Lindum Vale

Precinct Structure Plan

August 2017

Victorian Planning Authority

VICTORIA State Government

PLANS

TABLES

FIGURES

Note: Any reference to the Victorian Planning Authority (VPA) in this document is a reference to the Growth Areas Authority (GAA) as defined under the Planning & Environment Act 1987.

Contents

Plan 1 - Regional Context Plan

Lindum Vale Precinct Structure Plan

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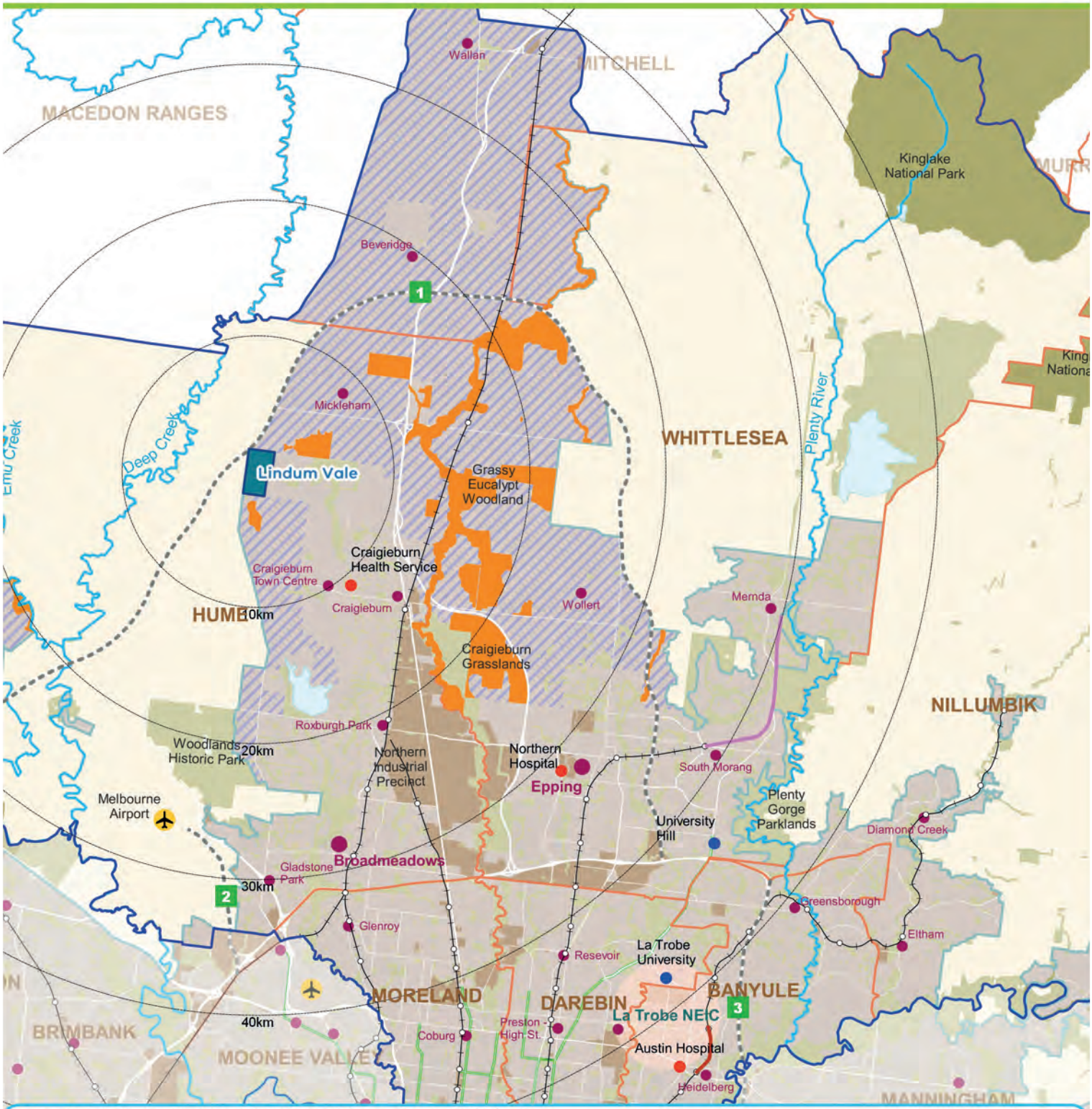

Source: Northern Subregion, Department of Environment, Land, Water and Planning, 2017 (adapted)

Precincts and Activity Centres

- precinct area
- national employment and innovation cluster
- metropolitan activity centre - existing
- activity centre - existing and future
- education precinct
- health precinct
- industrial precinct

Transport

- transport gateway - major airport
- rail network
- train station
- tram network

transport projects - potential future

- 1 Outer Metropolitan Ring/E6 reservation
- 2 Airport Rail Link
- 3 North East Link (alignment subject to investigation)

transport projects committed

- Mernda rail extension
- Heidelberg - Rosanna rail duplication

Environment

- waterway
- conservation area (as identified in the Biodiversity Conservation Strategy for Melbourne's growth area)
- waterbody
- national park / state park
- public open space

Administration

- urban growth boundary
- subregion boundary
- local government area boundary
- growth area
- urban area

1.0 INTRODUCTION

The Lindum Vale Precinct Structure Plan (the PSP) has been prepared by the Victorian Planning Authority (VPA) with the assistance of Hume City Council (Council), Government 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 development. The PSP has been designed to achieve the relevant standards set out in the VPA P*recinct Structure Planning Guidelines* (Guidelines) as well as requirements from State and Local planning frameworks. The Guidelines are available for download from the VPA website: www.vpa.vic.gov.au

The PSP guides proposed development within the Lindum Vale precinct.

Generally, the PSP:

- Sets out plans to guide the delivery of quality urban environments in accordance with relevant Victorian Government guidelines, including the VPA Precinct Structure Planning Guidelines, The Victorian *Planning and Environment Act 1987* and the State Planning Policy Framework;
- 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; and
- Provides Government agencies, the Council, developers, investors and local communities with certainty about future development.

The PSP is informed by:

- The *State Planning Policy Framework* set out in the Hume Planning Scheme;
- The *Growth Corridor Plans: Managing Melbourne's Growth* (Growth Areas Authority, June 2012);
- The *Local Planning Policy Framework of the Hume Planning Scheme*; and
- The *Precinct Structure Planning Guidelines* (Growth Areas Authority, 2008).

The following planning documents will be developed in parallel with the PSP to inform and direct the future planning and development of the Precinct:

- The *Lindum Vale Infrastructure Contributions Plan* (ICP), which identifies the range of development and community infrastructure required to support the future community. The ICP will be implemented via a separate amendment process and will set a per hectare rate for contributions to infrastructure to be paid by development proponents; and
- *The Lindum Vale Native Vegetation Precinct Plan* (NVPP), which sets out requirements for the protection, management and offset of native vegetation within the PSP area.

1.1 How to read this document

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

A planning permit 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 and Guidelines as relevant.

REQUIREMENTS must be adhered to in developing the land. 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 this 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 in certain matters that require a planning permit. If the responsible authority is satisfied that an application for an alternative to a guideline implements the outcomes the responsible authority may consider the alternative. A guideline may include or reference a plan, table or figure in the PSP.

Meeting these REQUIREMENTS and GUIDELINES 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's 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 Land to which this PSP applies

The PSP applies to 144 hectares of land located approximately 28 kilometres north of Melbourne's Central Business District. The PSP area is bound by Mickleham Road and green wedge land to the west, the Merrifield West PSP and Outer Metropolitan Ring (OMR) reservation to the north, the Mount Ridley rural-residential community to the east, Mount Ridley Road and the future Craigieburn West PSP area to the south.

The rural-residential community to the east of the precinct is an outcome of the City of Hume's Inter-Urban Break Policy (IUBP), which seeks to maintain the rural character of land along the north side of Mount Ridley Road, between Mickleham Road and the Hume Highway.

Easily accessible from the precinct are Local Town Centres in Merrifield West, the Mickleham (Merrifield) Major Town on Donnybrook Road and the Craigieburn Major Town Centre to the south-east.

The future community of Lindum Vale will have access to a range of employment, retail and community facilities. Of note is the precinct's proximity to the future Merrifield City Centre and employment precinct along Donnybrook Road, envisioned to deliver approximately 20,000 jobs.

Plan 1 shows the Lindum Vale PSP within the context of the North Growth Corridor.

The site is relatively flat, sloping gently to west to east towards Malcolm Creek catchment.

The precinct supports several structures associated with its former agricultural use including dwellings, outbuildings and rock walls along fence lines. Rural lot excisions have occurred, resulting in additional dwellings being constructed.

The historic 'Parnell's Inn' is situated close to the corner of Mount Ridley and Mickleham Roads and is currently being used as a private residence. This building was constructed during the 1850s and was used for a number of purposes including as the homestead of early pioneering land owners and supporting the surrounding rural community, most notably as the Mickleham Post Office and hotel.

The majority of the precinct has been grazed and these pastoral activities have removed most of the site's native understory vegetation. However, the land supports a significant patch of the Grassy Eucalypt Woodland ecological community in the south-east corner and includes the presence of nationally significant Golden Sun Moth habitat in a number of areas across the precinct. The land also contains Plains Grassy Woodland as well as several Grey Box Gums and a significant number of mature River Red Gums, which form part of a broader population of River Red Gums that extends across the Mount Ridley Woodlands conservation area in the Merrifield West PSP to the north and the Biodiversity Conservation Strategy (BCS) conservation area in the future Craigieburn West PSP to the south. These trees are a key feature of the precinct.

The site is on the north-eastern margin of the Victorian Volcanic Plain bioregion.

The land also contains a number of areas of Aboriginal Cultural Heritage sensitivity.

Plan 2 shows the existing features of the Lindum Vale precinct.

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1.3 Infrastructure Contributions Plan

Development proponents within the Lindum Vale Precinct will be bound by the Lindum Vale Infrastructure Contributions Plan (the ICP). The ICP will set out requirements for infrastructure funding across the Lindum Vale Precinct.

The ICP will be a separate document incorporated in the *Hume Planning Scheme* via a seperate amendment process.

The Lindum Vale ICP contributes funds towards the development of several projects outside of the precinct, including land for a library in the Merrifield Major Town Centre, a sporting facility and community facility within the Craigieburn West precinct to the south.

Development proponents who commence works prior to incorporation of this ICP may enter into agreements with the Hume City Council under Section 173 of the *Planning and Environment Act* 1987 to expedite contributions.

1.4 Native Vegetation Precinct Plan

The Lindum Vale Native Vegetation Precinct Plan has been prepared concurrently with the PSP. The NVPP identifies:

- Native vegetation which may be removed without a planning permit; and
- The offsets that must be provided by landowners wishing to commence works prior to removing the native vegetation which can be removed. The NVPP is a separate document.

1.5 Background Information

Detailed background information on the precinct will be available on the VPA website and in the *Lindum Vale Background Report* at the time of public exhibition.

Background information will include the local and metropolitan context, site history, biodiversity, landform and topography, contamination, cultural heritage, integrated water management, transport, economic and retail provision, and community infrastructure.

Background information regarding retail and economics, and community infrastructure prepared during the planning for the approved Merrifield West PSP contemplated a future population for Lindum Vale of approximately 4,200 people.

2.0 OUTCOMES

2.1 Vision

Lindum Vale will provide residents with a distinctive urban environment influenced by the unique natural and cultural and historic heritage features of the precinct. The precinct will accommodate approximately 1,500 dwellings on a range of lot sizes. Future residents will have access to large areas of open space and convenient access to education and community facilities in the adjacent Merrifield West PSP and the future Craigieburn West PSP areas.

Development will respond to the area's landscape values by integrating the mature indigenous trees across the precinct and the native grasslands in the south-east corner of the precinct. The Aboriginal history of the area is celebrated through the protection of significant places and through signage and information relating to this history. The heritage value of the former Parnell's Inn and the existing dry stone walls will also contribute to the creation of a strong neighbourhood character. Development within the precinct will incorporate the Parnell's Inn site and complement its heritage values in accordance with the existing Heritage Overlay applicable to the site. Development within Lindum Vale will sensitively address the rural residential character of existing development adjacent to the eastern boundary of the precinct.

A network of local parks incorporate the majority of indigenous trees to create a strong neighbourhood character with links to the broader open space network, including Mount Ridley Woodland Reserve, Malcolm Creek and Merri Creek. A centralised local park will accommodate a wetland and stormwater treatment areas, with links to the adjoining open space reserve within the rural-residential neighbourhood to the east of the precinct.

A conservation area in the south-east corner protects and enhances native grasses and Golden Sun Moth habitat, protected by the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act).

Planned regional and district scale recreation opportunities are located nearby at the Mount Ridley Woodland Reserve and further north within the Merrifield Park precinct. District level playing fields and indoor recreation facilities in the Merrifield West PSP and the future Craigieburn West PSP will be easily accessible from Lindum Vale via Mickleham Road and the internal street network connecting Mount Ridley Road to the future Merrifield Park.

The future community at Lindum Vale and those living adjacent to the precinct will have access to a centrally located local convenience centre, providing small scale retail options. Residents will also be able to access services and facilities within the local town centre in Merrifield West and the Mickleham (Merrifield) Major Town Centre, which will include a range of local and regional employment land, retail, commercial, education and community facilities.

Plan 3 shows the Lindum Vale Precinct Future Urban Structure.

2.2 Key Objectives

The development of the Lindum Vale PSP area is guided by a set of key development objectives. Development within Lindum Vale will seek to:

OBJECTIVES	
Identity, Character and Heritage	
O1	Create a high amenity urban environment through the provision of well-designed and integrated housing, pedestrian and cycle friendly streets and attractive open spaces and park networks.
O2	Create a strong 'sense of place' through the design of subdivision, development, streets and open spaces that celebrates, conserves and integrates key natural and cultural heritage elements. These elements include: • A network of local parks and conservation areas that link to the broader open space network; • Retained native grasslands and indigenous trees, predominately River Red Gums and Grey Box Gums; • Dry stone walls; • Retained and protected Aboriginal scarred trees and other important cultural places; and • The former Parnell's Inn.
O3	Ensure subdivision and development sensitively integrates into the broader urban context. Important interface objectives include: • Protect the privacy and minimise visual impact on the existing rural-residential lots along the eastern boundary of the precinct; • Creation of an appropriate landscape character along Mount Ridley Road that softens the visual prominence of development from Mount Ridley Road; and • Enhancement of the existing native vegetation landscape along Mickleham Road that defines the extent of the Urban Growth Boundary.

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O4	Ensure a sensitive urban interface to the historic former Parnell's Inn that responds to the heritage values of the site as identified in the Heritage Overlay in the *Hume Planning Scheme*.

Housing

O5	Provide a diverse range of housing options that meet the needs of the future community.
O6	Provide a range of lot sizes that respond appropriately to the surrounding rural context of the precinct.
O7	Encourage housing that demonstrates environmentally sustainable design principles.

Open Space and Natural Systems

O8	Create a passive recreation network via the high voltage electricity transmission easement and series of local parks linking the Mount Ridley Woodland Nature Conservation Reserve to the north and the BCS conservation areas to the south of the PSP area.
O9	Provide an integrated and accessible public open space network of attractive passive recreation opportunities for people of all ages and abilities.
O10	Retain indigenous trees, where possible, to preserve the ecological, landscape and cultural values of the precinct through sensitive subdivision and street layout design.
O11	Provide protection for areas of native vegetation through provision of encumbered open spaces.
O12	Conserve and enhance the biodiversity values of Grassy Eucalypt Woodland ecological community in the south-east corner of the precinct.

Local Convenience Centre

O13	Create an attractive local convenience centre to meet the daily convenience needs of the community.

Connectivity and Accessibility

O14	Establish an integrated and permeable transport network to encourage walking and cycling and public transport use, reduce car dependency and maximise connectivity.
O15	Create a north-south boulevard connector street that links the precinct to Craigieburn West, Merrifield West and Merrifield North.
O16	Establish a street network which provides opportunities to: • Link to the road network in adjacent residential areas; and • Link to key destinations located outside of the precinct via a north-south boulevard connector.
O17	Prioritise the north-south connector as an important element of the broader public transport network

Integrated Water Management and Utilities

O18	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.
O19	Ensure irrigation of parks and open space that sustain the health of retained biodiversity values, particularly River Red Gums through subdivision design and innovative Water Sensitive Urban Design (WSUD) practices.
O20	Divert current catchment through the open space network to maximise the retention of natural flow

Precinct Infrastructure Plan and Staging

O21	Ensure all lots have timely access to potable water, electricity, reticulated sewerage, drainage, gas and telecommunications.
O22	Design street cross-sections to ensure that the installation of essential services do not impede the ability to plant canopy trees.
O23	Ensure that development is coordinated with the delivery of key local and state infrastructure.

Plan 4 Land Use Budget

Lindum Vale Precinct Structure Plan

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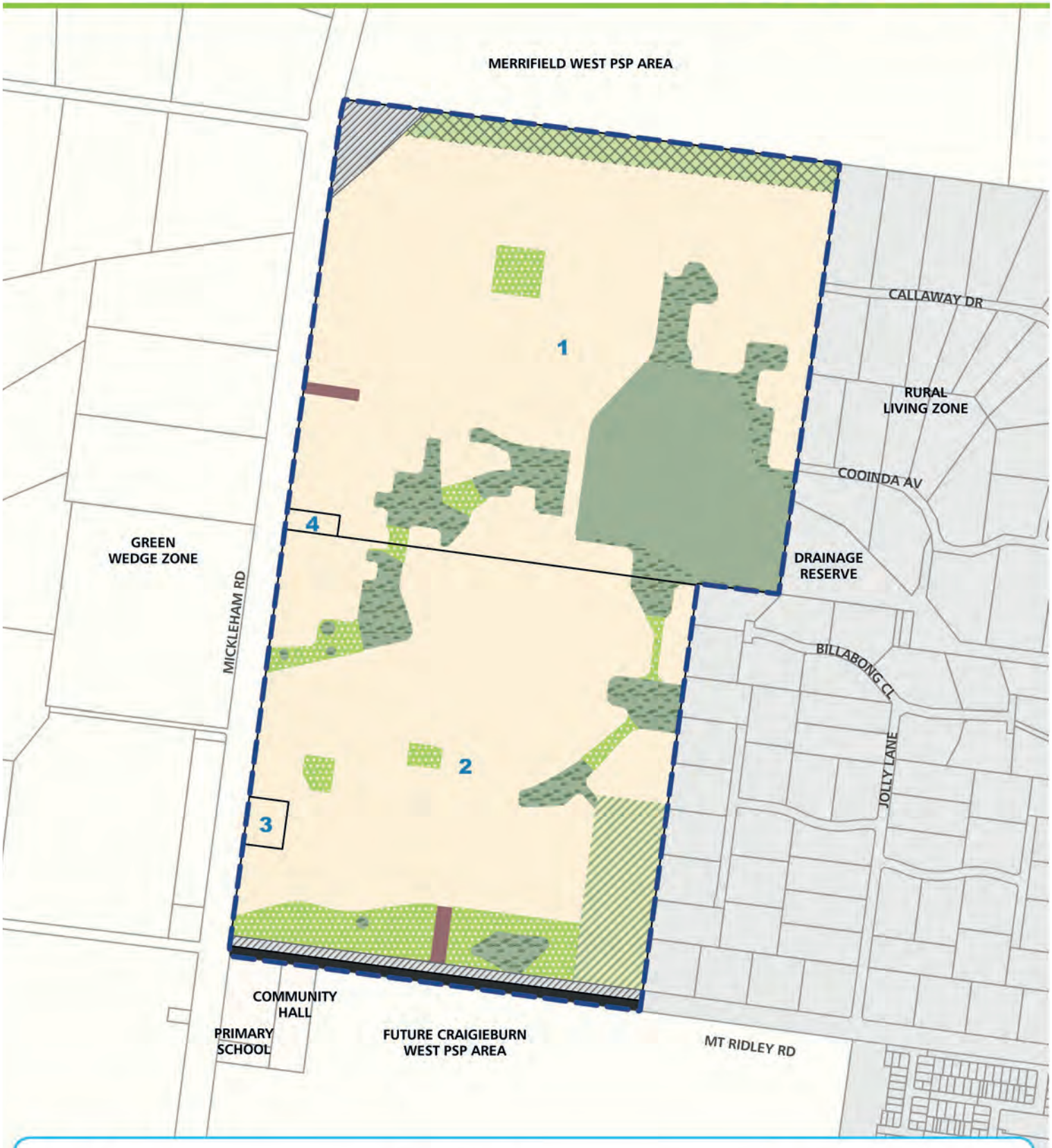

- precinct boundary
- parcel boundary
- 1 parcel number
- arterial road - existing road reserve
- arterial road - widening/intersection flaring
- public acquisition overlay
- conservation reserve
- waterway & drainage reserve
- high voltage electricity transmission easement
- local park (unencumbered)
- landscape values (encumbered)
- net developable area - residential

2.3 Summary Land Budget

Table 1 provides an overview of the allocation of land uses throughout the precinct and summarises the areas of land required for community and development infrastructure. A property specific land budget is attached as Appendix A.

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.

Table 1 Summary Land Use Budget

DESCRIPTION	PSP 1202 LINDUM VALE		
	HECTARES	% OF TOTAL	% OF NDA
TOTAL PRECINCT AREA (HA)	**144.36**		
TRANSPORT			
Arterial Road - Existing Road Reserve	1.52	1.05%	1.56%
Arterial Road - Public Acquisition Overlay	1.61	1.12%	1.66%
Arterial Road - New / Widening / Intersection Flaring (ICP land)	2.23	1.54%	2.29%
Sub-total Transport	**5.36**	**3.7%**	**5.51%**
OPEN SPACE			
SERVICE OPEN SPACE			
Conservation Reserve	4.88	3.38%	5.01%
Waterway and Drainage Reserve	12.27	8.50%	12.62%
Heritage Reserve - Post Contact	4.56	3.16%	4.69%
Utilities Easements	12.09	8.37%	12.43%
Other	33.80	23.41%	34.75%
Sub-total Service Open Space	**33.93**	**23.50%**	**34.94%**
CREDITED OPEN SPACE			
Local Network Park (ICP land)	7.94	5.5%	8.17%
Sub-total Credited Open Space	**7.94**	**5.5%**	**8.17%**
Total All Open Space	**41.74**	**28.9%**	**42.91%**
TOTAL NET DEVELOPABLE AREA - (NDA) HA	**97.26**	**67.37%**	
NET DEVELOPABLE AREA - RESIDENTIAL (NDAR) HA	**97.26**	**67.37%**	

Plan 5 - Image, Character and Housing

Lindum Vale Precinct Structure Plan

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- precinct boundary
- trees retained for landscape value
- other trees
- PSP key local street interface
- Dry stone wall remnants and single course walls able to be removed - rating 1 (low value)
- Dry stone walls to be retained and repaired rating 2-3 (moderate-high value)
- existing residential interface
- public acquisition overlay
- conservation reserve
- high voltage electricity transmission easement
- local park
- landscape values
- residential area
- connector street - boulevard
- local access street
- pedestrian/cycle link
- local convenience centre

3.0 IMPLEMENTATION

3.1 Identity, Character and Cultural Heritage

3.1.1 Landscape Character

REQUIREMENTS	
R1	All public areas, including streets, local parks and drainage areas must be landscaped and planted to reflect the unique open woodland landscape of the precinct.
R2	Open space and local streets must be designed to retain and enhance the landscape and heritage character of the precinct, particularly the existing mature indigenous trees within the site and along Mickleham Road, and the historic former Parnell's Inn.
R3	Street trees must be provided on both sides of all roads and streets (excluding laneways) at regular intervals appropriate to tree size at maturity and not exceeding: • 8 – 10 metre intervals for trees with a canopy of less than 10 metres; • 10 – 12 metre intervals for trees with a canopy of between 10-15 metres; or • 12 – 15 metre intervals for trees with a canopy greater than 15 metres.
R4	Planting of streetscapes, parks and other public spaces must include a mix of native, indigenous and other locally appropriate species.
R5	Retained River Red Gums and Grey Box Trees must be located within the public domain, including parks and street reserves, unless otherwise agreed by the responsible authority.
GUIDELINES	
G1	A consistent suite of public lighting and furniture should be used across the precinct appropriate to the type and role of the street or public space.
G2	Trees in streets and parks should be the largest canopy appropriate for the space to create a woodland character and provide maximum shading.
G3	Open space and local streets should be designed to retain and enhance the landscape and heritage character of the precinct, particularly the existing mature indigenous trees within the site and along Mickleham Road, and the historic Parnell's Inn and significant dry stone walls
G4	River Red Gums and Grey Box Trees labelled as 'trees retained for landscape value' on Plan 5 should be retained. A proposal to remove 'trees retained for landscape value' should describe why removal cannot be avoided to the satisfaction of the responsible authority.

3.1.2 Integration and Interfaces

REQUIREMENTS	
R6	Development along Mickleham Road must respond to the existing native vegetation interface with appropriate landscaping and built form.
R7	Development along Mount Ridley Road must create an appropriate interface that reflects the natural features of the precinct and softens the visual prominence of development along Mount Ridley Road.
R8	Development along the eastern boundary of the precinct must have regard to the privacy and amenity of the adjacent rural living lots and minimise visual impact on the adjacent rural living lots through the use of: • Appropriate use of screening vegetation, fencing and landscape buffers that accommodates trees and understorey species to screen the new dwelling from adjoining rural residential lot; and • Appropriate building materials and setbacks that minimise the visual impact on adjoining rural residential lot.
R9	Ensure the subdivision design creates neighbourhoods that are integrated across property boundaries.

R10	Ensure a sensitive interface to the Parnell's Inn to enhance the heritage significance of the site as identified in the Heritage Overlay in the Hume Planning Scheme. In particular the road layout, subdivision design and development must; • Ensure the heritage site becomes a feature of the precinct; • Provide a buffer between the southern façade and the building and new dwellings; • Ensure the building is contained on a parcel that provides an appropriate curtilage to the building; • Maintain convenient access to the site via the existing front entrance from the Mickleham Road reserve; and • Ensure the parcel containing heritage building has access to the internal subdivision street network. All to the satisfaction of the responsible authority.

GUIDELINES	
G5	Subdivision, road layout and landscaping adjoining Mickleham Road should achieve the preferred outcomes identified in Figure 1.
G6	Visual impact of development with a direct interface to Mount Ridley Road should be minimised by: • Landscaping that replicates the open woodland features of the precinct; • Ensuring all dwelling address the open space and create opportunities for passive surveillance; and • Avoiding side or rear fence treatments.
G7	Dwellings on lots adjacent to the east boundary of the precinct should achieve: • A 10 metre setback from rear property boundaries; and • A 3 metre setback from side property boundaries.
G8	The street layout, subdivision and development adjoining local parks adjacent to Mount Ridley Road should reduce the visual prominence of development from Mount Ridley Road. Visual impacts should be minimised through the consideration of building heights, setbacks, location of garages and boundary fencing.
G9	Privacy and visual impacts on adjacent rural living lots should be minimised through the design and consideration of fencing, building heights and setbacks.

3.1.3 Heritage

REQUIREMENTS	
R11	The proponent must consult the Registered Aboriginal Party to ascertain how development can protect significant cultural sites and whether the heritage interpretation is appropriate in the identified areas of Aboriginal cultural heritage sensitivity in Plan 2.
R12	Any reinstatement or repair of dry stone walls identified on Plan 5 Image, Character and Housing as 'Dry stone walls to be retained and repaired – rating 2-3 (moderate-high value)' must be undertaken by a suitably qualified dry stone waller and is to be consistent with the construction style of the original wall.
R13	Reinstatement or repair of dry stone walls identified on Plan 5 Image, Character and Housing as 'Dry stone walls to be retained and repaired – rating 2-3 (moderate-high value)' must 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 and identified as 'Dry stone wall remnants and single course walls able to be removed – rating 1 (low value)' on Plan 5 Image, Character and Housing. • Any adjacent paddock containing wall parts which can be recovered. Walls approved to be removed in the nearby area (including any stone which has been stockpiled by Council).
R14	Installation of services across the alignment of retained dry stone walls must be undertaken by boring rather than open trenching. If open trenching or disturbance to the wall is unavoidable, a minimum section of wall may be temporarily removed and then reinstated to original condition under the supervision of a suitably qualified dry stone waller to the satisfaction of the responsible authority.

GUIDELINES	
G10	The historic former Parnell's Inn should be considered for adaptive reuse for public or commercial uses.
G11	Dry stone walls identified on Plan 5 Image, Character and Housing as 'Dry stone walls to be retained and repaired – rating 2-3 (moderate to high value)' should be retained in open space and road reserves where possible and should: • Have a suitable landscape interface; • Be checked by a suitably qualified dry stone waller for any loose stones. Any loose stones are to be reinstated in the wall in secure positions; • Retain post and wire or post and rail fences situated within the walls, with any wire protruding beyond the vertical face of the wall reinstated to its original position or removed; and • Be incorporated into subdivision design to minimise disturbance to the walls (e.g. utilisation of existing openings for vehicle and pedestrian access. All to the satisfaction of the responsible authority.
G12	Land uses abutting retained dry stone walls should enhance public visibility of the walls. Relevant uses include open space, conservation reserve or road verge.
G13	Where it has been agreed with the responsible authority that an existing dry stone wall is to be removed, land owners should consult with Council to determine whether the material can be retained for use elsewhere.

3.1.4 Earthworks, Embankments & Retaining Structure

REQUIREMENTS	
R15	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.
R16	No earthworks are permitted within a Tree Protection Zone (TPZ) of a tree shown to be retained shown on Plan 5, unless approved by the responsible authority.

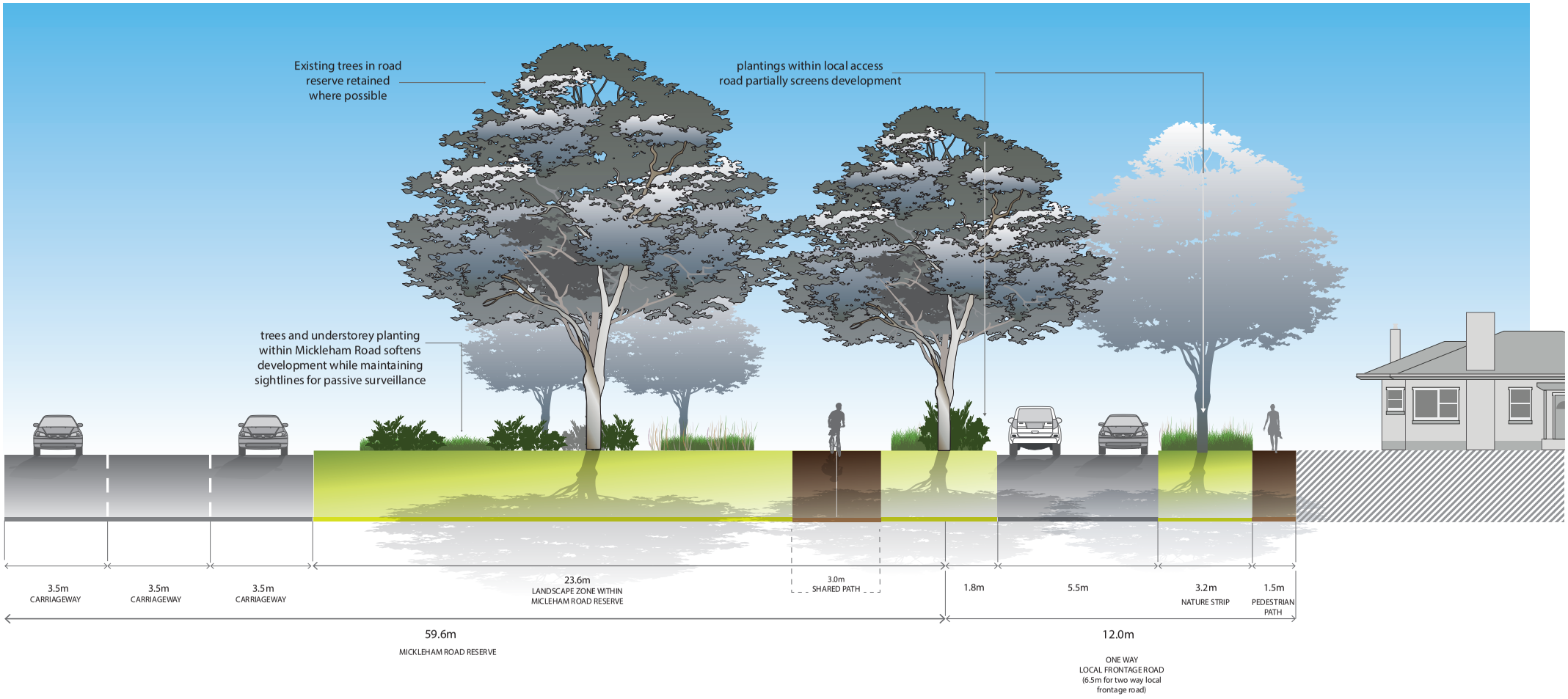
Existing trees in road reserve retained where possible
plantings within local access road partially screens development
trees and understorey planting within Mickleham Road softens development while maintaining sightlines for passive surveillance
3.5m CARRIAGEWAY
3.5m CARRIAGEWAY
3.5m CARRIAGEWAY
23.6m LANDSCAPE ZONE WITHIN MICLEHAM ROAD RESERVE
3.0m SHARED PATH
1.8m
5.5m
3.2m NATURE STRIP
1.5m PEDESTRIAN PATH
59.6m MICKLEHAM ROAD RESERVE
12.0m ONE WAY LOCAL FRONTAGE ROAD (6.5m for two way local frontage road)

Figure 1

3.2 Housing

REQUIREMENTS	
R17	Residential subdivisions must respond appropriately to the site conditions and the adjoining rural residential areas to the east of the precinct. The existing residential interface is shown on Plan 5.
R18	Residential subdivision must achieve dwelling diversity through the delivery of a range of lot sizes, including the provision of larger lots along the eastern interface with existing rural living lots and the southern interface with Mount Ridley Road.
R19	Subdivision must deliver a minimum average dwelling density of 16.5 dwellings per Net Developable Hectare. 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 the minimum average density through further stages of development. Lots must front where possible, and where not possible side: • Local parks, conservation area, drainage waterways and large easements; and • Arterial and connector roads.
R20	Subdivision applications must include design considerations for any lots identified for future development of medium density, high density or integrated housing that suitably demonstrate: • Potential dwelling yield; • Active interfaces with adjacent street, open space and waterways; • Safe and effective internal vehicle, cycle and pedestrian circulation; • The delivery of dwelling diversity and lot sizes; and • Servicing arrangements.
GUIDELINES	
G14	Residential subdivisions should deliver a broad range of lot sizes capable of accommodating a variety of housing types. Table 2 should be used as a guide to demonstrate this guideline has been met.
G15	Front fences should be avoided. If unavoidable, front fences should be no less than 50% transparent and no higher than 1.2 metres.
G16	Where there are opportunities for specialised housing forms such as lifestyle communities, retirement living or aged care facilities they should be: • Integrated into the wider urban structure; and • Accessible by public transport.

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 (m^2)		
	0-300	301-600	601
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			

Plan 6 Open Space

Lindum Vale Precinct Structure Plan

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3.3 Open Space and Natural Systems

Table 3 identifies classifications for local parks and Conservation Reserve identified in Plan 6. Council is responsible for the management of these open spaces.

Table 3 Open Space Delivery Guide

PARK ID	AREA	TYPE	ATTRIBUTES
LP-01	1.87	Local Park	Central to surrounding community
LP-02	2.93	Local Park	Central to surrounding community
LP-03	0.25	Local Park	Central to surrounding community and protects tree group
LP-04	0.32	Local Park	Central to surrounding community and protects tree group
LP-05	0.20	Local Park	Central to surrounding community
LP-06	0.75	Local Park	Central to surrounding community
LP-07	0.33	Local Park	Central to surrounding community
LP-08	0.29	Local Park	Central to surrounding community
LP-09	0.20	Local Park	Central to surrounding community
LP-10	0.80	Local Park	Central to surrounding community
LV-01	2.99	Tree Reserve	Shared and pedestrian paths. Areas for tree retention (encumbered open space)
LV-02	1.28	Tree Reserve	Shared and pedestrian paths. Areas for tree retention (encumbered open space)
LV-03	1.18	Tree Reserve	Shared and pedestrian paths. Areas for tree retention (encumbered open space)
LV-04	1.43	Tree Reserve	Shared and pedestrian paths. Areas for tree retention (encumbered open space)
LV-05	0.07	Scattered Tree	Retained tree
LV-06	0.04	Scattered Tree	Retained tree
LV-07	0.04	Scattered Tree	Retained tree
LV-08	1.72	Tree Reserve	Shared and pedestrian paths. Area for tree retention (encumbered open space)
LV-09	1.68	Tree Reserve	Shared and pedestrian paths. Area for tree retention (encumbered open space)
LV-10	0.80	Tree Reserve	Shared and pedestrian paths. Areas for tree retention (encumbered open space)
LV-11	0.05	Scattered Tree	Retained tree
LV-12	0.81	Tree Reserve	Shared and pedestrian paths. Area for tree retention (encumbered open space)
CR-01	4.88	Conservation Reserve	Native vegetation retention

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3.3.1 Open Space

REQUIREMENTS	
R21	The open space network must: • Provide flexible recreational opportunities that allow for the range of recreational needs of the community; and • Maximise the amenity and value of encumbered open space through the provision of shared paths and other appropriate recreation elements.
R22	Open space must be provided generally in accordance with Plan 6 and Table 3, unless otherwise approved by the responsible authority. An alternative provision of land for passive open space to that illustrated on Plan 6 is considered to be generally in accordance with this plan provided the passive open space: • Ensures all trees identified as being retained for their landscape value in Plan 5 are retained; • Is located so as to not reduce the walkable access to local parks demonstrated on Plan 6; • Does not diminish the quality or usability of the space for passive recreation; and • Is equal to or more than the passive open space provision within the ICP.
R23	Design of open space on encumbered land including drainage areas, utilities easements, land with remnant native vegetation and any other encumbered open space must maximise the amenity value of that open space and provide for flexible recreational opportunities, particularly when such land also abuts unencumbered open space.
R24	Where local parks interface a conservation area or encompasses remnant native vegetation, the design of that park must respond and integrate with these environmental features.
R25	Parks and open spaces must contain extensive planting of large canopy scale trees, native, indigenous and exotic, that are suitable for urban environments, the local climate, soil conditions, to the satisfaction of the responsible authority.
R26	Appropriate lighting must be installed along all major pedestrian thoroughfares traversing public open space and cycling network to the satisfaction of the responsible authority.
R27	Fencing in open spaces, other than vehicle exclusion bollards or pedestrian exclusion fencing to prevent access to conservation areas or tree reserves is to be avoided. Where fencing is used it must be low scale and/or visually permeable to facilitate public safety and surveillance.
R28	The open space network must link into surrounding existing and proposed open space through the use of pedestrian and cyclist links.
GUIDELINES	
G17	Open spaces should have a road frontage to the majority of edges and where a road is not provided a paper road should be provided between lots and open spaces.
G18	Passive parks should cater for a broad range of users by providing a mix of spaces and planting to support both structured and unstructured recreational activities and play opportunities for all ages and abilities.
G19	Path networks associated with open space located inside and outside of the precinct should include way-finding signage which clearly identifies key destinations.
G20	Development of land in the power transmission easement should be utilised for open space, recreation including those outlined in Table 4 - Powerlines Easement Possible Use and Development and other activities permitted by the relevant electricity authority.
G21	Where landscaping in the powerlines easement is required as part of subdivision, treatment should include provision of a shared path and extensive planting of indigenous grasses and shrubs to the satisfaction of the responsible authority and in accordance with Figure 2 - Powerline Easement Concept, Table 4 - Powerline Easement Possible Use and Development and Appendix D - Service Placement Guidelines and the SP Ausnet – A Guide to Living with Transmission Easements.

3.3.2 Open space and stormwater management

REQUIREMENTS	
R29	Design and layout of retarding basins, wetlands and any other encumbered open space must maximise the potential for integration of recreation uses where this does not conflict with the primary function of the land, to the satisfaction of the responsible authority and Melbourne Water. Figure 3 provides an illustration of how the central open space may be designed to integrate the drainage, recreation and conservation functions of this open space.
R30	Drainage infrastructure (i.e. wetlands and retarding basins) must maximise water use efficiency and long term viability of vegetation, particularly the River Red Gums, through the use of Water Sensitive Urban Design initiatives, including use of locally treated stormwater for irrigation purposes, where practical.
R31	Design of drainage infrastructure must minimise earthworks and impact on the retained River Red Gums.
R32	Design and layout of wetland and any other encumbered open space must maximise the potential for integration of recreation uses where this does not conflict with the primary function of the land.

Figure 2 Powerline Easement Concept

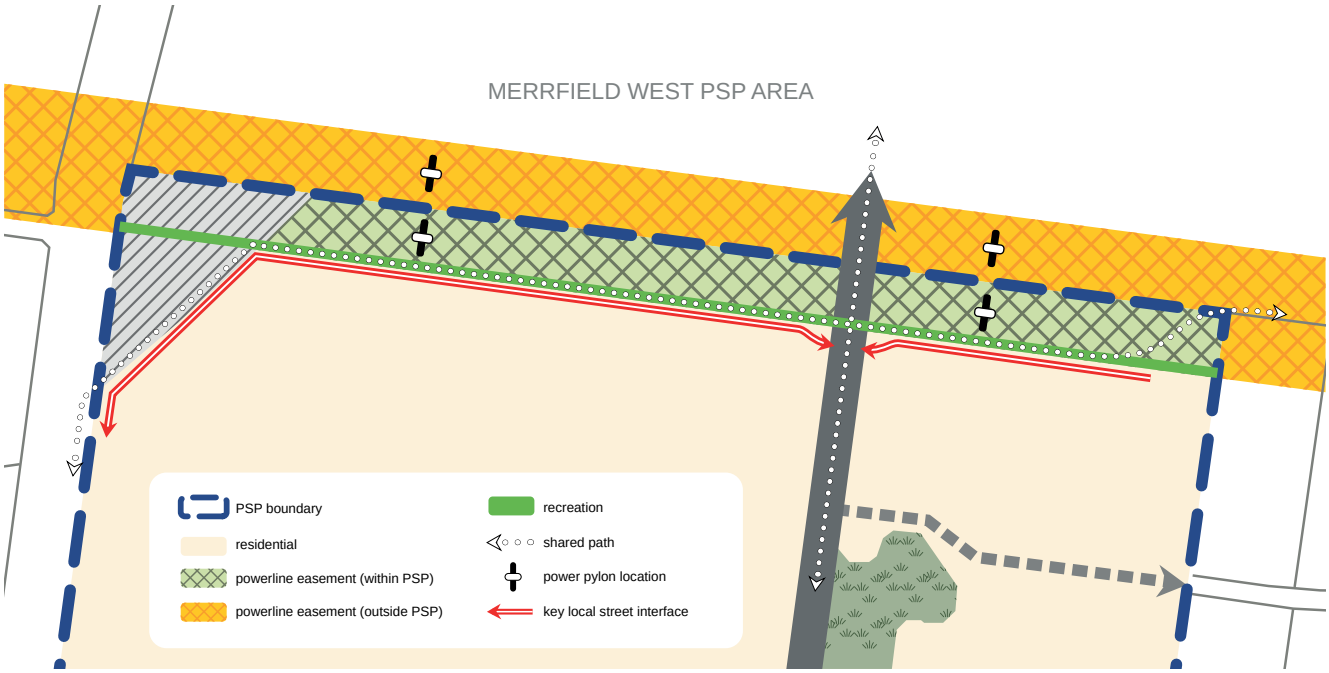


Table 4 Powerline Easement Possible Use and Development

POSSIBLE USE AND DEVELOPMENT			
RECREATION OPPORTUNITIES	COMMERCIAL / COMMUNITY OPPORTUNITIES	TRANSPORT OPPORTUNITIES	UTILITIES SERVICING OPPORTUNITIES
Passive recreation such as hardstand or flat area for market/community space, local open space, dog off-leash area, community gardens. Active recreation such as BMX or mountain bike tracks, fitness circuit.	Hardstand or flat area for market / community space.	Off road Shared Path Local Access Street interface treatment	Stormwater management

Figure 3 Open Space Interface

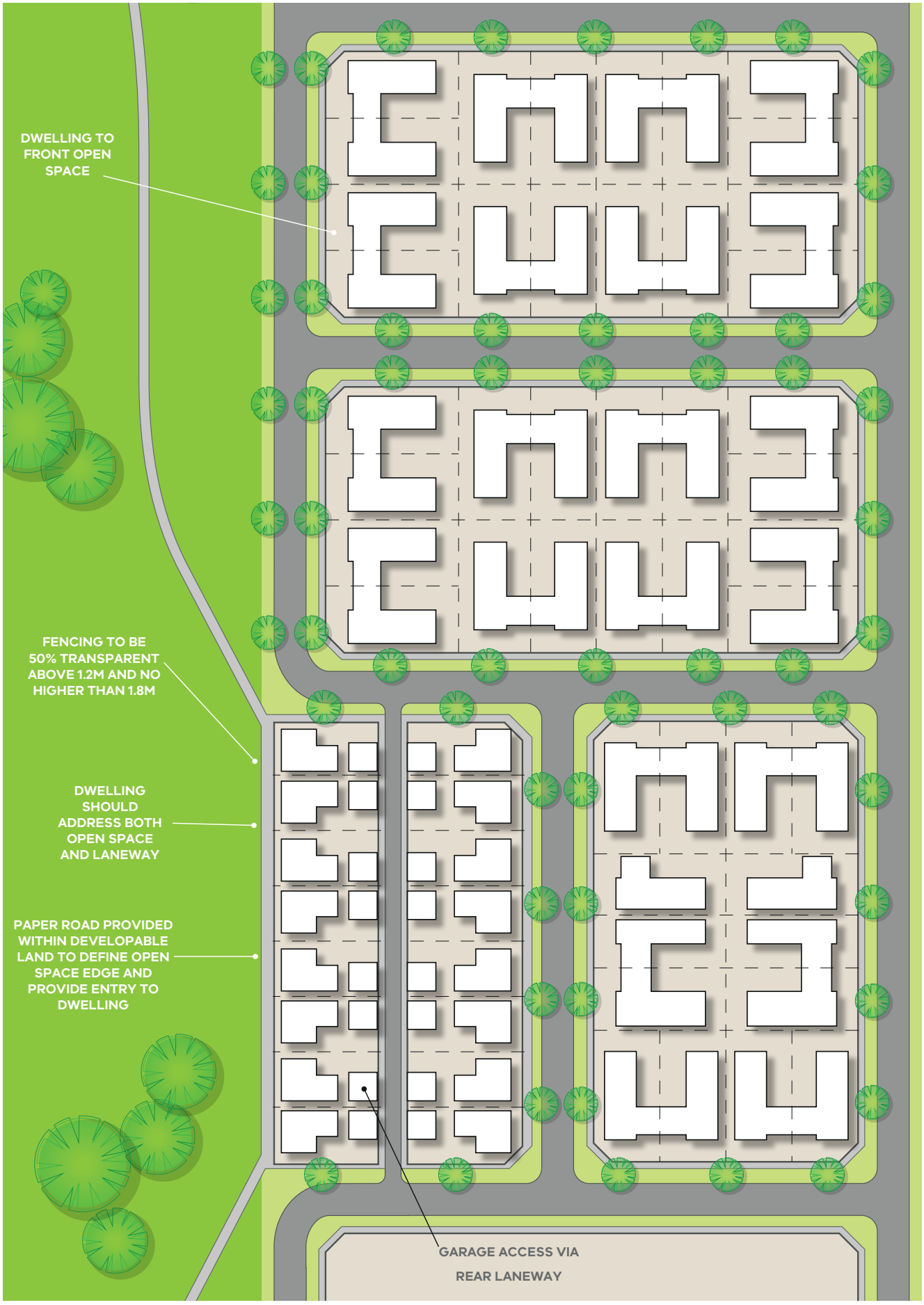
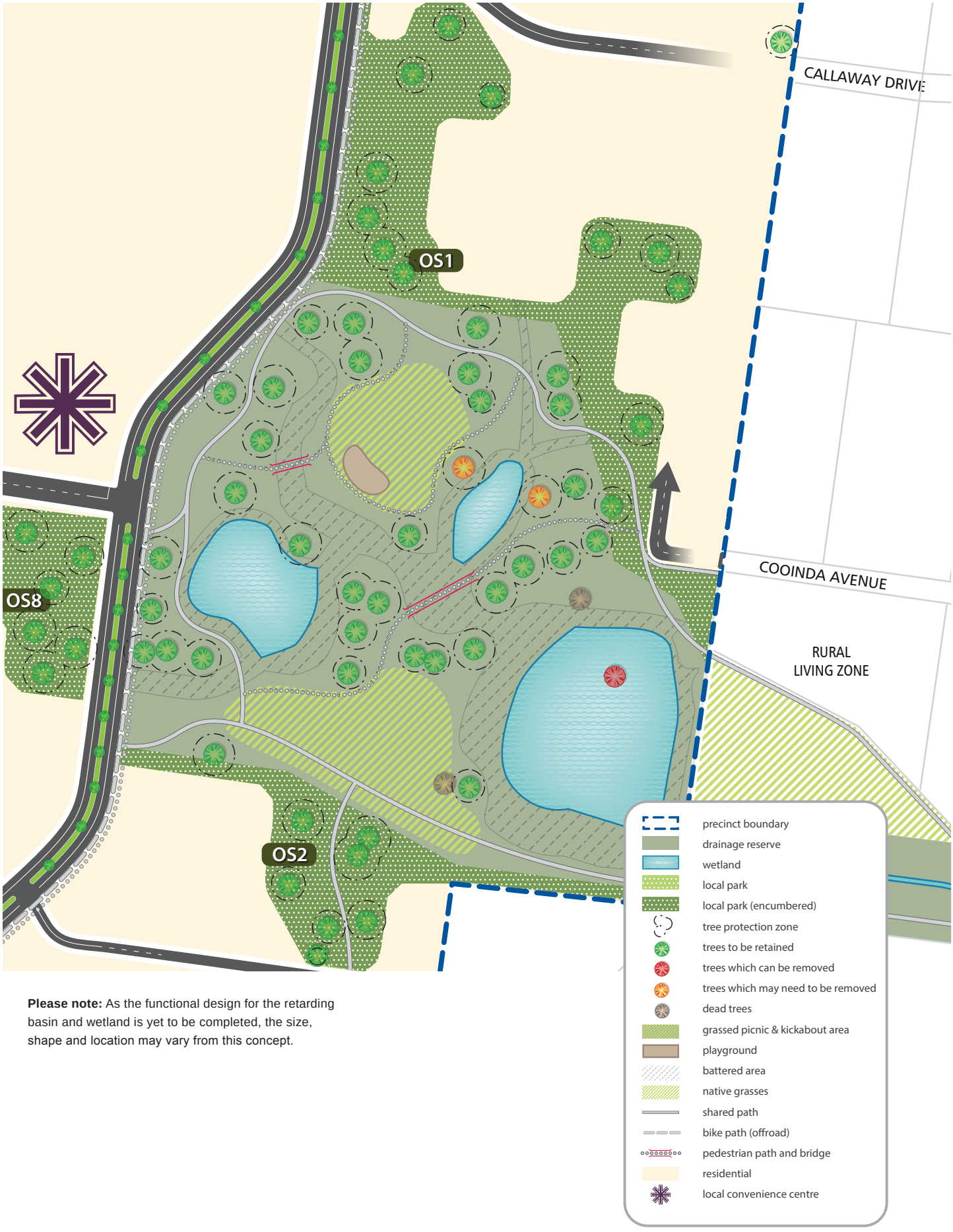


Figure 4 Retarding Basin / Wetland Concept Plan



Please note: As the functional design for the retarding basin and wetland is yet to be completed, the size, shape and location may vary from this concept.

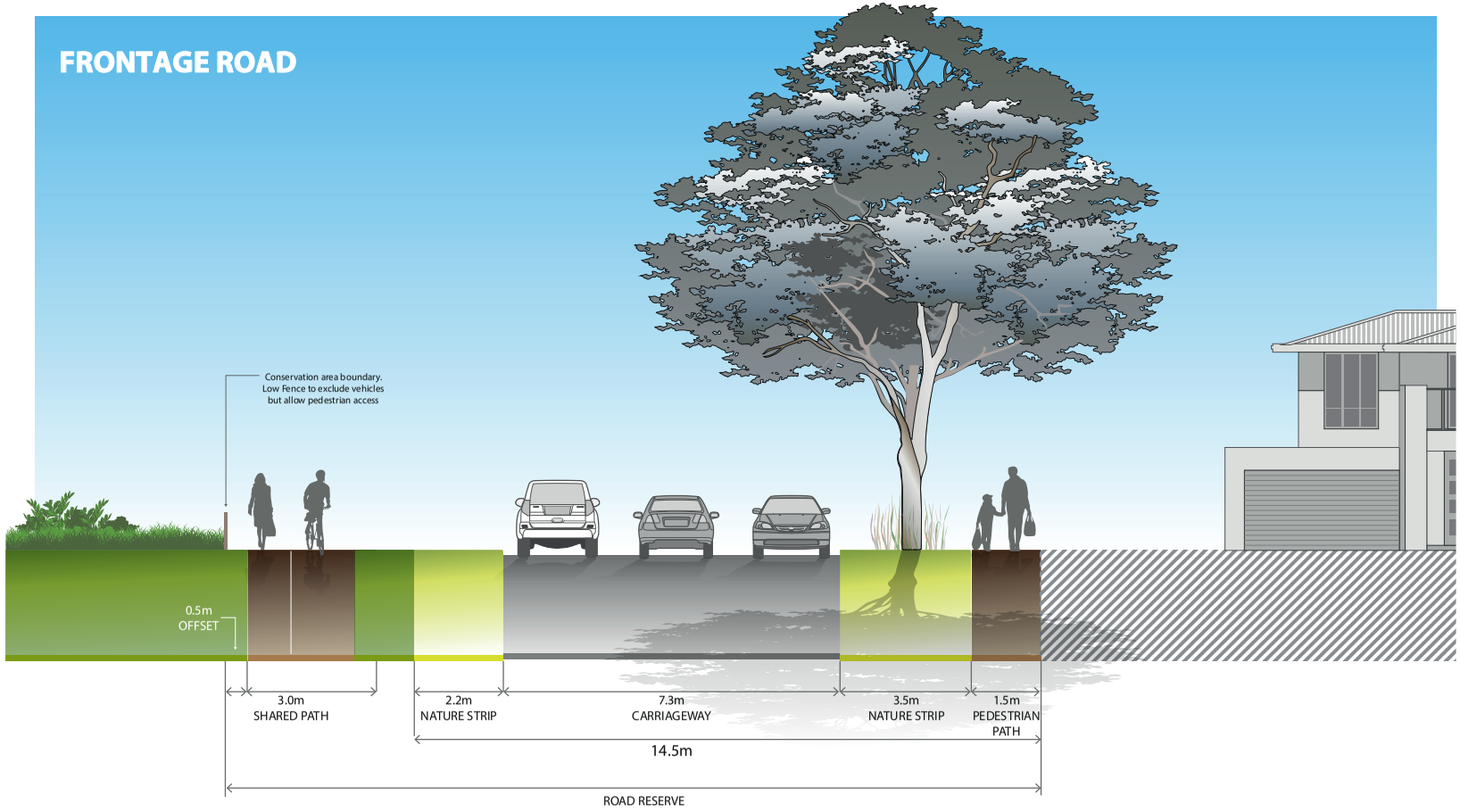

FRONTAGE ROAD
Conservation area boundary.
Low Fence to exclude vehicles
but allow pedestrian access
0.5m
OFFSET
3.0m
SHARED PATH
2.2m
NATURE STRIP
7.3m
CARRIAGEWAY
3.5m
NATURE STRIP
1.5m
PEDESTRIAN
PATH
14.5m
ROAD RESERVE

Figure 5

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3.3.3 Biodiversity conservation and native vegetation retention

BIODIVERSITY CONSERVATION AND NATIVE VEGETATION RETENTION REQUIREMENTS	
R33	Conservation areas must be provided in accordance with Plan 6 and Table 3, unless otherwise approved by the responsible authority.
R34	Any public paths or infrastructure located within a conservation area must be designed to avoid / minimise disturbance to vegetation.
R35	Subdivision and development abutting a conservation area, including roads and dwellings, must be in accordance with Figure 5.
R36	Where trees are retained, applications for subdivision and/or development must apply Tree Protection Zones.
R37	Existing indigenous trees shown for retention in local parks, drainage areas and conservation areas on Plan 5 and Table 3 must be retained, except where agreed by the responsible authority.
R38	Water Sensitive Urban Design (WSUD) principles must be used so that excess stormwater run-off from within, or where appropriate, external to the park, is directed to support park planting and/or rain gardens, to the satisfaction of the responsible authority. Any WSUD must complement the open space function and quality.
BIODIVERSITY CONSERVATION AND NATIVE VEGETATION RETENTION GUIDELINES	
G22	Existing indigenous trees retained outside of local parks or conservation areas should be located in tree reserves in accordance with the Australian Standard (AS4970 – 2009 Protection of Trees on Development Sites).
G23	Plantings in local parks and open spaces should enhance the ecological value of the open space.
G24	Drainage infrastructure including wetlands and retarding basins, should be designed to maximise health and longevity of River Red Gums and other habitat values for local flora and fauna species.
G25	Planting in streetscapes and parks abutting waterways should make use of indigenous species to the satisfaction of Melbourne Water and the responsible authority.
G26	Street trees and public open space landscaping should contribute to habitat for indigenous fauna species, in particular arboreal animals and birds, where practical.

3.4 Local Convenience Centre

REQUIREMENTS	
R39	A Local Convenience Centre is to be developed proximate to the location shown on Plan 3.
R40	The Local Convenience Centre must have direct vehicular access to a connector road and must be well connected to the walking, cycling and public transport network.
R41	Subdivision, use and/or development within Local Convenience Centres must have regard to the relevant design criteria for Local Conveniences Centres outlined in Appendix E, as appropriate.
R42	The design of the Local Convenience Centre must: • Provide primary access to tenancies from the main access street; • Provide a mix of tenancies; • Provide active and articulated frontages to the connector roads and local access streets; and • Locate any servicing infrastructure, loading areas and/or car parking to the rear or centre of the allotment in a manner that protects the visual amenity of the precinct.

Plan 7 Public Transport and Path Network

Lindum Vale Precinct Structure Plan

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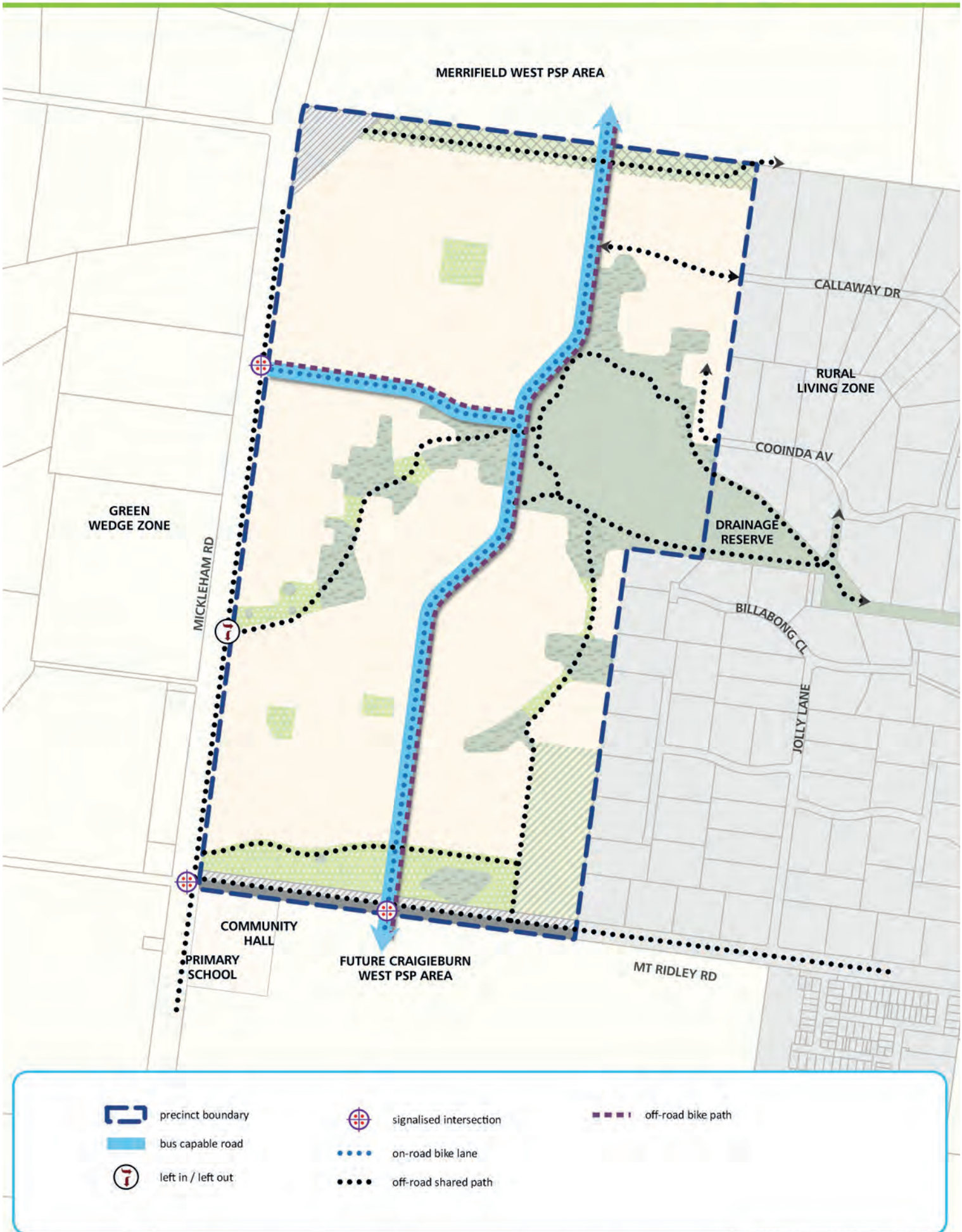

3.5 Connectivity and accessibility

3.5.1 Street Network

REQUIREMENTS	
R43	Street layouts must: • Be generally in accordance with the network shown in Plan 8; • Form a coherent movement network across the wider precinct; • Ensure equity of access to open space and facilities is provided; • Provide a permeable and safe network for walking and cycling; and • Be designed to facilitate diversion of stormwater to the open space network.
R44	The connector street network must provide a safe low speed environment.
R45	Staging of subdivisions must provide for the timely connection of: • Essential infrastructure (services/utilities); • Road links between properties; • Road links to the connector and arterial road network; and • Pedestrian and cyclist links to the off-road pedestrian and bicycle network.
R46	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 B. Examples of potential variations are provided in Appendix C, 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 material; and • Differing tree outstand treatments. For the purposes of this requirement, changes to street tree species between or within streets does 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 (maintaining the widths illustrated in Appendix B). Alternative cross sections treatments must maintain the relevant minimum road reserve widths illustrated in Appendix B.
R47	Streets must be constructed to property boundaries where an inter-parcel connection is intended or indicated in the structure plan, by any date or stage of development required or approved by the responsible authority.
R48	Vehicle access to lots fronting arterial roads must be provided from a service road, local internal road or rear lane only, to the satisfaction of the coordinating road authority.
R49	Configuration of vehicle access to lots must ensure that there is sufficient separation between crossovers to allow for a minimum of one on-street car park for every two residential lots.
R50	Vehicle access to a lot that is six (6) metres or less in width must be via rear laneway.
R51	Create a movement network that connects with Merrifield West to the north, the future Craigieburn West PSP to the south and the adjoining rural-residential area to the east.
R52	Where determined that roundabouts are required at 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.
R53	Development must positively address all waterways through the use of frontage roads or lots with direct frontage to the satisfaction of Melbourne Water and the responsible authority.
GUIDELINES	
G27	Street block lengths should not exceed 240 metres to ensure a permeable and low speed environment for pedestrians, cyclists and vehicles is achieved.
G28	Where streets bisect the open space network, they should be designed to allow for the continuation of stormwater to pass through open space areas to the satisfaction of the responsible authority.

Plan 8 Street Network

Lindum Vale Precinct Structure Plan

G29	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.
G30	Cul-de-sacs should not detract from convenient pedestrian and cycle connections.
G31	All signalised intersections should be designed in accordance with the VicRoads Growth Area Road Network Planning Guidance & Policy Principles Handbook.
G32	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.

3.5.2 Public Transport

REQUIREMENTS	
R54	Bus stop facilities must be designed to the satisfaction of Public Transport Victoria and be located in close proximity to the Local Convenience Centre.
R55	Any roundabouts on roads shown as 'bus capable' on Plan 7 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.
R56	The street network must be designed to ensure all households are able to directly and conveniently walk to transport services.

3.5.3 Walking and cycling

REQUIREMENTS	
R57	Design of all streets must give priority to the requirements of pedestrians and cyclists by providing: • Footpaths of at least 1.5 metres wide on both sides of all streets and roads unless otherwise specified by the PSP; • Shared paths or bicycle paths of 3.0 metres in width where shown on Plan 7 or as shown on the relevant cross-sections in Appendix B or as specified by another requirement in the PSP; • Safe and convenient crossing points of connector roads and local streets at all intersections and on key desire lines as well as crossing of creeks and waterways; • Pedestrian priority crossings on all slip lanes; and • Safe and convenient transition between on-road and off-road bicycle networks. • All to the satisfaction of the coordinating roads authority and the responsible authority.
R58	Shared and pedestrian paths along waterways must: • Be delivered by development proponents consistent with the network shown on Plan 7; • Be above 1:10 year flood level with any crossing of the waterway designed to maintain hydraulic function of the waterway; • Shared paths identified on Plan 7 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 7, a path is also to be delivered on the other side of the waterway but may be constructed to a lesser standard; and • Appropriate connection of walking and cycling paths to surrounding pedestrian and cycling networks. All to the satisfaction of the Melbourne Water and the responsible authority.
R59	Bicycle parking facilities including way finding signage are to be provided by development proponents in convenient locations at key destinations such as parks and the local convenience centre, to the satisfaction of the responsible authority.
R60	Lighting must be installed along shared, pedestrian, and cycle paths linking to key destinations, unless otherwise agreed by the responsible authority.
R61	The alignment of the off-road bicycle path should be designed for cyclists travelling up to 30km/hr, to the satisfaction of the responsible authority.

GUIDELINES	
G33	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.
G34	Street activation within residential areas should be encouraged through the inclusion of street furniture and incidental meeting places.

Plan 9 Integrated Water Management

Lindum Vale Precinct Structure Plan

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3.6 Integrated water management and utilities

Table 5 Stormwater drainage and water quality treatment infrastructure

INFRASTRUCTURE ID	DESCRIPTION	AREA (HA)	RESPONSIBILITY
RBWL1	Sediment Basin & Wetland Basin	12.27	Melbourne Water*

*Areas outside Melbourne Water's Statement of Obligations will be managed by Hume City Council.

3.6.1 Integrated water management

REQUIREMENTS	
R62	Stormwater run-off 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.
R63	Development staging must provide for the delivery of ultimate waterway drainage infrastructure, including stormwater quality treatment, listed in Table 4. Where Melbourne Water and the responsible authority agree to an interim storm water management solution, the developer must: • Provide the land required for the ultimate drainage solution prior to the issue of a Statement of Compliance; and • Demonstrate that the interim solution will not result in an increase in the cost of achieving the ultimate solution.
R64	A permit for subdivision must ensure that the ultimate stormwater management assets and associated land described in the precinct structure plan are provided by the developer prior to the issue of a Statement of Compliance.
R65	Stormwater conveyance and treatment must be designed in accordance with the relevant drainage strategy, to the satisfaction of Melbourne Water and the responsible authority including: • Overland flow paths and piping within road reserves will be connected and integrated across property/parcel boundaries; and • Melbourne Water and the responsible authority freeboard requirements for overland flow paths will be adequately contained within the road reserves.
R66	Final design and boundary of retarding basins, wetlands, stormwater quality treatment infrastructure and associated paths, boardwalks, bridges and planting, must be to the satisfaction of Melbourne Water and the responsible authority.
R67	The design and layout of roads, lots, and public open space must optimise water use efficiency and long-term viability of vegetation (especially existing mature River Red Gums) and public uses through the use of overland flow paths, Water Sensitive Urban Design initiatives, such as rain gardens and/or locally treated storm water for irrigation.
GUIDELINES	
G35	Where practical, development should reduce reliance on potable water by increasing the utilisation of fit-for-purpose alternative water sources such as storm water, rain water and recycled water.
G36	Where practical, development should reduce reliance on reticulated non-potable water for irrigation of vegetation, including existing mature River Red Gums, through utilisation of passive irrigation facilitated by appropriate subdivision and road design.
G37	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.
G38	Where practical, integrated water management systems should be designed to: • Maximise habitat values for local flora and fauna species; and • Enable future harvesting and/or treatment and re-use of stormwater

Plan 10 Utilities

Lindum Vale Native Vegetation Precinct Plan

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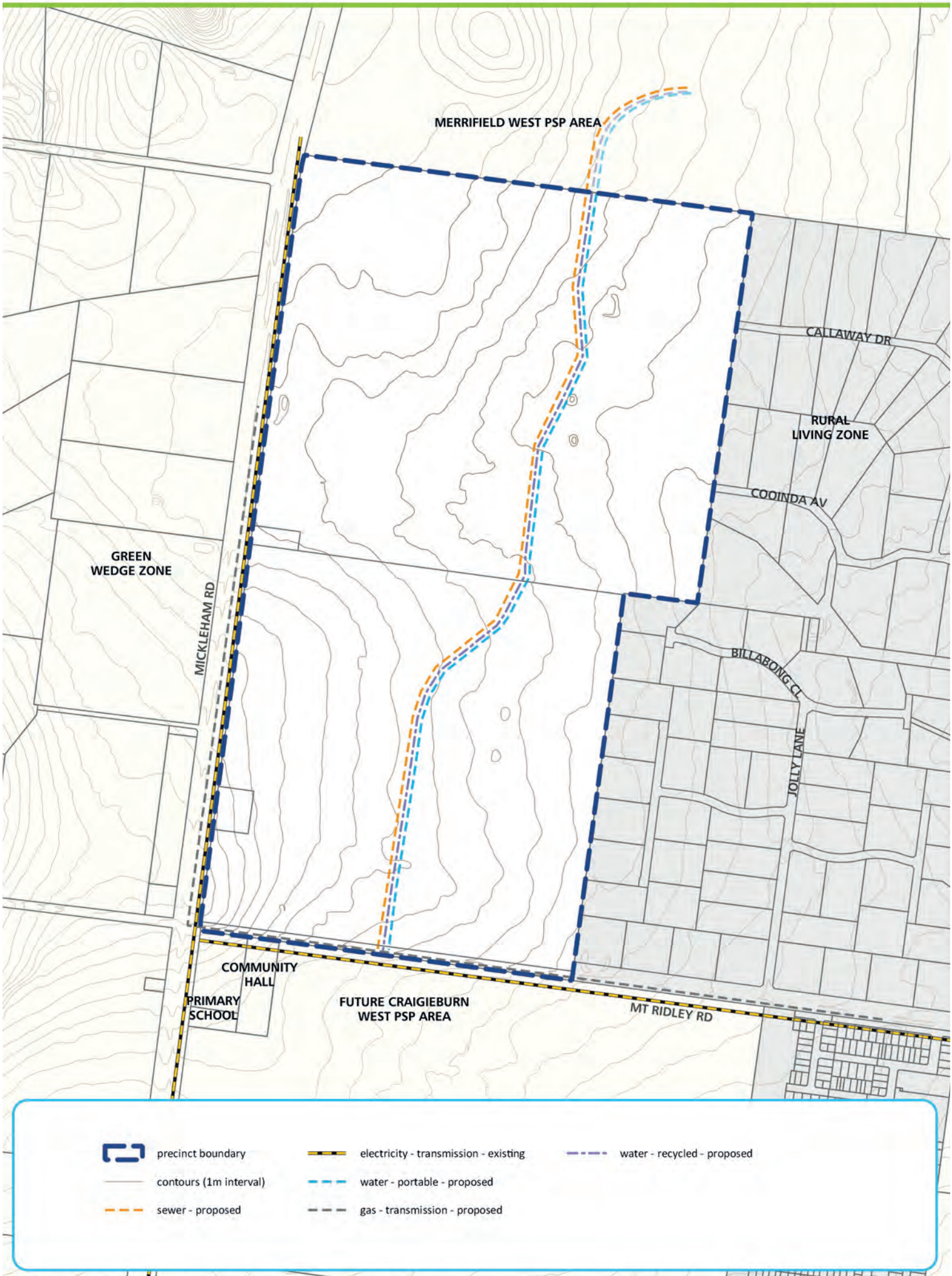

G39	Maximise the potential for integration of recreation and environmental uses on land required for integrated water management, where this does not conflict with the primary function of the open space.

3.6.2 Utilities

REQUIREMENTS	
R68	Trunk services are to be placed along the general alignments shown on Plan 10, subject to any refinements as advised by the relevant servicing authorities.
R69	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.
R70	All services must be located outside of Tree Protection Zone areas.
R71	Utilities must be placed outside any conservation areas shown on Plan 3. Utilities must be placed outside of natural waterway corridors or on the outer edges these corridors to avoid disturbance to existing waterway values, native vegetation, significant landform features and heritage sites, to the satisfaction of Melbourne Water and the responsible authority.
R72	All new electricity supply infrastructure (excluding substations and cables of a voltage greater than 66kV) must be provided underground.
R73	Where existing above ground electricity cables of 66kV voltage are retained along road ways, underground conduits are to be provided as part of the upgrade of these roads to allow for future undergrounding of the electricity supply.
R74	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.
R75	Where infrastructure is intended to be located in public open space (POS), the land required to accommodate that infrastructure will not be included as contribution to POS requirements as outlined in the Lindum Vale Infrastructure Contributions Plan.
R76	Utilities must be placed outside any conservation areas shown on Plan 3. Utilities must be placed outside of natural waterway corridors or on the outer edges these corridors to avoid disturbance to existing waterway values, native vegetation, significant landform features and heritage sites, to the satisfaction of Melbourne Water and the responsible authority.

GUIDELINES	
G40	Above ground utilities should be located outside of key view lines and screened with vegetation, as appropriate.
G41	Design and placement of underground services in new or upgraded streets should utilise the service placement guidelines outlined in Appendix D.
G42	Utility easements to the rear of lots should only be provided where there is no practical alternative.
G43	Existing above ground 66kV electricity cables should be removed and placed underground as part of the upgrade of existing roads.

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N

precinct boundary

waterway & drainage reserve

LP-01 local park & conservation reserve ID

intersection projects

road project

3.7 Precinct infrastructure plan and staging

Table 6 Precinct Infrastructure Plan

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING S = 0-5 YEARS M = 5-10 YEARS L = 10 YEARS +	INCLUDED IN ICP	ICP ITEM NO.
Road Projects						
Road	Mount Ridley Road	Upgrade existing road to interim standard Purchase land for ultimate reserve	Hume City Council	L	Yes (Interim) No (ultimate)	RD-01
Intersection Projects						
Intersection	Mickleham Road and connector boulevard	Signalised T-intersection	VicRoads	M	Yes (Interim) No (ultimate)	IN-01
Intersection	Mickleham Road and Mount Ridley Road	Signalised 4-way intersection	VicRoads	L	Yes (Interim)	IN-02
Intersection	Mount Ridley Road and boulevard connector	Signalised 4-way intersection (ultimate) Signalised T-intersection (interim)	Hume City Council	M	Yes (Interim) No (ultimate)	IN-03
Open Space Projects						
Sporting Reserve	Sports Reserve (Craigieburn West - Northern)	Land and construction of sporting reserve, including pavilion	Hume City Council	M-L	Yes	SR-01
Local Park	Passive Open Space	Central to surrounding community	Hume City Council	M	Yes (land)	LP-01
Local Park	Passive Open Space	Central to surrounding community	Hume City Council	M	Yes (land)	LP-02
Local Park	Passive Open Space	Central to surrounding community and protects tree group	Hume City Council	M	Yes (land)	LP-03
Local Park	Passive Open Space	Central to surrounding community and protects tree group	Hume City Council	M	Yes (land)	LP-04
Local Park	Passive Open Space	Central to surrounding community	Hume City Council	M	Yes (land)	LP-05
Local Park	Passive Open Space	Central to surrounding community	Hume City Council	M	Yes (land)	LP-06
Local Park	Passive Open Space	Central to surrounding community	Hume City Council	M	Yes (land)	LP-07
Local Park	Passive Open Space	Central to surrounding community	Hume City Council	M	Yes (land)	LP-08
Local Park	Passive Open Space	Central to surrounding community	Hume City Council	M	Yes (land)	LP-09
Local Park	Passive Open Space	Central to surrounding community	Hume City Council	M	Yes (land)	LP-10
Community Projects (outside precinct)						
Community	Multi-purpose Community Centre (Craigieburn West - Northern Community Hub)	Construction of a multi-purpose community centre (level 1) at Craigieburn West - Northern Community Hub, including community rooms and additional facilities to cater for childcare, kindergarten and maternal child health and land cost.	Hume City Council	M-L	Yes	CO-01
Community	Library in Mickleham Major Town Centre	Contribution to land and construction of a library	Hume City Council	M-L	Yes	CO-02

3.7.1 Subdivision works and development staging

REQUIREMENTS	
R77	Development staging must provide for the timely provision and delivery of: • Arterial road reservations; • Street links between properties, constructed to the property boundary; • Connection of the on and off-road pedestrian and bicycle network; and • Open space reserves.
R78	Subdivision of land within the precinct must provide and meet the total cost of delivering the following infrastructure: • Connector streets and local streets; • Local bus stop infrastructure (where locations have been agreed in writing by Public Transport Victoria); • Landscaping of all open space areas and streets; • Intersection works and traffic management measures along arterial roads, connector streets, and local streets (except those included in the Lindum Vale Precinct 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; and • 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.
R79	All local parks 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; • Clearing of rubbish and weeds, levelled, topsoiled and grassed with warm climate grass (unless conservation reserve requirements dictate otherwise); • Tree management works required to be undertaken to ensure retained trees are safe for public open space; • Provision of water tapping, potable and recycled water connection points; • Planting of trees and shrubs; • Provision of vehicular exclusion devices (fence, bollards, or other suitable method) and maintenance access points; • Bicycle parking facilities; 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 3).

GUIDELINES	
G44	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.
G45	The early delivery of community facilities, local parks and playgrounds is encouraged within each neighbourhood and may be delivered in stages.

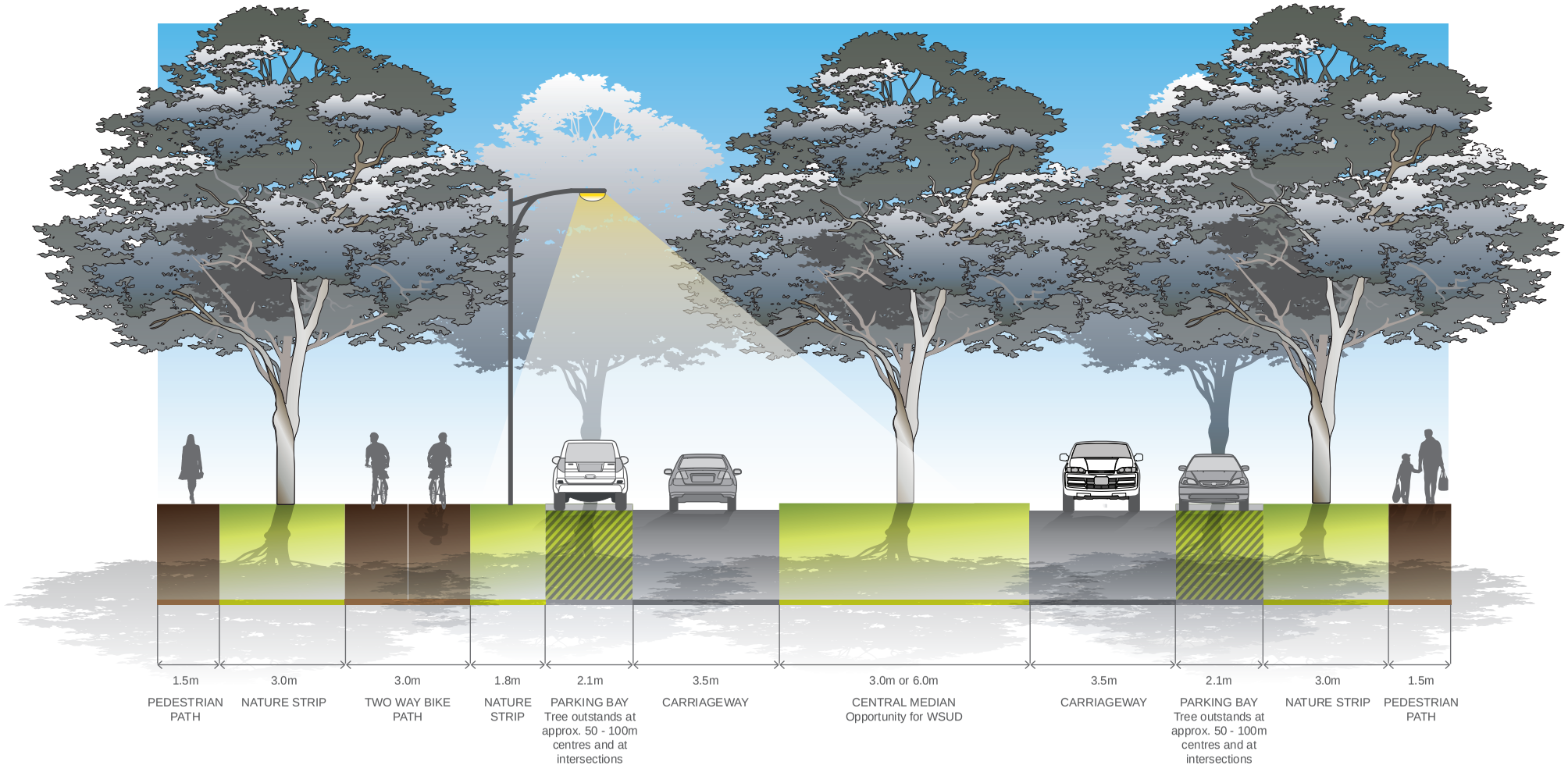
4.0 APPENDICES

4.1 Appendix A Parcel Specific Land Budget

Table 6 Parcel Specific Land Budget

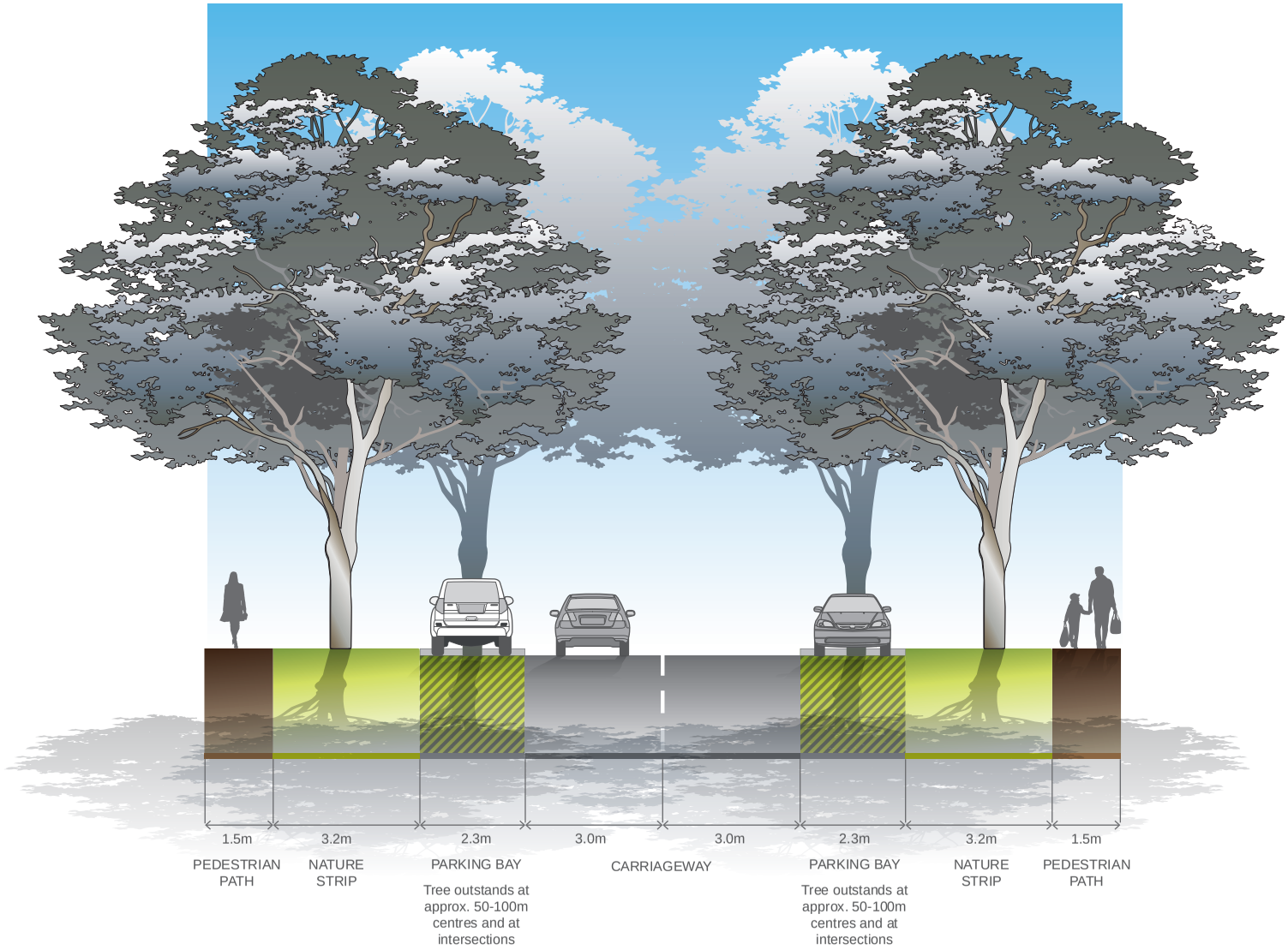
PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT					OPEN SPACE						TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
		ARTERIAL ROAD					SERVICE OPEN SPACE				CREDITED OPEN SPACE			
		ARTERIAL ROAD - EXISTING ROAD RESERVE	ARTERIAL ROAD - PUBLIC ACQUISITION OVERLAY	ARTERIAL ROAD - NEW / WIDENING / INTERSECTION FLARING (ICP LAND)	ICP COMMUNITY FACILITIES	LOCAL INDOOR RECREATION (ICP LAND)	CONSERVATION RESERVE	WATERWAY AND DRAINAGE RESERVE	UTILITIES EASEMENTS	OTHER	LOCAL SPORTS RESERVE (ICP LAND)	LOCAL NETWORK PARK (ICP LAND)		
1	78.81	-	1.61	0.27	-	-	-	12.27	4.56	7.16	-	1.24	51.70	65.59%
2	62.93	-	-	1.96	-	-	4.88	-	-	4.92	-	6.70	44.47	70.67%
3	0.69	-	-	-	-	-	-	-	-	-	-	-	0.69	100.00%
4	0.41	-	-	-	-	-	-	-	-	-	-	-	0.41	100.00%
SUB-TOTAL	142.84	0.00	1.61	2.23	0.00	0.00	4.88	12.27	4.56	12.09	0.00	7.94	97.26	68.09%
Road Reserve														
R1	1.52	1.52	-	-	-	-	-	-	-	-	-	-	0.00	0.00%
SUB-TOTAL	1.52	1.52	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
TOTALS PSP 1202	144.36	1.52	1.61	2.23	0.00	0.00	4.88	12.27	4.56	12.09	0.00	7.94	97.26	67.37%

4.2 Appendix B Standard Street cross-sections



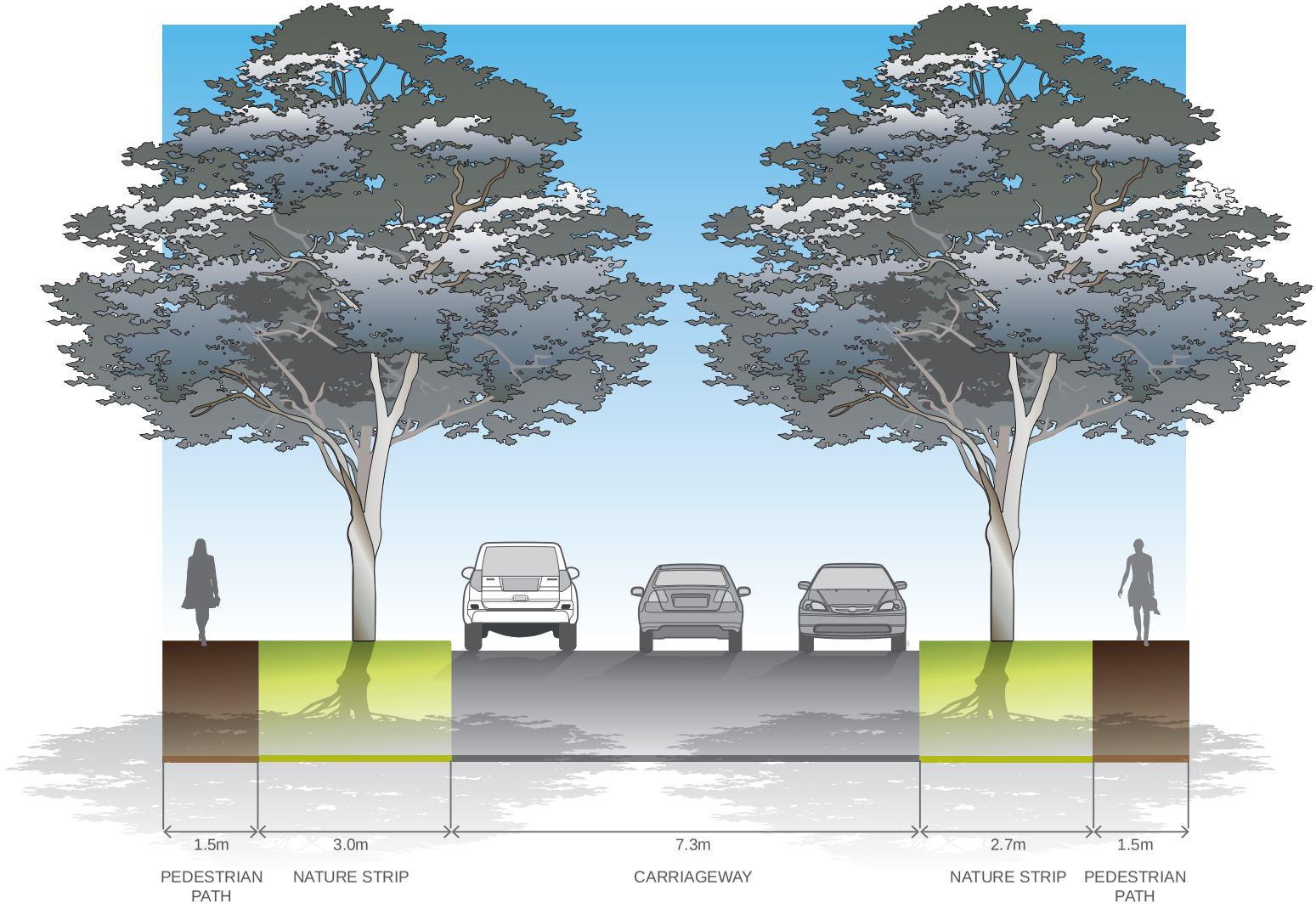
NOTES:

- 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:

- Minimum street tree mature height 12 metres
- All kerbs are to be B2 Barrier Kerb
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.



NOTES:

- Minimum street tree mature height 12 metres
- All kerbs are to be B2 Barrier Kerb (refer Engineering Design and Construction Manual for Subdivision in Growth Areas, April 2011)

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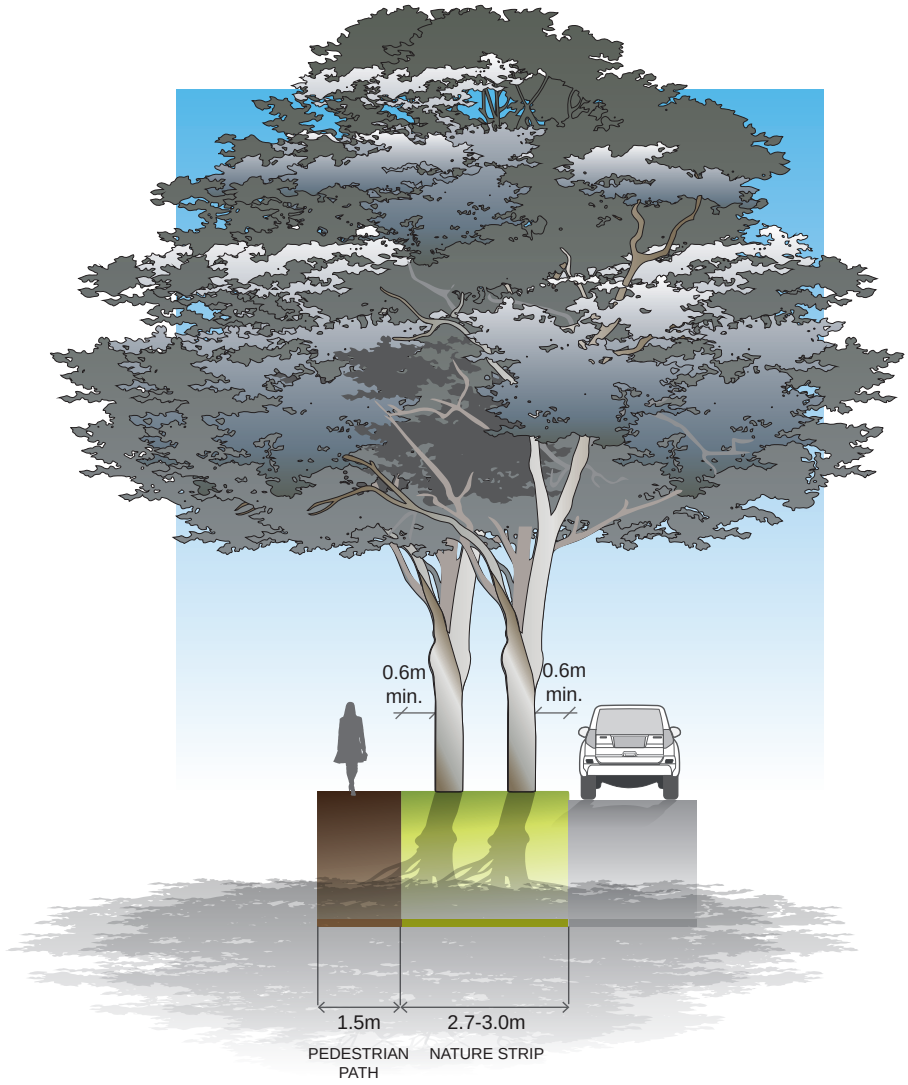
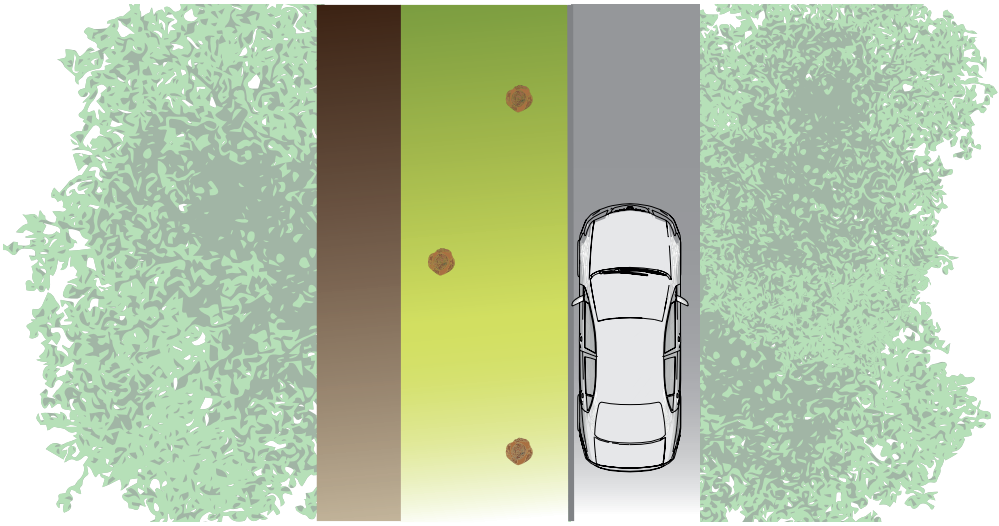


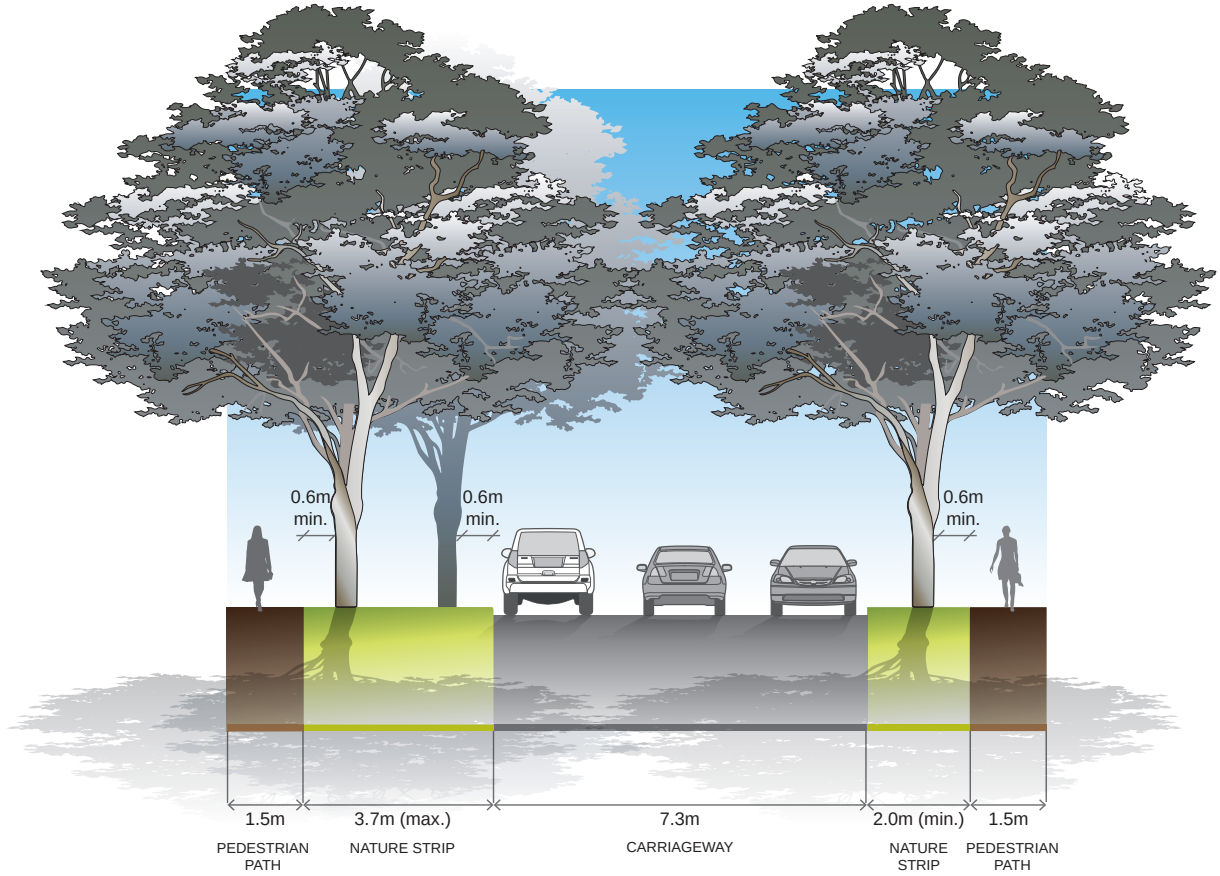


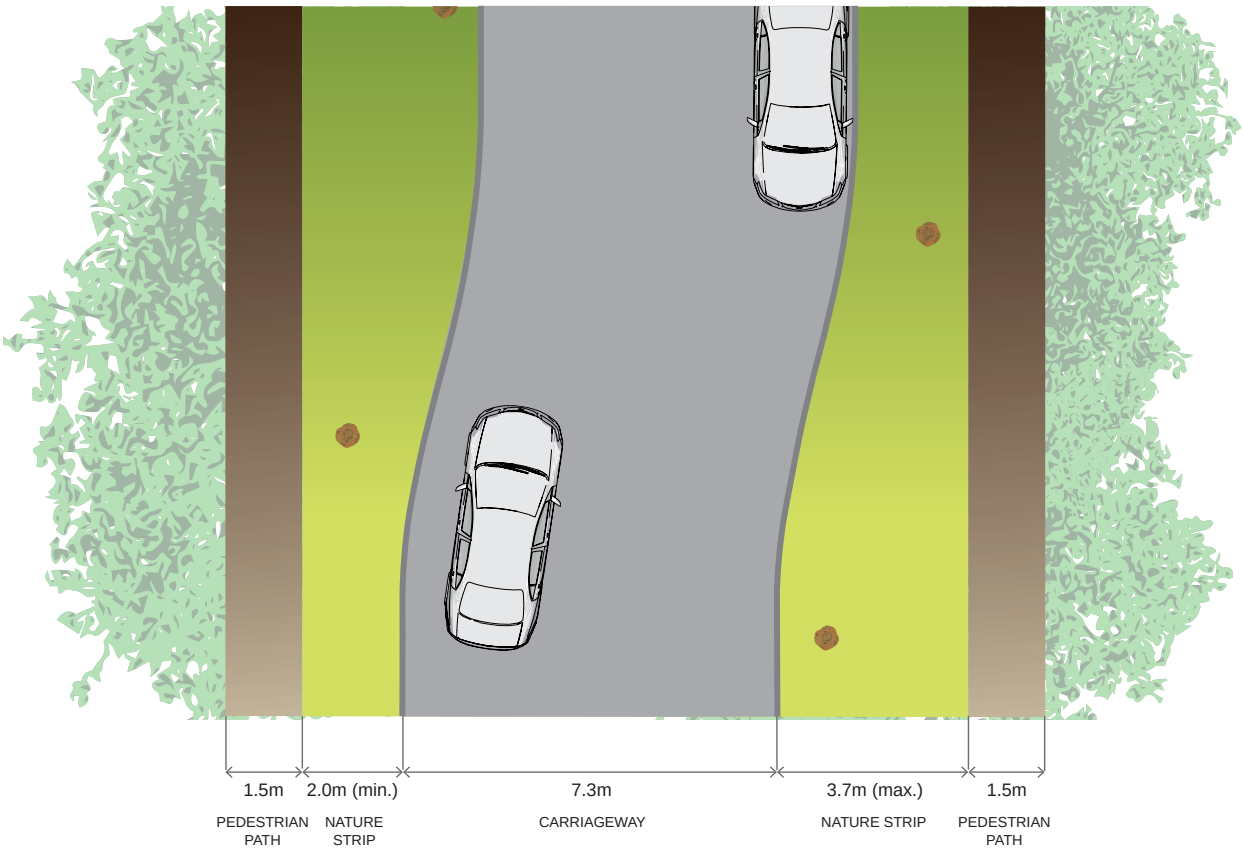
4.3 Appendix C Street cross-section variation examples

NOTES:

- Tree planting in varying locations in nature strip, in groups or clusters
- Minimum offset of tree trunks 0.6m from back of kerb and footpath edge

Local Access Street (16.0m) Level 1
Varying tree placement in nature strip

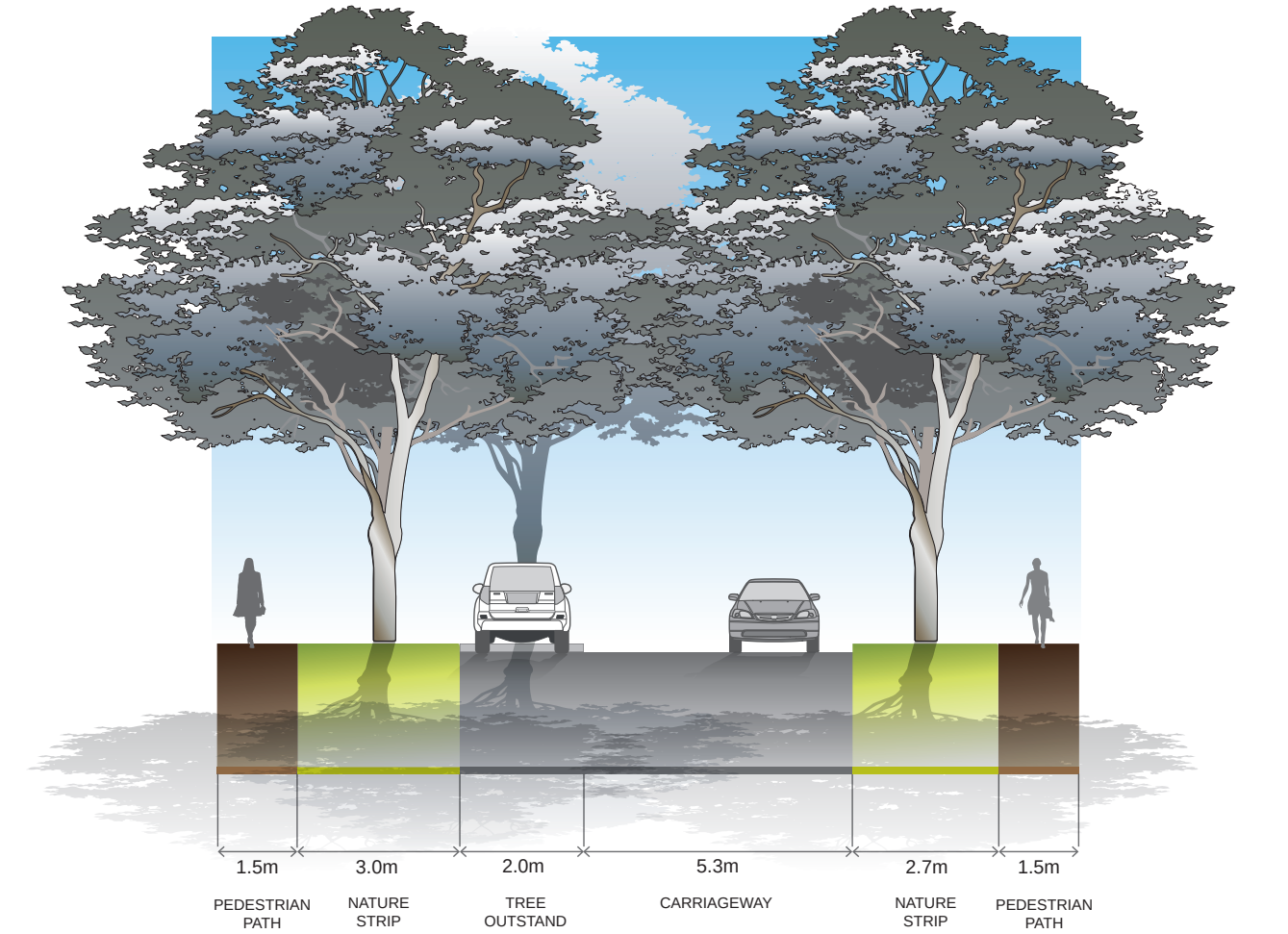


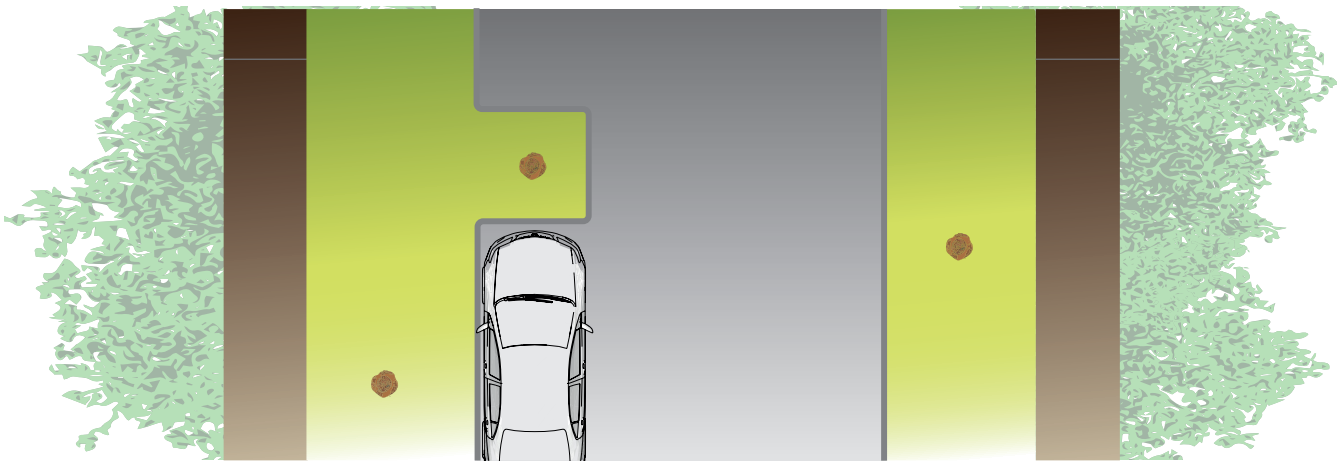


NOTES:

- Varying carriageway placement in road reserve
- Tree placement adjusts in response to carriageway location

Local Access Street (16.0m) Level 1
Varying nature strip widths / meandering carriageway





NOTES:

- Include tree outstands at approx 50 – 100m centres on one side only
- Road design to ensure passage of emergency vehicles is accommodated
- Functional layout of the kerb outstands to be to the satisfaction of the responsible authority

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4.4 Appendix D: Service Placement Guidelines

STANDARD ROAD CROSS SECTIONS

Figures 003 and 004 in the *Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)* outline 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 4.3 containing grassed nature strips, footpaths and road pavements.

NON-STANDARD ROAD CROSS SECTIONS

To achieve greater diversity of streetscape outcomes in Melbourne's growth areas, which enhances character and amenity of these new urban areas, non-standard road cross sections are required. Non-standard 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, however other non-standard outcomes are encouraged.

For non-standard road cross sections where service placement guidance outlined in Figure 003 and 004 in the *Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)* is not applicable, the following service placement guidelines will apply.

	UNDER PEDESTRIAN PAVEMENT	UNDER NATURE STRIPS	DIRECTLY UNDER TREES1	UNDER KERB	UNDER ROAD PAVEMENT	WITHIN ALLOTMENTS	NOTES
SEWER	Preferred	Possible	Possible	No	Possible	Possible[3]	
POTABLE WATER	Possible[4]	Preferred	Preferred	No	No	No	Can be placed in combined trench with gas
RECYCLED WATER	Possible[4]	Preferred	Preferred	No	No	No	
GAS	Possible[4]	Preferred	Preferred	No	No	No	Can be placed in combined trench with potable water
ELECTRICITY	Preferred[4]	Possible	Possible	No	No	No	Pits to be placed either fully in footpath or nature strip
FTTH/TELCO	Preferred[4]	Possible	Possible	No	No	No	Pits to be placed either fully in footpath or nature strip
DRAINAGE	Possible	Possible	Possible	Preferred	Preferred	Possible[3]	
TRUNK SERVICES	Possible	Possible	Possible	Possible	Preferred	No	

NOTES

1 Trees are not to be placed directly over property service connections.

2 Placement of services under road pavement is to be considered when service cannot be accommodated elsewhere in road reserve. Placement of services beneath edge of road pavement/ parking bays is preferable to within traffic lanes.

3 Where allotment size/frontage width allows adequate room to access and work on a pipe.

4 Where connections to properties are within a pit in the pedestrian pavement/footpath.

GENERAL PRINCIPLES FOR SERVICE PLACEMENT

- 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.

4.5 Appendix E Local Convenience Centre Design Guidelines

PRINCIPLES	GUIDELINES
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 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 in this PSP. • 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 nearby Local Town Centres 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 Public Transport Victoria Public Transport Guidelines for Land Use and Development, to the satisfaction of the 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. • 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.


Victorian Planning Authority