aligned adjacent to the boundary furthest from the intersection.

10.2 Service vehicle loading spaces

Controls:

- All commercial development is to demonstrate adequate loading zone access for the largest vehicles likely to service the proposal
- The location of loading zones and spaces is not to detract from the public realm or streetscape and be located to the rear of the premises or via a service laneway
- All loading docks are to be screened from view from the street by planting.

10.3 Parking area design

Controls:

- On-site parking is to be located in consolidated parking areas at the rear of premises or as shown on the Masterplan
- Driveways for commercial car parks that are dual direction are to be clearly lane marked within the parking area and directional arrows are to be provided both internally and at the entrance / exit points
- One-way commercial driveways are to be clearly marked with directional arrows and “entrance only” or “exit only” signs at the property frontage
- The most convenient parking locations are to be assigned in order of preference to disabled parking requirements first and all other forms of parking second
- Bicycle parking locations are to be placed in high convenience locations, such as converting the nearest non-disabled car parking spaces
- Plant trees in carparks to provide evenly distributed shade across pavement areas at a rate of 1 tree per 7 car spaces
- Plant trees in carparks to provide evenly distributed shade across pavement areas
- Open tree pits are to be minimum area of $2m^2$, with a minimum dimension of 1m
- Tree planting is to be in accordance with Orange City Council Tree Planting Detail.

10.4 Vehicle access and interface with public domain

Controls:

- Commercial driveway crossovers (between the kerb and property boundary) are to be bordered with tactile pavers for the benefit and safety of visually impaired pedestrians.

Figure 72. Community Facilities within the Village Centre

Figures 73,74. Strong community interaction is a vital element in all desirable places

11.0 Social Sustainability

11.1 Public Facilities and Amenities

Controls:

- The Shiralee Masterplan includes generous areas of public open space in strategically important locations. The connected system of parks and green spaces vary in scale and function dependant on their location and adjacent land use. The open spaces will conserve the existing landscape character including native and non-native mature vegetation. Detailed designs for the green spaces will be undertaken most likely at Development Application stage.
- Temporary use of the site identified on the Masterplan for a community centre is to ensure that such development does not prejudice the ability of the site to be developed for a community centre
- The design of the community centre is subject to the same design requirements as commercial development forms in the B1 Neighbourhood Centre zone within the precinct.
- Public open space designs will include facilities that cater to all members of the community, including youth and elderly people, and respond to the unique Shiralee landscape. Amenities within green spaces (e.g. picnic shelters, BBQs, seats, toilets etc.) should specifically respond to Shiralee's local demographics but also contribute in a strategic way to Orange's wider public open space strategies.

Appendix A - Masterplan

Figure 75. Shiralee Masterplan Sheet Directory

Figure 76. Shiralee Area: A

Figure 77. Shiralee Area: B

Figure 78. Shiralee Area: C

Figure 79. Shiralee Area: D

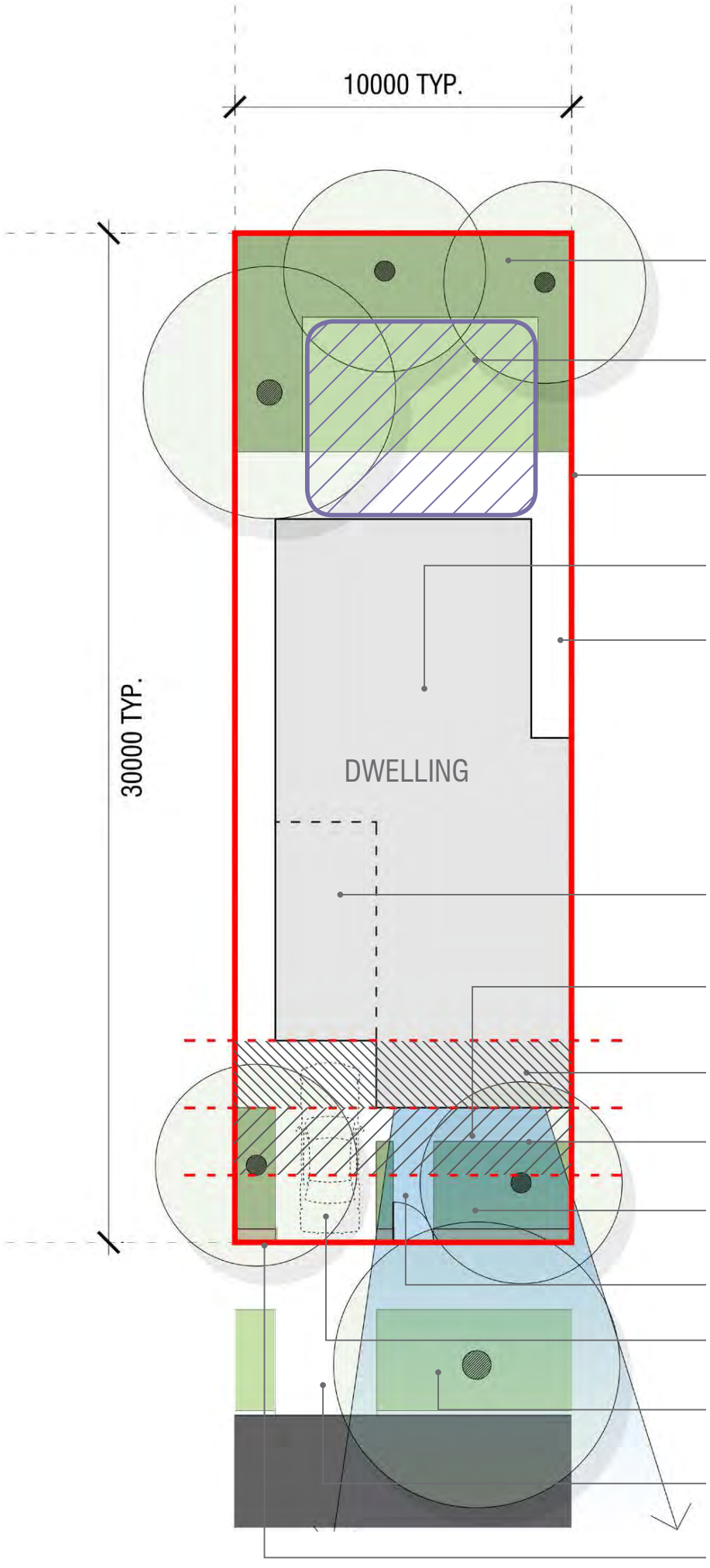
Figure 80. Shiralee Area: E

Figure 81. Shiralee Area: F

Figure 82. Shiralee Area: G

Figure 83. Shiralee Area: H

Figure 84. Shiralee Area: I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Appendix B - Lot Typologies

Appendix B

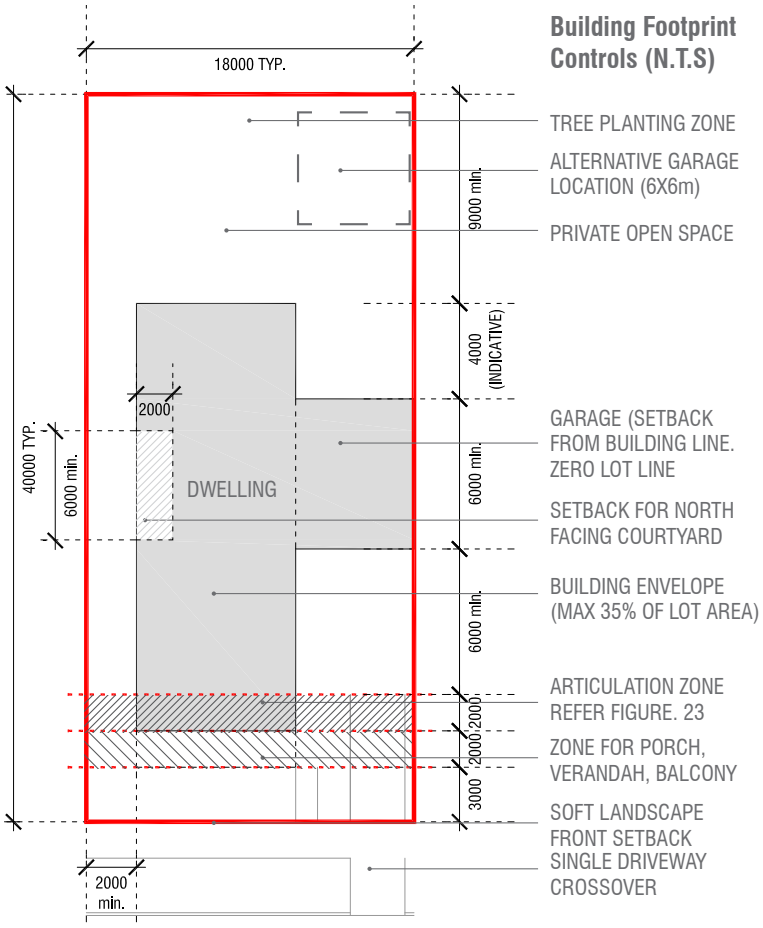
LOT TYPOLOGIES

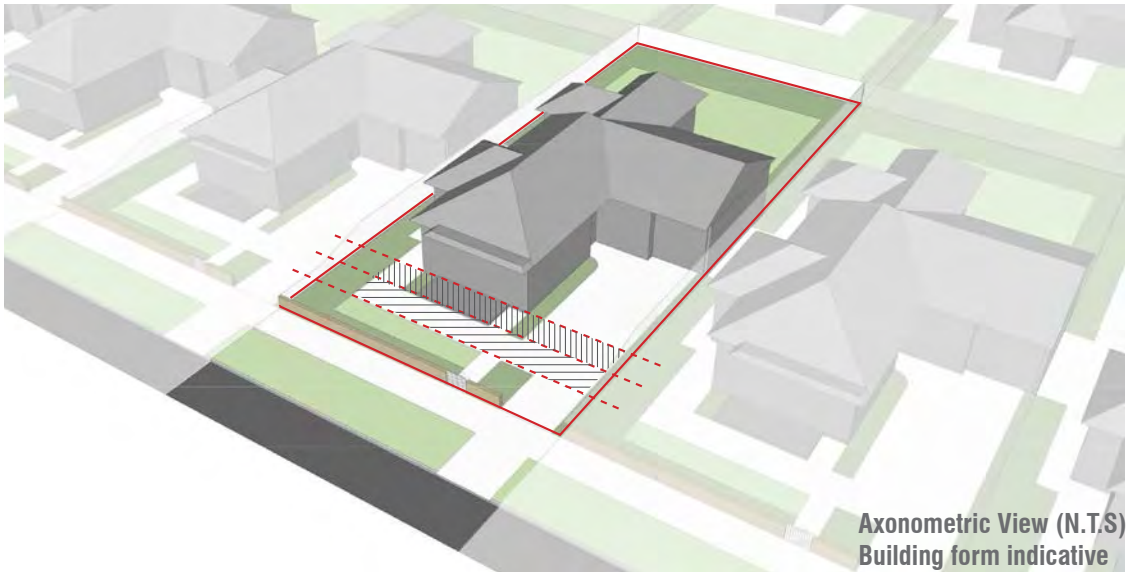
STANDARD DENSITY LOT - EAST/WEST ORIENTATION (min700sqm)

*Applicable to east-west facing lots only

PRINCIPLES AND GUIDELINES

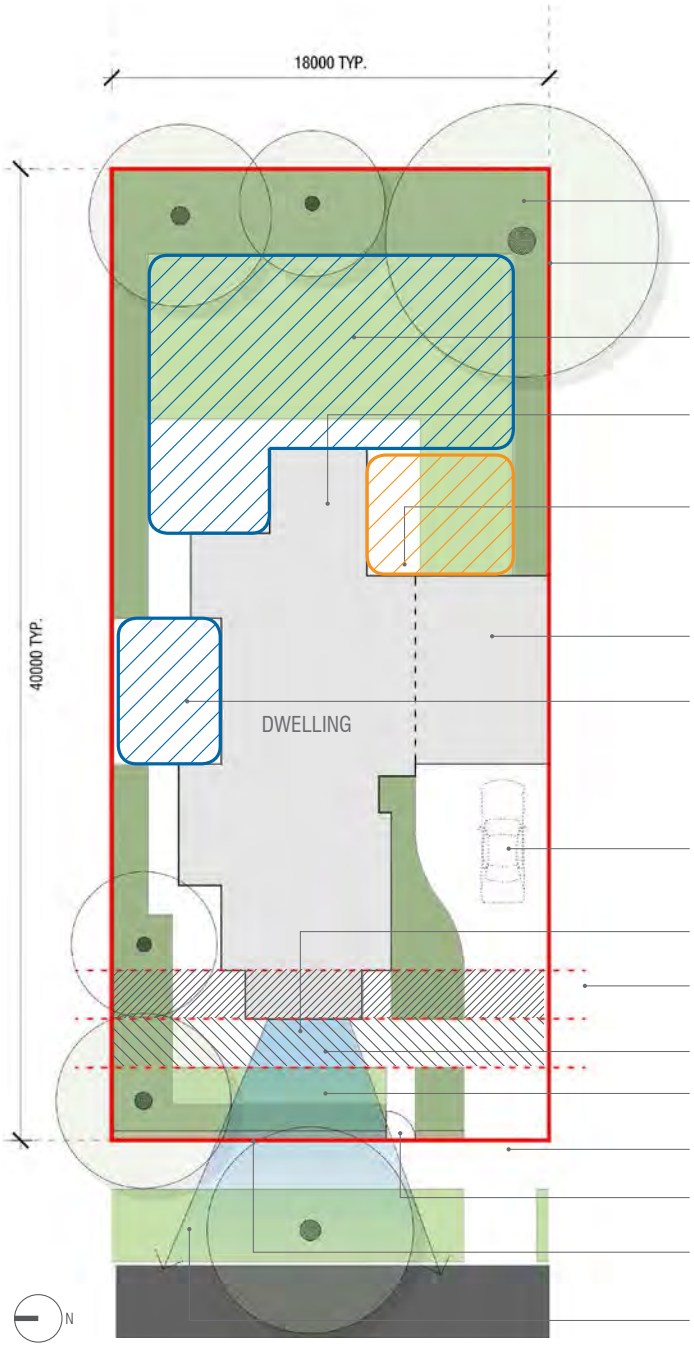
- Building Envelope to occupy a maximum of 35% of lot area.
- Solar court located to north.
- Primary living areas situated to the north.
- Non-habitable areas such as laundries, bathrooms and garages located on the south side of the building.
- Predominantly orientate roofs to allow for efficient use of solar collectors
- Ensure garages do not dominate the streetscape





Axonometric View (N.T.S)
Building form indicative

Figure 85. Lot Typology: Standard Lot- East/West Orientation



MEDIUM / TALL TREE PLANTING.
MIX OF EXOTIC AND INDIGENOUS SPECIES

PROPERTY FENCING.
REFER TO RELEVANT DCP SECTION

PRIVATE OPEN SPACE ZONE
(TURF, PLANTING, TREES, PAVING)

INDICATIVE BUILDING ENVELOPE
MAXIMUM 35% OF LOT AREA

CLOTHES DRYING AREA

GARAGE SET BACK FROM BUILDING LINE

NORTH FACING COURTYARD / SUN-TRAP /
OUTDOOR LIVING SPACE

OPPORTUNITY FOR CAR PARKING BAY

PASSIVE SURVEILLANCE TO STREET

ARTICULATION ZONE
(INCLUDING AWNINGS, BAY WINDOWS ETC)

ZONE FOR VERANDAH, PATIO, BALCONY

SOFT LANDSCAPE FRONT SETBACK
(TURF, PLANTING, TREES)

SINGLE DRIVEWAY CROSSOVER (MAX 3000 WIDE)
OF SAME MATERIAL AS FOOTPATH

CLEAR FRONT ENTRY

DEFINE FRONT BOUNDARY THROUGH PLANTING
OR LOW FENCING

REFER TO DCP FOR STREETSCAPE DETAIL

Key Site Controls Plan (N.T.S)

Appendix B

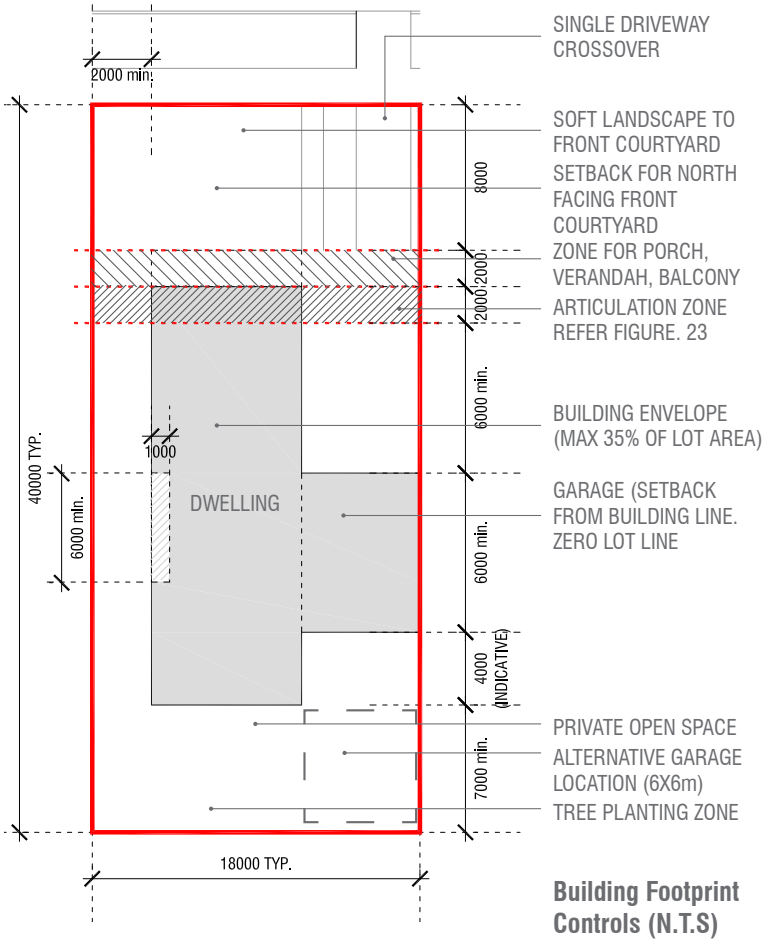
LOT TYPOLOGIES

STANDARD DENSITY LOT - NORTH/SOUTH ORIENTATION (min700sqm)

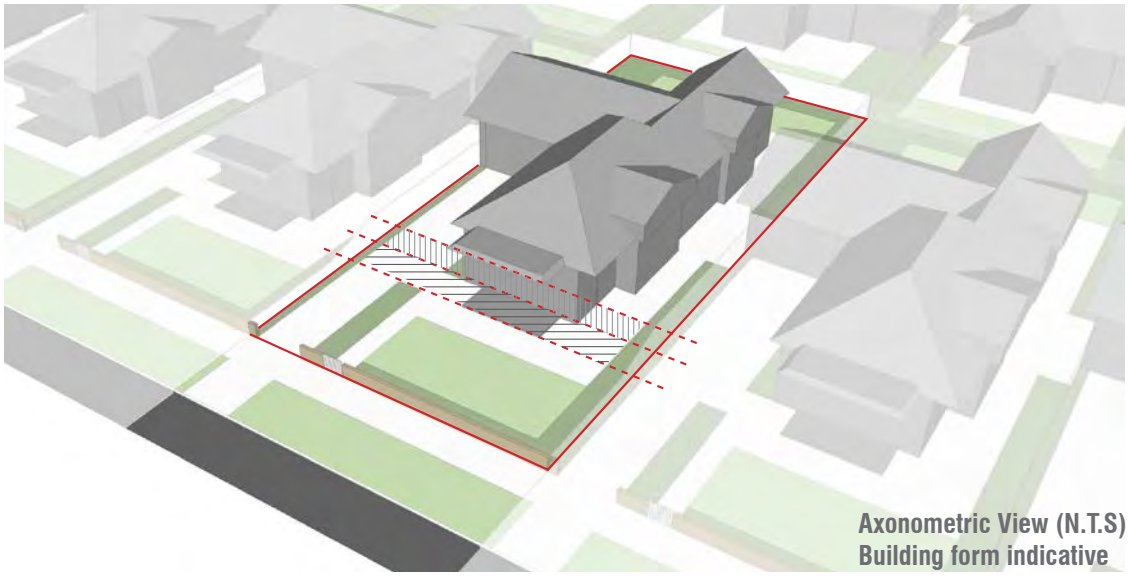
***Applicable to north-south facing lots only**

PRINCIPLES AND GUIDELINES

- Building Envelope to occupy a maximum of 35% of lot area.
- Solar court located to front of property (north facing).
- Primary living areas situated to the north.
- Non-habitable areas such as laundries, bathrooms and garages located on the south side of the building.
- Predominantly orientate roofs to allow for efficient use of solar collectors
- Ensure garages do not dominate the streetscape

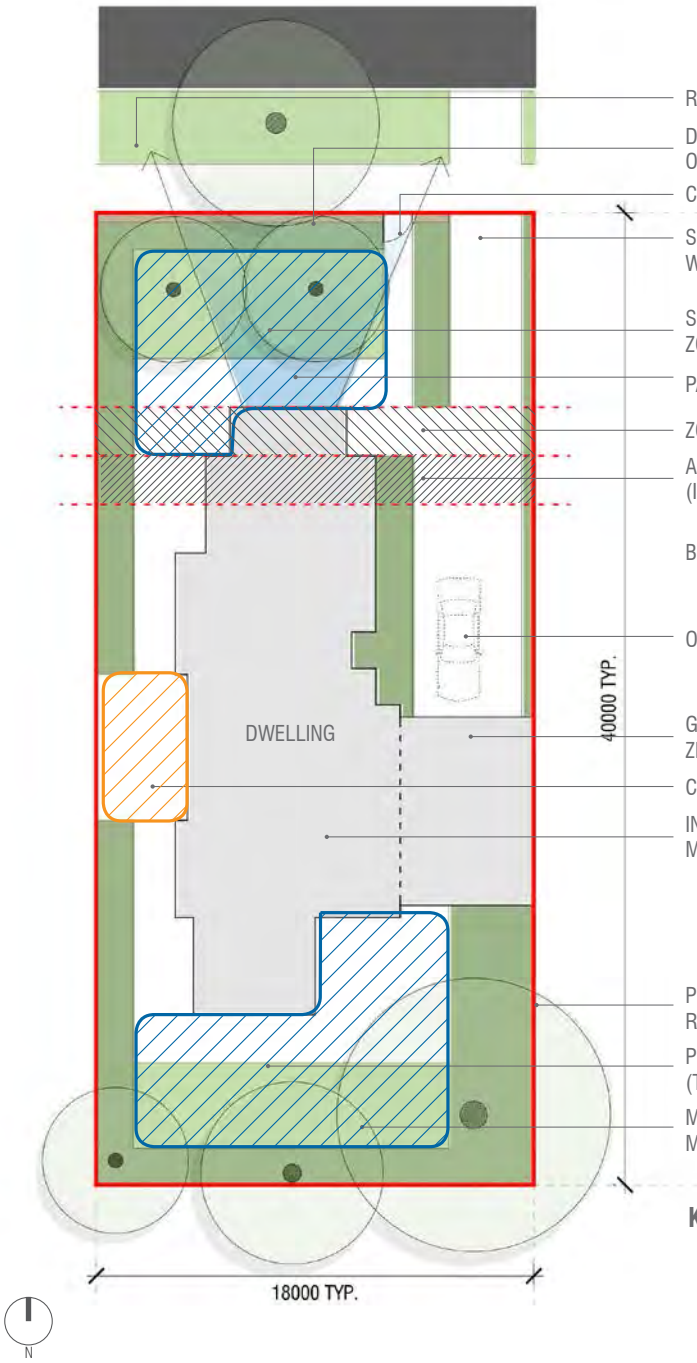


Building Footprint Controls (N.T.S)



Axonometric View (N.T.S)
Building form indicative

Figure 86. Lot Typology: Standard Lot- North/South Orientation



REFER TO DCP FOR STREET SCAPE DETAIL

DEFINE FRONT BOUNDARY THROUGH PLANTING OR LOW FENCING

CLEAR FRONT ENTRY

SINGLE DRIVEWAY CROSSOVER (MAX 3000mm WIDE) OF SAME MATERIAL AS FOOTPATH

SETBACK FOR NORTH FACING, SOFT LANDSCAPE ZONE(TURF, PLANTING, TREES)

PASSIVE SURVEILLANCE TO STREET

ZONE FOR VERANDAH, PATIO, BALCONY

ARTICULATION ZONE
(INCLUDING AWNINGS, BAY WINDOWS ETC)

BOUNDARY PLANTING (MIN 500mm)

OPPORTUNITY FOR CAR PARKING BAY

GARAGE (SETBACK FROM BUILDING LINE. ZERO LOT LINE

CLOTHES DRYING / UTILITY AREA

INDICATIVE BUILDING ENVELOPE
MAXIMUM 35% OF LOT AREA

PROPERTY FENCING.
REFER TO RELEVANT DCP SECTION

PRIVATE OPEN SPACE ZONE
(TURF, PLANTING, TREES, PAVING)

MEDIUM / TALL TREE PLANTING.
MIX OF EXOTIC AND INDIGENOUS SPECIES

Key Site Controls Plan (N.T.S)

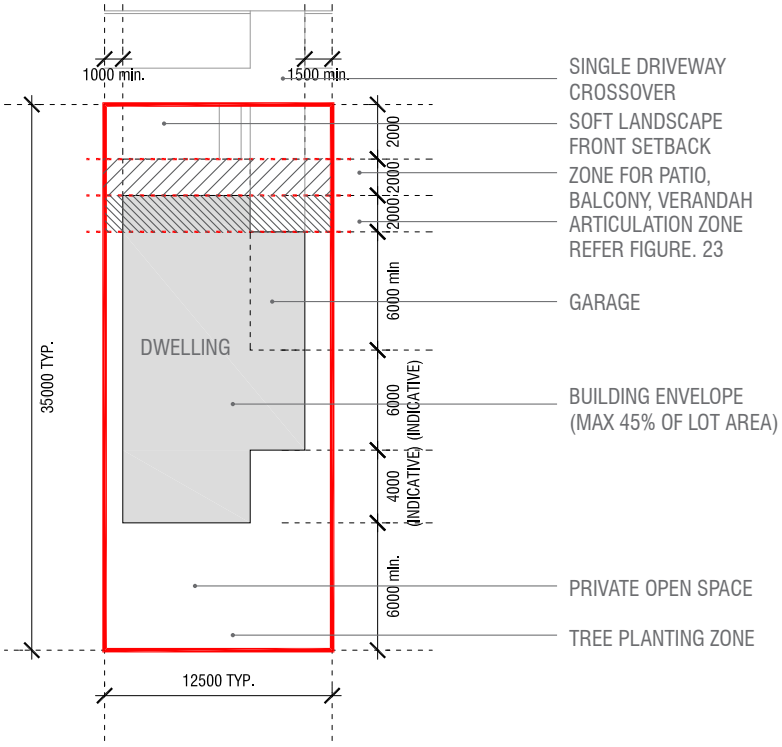
Appendix B

LOT TYPOLOGIES

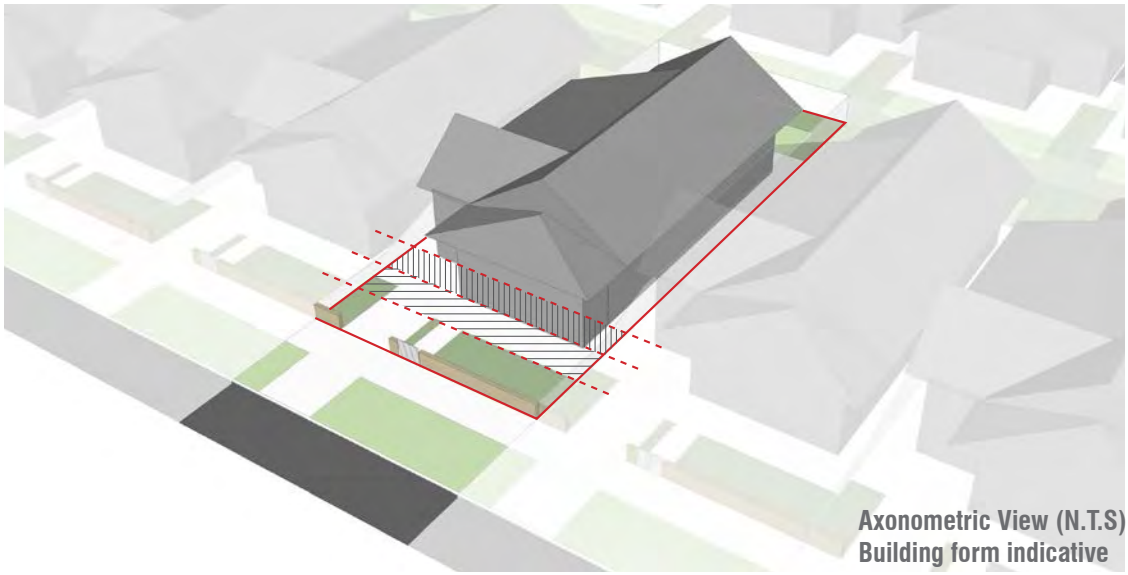
MEDIUM LOT - 12.5m WIDE

PRINCIPLES AND GUIDELINES

- Building Envelope to occupy a maximum of 45% of lot area.
- Primary living areas situated to the north.
- Predominantly orientate roofs to allow for efficient use of solar collectors
- Ensure garages do not dominate the streetscape

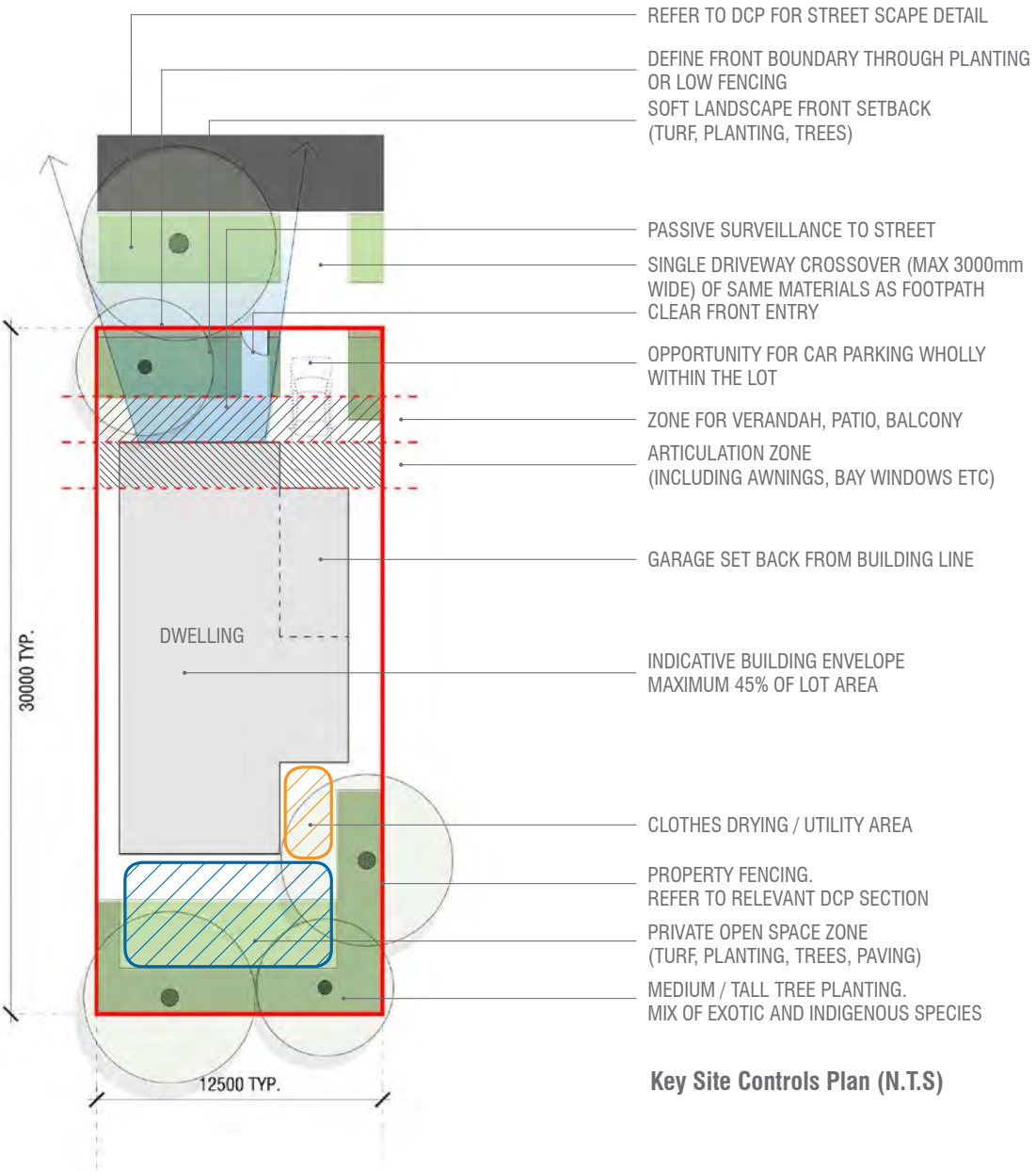


Building Footprint Controls (N.T.S)



Axonometric View (N.T.S)
Building form indicative

Figure 87. Lot Typology: Medium Lot- 12.5m Wide



Key Site Controls Plan (N.T.S)

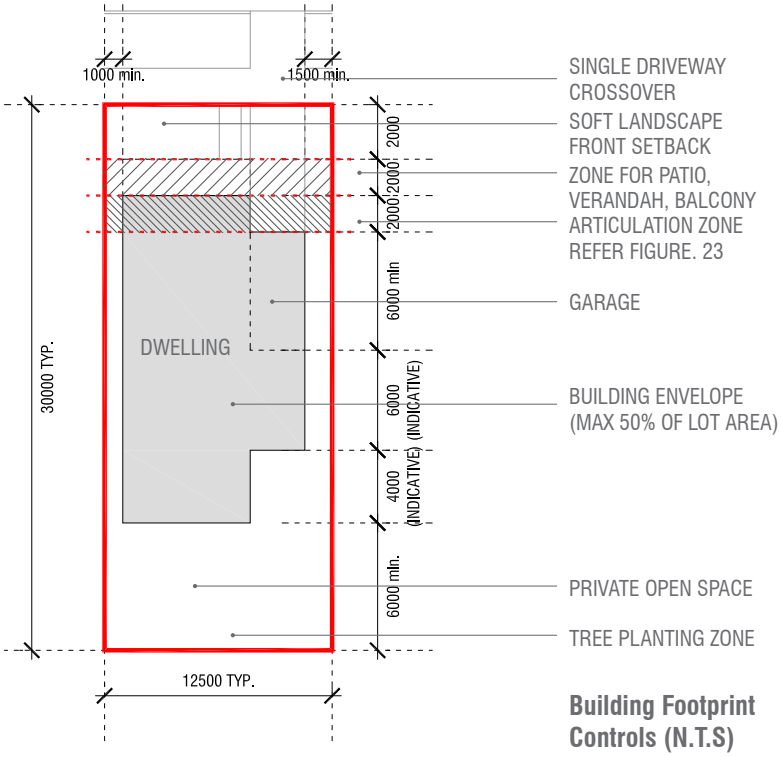
Appendix B

LOT TYPOLOGIES

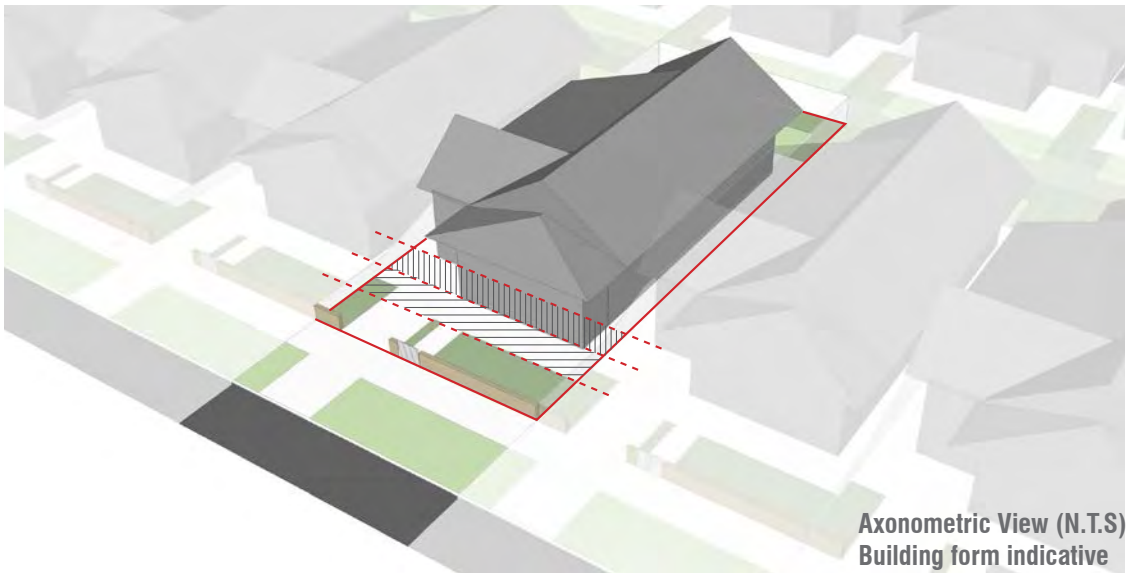
COMPACT LOT - MINIMUM12.5m WIDE

PRINCIPLES AND GUIDELINES

- Building Envelope to occupy a maximum of 60% of lot area.
- Primary living areas situated to the north.
- Predominantly orientate roofs to allow for efficient use of solar collectors
- Ensure garages do not dominate the streetscape

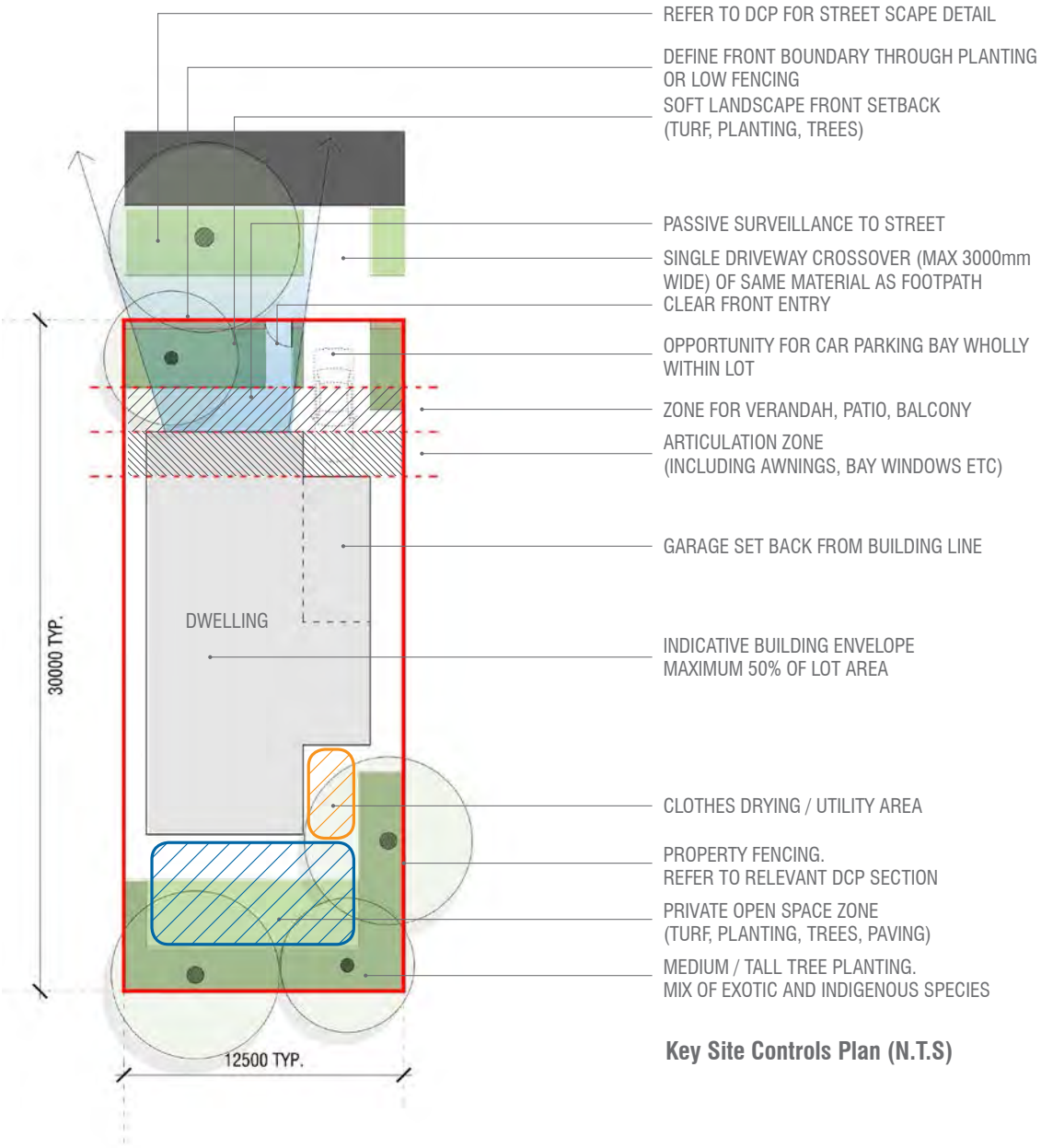


Building Footprint Controls (N.T.S)



Axonometric View (N.T.S)
Building form indicative

Figure 88. Lot Typology: Compact Lot- Minimum 12.5m Wide



Key Site Controls Plan (N.T.S)

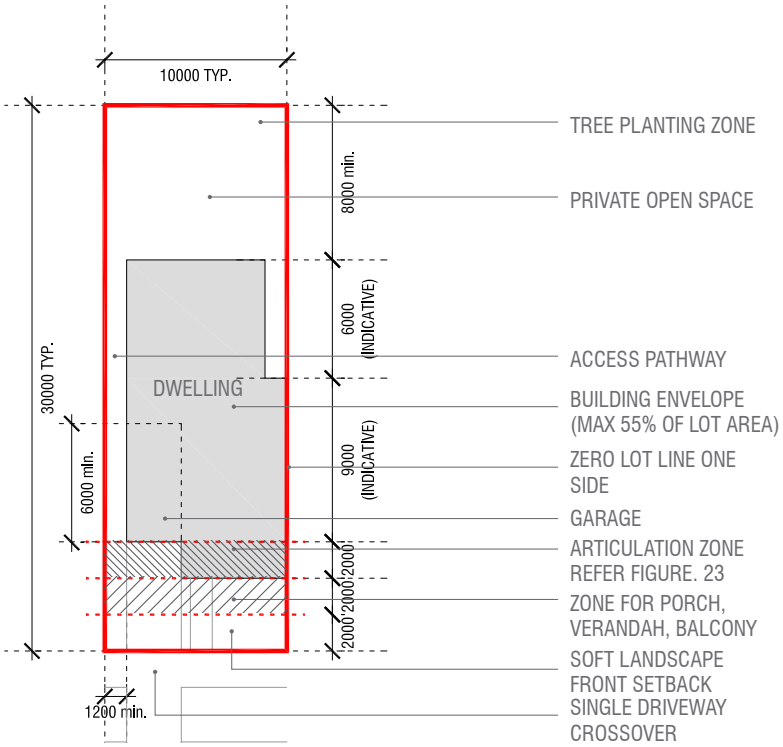
Appendix B

LOT TYPOLOGIES

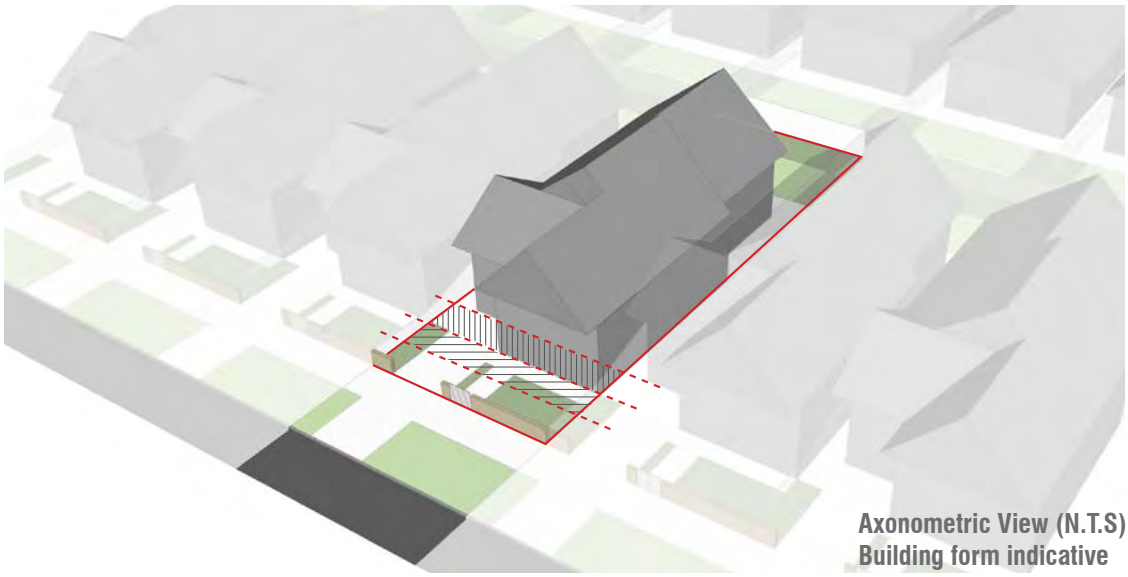
COMPACT LOT - MINIMUM 10m WIDE

PRINCIPLES AND GUIDELINES

- Building Envelope to occupy a maximum of 60% of lot area.
- Zero lot line(to southern boundary)
- Predominantly orientate roofs to allow for efficient use of solar collectors
- Set back to ensure garages does not dominate the streetscape

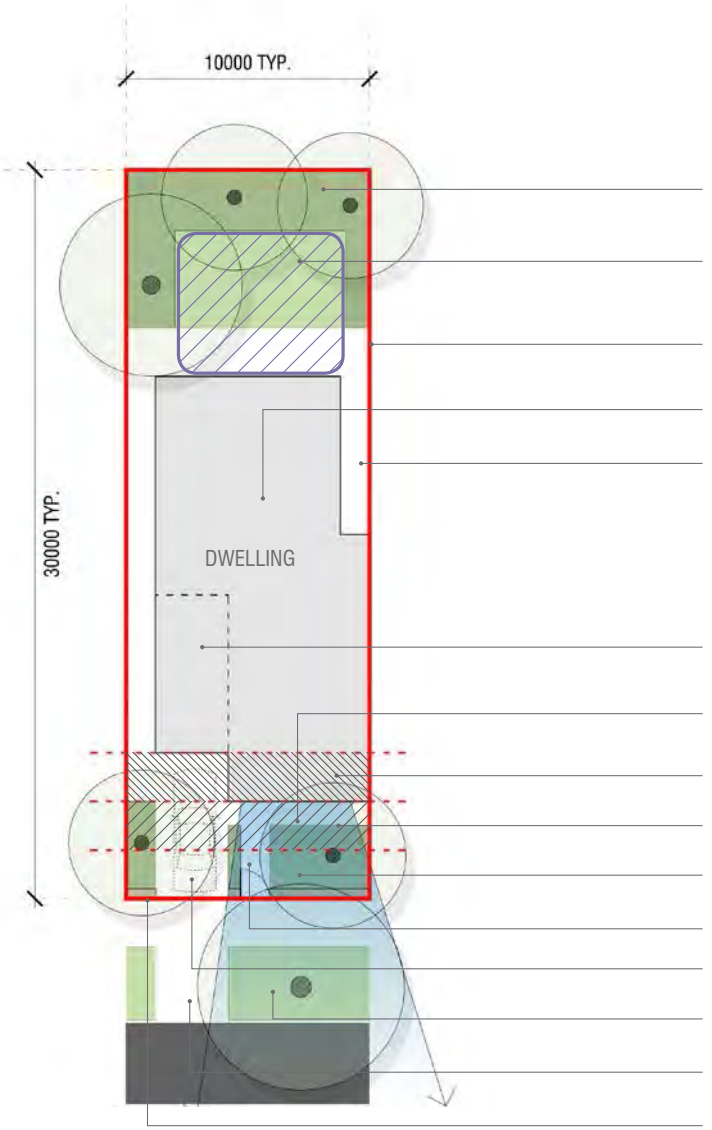


Building Footprint Controls (N.T.S)



Axonometric View (N.T.S)
Building form indicative

Figure 89. Lot Typology: Compact Lot- Minimum 10m Wide



MEDIUM / TALL TREE PLANTING.
MIX OF EXOTIC AND INDIGENOUS SPECIES

MULTI-PURPOSE PRIVATE OPEN SPACE AREA.
(TURF, PLANTING, TREES, PAVING, DRYING AREA)

PROPERTY FENCING.
REFER TO RELEVANT DCP SECTION

INDICATIVE BUILDING ENVELOPE
MAXIMUM 55% OF LOT AREA

UTILITY / STORAGE AREA

GARAGE SET BACK FROM STREET
AND BUILDING LINE

PASSIVE SURVEILLANCE TO STREET

ARTICULATION ZONE
(INCLUDING AWNINGS, BAY WINDOWS ETC)

ZONE FOR VERANDAH, PATIO, BALCONY

SOFT LANDSCAPE FRONT SETBACK
(TURF, PLANTING, TREES)

CLEAR FRONT ENTRY

OPPORTUNITY FOR CAR PARKING ON LOT

REFER TO DCP FOR STREETSCAPE DETAIL

SINGLE DRIVEWAY CROSSOVER (MAX 3000mm
WIDE) OFSAME MATERIAL AS FOOTPATH
DEFINE FRONT BOUNDARY THROUGH PLANTING
OR LOW FENCING

Key Site Controls Plan (N.T.S)

Appendix B

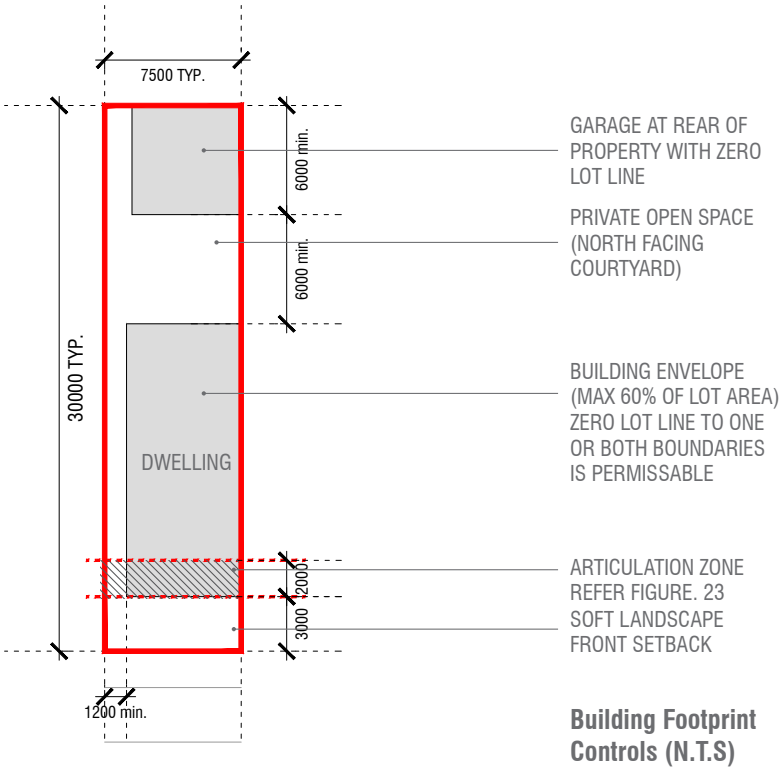
LOT TYPOLOGIES

COMPACT LOT - MINIMUM 7.5m WIDE

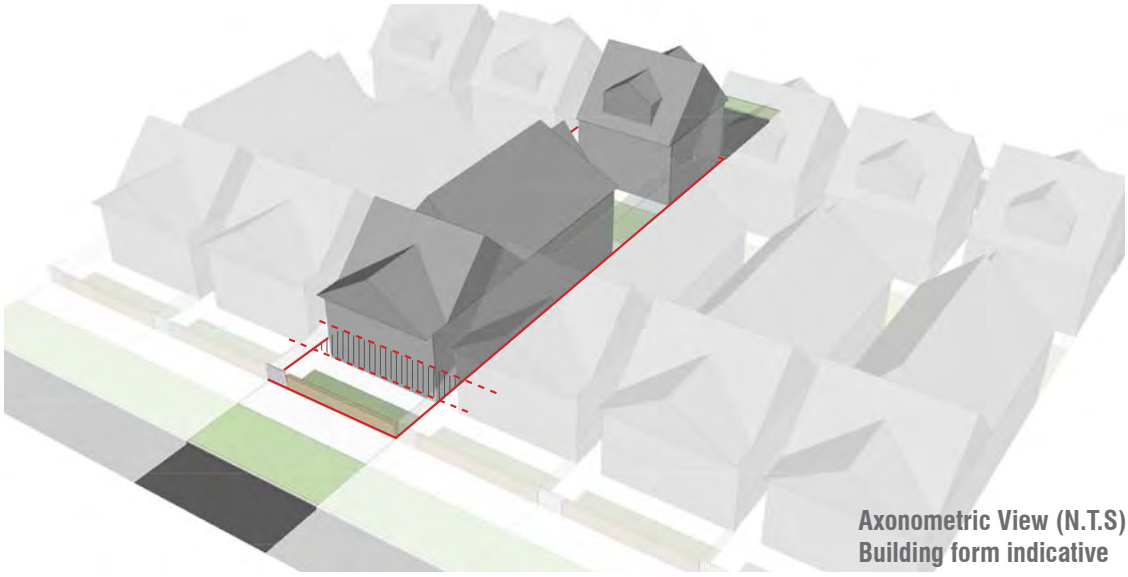
***Must be East-West oriented lot**
***Must have rear Lane access for vehicles**
***Minimum frontage for North-South oriented lots is 10m**

PRINCIPLES AND GUIDELINES

- Building Envelope to occupy a maximum of 60% of lot area.
- Multi-use courtyard located between residence and garage. Space to be used as utility area (clothes drying etc) and as outdoor living space
- Predominantly orientate roofs to allow for efficient use of solar collectors
- Garage located at Rear of lot with rear lane access. Provide habitable living space above garage
- Zero lot line to one or both boundaries is permissable.

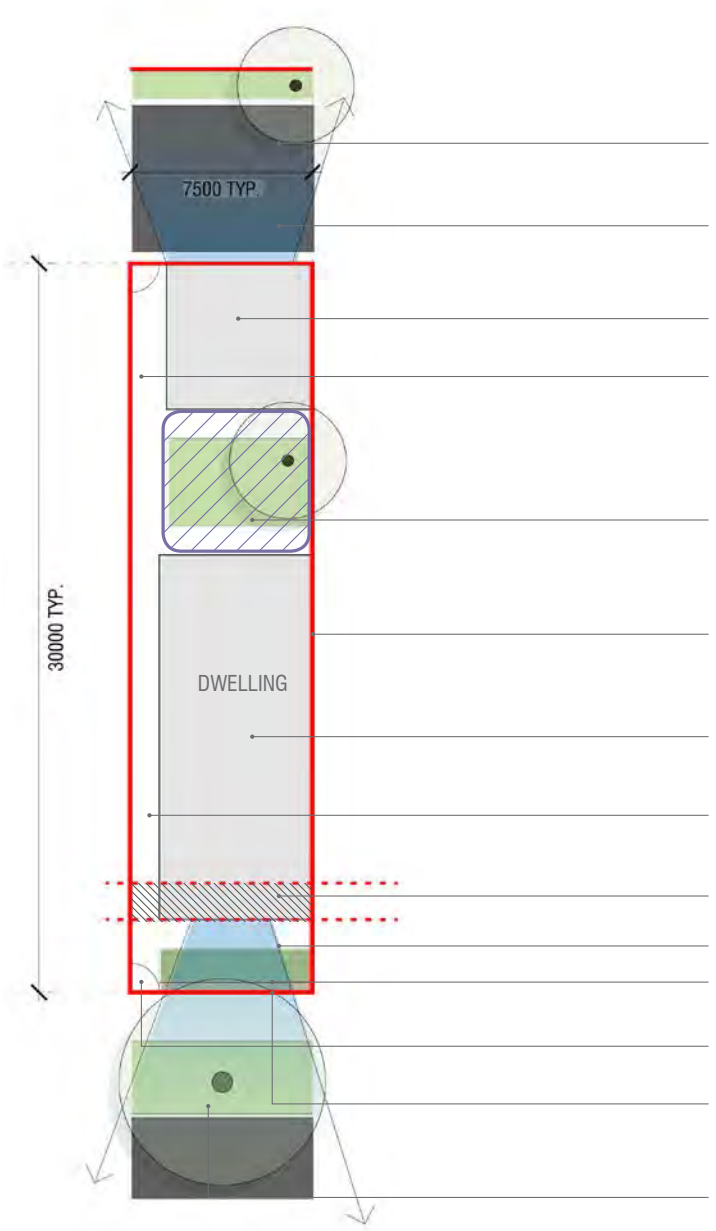


Building Footprint Controls (N.T.S)



Axonometric View (N.T.S)
Building form indicative

Figure 90. Lot Typology: Compact Lot- Minimum 7.5m Wide



REFER TO DCP FOR STREET SCAPE DETAIL

PASSIVE SURVEILLANCE TO LANE

GARAGE WITH HABITABLE SPACE OVER

PROPERTY FENCING.
REFER TO RELEVANT DCP SECTION

MULTI-PURPOSE PRIVATE OPEN SPACE/OUTDOOR LIVING AREA.
(PAVED,TURF, PLANTING, TREES, PAVING, DRYING AREA)

ZERO LOT LINE TO ONE OR BOTH BOUNDARIES IS PERMISSABLE

INDICATIVE BUILDING ENVELOPE
MAXIMUM 60% OF LOT AREA (INCL. GARAGE)

ACCESS PATHWAY

ARTICULATION ZONE
(INCLUDING AWNINGS, BAY WINDOWS ETC)

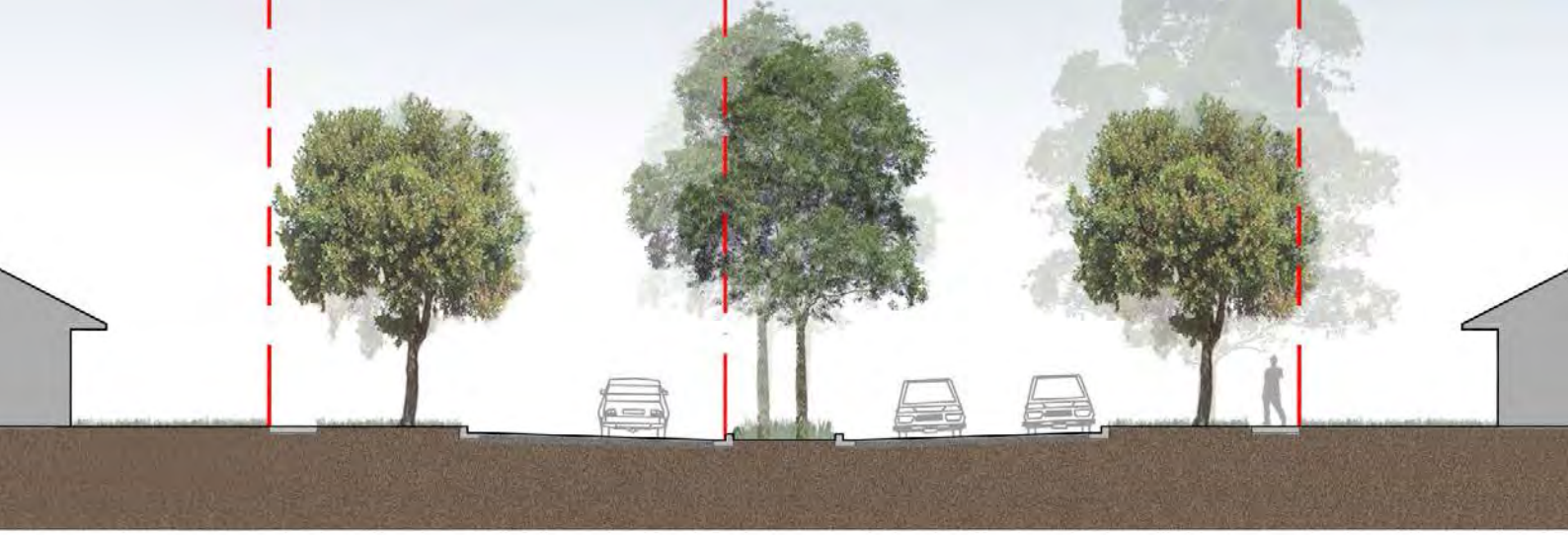
PASSIVE SURVEILLANCE TO STREET
SOFT LANDSCAPE FRONT SETBACK
(PLANTING, TREES)

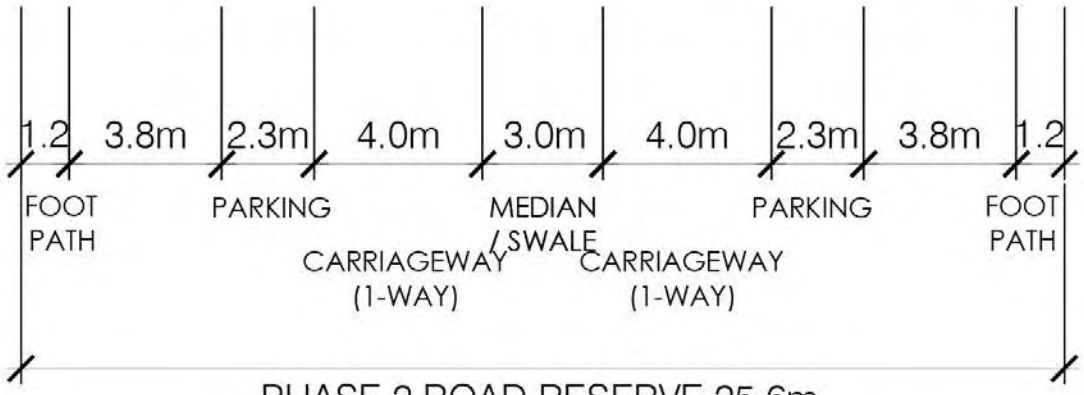
CLEAR FRONT ENTRY

DEFINE FRONT BOUNDARY THROUGH PLANTING OR LOW FENCING

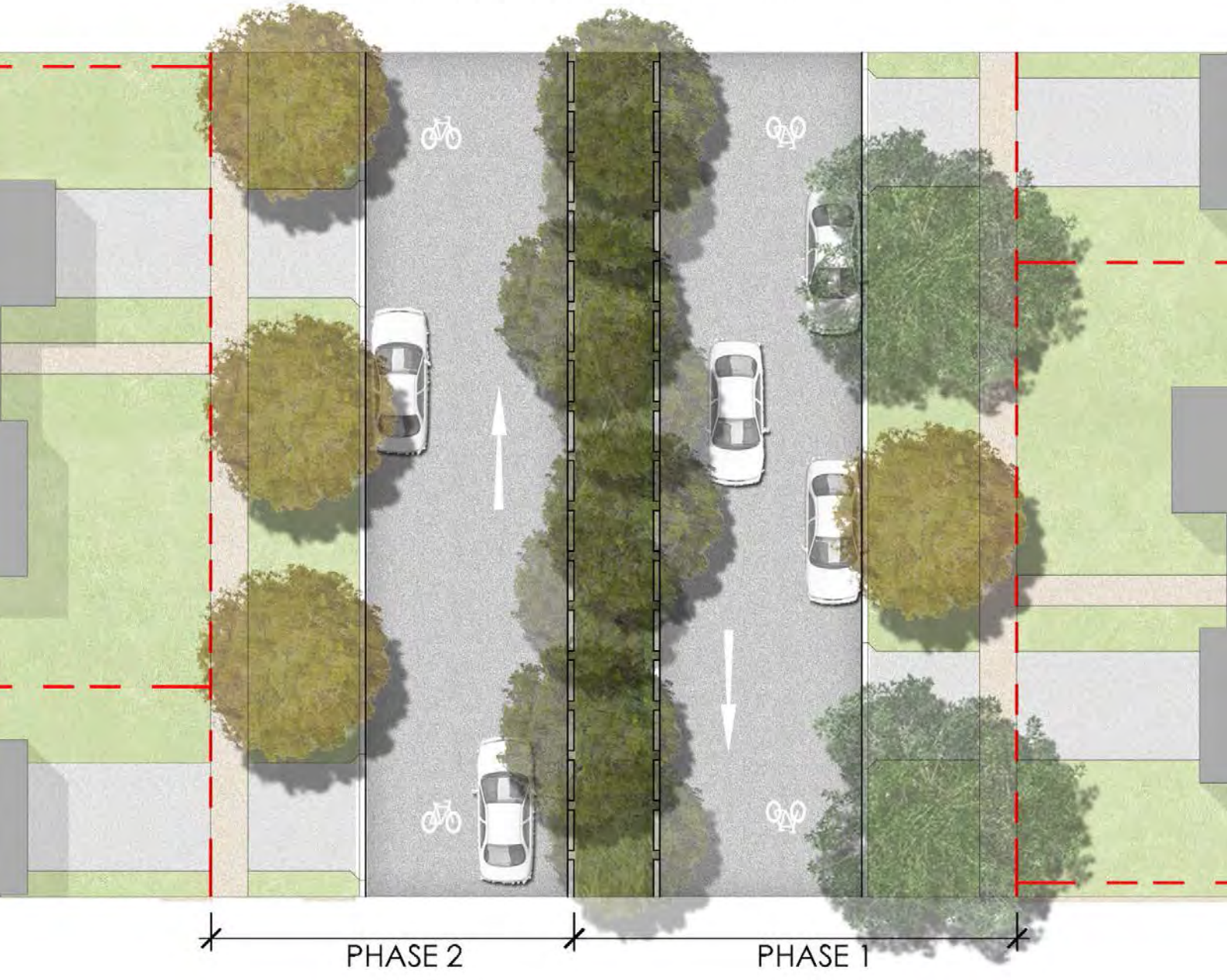
REFER TO DCP FOR STREET SCAPE DETAIL

Key Site Controls Plan (N.T.S)



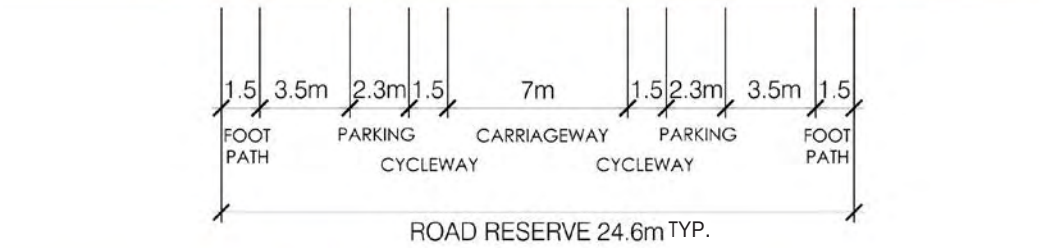


PHASE 2 ROAD RESERVE 25.6m



Appendix C - Street Typologies

Appendix C

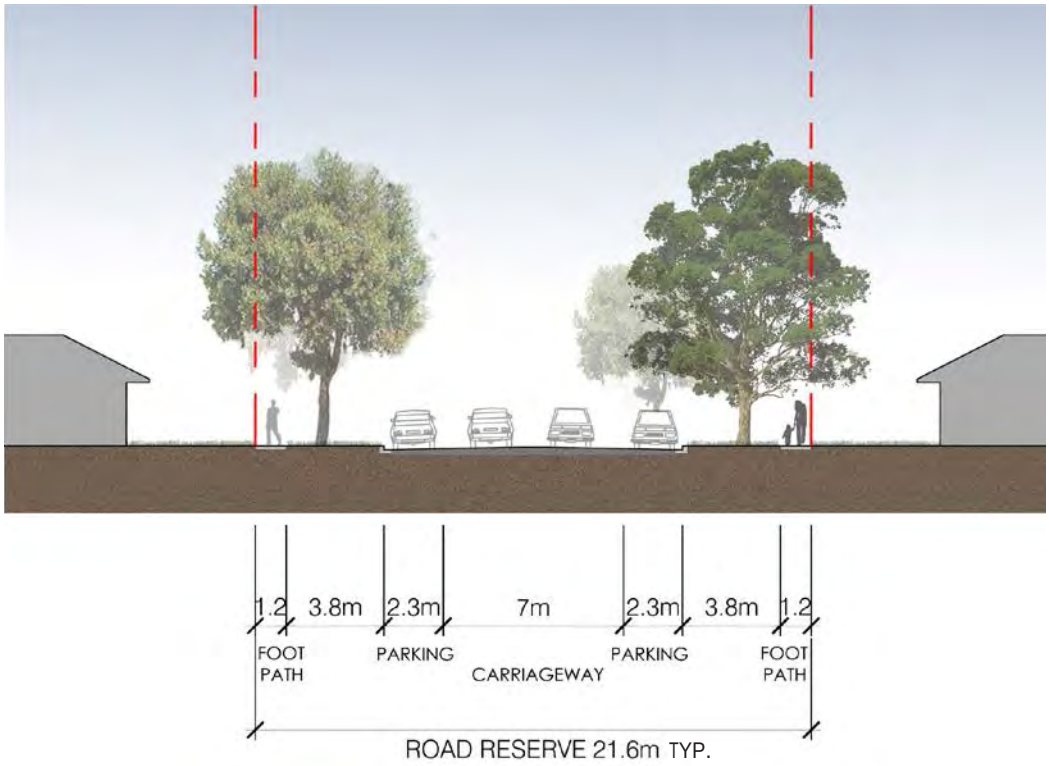


Notes:

- Housing shown is indicative only
- Dimension of tree pits in roadway is 2m x 2m
- Provision of on street parking and widths of verges to vary according to location, topography and need.
- Footpath alignment in verge subject to location of services and OCC approval
- Bicycle symbols to be provided on all Cycle Routes, refer Figure 52. Cycle Network

Figure 91. Collector Street (24.6m)

Appendix C

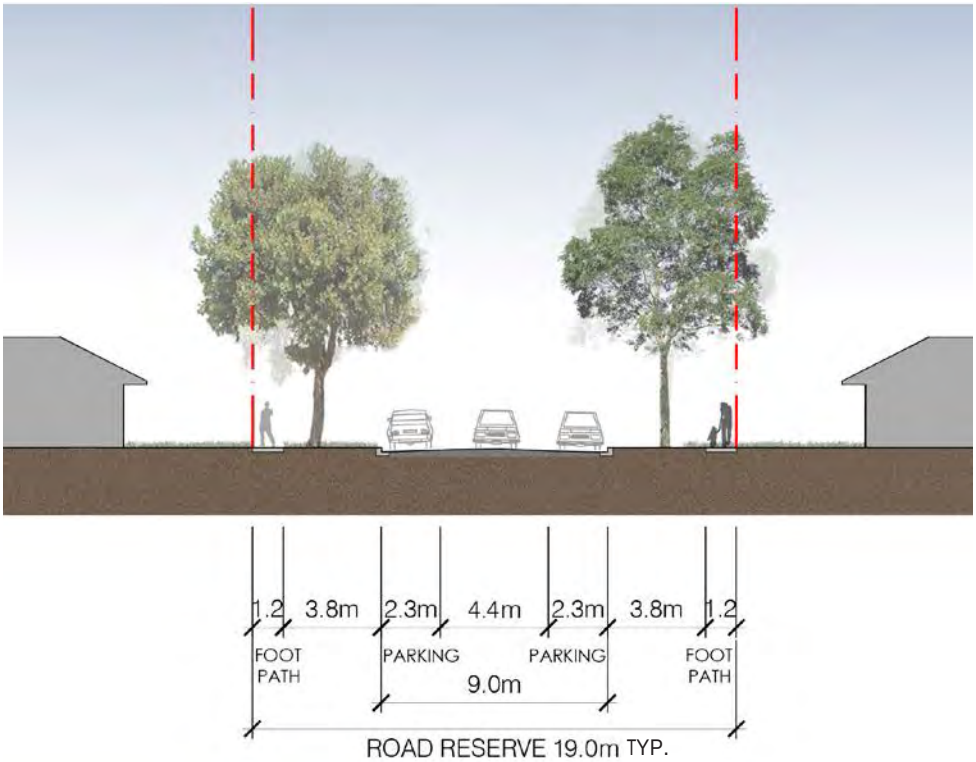


Notes:

- Housing shown is indicative only
- Dimension of tree pits in roadway is 2m x 2m
- Footpath alignment in verge subject to location of services and OCC approval
- Bicycle symbols to be provided on all Cycle Routes, refer 52. Cycle Network

Figure 92. Local Street 1 (21.6m)

Appendix C

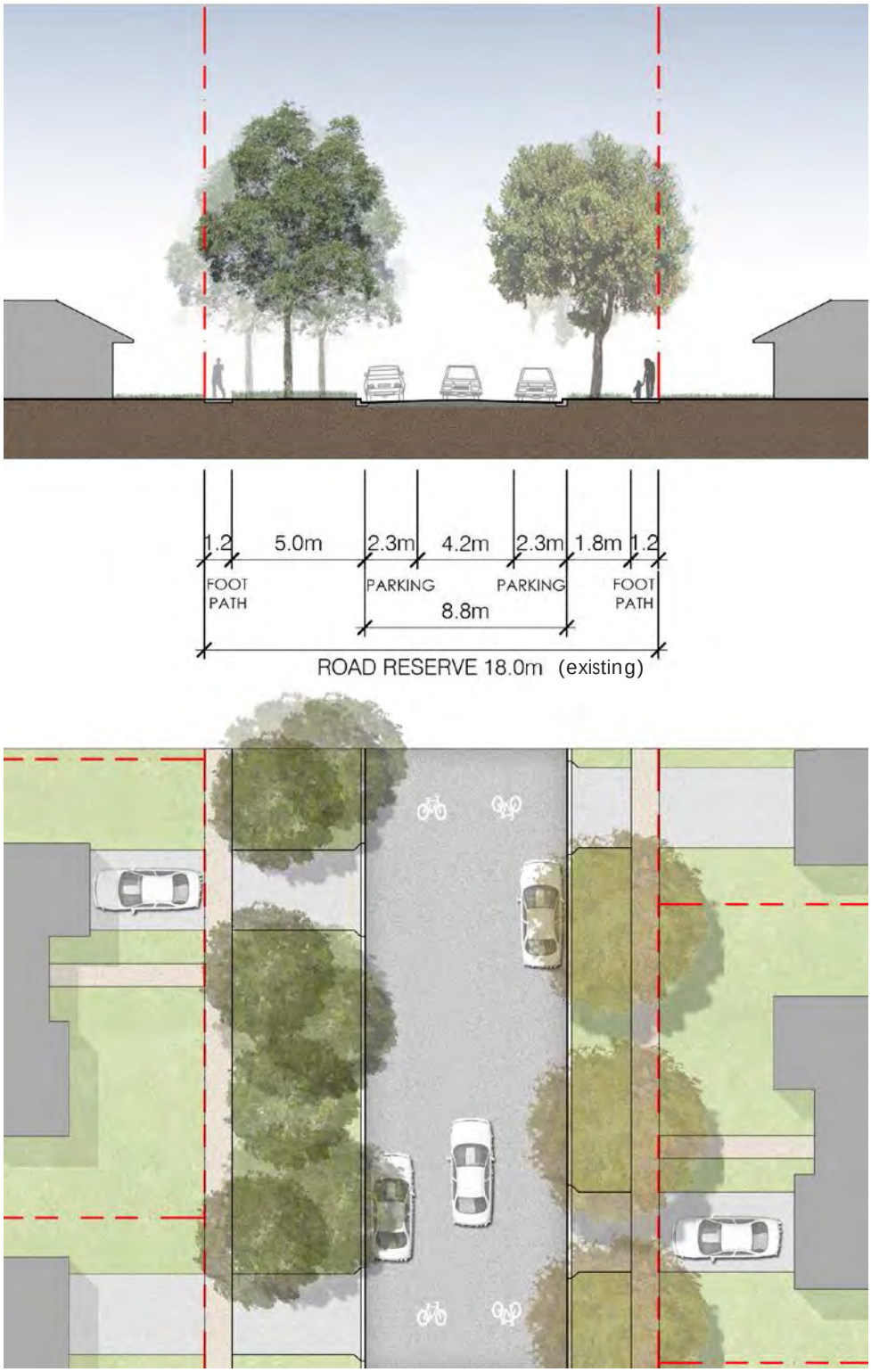


Notes:

- Housing shown is indicative only
- Footpath alignment in verge subject to location of services and OCC approval
- Bicycle symbols to be provided on all Cycle Routes, refer Figure 52. Cycle Network

Figure 93. Local Street 2 (19m)

Appendix C

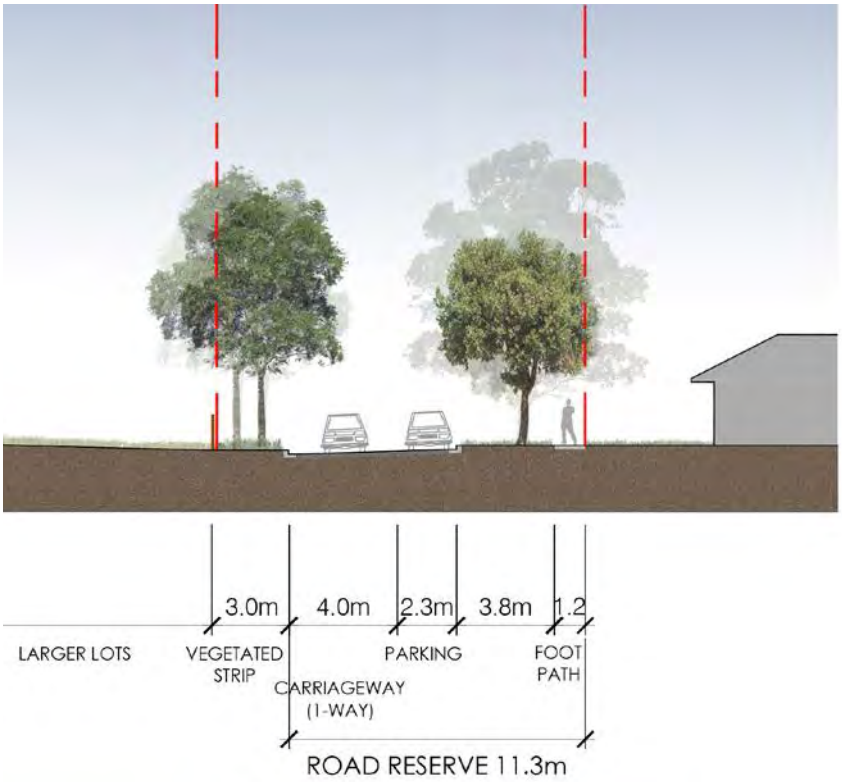


Notes:

- Housing shown is indicative only
- Footpath alignment in verge subject to location of services and OCC approval
- Bicycle symbols to be provided on all Cycle Routes, refer Figure 52. Cycle

Figure 94. Local Street: Rifle Range Road (18.6m)

Appendix C



Notes:

- Housing shown is indicative only
- Footpath alignment in verge subject to location of services and OCC approval
- Bicycle symbols to be provided on all Cycle Routes, refer Figure 52. Cycle Network

Figure 95. Access Street 1 (11.5m)

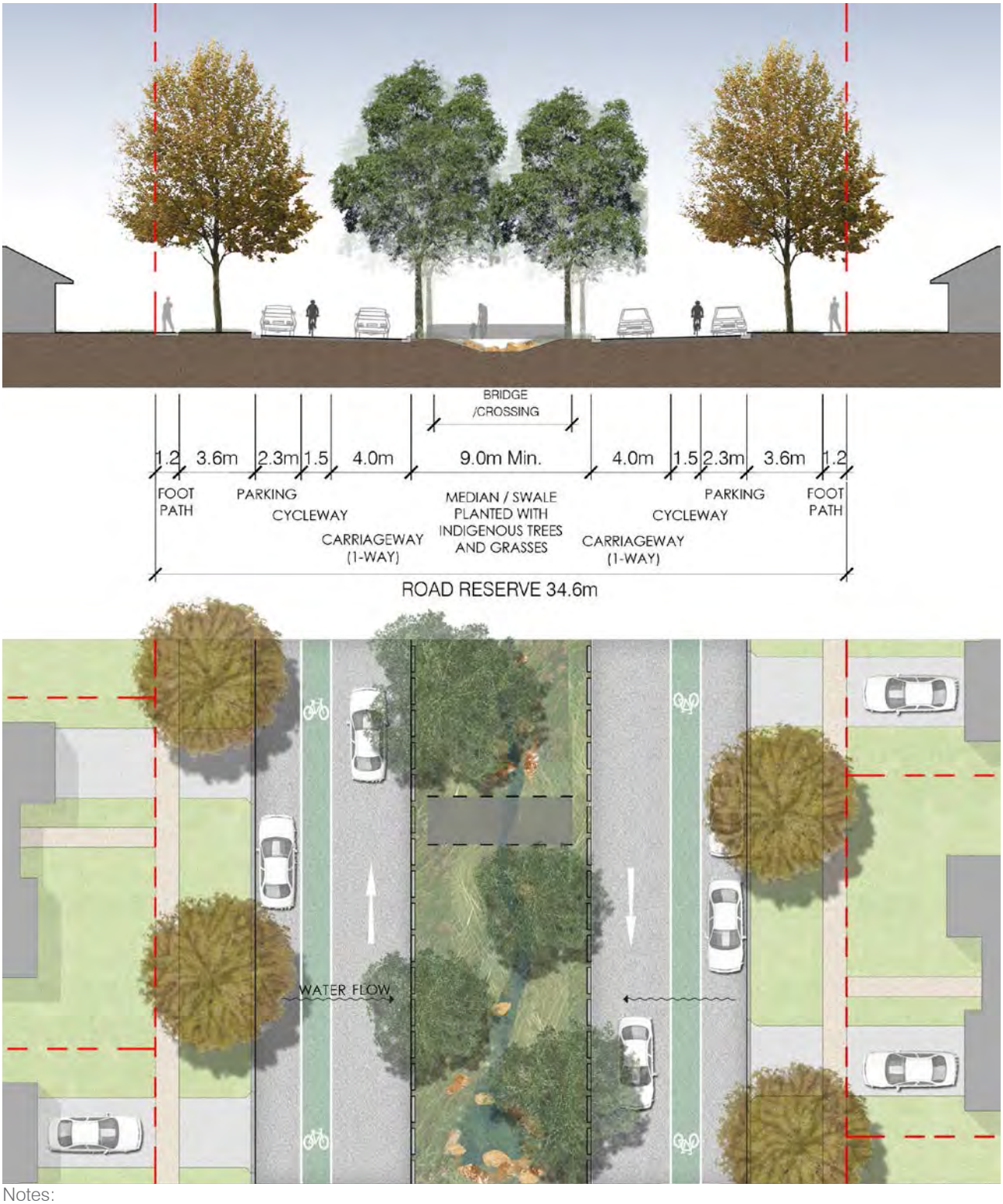
Appendix C

Notes:

- Housing shown is indicative only
- Footpath alignment in verge subject to location of services and OCC approval
- Bicycle symbols to be provided on all Cycle Routes, refer Figure 52. Cycle Network

Figure 96. Access Street 2 (26m)

Appendix C

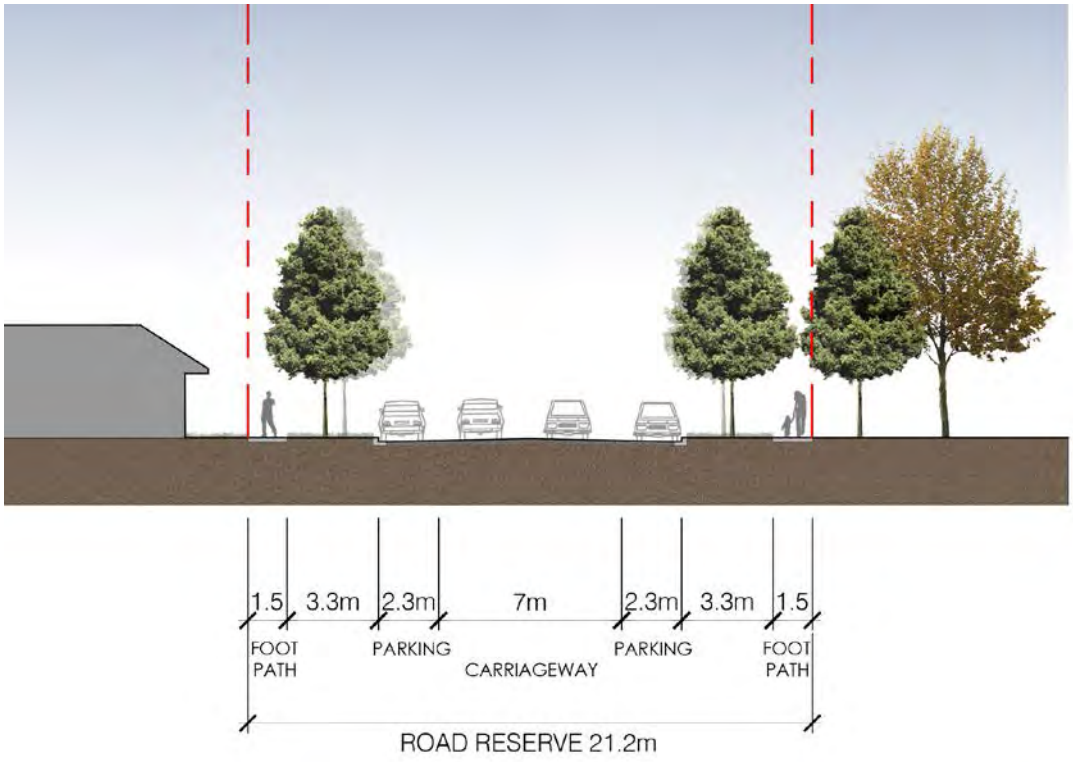


Notes:

- Housing shown is indicative only
- Bridge or informal crossing to be provided at multiple points along every block
- Fewer trees to be planted in towards northern end of street to retain view corridor
- Footpath alignment in verge subject to location of services and OCC
- Bicycle symbols to be provided on all Cycle Routes, refer Figure 52. Cycle Network

Figure 97. Green Street (38.2m)

Appendix C

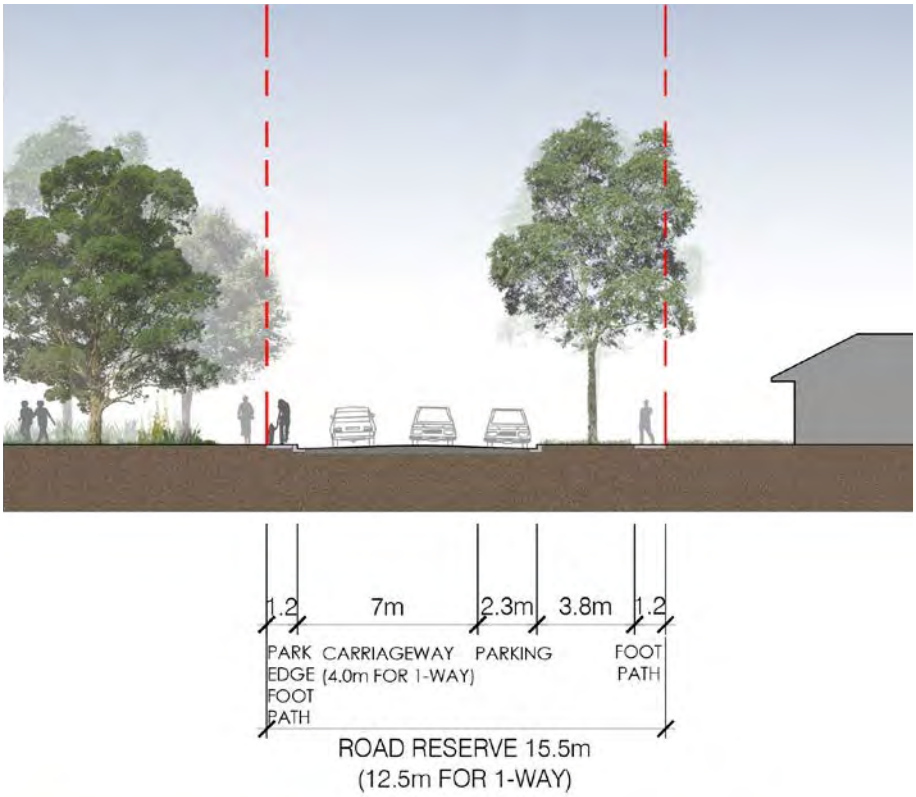


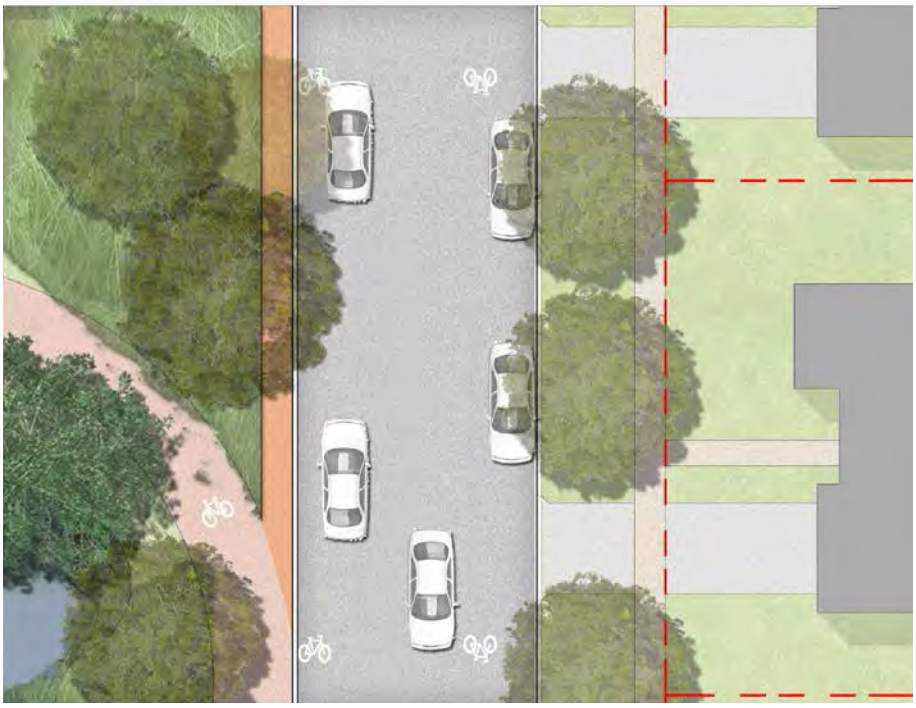
Notes:

- Housing shown is indicative only
- Footpath alignment in verge subject to location of services and OCC approval
- Bicycle symbols to be provided on all Cycle Routes, refer Figure 52. Cycle Network

Figure 98. Mountain View Street (21.2m)

Appendix C



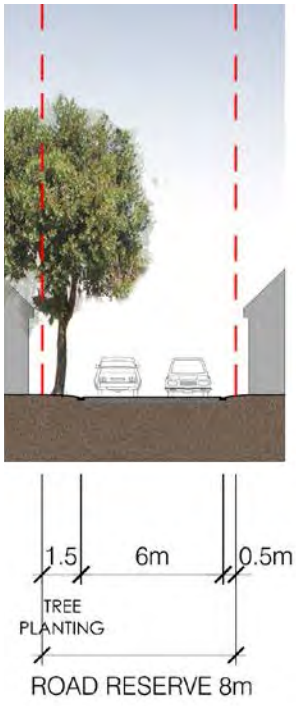


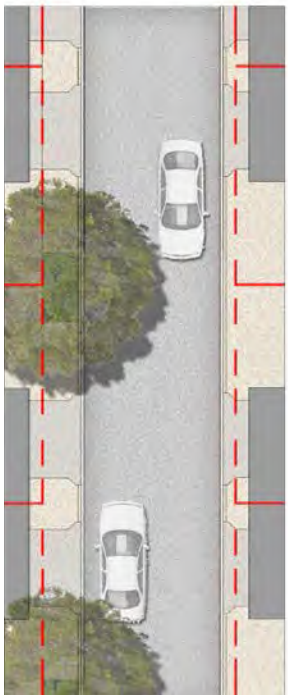
Notes:

- Housing shown is indicative only
- Location of Park Edge footpaths are to be determined by council at time of construction
- Footpath alignment in verge subject to location of services and OCC
- Bicycle symbols to be provided on all Cycle Routes, refer Figure 52. Cycle Network

Figure 99. Park Edge Street (11.5m)

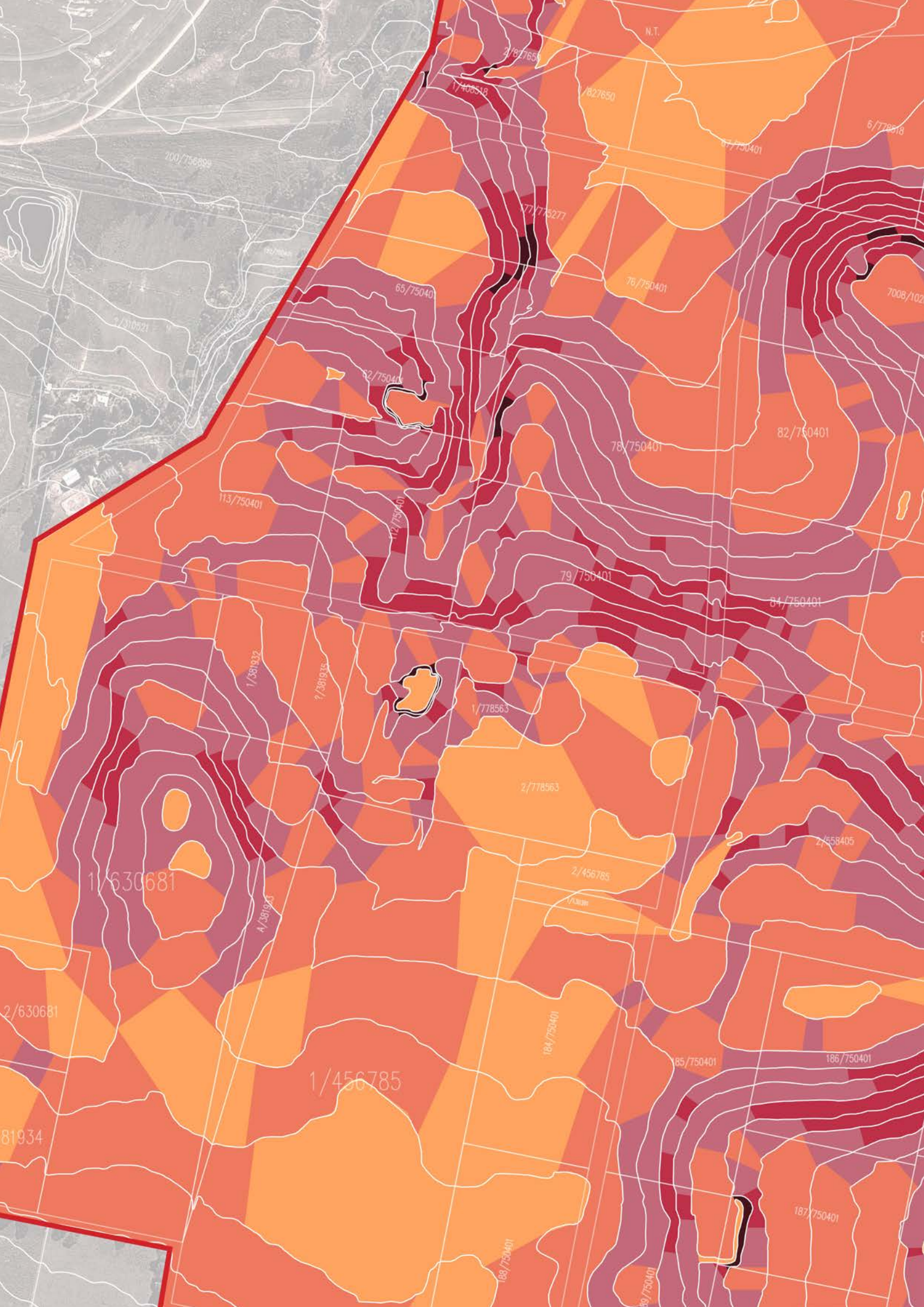
Appendix C





Notes:
- Housing shown is indicative only
- Footpath alignment in verge subject to location of services and OCC

Figure 100. Laneway (8m)


N.T.
65/75040
82/750401
78/750401
113/750401
79/750401
84/750401
1/778563
2/778563
1/630681
2/630681
1/456785
2/456785
186/750401
187/750401

Appendix D - Site Analysis Maps

Appendix D

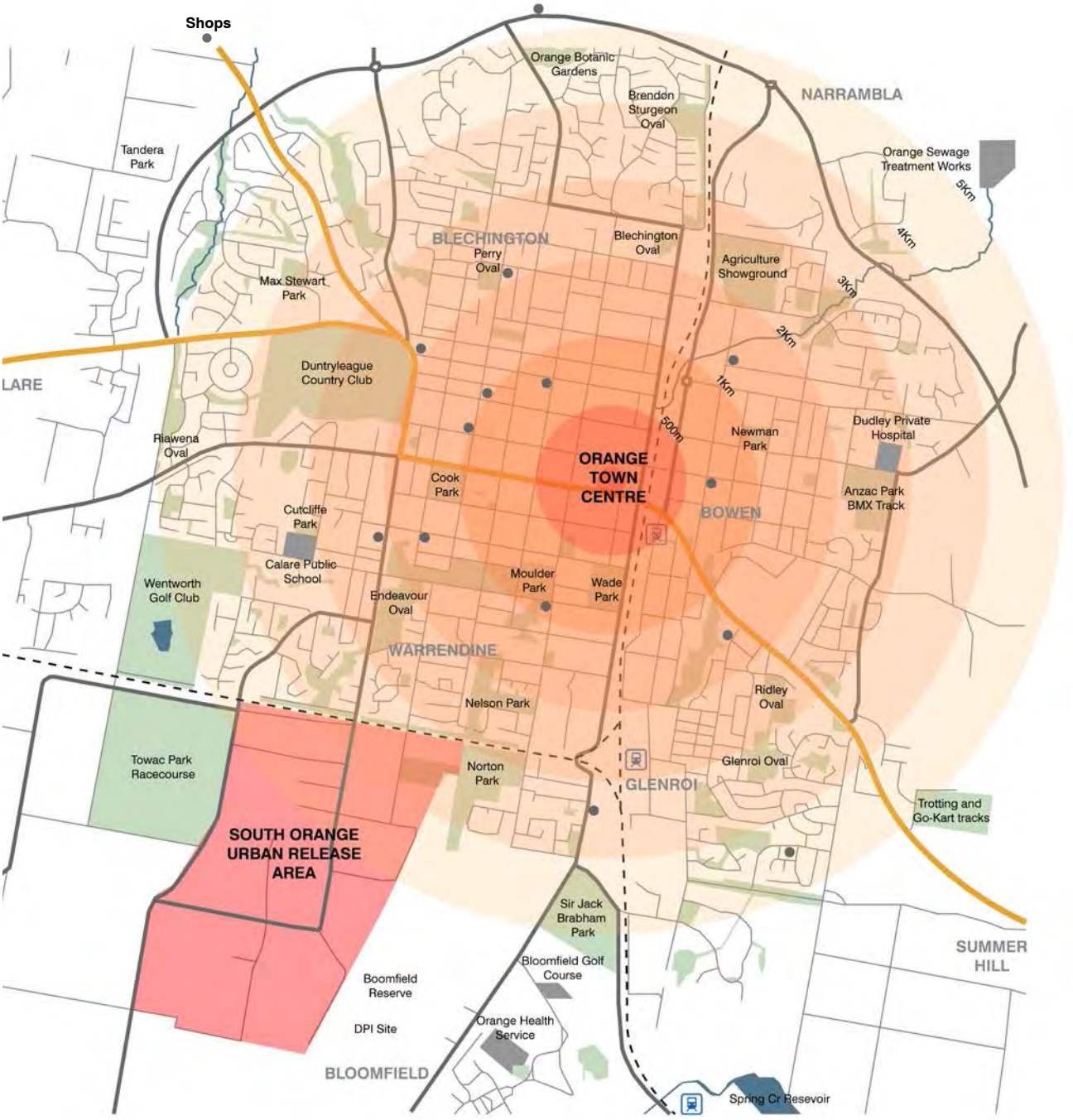


Figure 101. South Orange Urban Release Context Area

Appendix D

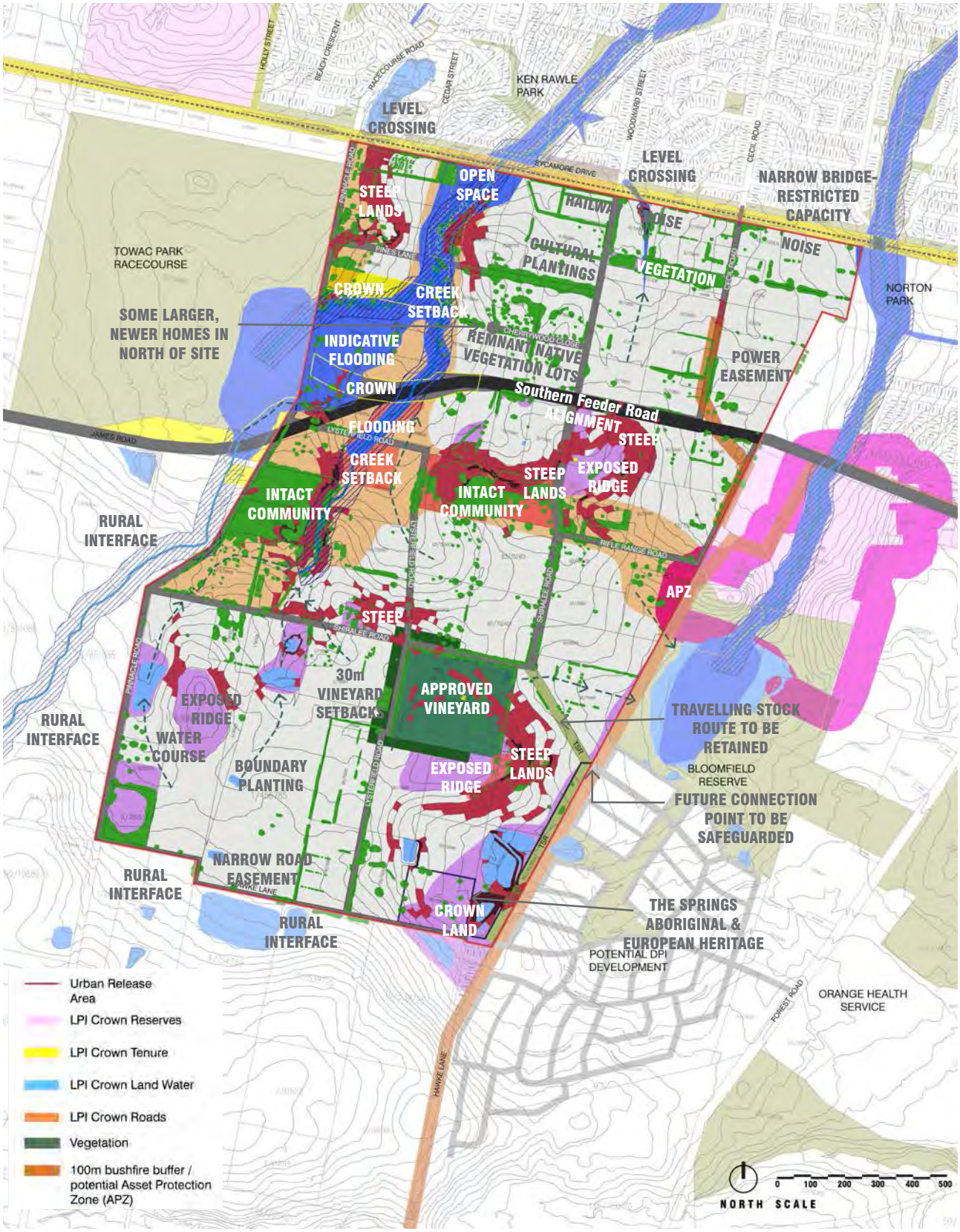


Figure 102. Constraints

Appendix D

Figure 103. South Orange Urban Release Area

Appendix D

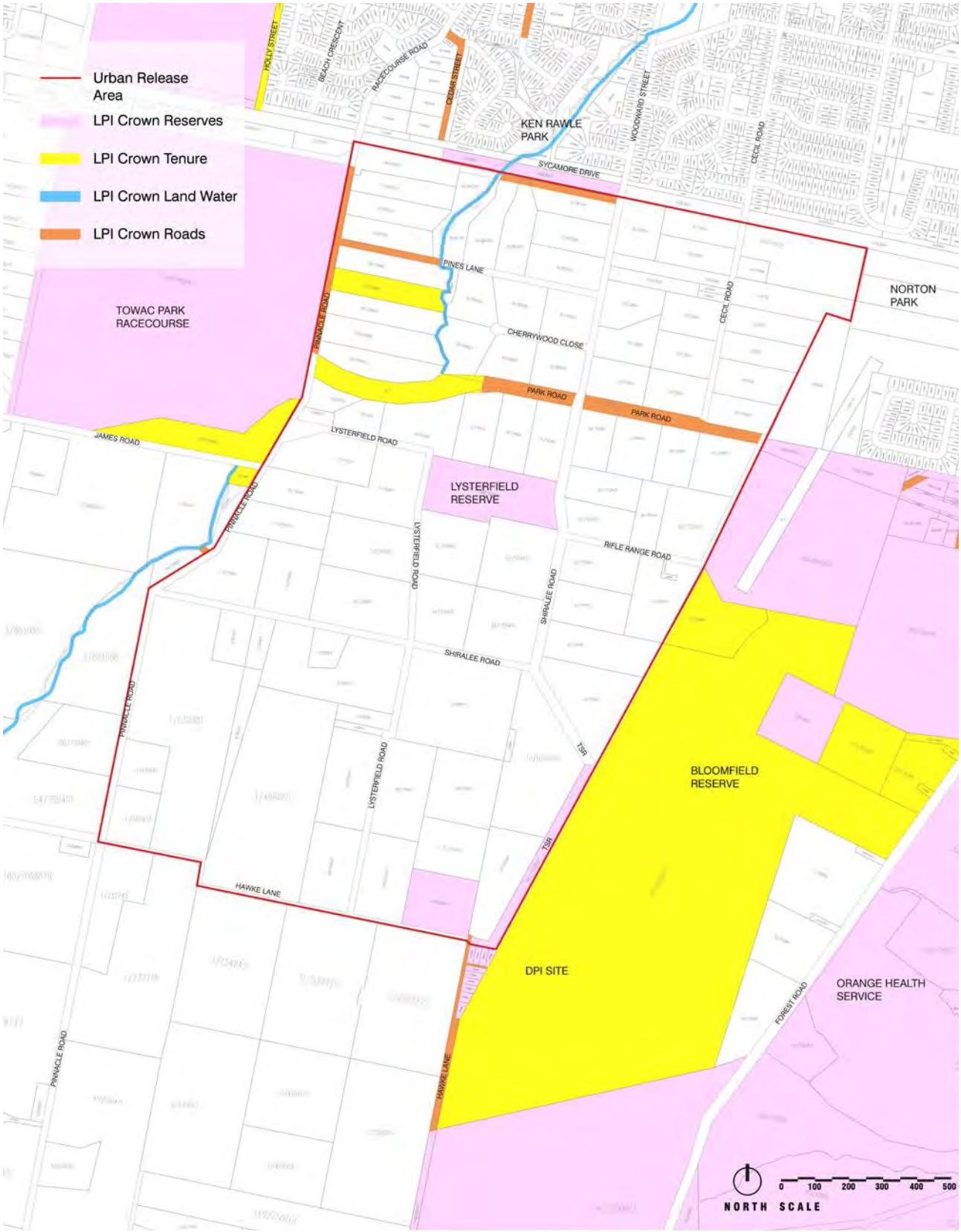


Figure 104. Crown Lands

Appendix D

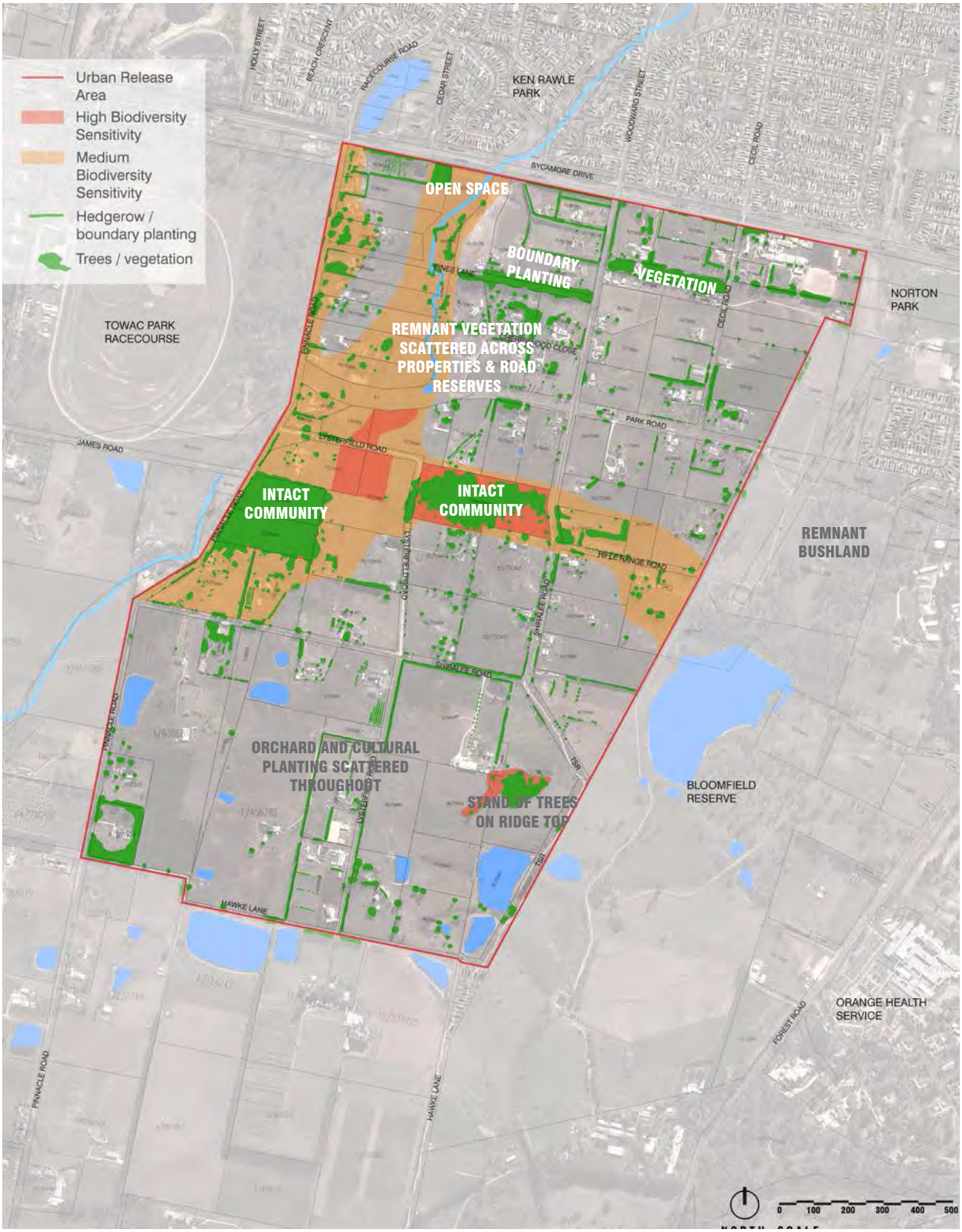
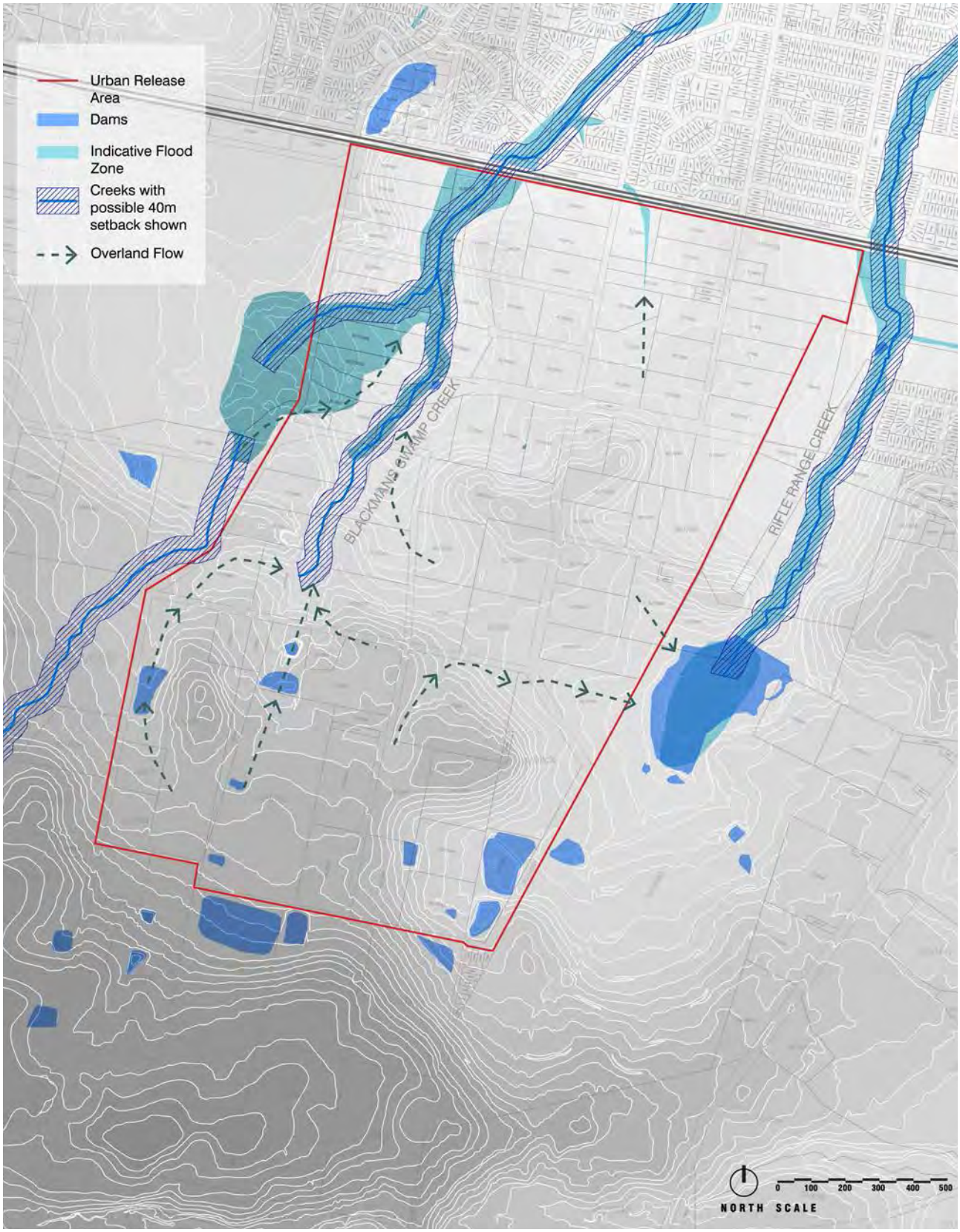


Figure 105. Vegetation

Appendix D



Note: Refer to Figure 38 for more precise watercourse locations.

Figure 106. Hydrology and Flooding

Appendix D

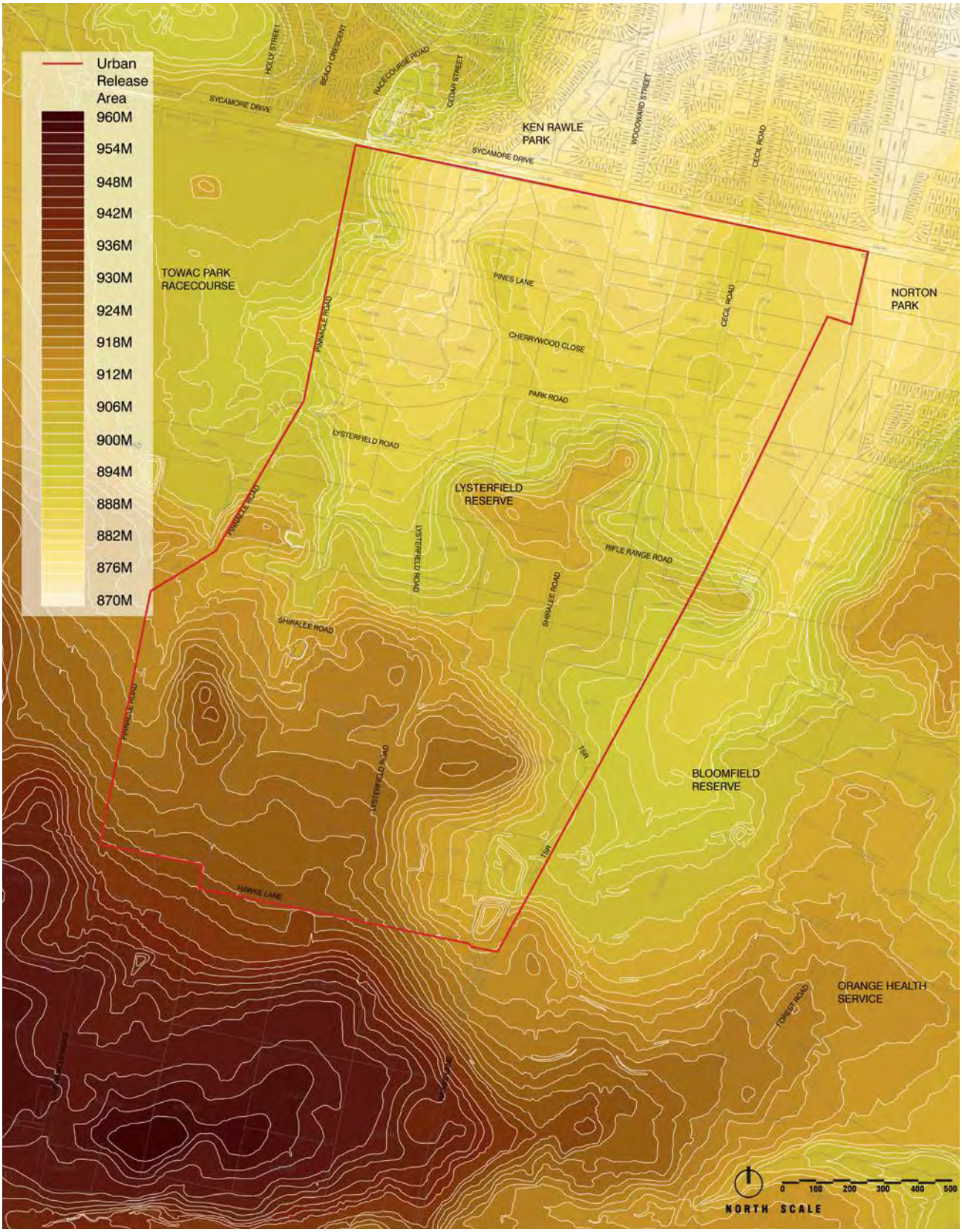


Figure 107. Topography

Appendix D

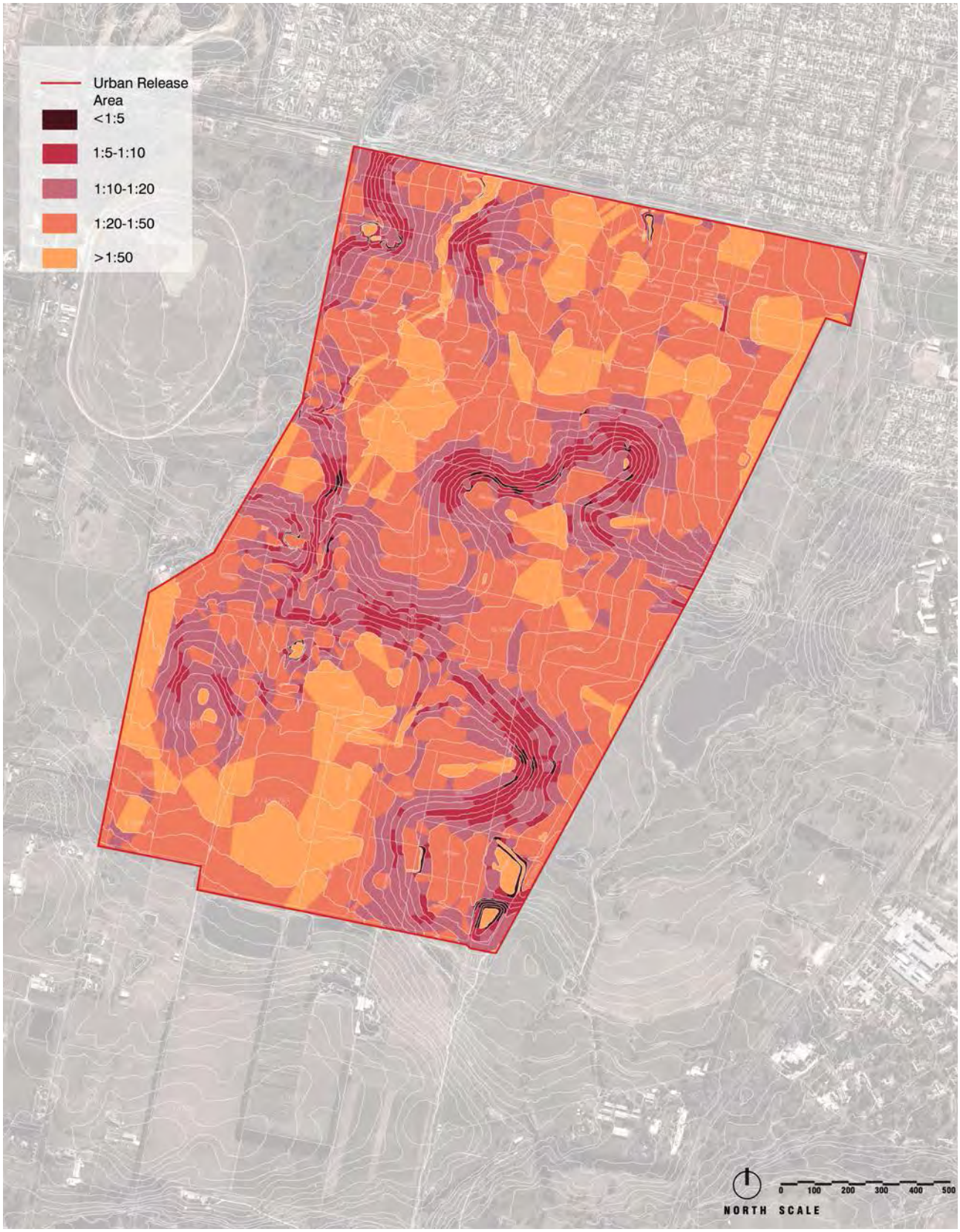


Figure 108. Slope Analysis

Appendix D

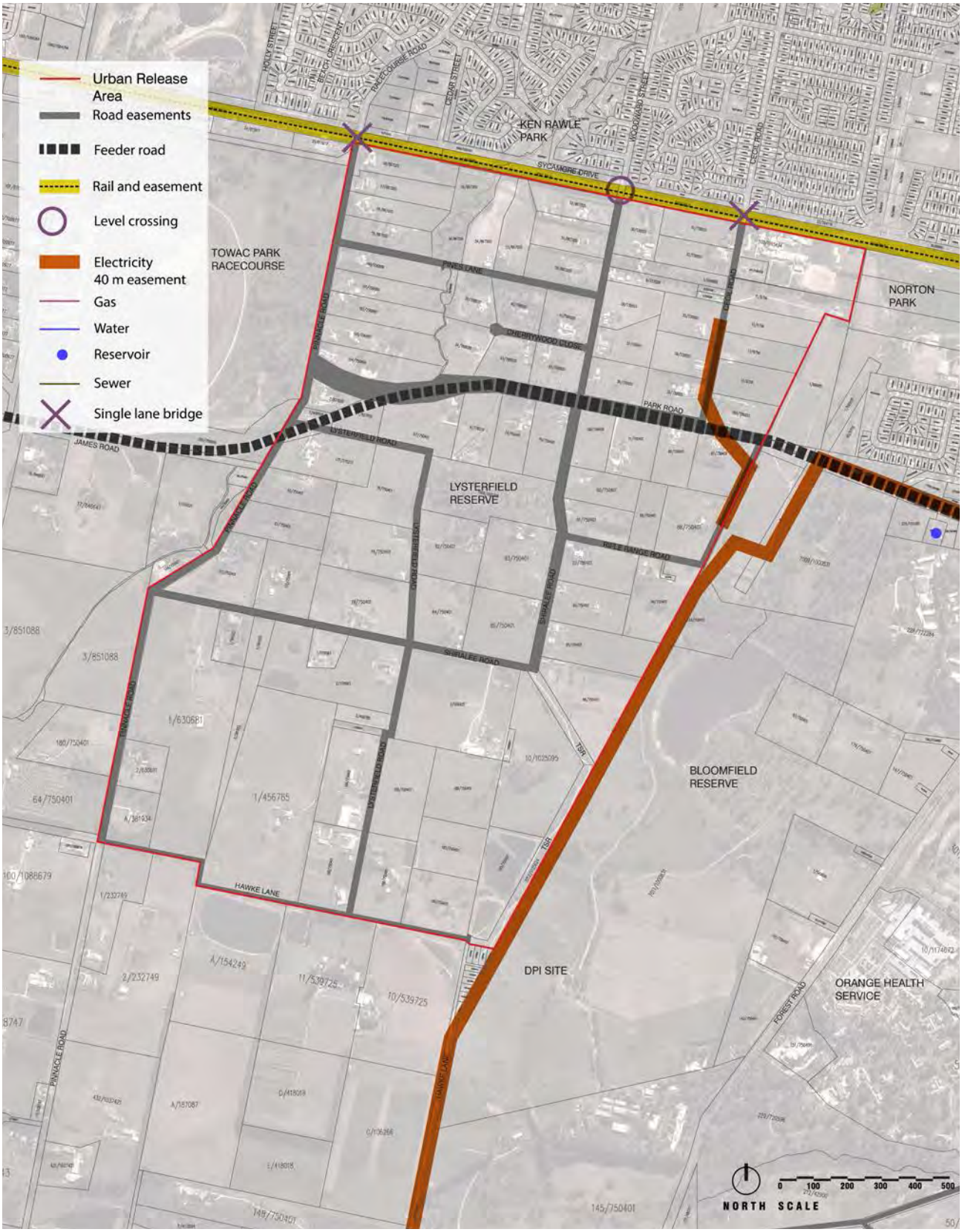


Figure 109. Infrastructure

Appendix D

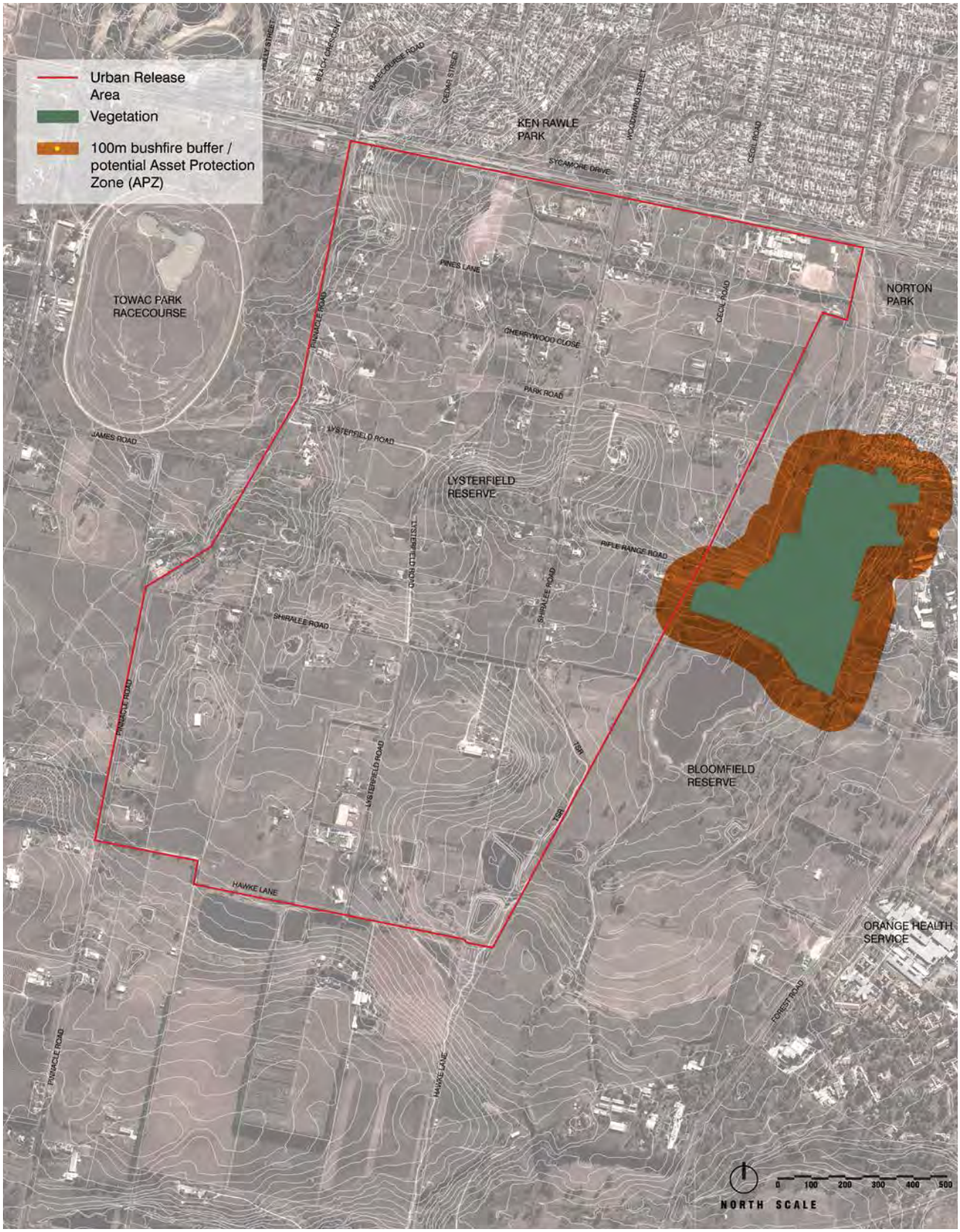


Figure 110. Bush Fire Analysis

Appendix D

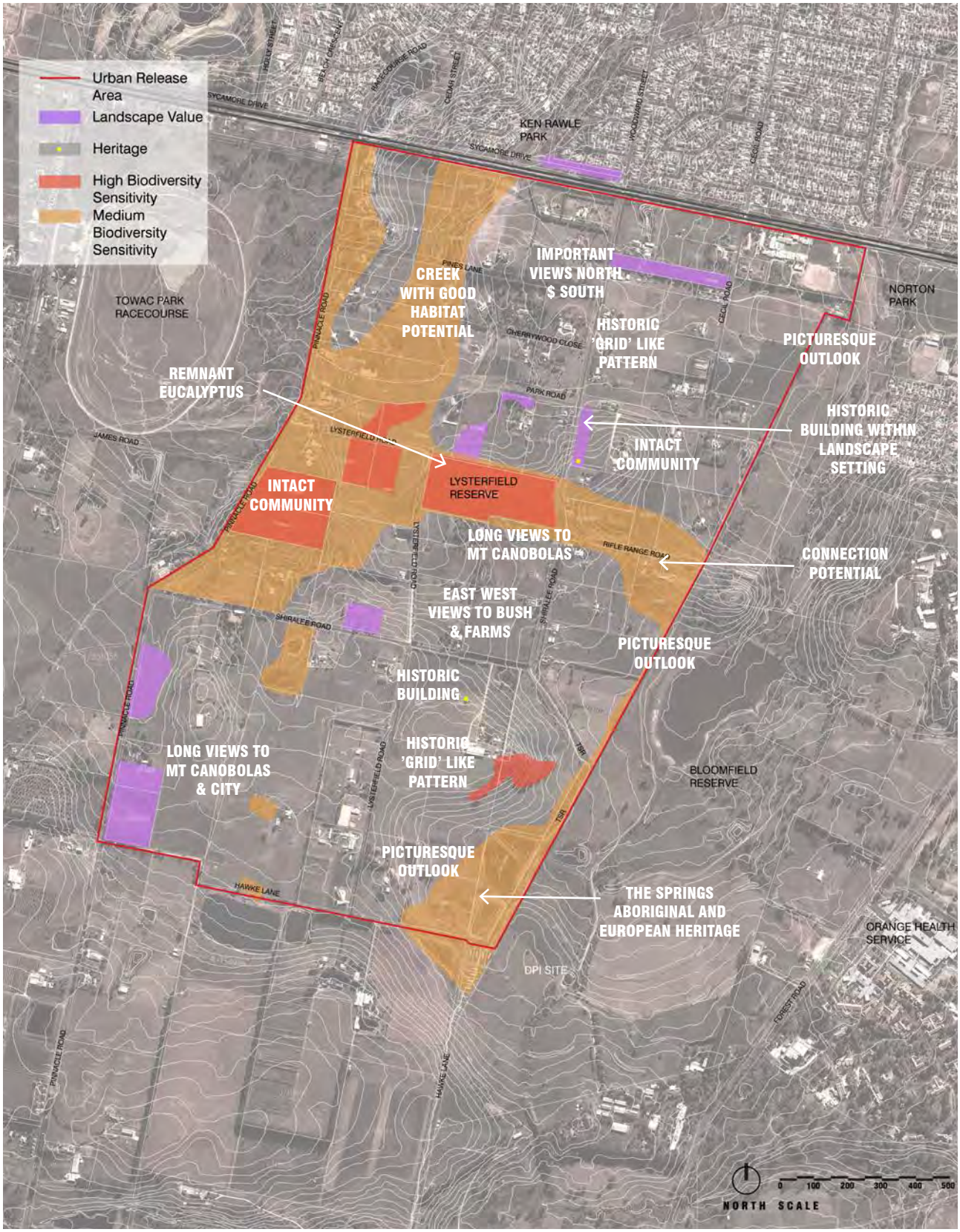


Figure 111. Heritage and Landscape Values

Appendix D

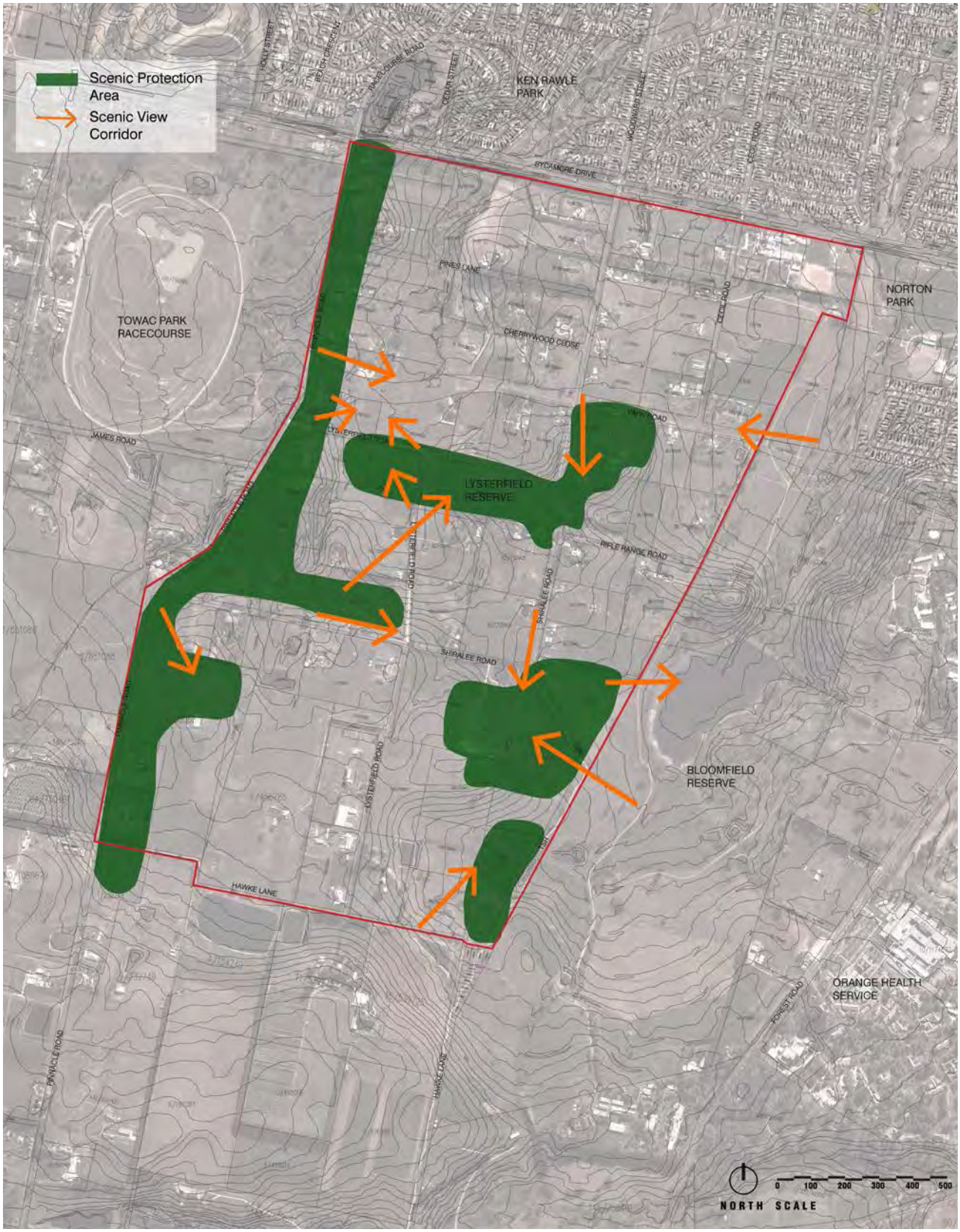
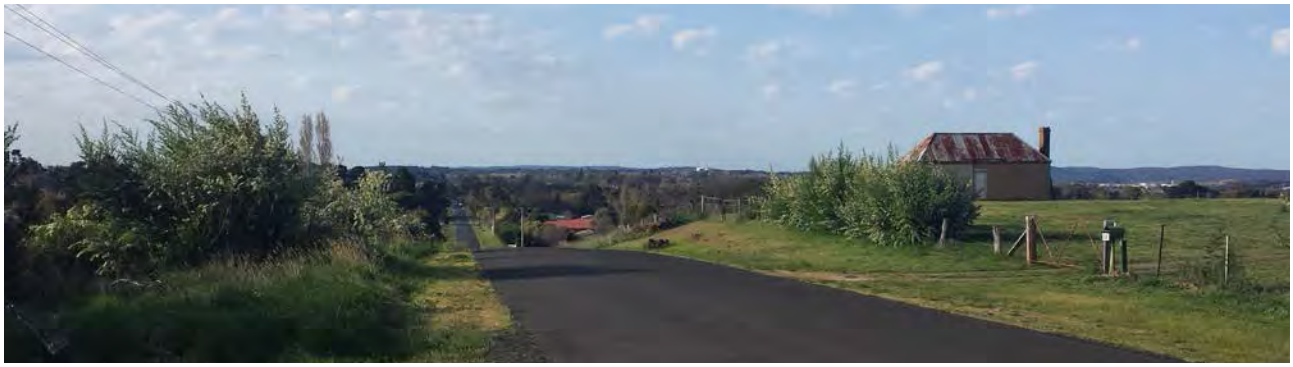


Figure 112. Scenic Amenity

Appendix D



Figures 113,114,115,116. Key Views and site character