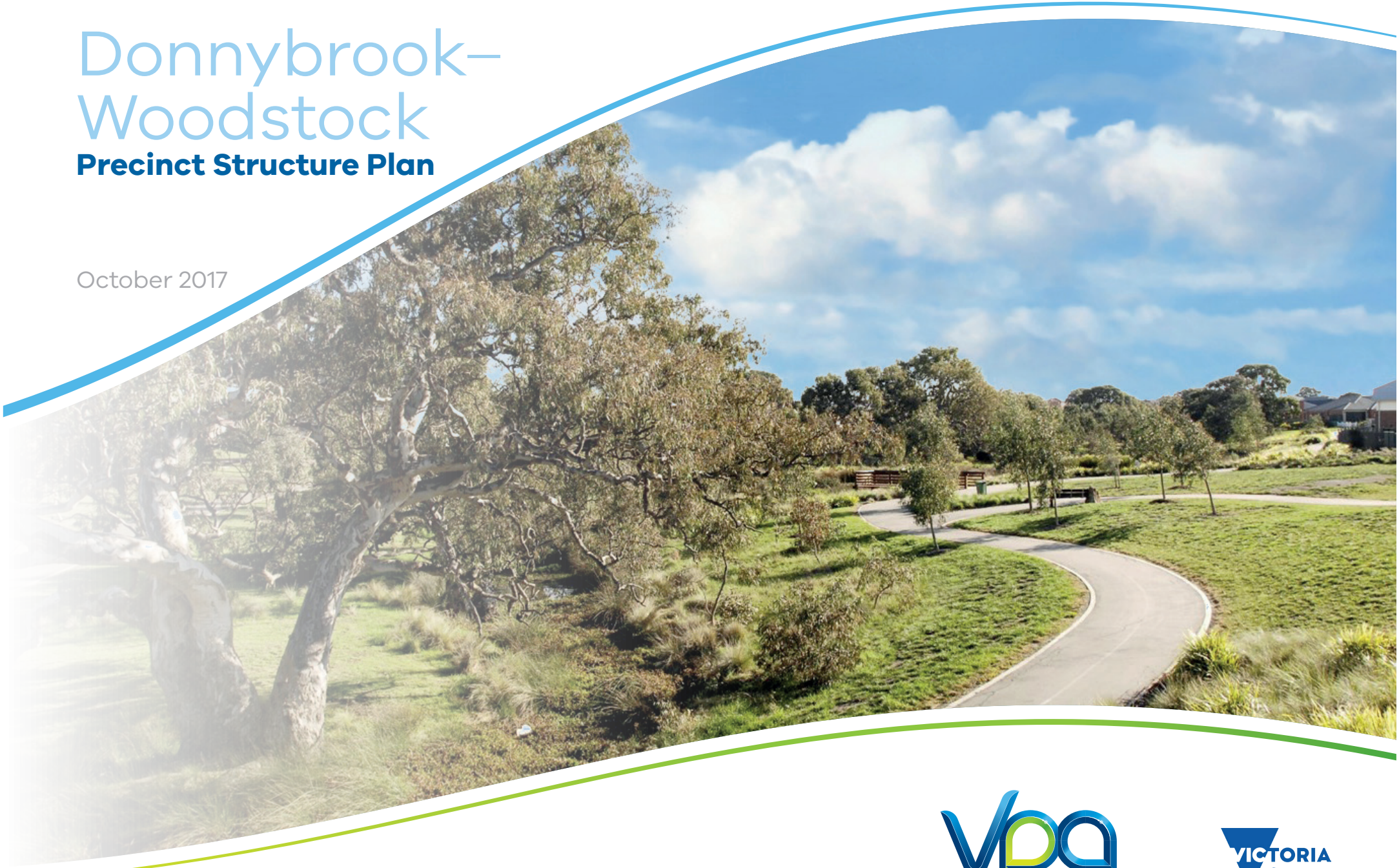
Donnybrook–Woodstock

Precinct Structure Plan

October 2017



Victorian Planning Authority

VICTORIA State Government

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Plan 1 - Regional Context

Donnybrook & Woodstock Precinct Structure Plan

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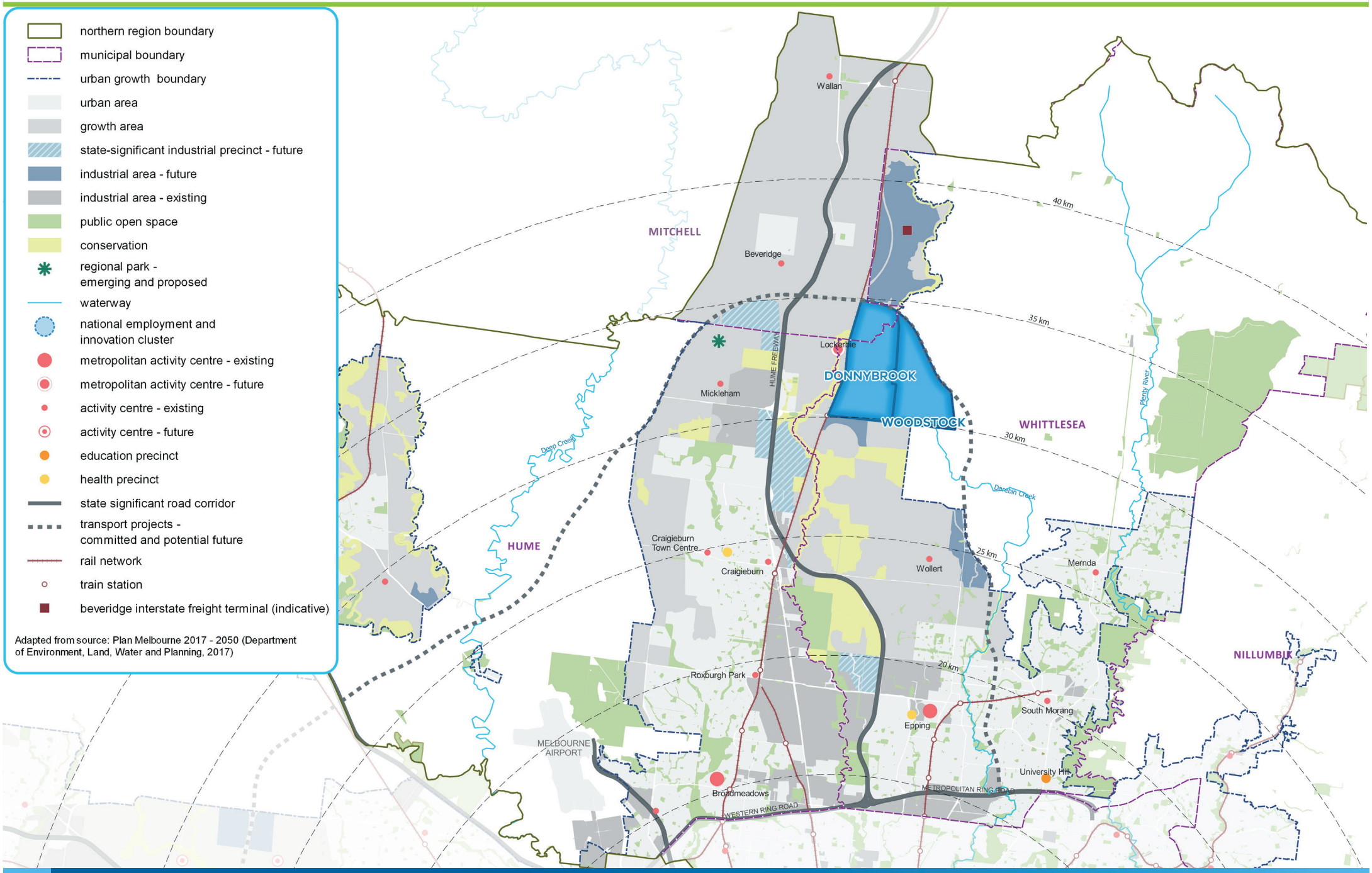

1.0 INTRODUCTION

The Donnybrook–Woodstock Precinct Structure Plan (the "PSP") has been prepared by the Victorian Planning Authority (VPA) with the assistance of the Whittlesea City Council, Shire of Mitchell, Government departments and agencies, service authorities and major stakeholders.

The PSP is a long-term plan for urban development. It describes how the land is expected to be developed, and how and where services are planned to support the development of new communities.

The PSP is a set of decisions about how the land is to be developed. The PSP:

- Sets out plans to guide the delivery of quality urban environments in accordance with the Victorian Government guidelines.
- Enables the transition of non-urban land to urban land.
- Sets the vision for how the land should be developed and the outcomes to be achieved.
- Outlines the projects required to ensure that future residents, visitors and workers within the area can be provided with timely access to services and transport necessary to support a quality and affordable lifestyle.
- Sets out objectives, requirements and guidelines for land use, development and subdivision.
- Provides Government agencies, the Council, developers, investors and local communities with certainty about future development.
- Addresses the requirements of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act 1999) through Federal approval of the *Biodiversity Conservation Strategy and Sub Regional Species Strategies for Melbourne's Growth Areas* (September 2013).

The PSP is informed by:

- The State Planning Policy Framework set out in the *Whittlesea Planning Scheme and Mitchell Planning Scheme*;
- The Growth Corridor Plans: *Managing Melbourne's Growth* (Growth Areas Authority, June 2012);
- The *Local Planning Policy Framework of the Whittlesea Planning Scheme and Mitchell Planning Scheme*;
- The *Biodiversity Conservation Strategy*[1] and *Sub Regional Species Strategies for Melbourne's Growth Areas* (Department of Environment and Primary industries, June 2013); and
- The *Precinct Structure Planning Guidelines*.

The following planning documents have been developed in parallel with the PSP to inform and direct the future planning and development of the precinct:

- The *Donnybrook–Woodstock Infrastructure Contributions Plan* (ICP) requires development proponents to make a contribution toward infrastructure required to support the development of the precinct.
- The *Donnybrook–Woodstock Background Report* (Background Report).

1 On 5 September 2013 an approval under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) was issued by the Commonwealth Minister for Environment, Heritage and Water. The approval applies to all actions associated with urban development in growth corridors in the expanded Melbourne 2010 Urban Growth Boundary as described in page 4 in the Biodiversity Conservation Strategy for Melbourne's Growth Corridors (Department of Environment and Primary Industries, 2013). The Commonwealth approval has effect until 31 December 2060. The approval is subject to conditions specified at Annexure 1 of the approval.

Provided the conditions of the EPBC Act approval are satisfied individual assessment and approval under the EPBC Act is not required.

1.1 How to read this document

This PSP guides land use and development where a planning permit is required under the Urban Growth Zone (Clauses 37.07 of the Whittlesea Planning Scheme or Mitchell Planning Scheme), or any other provision of the planning scheme that references this structure plan.

A planning application and a planning permit must implement the outcomes of the PSP. The outcomes are expressed as the VISION AND OBJECTIVES.

Each element of the PSP contains requirements, guidelines and conditions as relevant.

REQUIREMENTS must be met by development. Where they are not demonstrated in a permit application, requirements will usually be included as a condition on a planning permit whether or not they take the same wording as in the structure plan. A requirement may reference a plan, table or figure in the structure plan.

GUIDELINES express how discretion will be exercised by the responsible authority on certain matters that require a planning permit. If the responsible authority is satisfied that an application for an alternative to a guideline, implements the objectives, the responsible authority may consider the alternative. A guideline may include or reference a plan, table or figure in the PSP.

Meeting these requirements, guidelines and conditions will implement the outcomes of the PSP.

Development must also comply with other Acts and approvals where relevant e.g. the Environment Protection and Biodiversity Conservation Act 1999 in the case of biodiversity or the Aboriginal Heritage Act 2006 in the case of cultural heritage, amongst others.

Not every aspect of the land use, development or subdivision is addressed in this structure plan. A responsible authority may manage development and issue permits as relevant under its general discretion.

1.2 Infrastructure Contributions Plan

Development proponents within the Donnybrook–Woodstock precinct will be bound by the Donnybrook–Woodstock Infrastructure Contributions Plan (the ICP). The ICP sets out requirements for infrastructure funding across the Donnybrook–Woodstock precinct.

The ICP shall be an incorporated in both the Whittlesea Planning Scheme and Mitchell Planning Scheme, respectively.

A DCP has been gazetted for the abutting Lockerbie precinct in the City of Whittlesea, City of Hume and Shire of Mitchell. Although a separate DCP, the Lockerbie DCP shares an infrastructure project with the Donnybrook–Woodstock ICP.

A DCP has been gazetted for the English Street precinct in the City of Whittlesea. Although a separate DCP, the English Street DCP makes a contribution to a Community Infrastructure project and a sports reserve in the Donnybrook-Woodstck ICP.

Development proponents wishing to commence works prior to incorporation of this ICP can enter into agreements with the Whittlesea City Council or Mitchell Shire Council under Section 173 of the *Planning and Environment Act 1987* to expedite contributions.

1.3 Background information

Detailed background information used in the planning of the precinct is available. This includes reports on history, biodiversity, landform and topography, land contamination, aboriginal cultural and historical heritage, whole-of-water cycle management, transport, economic and retail provision, and community infrastructure.

This information is summarised in the Donnybrook–Woodstock Background Report and has informed the preparation of the PSP.

Plan 2 - Precinct Features

Donnybrook & Woodstock Precinct Structure Plan

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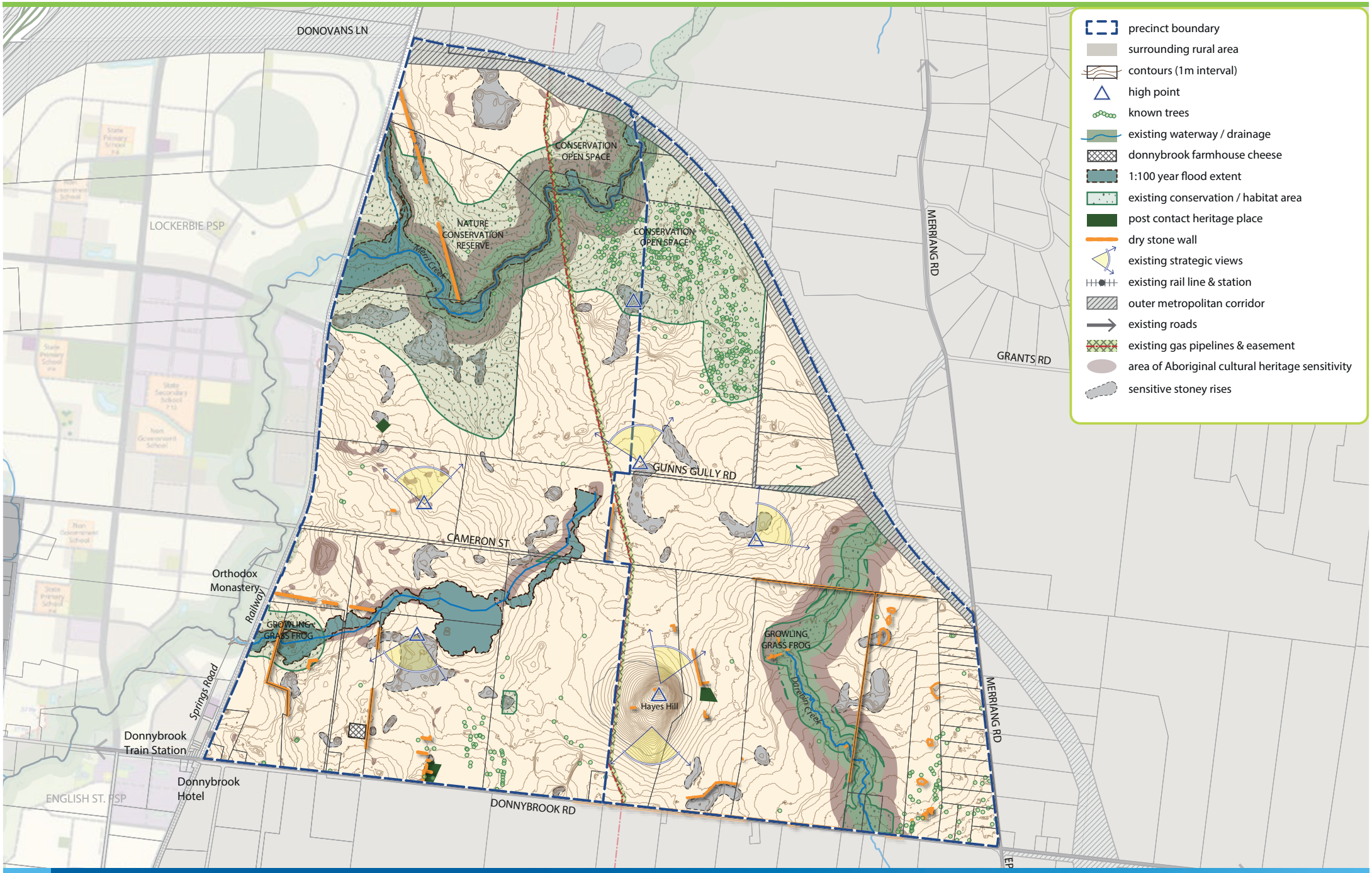

1.4 Land to which this PSP applies

Plan 2 identifies the key features of the land.

The PSP applies to approximately 1785.94 hectares of the land shown on Plan 1. The PSP area is generally bound by:

- The E6-OMR reservation to the north;
- Merriang Road to the east;
- Donnybrook Road to the south; and
- The Sydney–Melbourne railway line to the west.

The precinct is located approximately 35 kilometres north of Melbourne's Central Business District. The site is located on Donnybrook Road, north-east of Donnybrook township and the existing Donnybrook train station on the Sydney–Melbourne rail line. The approved Lockerbie Precinct Structure Plan lies immediately west of the precinct and includes the Lockerbie Principal Town Centre, the major centre planned to service the region. To the south of the future precinct is the Northern Quarries area (PSP 1069). The approved English Street (PSP 25.2) and Craigieburn North Employment Area precincts (PSP 25.1) lie south-west of the precinct. The Urban Growth Boundary forms the eastern boundary of the precinct and marks the easterly extent of Melbourne's urban development in the north growth corridor.

The site is located at the eastern extremity of the Victorian volcanic plains region, an area consisting of basaltic lava flows, collectively known as the Newer Volcanics. Reflecting this geological history, the site is characterised by a flat and undulating plain with numerous small stony rises, or knolls. Within the central south of the site, the most prominent topographical feature of the precinct is a small remnant volcanic cone, known locally as Hayes Hill. In the north-east of the precinct, basalt flows give way to the foot hills of the Eden Park area formed from older underlying sandstones and siltstones.

The precinct is roughly divided in half by a north–south ridge line. In the western half of the precinct, drainage lines predominantly flow to the west, north-west and south-west into Merri Creek. Water flows in the eastern half of the precinct flow predominantly south-east into the headwaters of the Darebin Creek.

The precinct has been largely cleared for agriculture; however there are areas of remnant Plains Grassy Woodlands and Golden Sun Moth habitat across the north and centre. Plains Grassy Woodland patches are recorded in several locations across the precinct, with an extensive woodland visible in the north-east.

The importance of these remnant vegetation patches and habitats are recognised in the Biodiversity Conservation Strategy (BCS) through the nomination of a number of conservation areas within the Donnybrook and Woodstock precincts:

- Conservation Area 22, located in the northern part of the Donnybrook and Woodstock precincts, is 181.30 hectares and characterised by nature conservation and open space containing significant remnant patches of native vegetation and scattered trees. Conservation Area 22 protects Growling Grass frog habitat and population, contributes to the target to protect 80 per cent of Grassy Eucalypt Woodland and ensures no substantial negative change to known populations of Curly Sedge and Matted Flax Lily with high quality habitat.
- Conservation Area 25, located in the Donnybrook precinct north of Donnybrook Road, is classified as being for nature conservation in the BCS. The conservation area protects Grassy Eucalypt Woodland and contributes to the target to protect 80 per cent of Grassy Eucalypt Woodland.
- Conservation Area 34 protects Growling Grass Frog Category 1 habitat along the Darebin and Merri Creeks within the precincts. The key rationale for the protection of these areas in the BCS is it 'protects important population of Growling Grass Frog and ensures connectivity between populations within the northern growth corridor'.

Plan 3 - Future Urban Structure

Donnybrook & Woodstock Precinct Structure Plan

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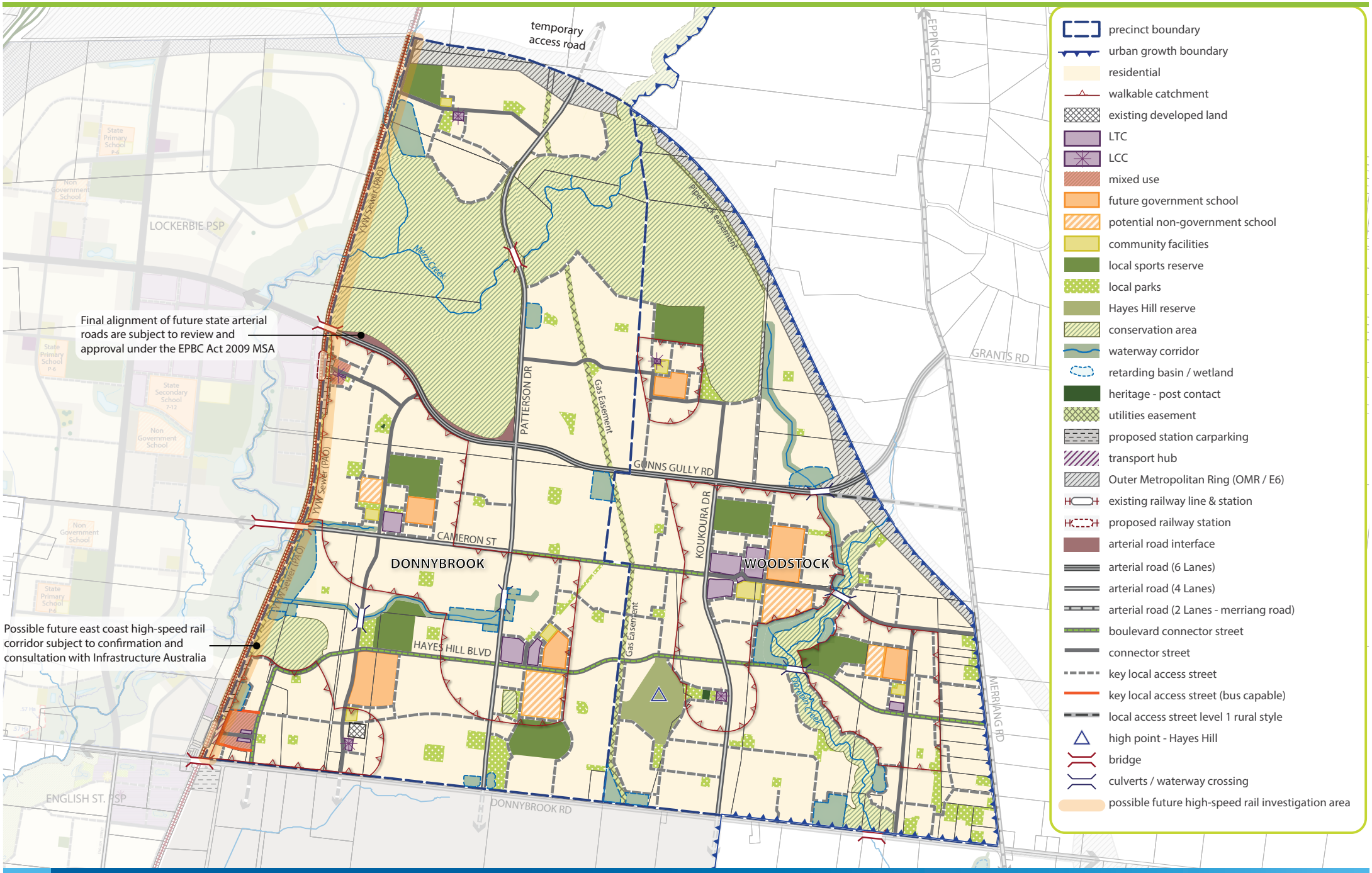

2.0 OUTCOMES

2.1 Vision

The Donnybrook–Woodstock precincts will develop as an attractive place to call home. Development will have a strong emphasis on the retention of natural features and high quality landscaping in an urban environment supported by strong connections to transport and community facilities. Development of the precinct will create a diverse mix of residential neighbourhoods linked by a variety of local town centres, schools and other community facilities. The distribution of local centres which serve a variety of roles and functions will promote self-sufficiency for residents of the precinct in meeting daily retail and convenience shopping needs. Residential and business development will capitalise on the precinct's proximity to the existing Donnybrook train station, as well as the future Lockerbie Principal Town Centre and potential future Lockerbie Train Station. The development of the existing Donnybrook Cheese Farm into an agricultural, historical and cultural learning hub will provide new residents with connections to the history of the area.

The road network will emphasise connections between the precinct and surrounding communities, particularly those developing to the west in the Lockerbie Precinct. Donnybrook Road will be upgraded to create a primary arterial road. The street network will be supported by the development of the arterial road and connector street grid. This will include Gunns Gully Road extending east across the Melbourne–Sydney Railway line into the north of the precinct as a primary arterial road. In doing this Gunns Gully Road will connect the precinct to the future Lockerbie Principal Town Centre in the west and to the future E6/OMR. The development of Cameron Street will also support east–west movement through the precinct with a proposed grade separated crossing of the Melbourne–Sydney Railway as a secondary arterial. North–south movement through the precinct will be supported by the development of Patterson Drive. A new bridge connection on Patterson Drive will connect the precinct north–south across Merri Creek and ultimately provide another connection point to the OMR/E6 corridor. Patterson Drive will also connect the precinct to the proposed Beveridge Interstate Freight Terminal, a major potential future employment area in the north. Koukoura Drive will develop as a secondary arterial to Gunns Gully Road and Cameron Street from Donnybrook Road.

Within the precinct, a fine grain street network will form a permeable grid pattern to interconnecting neighbourhoods to promote walking and cycling. Shared trail and on-road bicycle links will also promote integration with the Principal Public Transport Network, including direct links to the Donnybrook and future Lockerbie Train Station. Local active recreation opportunities for residents in Donnybrook–Woodstock will be provided via a distributed network of sporting reserves, local parks and an integrated trail network.

Development will also respond to the many existing man-made and natural features that characterise the area. This includes crossing the Melbourne–Sydney Railway, Merri Creek at Donnybrook Road, Cameron Street and Gunns Gully Road. The new overpasses will connect the precinct to employment land in the west and south of the sub-region. A planned upgrade of the existing Donnybrook Station and planned potential future development of the Lockerbie Train Station will increase access to rail for the district. Hayes Hill, a remnant volcanic cone in the central south of the precinct will be retained in a largely natural state to serve the precinct as a defining landscape feature. The Merri Creek and Darebin Creek corridors provide key conservation and linear landscape assets for the precinct. The creek corridors will be retained and habitat reinstated for the Growling Grass Frog (GGF) in considering the Biodiversity Conservation Strategy (BCS) and the Sub-Regional Strategy for the GGF with State and Federal approval.

As well as providing improved habitat for local indigenous species, the major creek corridors will bestow local amenity through native plantings and provide informal recreation opportunities through the provision of linear trails and passive park areas.

2.2 Key objectives

The following objectives describe the desired outcomes of the development of the precinct and guide implementation of the vision. In addition to the following objectives, the PSP is designed to achieve the general objectives and standards of the PSP guidelines and relevant sections of the State and local Planning Policy Frameworks.

OBJECTIVES	
Image & Character	
O1	Create a strong sense of place and diverse neighbourhoods throughout Donnybrook and Woodstock by ensuring subdivision design, development and public spaces integrate key natural and cultural heritage elements.
O2	Achieve high quality urban design and public realm standards in the development of land surrounding the Donnybrook railway station and future Lockerbie railway station.
O3	Provide attractive and comfortable streets and public spaces as the centre of community life.
O4	Encourage retention and planting of large canopy trees to create comfortable and healthy streets, pedestrian and cycle networks, and open spaces.
O5	Create a high-amenity, indigenous landscape corridor along the Darebin Creek and Merri Creek, other waterways and utilities easements.
O6	Encourage environmentally sustainable design principles across residential and commercial development.
O7	Create opportunities for future redevelopment by encouraging the retention of larger sites in strategic locations and discouraging the under development of strategic sites.
O8	Enhance the presentation of the precinct to Donnybrook Road by encouraging shared utility infrastructure services and development fronting the road.
O9	Promote housing diversity through the provision of a range of housing types and lot sizes to meet the needs of the future resident population.
O10	Create accessible high-amenity landscape corridors along waterways including the Merri and Darebin Creeks.
O11	Promote the retention of existing trees and windrows to retain the prevailing landscape character of the district.
O12	Encouraging built form that demonstrates environmentally sustainable design principles and incorporates heritage features into the development.
Employment, Town Centres & Community Facilities	
O13	Create town centres with a strong sense of place and local character that recognises the diversity of the future community.
O14	Provide high amenity and vibrant local town centres with a variety of uses that cater for residents various shopping, service, employment, entertainment and accommodation needs.
O15	Ensure convenient access to a range of facilities, services and opportunities for social interaction by locating local centres, within walking distance of their primary catchment, to create community hubs.
O16	Create 'main street' focused town centres that encourage community interaction with high quality and accessible pedestrian environments that provide a safe environment for pedestrians of all ages and abilities.
O17	Achieve development of medium and higher density housing on land in and adjacent to local centres.
O18	Encourage development around the Donnybrook railway station and future Lockerbie railway station that capitalise on opportunities to be proximate to the transport hubs.
O19	Design town centres and community infrastructure to ensure they can adapt and evolve over time as the population grows and local needs change.
O20	Pursue development of commercial and residential uses above ground floor uses to support town centre activity and provide for optimal land use opportunities.
O21	Encourage development of shared use facilities by co-locating schools and community facilities with sporting reserves and town centres where possible.
O22	Develop diverse local employment opportunities to meet the varied needs of existing and future residential populations and encourage counter-cyclical travel patterns to alleviate city-bound congestion.
O23	To create an agricultural, historical and cultural learning centre at the Donnybrook Cheese Farm for residents to learn and engage with the history of the area.
O24	Provide flexible community facilities and infrastructure to accommodate the delivery of education, health, recreation, cultural, and other support services in order to meet the needs of the future community.
O25	Encourage the timely provision of local community infrastructure and convenience retail to meet the daily needs of residents within the precinct.
O26	Provide for non-government school sites to meet a strategically justified need for Catholic primary and secondary education and other non-government education in the area.

Open Space, Natural Systems & Community Facilities	
O27	Encourage creation of unique place-making opportunities where natural and heritage features and values overlap.
O28	Provide an integrated and accessible public open space network offering attractive active and passive recreation opportunities that cater for people of all ages, genders, cultures and abilities.
O29	Link the public open space network via attractive pedestrian and cycling trail networks.
O30	Maximise the retention of scattered River Red Gums and other remnant indigenous trees through responsive subdivision design.
O31	Plan sensitive urban interfaces to historic and Aboriginal cultural heritage and natural assets such as retained stony rises, dry stone walls and heritage buildings, and local conservation reserves.
O32	Orientate development towards open spaces to maximise their activation and passive surveillance, and create a catalyst for architectural diversity.
O33	Plan sensitive urban interfaces to Merri Creek and Darebin Creek waterways.
O34	Retain, protect and enhance the environs of the Merri Creek and Darebin Creek waterways.
O35	Retain a majority of Hayes Hill in a natural state as a key regional landscape feature.
Biodiversity, Threatened Species & Bushfire Management	
O36	Create high quality habitat for the Growling Grass Frog along the Merri Creek and Darebin Creek corridors, and support other environmental habitat values.
O37	Plan for the long-term conservation and enhancement of areas of biodiversity.
O38	Ensure that bushfire protection measures are considered in the layout and design of development and the local street network.
O39	Plan for the protection of river red gums in the landscape.
Transport & Movement	
O40	Establish an integrated and permeable transport network to encourage walking, cycling, and public transport, reduced car dependency and maximise safety and connectivity for all road users.
O41	Provide strong external connections to the surrounding road network to promote accessibility and connectivity throughout the precinct.
O42	Create a road network that is permeable and facilitates efficient and direct pedestrian, cyclist and vehicle movement and road based public transport.
O43	Create a range of road configurations that promotes green links and vistas throughout the precinct.
O44	Reduce the reliance on private vehicles for daily local travel needs through the provision of shared paths and trails to promote cycling and walking as alternative means of travel.
O45	Maximise opportunities for safe walking and cycling access to and from Donnybrook railway station and future Lockerbie railway station.
O46	Maximise accessibility of the precinct through the strengthening of links to Donnybrook Road, the planned E6/OMR and Hume Freeway and the surrounding arterial road network.
O47	Create a road and path network that maximises connections to the existing Donnybrook railway station and future Lockerbie railway station.
Integrated Water Management & Utilities	
O48	Deliver an integrated and resilient water system that supports liveable and sustainable communities, protects the environmental health of waterways and Port Phillip Bay, provides secure water supplies efficiently, protects public health and delivers affordable, essential water services.
O49	Prepare for the likely impacts of climate change and provide long term environmental, economic and social benefits through encouraging environmentally sustainable design.
O50	Ensure all lots have access to potable water, recycled water, electricity, reticulated sewerage, drainage, gas and telecommunications infrastructure.
O51	Deliver an integrated water management system that reduces reliance on reticulated potable water, increases the re-use of alternative water, minimises flood risk, ensures waterway health, and contributes towards a liveable, sustainable and green urban environment.
O52	Maximise the amenity benefits of water assets by integrating them into the urban landscape.
O53	Utilise and improve the gas easement with appropriate landscaping to contribute to the linear open space network.
Precinct Infrastructure Plan & Staging	
O54	Provide all lots, to the satisfaction of the relevant authority, with potable water, electricity, reticulated sewerage, drainage, gas and telecommunications.
O55	Install essential services in a way that does not impede the ability to plant canopy trees in streets and along easements and minimises the impact on existing landscape features.
O56	Ensure pre-development property structure does not impede the realisation of cohesive and integrated neighbourhoods.
O57	Ensure that development staging is co-ordinated with the delivery of key local and state infrastructure.

Plan 4 - Land Use Budget

Donnybrook & Woodstock Precinct Structure Plan

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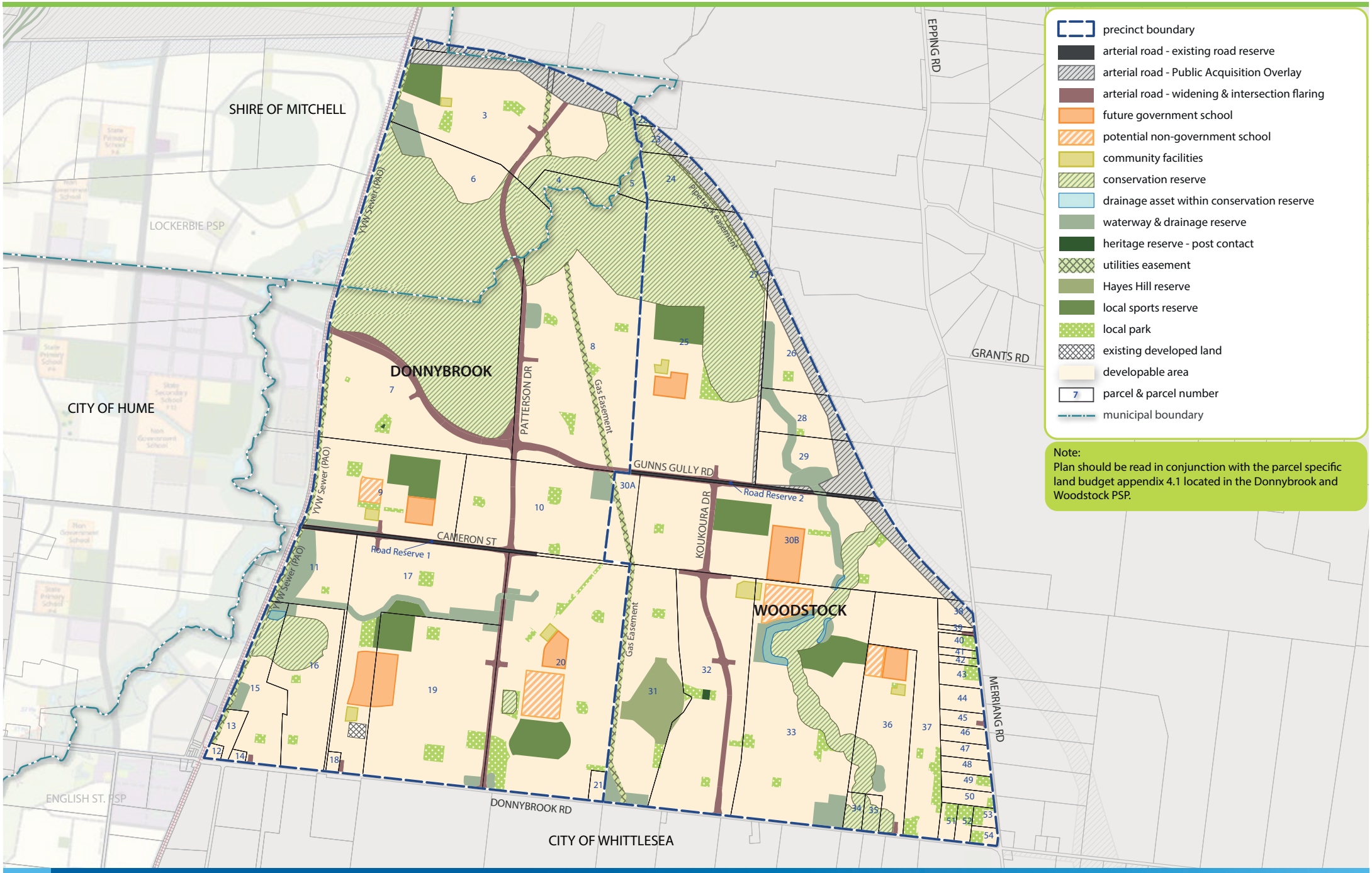

Note:
Plan should be read in conjunction with the parcel specific land budget appendix 4.1 located in the Donnybrook and Woodstock PSP.

2.3 Summary land budget

Plan 4 and Table 1 provide an overview of the allocation of land uses throughout the precinct and summarises the areas of land required for community and development infrastructure. Due to the number of properties in the precinct, a property specific land budget is attached as Appendix 4.1.

The area of Net Developable Area (NDA) is established by deducting the land requirements for major roads, servicing, community facilities and open space from the overall Precinct area. The estimated NDA for the precinct is presented in Table 1, along with estimated dwelling yields.

The area for non-government schools have been removed from the Net Developable Area (NDA). If the use of that land is subsequently for a purpose other than a non-government school, the owner of that land must pay development contributions in accordance with the provisions of the ICP.

Table 1 Summary land use budget

DESCRIPTION	HECTARES	% OF TOTAL	% OF NDA
TOTAL PRECINCT AREA (ha)	1,785.94	100%	
TRANSPORT			
Arterial Road – Existing Road Reserve	6.32	0.35%	0.61%
Arterial Road – Public Acquisition Overlay	57.78	3.24%	5.59%
Arterial Road – New / Widening / Intersection Flaring (ICP land)	47.68	2.67%	4.62%
Sub-total Transport	111.77	6.3%	10.82%
COMMUNITY & EDUCATION			
Future Government School	32.34	1.81%	3.13%
Potential Non-Government School	20.47	1.15%	1.98%
Local Community Facility (ICP land)	6.40	0.36%	0.62%
Sub-total Education	59.21	3.3%	5.7%
OPEN SPACE			
UNCREDITED OPEN SPACE			
Conservation Reserve	372.82	20.88%	36.10%
Drainage Asset within Conservation Reserve	3.99	0.22%	0.39%
Waterway and Drainage Reserve	59.38	3.32%	5.75%
Heritage Reserve - Post Contact	0.39	0.02%	0.04%
Utilities Easements	27.33	1.53%	2.65%
Hayes Hill Reserve	14.58	0.8%	1.41%
Sub-total Uncredited Open Space	478.49	26.79%	46.33%
CREDITED OPEN SPACE			
Local Sports Reserve (ICP land)	54.80	3.1%	5.31%
Local Park (ICP land)	46.59	2.6%	4.51%
Sub-total Credited Open Space	101.39	5.7%	9.82%
Total All Open Space	579.88	32.5%	56.15%
OTHER			
Existing Developed Land	2.31	0.13%	0.22%
Sub-total	2.31	0.13%	0.22%

RESIDENTIAL	NDA (HA)	DWELLINGS / NDHA	DWELLINGS
Totals Residential Yield Against NDA	1,032.78	16.5	17,041
Anticipated population @ 2.8 persons per dwelling		47,715	

Plan 5 - Character & Housing

Donnybrook & Woodstock Precinct Structure Plan

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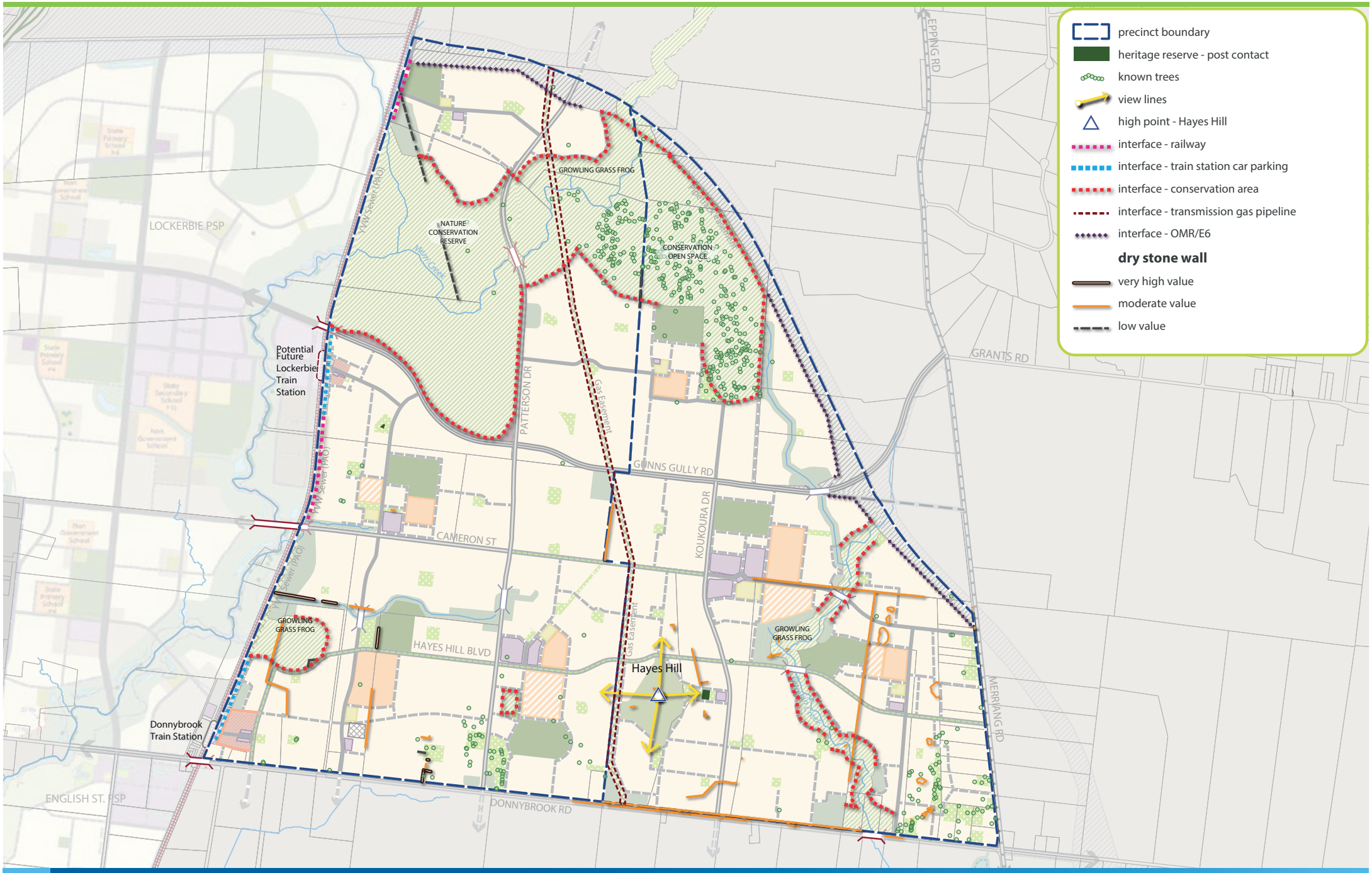


3.0 IMPLEMENTATION

3.1 Image, character, heritage and housing

3.1.1 Image, character and heritage

REQUIREMENTS	
R1	Street trees must be provided on both sides of all roads and streets (excluding laneways) and to be spaced at regular intervals appropriate to tree size at maturity, unless otherwise agreed by the responsible authority, at an average of: • 8–10 metres – small trees; • 10–12 metres – medium trees; and • 12–15 metres – large trees.
R2	Trees in parks and streets must be suitable for local conditions, and planted in modified and improved soil as required to support tree longevity.
R3	Street tree planting must use locally appropriate species and be consistent with any guidance provided on the relevant cross section within this Precinct Structure Plan unless otherwise approved by the responsible authority.
R4	Subdivision for housing is not permitted on slopes of Hayes Hill with a gradient above 1:5 (20%).
R5	Development must not encroach on Hayes Hill beyond the area identified for development as shown on Plan 3 and as reflected in the property specific land budget to the satisfaction of the responsible authority.
R6	Subdivision, engineering, landscape design and buildings and works must provide a sensitive response to current landforms and minimise the need for excavation and cut and fill earthworks.
R7	Earthworks, retaining structures and embankments must be carefully and sensitively designed to transition gradually into natural contours, and retaining walls over 1 metre must be avoided along the street edge.
R8	Where lawns are utilised for embankments in public areas, the gradient must be in accordance with Council standards.
R9	Heritage sites including drystone walls and built form identified on Plan 2 or in a Cultural Heritage Management Plan must be sensitively incorporated into the subdivision and protected from impact.
R10	Dry stone walls identified as having a moderate to high value for retention on Plan 5 must be retained as part of any future development, unless otherwise agreed to by the responsible authority after consideration of overall design response and following receipt of advice from a suitably qualified professional regarding the condition of the wall.
R11	Dry stone walls that are retained must: • Be situated within public open space or street reserve to the satisfaction of the responsible authority; • Be incorporated into subdivision design to minimise disturbance to the walls (e.g. utilisation of existing openings for vehicle and pedestrian access); • Have a suitable landscape interface to minimise maintenance requirements (for example mulch, garden bed or gravel) and which does not encourage public access immediately adjacent to the retained walls; • Be checked by a suitably qualified professional for works required to preserve the structural integrity of the wall in a manner suitable for the future context; and • Retain any post and wire or post and rail elements, with any wire protruding beyond the vertical face of the wall reinstated to its original position or removed.

R12	Any reinstatement or repair of dry stone walls must be undertaken by a suitably qualified professional and is to be consistent with the construction style of the original wall, with edges around wall openings made secure (cemented) to the satisfaction of the responsible authority. Reinstatement is to use stone from (in order of priority): • The original wall in that location (including fallen stone adjacent to the wall); • A nearby section of the wall approved to be removed; • Any adjacent land containing wall parts which can be recovered; and • Walls approved for removal in the nearby area (including any stone which has been stockpiled by Council). A list of suitably qualified professionals can be obtained from Council and the Dry Stone Walls Association of Australia.
R13	Where dry stone wall removal is proposed, land owners/applicants must consult with Council to determine the most suitable relocation and reconstruction opportunity for the removed wall and appropriate arrangements for relocation and reuse of removed stones where reconstruction is not possible.
R14	Sites nominated as heritage – post contact on Plan 3 must be investigated for potential adaptive re-use, for a residential or suitable commercial/community use.

GUIDELINES	
G1	Street networks within subdivisions should be designed to maximise the number of connections onto connector streets and arterial roads to create a permeable street network.
G2	Street networks should direct views to the summit of Hayes Hill, surrounding hills, waterways and public open spaces.
G3	Significant elements of the landscape and built form should be used as focal points for view lines along streets.
G4	Retained windrows and significant trees should be located within the public domain, including parks and road reserves, unless otherwise agreed by the responsible authority.
G5	Street trees should be used consistently across subdivisions to reinforce the local character of the area. They can be selected to provide local landmarks and definition to key nodes, local town centres, park frontages and key intersections and entrances.
G6	A consistent suite of lighting and furniture should be used across subdivisions, appropriate to the type and role of street or public space, unless otherwise agreed by the responsible authority.
G7	Built form of dwelling located at the interface with Hayes Hill Parkland should be designed to avoid dominating views to and from the parkland by employing design features such as reduced overall building heights and split level design.

3.1.2 Tree protection

REQUIREMENTS	
R15	Except with the written consent of Council, a minimum of 80 per cent of River Red Gums classified as Medium, Large, or Very Large (per DSE publication 'Guide for Assessment of Referred Planning Permit Applications') must be retained on each parcel for their landscape and amenity value. The retention of trees on Plan 9 and those identified in any site specific Arborist Report submitted with any application will contribute to the attainment of this requirement. Where multiple contiguous parcels are owned or controlled by a single entity and planned to be developed in an integrated manner, this Requirement may be applied and met across those contiguous parcels. Note: trees shown as ''native vegetation to be removed' on Plan 9 are excluded from the total number of trees used to determine tree retention calculations by parcel. However, where voluntarily retained, these trees will contribute to retention percentage. Trees located within a Public Acquisition Overlay, future arterial road or intersection flaring as shown on Plan 4 – Land Budget, are considered as 'native vegetation to be removed' in the context of Plan 9, at the discretion of the responsible authority.
R16	Retained River Red Gums, wind rows and significant trees must be located within the public domain, including parks and street reserves, unless otherwise agreed by the responsible authority.
R17	Where trees are retained, applications for subdivision and/or development must apply Tree Protection Zones as identified within Appendix 4.6 of the Donnybrook–Woodstock Precinct Structure Plan, unless otherwise agreed by the responsible authority.
R18	Subdivision design must actively respond to the landscape character throughout the precinct by aligning streets, lots, open space and public spaces to retain visual character elements such as River Red Gums, stony rises, dry stone walls, heritage places and waterways, to the satisfaction of the responsible authority.
GUIDELINES	
G8	Small River Red Gum and other indigenous trees should be retained where located with other trees identified for retention.
G9	Large areas of closely scattered River Red Gums should be prioritised for retention to enhance local identity and visually reference the historic rural landscape.

3.1.3 Housing

REQUIREMENTS	
R19	Lots must front (in order of priority where a lot fronts multiple elements) to the satisfaction of the responsible authority: • Waterways, conservation areas and public open space; • Gas easement; • Local access streets; • Connector roads; • Education facility; • The railway line; and • Arterial roads.
R20	Lots abutting the Conservation Interface Areas must provide for the outcomes illustrated in the appropriate cross section.
R21	Lots abutting the Sydney–Melbourne railway line must provide for the outcomes illustrated in the appropriate cross sections.
R22	Subdivision applications must include indicative layouts for any lots identified for the future development of medium density, high density, or integrated housing that suitably demonstrate: • Potential dwelling yield; • Active interfaces with adjacent streets, open space and waterways; • Safe and effective internal vehicle and pedestrian circulation; and • Indicative treatments for sensitive interfaces – as identified in Plan 5.
R23	Subdivision of land within 800 metres walkable catchment of the Donnybrook railway station as measured from the transport hub shown on Plans 3 and 6, must include a range of lot sizes suitable for medium and higher density housing as described in Table 2 to achieve a minimum average dwelling densities as listed below: • Up to 500 metres 25 dwelling / NDH; and • 500–800 metres 18 dwellings / NDH. Applications for subdivision that can demonstrate how target densities can be achieved over time, to the satisfaction of the responsible authority shall be considered.

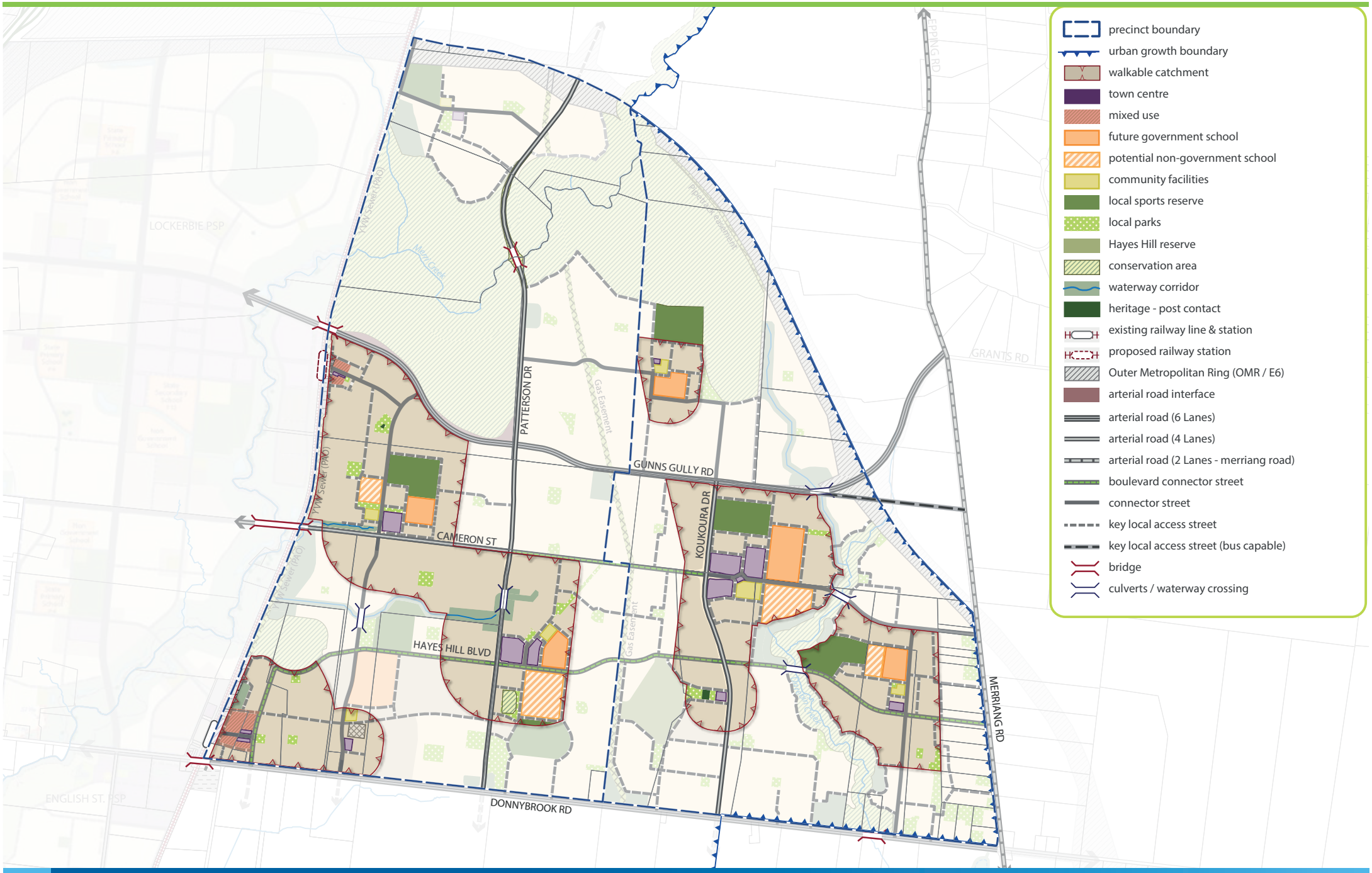
Plan 6 - Walkable Catchment

Donnybrook & Woodstock Precinct Structure Plan

1:32,000 @ A4

0 300 600 900 1,200 1,500m

N



R24	Subdivision of land within 800 metres walkable catchment of the future Lockerbie railway station as measured from the transport hub shown on Plans 3 and 6, must include a range of lot sizes suitable for medium and higher density housing as described in Table 2 to achieve minimum average dwelling densities as listed below: • Up to 500 metres 25 dwellings/NDH; and • 500 – 800 metres 18 dwellings/NDH. Applications for subdivision that can demonstrate how target densities can be achieved over time, to the satisfaction of the responsible authority shall be considered.
R25	Subdivision of land within 400 metres walkable catchment of Local Town Centres as measured from the retail allocation shown on Plan 6, must include a range of lot sizes suitable for medium and higher density housing as described in Table 2 to achieve a minimum average dwelling densities of 18 dwellings / NDH.
GUIDELINES	
G10	Subdivision of land should create an overall average density greater than 15 dwellings / NDH. Where a subdivision proposal represents a single stage or limited number of stages, proponents should demonstrate how the subdivision will contribute to the eventual satisfaction of this guidance.
G11	Subdivisions should cater for the provision of three or more dwelling types, as listed in Table 2 as appropriate, or demonstrate an alternative lot range that achieves the housing diversity objectives.
G12	Specialised housing forms, such as retirement living or aged care should be: • Integrated into the wider urban structure; • Located in close proximity to community hubs; • Accessible by public transport; • Universal Design Principles; and • Not present as a barrier to movement through the surrounding road network.
G13	Conventional and lower density housing is encouraged in areas interfacing with the Darebin Creek corridor and other significant conservation areas.
G14	Streets should be aligned to create views and direct connections to open space areas, River Red Gums, wetlands and encumbered open space within the drainage corridor.
G15	A consistent landscaping theme should be developed along streets and access ways within the residential area and town centres. Variations in street tree species should be used to create visual cues in appropriate locations such as at the termination of view lines, key intersections, and in parks.

Table 2 Housing type by lot size

The following table is intended to provide guidance on the achievement of housing diversity objectives by providing an example of how variation in lot sizes supports the delivery of a broad range of housing types.

INDICATIVE HOUSING TYPE	TYPICAL LOT SIZE (m²)		
	<300	300–600	>600
Small Lot Housing including townhouses and attached, semi-detached and detached houses	✓		
Dual occupancies, duplexes	✓	✓	✓
Detached houses		✓	✓
Multi-unit housing sites including terraces, row houses and villas		✓	✓
Walk-up flats and apartments			✓

Plan 7 - Local Centres

Donnybrook & Woodstock Precinct Structure Plan

1:32,000 @ A4

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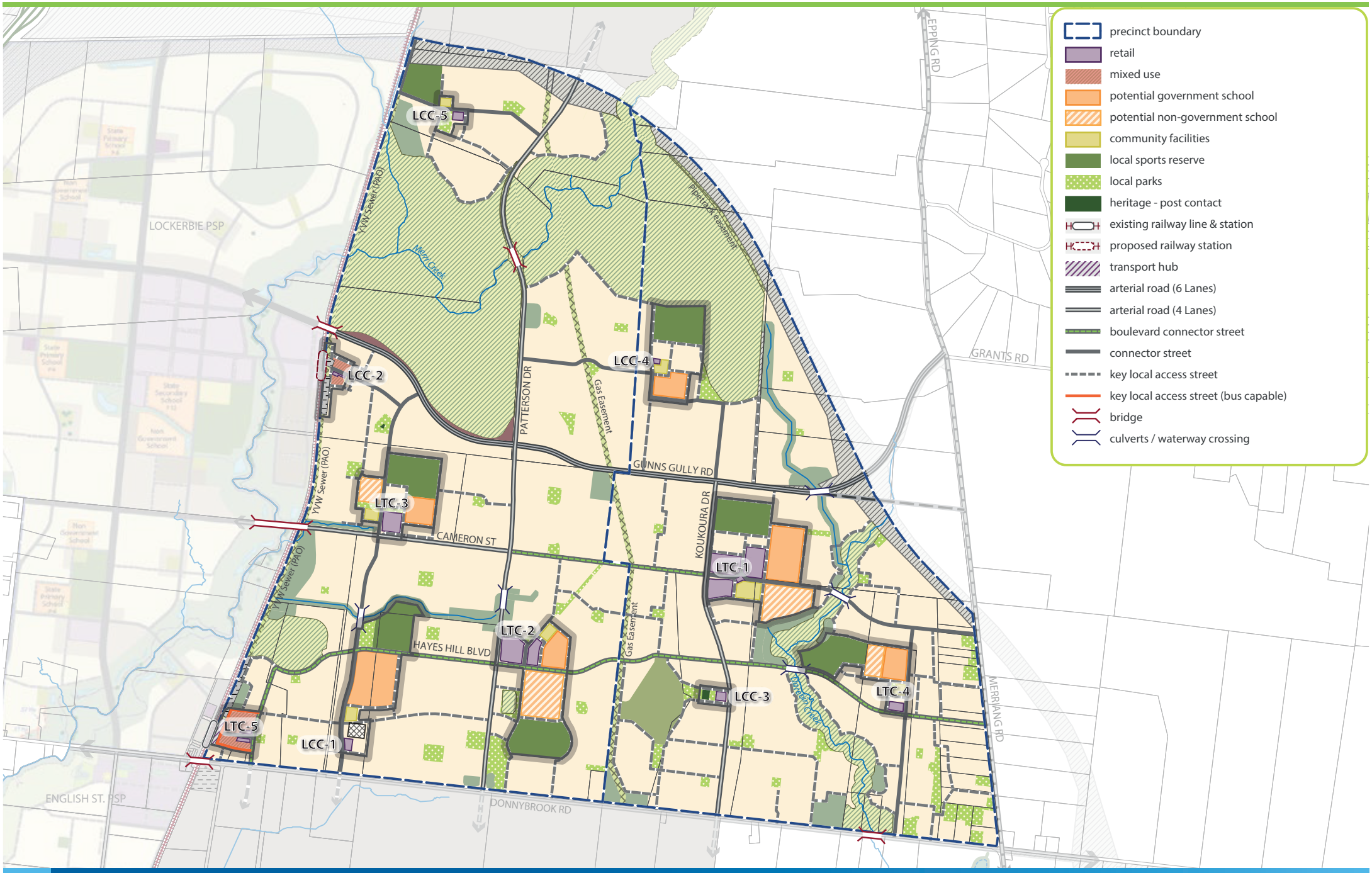

3.2 Town centres & employment

The following table outlines the hierarchy of Local Town Centres and Local Convenience Centres located throughout the precinct and the surrounding area.

Table 3 Local town centre hierarchy – Donnybrook–Woodstock Precinct.
Note: This table includes a centre external to the precinct area.

LOCAL TOWN CENTRE	GROSS LAND AREA (HECTARES)	RETAIL FLOOR SPACE SQ M	COMMERCIAL FLOOR SPACE SQ M	ROLE AND FUNCTION
PSP GUIDELINE				PSP REQUIREMENT
Lockerbie Principal Town Centre (External to the precinct)	40 ha	80,000	40,000–50,000	Located in the adjacent Lockerbie precinct, PSP 1066. The Lockerbie Principal Town Centre will serve a regional role and function providing the location of higher order health, education and shopping facilities as outlined in the Northern Growth Corridor Plan.
LTC1: Koukoura Drive Local Town Centre	8 ha	21,500	6,200	Located to primarily service residents in the north and east of the precinct. LTC 1 will provide for two full-line supermarkets, a discount department store, specialty retail and commercial floor space. Collocated with a state secondary school, Non-government secondary school, library and other community facilities and sporting reserve and local parks. Higher density residential and mixed use development is envisaged as part of the overall centre concept.
LTC 2: Patterson Drive Local Town Centre	4 ha	10,000	5,500	Located to service residents in the southern, central part of the precinct. LTC 2 will provide for two supermarkets comprising one full-line supermarket, a smaller supermarket, specialty retail and commercial floor space. Collocated with a state primary school, Non-government P–12 school, community facilities and sporting reserve and local parks. Higher density residential and mixed use development is envisaged as part of the overall centre concept.
LTC 3: Lockerbie East Local Town Centre	2 ha	5,000	2,200	Located to service residents in the north-west of the precinct. LTC 3 will provide for one full-line supermarket, specialty retail and commercial floor space. Collocated with a state primary school, non-government primary school, community facility and sporting reserve and local parks. Higher density residential and mixed use development is envisaged as part of the overall centre concept.
LTC 4: Darebin Creek Local Town Centre	1 ha	2,000	500	Located to service residents in the south-west of the precinct. LTC 4 will provide for one supermarket, specialty retail and commercial floor space. Collocated with a state primary school, Non-government P–6 school, community facilities and sporting reserve and local parks. Medium density housing development is envisaged as part of the overall centre concept.
LTC 5: Donnybrook Station Local Town Centre	1 ha	2,500	4,500	Located adjacent to the existing Donnybrook Railway Station, LTC 5 provides a strategic opportunity for the redevelopment of a high density residential and mixed use centre to take advantage of the future upgrades to the station and services. A supermarket and specialty retail combined with mixed use development including commercial is envisaged for LTC 5.

Table 4 Local convenience centres hierarchy

LOCAL TOWN CENTRE	GROSS LAND AREA (HEC-TARES)	RETAIL FLOOR SPACE SQ M	COMMERCIAL FLOOR SPACE SQ M	ROLE AND FUNCTION
PSP GUIDELINE				PSP REQUIREMENT
LCC 1: Donnybrook Farmhouse Local Convenience Centre	0.5ha	1,500	None specified	Located to service residents in the south-west of the precinct and collocated with the proposed combined state primary / secondary school, community facilities and sporting reserve. LCC 1 adjoins the existing Donnybrook Farmhouse Cheese restaurant and shop. LCC 1 will serve a local convenience role and function with the provision of specialty retail.
LCC 2: Lockerbie Station Local Convenience Centre	1.5 ha	1,000	None specified	Located adjacent to the future Lockerbie Station railway station, LCC 2 provides a strategic opportunity for the development of a higher density residential and mixed use centre to take advantage of the future station and services by providing convenient access to good and services for residents accessing the east side of the future station. Specialty retail combined with mixed use development including commercial is envisaged for LCC 2.
LCC 3: Hayes Hill Local Convenience Centre	0.5 ha	1,000	None specified	LCC 3 will provide access to convenience retail to service residents in the central south-east of the precinct and to complement the community facilities, a heritage place and the Hayes Hill landscape reserve.
LCC 4: Woodlands Local Convenience Centre	0.5 ha	1,000	None specified	Located to service residents in the north of the precinct. Collocated with a State Primary School, community facility, sporting reserve and local parks. LCC 4 will serve a local convenience role and function with the provision of specialty retail.
LCC 5: Merri-stock Local Convenience Centre	0.5 ha	1,500	None specified	Located to serve residents in the north of the Donnybrook Precinct. Collocated with a community facility sporting reserve and local parks. LCC 5 will serve a local convenience role and function with the provision of specialty retail and potential for a supermarket.

Table 5 Anticipated employment creation in the Donnybrook–Woodstock precinct

LAND USE	MEASURE	QTY IN PSP	EST'D JOBS
Council Community Facility	10 jobs/hectare	6.6	66
Town Centre	40 jobs/hectare	13.5	540
Government Primary School	40 jobs/campus	5	200
Government Secondary School	90 jobs/campus	2	180
Non- Government Primary School	30 jobs/campus	3	90
Non-Government Secondary School	100 jobs/campus	2	200
Private child care centre	15 jobs/100 places	1	15
Home based business	0.05 jobs/dwelling	17,041	852
TOTAL ESTIMATED			**2,143**

3.2.1 Local centres

REQUIREMENTS	
R26	Local town centres must be developed generally in accordance with the location shown on Plan 7 (Local Centres Plan) and must be consistent with the role and function requirement provided in Table 3.
R27	Subdivision, land use and development within each Local Town Centre must be generally in accordance with the relevant Town Centre Concept Plans and Local Town Centre Performance Criteria – attached as Appendix 4.2. Alternative concepts may be considered where it can be demonstrated that the key design elements, principles and guidelines have been achieved to the satisfaction of the responsible authority.
R28	A Local Convenience Centre must be developed generally in accordance with the location shown on Plan 7 (Local Centres Plan) and must be consistent with the role and function requirement provided in Table 4.
R29	Subdivision, land use and development within each Local Convenience Centre must be generally in accordance with the relevant Convenience Centre Concept Plans and Local Convenience Centre Performance Criteria at Appendix 4.3. Alternative concepts may be considered where it can be demonstrated that the key design elements, principles and guidelines have been achieved, to the satisfaction of the responsible authority.
R30	Allocation of land uses, building design, and interface treatment in retail and mixed use areas shown on Plan 3, 4 and 7 must create a positive address to streets and minimise negative impacts on the amenity of adjacent residential areas. In addition to the performance criteria outlined in Appendix 4.2 and 4.3, retail and mixed use areas must incorporate features of interest into the built form and surrounding landscape, including variations in built form elements (such as building heights, use of parapets, awnings, shade structures, balconies, and roof elements, articulation of building façades, feature colours and materials).
R31	Development proposals in retail and mixed use areas must take into account the Crime Prevention Through Environmental Design (CPTED) and Safer Design Guidelines.

GUIDELINES	
G16	Subdivision should provide for the creation of a range of regular-shaped lots to cater for various uses.
G17	Buildings and signage should be designed to have an integrated appearance so as to avoid the appearance of clutter.
G18	Streets should be aligned to create views and direct connections to the open space areas and wetlands and encumbered open space within the drainage corridor, as appropriate.
G19	Environmentally sustainable principles and initiatives should be considered in the design of buildings, such as solar aspect, cross-flow ventilation, materials and finishes, embodied energy, use of solar hot water and on-site collection and reuse of stormwater.

Plan 8 - Open Space
Donnybrook & Woodstock Precinct Structure Plan

1:32,000 @ A4

0 300 600 900 1,200 1,500m

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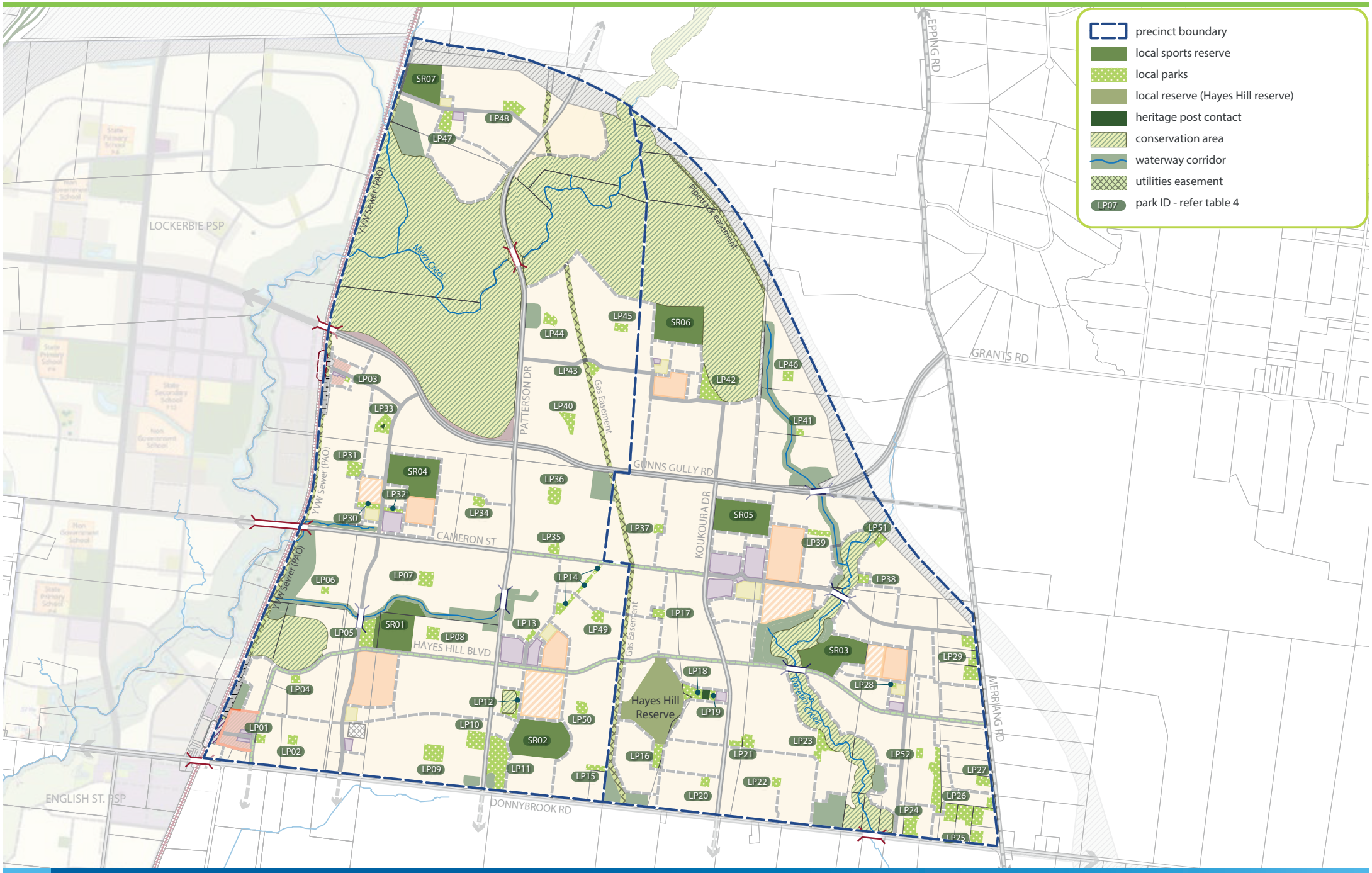

3.3 Open space, community facilities & education

Table 6 Open space delivery guide

PARK ID	AREA (HECTARES)	TYPE	ATTRIBUTES	RESPONSIBILITY
LP-01	0.43	Local Park	Central to surrounding community	Whittlesea City Council
LP-02	0.41	Local Park	Protects stony knoll and trees	Whittlesea City Council
LP-03	0.10	Local Park	Central to surrounding community and protects tree group	Whittlesea City Council
LP-04	0.34	Local Park	Central to surrounding community and protects tree group	Whittlesea City Council
LP-05	1.68	Local Park	Adjacent to a constructed waterway, situated between education facility and sports reserve	Whittlesea City Council
LP-06	0.25	Local Park	Central to surrounding community	Whittlesea City Council
LP-07	1.00	Local Park	Central to surrounding community	Whittlesea City Council
LP-08	0.75	Local Park	Central to surrounding community	Whittlesea City Council
LP-09	1.50	Local Park	Central to surrounding community and protects tree group	Whittlesea City Council
LP-10	1.48	Local Park	Central to the surrounding community and protects tree group.	Whittlesea City Council
LP-11	3.75	Local Park	Central to the surrounding community and protects tree group.	Whittlesea City Council
LP–12	0.66	Local Park	Central to the surrounding community and surrounds a Conservation Area	Whittlesea City Council
LP-13	0.30	Local Park	Central to the surrounding community and adjacent to the Local Town Centre.	Whittlesea City Council
LP-14	1.22	Local Park	Central to the surrounding community and protects tree group.	Whittlesea City Council
LP-15	0.52	Local Park	Central to the surrounding community and protects tree group.	Whittlesea City Council
LP-16	0.95	Local Park	Central to the surrounding community and adjacent to the Hayes Hill reserve	Whittlesea City Council
LP-17	0.55	Local Park	Central to the surrounding community	Whittlesea City Council
LP-18	1.07	Local Park	Central to the surrounding communitty, protects trees group and surrounds a heritage site	Whittlesea City Council
LP-19	0.27	Local Park	Central to the surrounding community and adjacent to the Local Convenience Centre.	Whittlesea City Council
LP-20	0.38	Local Park	Central to the surrounding community	Whittlesea City Council

PARK ID	AREA (HECTARES)	TYPE	ATTRIBUTES	RESPONSIBILITY
LP-21	1.06	Local Park	Central to the surrounding community and protects tree group.	Whittlesea City Council
LP-22	0.38	Local Park	Central to the surrounding community	Whittlesea City Council
LP-23	1.20	Local Park	Central to the surrounding community and surrounds a Conservation Area	Whittlesea City Council
LP-24	1.16	Local Park	Central to the surrounding community and protects tree group.	Whittlesea City Council
LP-25	0.71	Local Park	Central to the surrounding community and protects tree group.	Whittlesea City Council
LP-26	3.60	Local Park	Central to the surrounding community and protects tree group.	Whittlesea City Council
LP-27	0.70	Local Park	Central to the surrounding community and protects tree group.	Whittlesea City Council
LP-28	0.10	Local Park	Central to the surrounding community and adjacent to the Local Convenience Centre.	Whittlesea City Council
LP-29	2.34	Local Park	Central to the surrounding community and protects tree group.	Whittlesea City Council
LP-30	0.54	Local Park	Central to the surrounding community and adjacent to the Local Town Centre.	Whittlesea City Council
LP-31	0.97	Local Park	Central to the surrounding community and protects tree group.	Whittlesea City Council
LP-32	0.34	Local Park	Central to the surrounding community and adjacent to the Local Town Centre.	Whittlesea City Council
LP-33	1.03	Local Park	Central to the surrounding communitty, protects trees group and surrounds a heritage site	Whittlesea City Council
LP-34	0.50	Local Park	Central to the surrounding community	Whittlesea City Council
LP-35	0.53	Local Park	Central to the surrounding community	Whittlesea City Council
LP-36	1.00	Local Park	Central to the surrounding community	Whittlesea City Council
LP-37	0.41	Local Park	Central to the surrounding community	Whittlesea City Council
LP-38	0.45	Local Park	Central to the surrounding community	Whittlesea City Council
LP-39	0.58	Local Park	Central to the surrounding community	Whittlesea City Council
LP-40	0.91	Local Park	Central to the surrounding community	Whittlesea City Council
LP-41	0.25	Local Park	Central to the surrounding community and adjacent to a constructed waterway	Whittlesea City Council
LP-42	1.67	Local Park	Central to the surrounding community and surrounds a Conservation Area	Whittlesea City Council

PARK ID	AREA (HECTARES)	TYPE	ATTRIBUTES	RESPONSIBILITY
LP-43	0.46	Local Park	Central to the surrounding community and adjacent to the gas pipeline easement	Whittlesea City Council
LP-44	0.61	Local Park	Central to the surrounding community	Whittlesea City Council
LP-45	0.51	Local Park	Central to the surrounding community	Whittlesea City Council
LP-46	0.50	Local Park	Central to the surrounding community	Whittlesea City Council
LP-47	1.03	Local Park	Central to the surrounding community	Mitchell Shire Council
LP-48	1.01	Local Park	Central to the surrounding community	Mitchell Shire Council
LP-49	0.60	Local Park	Central to the surrounding community	Whittlesea City Council
LP-50	0.60	Local Park	Central to the surrounding community	Whittlesea City Council
LP-51	0.45	Local Park	Central to the surrounding community and adjacent to a Conservation Area	Whittlesea City Council
LP-52	0.31	Local Park	Central to the surrounding community and protects tree group.	Whittlesea City Council
Subtotal	**44.13**			
PARK ID	AREA (HECTARES)	TYPE	POTENTIAL COMPONENTS	RESPONSIBILITY
SR-01	8.10	Sports Reserve	3 x Soccer Pitches, 6x Tennis courts with pavilion	Whittlesea City Council
SR-02	9.01	Sports Reserve	2x AFL/Cricket ovals, 2x Netball courts with pavilion	Whittlesea City Council
SR-03	8.00	Sports Reserve	3x Soccer Pitches with pavilion	Whittlesea City Council
SR-04	8.03	Sports Reserve	2x AFL/Cricket ovals, 2x Netball courts with pavilion	Whittlesea City Council
SR-05	8.01	Sports Reserve	2x lawn bowls, 6x tennis courts, 1x play skate facility, 8x netball courts with pavillion, 6x court indoor recreation centre,	Whittlesea City Council
SR-06	8.00	Sports Reserve	3x rectangular sports grounds with pavilion	Whittlesea City Council
SR-07	5.65	Sports Reserve	1x Sports grounds with pavilion	Mitchell Shire Council
Subtotal	**54.80**			

3.3.1 Local park & sporting reserve open space

REQUIREMENTS	
R32	All public landscaped areas must be designed to be robust and climatically appropriate, consistent with any relevant Council open space strategies or street tree policy.
R33	All parks must be located, designed and developed in accordance with the relevant description in Table 6 and any local open space strategies. The area of the park may vary so long as it remains inside the guidance for the relevant type of park. Where a park is smaller than that outlined in the table, the land must be added to another park or used to create a new park in addition to those outlined on Plan 8. Where a proposed park is larger than outlined in the table it may be accepted so long as it does not result in the removal of another park allocation to the satisfaction of the responsible authority.
R34	Proposals to relocate allocated open space onto another property can only be considered with the written consent of the landowner and to the satisfaction of the responsible authority.
R35	Where a local park shown on Plan 8 spans across multiple properties, the first development proponent to lodge a permit application must undertake a master plan for the entire park unless otherwise agreed by the responsible authority.
R36	Where local parks interface with a waterway corridor, conservation area or encompasses remnant native vegetation, the design of that open space must demonstrate that it has integrated the relevant environmental constraints and features into the design of the park.
R37	Where a street frontage to a park is not provided, lots must provide for a 4 metre “Paper Road” to the satisfaction of the responsible authority.
R38	Any fencing of open space, whether encumbered or unencumbered, must be low scale and visually permeable to facilitate public safety and surveillance, unless otherwise agreed by the responsible authority.
R39	Any recreational uses within the Growling Grass Frog Corridor Conservation Area must be located in an area identified for “passive recreation” in Plans 10, 11 and 12 and must not detract from the conservation values in the Reserve, unless an alternative location is agreed, to the satisfaction of the Secretary to the Department of Environment, Land, Water and Planning.
R40	If parks interface with a drainage corridor, heritage site, stony knoll or encompass remnant native vegetation, the design of that open space must demonstrate that it has integrated the relevant environmental and heritage constraints and features into the design of the park.

GUIDELINES	
G20	Subject to being compatible with Table 6, parks and open space should contain extensive tree planting. Species selection, spacing of plants and landscaping features should be designed to prevent an increased risk of fire and facilitate ongoing emergency vehicle access to open space areas.
G21	A range of local park types should be provided across the precinct, in accordance with the Whittlesea City Council’s Play Space Planning Framework and Policy, or any other policy as relevant to the Mitchell Shire Council.

3.3.2 Community facilities & education

The location of Community and Education Facilities are shown on Plan 7 (Local Centres Plan).

REQUIREMENTS	
R41	Community facilities, schools and sports reserves which are collocated must be designed to: • Maximise efficiencies through the sharing of car parking and other complementary infrastructure; • Maximise direct access and permeability for pedestrians and cyclists through and between facilities; and • Apply a user centred approach to ensure these spaces are accessible, flexible, safe and intuitive to create a positive experience for the community.
R42	Schools and community facilities must be designed to front, and be directly accessed from a public street.
R43	Any connector road or access street abutting a school must be designed to achieve slow vehicle speeds and provide designated pedestrian crossing points as required by the responsible authority.
GUIDELINES	
G22	Schools should be provided with three street frontages where practicable.
G23	Where the responsible authority is satisfied that land shown as a non-government school site is unlikely to be used for a non-government school, that land may be used for a residential development which is generally consistent with the surrounding land.
G24	Any additional private childcare, medical, educational, community civic infrastructure or similar facility should be located proximate to the Local Town Centres, Local Convenience Centres or nominated community hub, to the satisfaction of the responsible authority.
G25	Where a community centre is located within a town centre, efficiency of land use should be maximised through the sharing and overall reduction of car parking and consideration of a multi-storey facility where practicable.
G26	A proponent delivering a master plan for a local park that traverses multiple property ownerships should consult with landholders of parcels covered by the park to ensure an integrated design.

Table 7 Local town centre and local convenience centres: community facilities

CENTRE	FACILITIES	POTENTIAL COMPONENTS	LAND AREA	RESPONSIBILITY
LTC 1: Koukoura Drive	Branch library	Library	2.0 ha	Whittlesea City Council
		Life-long learning space		
		Community and performing arts		
		Small community meeting space		
		Large community space		
	Family Resource Centre	Consulting rooms	Collocated on library land	
		Breastfeeding facilities		
		Office admin and waiting area		
		Activity space		
		Public amenities		
		Two room PAG facility		
		Youth facility including flexible meeting and activity space and storage, public amenity, district level admin/office space		
	Government school (7–12)	N/A	8.4ha	DET
	Non-government school (7–12)	N/A	9.0ha	Non Government
	Sporting reserves (SR-05)	Outdoor netball site with pavilion including fencing, lighting, earthworks and surfacing ×8	8.0ha	Whittlesea City Council
		Outdoor tennis site with pavilion including fencing, lighting, earthworks and surfacing ×6		
		Community Garden		
		2× lawn bowls		
		1× skate park facility		
	Indoor sports facility	6 court indoor stadium	Collocated on sports reserve	Whittlesea City Council
		Shared pavilion for 8 netball courts and 6 tennis courts including a small meeting space		

CENTRE	FACILITIES	POTENTIAL COMPONENTS	LAND AREA	RESPONSIBILITY
LTC 2: Patterson Drive	MCH	2 room MCH	0.8ha	Whittlesea City Council
		Program Room		
	Kindergarten facilities	Dual-room kindergarten facility (66 licensed spaces)		
	Dedicated community meeting space - Medium	Integrated with MCH (does not include amenities, foyer or admin area)		
	Government school (P–6)	N/A	3.5ha	DET
	Non-government school (P–12)	N/A	7.5ha	Non Government
	Sporting reserves (SR-02)	2 x AFL/Cricket ovals	9.0ha	Whittlesea City Council
		2 x outdoor netball courts		
		Community Garden		
		Dedicated community meeting space (smalll)		
		Pavilions including 60m^2 community meeting space and change rooms		
LTC 3: Lockerbie East	MCH and kindergarten facility	2 room MCH	0.8ha	Whittlesea City Council
		Program Room		
		Dual room kindergarten facility (66 licensed places)		
		Dedicated community meetings space – Medium (does not include amenities, foyer or admin area)		
	Government school (P–6)	N/A	3.5ha	DET
	Non-government school (P–6)	N/A	2.6ha	Non Government
	Sporting reserves (SR-04)	Pavilion with 4 change rooms and 60m^2 community meeting space	8.0ha	Whittlesea City Council
		2 x AFL/Cricket ovals including fencing, lighting, earthworks, irrigation pitch, nets and lighting		
		Community garden		
		2× outdoor netball courts including fencing, lighting, earthworks and surfacing		

CENTRE	FACILITIES	POTENTIAL COMPONENTS	LAND AREA	RESPONSIBILITY
LTC 4: Darebin Creek	MCH and kindergarten facility	2 room MCH	0.8ha	Whittlesea City Council
		Program Room		
		Triple-room kindergarten facility (99 licenced places)		
		Dedicated community meetings space – Medium (does not include amenities, foyer or admin area)		
	Government school (P–6)	N/A	3.5ha	DET
	Non-government school (P–6)	N/A	2.6ha	Non Government
	Sporting reserves (SR-03)	3× soccer pitches	8.0ha	Whittlesea City Council
		Community garden		
		Pavilion with 6 change rooms and 60m^2 of community meeting space		
LTC 5: Donnybrook Railway Station	Potential for private providers	Private Childcare	N/A	Non Government
LCC 1: Donnybrook Farmhouse	MCH and kindergarten facility	2 room MCH	0.8ha	Whittlesea City Council
		Program Room		
		Triple-room kinder facility with 99 licensed places		
		Dedicated community meetings space – Small (does not include amenities, foyer or admin area)		
	Government school (P–12)	N/A	10ha	DET
	Sporting reserves (SR-01)	3× Soccer including fencing, lighting, earth-works, irrigation, pitch, nets and lighting	8.1ha	Whittlesea City Council
		6× outdoor tennis courts including fencing, lighting, earthworks and surfacing		
		Community garden		
		Pavilion with 6 change rooms and 60m^2 of community meeting space		
LCC 2: Lockerbie Railway Station	Potential for private providers	Private Childcare	N/A	Private Sector
LCC 3: Hayes Hill	Temporary MCH to transition to LTC 1	Flexible MCH program/activity room (50m^2)	0.2ha	Developer
		Separate lockable MCH office / admin workspace (10m^2)		
		Medium community meeting space with capacity to be split in half		

CENTRE	FACILITIES	POTENTIAL COMPONENTS	LAND AREA	RESPONSIBILITY
LCC 4: Woodlands	MCH and kindergarten facility	2 room MCH program room	0.8ha	Whittlesea City Council
		Dual room kindergarten facility (66 licensed spaces)		
	Government school (P–6)	N/A	3.5ha	DET
	Sporting reserves (SR-06)	3× rectangular sports ground	8.0ha	Whittlesea City Council
		Community garden		
		Pavilion with 6 change rooms and 120m^2 of integrated community meeting space		
LCC 5: Merristock	MCH and kindergarten facility	Flexible MCH program/activity room (50m^2)	0.8ha	Mitchell Shire Council
		Separate lockable MCH office /admin work-space (35m^2) (does not include public toilet or kitchen facilities)		
		Dual-room kindergarten facility (66 licensed places)		
		Dedicated community meetings space – small (does not include amenities, foyer or admin area)		
	Sporting reserves (SR-07)	2× sports grounds (assumes AFL/cricket)	5.6ha	Mitchell Shire Council
		Community garden		

Plan 9 - Native Vegetation Retention & Removal

Donnybrook & Woodstock Precinct Structure Plan

1:32,000 @ A4

0 300 600 900 1,200 1,500m

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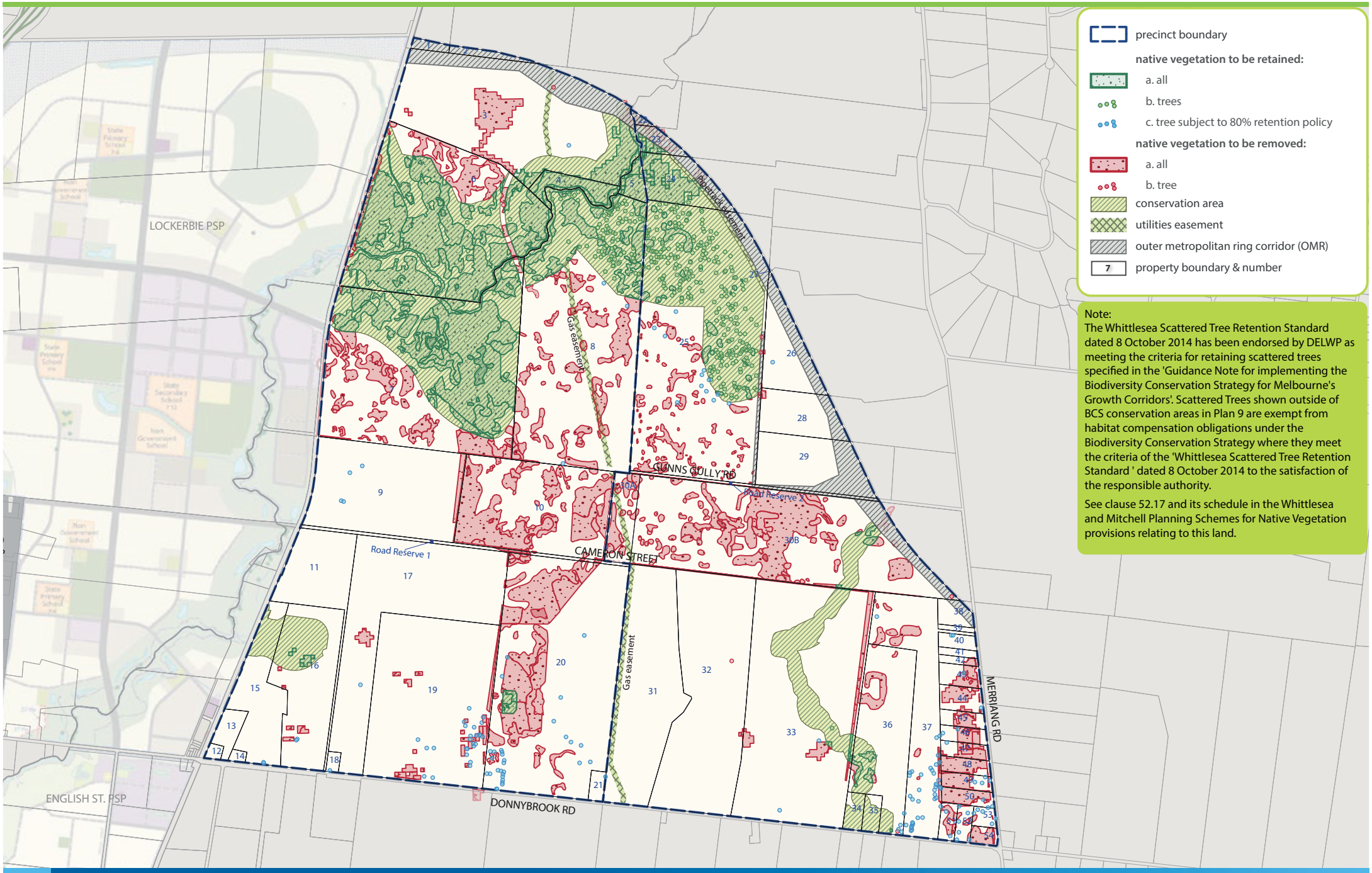

Note:
The Whittlesea Scattered Tree Retention Standard dated 8 October 2014 has been endorsed by DELWP as meeting the criteria for retaining scattered trees specified in the 'Guidance Note for implementing the Biodiversity Conservation Strategy for Melbourne's Growth Corridors'. Scattered Trees shown outside of BCS conservation areas in Plan 9 are exempt from habitat compensation obligations under the Biodiversity Conservation Strategy where they meet the criteria of the 'Whittlesea Scattered Tree Retention Standard ' dated 8 October 2014 to the satisfaction of the responsible authority.

See clause 52.17 and its schedule in the Whittlesea and Mitchell Planning Schemes for Native Vegetation provisions relating to this land.

3.4 Biodiversity & threatened species

3.4.1 Biodiversity & threatened species

REQUIREMENTS	
R44	Development abutting any conservation area must be generally in accordance with the relevant Conservation Area Concept Plan (Plas 10, 11 and 12) and the Conservation Area Interface Road Cross Sections, to the satisfaction of the Secretary to the Department of Environment, Land, Water and Planning.
R45	Any public paths or infrastructure located within a conservation area must be designed to avoid/minimise disturbance to vegetation or Growling Grass Frog (GGF) habitat and be generally in accordance with the Conservation Area Concept Plans. Public paths are to be generally located in accordance with the relevant conservation area concept plan and be agreed by the Secretary to the Department of Environment, Land, Water and Planning prior to works commencing. Alternative concepts may be considered where it can be demonstrated that the key design elements, principles and guidelines have been achieved, to the satisfaction of the Department of Environment, Land, Water and Planning and the responsible authority.
R46	Public lighting must be designed and baffled to prevent light spill and glare within and adjacent to any GGF conservation area, except where agreed by the Secretary to the Department of Environment, Land, Water and Planning.
R47	Native vegetation may be removed as illustrated on Plan 9 where the removal, destruction or lopping is carried out in accordance with the 'Final approval for urban development in three growth corridors under the Melbourne urban growth program strategic assessment, 5 September 2013' pursuant to section 146B of the Environment Protection and Biodiversity Conservation Act 1999 (Cth).

GUIDELINES	
G27	Public recreation and open space areas should be collocated with significant conservation areas and waterways to create and/or enhance any buffer area.
G28	The layout and design of the waterways, wetlands and retarding basins (including the design of paths, bridges and boardwalks and the stormwater drainage system) within conservation areas, should integrate with biodiversity and natural systems to the satisfaction of the responsible authority, Melbourne Water Corporation and DELWP.
G29	Planting in streetscapes and parks abutting waterways should make use of indigenous species to the satisfaction of Melbourne Water and the responsible authority.
G30	Street trees and public open space landscaping should contribute to habitat for indigenous fauna species, in particular arboreal animals and birds, where practical.

Plan 10 - Conservation Areas 22 & 34

Donnybrook and Woodstock Precinct Structure Plan

0 200 400 600 800 1000 m

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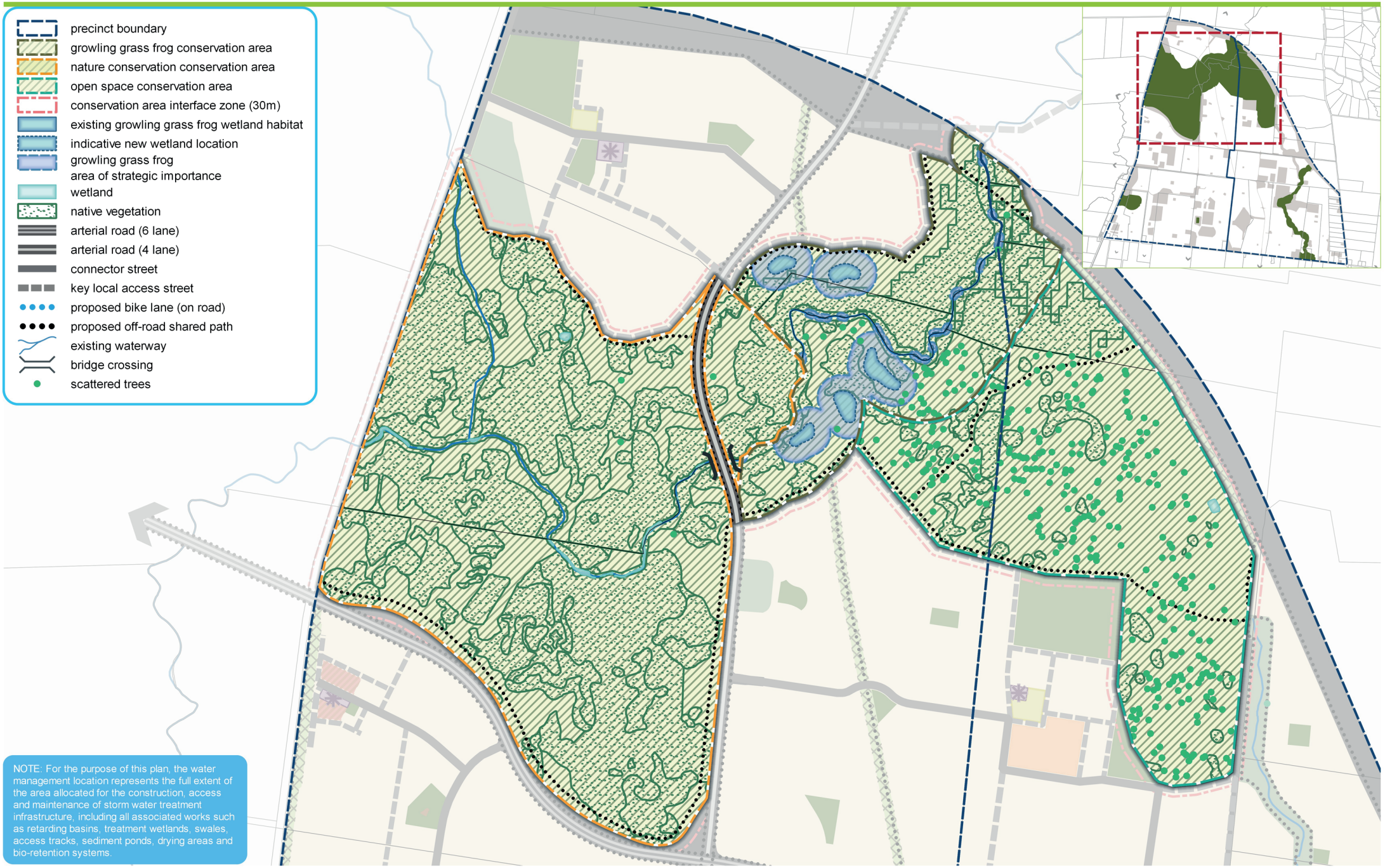

NOTE: For the purpose of this plan, the water management location represents the full extent of the area allocated for the construction, access and maintenance of storm water treatment infrastructure, including all associated works such as retarding basins, treatment wetlands, swales, access tracks, sediment ponds, drying areas and bio-retention systems.

Plan 11 - Conservation Area 34 (South)

Donnybrook and Woodstock Precinct Structure Plan

0 200 400 600 800 1000 m

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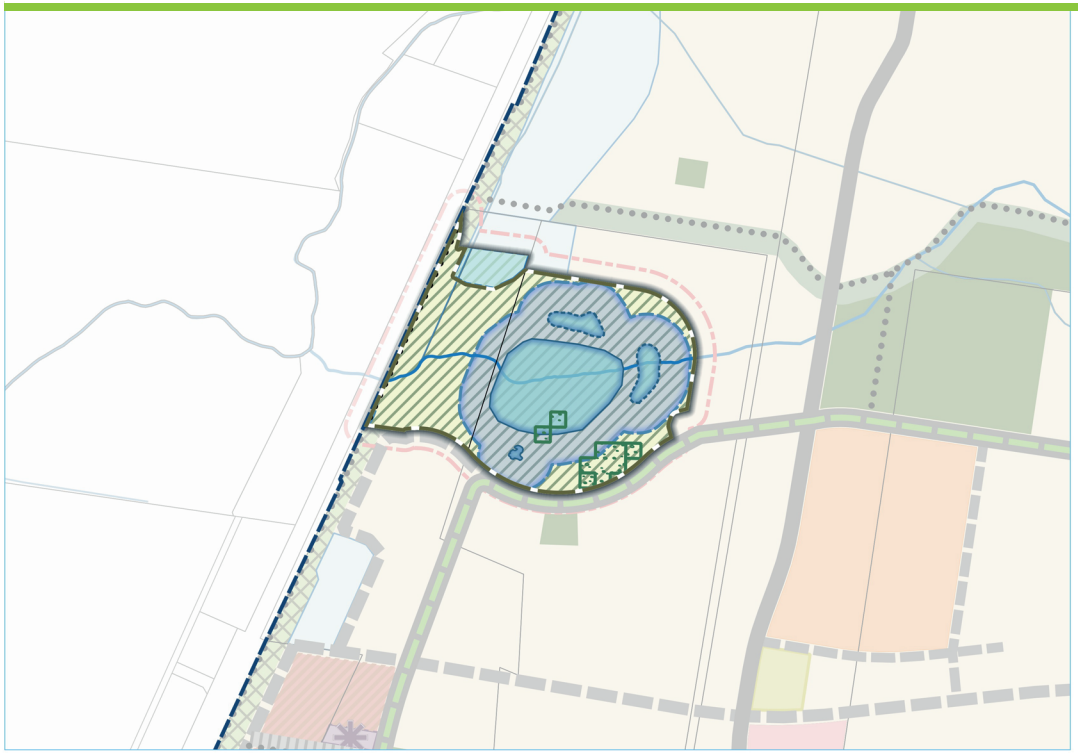
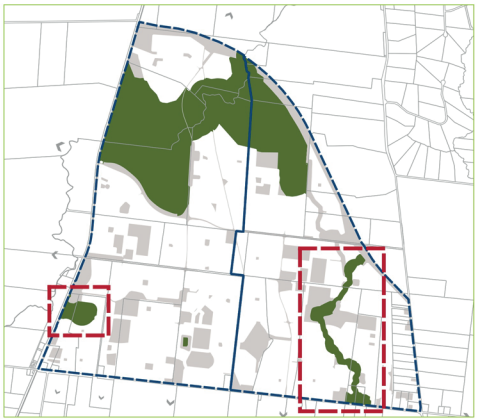
N



- precinct boundary
- growling grass frog conservation area
- waterway & drainage within conservation
- water management area
- conservation area interface zone (30m)
- existing growling grass frog wetland habitat
- indicative new wetland location
- growling grass frog area of strategic importance
- native vegetation
- connector street
- connector street - boulevard
- proposed off-road shared path
- proposed bike path (along road)
- existing waterway
- scattered trees



NOTE: For the purpose of this plan, the water management location represents the full extent of the area allocated for the construction, access and maintenance of storm water treatment infrastructure, including all associated works such as retarding basins, treatment wetlands, swales, access tracks, sediment ponds, drying areas and bio-retention systems.

Plan 12 - Conservation Area 25

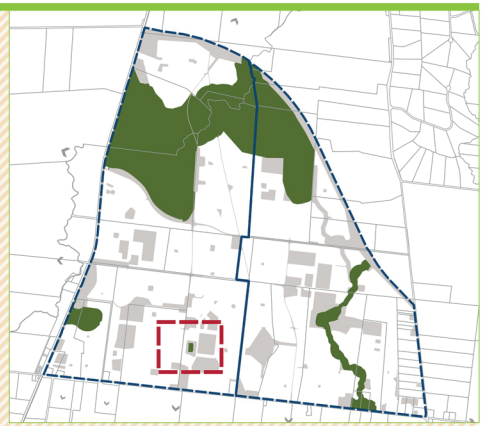
Donnybrook and Woodstock Precinct Structure Plan

0 25 50 75 100 125 150 m

1:2.000 @ A4

N

- precinct boundary
- nature conservation conservation area
- native vegetation
- low impact pathway (indicative)
- conservation area interface zone (30m)



3.4.2 Bushfire management

REQUIREMENTS	
R48	For the purposes of Clause 56.06-7, the requirements of the relevant fire authority are, unless otherwise approved by the CFA: • Constructed roads must be a minimum of 7.3m trafficable width where cars park on both sides, or: • A minimum of 5.5m in trafficable width where cars may park on one side only; • A minimum of 3.5m width with no parking and 0.5m clearance to structures on either side, and if this width applies, there must be passing bays at least 20m long, 6m wide, and located not more than 200m apart; • Roads must be constructed so that they are capable of accommodating a vehicle of 15 tonnes for the trafficable road width; • The average grade of a road must be no more than 1 in 7 (14.4% or 8.1°); • The steepest grade on a road must be no more than 1 in 5 (20% or 11.3°) with this grade continuing for no more than 50 metres at any one point; • Dips in a road must have no more than a 1 in 8 grade (12.5% or 7.1°) entry and exit angle; and • Constructed dead end roads more than 60m in length from the nearest intersection must have a turning circle with a minimum radius of 8m (including roll-over curbs if they are provided).

Plan 13 - Street Network

Donnybrook & Woodstock Precinct Structure Plan

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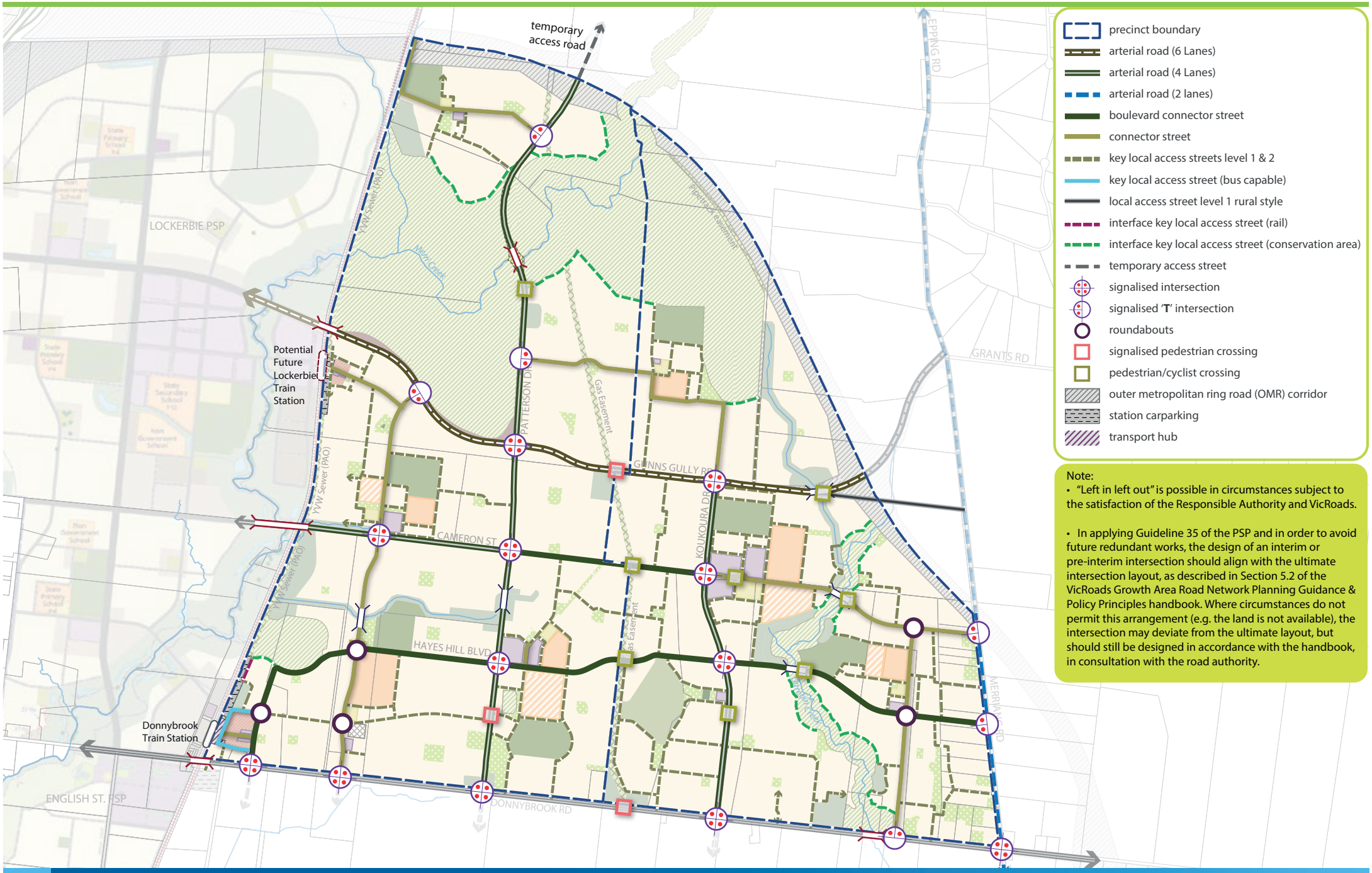

- precinct boundary
- arterial road (6 Lanes)
- arterial road (4 Lanes)
- arterial road (2 lanes)
- boulevard connector street
- connector street
- key local access streets level 1 & 2
- key local access street (bus capable)
- local access street level 1 rural style
- interface key local access street (rail)
- interface key local access street (conservation area)
- temporary access street
- signalised intersection
- signalised 'T' intersection
- roundabouts
- signalised pedestrian crossing
- pedestrian/cyclist crossing
- outer metropolitan ring road (OMR) corridor
- station carparking
- transport hub

Note:

- "Left in left out" is possible in circumstances subject to the satisfaction of the Responsible Authority and VicRoads.

- In applying Guideline 35 of the PSP and in order to avoid future redundant works, the design of an interim or pre-interim intersection should align with the ultimate intersection layout, as described in Section 5.2 of the VicRoads Growth Area Road Network Planning Guidance & Policy Principles handbook. Where circumstances do not permit this arrangement (e.g. the land is not available), the intersection may deviate from the ultimate layout, but should still be designed in accordance with the handbook, in consultation with the road authority.

3.5 Transport & movement

3.5.1 Street network

REQUIREMENTS	
R49	Subdivision layouts must provide: • A permeable and safe network for walking and cycling; • A safe and low speed street network that encourages walking and cycling; and • Convenient access to local points of interest and destinations for the effective integration with neighbouring properties.
R50	The connector street network must provide a safe low speed environment.
R51	Approximately 30% of local streets (including connector streets) within a subdivision must apply an alternative cross section to the 'standard' cross section for these streets outlined in Appendix 4.4. Examples of potential variations are provided in Appendix 4.4, however others are encouraged including but not limited to: • Varied street tree placement; • Varied footpath or carriageway placement; • Introduction of elements to create a boulevard effect; • Varied carriageway or parking bay pavement; and • Differing tree outstand treatments. For the purposes of this requirement, changes to street tree species between or within streets do not constitute a variation. Alternative cross sections must ensure that: • Minimum required carriageway dimensions are maintained to ensure safe and efficient operation of emergency vehicles on all streets as well as buses on connector streets; • The performance characteristics of standard cross sections as they relate to pedestrian and cycle use are maintained; and • Relevant minimum road reserve widths for the type of street (illustrated in Appendix 4.4) are maintained, unless otherwise approved by the responsible authority.
R52	Vehicular movement and access to properties fronting primary arterial roads (Donnybrook Road, Koukoura Drive and Gunns Gully Road) must be from service roads, internal loop roads and/or rear laneways.
R53	Where a single street spans across multiple properties that street may consist of multiple cross sections so long as a suitable transition has been allowed for between each. Where that street has already been constructed or approved for construction to a property boundary, the onus is on the development connecting into that street to adopt a consistent cross-section until that suitable transition can be made.
R54	Convenient and direct access to the connector road network must be provided through neighbouring properties where a property does not otherwise have access to the connector network or signalised access to the arterial road network, as appropriate.
R55	Vehicle access to lots fronting arterial roads must be provided from a local internal loop road, rear lane, or service road to the satisfaction of the road authority.
R56	Where a lot that is six metres or less in width, vehicle access must be via rear laneway, unless otherwise approved by the responsible authority.
R57	Development must positively address all waterways through the use of frontage roads or lots with a direct frontage to the satisfaction of Melbourne Water and the responsible authority.
R58	Any connector road or access street abutting a school must be designed to achieve safe and slow vehicle speeds.
R59	Where determined that roundabouts are required at cross road intersections, they must be designed to slow vehicles, provide for pedestrian visibility and safety, and ensure connectivity/continuity of shared paths and bicycle paths.
R60	Frontage streets are to be the primary interface between the development and rail/utility easement. Public open space and allotments with direct frontages may be provided as a minor component of the rail/ utility easement reserve interface.
R61	Where a connector street crosses a waterway on Plan 13, the developer(s) must enter into an agreement with the responsible authority to construct a connector street crossing prior to the issue of statement of compliance for the first stage of residential subdivision on the second side of the waterway to be developed, whether or not that residential subdivision directly abuts the waterway.
R62	Temporary access roads must be delivered at the cost of the developer, to the satisfaction of the responsible authority.
R63	Subdivision of the area to the north of the PSP in the Shire of Mitchell must ensure that two access and egress points are provided to service the development, and be generally in accordance with the locations set out in the PSP.

Plan 14 - Public Transport

Donnybrook & Woodstock Precinct Structure Plan

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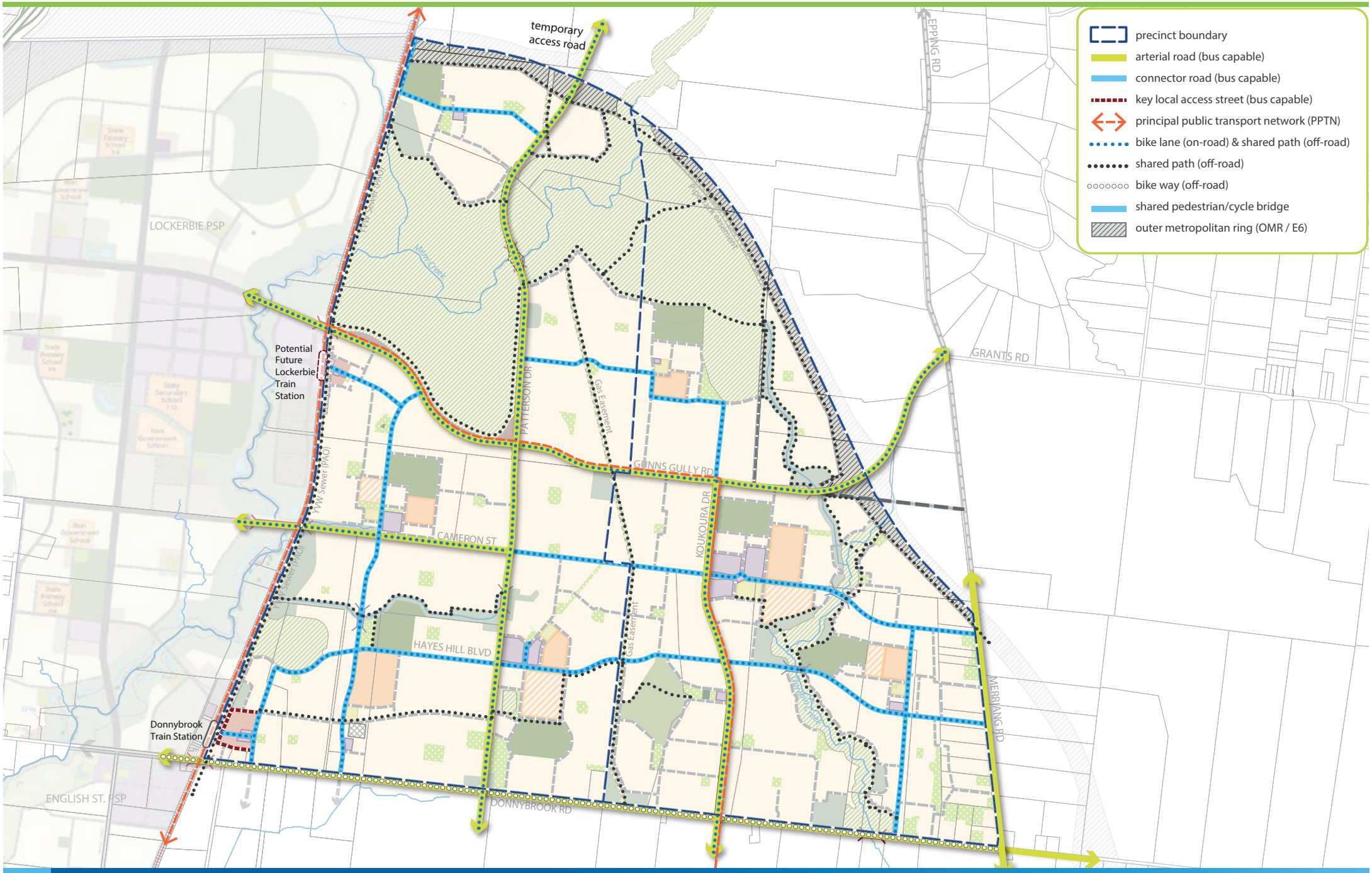

GUIDELINES	
G31	Street layouts should provide multiple convenient routes to major destinations such as the walking trails, parks, sporting reserves, local convenience centres, local town centre and the arterial road network.
G32	Street block lengths should not exceed 240 metres to ensure a safe, permeable and low speed environment for pedestrians, cyclists and vehicles is achieved.
G33	Subdivision design adjacent to the high pressure gas pipeline corridor should ensure road crossings are at 90 degrees to the pipeline.
G34	Culs-de-sac should not detract from convenient pedestrian and cycle connections.
G35	All signalised intersections should be designed having regard to the VicRoads working document 'Guidance for Planning Road Networks in Growth Areas' November 2015 (as updated from time to time), to the satisfaction of VicRoads and the responsible authority.
G36	The frequency of vehicular crossovers on widened verges (a verge in excess of six metres) should be minimised through the use of a combination of: • Rear loaded lots with laneway access; • Vehicular access from the side of a lot; • Combined or grouped crossovers; and • Increased lot widths.
G37	Streets should be the primary interface between development and waterways. Public open space and lots with a direct frontage may be provided as a minor component of the waterway interface. This should be in accordance with the relevant waterway/open space cross-section in Appendix 4.4.
G38	Slip lanes should be avoided in high pedestrian traffic areas such as town centres and schools.

3.5.2 Public transport

REQUIREMENTS	
R64	Any roundabouts on roads shown as 'bus capable' on Plan 13 must be constructed to accommodate ultra-low-floor buses in accordance with the Austroads guidelines as well as Public Transport Guidelines for Land Use and Development.
R65	Bus stop facilities must be designed to the satisfaction of Public Transport Victoria and be an integral part of town centres and activity generating land uses such as schools, sports fields and employment areas.
R66	Subdivision around and abutting the Donnybrook Train Station must be generally in accordance with 'Donnybrook Train Local Town Centre Urban Design Framework' (Figure 4.3.2), to the satisfaction of the responsible authority and Public Transport Victoria (PTV).
R67	Subdivision around and abutting the potential future Lockerbie Train Station respond to the key design elements for the Lockerbie East Local Convenience Centre (Figure 4.3.3), generally as depicted in the Lockerbie East Urban Design Framework.
R68	Design of all streets and arterial roads must give priority to the requirements of pedestrians and cyclists by providing: • Safe and convenient crossing points of connector roads and local streets at all intersections and on key desire lines as well as crossing or creeks and waterways; • Safe pedestrian crossings of arterial roads at all intersections, at key desire lines, and on regular intervals appropriate to the function of the road and public transport provision; • Pedestrian priority crossings on all slip lanes; • Safe and convenient transition between on- and off-road bicycle networks; and • Street designs should be in general accordance with the relevant cross-sections in Appendix 4.4. All to the satisfaction of the coordinating roads authority and the responsible authority.
R69	Subdivision must form a permeable, low speed local street network that provides safe and convenient walkable access to local points of interest and facilitates functional integration with neighbouring land parcels.

Plan 15 - Integrated Water Management

Donnybrook & Woodstock Precinct Structure Plan

1:32,000 @ A4

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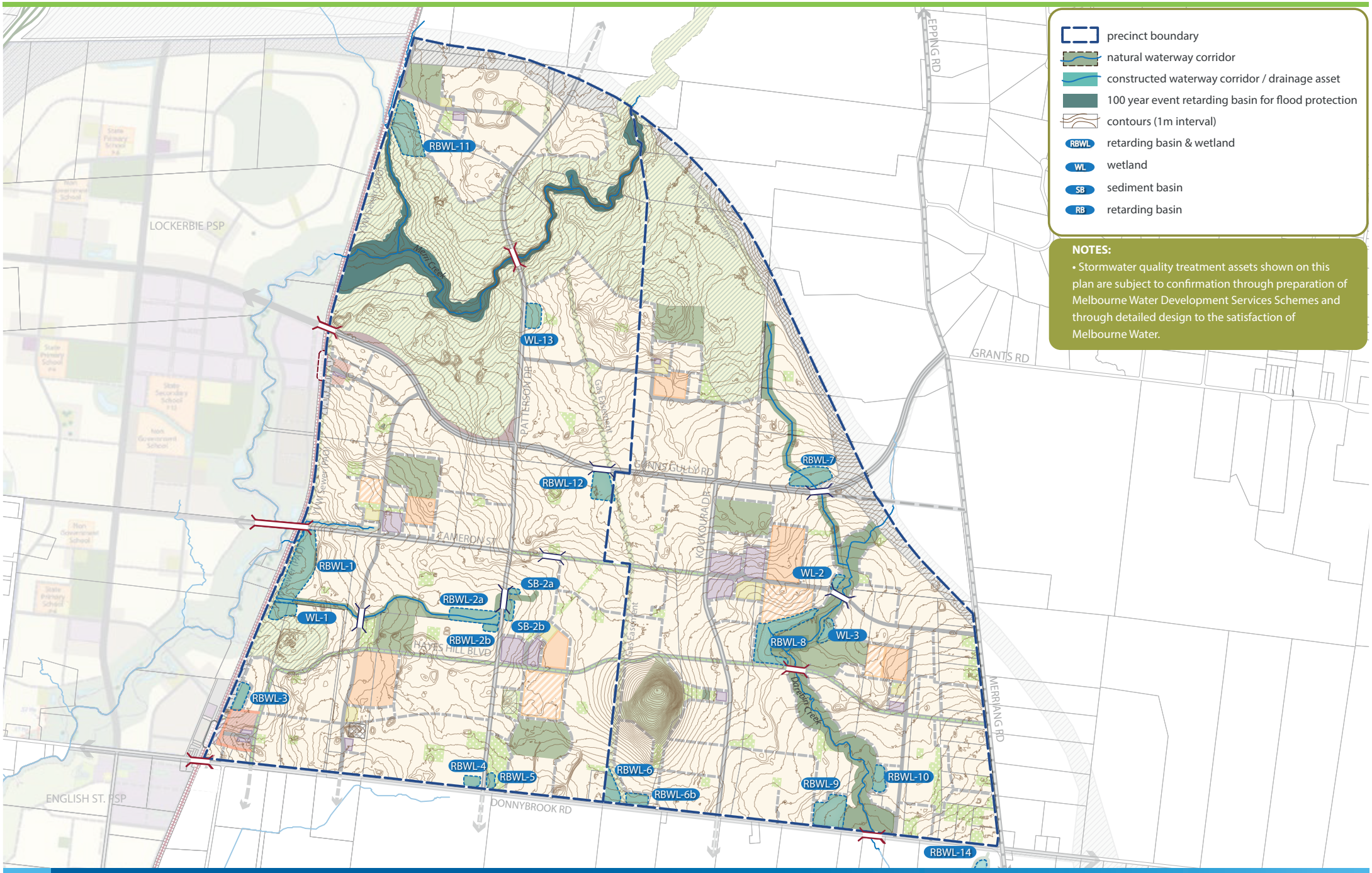

NOTES:

- Stormwater quality treatment assets shown on this plan are subject to confirmation through preparation of Melbourne Water Development Services Schemes and through detailed design to the satisfaction of Melbourne Water.

R70	Shared and pedestrian paths along waterways must: • Be delivered by development proponents consistent with the network shown on Plan 14; • Be above 1:10 year flood level with any crossing of the waterway designed to maintain hydraulic function of the waterway; • Be constructed to a standard that satisfies the requirements of Melbourne Water. Shared paths identified on Plan 14 are to be constructed with a concrete surface; • Where a shared path is to be delivered on one side of a minor waterway as outlined in Plan 14, a path is also to be delivered on the other side of the waterway but may be constructed to a lesser standard, such as crushed rock or similar granular material; and • Within the Shire of Mitchell, all paths along waterways must be constructed with bitumen. All to the satisfaction of Melbourne Water and the responsible authority.
R71	Bicycle parking facilities including way finding signage are to be provided by development proponents in convenient locations at key destinations such as parks and local centres.
R72	Lighting must be installed along shared, pedestrian, and cycle paths linking to key destinations, unless otherwise agreed by the responsible authority.
GUIDELINES	
G39	Location of walkways or pedestrian and cycle paths in addition to those described through the standard cross sections should consider the need for appropriate lighting and passive surveillance.
G40	Street activation within residential areas should be encouraged through the inclusion of street furniture and incidental meeting places.

3.6 Integrated water management & utilities

3.6.1 Integrated water management

REQUIREMENTS	
R73	Stormwater runoff from the development must meet or exceed the performance objectives of the Best Practice Environmental Management Guidelines for Urban Stormwater Management (1999) prior to discharge to receiving waterways as outlined on Plan 14, unless otherwise approved by Melbourne Water and the responsible authority.
R74	Final design of constructed waterways (including widths), waterway corridors, stormwater quality treatment, retarding basins, wetlands, associated paths, boardwalks, bridges, and planting, must be to the satisfaction of Melbourne Water and the responsible authority.
R75	Development staging must provide for the delivery of ultimate waterway and drainage infrastructure, including stormwater quality treatment. Where this is not possible, development proposals must demonstrate how any interim solution adequately manages and treats stormwater generated from the development and how this will enable delivery of an ultimate drainage solution, to the satisfaction of Melbourne Water and the responsible authority.
R76	Subdivision applications must demonstrate how: • Waterways and integrated water management design enables land to be used for multiple recreation and environmental purposes; • Overland flow paths and piping within road reserves will be connected and integrated across property / parcel boundaries; and • Melbourne Water and the responsible authority's freeboard requirements for overland flow paths will be adequately contained within road reserves.
R77	Stormwater conveyance and treatment must be designed in accordance with the relevant Development Services Scheme to the satisfaction of Melbourne Water.

Plan 16 - Utilities
Donnybrook & Woodstock Precinct Structure Plan

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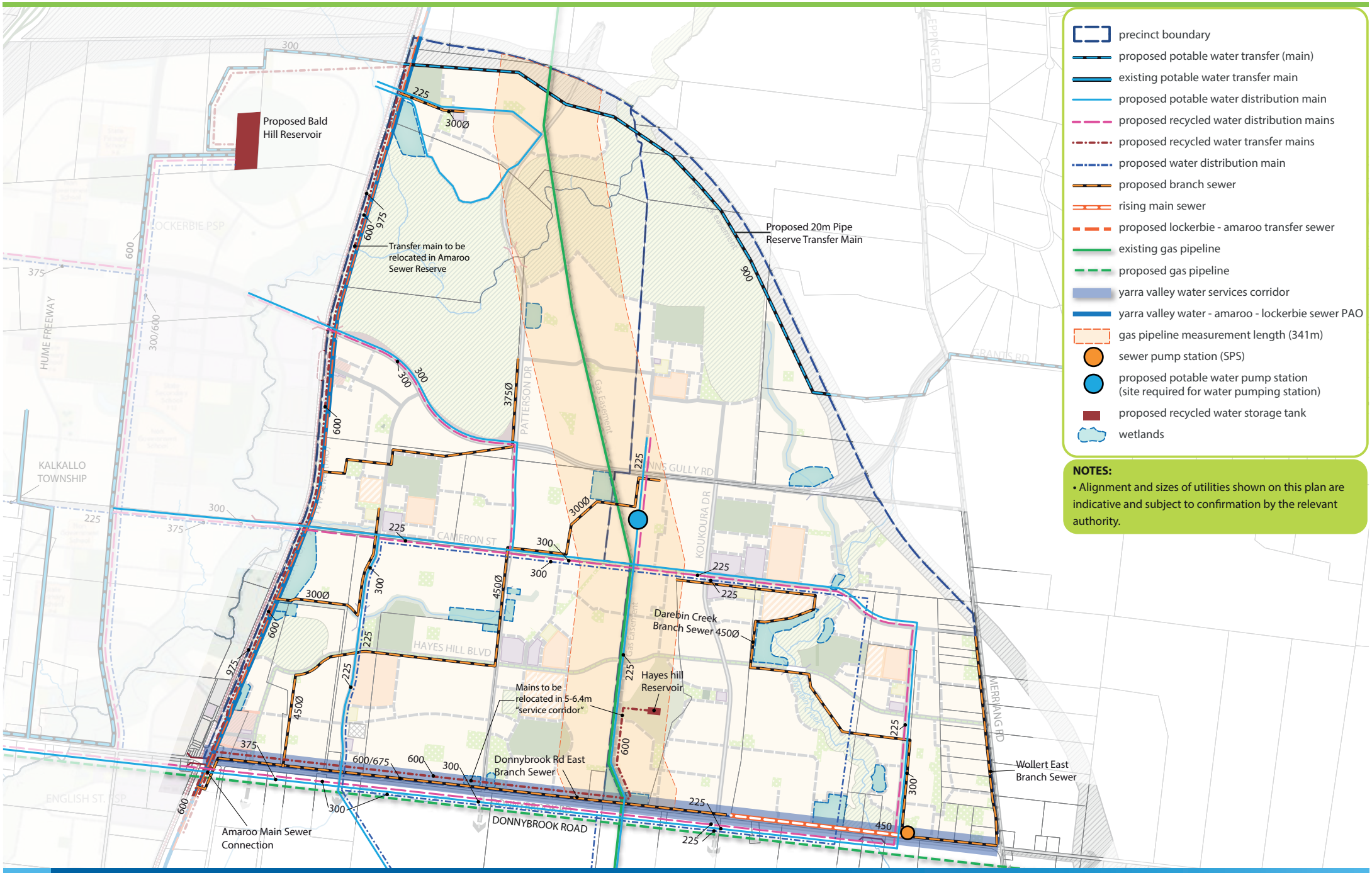


- precinct boundary
- proposed potable water transfer (main)
- existing potable water transfer main
- proposed potable water distribution main
- proposed recycled water distribution mains
- proposed recycled water transfer mains
- proposed water distribution main
- proposed branch sewer
- rising main sewer
- proposed lockerbie - amaroo transfer sewer
- existing gas pipeline
- proposed gas pipeline
- yarra valley water services corridor
- yarra valley water - amaroo - lockerbie sewer PAO
- gas pipeline measurement length (341m)
- sewer pump station (SPS)
- proposed potable water pump station (site required for water pumping station)
- proposed recycled water storage tank
- wetlands

NOTES:

• Alignment and sizes of utilities shown on this plan are indicative and subject to confirmation by the relevant authority.

GUIDELINES	
G41	Development should aim to exceed the best practice stormwater quality treatment standards prior to discharge to receiving waterways to achieve waterway protection to the satisfaction of the relevant drainage authority.
G42	The design and layout of roads, road reserves, and public open space should optimise water use efficiency and long-term viability of vegetation and public uses through the use of WSUD initiatives, such as rain gardens and / or locally treated storm water for irrigation to contribute to a sustainable and green urban environment.
G43	Where practical, development should include integrated water management initiatives to reduce reliance on potable water and increase the utilisation of storm and waste water, contributing to a sustainable and green urban environment.
G44	Development should have regard to relevant policies and strategies being implemented by the responsible authority, Melbourne Water and Yarra Valley Water, including any approved Integrated Water Management Plan or local planning policy.
G45	Where practical, integrated water management systems should be designed to: • Maximise habitat values for local flora and fauna species; • Enable future harvesting and/or treatment and re-use of stormwater; and • Protect and manage for MNES values, particularly within conservation areas, in relation to water quality and suitable hydrological regimes (both surface and groundwater).
G46	Where practical, and where primary waterway, conservation or recreation functions are not adversely affected, land required for integrated water management initiatives (such as stormwater harvesting, aquifer storage and recharge, sewer mining) should be incorporated within the precinct open space system as depicted on Plan 8.

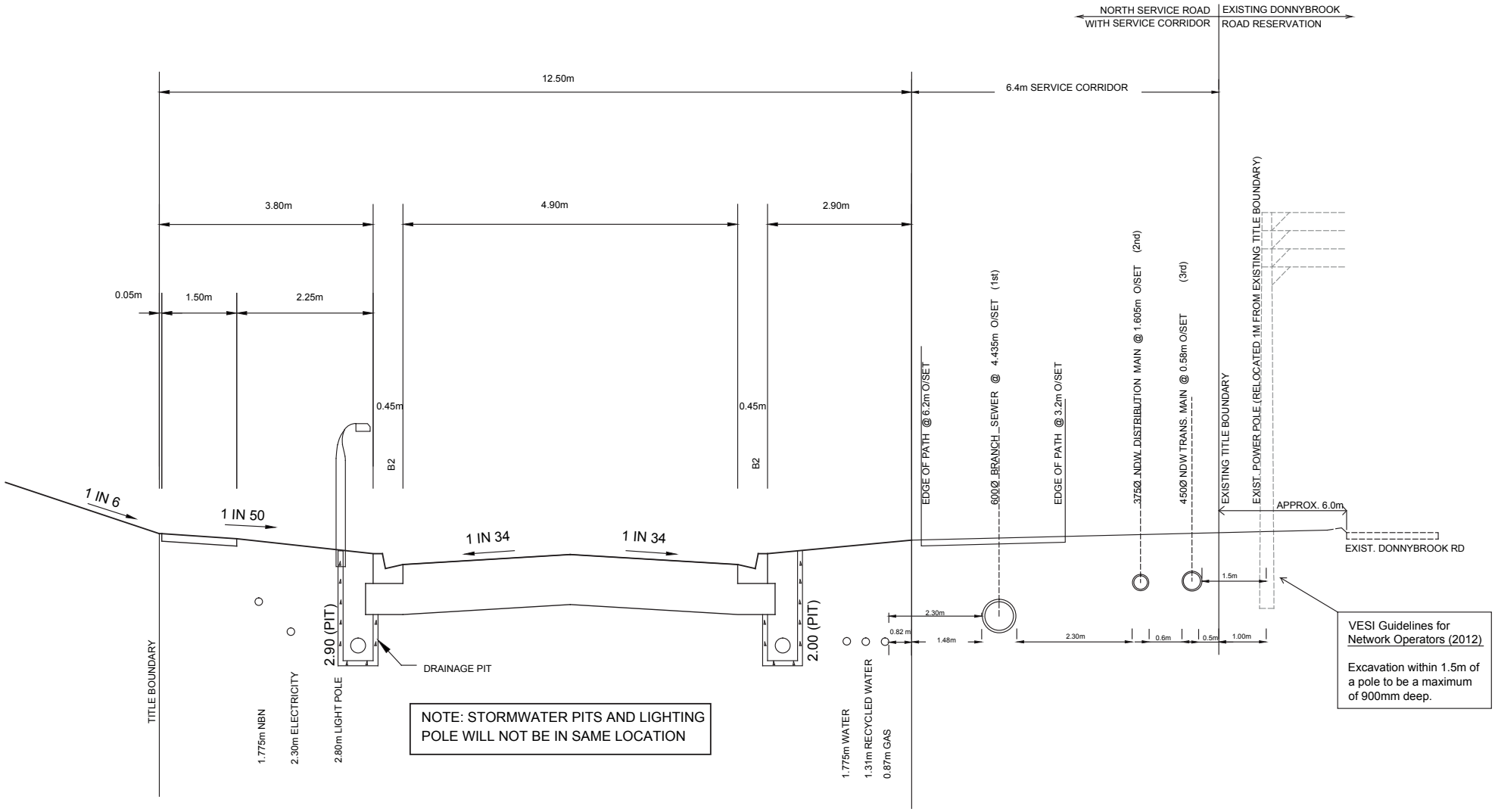
3.6.2 Utilities

REQUIREMENTS	
R78	Trunk services are to be placed along the general alignments shown on Plan 16, subject to any refinements as advised by the relevant servicing authorities.
R79	Trunk services along Donnybrook Road are to be placed in the general alignments indicated in Figures 1, 2 and 3, subject to any refinements as advised by the relevant servicing authorities.
R80	Before development commences on a property, functional layout plans are to be submitted of the road network showing the location of all: • Underground services; • Driveways/crossovers; • Intersection devices; • Footpaths/shared paths; • Street lights; and • Street trees. A typical cross section of each street must also to be submitted showing above and below ground placement of services, street lights and trees. The plans and cross sections must demonstrate how services, driveways and street lights will be placed so as to achieve the road reserve width (consistent with the road cross sections outlined in Appendix 4.3 in this PSP) and accommodate the minimum level of street tree planting (as outlined in this PSP). If required, the plan and cross sections will nominate which services will be placed under footpaths or road pavement. The plans and cross sections are to be approved by the responsible authority and delivery of underground services must be coordinated, located, and bundled (utilising common trenching) to facilitate the planting of trees and other vegetation within road verges, to the satisfaction of the responsible authority.
R81	All existing above ground electricity cables of less than 66kV voltage must be placed underground as part of the ultimate duplication of existing roads, excluding Donnybrook Road.
R82	All new electricity supply infrastructure (excluding substations and cables of a voltage greater than 66kV) must be provided underground.

R83	Where existing above ground electricity cables of 66kV voltage are retained along road ways, underground conduits designed for future undergrounding of the powerlines are to be provided as part of the installation of signalised intersection projects provided public land is available for the conduit installation and provided that the cost of the works are funded through the ICP. Where such works are required, they need to be carried out to the satisfaction of VicRoads and the responsible authority.
R84	Above ground utilities must be identified at the subdivision design stage to ensure effective integration with the surrounding neighbourhood and to minimise amenity impacts, and be designed to the satisfaction of the relevant authority. Where that infrastructure is intended to be located in public open space, the land required to accommodate that infrastructure will not be counted as contribution to public open space requirements outlined in the Donnybrook–Woodstock Infrastructure Contributions Plan.
R85	Utilities must be placed outside of conservation areas, natural waterway corridors or on the outer edges of these corridors in the first instance. Where services cannot avoid crossing or being located within a conservation area or natural waterway corridor they must be located to avoid disturbance to existing waterway values, native vegetation, areas of strategic importance to Growling Grass Frog, significant landform features and heritage sites, to the satisfaction of the Department of Environment, Land, Water and Planning, Melbourne Water and the responsible authority.
R86	Subdivision abutting the APA high pressure gas transmission pipeline easement must provide for the outcomes illustrated in the appropriate cross section in Appendix 4.4.

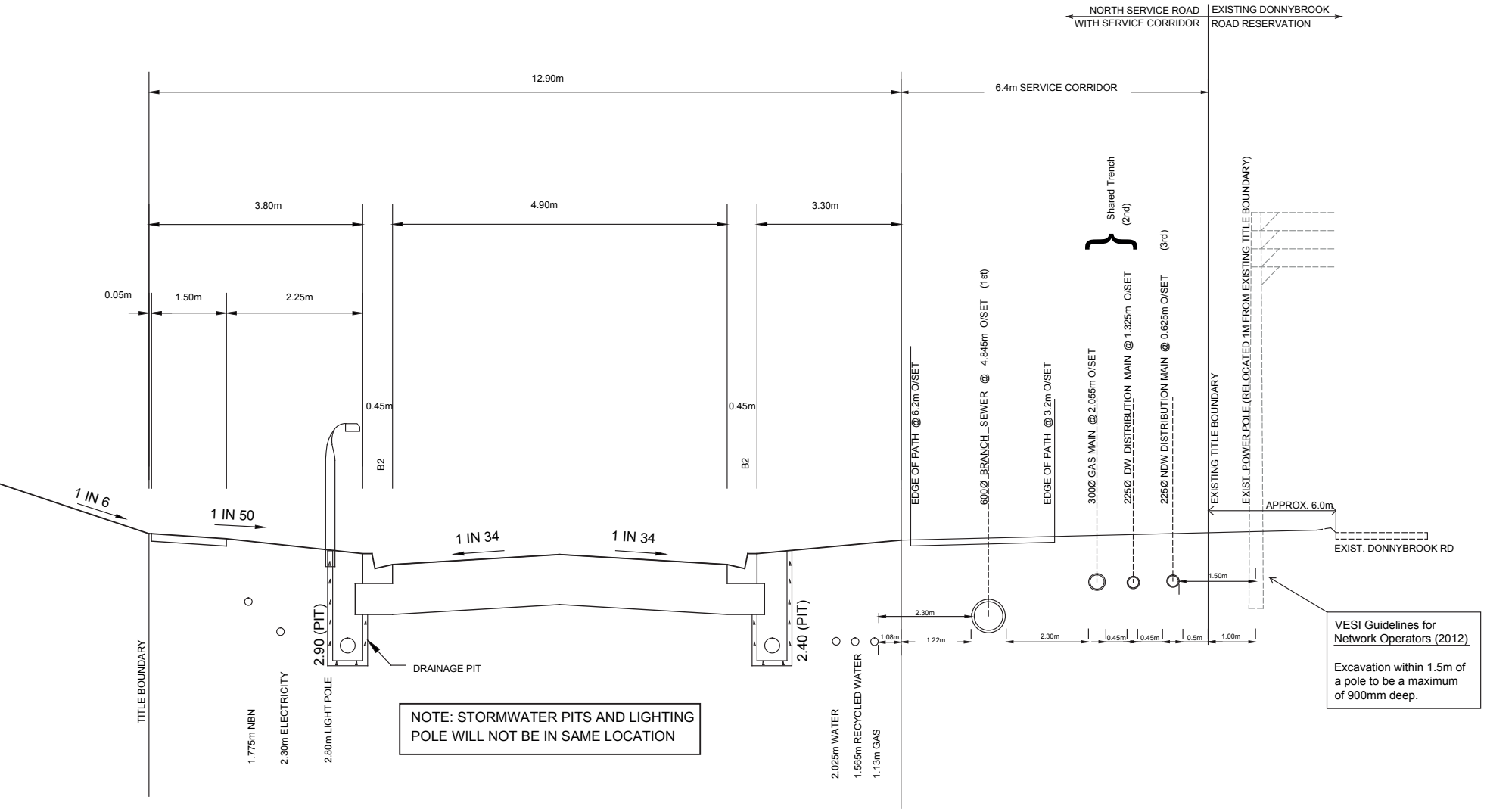
GUIDELINES	
G47	Above ground utilities should be located outside of key view lines and screened with vegetation, as appropriate.
G48	Existing above ground 66kV electricity cables should be removed and placed underground as part of the ultimate duplication of existing roads.
G49	Design and placement of underground services in new or upgraded streets should utilise the service placement guidelines outlined in Appendix 4.5.

Figure 1 **Donnybrook Road – typical cross-section with services (West)**



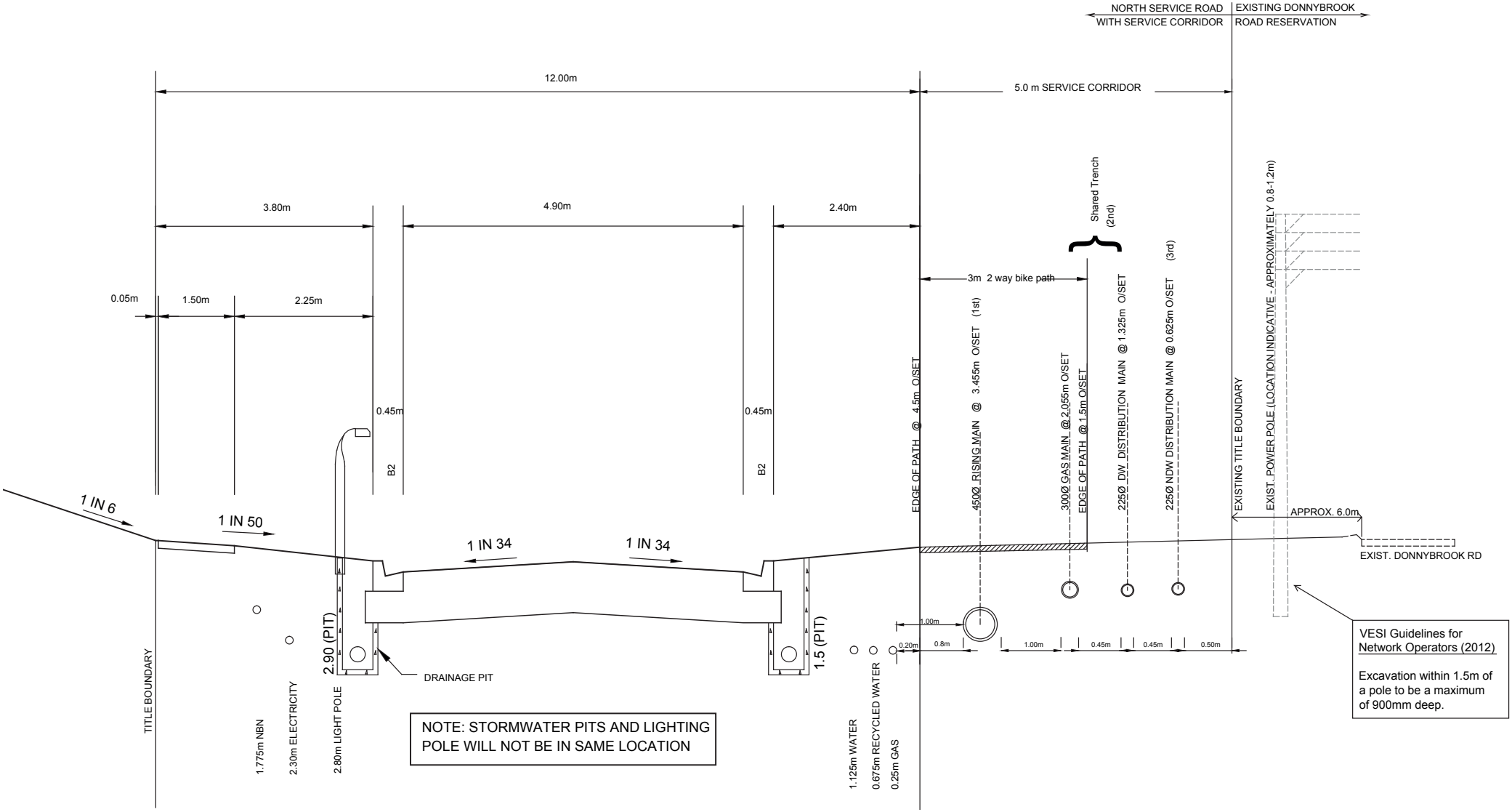
Note: The final width of the service corridor will be determined at implementation to the satisfaction of the responsible authority in consultation with relevant authorities. A wider service corridor of 6–8 metres may be required through the Darebin Creek corridor and adjacent areas to address localised service infrastructure requirements.

Figure 2 **Donnybrook Road – typical cross-section with services (East)**



Note: The final width of the service corridor will be determined at implementation to the satisfaction of the responsible authority in consultation with relevant authorities. A wider service corridor of 6–8 metres may be required through the Darebin Creek corridor and adjacent areas to address localised service infrastructure requirements.

Figure 3 Donnybrook Road – typical cross-section with services (East)



Note: The final width of the service corridor will be determined at implementation to the satisfaction of the responsible authority in consultation with relevant authorities. A wider service corridor of 6–8 metres may be required through the Darebin Creek corridor and adjacent areas to address localised service infrastructure requirements.

Table 8 Stormwater drainage and water treatment infrastructure

ASSET ID	ASSET TYPE	LOCATION	AREA (HECTARES)	RESPONSIBILITY	DSS
RBWL-1	Retarding Basin/Wetlands	Parcel 11, 15	7.00	Melbourne Water	Lockerbie East (DSS6508)
RBWL-2a	Retarding Basin/Wetlands	Parcel 17 & 19	2.93	Melbourne Water	Lockerbie East (DSS6508)
RBWL-2b	Retarding Basin/Wetlands	Parcel 19	0.50	Melbourne Water	Lockerbie East (DSS6508)
RBWL-3	Retarding Basin/Wetlands	Parcel 12 & 15	1.36	Melbourne Water	Lockerbie East (DSS6508)
RBWL-4	Retarding Basin/Wetlands	Parcel 19	0.76	Melbourne Water	Langley Park (DSS6503)
RBWL-5	Retarding Basin/Wetlands	Parcel 20	0.55	Whittlesea Council	Langley Park (DSS6503)
RBWL-6	Retarding Basin/Wetlands	Parcel 31	1.73	Melbourne Water	Woodstock West (DSS4566)
RBWL-6b	Retarding Basin/Wetlands	Parcel 31	1.12	Whittlesea City Council	Woodstock West (DSS4566)
RBWL-8	Retarding Basin/Wetlands	Parcel 33	5.62	Melbourne Water	Woodstock (DSS4560)
RBWL-9	Retarding Basin/Wetlands	Parcel 33 & 34	3.95	Melbourne Water	Woodstock (DSS4560)
RBWL-10	Retarding Basin/Wetlands	Parcel 36	1.35	Whittlesea Council	Woodstock (DSS4560)
WL-2	Wetland	Parcel 33 & 30B	0.55	Melbourne Water	Woodstock (DSS4560)
WL-3	Wetland	Parcel 33	1.04	Melbourne Water	Woodstock (DSS4560)
RBWL-14	Retarding Basin/Wetlands	Outside Precinct	-	Melbourne Water	Woodstock (DSS4560)
RBWL-11	Retarding Basin/Wetlands	Parcel 3 & 6	5.47	Melbourne Water	Beveridge East (DSS6513)
RBWL-12	Retarding Basin/Wetlands	Parcel 10 & 30A	2.55	Melbourne Water	Lockerbie East (DSS6508)
SB-2b	Sediment Basin	Parcel 20	0.83	Melbourne Water	Lockerbie East (DSS6508)
WL-1	Wetland	Parcel 15 & 16	1.70	Melbourne Water	Lockerbie East (DSS6508)
WL-13	Wetland	Parcel 8	1.68	Whittlesea City Council	DS Strategy

Note: The areas identified in this table are subject to change/confirmation during the functional and detailed design stage to the satisfaction of Melbourne Water and the responsible authority.

3.7 Precinct Infrastructure plan & staging

3.7.1 Precinct infrastructure plan

Table 9 Precinct infrastructure plan

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING	INCLUDED IN ICP	ICP REFERENCE NO.
ROAD PROJECTS						
Road	Donnybrook Road: Melbourne–Sydney railway line to Merriang Road	Purchase of land to creatre road reserve 41m wide (ultimate treatment) and construction of a 6-lane carriageway, excluding interim intersections	VicRoads	L	No	N/A
Road	Merriang Road: Donnybrook Road to OMR	Reconstruction of a 2 lane carriageway to urban standards	VicRoads	L	No	N/A
Road	Cameron Street: Eastern edge of the Melbourne–Sydney railway overpass to Patterson Drive	Purchase of land to create road reserve 34m wide and construction of 2 lane carriageway, excluding intersections (interim treatment)	Whittlesea City Council	M	Yes (interim)	RD-01
		Construction of 4 lane carriageway, excluding intersections (ultimate treatment)	VicRoads	L	No	N/A
Road	Gunns Gully Road: Melbourne–Sydney railway overpass to E6 / OMR reservation	Purchase of land to create road reserve 41m wide (ultimate treatment) and construction of 2 lane carriageway, excluding intersections (interim treatment)	Whittlesea City Council	M	Yes (interim)	RD-02
		Construction of 6 lane carriageway, excluding intersections (ultimate treatment)	VicRoads	L	No	N/A
Road	Patterson Drive: Donnybrook Road to Merri Creek	Purchase of land to create road reserve 34m wide (ultimate treatment) and construction of 2 lane carriageway, excluding intersections (interim treatment)	Whittlesea City Council	S	Yes (interim)	RD-03
		Construction of 4 lane carriageway, excluding intersections (ultimate treatment)	VicRoads	L	no	N/A
Road	Patterson Drive: Merri Creek to OMR/E6 reservation	Purchase of land to create road reserve 34m wide (ultimate treatment) and construction of 2 lane carriageway, excluding intersections (interim treatment)	Mitchell Shire Council	L	Yes (interim)	RD-04
		Construction of 4 lane carriageway, excluding intersections (ultimate treatment)	VicRoads	L	No	N/A
Road	Koukoura Drive: Donnybrook Road to Gunns Gully Road	Purchase of land to create road reserve 34m wide (ultimate treatment) and construction of 2 lane carriageway, excluding intersections (interim treatment)	Whittlesea City Council	S	Yes (interim)	RD-05
		Construction of 4 lane carriageway, excluding intersections (interim treatment)	VicRoads	M	No (ultimate)	N/A
BRIDGE PROJECTS						
Bridge	Donnybrook Road: Melbourne–Sydney railway line grade separation	6 lane bridge over railway line to provide grade separation	VicRoads	L	No	N/A
Bridge	Gunns Gully Road: Melbourne–Sydney railway line grade separation	6 lane bridge over railway line to provide grade separation	VicRoads	L	No	N/A
Bridge	Donnybrook Road: Upgrade existing culvert crossings	6 lane culvert crossing to convey stormwater flows as per Melbourne Water requirements	VicRoads	L	No	N/A

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING	INCLUDED IN ICP	ICP REFERENCE NO.
Bridge	Cameron Street: Melbourne–Sydney railway line grade separation bridge	Cameron Street: Construct a 2 lane interim road bridge spanning Merri Creek and the Melbourne–Sydney railway	Whittlesea City Council	M	Yes (interim)	BR-01
		4 lane bridge over the railway line to provide for grade separation – 4 lane ultimate	VicRoads	L	No (ultimate)	N/A
Bridge	Patterson Drive: culvert crossing of constructed waterway	4 lane culvert crossing – 2 lane interim	Whittlesea City Council	M	Yes (interim)	BR-02
		4 lane culvert crossing – 4 lane ultimate	VicRoads	L	No (ultimate)	N/A
Bridge	Hayes Hill Boulevard: "frog friendly" culvert bridge crossing of Darebin Creek	2 lane culvert crossing	Whittlesea City Council	M	Yes (ultimate)	BR-03
Bridge	Cameron Street: "frog friendly" culvert bridge crossing of Darebin Creek	2 lane culvert crossing	Whittlesea City Council	M	Yes (ultimate)	BR-04
Bridge	Gunns Gully Road: culvert crossing of Darebin Creek	2 lane culvert crossing (interim works)	Developer works	M	No	N/A
		6 lane culvert crossing.	VicRoads	L	No	N/A
Bridge	Patterson Drive: Bridge crossing of Merri Creek	4 lane bridge crossing – 2 lane interim	WCC and MSC	L	Yes (interim)	BR-05
		4 lane bridge crossing.	VicRoads	L	No (ultimate)	N/A
INTERSECTION PROJECTS						
Intersection	Donnybrook Road / Merriang Road	Upgrade existing intersection to meet the requirements of future road widening of Donnybrook Road.	VicRoads	M	Yes (interim)	N/A
Intersection	Gunns Gully Road / Merriang Road at Grants Road	Construction of an intersection to connect Grants Road to Gunns Gully Road and Merriang Road.	VicRoads	L	No	N/A
Intersection	Donnybrook Road / Langley Park Drive (N–S Connector 1)	Purchase of land (ultimate treatment) and construction of an arterial to connector road 4-way intersection (interim treatment)	Whittlesea City Council	M	Yes (interim)	IN-01
		Construction of an arterial to connector road 4-way intersection (ultimate treatment)	VicRoads	L	No	N/A
Intersection	Donnybrook Road / N–S Connector 2	Purchase of land (ultimate treatment) and construction of an arterial to connector road 4-way intersection (interim treatment)	Whittlesea City Council	M	Yes (interim)	IN-02
		Construction of an arterial to connector road 4-way intersection (ultimate treatment)	VicRoads	L	No	N/A
Intersection	Donnybrook Road / Patterson Drive	Purchase of land (ultimate treatment) and construction of an arterial to arterial road 4-way intersection (interim treatment)	Whittlesea City Council	M	Yes (interim)	IN-03
		Construction of an arterial to arterial road 4-way intersection (ultimate treatment)	VicRoads	L	No	N/A

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING	INCLUDED IN ICP	ICP REFERENCE NO.
Intersection	Donnybrook Road / Koukoura Drive	Purchase of land (ultimate treatment) and construction of an arterial to arterial road 4-way intersection (interim treatment)	Whittlesea City Council	M	Yes (interim)	IN-04
		Construction of an arterial to arterial road 4-way intersection (ultimate treatment)	VicRoads	L	No	N/A
Intersection	Donnybrook Road / N–S Connector 3	Purchase of land (ultimate treatment) and construction of an arterial to connector road 3-way intersection (interim treatment)	Whittlesea City Council	M	Yes (interim)	IN-05
		Construction of an arterial to connector road 3-way intersection (ultimate treatment)	VicRoads	L	No	N/A
Intersection	Donnybrook Road / Merriang Road	Purchase of land (ultimate treatment) and construction of an arterial to arterial road 4-way intersection	VicRoads	L	Yes (interim)	N/A
Intersection	Hayes Hill Boulevard / Patterson Drive	Purchase of land (ultimate treatment) and construction of an arterial to connector road 4-way intersection (interim treatment)	Whittlesea City Council	L	No	IN-06
		Construction of an arterial to connector road 4-way intersection (ultimate treatment)	VicRoads	L	No	N/A
Intersection	Hayes Hill Boulevard / Koukoura Drive	Purchase of land (ultimate treatment) and construction of an arterial to connector road 4-way intersection (interim treatment)	Whittlesea City Council	M	Yes	IN-07
		Construction of an arterial to connector road 4-way intersection (ultimatetreatment)	VicRoads	L	No	N/A
Intersection	Hayes Hill Boulevard / Merriang Road	Purchase of land (ultimate treatment) and construction of an arterial to arterial 3-way intersection (interim treatment)	Whittlesea City Council	M	Yes	IN-08
		Construction of an arterial to arterial 3-way intersection (ultimate treatment)	VicRoads	L	No	N/A
Intersection	Cameron Street / N–S Connector 2	Purchase of land (ultimate treatment) and construction of an arterial to connector road 4-way intersection (interim treatment)	Whittlesea City Council	M	Yes	IN-09
		Construction of an arterial to connector road 4-way intersection (ultimate treatment)	VicRoads	L	No	N/A
Intersection	Cameron Street / Patterson Drive	Purchase of land (ultimate treatment) and construction of an arterial to arterial road 4-way intersection (interim treatment)	Whittlesea City Council	M	Yes	IN-10
		Construction of an arterial to arterial road 4-way intersection (ultimate treatment)	VicRoads	L	No	N/A
Intersection	Cameron Street (E–W Blvd Connector) / Koukoura Drive (N–S Arterial)	Purchase of land (ultimate treatment) and construction of an arterial to arterial road 4-way intersection (interim treatment)	Whittlesea City Council	M	Yes	IN-11
		Construction of an arterial to arterial road 4-way intersection (ultimate treatment)	VicRoads	L	No	N/A
Intersection	Cameron Street / Merriang Road	Purchase of land (ultimate treatment) and construction of an connector to arterial road 3-way intersection (interim treatment)	Whittlesea City Council	M	Yes	IN-12
		Construction of an connector to arterial road 3-way intersection (ultimate treatment)	VicRoads	L	No	N/A

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING	INCLUDED IN ICP	ICP REFERENCE NO.
Intersection	Gunns Gully Road / N–S Connector 2	Purchase of land (ultimate treatment) and construction of an arterial to connector road 3-way intersection (interim treatment)	Whittlesea City Council	M	Yes	IN-13
		Construction of an arterial to connector road 3-way intersection (ultimate treatment)	VicRoads	L	No	N/A
Intersection	Gunns Gully Road / Patterson Drive	Purchase of land (ultimate treatment) and construction of an arterial to arterial road 4-way intersection (interim treatment)	Whittlesea City Council	M	Yes	IN-14
		Construction of an arterial to arterial road 4-way intersection (ultimate treatment)	VicRoads	L	No	N/A
Intersection	Gunns Gully Road / Koukoura Drive	Purchase of land (ultimate treatment) and construction of an arterial to arterial road 4-way intersection (interim treatment)	Whittlesea City Council	M	Yes	IN-15
		Construction of an arterial to arterial road 4-way intersection (ultimate treatment)	VicRoads	L	No	N/A
Intersection	Patterson Drive / E–W Connector	Purchase of land (ultimate treatment) and construction of an arterial to connector road 3-way intersection (interim treatment)	Whittlesea City Council	M	Yes	IN-16
		Construction of an arterial to connector road 3-way intersection (ultimate treatment)	VicRoads	L	No	N/A
Intersection	Patterson Drive / E–W Connector	Purchase of land (ultimate treatment) and construction of an arterial to connector road 3-way intersection (interim treatment)	Mitchell Shire Council	L	Yes	IN-17
		Construction of an arterial to connector road 3-way intersection (interim treatment)	VicRoads	L	No	N/A
PEDESTRIAN/CYCLE CROSSING PROJECTS						
Signalised Crossing	Crossing Patterson Drive between Donnybrook Road and Hayes Hill Boulevard	Support pedestrian and cycle movement along the key local access street connecting Donnybrook Station to the Non-Gov't. P–12 school campus and SR-02.	Whittlesea City Council	S	Yes	PED-01
Signalised Crossing	Crossing Gunns Gully Road between Koukoura Drive and Patterson Drive	Support pedestrian and cycle movement along the shared path along the gas pipeline easement.	Whittlesea City Council	M	Yes	PED-02
Signalised Crossing	Crossing Donnybrook Road between Koukoura Drive and Patterson Drive	Support pedestrian and cycle movement along the gas pipeline easement connecting south to Northern Quarries PSP.	Whittlesea City Council	M	Yes	PED-03
COMMUNITY BUILDING & EDUCATION PROJECTS						
Community Infrastructure	Community Activity Centre collocated with LCC-1	Purchase of land and construction of a community centre	Whittlesea City Council	M–L	Yes (land & facility)	CI-01
Community Infrastructure	Community Activity Centre collocated with LTC-2	Purchase of land and construction of a community centre	Whittlesea City Council	S–M	Yes (land & facility)	CI-02

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING	INCLUDED IN ICP	ICP REFERENCE NO.
Community Infrastructure	Community Activity Centre collocated with LTC-4	Purchase of land and construction of a community centre	Whittlesea City Council	M–L	Yes (land & facility)	CI-03
Community Infrastructure	Branch Library collocated with LTC-1	Purchase of land and construction of a Branch Library	Whittlesea City Council	M–L	Yes (land & facility)	CI-04
Community Infrastructure	Family Resource Centre collocated with LTC-1	Construction of a family resource centre collocated with Branch Library	Whittlesea City Council	M–L	Yes (facility)	CI-04
Community Infrastructure	Community Activity Centre collocated with LTC-1	Purchase of land and construction of a Community Activity Centre collocated with Branch Library	Whittlesea City Council	M–L	Yes (facility)	CI-04
Community Infrastructure	Community Activity Centre collocated with LTC-3	Purchase of land and construction of a community centre	Whittlesea City Council	M–L	Yes (land & facility)	CI-05
Community Infrastructure	Community Activity Centre collocated with LCC-4	Purchase of land and construction of a community centre	Whittlesea City Council	M–L	Yes (land & facility)	CI-06
Community Infrastructure	Community Activity Centre collocated with LCC-5	Purchase of land and construction of a community centre	Mitchell Shire Council	M–L	Yes (land & facility)	CI-07
School	Government 7–12 School	Purchase of land and construction of a government 7–12 school collocated with LTC-1	Department of Education & Training	M–L	No	N/A
School	Non-government 7–12 school	Purchase of land and construction of a non-government 7–12 school collocated with LTC-1	Catholic Education Office	M	No	N/A
School	Government P–6 school	Purchase of land and construction of a government P–6 school collocated with LTC-2	Department of Education & Training	S–M	No	N/A
School	Non-government P–12 school	Purchase of land and construction of a non-government P–12 school collocated with LTC-2	Private Education	S–M	No	N/A
School	Government P–12 school	Purchase of land and construction of a government P–12 school collocated with LCC-1	Department of Education & Training	M–L	No	N/A
School	Government P–6 school	Purchase of land and construction of a government P–6 school collocated with LTC-3	Department of Education & Training	M–L	No	N/A

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING	INCLUDED IN ICP	ICP REFERENCE NO.
School	Non-government P–6 school	Purchase of land and construction of a non-government P–6 school collocated with LTC-3	Catholic Education Office	M–L	No	N/A
School	Government P–6 school	Purchase of land and construction of a government P–6 school collocated with LTC-4	Department of Education & Training	M–L	No	N/A
School	Non-government P–6 school	Purchase of land and construction of a non-government P–6 school collocated with LTC-4	Catholic Education Office	M–L	No	N/A
School	Government P–6 school	Purchase of land and construction of a government P–6 school collocated with LCC-4	Department of Education & Training	M–L	No	N/A
OPEN SPACE & CONSERVATION AREAS						
Sporting Reserve	Sports fields (Soccer and Tennis) located near LCC-1	Purchase of land for a sporting reserve and construction of a multi purpose sports pavillion (located on Hayes Hill Boulevard near LCC-1).	Whittlesea City Council	S–M	Yes (land & facility)	SR-01
Sporting Reserve	Sports fields (AFL/Cricket and Netball) located near LTC-2	Purchase of land for a sporting reserve and construction of sports fields and construction of a multi purpose sports pavillion	Whittlesea City Council	S–M	Yes (land & facility)	SR-02
Sporting Reserve	Sports fields (Soccer) located near LTC-4	Purchase of land for a sporting reserve and construction of sports fields and construction of a multi purpose sports pavillion	Whittlesea City Council	M–L	Yes (land & facility)	SR-03
Sporting Reserve	Sports fields (AFL/Cricket and Netball) located near LTC-3	Purchase of land for a sporting reserve and construction of sports fields and construction of a multi purpose sports pavillion	Whittlesea City Council	M–L	Yes (land & facility)	SR-04
Sporting Reserve	Sports fields (Tennis, Netball and Lawnbowls) located near LTC-1	Purchase of land for a sporting reserve and construction of sports fields and construction of a multi purpose sports pavillion	Whittlesea City Council	M–L	Yes (land & facility)	SR-05
Sporting Reserve	Indoor Recreation, associated with SR-05	Purchase of land for an indoor recreation hall	Whittlesea City Council	M–L	Yes (land)	SR-05B
Sporting Reserve	Indoor Recreation at SR-05	Construction of an indoor recreation hall	Whittlesea City Council	L	No	N/A
Sporting Reserve	Sports fields (Soccer) located near LCC-4	Purchase of land for a sporting reserve and construction of sports fields and construction of a multi purpose sports pavillion	Whittlesea City Council	M–L	Yes (land & facility)	SR-06
Sporting Reserve	Sports fields (AFL/Cricket) located near LCC-5	Purchase of land for a sporting reserve and construction of sports fields and construction of a multi purpose sports pavillion	Mitchell Shire	L	Yes (land & facility)	SR-07

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING	INCLUDED IN ICP	ICP REFERENCE NO.
Local Park	Passive Open Space	Central to surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-01
Local Park	Passive Open Space	Protects stony knoll and trees	Whittlesea City Council	M–L	Yes (land)	LP-02
Local Park	Passive Open Space	Central to surrounding community and protects tree group	Whittlesea City Council	M–L	Yes (land)	LP-03
Local Park	Passive Open Space	Central to surrounding community and protects tree group	Whittlesea City Council	M–L	Yes (land)	LP-04
Local Park	Passive Open Space	Adjacent to a constructed waterway, situated between education facility and sports reserve	Whittlesea City Council	M–L	Yes (land)	LP-05
Local Park	Passive Open Space	Central to surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-06
Local Park	Passive Open Space	Central to surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-07
Local Park	Passive Open Space	Central to surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-08
Local Park	Passive Open Space	Central to surrounding community and protects tree group	Whittlesea City Council	M–L	Yes (land)	LP-09
Local Park	Passive Open Space	Central to the surrounding community and protects tree group.	Whittlesea City Council	M–L	Yes (land)	LP-10
Local Park	Passive Open Space	Central to the surrounding community and protects tree group.	Whittlesea City Council	M–L	Yes (land)	LP-11
Local Park	Passive Open Space	Central to the surrounding community and surrounds a Conservation Area	Whittlesea City Council	M–L	Yes (land)	LP–12
Local Park	Passive Open Space	Central to the surrounding community and adjacent to the Local Town Centre.	Whittlesea City Council	M–L	Yes (land)	LP-13
Local Park	Passive Open Space	Central to the surrounding community and protects tree group.	Whittlesea City Council	M–L	Yes (land)	LP-14
Local Park	Passive Open Space	Central to the surrounding community and protects tree group.	Whittlesea City Council	M–L	Yes (land)	LP-15
Local Park	Passive Open Space	Central to the surrounding community and adjacent to the Hayes Hill reserve	Whittlesea City Council	M–L	Yes (land)	LP-16
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-17

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING	INCLUDED IN ICP	ICP REFERENCE NO.
Local Park	Passive Open Space	Central to the surrounding communitty, protects trees group and surrounds a heritage site	Whittlesea City Council	M–L	Yes (land)	LP-18
Local Park	Passive Open Space	Central to the surrounding community and adjacent to the Local Convenience Centre.	Whittlesea City Council	M–L	Yes (land)	LP-19
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-20
Local Park	Passive Open Space	Central to the surrounding community and protects tree group.	Whittlesea City Council	M–L	Yes (land)	LP-21
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-22
Local Park	Passive Open Space	Central to the surrounding community and surrounds a Conservation Area	Whittlesea City Council	M–L	Yes (land)	LP-23
Local Park	Passive Open Space	Central to the surrounding community and protects tree group.	Whittlesea City Council	M–L	Yes (land)	LP-24
Local Park	Passive Open Space	Central to the surrounding community and protects tree group.	Whittlesea City Council	M–L	Yes (land)	LP-25
Local Park	Passive Open Space	Central to the surrounding community and protects tree group.	Whittlesea City Council	M–L	Yes (land)	LP-26
Local Park	Passive Open Space	Central to the surrounding community and protects tree group.	Whittlesea City Council	M–L	Yes (land)	LP-27
Local Park	Passive Open Space	Central to the surrounding community and adjacent to the Local Convenience Centre.	Whittlesea City Council	M–L	Yes (land)	LP-28
Local Park	Passive Open Space	Central to the surrounding community and protects tree group.	Whittlesea City Council	M–L	Yes (land)	LP-29
Local Park	Passive Open Space	Central to the surrounding community and adjacent to the Local Town Centre.	Whittlesea City Council	M–L	Yes (land)	LP-30
Local Park	Passive Open Space	Central to the surrounding community and protects tree group.	Whittlesea City Council	M–L	Yes (land)	LP-31
Local Park	Passive Open Space	Central to the surrounding community and adjacent to the Local Town Centre.	Whittlesea City Council	M–L	Yes (land)	LP-32
Local Park	Passive Open Space	Central to the surrounding communitty, protects trees group and surrounds a heritage site	Whittlesea City Council	M–L	Yes (land)	LP-33
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-34

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING	INCLUDED IN ICP	ICP REFERENCE NO.
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-35
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-36
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-37
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-38
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-39
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-40
Local Park	Passive Open Space	Central to the surrounding community and adjacent to a constructed waterway	Whittlesea City Council	M–L	Yes (land)	LP-41
Local Park	Passive Open Space	Central to the surrounding community and surrounds a Conservation Area	Whittlesea City Council	M–L	Yes (land)	LP-42
Local Park	Passive Open Space	Central to the surrounding community and adjacent to the gas pipeline easement	Whittlesea City Council	M–L	Yes (land)	LP-43
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-44
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-45
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-46
Local Park	Passive Open Space	Central to the surrounding community	Mitchell Shire	M–L	Yes (land)	LP-47
Local Park	Passive Open Space	Central to the surrounding community	Mitchell Shire	M–L	Yes (land)	LP-48
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-49
Local Park	Passive Open Space	Central to the surrounding community	Whittlesea City Council	M–L	Yes (land)	LP-50
Local Park	Passive Open Space	Central to the surrounding community and adjacent to a Conservation Area	Whittlesea City Council	M–L	Yes (land)	LP-51
Local Park	Passive Open Space	Central to the surrounding community and protects tree group.	Whittlesea City Council	M–L	Yes (land)	LP-52

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING	INCLUDED IN ICP	ICP REFERENCE NO.
Municipal Reserve	Hayes Hill	Preservation and maintenance of Hayes Hill Reserve	Whittlesea City Council	S–M	No	N/A
Conservation Area	Conservation Area 22 & 34 North	BCS Nature Conservation, Open Space Conservation and Growling Grass Frog Habitat	DELWP	M–L	No	N/A
Conservation Area	Conservation Area 34 South	BCS Growling Grass Frog Habitat - Darebin Creek and GGF West	DELWP	M–L	No	N/A
Conservation Area	Conservation Area 25 South	BCS - Nature Conservation adjacent to Patterson Drive	DELWP	M–L	No	N/A

3.7.2 Development staging

REQUIREMENTS	
R87	Development staging must provide for the timely provision and delivery of: • Arterial road reservations; • Connector streets and connector street bridges; • Street links between properties, constructed to the property boundary; and • Connection of the on- and off-road pedestrian and bicycle network.
R88	Streets must be constructed to property boundaries where an inter- parcel connection is intended or indicated in the PSP at the relevant stage of development required or approved by the responsible authority.
GUIDELINES	
G50	Staging will be determined largely by the development proposals on land within the precinct and the availability of infrastructure services. Within this context, the following should be achieved: • Development staging should, to the extent practicable, be integrated with adjoining developments, including the timely provision of connecting roads and walking/cycling paths; and • Access to each new lot must be via a sealed road.
G51	The early delivery of community facilities, local parks and playgrounds is encouraged within each neighbourhood and may be delivered in stages.
G52	Development adjoining an existing or proposed development front or serviced land is encouraged. Prioritise development in areas that are proximate to an existing train station or where there is a commitment to deliver community infrastructure, such as schools.

3.7.3 Subdivision works

REQUIREMENTS	
R89	Subdivision of land within the precinct must provide and meet the total cost of delivering the following infrastructure: • Connector roads and local streets; • Local bus stop infrastructure (where locations have been agreed in writing by Public Transport Victoria); • Fencing along the rail reserve boundary to the satisfaction of Public Transport Victoria; • Landscaping of all existing and future roads and local streets; • Intersection works and traffic management measures along arterial roads, connector streets, and local streets (except those included in the Donnybrook–Woodstock Infrastructure Contributions Plan (ICP); • Council approved fencing and landscaping (where required) along arterial roads; • Local shared, pedestrian and bicycle paths along local arterial roads, connector roads, utilities easements, local streets, waterways and within local parks including bridges, intersections, and barrier crossing points (except those included in the ICP); • Bicycle parking; • Appropriately scaled lighting along all roads, major shared and pedestrian paths, and traversing public open space; • Basic improvements to local parks and open space (refer open space delivery below); • Local drainage system; • Local street or pedestrian path crossings of waterways unless included in the ICP or outlined as the responsibility of another agency in the Precinct Infrastructure Plan; • Infrastructure as required by utility service providers including water, sewerage, drainage (except where the item is funded through a Development Services Scheme), electricity, gas, and telecommunications; • Construction of shared paths along waterways and open space; and • Remediation and / or reconstruction of dry stone walls where required.
R90	**OPEN SPACE DELIVERY** All public open space must be finished to a standard that satisfies the requirements of the responsible authority prior to the transfer of the public open space, including: • Removal of all existing and disused structures, foundations, pipelines, and stockpiles; • Basic levelling, including the supply and spread of minimum 75mm topsoil and sub soil if required on the proposed areas of open space to provide a stable, free draining surface; • Clearing of rubbish and weeds, levelled, topsoiled and grassed with warm climate grass (unless conservation reserve requirements dictate otherwise); • Provision of water tapping, potable and recycled water connection points. Sewer and gas connection points must also be provided to land identified as an active reserve; • Planting of trees and shrubs; • Provision of vehicular exclusion devices (fence, bollards, or other suitable method); • Maintenance access points; and • Installation of park furniture including barbeques, shelters, furniture, rubbish bins, local scale playground equipment, local scale play areas, and appropriate paving to support these facilities, consistent with the type of public open space listed in the open space delivery guide (Table 6).

4.0 APPENDICES

4.1 Parcel specific land budget

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT			COMMUNITY & EDUCATION			OPEN SPACE								OTHER	TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
								UNCREDITED OPEN SPACE						CREDITED OPEN SPACE				
		ARTERIAL ROAD – EXISTING ROAD RESERVE	ARTERIAL ROAD – PUBLIC ACQUISITION OVERLAY	ARTERIAL ROAD – NEW / WIDENING / INTERSECTION FLARING (ICP LAND)	FUTURE GOVERNMENT SCHOOL	POTENTIAL NON-GOVERNMENT SCHOOL	ICP COMMUNITY FACILITIES	CONSERVATION RESERVE	DRAINAGE ASSET WITHIN CONSERVATION RESERVE	WATERWAY AND DRAINAGE RESERVE	HERITAGE RESERVE – POST CONTACT	UTILITIES EASEMENTS	HAYES HILL RESERVE	LOCAL SPORTS RESERVE (ICP LAND)	LOCAL PARK (ICP LAND)	EXISTING DEVELOPED LAND		
PROPERTY																		
1	1.58	–	1.58	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00	0.00%
2	2.31	–	2.31	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00	0.00%
3	102.43	–	16.06	2.34	–	–	0.50	17.07	–	2.27	–	2.37	–	5.65	2.04	–	54.14	52.85%
4	7.26	–	–	–	–	–	–	7.26	–	–	–	–	–	–	–	–	0.00	0.00%
5	3.54	–	–	–	–	–	–	3.54	–	–	–	–	–	–	–	–	0.00	0.00%
6	110.91	–	–	1.97	–	–	–	91.59	–	3.20	–	0.05	–	–	–	–	14.09	12.71%
7	138.12	–	–	10.21	–	–	–	81.30	–	–	0.06	2.33	–	–	1.13	–	43.09	31.19%
8	140.25	–	–	7.50	–	–	–	38.70	–	1.68	–	4.86	–	–	2.49	–	85.02	60.62%
9	60.15	–	–	0.88	3.50	2.63	0.80	–	–	1.88	–	1.53	–	8.03	1.86	–	39.04	64.90%
10	60.89	–	–	2.80	–	–	–	–	–	2.45	–	0.23	–	–	2.03	–	53.38	87.66%
11	24.88	–	–	0.25	–	–	–	–	–	8.64	–	1.50	–	–	0.25	–	14.24	57.22%

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT			COMMUNITY & EDUCATION			OPEN SPACE								OTHER	TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
								UNCREDITED OPEN SPACE						CREDITED OPEN SPACE				
		ARTERIAL ROAD – EXISTING ROAD RESERVE	ARTERIAL ROAD – PUBLIC ACQUISITION OVERLAY	ARTERIAL ROAD – NEW / WIDENING / INTERSECTION FLARING (ICP LAND)	FUTURE GOVERNMENT SCHOOL	POTENTIAL NON-GOVERNMENT SCHOOL	ICP COMMUNITY FACILITIES	CONSERVATION RESERVE	DRAINAGE ASSET WITHIN CONSERVATION RESERVE	WATERWAY AND DRAINAGE RESERVE	HERITAGE RESERVE – POST CONTACT	UTILITIES EASEMENTS	HAYES HILL RESERVE	LOCAL SPORTS RESERVE (ICP LAND)	LOCAL PARK (ICP LAND)	EXISTING DEVELOPED LAND		
12	1.03	–	–	–	–	–	–	–	–	–	–	0.04	–	–	–	–	0.99	96.36%
13	4.51	–	–	–	–	–	–	–	–	–	–	0.91	–	–	–	–	3.61	79.93%
14	0.82	–	–	0.02	–	–	–	–	–	–	–	0.03	–	–	–	–	0.77	92.93%
15	25.88	–	–	0.21	–	–	–	4.57	0.55	1.98	–	1.39	–	–	0.43	–	16.75	64.73%
16	39.89	–	–	0.01	–	–	–	10.29	–	0.53	–	0.13	–	–	0.75	–	28.18	70.63%
17	76.73	–	–	2.14	4.81	–	0.82	–	–	6.69	–	0.04	–	2.50	2.68	2.31	54.74	71.34%
18	1.16	–	–	0.02	–	–	–	–	–	–	–	0.02	–	–	–	–	1.11	96.18%
19	89.43	–	–	2.19	5.19	–	–	–	–	1.29	–	0.34	–	5.60	3.74	–	71.08	79.48%
20	127.94	–	–	3.24	3.50	8.23	0.80	1.39	–	2.71	–	0.33	–	9.01	7.65	–	91.07	71.18%
21	2.03	–	–	–	–	–	–	–	–	–	–	0.05	–	–	–	–	1.98	97.52%
22	0.74	–	0.06	–	–	–	–	0.68	–	–	–	–	–	–	–	–	0.00	0.00%
23	4.30	–	1.96	–	–	–	–	2.33	–	–	–	–	–	–	–	–	0.00	0.00%
24	15.53	–	3.77	–	–	–	–	10.73	–	–	–	1.02	–	–	–	–	0.00	0.00%
25	149.48	–	6.36	1.25	3.50	–	0.80	68.51	–	0.15	–	1.40	–	8.00	1.67	–	57.83	38.69%
26	18.18	–	6.34	–	–	–	–	–	–	3.16	–	–	–	–	0.50	–	8.17	44.95%
27	0.01	–	0.01	–	–	–	–	–	–	–	–	–	–	–	–	–	0.00	0.00%
28	15.63	–	2.60	–	–	–	–	–	–	2.44	–	–	–	–	0.25	–	10.34	66.14%
29	25.92	–	8.14	0.07	–	–	–	–	–	5.01	–	–	–	–	–	–	12.71	49.02%
30A	10.46	–	–	0.19	–	–	–	–	–	0.10	–	1.76	–	–	–	–	8.41	80.44%

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT			COMMUNITY & EDUCATION			OPEN SPACE								OTHER	TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
								UNCREDITED OPEN SPACE						CREDITED OPEN SPACE				
		ARTERIAL ROAD – EXISTING ROAD RESERVE	ARTERIAL ROAD – PUBLIC ACQUISITION OVERLAY	ARTERIAL ROAD – NEW / WIDENING / INTERSECTION FLARING (ICP LAND)	FUTURE GOVERNMENT SCHOOL	POTENTIAL NON-GOVERNMENT SCHOOL	ICP COMMUNITY FACILITIES	CONSERVATION RESERVE	DRAINAGE ASSET WITHIN CONSERVATION RESERVE	WATERWAY AND DRAINAGE RESERVE	HERITAGE RESERVE – POST CONTACT	UTILITIES EASEMENTS	HAYES HILL RESERVE	LOCAL SPORTS RESERVE (ICP LAND)	LOCAL PARK (ICP LAND)	EXISTING DEVELOPED LAND		
30B	115.43	–	7.37	3.88	8.34	–	–	5.70	0.14	3.37	–	0.17	–	8.01	1.89	–	76.57	66.34%
31	61.16	–	–	–	–	–	–	–	–	2.85	–	5.87	14.35	–	1.62	–	36.48	59.64%
32	79.49	–	–	7.59	–	–	1.48	–	–	–	0.34	0.23	0.23	–	1.99	–	67.63	85.08%
33	122.94	–	–	–	–	7.00	0.52	18.28	3.30	7.35	–	0.38	–	8.00	2.25	–	75.85	61.70%
34	3.11	–	–	–	–	–	–	2.69	–	0.01	–	–	–	–	–	–	0.41	13.24%
35	2.90	–	–	–	–	–	–	2.24	–	–	–	–	–	–	–	–	0.66	22.68%
36	40.22	–	–	0.28	3.50	2.60	0.68	5.94	–	1.48	–	0.03	–	–	0.10	–	25.61	63.67%
37	42.12	–	–	0.19	–	–	–	–	–	–	–	0.12	–	–	3.86	–	37.95	90.10%
38	3.80	–	1.20	–	–	–	–	–	–	–	–	–	–	–	–	–	2.60	68.47%
39	0.82	–	–	0.07	–	–	–	–	–	–	–	–	–	–	–	–	0.75	90.96%
40	2.50	–	–	0.08	–	–	–	–	–	–	–	–	–	–	0.75	–	1.66	66.68%
41	1.34	–	–	–	–	–	–	–	–	–	–	–	–	–	0.20	–	1.14	85.09%
42	1.42	–	–	–	–	–	–	–	–	–	–	–	–	–	0.35	–	1.06	75.22%
43	4.05	–	–	–	–	–	–	–	–	–	–	–	–	–	1.03	–	3.01	74.46%
44	4.81	–	–	0.01	–	–	–	–	–	–	–	–	–	–	–	–	4.80	99.75%
45	3.17	–	–	0.25	–	–	–	–	–	–	–	–	–	–	–	–	2.93	92.24%
46	3.26	–	–	0.02	–	–	–	–	–	–	–	–	–	–	–	–	3.25	99.51%
47	3.33	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3.33	100.00%
48	3.47	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3.47	100.00%

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT			COMMUNITY & EDUCATION			OPEN SPACE								OTHER	TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
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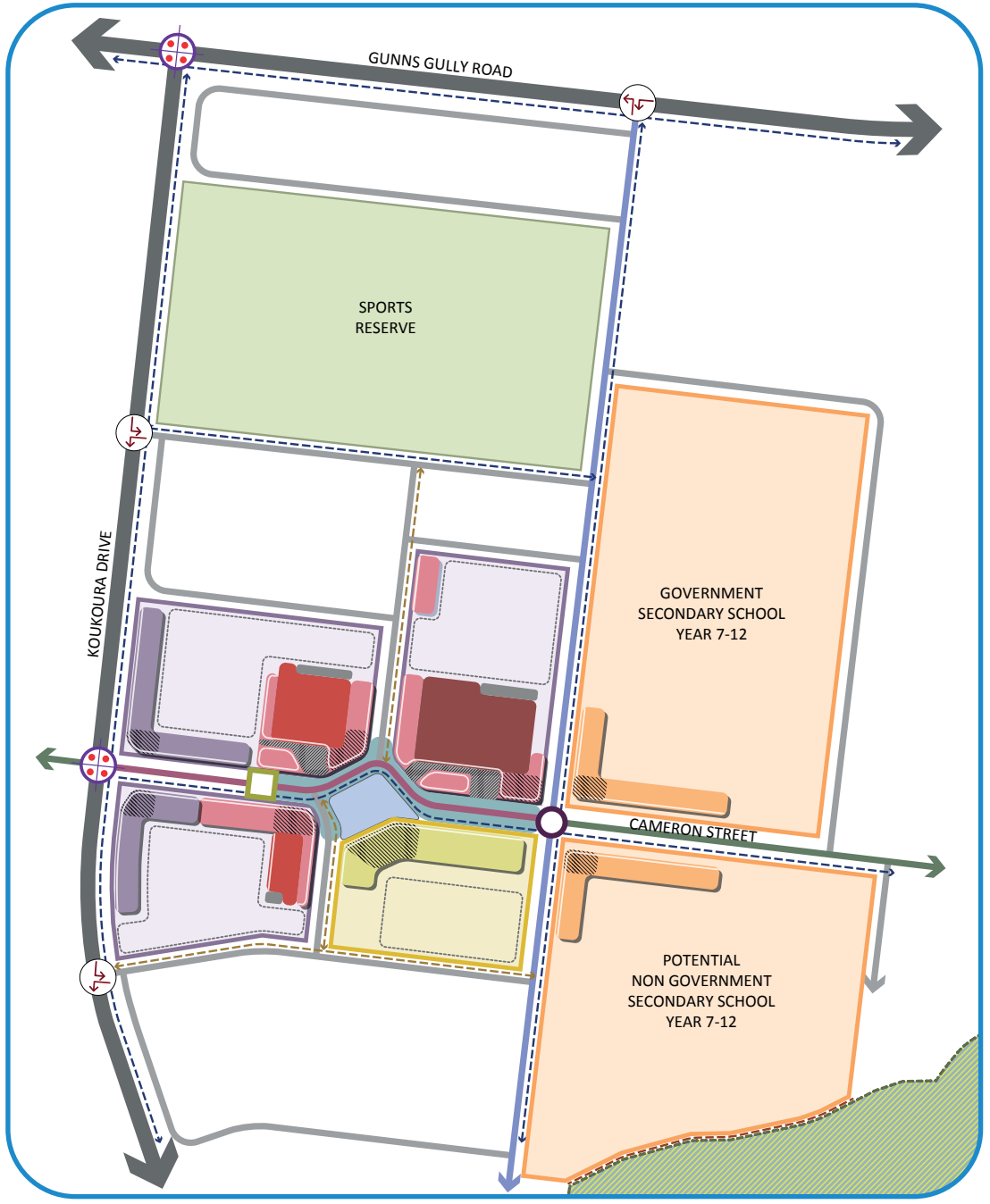
49	3.57	–	–	–	–	–	–	–	–	–	–	–	–	–	0.70	–	2.87	80.38%
50	3.68	–	–	–	–	–	–	–	–	–	–	–	–	–	0.33	–	3.35	91.07%
51	2.78	–	–	–	–	–	–	–	–	–	–	0.06	–	–	1.08	–	1.64	59.22%
52	2.67	–	–	–	–	–	–	–	–	–	–	0.05	–	–	1.25	–	1.36	51.08%
53	2.05	–	–	–	–	–	–	–	–	–	–	–	–	–	1.00	–	1.04	51.06%
54	2.14	–	–	–	–	–	–	–	–	–	–	0.09	–	–	0.71	–	1.35	62.79%
SUB-TOTAL	**1778.20**	**0.00**	**57.78**	**47.68**	**32.34**	**20.47**	**6.40**	**372.82**	**3.99**	**59.23**	**0.39**	**27.33**	**14.58**	**54.80**	**46.59**	**2.31**	**1031.50**	**58.01%**
ROAD RESERVE																		
Road Reserve 1	4.61	3.33	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1.28	27.74%
Road Reserve 2	3.13	2.98	–	–	–	–	–	–	–	0.15	–	–	–	–	–	–	0.00	0.00%
SUB-TOTAL	**7.74**	**6.31**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.15**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**1.28**	**16.52%**
TOTALS PSP 1067 & 1096	**1785.94**	**6.32**	**57.78**	**47.68**	**32.34**	**20.47**	**6.40**	**372.82**	**3.99**	**59.38**	**0.39**	**27.33**	**14.58**	**54.80**	**46.59**	**2.31**	**1032.78**	**57.83%**

4.2 Local town centres – draft concept plans & design guidelines

4.2.1 Koukoura Drive Local Town Centre Design Framework

Key Design Elements

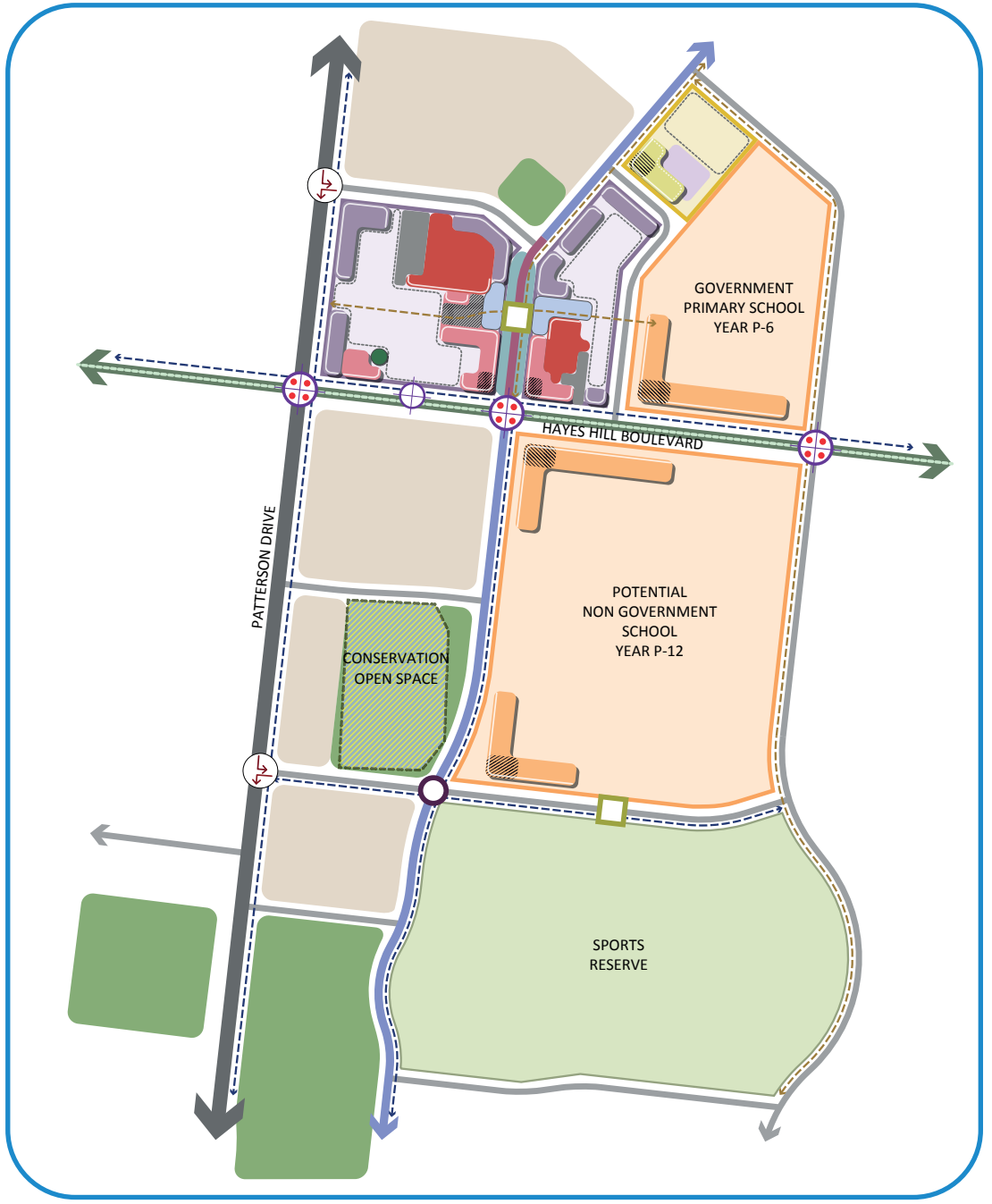
- A centralised town square to be provided that will act as forecourt to the community facility and focal point for surrounding retail uses.
- Pedestrian and cyclist focused shared zone to be delivered on north–south and east–west main streets to integrate the town centre core with the surrounding neighbourhoods, public transport and community facilities.
- The main streets to be designed to include dense canopy shade tree provision, outdoor dining and pedestrian activity and on-street parking.
- Development blocks should be based on a permeable layout to enable flexibility to suit a variety of land uses and allow viable short-term development as well as efficient long term evolution and adaptation.
- Potential Regional Skate/Play space to be located adjacent to the community facility.
- Encourage high density residential/ office uses at upper storeys along main streets to provide vitality and diversity.
- All buildings to have main entrance/ access point to the street.
- Specialty retail and mixed use to sleeve the supermarket and other anchor retail.
- Parking to be sleeved behind buildings on main streets. Views to car parks from Koukoura Drive and edges of the centre to be shielded by built form and landscaping.
- Sports Reserve to include facilities for netball courts, tennis courts, lawn bowls, skate park, pavilion, and provision for indoor recreation centre.



4.2.2 Patterson Drive Local Town Centre Design Framework

Key Design Elements

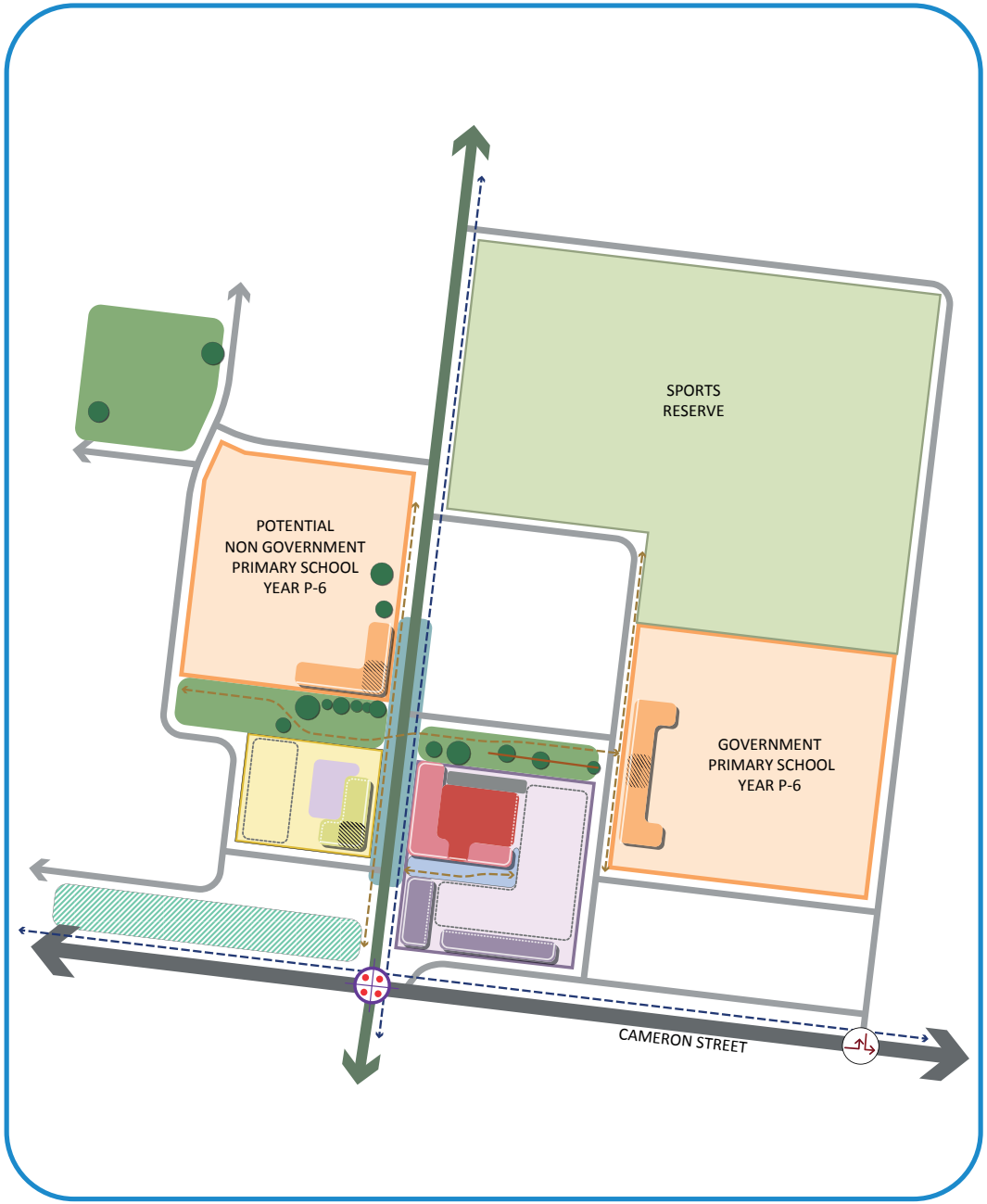
- A centralised town square to act as focal point for surrounding retail and commercial uses.
- Pedestrian and cyclist focused shared zone to be delivered on North–South main streets to integrate the town centre core with the surrounding neighbourhoods, public transport and community facilities.
- Specialty retail and mixed use to sleeve the supermarket and other anchor retail.
- The main streets to be designed to include dense canopy shade tree provision, outdoor dining and pedestrian activity and on-street parking.
- Schools should orientate buildings and entrances to Hayes Hill Boulevard.
- An East–West pedestrian link is provided to connect the retail core and government school.
- Encourage high density residential/ office uses at upper storeys along main streets to provide vitality and diversity.
- All buildings to have main entrance/ access point to the street.
- Sports Reserve to include facilities for AFL/cricket, netball, etc.



4.2.3 Lockerbie East Local Town Centre Design Framework

Key Design Elements

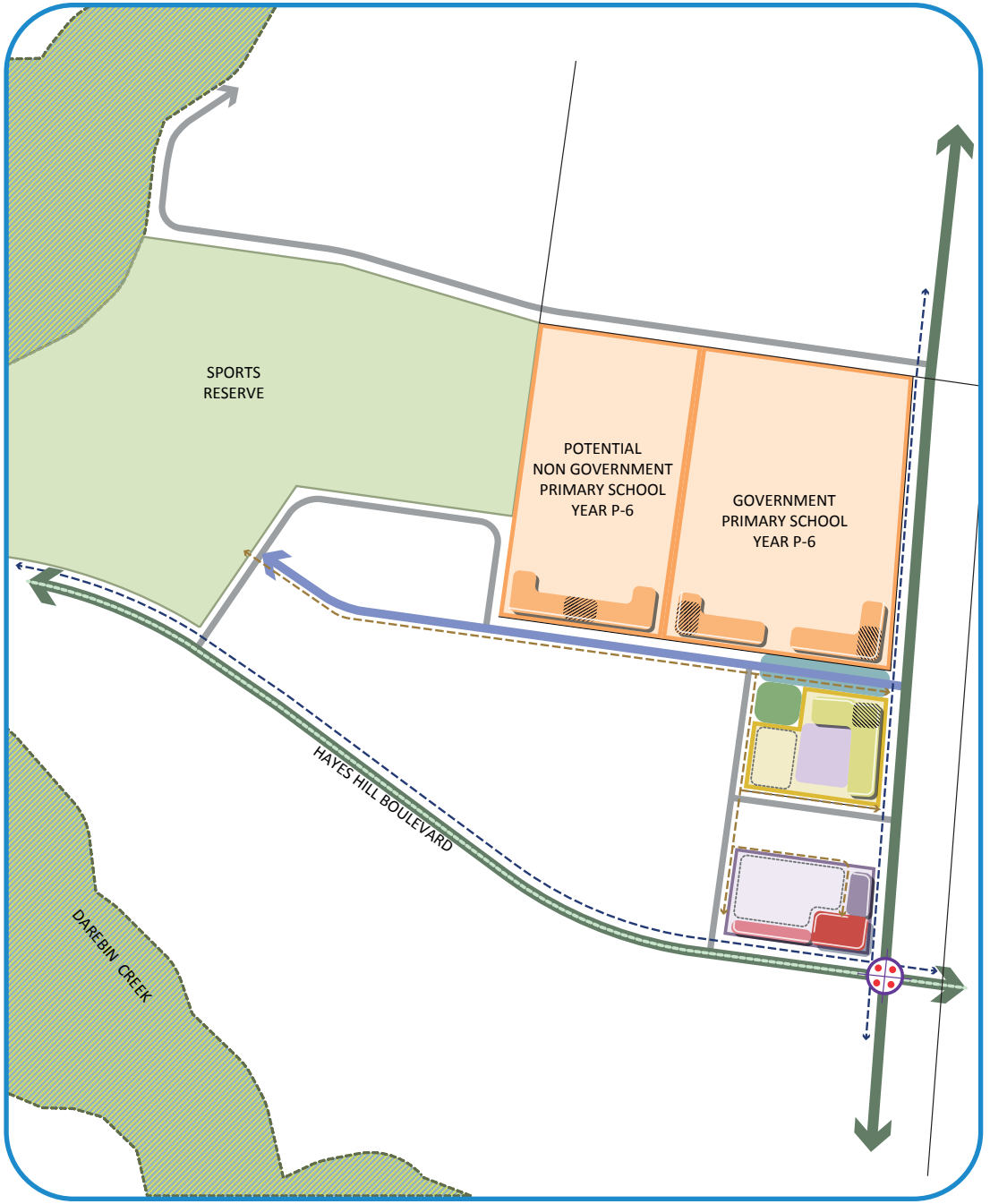
- Community facility to provide a prominent built form to address the North–South Connector Street and serve as a civic landmark entrance into local town centre.
- The local park to incorporate the existing vegetation and drystone walls to provide a linear green connection between the retail, community facility and schools.
- Design of housing central to the retail, schools and sports reserve should continue an active built form presence to contribute to centre activation and passive surveillance at all times of the day.
- Pedestrian and cyclist focused shared zone to be delivered on North–South main streets to integrate the town centre core with the surrounding neighbourhoods, public transport and community facilities.
- Specialty retail and mixed use to sleeve the supermarket and other large format retail.
- The North–South Connector Street to be designed to include dense canopy shade tree provision, outdoor dining and pedestrian activity and on-street parking.
- An East–West pedestrian link is provided to connect the retail, community facility and schools.
- Encourage high density residential/ office uses at upper storeys to provide vitality and diversity.
- All buildings to have main entrance/ access point to the street.
- Sports Reserve to include facilities for AFL/cricket, netball courts, pavilion.



4.2.4 Darebin Creek Local Town Centre Design Framework

Key Design Elements

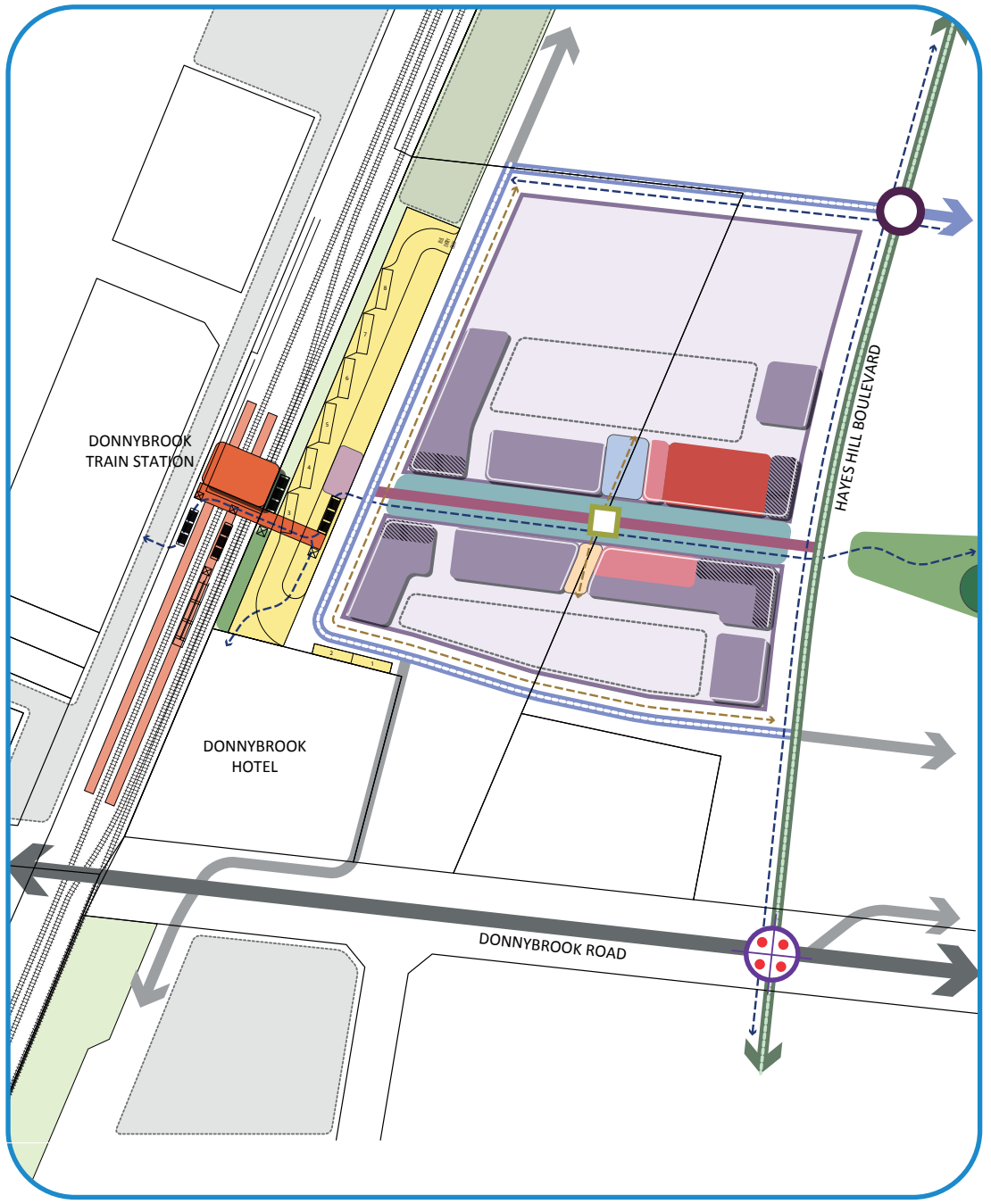
- Community centre to provide a prominent built form to address the North–South Connector Street and serve as a civic landmark entrance into local town centre.
- Design of housing central to the retail, schools and sports reserve should continue an active built form presence to contribute to centre activation and passive surveillance at all times of the day.
- Provision of the shared pedestrian zone between the Community Facility and Retail to enhance pedestrian safety for parents and children crossing between the two uses.
- Encourage high density residential/ office uses at upper storeys along main streets to provide vitality and diversity.
- All buildings to have main entrance/ access point to the street.
- Sports Reserve to include facilities for soccer, pavilion.



4.2.5 Donnybrook Station Local Town Centre Urban Design Framework

Key Design Elements

- Pedestrian and cyclist focused shared zone to be delivered on the East–West main streets to integrate the town centre core with the surrounding neighbourhoods and Donnybrook Train Station.
- Development blocks should be based on a permeable layout to enable flexibility for a variety of land uses and allow viable short-term development as well as efficient long term evolution and adaptation.
- The main streets to be designed to include dense canopy shade tree provision, outdoor dining, pedestrian activity and on-street parking.
- All buildings to have main entrance/access point to the street.
- The local access streets that provide access around the centre must be designed to accommodate bus services.
- Shared path connection between the train station and Donnybrook Road to be developed to ensure a pedestrian and cycling connections to the south of Donnybrook Road.
- Specialty retail and mixed use to sleeve the anchor retail along the main street.
- Encourage high density residential, convenience retail and office uses along the main street and opposite the Train Station to provide vitality and development diversity. Development of greater than four storeys is encouraged.
- High density built form should provide a transition to the surrounding residential uses.
- Parking to be sleeved behind buildings on main streets. Views to car parks from Hayes Hill Boulevard and edges of the centre to be shielded by built form and landscaping.



4.2.6 Local town centre key design principles

LOCAL TOWN CENTRES	
Principle 1 Provide every neighbourhood with a viable Local Town Centre as a focus of the community with a fine grained, closely spaced distribution pattern.	• Deliver a fine grained distribution pattern of highly accessible Local Town Centres generally on a scale of one Local Town Centre for every neighbourhood of 8,000 to 10,000 people. • Locate Local Town Centres with a distribution pattern of around one Local Town Centre for every square mile (2.58km^2) of residential development. • Deliver a network of economically viable Local Town Centres including a supermarket and supporting competitive local shopping business, medical, leisure, recreation and community needs while allowing opportunities for local specialisation.
Principle 2 Locate Local Town Centres on a connector street intersection with access to an arterial road and transit stop.	• Locate the Local Town Centre on an arterial/connector intersection and ensure that the Local Town Centre is central to the residential catchment that it services while optimising opportunities for passing trade. • Locate the Local Town Centre with future railway stations or other forms of transit stops to benefit the Local Town Centre and to offer convenience for public transport passengers. • Other Local Town Centre locations may be considered where the location results in the Local Town Centre being central to the residential catchment that it serves and/or the location incorporates natural or cultural landscape features such as rivers and creeks, tree rows, topographic features or other heritage structures which assist in creating a sense of place.
Principle 3 Locate Local Town Centres in an attractive setting so that most people live within a walkable catchment of a Local Town Centre and relate to the centre as the focus of the neighbourhood.	• Ensure that 80-90% of households are within a 1km walkable catchment of a local or higher order Town Centre. • Locate Local Town Centres in attractive settings and incorporate natural or cultural landscape features such creeks and waterways, linear open space, pedestrian and cycle links and areas of high aesthetic value. • The design of the Local Town Centre should respect existing views and vistas to and from the Local Town Centre location.

Principle 4 Provide a full range of local community and other facilities including a supermarket, shops, medical and recreation uses.	• Land uses should be located generally in accordance with the locations and general land use terms identified on the Local Town Centre Concept Plan. • The design of the Local Town Centre should facilitate development with a high degree of community interaction and provide a vibrant and viable mix of retail, recreation and community facilities. • The creation of land use precincts within the centre is encouraged to facilitate the clustering of uses. For example a 'medical precinct' where similar or synergistic uses should be sited together to promote stronger trading patterns. • The design of the Local Town Centre should also encourage a pattern of smaller scale individual tenancies and land ownership patterns within the Local Town Centre to attract investment and encourage greater diversity and opportunities for local business investment. • The Local Town Centre should generally be anchored by one full line supermarket and supported by specialty stores unless otherwise noted on the Local Town Centre Concept Plan. • Supermarkets and other commercial or community anchors or secondary anchors within the Local Town Centre should be located diagonally opposite one another across the main street and/or town square to promote desire lines that maximise pedestrian movement within the public realm. • A small access mall that address a supermarket/other 'large box uses' may be considered as part of the overall design. Such access malls may have a limited number of internalised shops. The primary access to the mall should be from the main street and/or the town square. • Active building frontages should address the main street and town square to maximise exposure to passing trade, and promote pedestrian interaction. • Shopfronts should have varying widths and floor space areas to promote a diversity of trading opportunities throughout the Local Town Centre. • Flexible floor spaces (including floor to ceiling heights) should be incorporated into building design to enable localised commercial uses to locate amongst the activity of the Local Town Centre. • Mixed Use precincts should provide retail and/or office at ground level, and office, commercial and residential above ground level. • Childcare, medical centres and specialised accommodation (e.g. aged care/nursing home, student accommodation, and serviced apartments) should be located within the Local Town Centre and at the edge of the Local Town Centre to contribute to the activity of the centre and so these uses are close to the services offered by the centre. • Car parking areas should be located centrally to the site and to the rear and or side of street based retail frontages. • Car parking areas should be designed to accommodate flexible uses and allow for long term development opportunities. • Public toilets should be provided in locations which are safe and accessible and within the managed area of the property.

Principle 5 Focus on a public space as the centre of community life.	• A public space which acts as the central meeting place within the Local Town Centre must be provided. This public space may take the form of a town square, town park, public plaza space, public market place or a similar locally responsive option. • The public space should be located in a position where the key uses of the Local Town Centre are directly focuses on this public space to ensure that it is a dynamic and activated space. • The public space should be designed to function as the identifiable 'centre' or 'heart' with a distinctive local character for both the Local Town Centre and the broader residential catchment. • The public space should be designed as a flexible and adaptable space so that a range of uses can occur within this space at any one time. Such uses may include people accessing their daily shopping and business needs as well as providing a space where social interaction, relaxation, celebrations and temporary uses (such as stalls, exhibitions and markets) can occur. • The public space should be well integrated with pedestrian and cycle links around and through the Local Town Centre so that the public space acts as a 'gateway' to the activity of the centre. • The main public space or town square within the Local Town Centre should have a minimum area of 500sq m. Smaller public spaces which are integrated within the built form design, are surrounded by active frontages and facilitate high levels of pedestrian movement are also encouraged. • Footpath widths within and around the public space as well as along the main street should be sufficient to provide for pedestrian and mobility access as well as provide for outdoor dining and smaller gathering spaces.
Principle 6 Integrate local employment and service opportunities in a business friendly environment.	• A variety of employment and business opportunities should be planned through the provision of a broad mix of land uses and commercial activities. • A range of options and locations for office based businesses should be provided within the Local Town Centre. • Services and facilities to support home based and smaller businesses are encouraged within the Local Town Centre. • Appropriate locations for small office/home office ('SOHO') housing options which maximise the access and exposure to the activity of the Local Town Centre should be considered as part of the design process.
Principle 7 Include a range of medium and high density housing and other forms of residential uses within and surrounding the Local Town Centre.	• Medium and high density housing in and around the Local Town Centre is required to provide passive surveillance, contribute to the life of the centre and to maximise the amenity of the centre. • Medium and high density housing should establish in locations of high amenity around the Local Town Centre and be connected to the activity of the Local Town Centre through strong pedestrian and cycle links. • A range of housing types for a cross section of the community (such as retirement living) should be included in and around the Local Town Centre. • Specialised accommodation (such as aged/nursing care, student accommodation and serviced apartments) is encouraged at the edge of Local Town Centres with strong pedestrian and cycle links to the central activity area of the Town Centre. • The Local Town Centre design should avoid potential land use conflicts between residential and commercial uses by focusing on retail operations on the main street and around the town square and locating residential uses predominantly at the edge of the Local Town Centre and/or on upper levels. • Refer to the Small Lot Housing Code for further information about housing requirements for small lots around Local Town Centres.

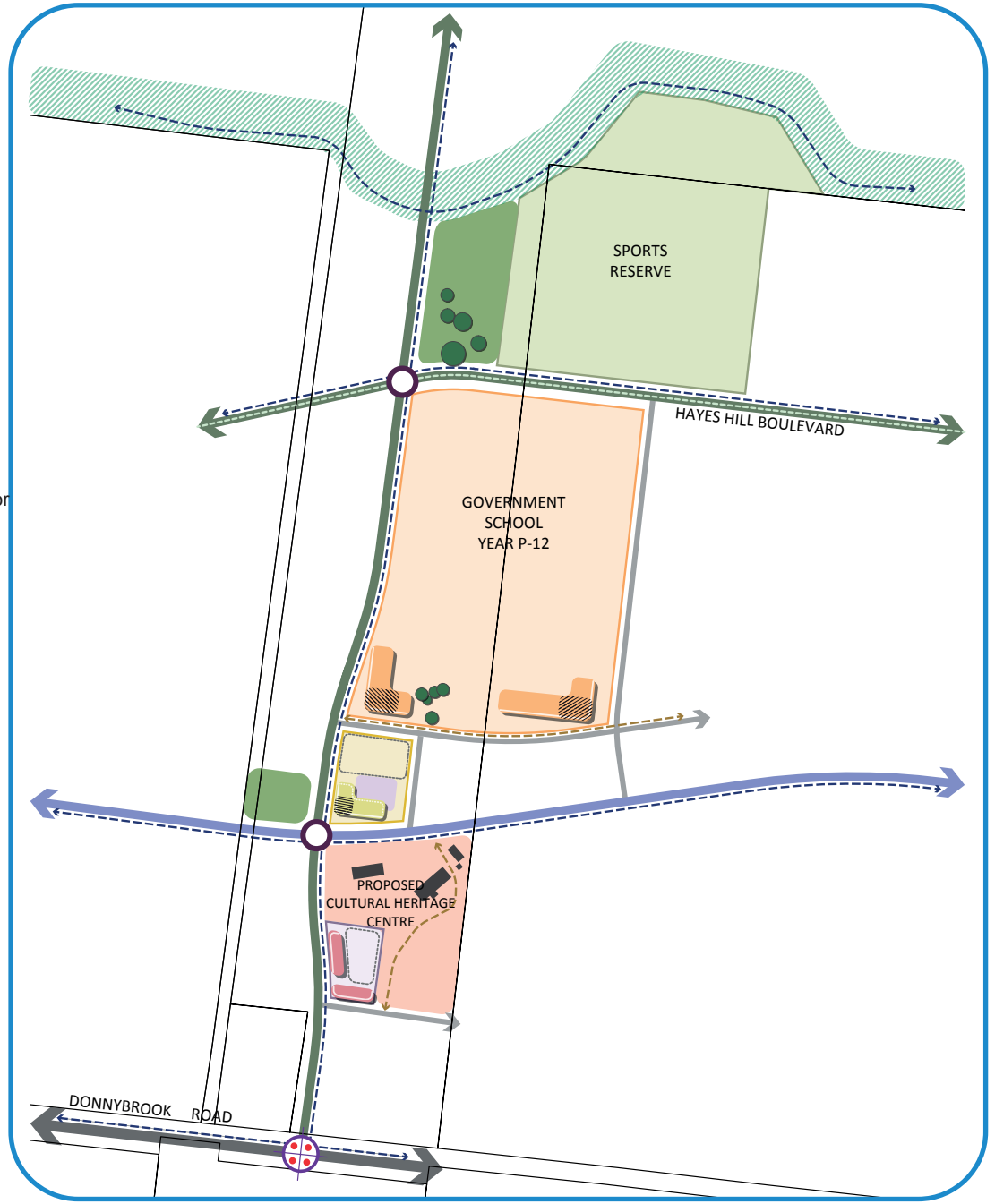
Principle 8 Design the Local Town Centre to be pedestrian friendly and accessible by all modes including public transport, while enabling private vehicle access.	• The Local Town Centre should be easily, directly and safely accessible for pedestrians, cyclists, public transport modes, private vehicles, service and delivery vehicles with priority given to pedestrian movement, amenity, convenience and safety. • The Local Town Centre should provide a permeable network of streets, walkways and public spaces that provide linkages throughout the centre and designated pedestrian crossing points. • The main street should be designed to comply with the relevant cross sections found within the precinct Structure Plan. • A speed environment of 40km/h or less should be designed for the length of the main street. • Public transport infrastructure/facilities should be planned for commuter friendly/convenient locations within the Local Town Centre. • Bus stops should be provided in accordance with the Department of Transport Public Transport Guidelines for Land Use and Development, to the satisfaction of Public Transport Victoria. • Bicycle parking should be provided within the street network and public spaces in highly visible locations and close to pedestrian desire lines and key destinations. • Supermarket and other 'large format' buildings should not impede on the movement of people around the Local Town Centre. • Key buildings within the Local Town Centre should be located to encourage pedestrian movement along the length of the street through public spaces.

4.3 Local Convenience Centres – Urban Design Frameworks

4.3.1 Donnybrook Farmhouse Local Convenience Centre Urban Design Framework

Key Design Elements

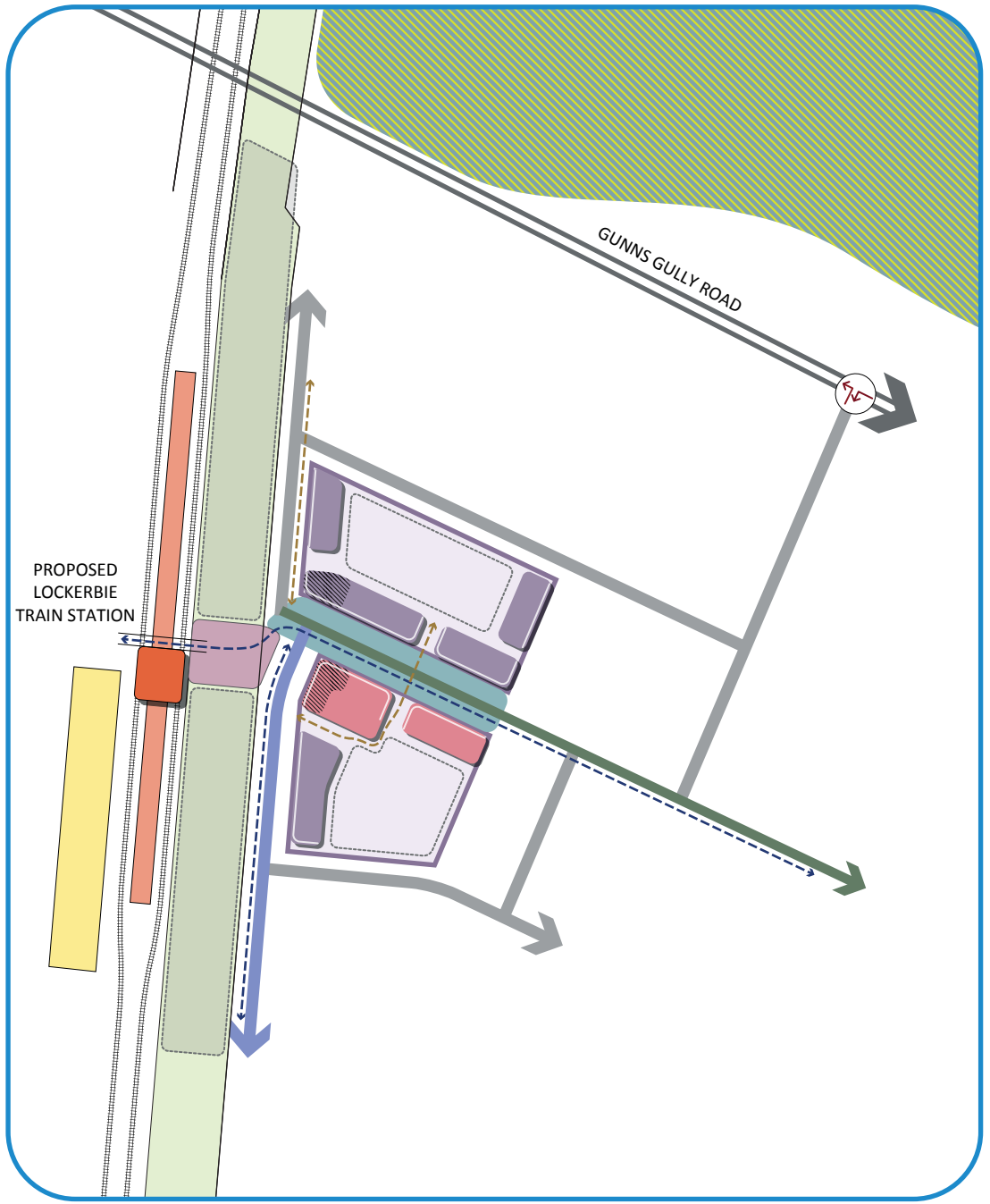
- The community facility is to be the central focal point anchoring the proposed cultural heritage centre and primary school.
- The retail and proposed cultural heritage centre should be designed and delivered together to maximise on shared use opportunities.
- School buildings should orientate buildings and entrances towards the south of the site.
- The sports reserve design should incorporate shared path connections to the adjacent drainage reserve and local park.
- Sports Reserve to include facilities for soccer tennis courts, pavilion.



4.3.2 Lockerbie Station Local Convenience Centre Urban Design Framework

Key Design Elements

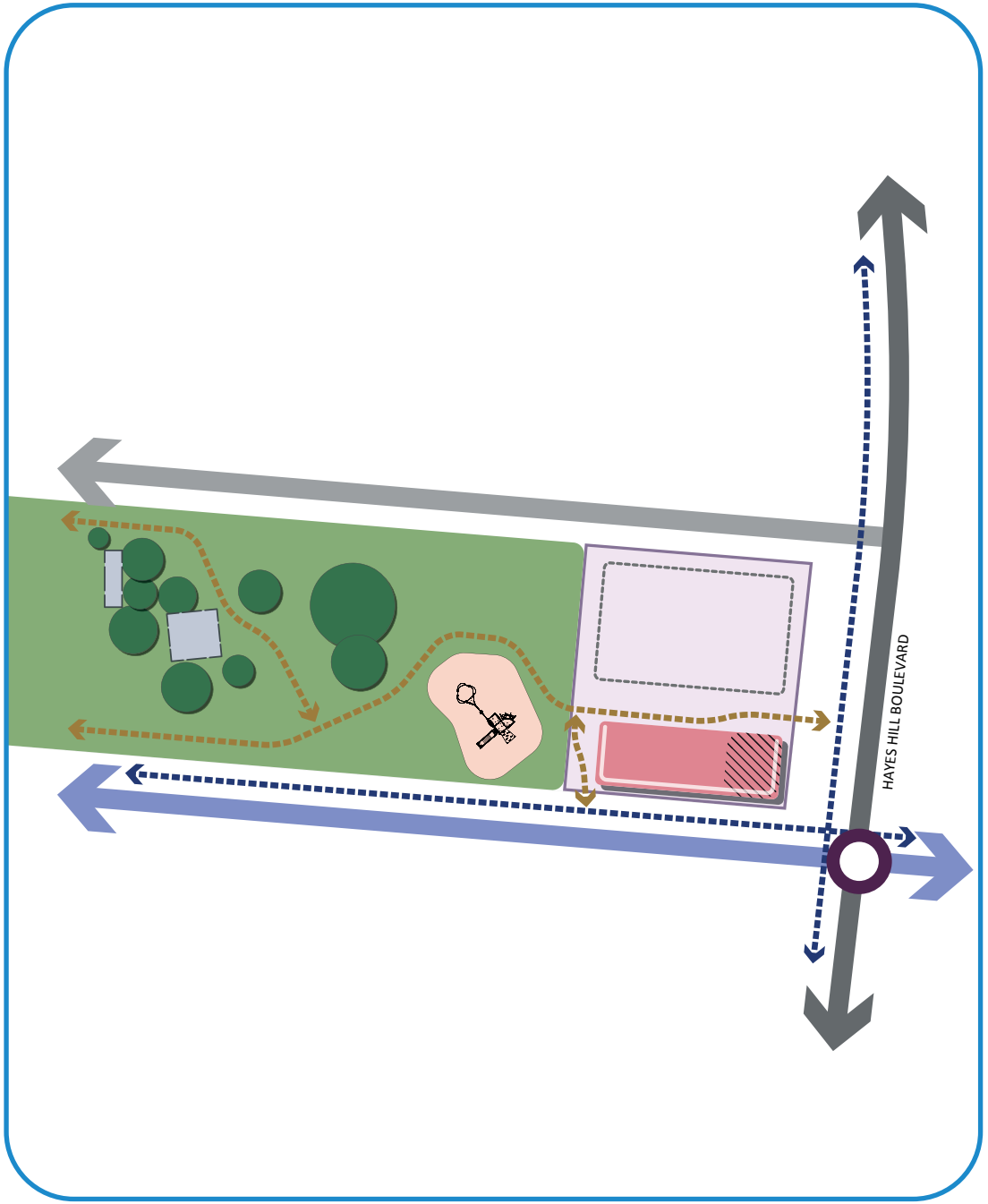
- Pedestrian and cyclist focused shared zone to be delivered on the East–West main streets to integrate the town centre core with the surrounding neighbourhoods and proposed Lockerbie Train Station.
- Development blocks should be based on a permeable layout to enable flexibility for a variety of land uses and allow viable short-term development as well as efficient long term evolution and adaptation.
- The main streets to be designed to include dense canopy shade tree provision, outdoor dining, pedestrian activity and on-street parking.
- All buildings to have main entrance/access point to the street.
- Encourage high density residential, convenience retail and office uses along the main street and opposite the Train Station to provide vitality and development diversity.
- Development of greater than four storeys is encouraged
- Parking to be sleeved behind buildings on main streets.
- The local access streets that provide access around the centre must be designed to accommodate bus services.



4.3.3 Hayes Hill
Local Convenience Centre Urban Design Framework

Key Design Elements

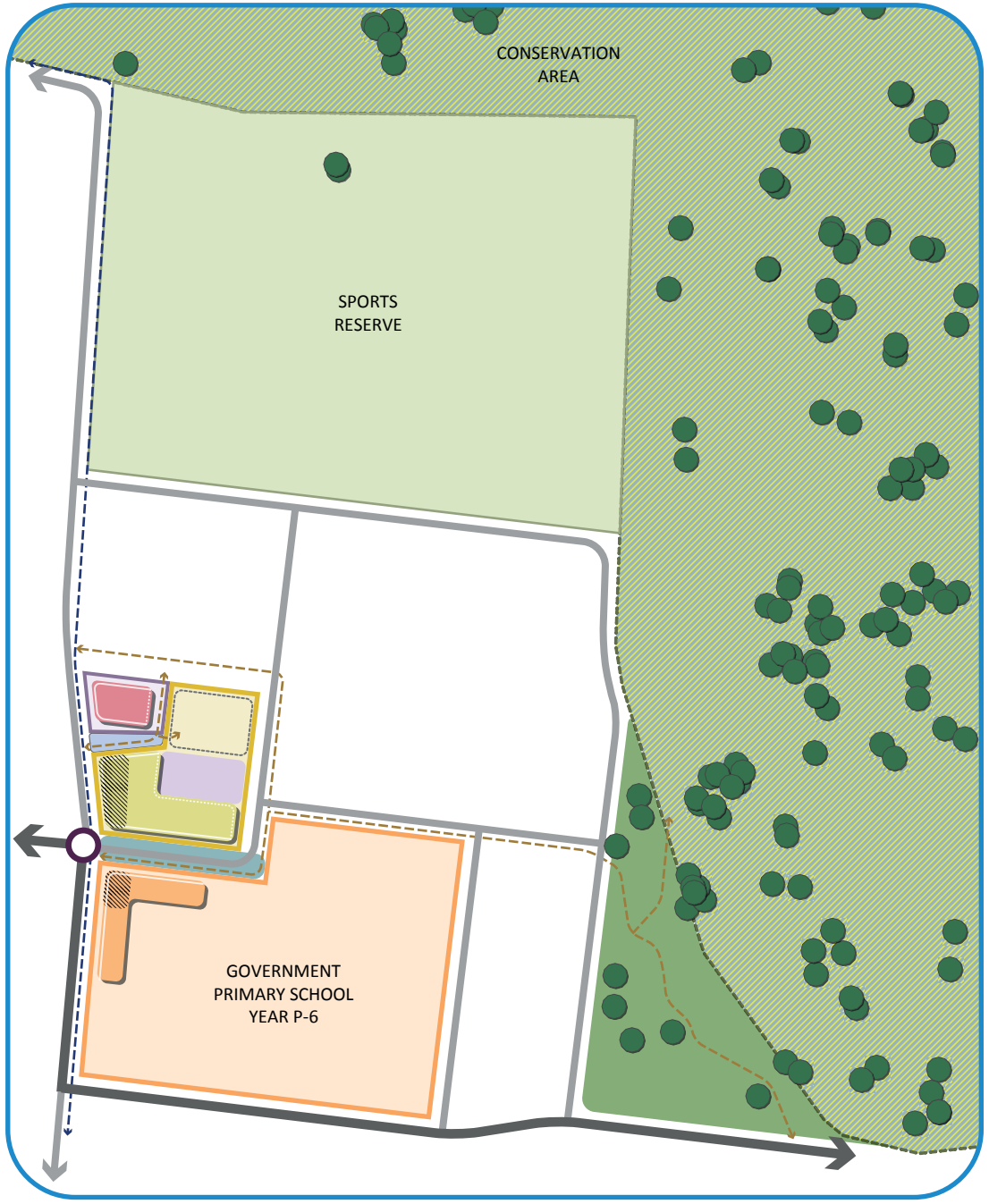
- The retail buildings and car parking should provide a positive address to Hayes Hill.
- The local park to incorporate the existing vegetation and heritage features to provide a linear green connection to Hayes Hill.
- Retail activity area should integrate with the local park and heritage features.
- Design of housing surrounding the retail and local park should continue an active built form presence to contribute to centre activation and passive surveillance at all times of the day.



4.3.4 Woodlands Local Convenience Centre Urban Design Framework

Key Design Elements

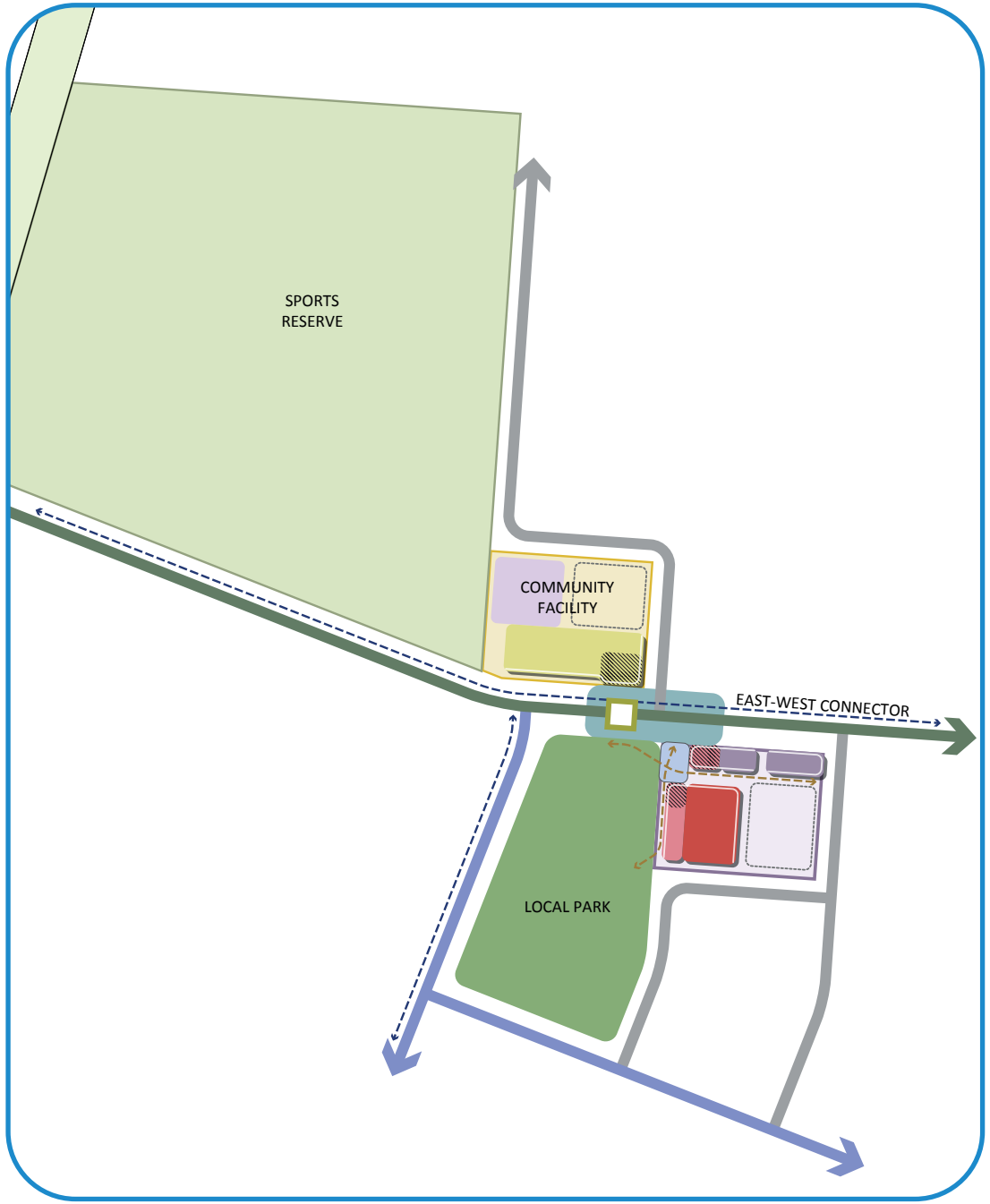
- The community facility is to be the central focal point anchoring both the retail and primary school.
- The retail and community facility should be designed and delivered together to maximise on shared use opportunities, including use of town square, car parking and other public facilities.
- Design of housing central to the retail, schools and sports reserve should continue an active built form presence to contribute to centre activation and passive surveillance at all times of the day.
- All buildings to have main entrance/ access point to the street.
- Sports Reserve to include facilities for rectangular sports fields, pavilion.



4.3.5 Merristock Local Convenience Centre Urban Design Framework

Key Design Elements

- Pedestrian and cyclist focused shared zone to be delivered on the East–West main streets to integrate the town centre core with the community facility and sports reserve.
- Community centre to provide a prominent built form to address the East–West Connector Street and serve as a civic landmark.
- A centralised town square to act as focal point for surrounding retail and commercial uses.
- The local access streets that provide access around the centre must be designed to accommodate bus services.
- Specialty retail and mixed use to sleeve the anchor retail along the main street.
- Design of housing surrounding the retail and community facility should continue an active built form presence to contribute to centre activation and passive surveillance at all times of the day.
- Sports Reserve to include facilities for multi purpose sports field, pavilion.

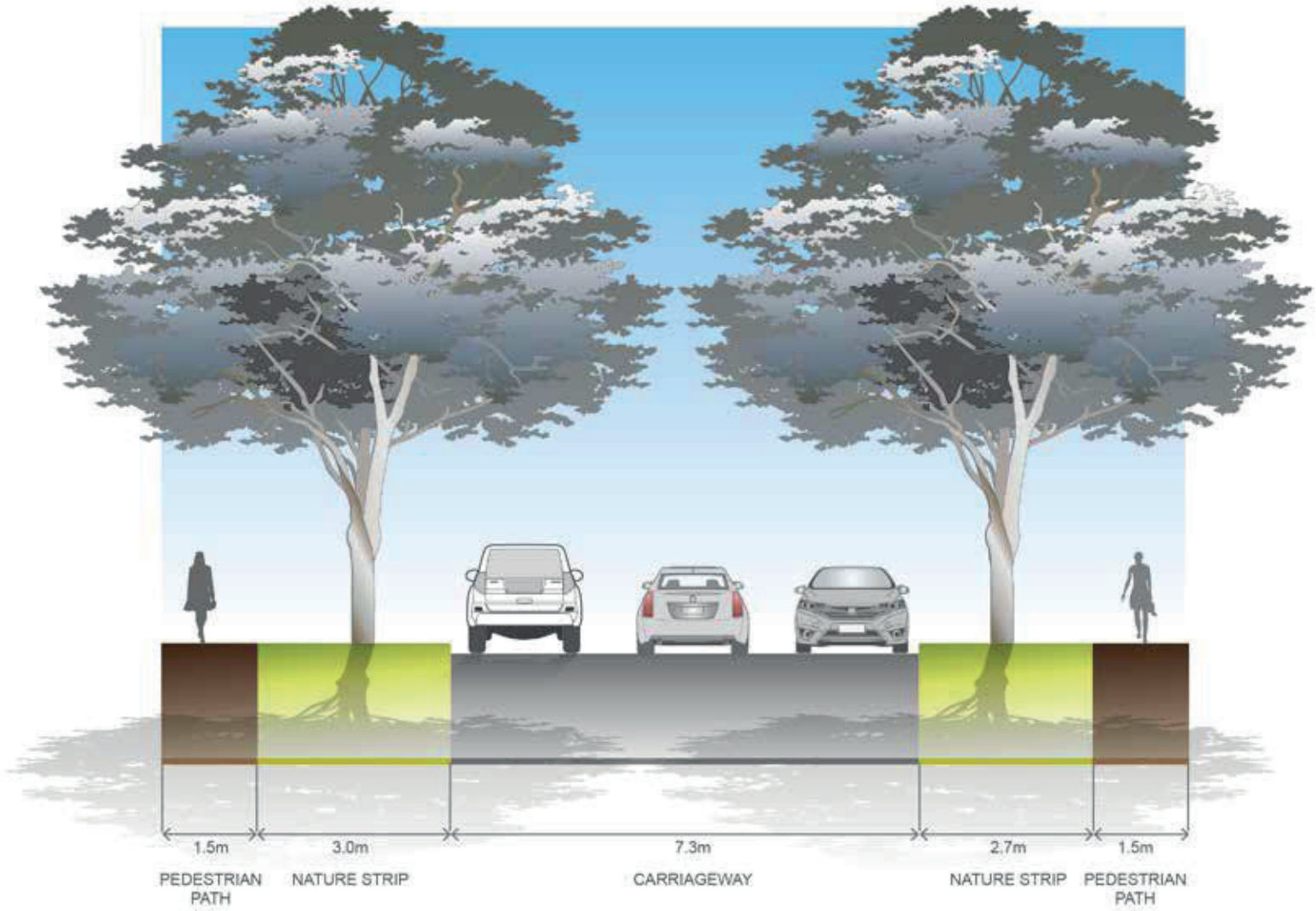


4.3.6 Local convenience centre key design principles

LOCAL CONVENIENCE CENTRES	
Principle 1 Provide smaller neighbourhoods with a viable Local Convenience Centre which offers accessible services to the surrounding community.	• Local Convenience Centres should be planned in conjunction with Local Town Centres in order to deliver a fine grain distribution of town centres within the region. • Local Convenience Centres should be planned for neighbourhoods that contain less than 8,000 people and are located more than 1km away from a Local Town Centre or higher order town centre. • Locate Local Convenience Centres in locations which are central to the residential community they serve and that provide exposure to passing traffic. • Where appropriate, locate Local Convenience Centres in attractive settings and incorporate natural or cultural landscape features such as creeks and waterways, linear open space, pedestrian and cycle links and areas of high aesthetic value.
Principle 2 Provide a range of local services and facilities which are appropriate to the Local Convenience Centre location and the catchment that it serves.	• Land uses should be located generally in accordance with the locations and general land use terms identified on the Local Convenience Centre Concept Plan. • The design of the Local Convenience Centre should facilitate development with a high degree of community interaction and provide an appropriate mix of retail, commercial and community facilities to suit the catchment that the Local Convenience Centre serves. • The design of the Local Convenience Centre should also encourage a pattern of smaller scale individual tenancies and land ownership patterns within the Local Town Centre to attract investment and encourage greater diversity and opportunities for local business investment. • Active building frontages should address the primary street frontage to maximise exposure to passing trade, and promote pedestrian interaction.
Principle 3 Design the Local Convenience Centre to be pedestrian friendly and accessible by all modes including public transport, while enabling private vehicle access. The Local Convenience Centre should be easily, directly and safely accessible for pedestrians, cyclists, public transport modes, private vehicles, service and delivery vehicles with priority given to pedestrian movement, amenity, convenience and safety.	• Public transport infrastructure/facilities should be planned for commuter friendly/convenient locations adjacent to the Local Convenience Centre. • Bus stops should be provided in accordance with the Department of Transport, Public Transport Guidelines for Land Use and Development, to the satisfaction of the Department of Transport. • Bicycle parking should be provided within the street network and public spaces in highly visible locations and close to pedestrian desire lines and key destinations. • The design of buildings within the Local Convenience Centre should have a relationship with and should interface to the public street network. • Car parking areas should be located centrally to the site and to the rear and or side of street based retail frontages. • Car parking areas should be designated to ensure passive surveillance and public safety through adequate positioning and lighting. • Car parking areas should be designed to provide dedicated pedestrian routes and areas of landscaping. • On street car parking should be provided either as parallel or angle parking to encourage short stay parking. • Car parking ingress and egress crossovers should be grouped and limited. • Car parking ingress or egress and car parking areas accommodating heavy vehicle movements should be designed to limit the pedestrian/vehicle conflict. • Streets, public spaces and car parks should be well lit to Australian standards and with pedestrian friendly (generally white) light. Lighting should be designed to avoid unnecessary spill to the side or above.

Principle 4 Create a sense of place with high quality engaging urban design.	• Development should complement and enhance the character of the surrounding area by responding appropriately to key visual cues associated with the topography of the Local Convenience Centre location and its surrounds. • The Local Convenience Centre design should seek to minimise amenity and noise impacts resulting from the mix of uses by maintaining separation and transitional areas between retail and housing activities, such as open space, road networks and community facilities. • The design of each building should contribute to a cohesive and legible character for the Local Convenience Centre as a whole. • Sites in prominent locations (such as at key intersections, surrounding public spaces and terminating key view lines and vistas) should be identified for significant buildings or landmark structures. • The design of building frontages should incorporate the use of a consistent covered walkway or verandah to provide for weather protection. • The built form should define the primary street frontage and be aligned with the property boundary. • Street facades and all visible side or rear facades should be visually rich, interesting and well articulated and be finished in suitable materials and colours that contribute to the character of the Local Convenience Centre. • Materials and design elements should be compatible with the environment and landscape character of the broader precinct. • If a supermarket is proposed, the supermarket should have a frontage that directly address the primary street frontage so that the use integrates with and promotes activity within the public realm. • Supermarkets with a frontage to the primary street frontage should use clear glazing to allow view lines into the store from the street. (Planning permits for buildings and works should condition against the use of white washed windows, excessive window advertising and obtrusive internal shelving or 'false walls' offset from the glazing). • Secondary access to a supermarket from car parking areas should be considered where it facilitates convenient trolley access and does not diminish the role of the primary access from the primary street frontage. • The design and siting of supermarkets should provide an appropriate response to the entire public domain. This includes but is not limited to car parking areas, predominantly routes and streets. • Retail uses along street frontages should generally include access points at regular intervals to encourage activity along the length of the street. • Retail and commercial buildings within the Local Convenience Centre should generally be built to the property line. • Public spaces should be oriented to capture north sun and protect from prevailing winds and weather. • Landscaping of all interface areas should be of a high standard as an important element to complement the built form design. • Urban art should be incorporated into the design of the public realm. • Street furniture should be located in areas that are highly visible and close to or adjoining pedestrian desire lines/gathering spaces and designed to add visual interest to the Local Convenience Centre. • Wrapping of car parking edges with built form, to improve street interface, should be maximised. • Car parking areas should provide for appropriate landscaping with planting of canopy trees and dedicated pedestrian thoroughfares. • Screening of centralised waste collection points should minimise amenity impacts with adjoining areas and users of the centre. • Where service areas are accessible from car parks, they should present a well designed and secure facade to public areas. • Mechanical plant and service structure roofs should be included within roof lines or otherwise hidden from view.

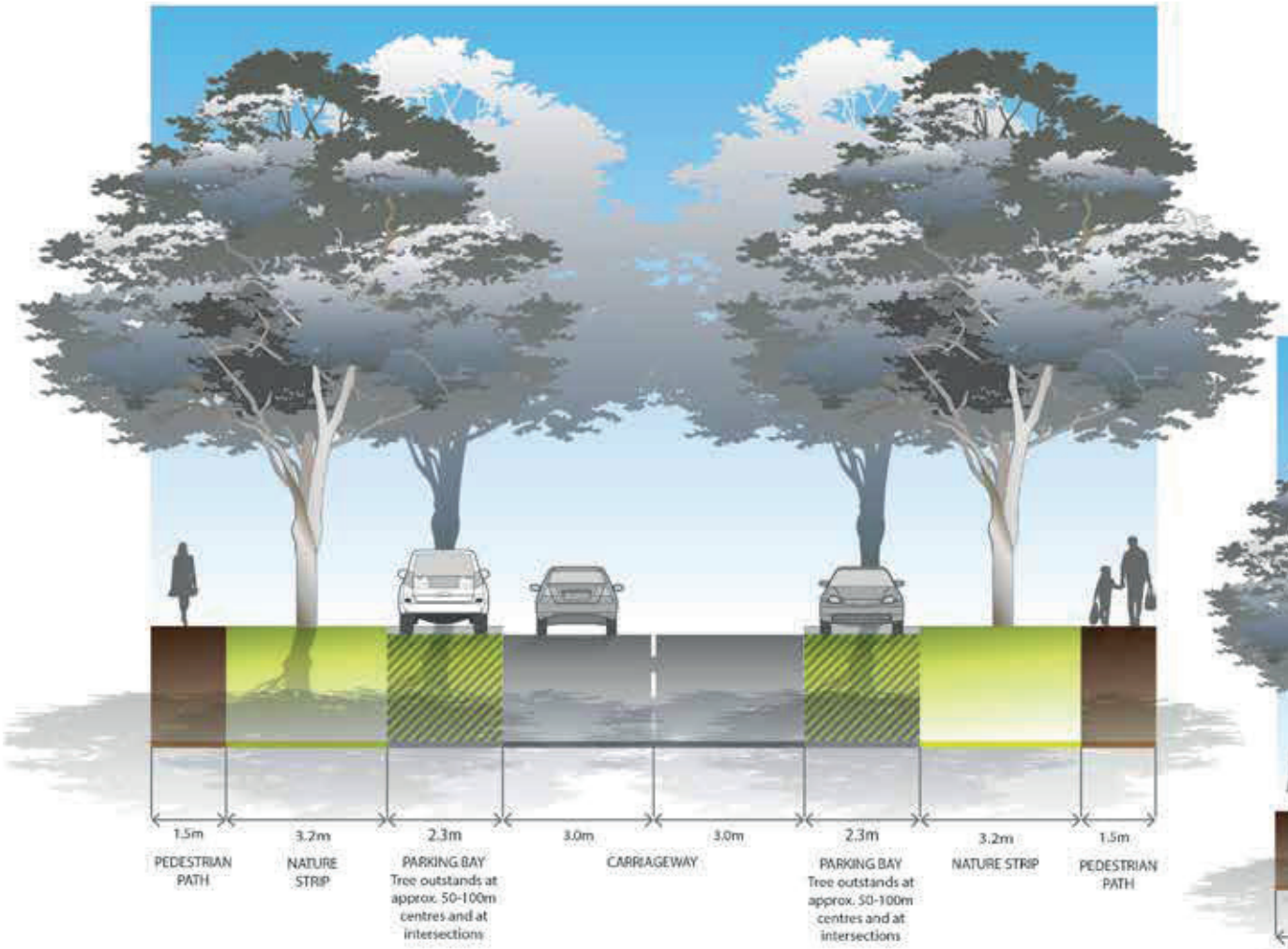
Principle 5
Promote localisation, sustainability and adaptability.
	• The Local Convenience Centre should promote the localisation of services which will contribute to a reduction of travel distance to access local services and less dependence on the car.
	• The Local Convenience Centre should be designed to be sympathetic to its natural surrounds by:
	  • Investigating the use of energy efficient design and construction methods for all buildings;
	  • Including Water Sensitive Urban Design principles such as integrated stormwater retention and reuse (e.g. toilet flushing and landscape irrigation);
	  • Promoting safe and direct accessibility and mobility within and to and from the Local Convenience Centre;
	  • Including options for shade and shelter through a combination of landscape and built form treatments;
	  • Ensuring buildings are naturally ventilated to reduce the reliance on plant equipment for heating and cooling;
	  • Promoting passive solar orientation in the configuration and distribution of built form and public spaces;
	  • Grouping waste collection points to maximise opportunities for recycling and reuse;
	  • Promoting solar energy for water and space heating, electricity generation and internal and external lighting; and
	  • Investigating other opportunities for the built form to reduce greenhouse gas emissions associated with the occupation and the ongoing use of buildings.
	• Encourage building design which can be adapted to accommodate a variety of uses over time.



NOTES:

- Minimum street tree mature height 12 metres
- All kerbs are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.

4.4 Streetscape Cross Sections



NOTES:

- Minimum street tree mature height 12 metres
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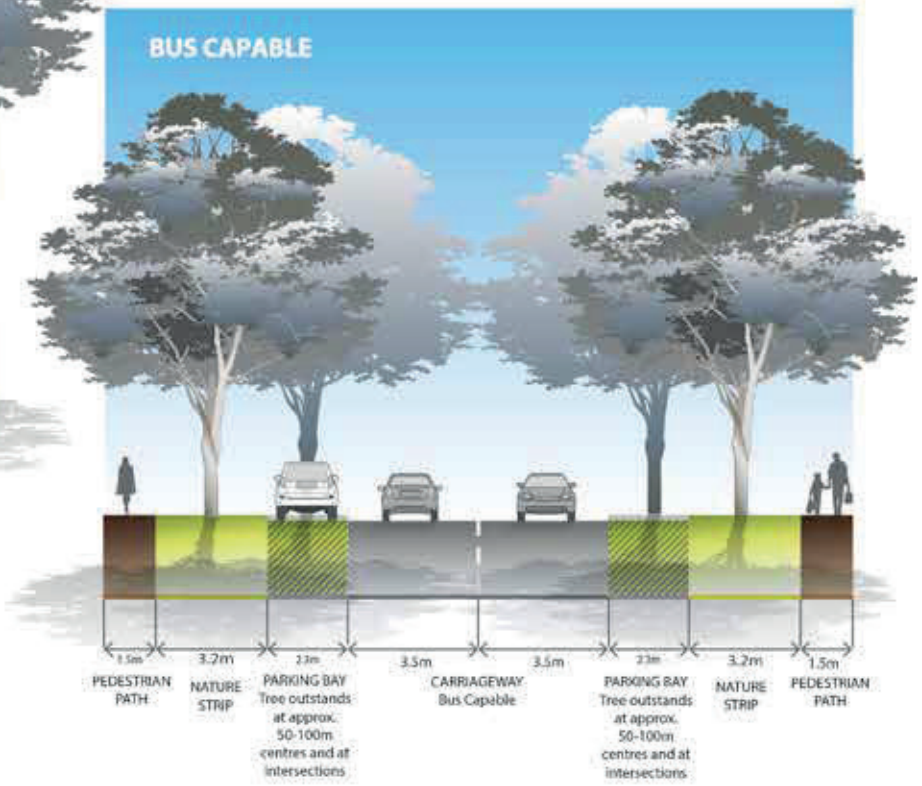
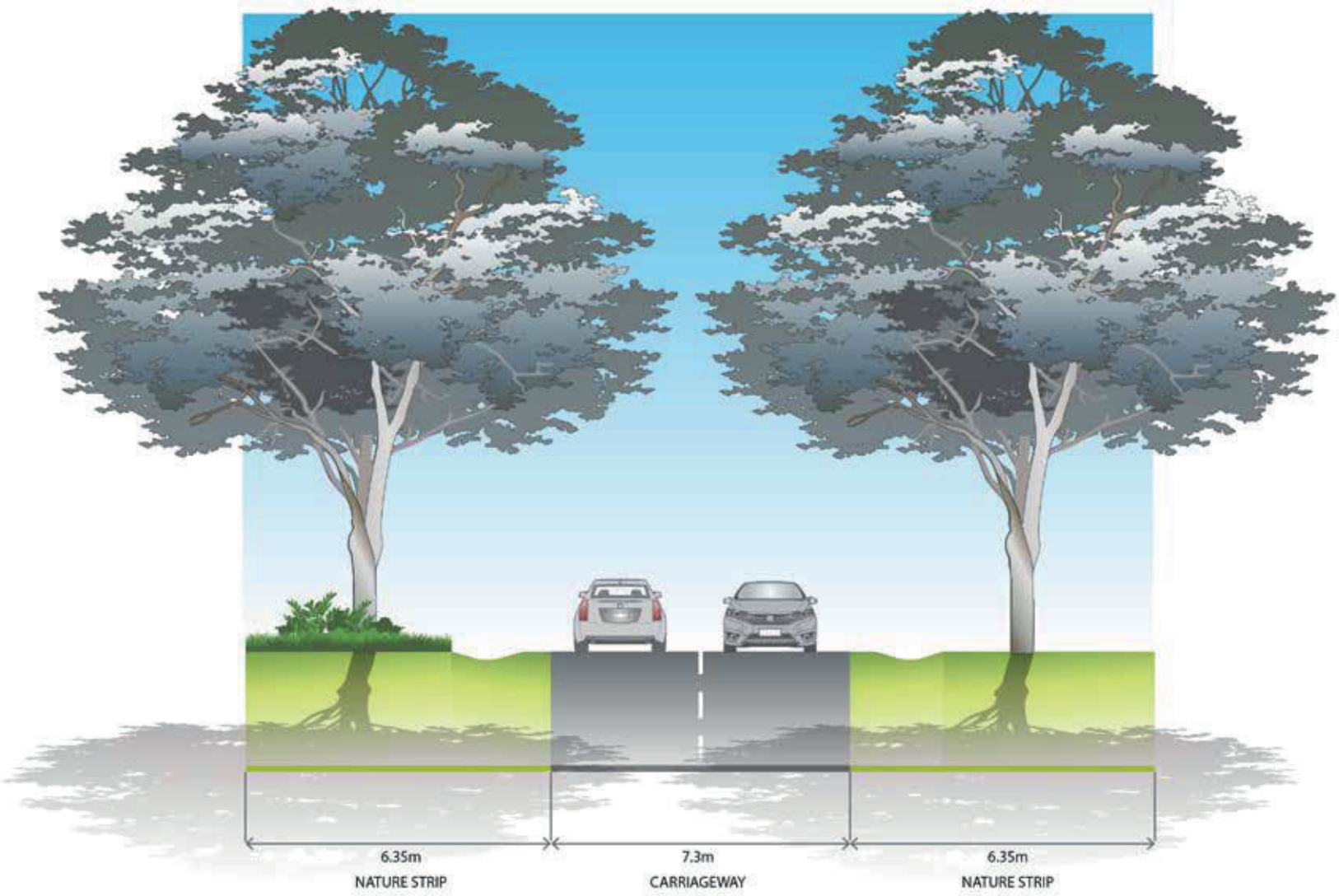


NOTES:

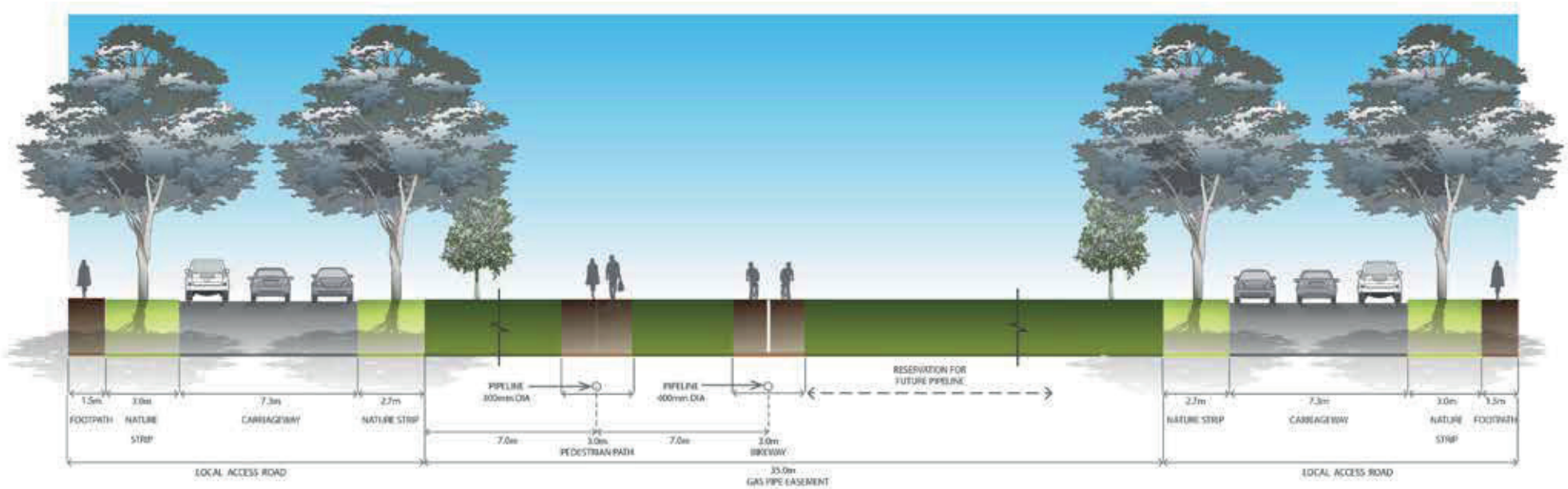
- The above cross section applies to Local Access Streets required to accomodate future bus movements as indicated on the Donnybrook Station Urban Design Framework.

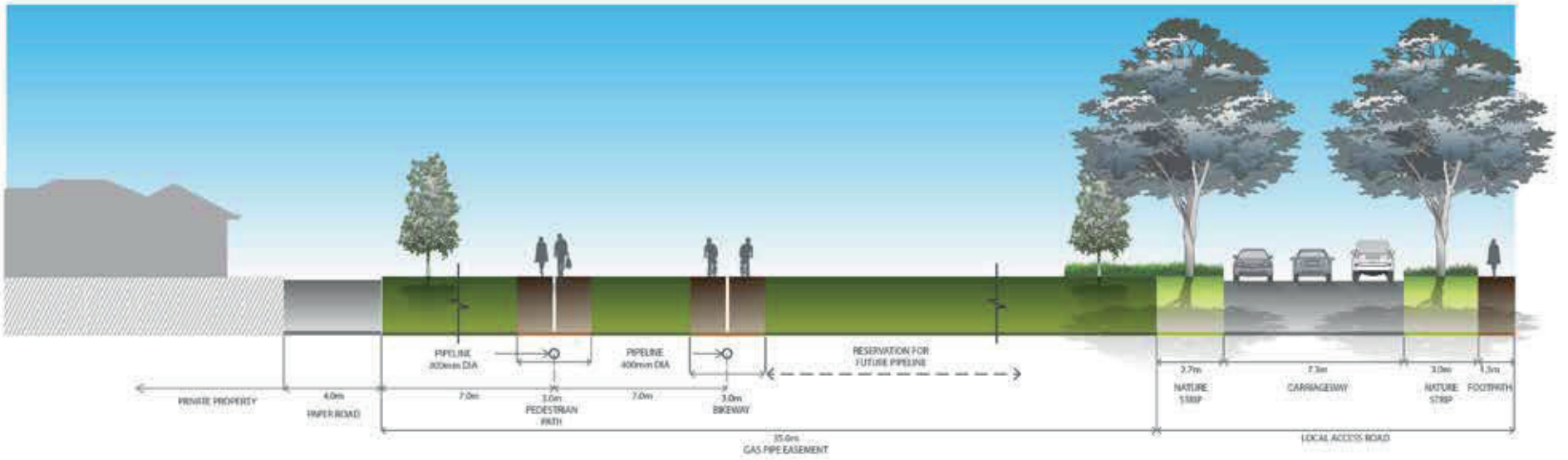
Local Access Street Level 2 (20 – 21m)



NOTES:

- This variation provides a rural style local road option for low volume streets with larger allotments. Swales adjacent the road pavement cater for drainage rather than kerb and channel.
- Two options are shown for nature strip treatment – variable tree placement and ground storey vegetation (left) and more typical mown grass and central tree planting (right).

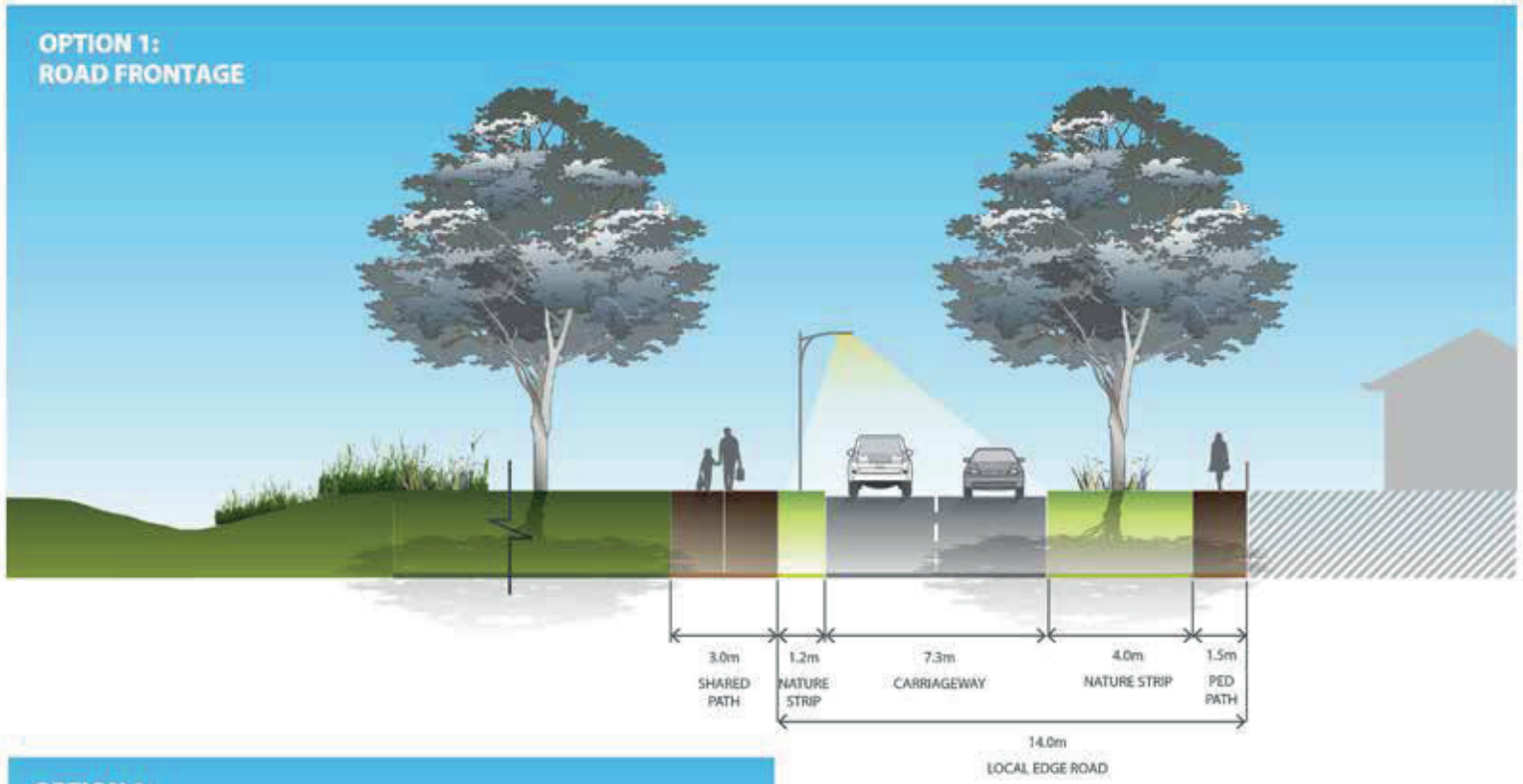


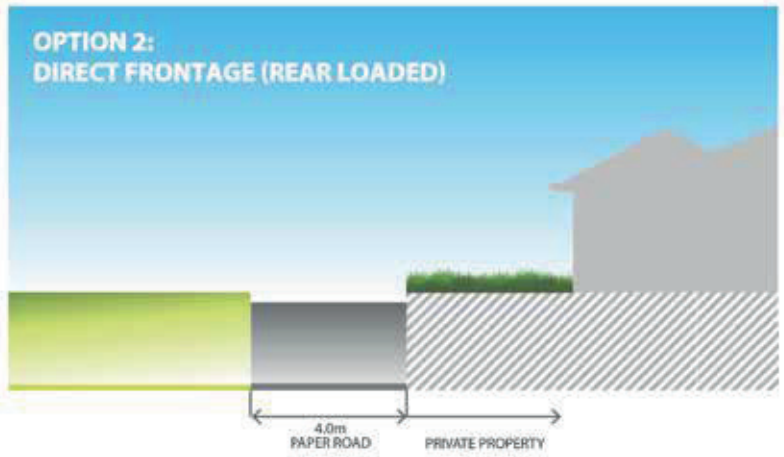


NOTES:

- No large tree or shrub is located within 3 metres of the high pressure gas transmission pipeline. Please note that this three metre separation must be maintained throughout the trees entire life cycle.
- Where vegetation is proposed to be planted within three metres of the pipeline alignment, it must be shallow rooted and not exceed 0.5m in height.
- Any planting of vegetation within or adjacent to the easement must ensure line of sight between high pressure gas pipeline awareness markers.

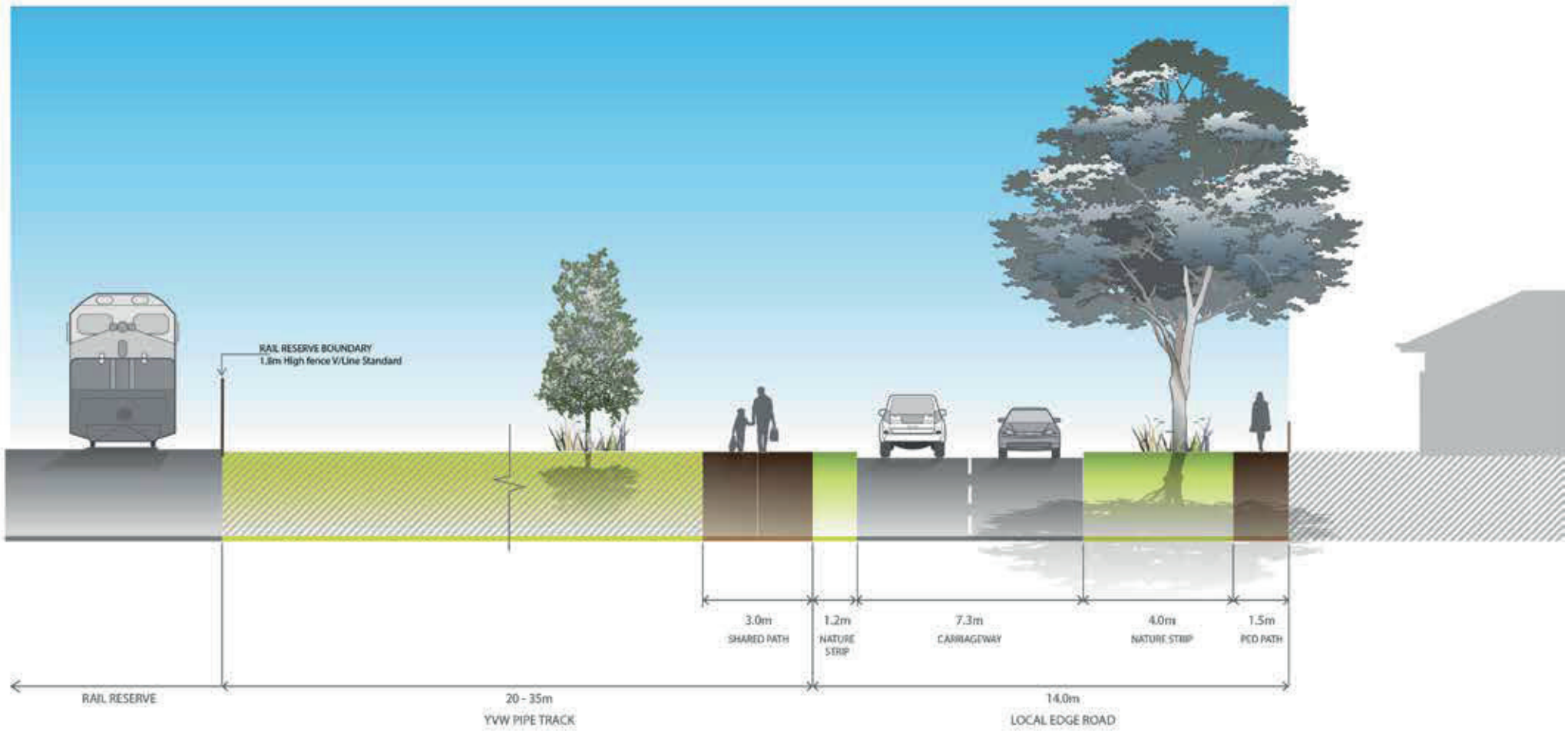
APA Gas pipeline easement Interface





NOTES:

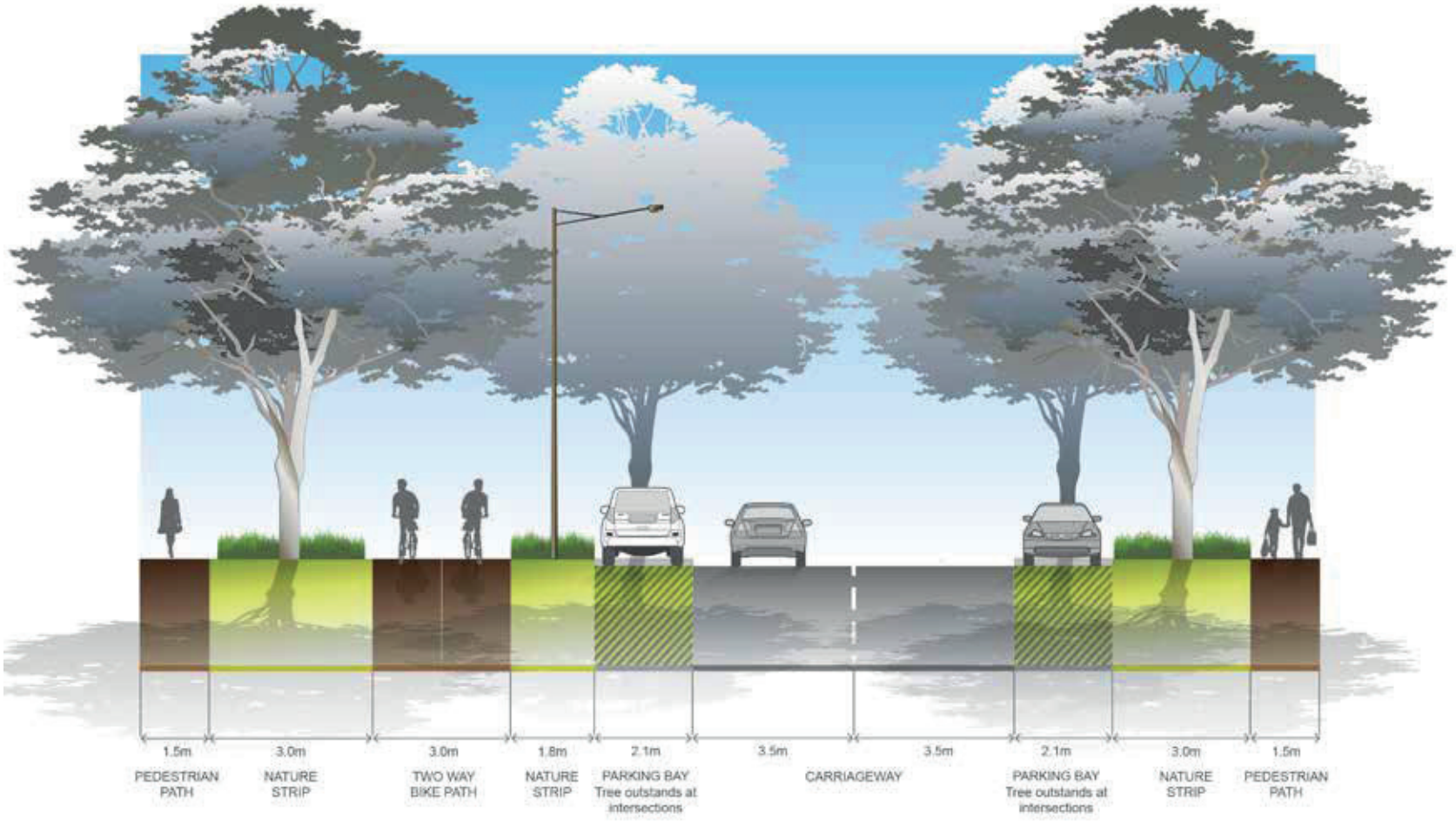
- 4m wide nature strip may be reduced to the satisfaction of the Responsible Authority and subject to servicing infrastructure.



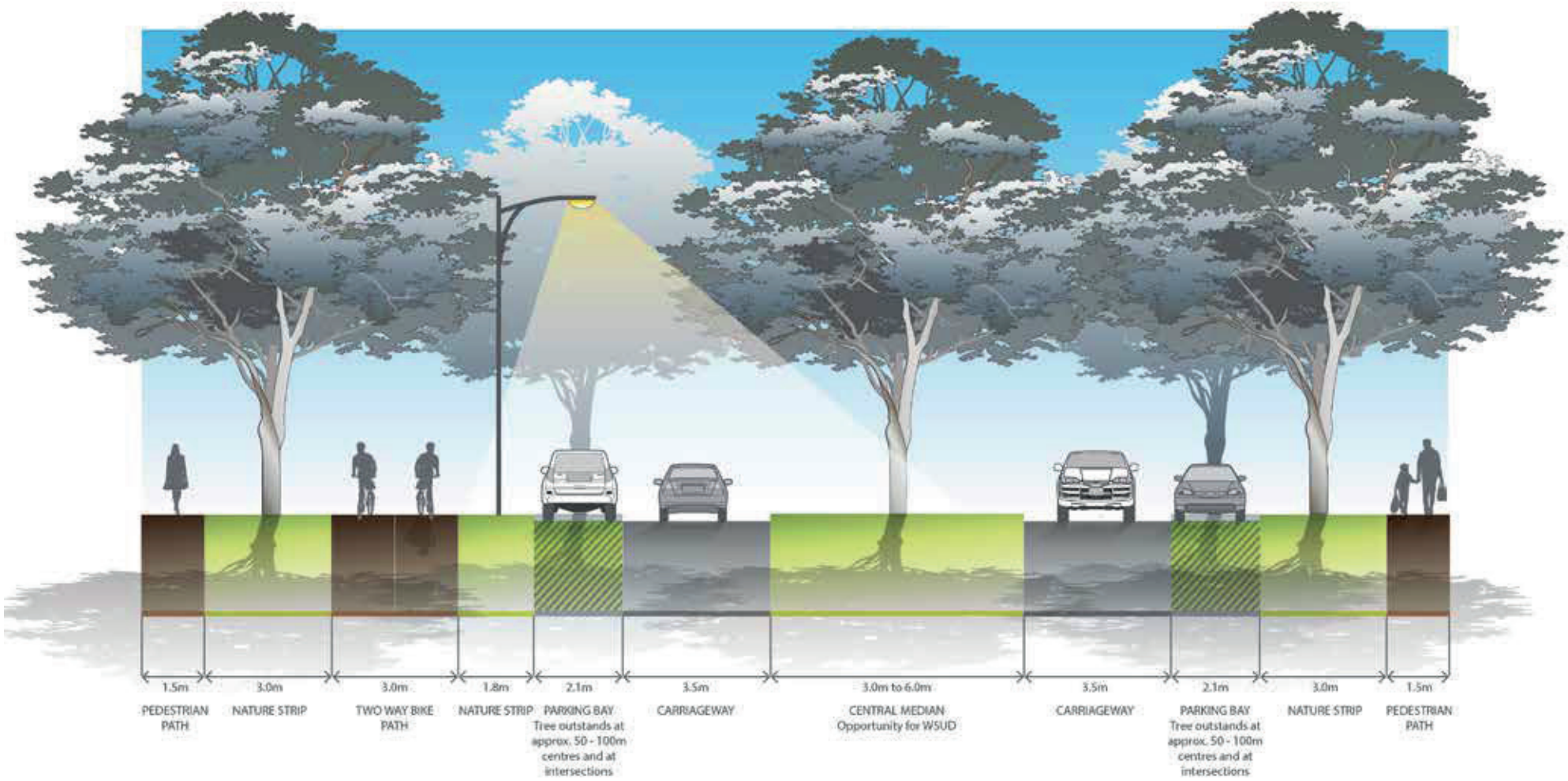
NOTES:

- 4m wide nature strip may be reduced to the satisfaction of the Responsible Authority and subject to servicing infrastructure.
- This cross section does not apply to property 12 (refer to Land Budget Plan) where its boundary sits adjacent to the Sydney-Melbourne Railway.

Local Access Street
Rail Interface - YVW Pipetrack

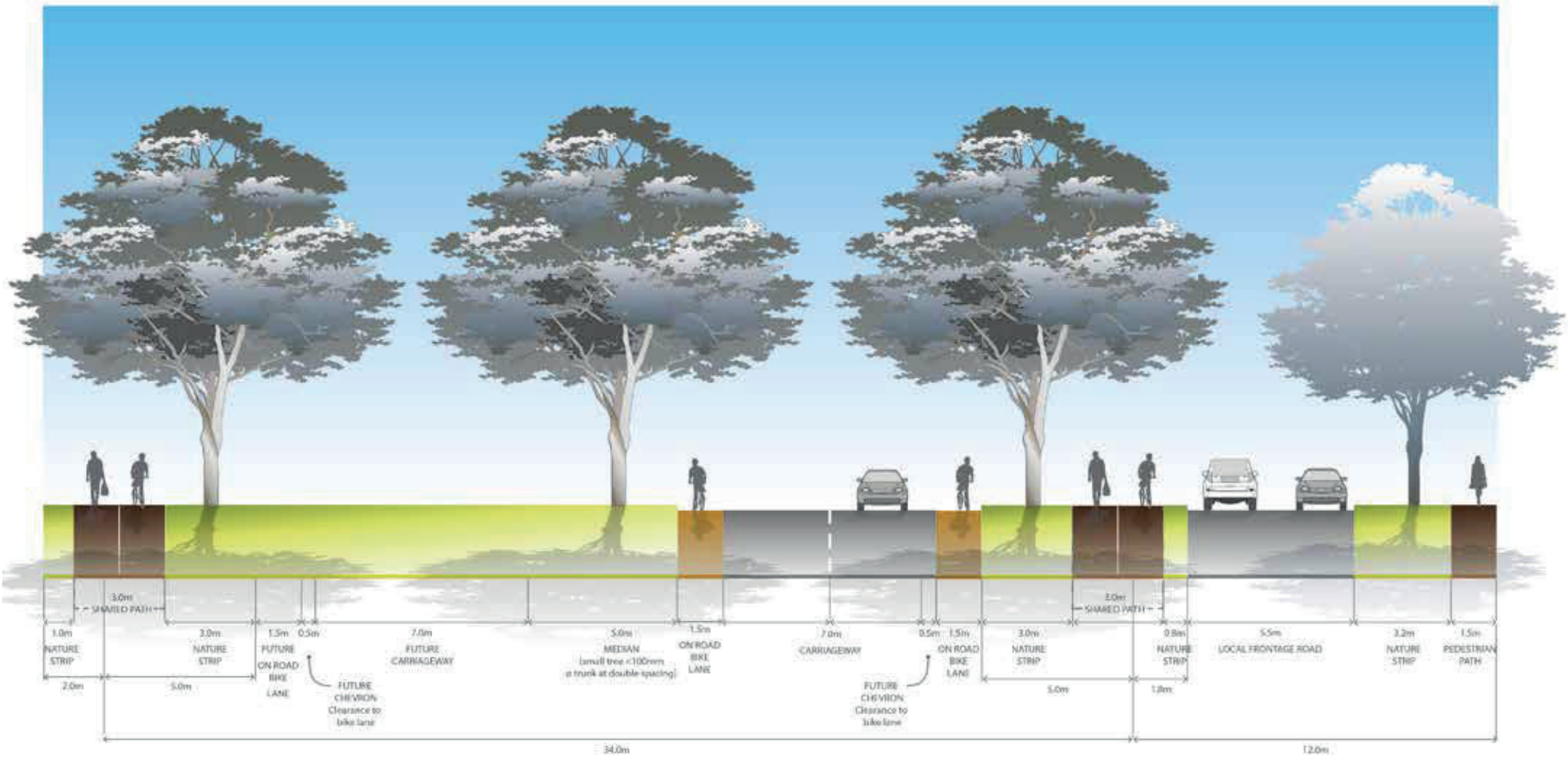


Connector Street (25.0m)



NOTES:

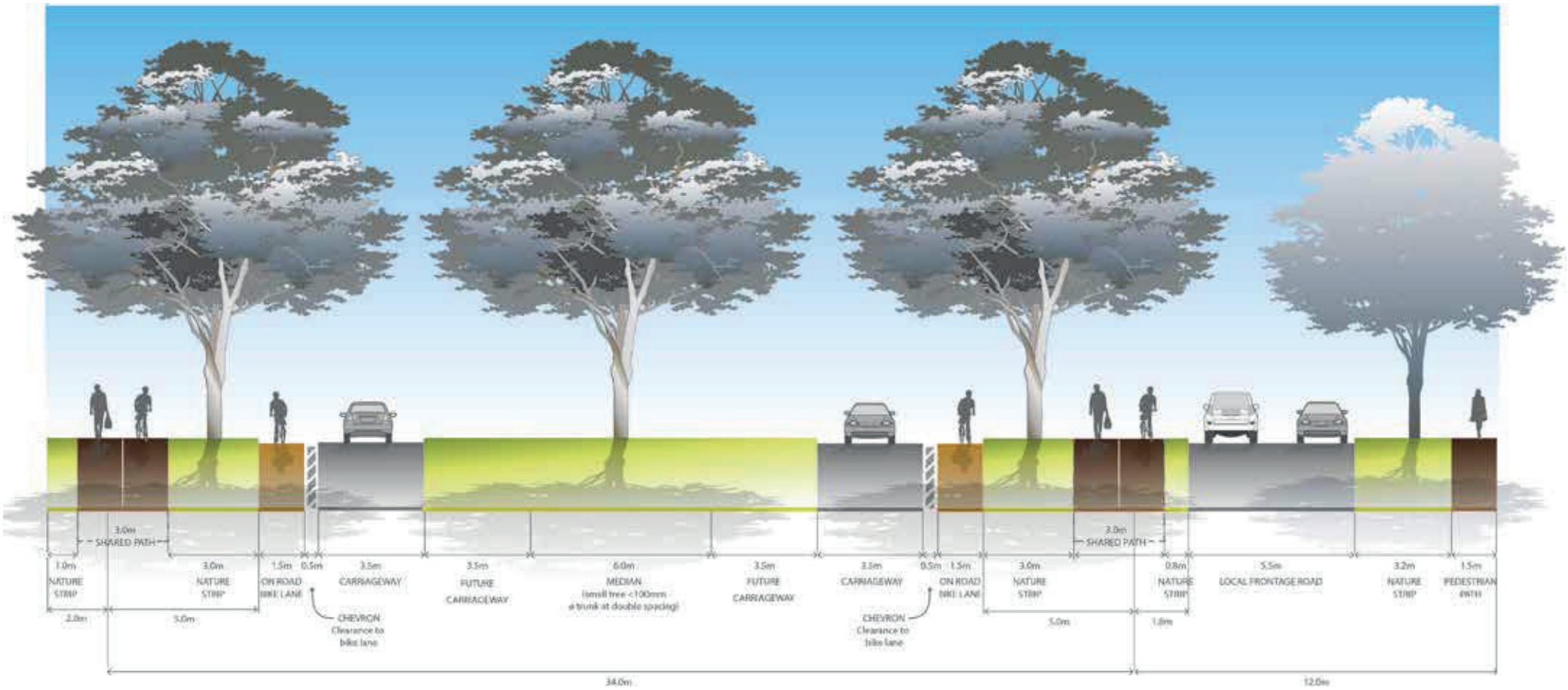
- The preferred design outcome for Cameron Street between Patterson Drive and Koukoura Drive is a 6m wide central median.
- Include a central median with large canopy trees to create a boulevard effect. Trees are to be centrally planted in median.
- Topsoil used in central medians is to be sandy loam, with a minimum depth of 200mm. The surface of medians is to be free-draining with a minimum cross fall of 2%, and is to be planted with warm season grasses.
- In areas where high pedestrian volumes are expected (e.g. around schools and town centres), central medians should be paved with harder wearing surfaces such as granitic sand or other pavements.
- Any garden beds in central medians are to be offset 1.5m from back of kerb.
- Kerb to central median is to be SM2 Semi-mountable kerb.
- Depending on the location of breaks in the median, provide intermediate pedestrian crossing points to accommodate mid-block crossings
- An alternative boulevard treatment can be achieved through a wider verge on one side capable of accommodating a double row of canopy trees.
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.



NOTES:

- Includes typical residential interface both sides
- Minimum street tree mature height 15 metres
- Kerbs for arterial carriageways are to be SM2 Semi-Mountable Kerb, and local frontage roads are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- Frontage road widths may vary subject to detailed design

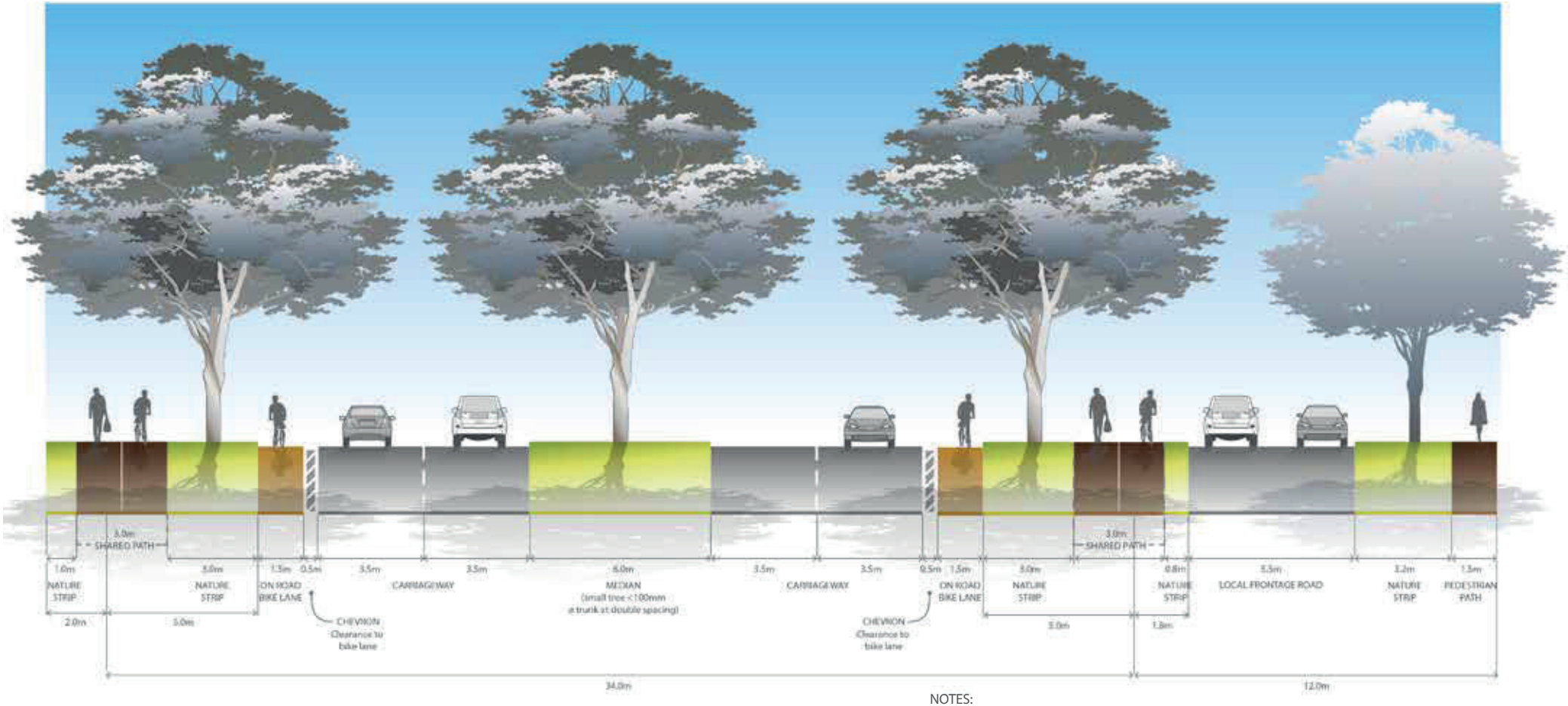
Secondary Arterial Road 4 lane (34.0m)
Interim Option 1 - Preferred outcome for Patterson Drive and Cameron Street



NOTES:

- Includes typical residential interface both sides
- Minimum street tree mature height 15 metres
- Kerbs for arterial carriageways are to be SM2 Semi-Mountable Kerb, and local frontage roads are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- Frontage road widths may vary subject to detailed design

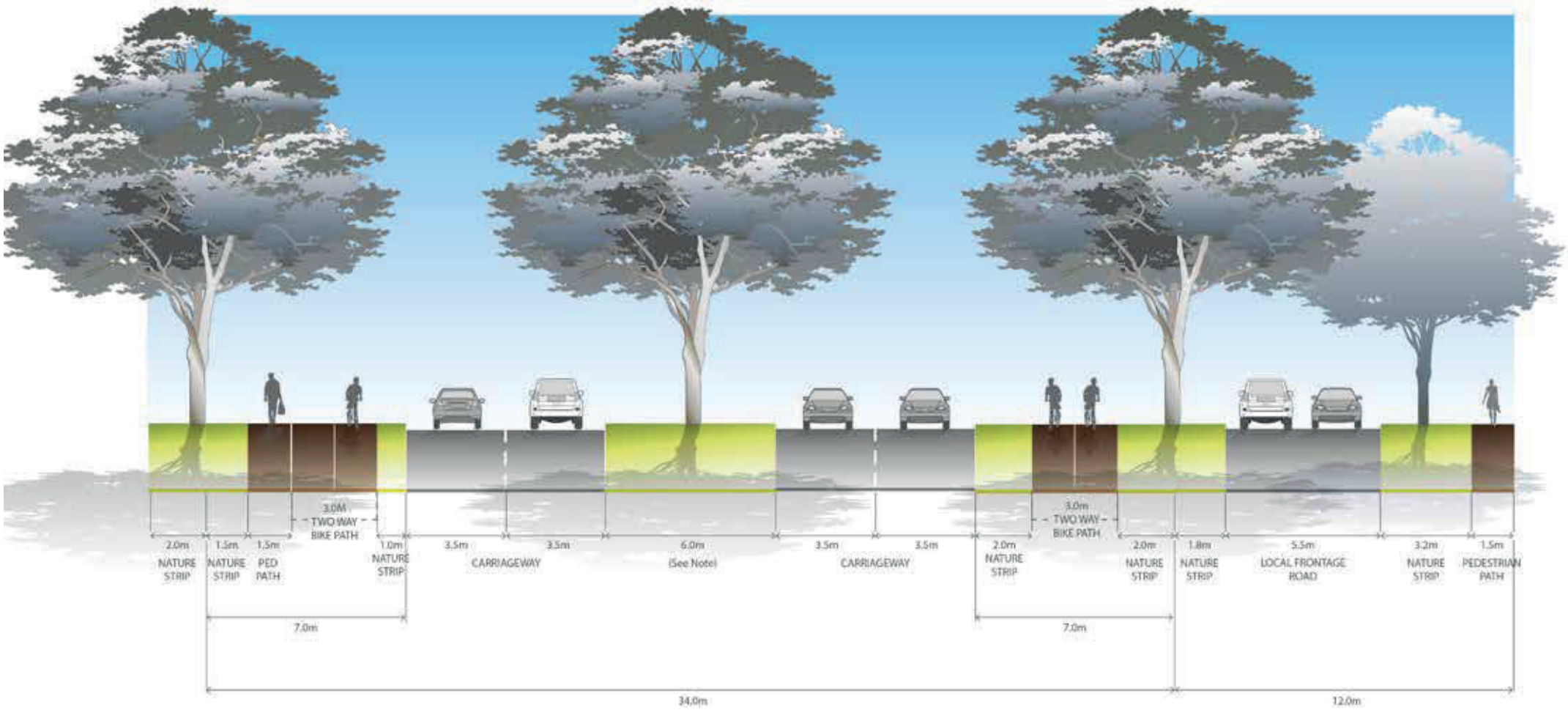
Secondary Arterial Road 4 lane (34.0m)
Interim Option 2



NOTES:

- Includes typical residential interface both sides
- Minimum street tree mature height 15 metres
- Kerbs for arterial carriageways are to be SM2 Semi-Mountable Kerb, and local frontage roads are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- Frontage road widths may vary subject to detailed design

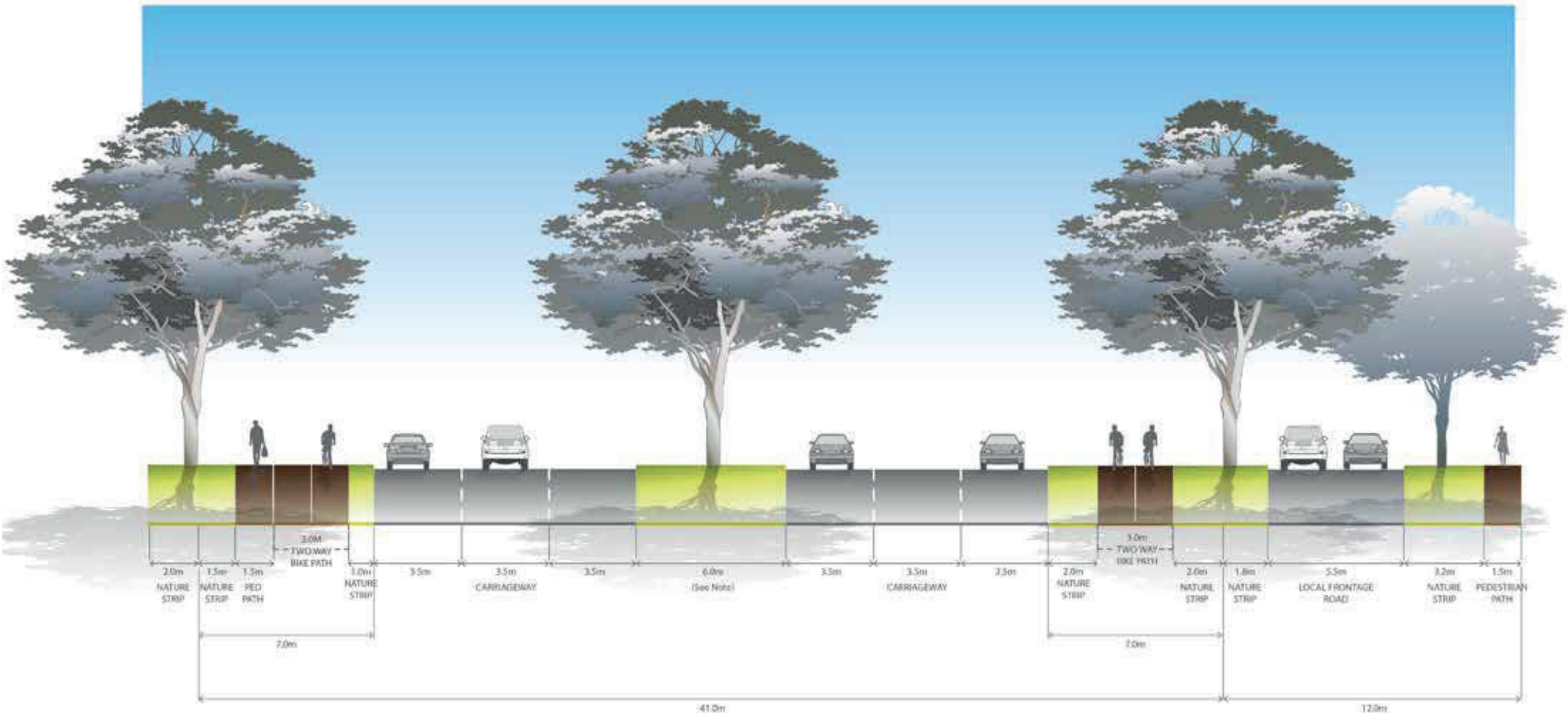
Secondary Arterial Road 4 lane (34.0m) - Ultimate



NOTES:

- Includes typical residential interface both sides
- Minimum street tree mature height 15 metres
- Kerbs for arterial carriageways are to be SM2 Semi-Mountable Kerb, and local frontage roads are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- See VicRoads Tree Planting Policy. Large trees within the road reserve to be protected by safety barriers, else small tree <100mm ø trunk at double spacing)

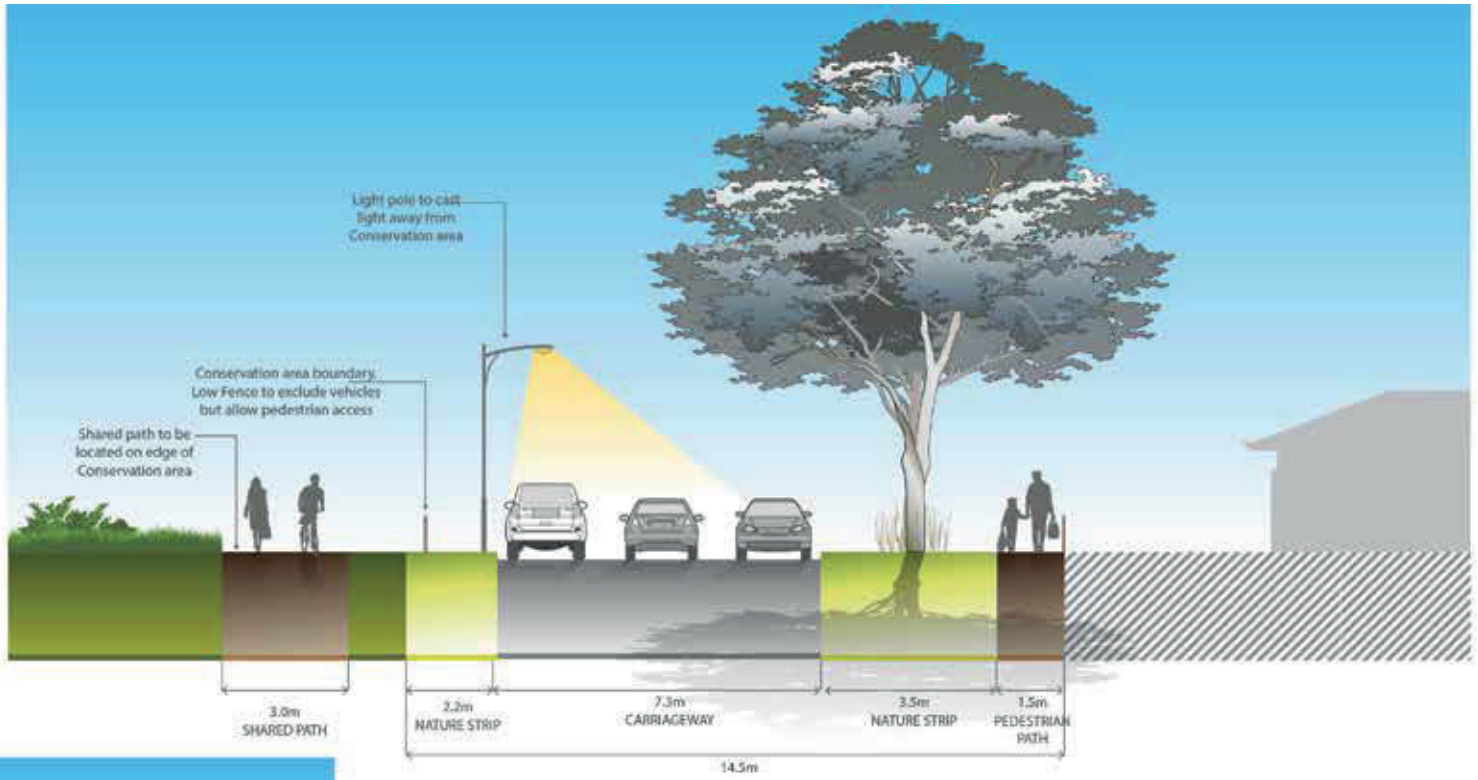
Primary Arterial Road 4 lane (34.0m)
Preferred outcome for Koukoura Drive

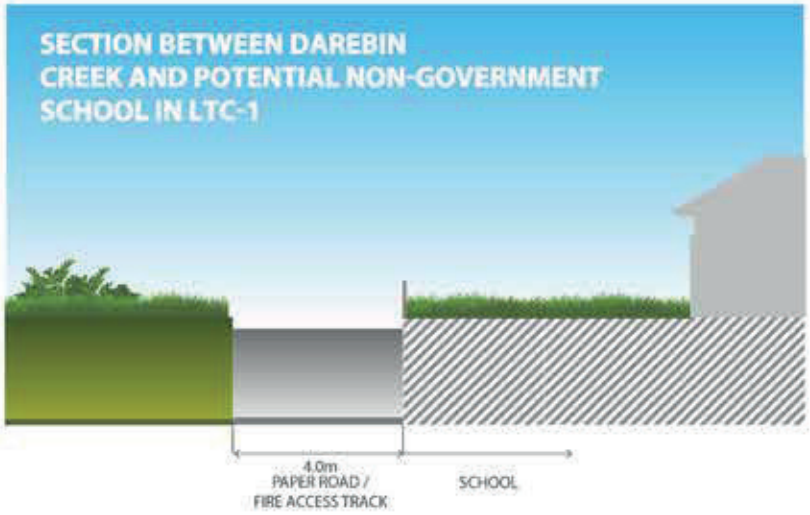


NOTES:

- Includes typical residential interface both sides
- Minimum street tree mature height 15 metres
- Kerbs for arterial carriageways are to be SM2 Semi-Mountable Kerb, and local frontage roads are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- See VicRoads Tree Planting Policy. Large trees within the road reserve to be protected by safety barriers, else small tree <100mm ø trunk at double spacing)
- Donnybrook Road should locate the service corridor on the North side of the existing road reservation
- Gunns Gully Road should provide a Conservation Area interface in locations demonstrated in Plan 5 (Character & Housing)

Primary Arterial Road 6 lane (41.0m)

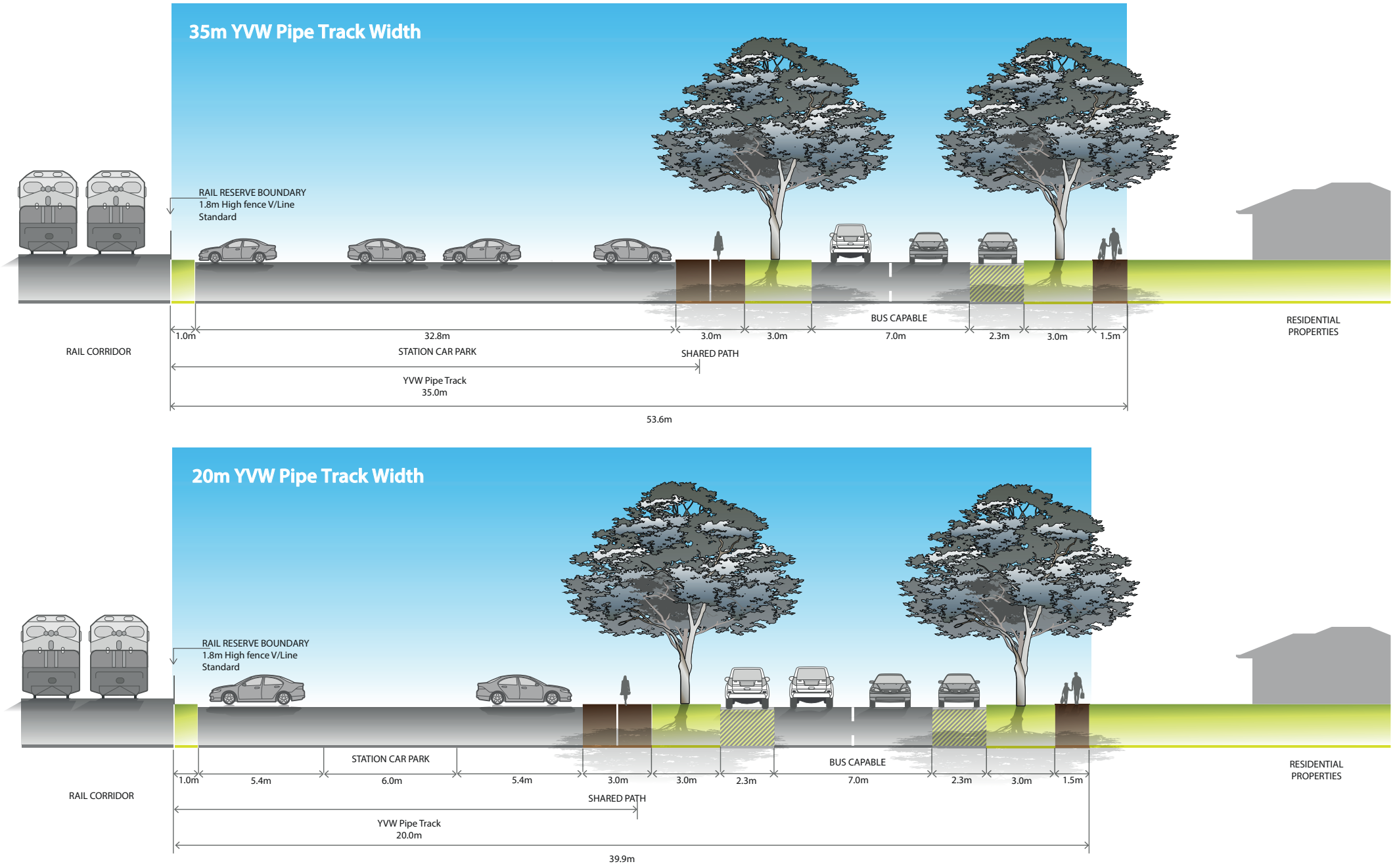




NOTES:

Accessible track to satisfy CFA access requirements need:

- 15 tonne all weather construction
- 4m width x 4m height clear access trafficable width – pathway 3.6m width
- Grades up to 1 in 7 , may permit 1 in 5 up to 50m max
- Passing bays 20m x6m width every 200m
- Turn around at end or through access to alternative egress/ access road
- May be gated/ locked with keys held by local brigade



Railway Interface
Train station car parking and Residential Area

4.5 Service Placement Guidelines

STANDARD ROAD CROSS SECTIONS

The Engineering Design and Construction Manual for Subdivision in Growth Areas, outlines the placement of services for a typical residential street environment. This approach is appropriate for the majority of the 'standard' road cross sections outlined in Appendix 4.2.

NON-STANDARD ROAD CROSS SECTIONS FOR TOWN CENTRES

To achieve greater diversity of streetscape outcomes, which enhances character and amenity of these new urban areas, non-standard road cross sections are required. Nonstandard road cross sections will also be necessary to address local needs, such as fully sealed verges for high pedestrian traffic areas in town centres and opposite schools. This PSP contains suggested non-standard 'variation' road cross sections (refer Appendix 4.2), however other non-standard outcomes are encouraged.

For non-standard road cross sections where service placement guidance contained within the Engineering Design and Construction Manual for Subdivision in Growth Areas is not applicable, the following service placement guidelines will apply.

General principles for service placement are as follows:

- Place gas and water on one side of road, electricity on the opposite side;
- Place water supply on the high side of road;
- Place services that need connection to adjacent properties closer to these properties;
- Place trunk services further away from adjacent properties;
- Place services that relate to the road carriageway (eg. drainage, street light electricity supply) closer to the road carriageway;
- Maintain appropriate services clearances and overlap these clearances wherever possible; and
- Services must be placed outside of natural waterway corridors or on the outer edges of these corridors to avoid disturbance to existing waterway values.

4.6 Scattered Tree Retention in the City of Whittlesea

RETENTION AND PROTECTION OF EXISTING TREES

In addition to their heritage and environmental attributes, remnant and existing trees contribute significantly to the landscape amenity of an area and provide instant visual impact in new developments. Where possible, existing trees shall be retained, protected and incorporated into the design of new developments. The retention of juvenile trees is considered equally as important as the preservation of mature specimens.

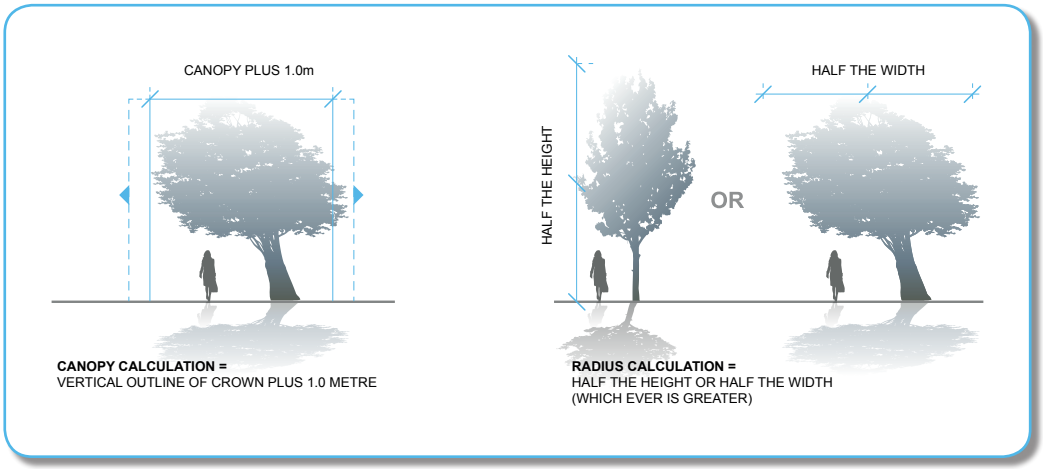
The following guidelines apply, where appropriate, to the retention of scattered trees and may, where appropriate, be applied as conditions of planning permits.

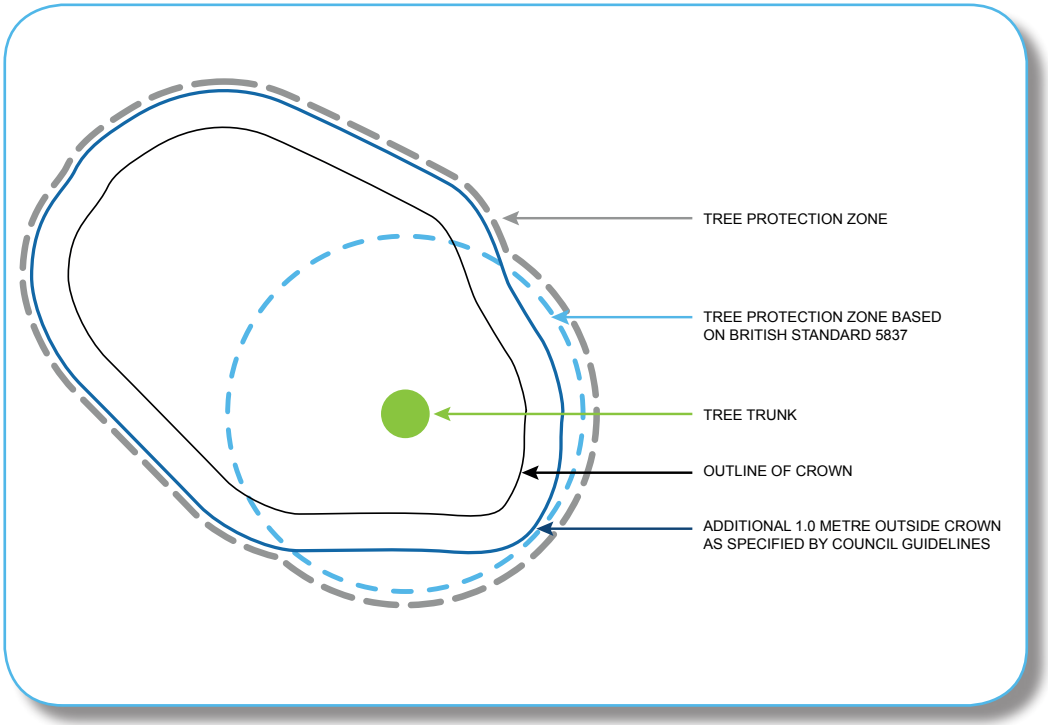
Tree Protection Zones are exclusion zones designed to protect all trees and stags identified for retention in a development.

CALCULATING TREE PROTECTION ZONES

A Tree Protection Zone is defined by a circle or polygon, the centroid point of which is the centre point of the tree at ground level and whose radius is equal to half the height of the tree or half the crown width (whichever is the greatest) plus the tree canopy plus one metre (refer to SDL.2.01).

The Tree Protection Zone is to be determined by a consulting arborist to the satisfaction of the responsible authority.





AS4970–2009 TREE PROTECTION ZONES ON DEVELOPMENT SITES

The Tree Protection Zone as set out in this Appendix should be applied in preference to AS4970–2009 and/or any other tree protection zone standard/ calculation.

The Tree Protection Zone as set out in this Appendix considers both the ongoing health of the tree and has been developed to protect people, infrastructure and property (ie the shape considers the impact of falling limbs and delineates a pedestrian deterrent zone) whereas AS4970–2009 only considers the impact of works on the ongoing health of the tree.

CONDITION: TREE PROTECTION ZONES

No works are to be undertaken within a Tree Protection Zone unless:

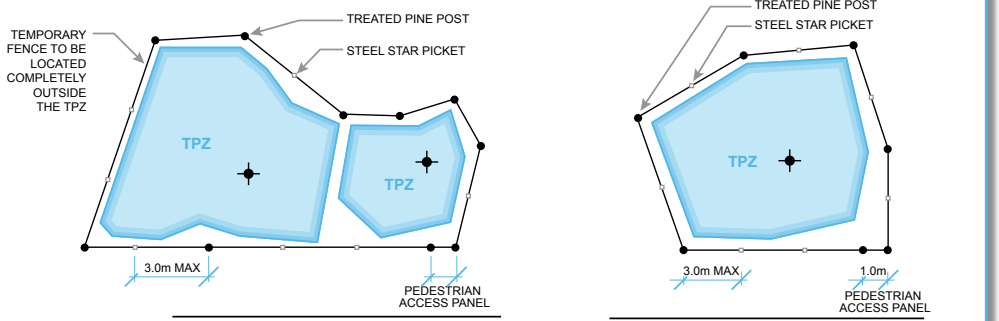
- Council determines that the works proposed within the Tree Protection Zone will not adversely impact on the tree or damage any part of the tree including its canopy, branches, trunk and roots; or
- Council determines that the variation is required to minimise risk to the public and/or property; or
- Council otherwise consents.

All works located in or in close proximity to a Tree Protection Zone must be supervised by a suitably qualified and experienced consulting arborist.

CONDITION: WORKS WITHIN TREE PROTECTION ZONES

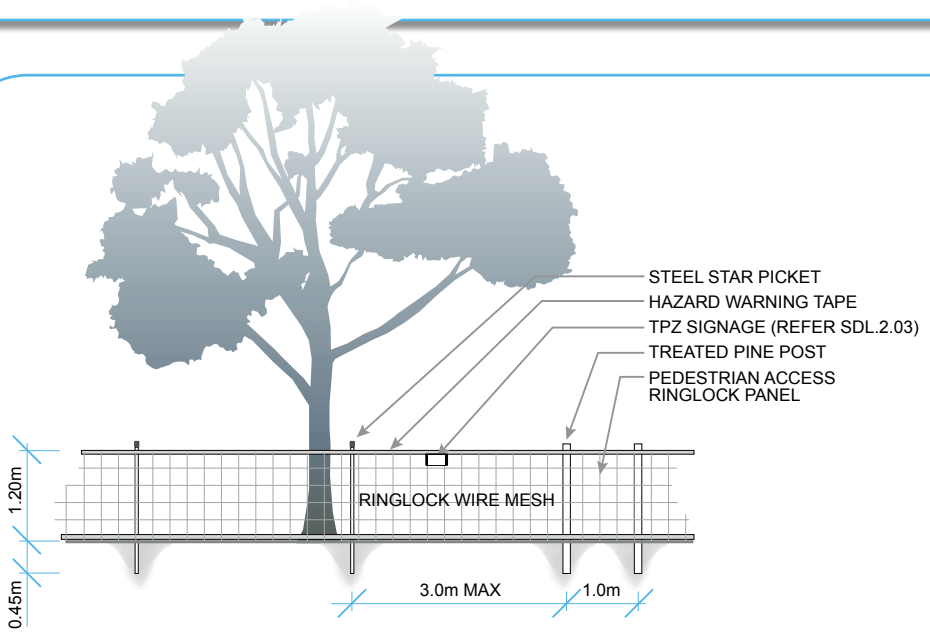
With Council consent, works may encroach into a Tree Protection Zone, including (where appropriate):

- "no dig" footpaths, mulching and limited soft landscaping provided all footpaths are first pegged on site and confirmed by the responsible authority prior to construction and all works are undertaken by hand to minimise disturbance to surface roots; and
- boring for services where all other alternative alignments have been investigated and determined unfeasible to the satisfaction of Council.



LAYOUT PLAN - MULTIPLE TEMPORARY TPZ
SCALE: 1:200 @ A4

LAYOUT PLAN - SINGLE TEMPORARY TPZ
SCALE: 1:200 @ A4



ELEVATION - TEMPORARY TREE PROTECTION FENCING
SCALE: 1:100 @ A4

CONDITION: DOCUMENTATION OF WORKS WITHIN TREE PROTECTION ZONES

All works proposed to occur within a Tree Protection Zone must be documented in the civil infrastructure drawings and landscape plans, or otherwise approved in writing, to the satisfaction of the responsible authority.

CONDITION: TREE PROTECTION ZONE FENCING

The Tree Protection Zone as calculated by the consulting arborist must be clearly identified on site by an appropriately qualified person.

Temporary Tree Protection Zone fencing (refer to SDL.2.02) must be erected around the perimeter of all Tree Protection Zones and must be inspected by and approved by Council prior to the commencement of any buildings, works or demolition.

Tree Protection Zone fencing must be to the satisfaction of the responsible authority and should comprise:

- Treated pine posts with a minimum height of 1.8 metres (total post length) at every corner or at a maximum interval of 9.0 metres. These posts shall be sunk 450mm into the ground. Concrete may affect the soil pH level and shall not be used to secure posts;
- Treated pine stays shall be fixed to all corner posts;
- Steel star pickets with a minimum height of 1.8 metres (total picket length) shall be installed between the treated pine posts at a maximum interval of 3.0 metres. These pickets shall be sunk 450mm into the ground and shall include high visibility safety caps;
- Ring lock wire mesh fencing with a minimum height of 1.2 metres shall be securely fixed at each post with wire ties. The fence shall completely enclose the tree protection zone;
- High visibility hazard marker tape shall be securely fixed to the top of the ring lock mesh fencing with wire ties;
- Signage must be attached to the fence at regular intervals. Signage must read “TREE PROTECTION ZONE. NO ENTRY EXCEPT TO AUTHORISED PERSONNEL. FINES SHALL BE IMPOSED FOR REMOVAL OR DAMAGE OF FENCING AND/OR TREES” (refer to SDL.2.03).

Tree Protection Zone fencing must be regularly maintained and may only be removed after the landscape pre-commencement meeting has occurred or until such date as is approved by the responsible authority in writing.

With the agreement of the responsible authority, Tree Protection Zone fencing may not be required where permanent fencing is introduced prior to construction. The specification of the permanent fencing must be to the satisfaction of Council.

Prior to the removal of Tree Protection Zone fencing, any required landscape planting below existing tress must be completed. The landscape planning must be designed to act as a deterrent to pedestrian access into the Tree Protection Zone, to minimise weed establishment, encourage habitat values and generally improve the visual amenity, to the satisfaction of the responsible authority. Alternative permeable mulching (e.g. oversized gravel) below existing trees may be considered where appropriate.

CONDITION: ENHANCED GROWING ENVIRONMENT WITHIN TREE PROTECTION ZONES

The area within the Tree Protection Zone must be modified to enhance the growing conditions of the tree to help reduce stress or damage to the tree as a direct result of adjacent construction works to the satisfaction of the responsible authority.

Specific improvements may include one or a combination of the following:

- Ground surfaces within tree protection zones must be left intact and a Glyphosate based herbicide mixed in accordance with the manufacturer's recommendations used to remove any weeds or unwanted vegetation;
- The area within the exclusion zone must be mulched with wood chips to a depth of 150mm;
- If required or as directed by the responsible authority, trees are to receive supplementary water. The amount of water is to be determined by the consulting arborist and will be determined by the amount of disturbance the tree has sustained and/or climatic conditions; and
- Where severing of roots (greater than 50mm in diameter) is required directly adjacent to tree protection zones, the roots must be cleanly cut. Where possible this is to be completed at the beginning of the development of the site. Roots are not to be left exposed, they are to be back filled or covered with damp hessian.

The health of retained trees will be recorded prior to the commencement of works and periodically monitored by the consulting arborist and the responsible authority.

CONDITION: TREE PROTECTION ZONE INDUCTION

Prior to any works commencing in proximity to Tree Protection Zone, a consulting arborist must induct all personnel involved in construction in close proximity to and/or involved in works that may impact tree protection zone.

CONSTRUCTION PERSONNEL MUST BE ADVISED:

- Unless authorised by the consulting arborist or as directed by the responsible authority, no party must enter into a tree protection zone or modify the tree protection zone fencing in any way;
- No buildings or works (including loading and unloading, storage of materials, dumping of waste, vehicle access and parking or other construction activity) are to occur in the tree protection zone without the written consent of and to the satisfaction of the responsible authority;
- The storing or disposal of chemicals or toxic material must not be undertaken within 10 metres of any exclusion zone. Where the slope of the land suggests that these materials may drain towards an exclusion zone, the storing or disposal of these materials is strictly forbidden; and
- Any trees that are to be removed next to exclusion zones are to be done so manually under the direct supervision of the consulting arborist (ie. cut not pushed). Stumps are to be ground and not excavated to prevent damage to trees in close proximity.

CONDITION: TREE PROTECTION BOND

In appropriate circumstances, a Tree Protection bond may be required as a condition of a permit for subdivision or development where existing trees are required to be retained. Such a condition may, as appropriate, including the following:

- Prior to commencement of the subdivision, a bank guarantee or other security to the satisfaction of the responsible authority for the total amount of $100,000.00 (or otherwise determined by the responsible authority) must be submitted to the responsible authority as security for the satisfactory observance of the conditions in relation to Tree Protection Zones within that subdivision;

- Upon completion of any buildings or subdivision works to the satisfaction of the responsible authority, the bank guarantee or other security will be returned to the person providing the bank guarantee or security; and
- Where the responsible authority determines that the tree covered by the Tree Protection Zone has been damaged as a result of buildings and works by the applicant or its contractors to an extent that it affects detrimentally the life, health and appearance of the tree or its contribution to the landscape, an amount from the security is to be paid by the developer for the purchase of trees for planting on the land or the pruning or other arboricultural works to rehabilitate and improve existing trees, all to the satisfaction of the responsible authority.

CONDITION: HAZARD REDUCTION PRUNING

Prior to the issue of Practical Completion of the landscaping works, all trees that are to be retained must have hazard reduction pruning undertaken by a suitably qualified and experienced arborist to ensure the tree does not present an unreasonable risk. If necessary, pruning works shall include:

- Removal of all dead and diseased branches. Specifically, dead branches greater than 40mm in diameter (measured at the base of the branch) shall be removed from the canopy unless they contain hollows that are clearly being used for habitat. Due care shall be given to ensure the integrity of the tree as habitat for native fauna is not compromised (larger material shall be left on site for its habitat value);
- Weight reduction and canopy thinning (especially for branches overhanging trafficable areas and fixed infrastructure). No live branches greater than 200 mm in diameter shall be removed from the tree without authorisation from the responsible authority. Remove no more than 20% of live foliage from any tree; and
- Removal of epiphytic plant material, wire and any attached debris/rubbish.

Prior to any pruning works being undertaken, the arborist engaged to undertake the works shall arrange a site meeting with a representative from Council's Parks and Open Space Department.

All pruning works shall be to approved arboricultural practices and have regard to AS4373–2007.

CONDITION: TREE REMOVAL

Where a tree is permitted to be removed:

- Each tree nominated for removal shall be suitably marked prior to its removal and an inspection arranged with an appropriate Council Officer to verify that the tree marked accords with the permit and/or endorsed plans;
- Prior to removal, the tree to be removed shall be inspected by an appropriately qualified and experienced zoologist to determine the presence of any native animals living or nesting in the tree. Should any native animals be detected they must be caught and relocated to a site deemed appropriate by the zoologist;
- Tree removal is to be undertaken in a safe manner;
- All services either above or below ground are to be located prior to the commencement of any works;
- Stumps and any surface roots are to be ground down below ground level. Ground and chipped material to a depth of 50mm is to be removed from site at the direction of the project manager. The project manager must supply and place suitable topsoil and seed the area making certain that the reinstated ground surface is level, even and safe;
- Stumps shall be removed within 14 days of removal of the tree. All stumps not removed immediately after removal of the tree are to be paint marked with a suitable bright yellow reflective marking paint;
- Where ever possible and appropriate, native trees to be removed should be retained for use in core conservation areas for habitat purposes or reused in open space as urban art, park furniture and/or other use determined appropriate by the responsible authority;
- After a tree has been fallen, the tree must be protected from firewood harvesting via temporary fencing and signage to the satisfaction of Council until such time as the tree has been relocated for habitat or mulched;
- All timber greater than 300mm in diameter that cannot be reused as habitat, furniture or another use determined appropriate by the responsible authority shall be hammer milled and shredded for reuse as mulch within the site; and
- All timber less than 300mm in diameter and branch/leaf material shall be shredded for reuse as mulch within the subject site.

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