

Beveridge NorthWest

Precinct Structure Plan

Part A Version

April 2022

Commented [VPA1]: Date and Version change

CONTENTS

1	INTRODUCTION	5
1.1	How to read this document.....	7
1.2	Infrastructure Contributions Plan	7
1.3	Background Information	7
1.4	Land to which this PSP applies	7
2	Outcomes	9
2.1	Vision.....	9
2.2	Objectives.....	9
2.3	Precinct Land Use Budget.....	12
3	Implementation	14
3.1	Image, Character, Heritage and Housing	14
3.2	Town Centres & Employment.....	20
3.3	Open Space, Community Facilities & Education	23
3.4	Biodiversity and Bushfire Management	28
3.5	Transport & Movement.....	32
3.6	Integrated Water Management & Utilities	35
3.7	Precinct Infrastructure Plan & Staging.....	39
4	Appendices	41

4.1	Town Centre Hierarchy – External to Precinct	41
4.2	Anticipated Population and Employment Creation within Precinct..	42
4.3	Precinct Infrastructure Plan.....	43
4.4	Parcel Specific Land Budget.....	48
4.5	Beveridge North West Local Town Centre – Design Principles	49
4.6	Local Convenience Centre Performance Criteria.....	53
4.7	Street Cross Sections	54
4.8	Service Placement Guidelines	63

PLANS

Plan 1 - Regional Context.....	4
Plan 2 - Precinct Features	6
Plan 3 - Future Urban Structure	8
Plan 4 - Land Use Budget	11
Plan 5 - Image Character and Housing	13
Plan 6 - Slope and Landform.....	18
Plan 7 - Open Space & Community Facilities.....	22
Plan 8 - Bushfire Hazards.....	27
Plan 9 - Street Network	30
Plan 10 - Public Transport & Path Network	31
Plan 11 - Integrated Water Management	34
Plan 12 - Utilities	36
Plan 13 - Precinct Infrastructure Plan	38

TABLES

Table 1 - Precinct Land Use Budget	12
Table 2 - Neighbourhood Design Guide	16
Table 3 - Sensitive Interface Area Outcomes	17
Table 4 - Sites on Sloping Land	19
Table 5 - Beveridge North West Town Centre Hierarchy	20
Table 6 - Southern Town Centre Flexible Design Area – Performance Requirements & Guidelines	21
Table 7 - Credited Open Space Delivery Guide	25
Table 8 - Bushfire Hazard Vegetation Management & Setback Requirements	29
Table 9 - Water Infrastructure	37

Precincts and Activity Centres

- precinct area
- national employment and innovation cluster
- Metropolitan Activity Centre - existing
- Metropolitan Activity Centre - future
- Activity Centre - existing and future
- education precinct
- health precinct
- industrial precinct - existing
- industrial precinct - future
- state-significant industrial precinct - existing
- state-significant industrial precinct - future

Transport

- transport gateway - major airport
- intermodal freight terminal (future)
- rail network
- train station
- tram network
- transport projects - potential future**
- Outer Metropolitan Ring/E6 reservation

Environment

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

Administration

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

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

Commented [VPA2]: Update Map: Concentric rings now to scale

1 INTRODUCTION

The Beveridge North West Precinct Structure Plan (the PSP) has been prepared by the Victorian Planning Authority (VPA) with the assistance of Mitchell Shire 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.

Generally, 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, illustrates the future urban structure and describes the outcomes to be achieved by the future development
- acknowledges the precinct may develop in conjunction with a time-restricted quarry at WA 1473
- 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) in accordance with an endorsed program under Part 10.

The PSP is informed by:

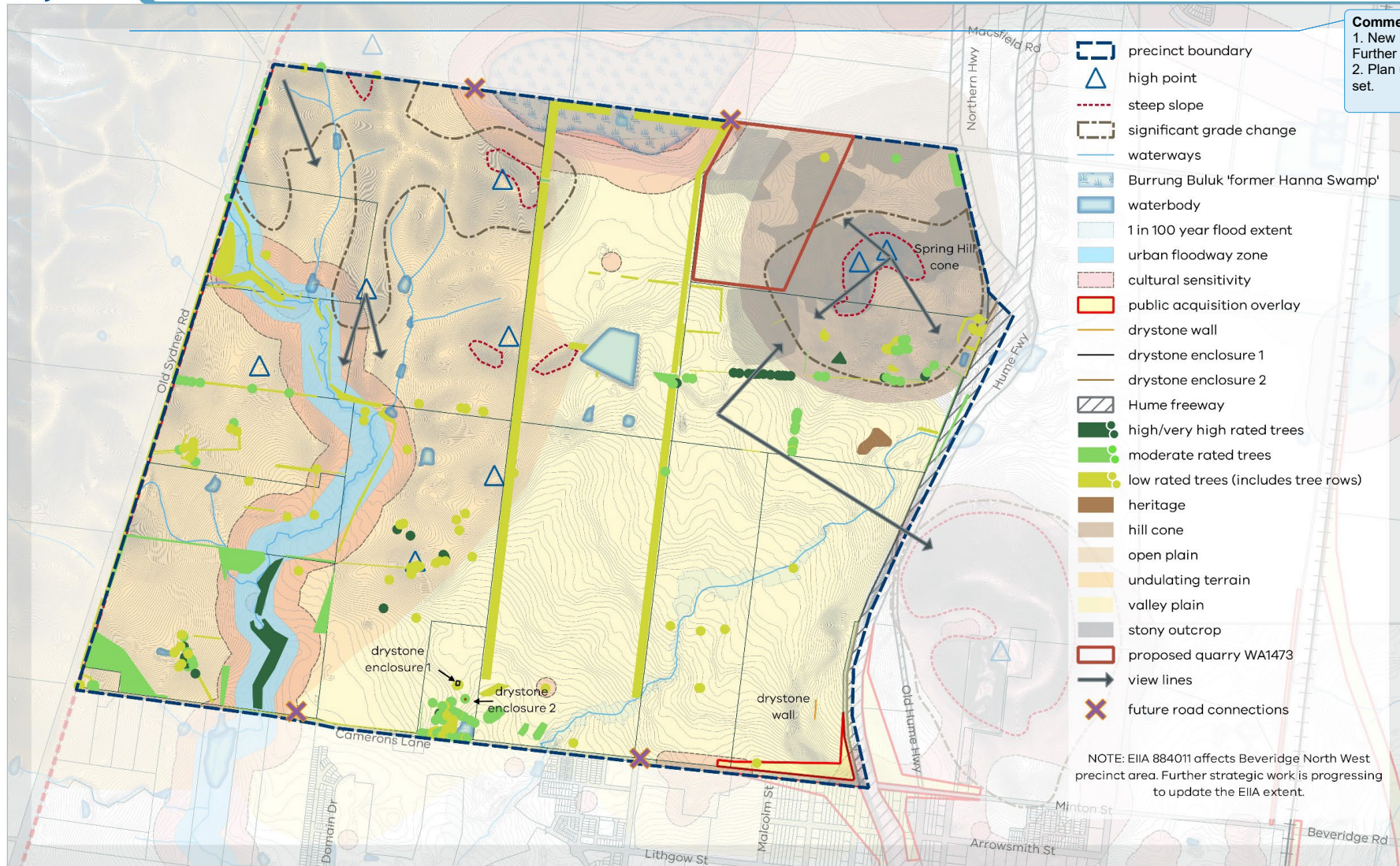
- *Plan Melbourne – Metropolitan Planning Strategy*, May 2017
- *The State Planning Policy Framework* as set out in the *Mitchell Planning Scheme*
- *The Growth Corridor Plans: Managing Melbourne's Growth* (Growth Areas Authority, June 2012)
- The Local Planning Policy Framework as set out in the *Mitchell Shire Planning Scheme*

- *The Biodiversity Conservation Strategy and Sub Regional Species Strategies for Melbourne's Growth Areas* (Department of Environment and Primary Industries, June 2013)
- *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 *Beveridge North West Infrastructure Contributions Plan* (ICP) requires development proponents to make a contribution toward infrastructure required to support the development of the Precinct
- The *Beveridge North West Background Report* (Background Report).

In preparing this PSP, the VPA has worked with relevant stakeholders to encourage innovative approaches to community engagement and affordable housing.



Commented [VPA3]: Changes to Plan as follows:
1. New Note – "EIIA 884011 affects the whole precinct area. Further strategic work is progressing to update the EIIA extent"
2. Plan updated to be consistent with other changes in the plan set.

1.1 How to read this document

This PSP guides land use and development where a planning permit is required under Schedule 3 to the Urban Growth Zone (Clause 37.07 of the *Mitchell Planning Scheme*), or any other provision of the Mitchell Planning Scheme that references this PSP.

A planning application and subsequent 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 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 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 vision of the PSP.

Conditions that must be included in a planning permit are outlined in Schedule 3 to the Urban Growth Zone (UGZ) in the Mitchell Planning Scheme.

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 Infrastructure Contributions Plan

Development proponents within Beveridge North West Precinct will be bound by the *Beveridge North West Infrastructure Contribution Plan* (the ICP). The ICP sets out requirements for infrastructure funding across the Beveridge North West Precinct.

The ICP will be incorporated in the *Mitchell Planning Scheme*.

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

1.3 Background Information

The Beveridge North West PSP Background Report provides detailed background information relating to the precinct, including its local and metropolitan context, history, landform and topography, biodiversity, drainage, open space, transport infrastructure, employment and community facilities. The report also summarises various background technical studies that have informed the preparation of the PSP Land to which this PSP applies.

1.4 Land to which this PSP applies

Beveridge North West, PSP 1059, covers 1,279 hectares located approximately 40km north of the Melbourne CBD. The precinct is bounded by the Hume Freeway to the east, Camerons Lane to the south, Old Sydney Road to the west and Hadfield Road reservation to the north. The precinct is illustrated on Plan 2- Precinct Features.

The Beveridge North West precinct contains generous plains, gently sloping valleys, undulating hills inclusive of distinctive hilltops and remnant volcanic cones, while Kalkallo Creek flows through the western portion of the PSP. High quality native vegetation has been identified in the Beveridge North West portion of Burrung Buluk (former Hanna Swamp). A basalt flow containing a high-quality hard rock resource has been identified to the west of Spring Hill.



Commented [VPA4]: Changes to plan as follows:
 1. School site resized from 3.79 ha to 3.5 ha for school site for proposed government schools Kalkallo Creek P6 and Hilltops P6
 2. Amended shape of non-government school on property BN-15
 3. Updated Kalkallo Creek DSS in line with Melbourne Water requirements, including revision of western Town Centre and updated SR-04.
 4. Plan updated to be consistent with other changes in the plan set.

2 OUTCOMES

2.1 Vision

The Beveridge North West PSP provides a strong framework for the delivery of a resilient community through the early delivery of facilities, flexibility in planning, sensitive response to the landscape and an innovative approach to the delivery of services.

The PSP will develop over an approximate 20–30-year duration. During the development of the precinct, there may be a quarry as per Works Authority 1473. The Planning Scheme limits any extraction works in any quarry to an extraction timeframe of 20 years. Following cessation of any quarry and rehabilitation to a residential standard, urban development will continue to develop as set out in the PSP.

The precinct will be defined by its high-quality residential neighbourhoods - located between ridgelines, prominent volcanic cones and rolling hills. A significant network of open spaces formed by waterways, hilltops and linear parks will connect the diverse residential neighbourhoods within the area. There is potential for the hilltop environments and the area designated as 'Ecological values' identified on Plan 3 Burrung Buluk (formerly known as Hanna Swamp) retained, high quality native vegetation portion of Burrung Buluk (former Hanna Swamp) to form part of a future regional parkland.

Beveridge North West will be home to resilient communities who will have early access to a range of facilities, including health care, education, recreation and community infrastructure. These will be located adjoining local town centres with the precinct anchored by a viable mixed-use town centre at the junction of the waterways and Camerons Lane. East of the Hume Freeway, the Beveridge Intermodal Freight Terminal (BIFT) is currently in the early stages of planning.

The Precinct will take full advantage of planned infrastructure, including an efficient connection to the Hume Freeway via the future construction of Camerons Lane Interchange and will be supported by a series of local arterial roads that can accommodate high frequency public transport. High amenity streets and trails will encourage people to cycle and walk to key local destinations. The orientation of the local road network will emphasise the visually

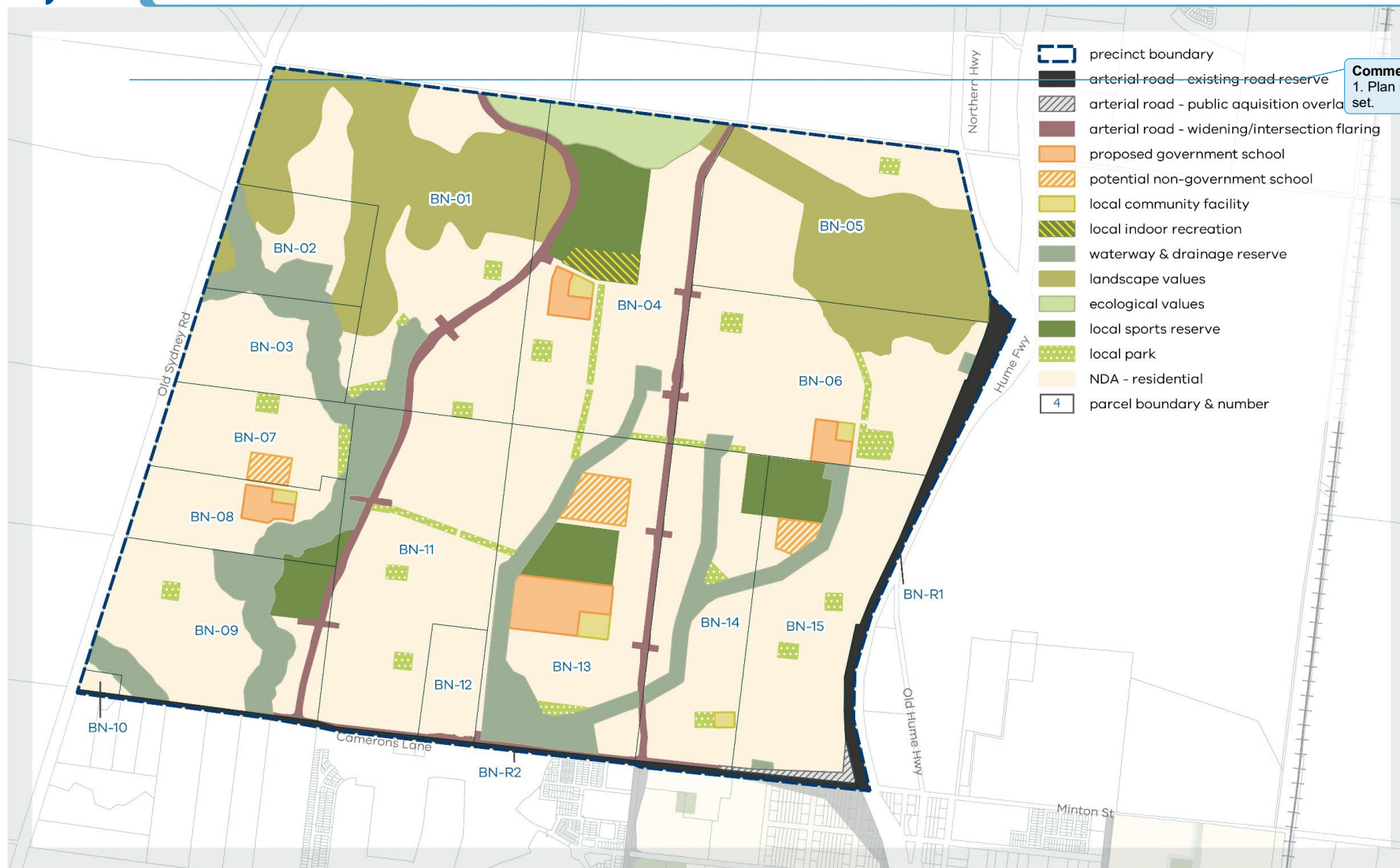
important landscape features, particularly Spring Hill and the hill tops to the north. This will create a unique sense of place for future residents.

Future residents will enjoy genuine diversity of housing, which will range from conventional residential lots through to well-designed higher density housing near the town centres. The unique topography of the site offers the opportunity to provide bespoke housing, that responds to the landscape through design and orientation, on the hillsides.

The most valued parts of the landscape will be revived and enhanced through the rehabilitation and replanting of Kalkallo Creek and the hilltops, coupled with the construction of wetlands and water retention facilities on the open plains.

2.2 Objectives

KEY PSP OBJECTIVES	
01	Provide a framework for a high amenity and integrated urban environment that encourages a sense of place and community, as well as responds to the existing natural, cultural and built features.
02	Facilitate housing affordability and choice at densities that supports local services, access to jobs and sustainable transport options.
03	Support investment in an innovative and vibrant local and regional economy within a network of highly accessible activity and employment centres that support jobs and business activity.
04	Identify and guide timely delivery of essential adaptable and multi-purpose open space, community and other essential infrastructure to support development.
05	Facilitate 20-minute neighbourhoods by providing for an integrated transport network that supports active and public transport options, movement of goods and connections to jobs.
06	Facilitate safe, resilient, water sensitive, environmentally sustainable urban environments that respond to climate change and other hazards.
07	Provide appropriate transitions and interfaces with adjoining and existing land uses.



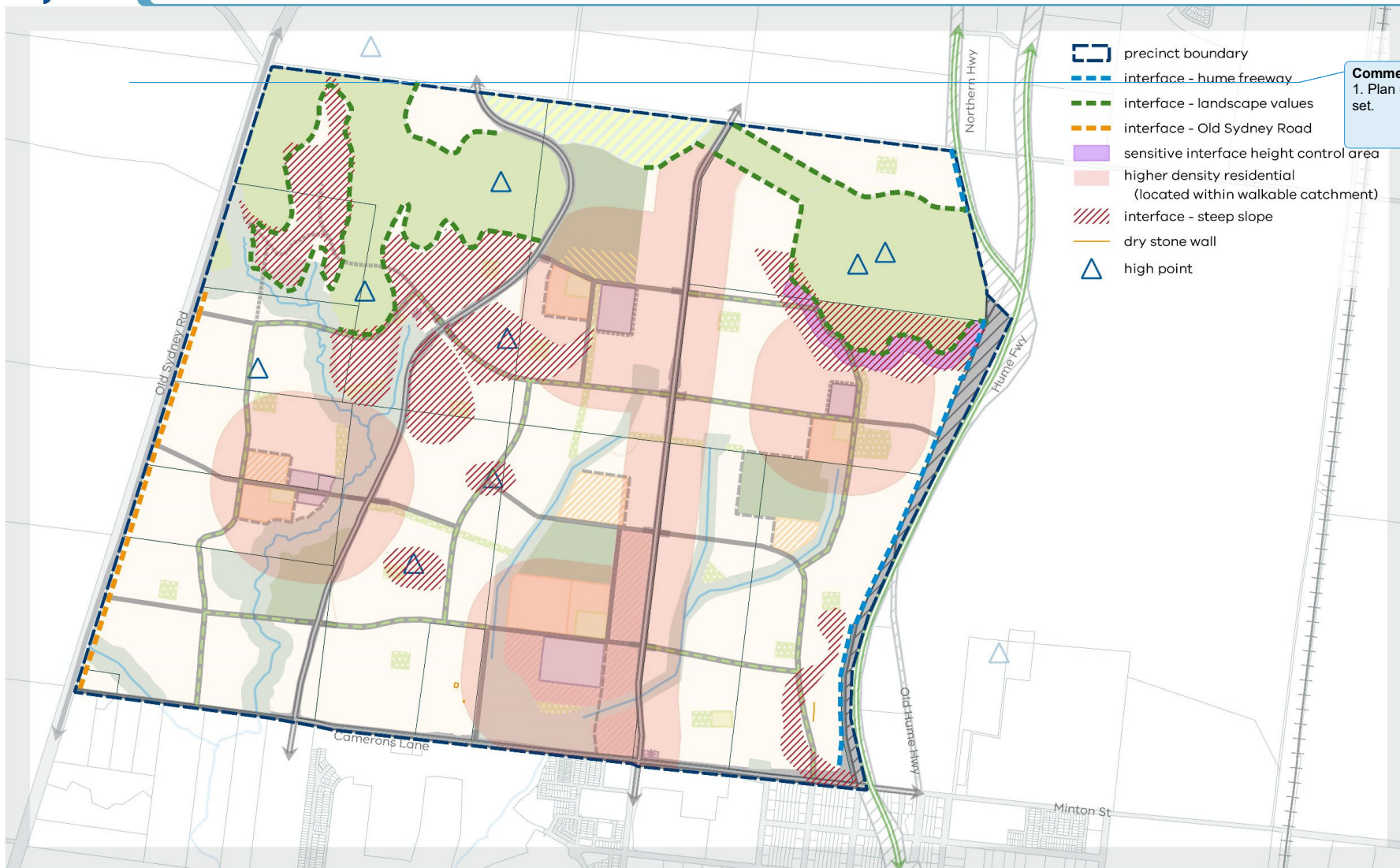
- precinct boundary
- arterial road - existing road reserve
- arterial road - public aquisition overlay
- arterial road - widening/intersection flaring
- proposed government school
- potential non-government school
- local community facility
- local indoor recreation
- waterway & drainage reserve
- landscape values
- ecological values
- local sports reserve
- local park
- NDA - residential
- parcel boundary & number

Commented [VPA5]: Changes to the Plan as follows:
1. Plan updated to be consistent with other changes in the plan set.

2.3 Precinct Land Use Budget

Table 1 - Precinct Land Use Budget

Description	PSP 1059		
	AREA	% OF TOTAL	% OF NDA
TOTAL PRECINCT AREA (ha)	1,279.35		
Transport			
Arterial Road - Existing Road Reserve	25.50	1.99%	3.32%
Arterial Road - Public Acquisition Overlay	2.61	0.20%	0.34%
Arterial Road - New / Widening / Intersection Flaring (ICP land)	35.44	2.77%	4.61%
Sub-Total Transport	63.54	4.97%	8.26%
Community & Education			
ICP Community Facilities	10.60	0.83%	1.38%
Government School	22.39	1.75%	2.91%
Potential Non-Government School	13.00	1.02%	1.69%
Sub-Total Community & Education	45.99	3.59%	5.98%
Open Space			
Uncredited Open Space & Regional Open Space			
Waterway and Drainage Reserve	125.36	9.80%	16.30%
Landscape Values	175.20	13.69%	22.79%
Ecological Values	21.17	1.65%	2.75%
Sub-Total Uncredited Open Space & Regional Open Space	321.74	25.15%	41.84%
Credited Open Space			
Local Network Park (ICP land)	23.97	1.87%	3.12%
Local Sports Reserve (ICP land)	55.22	4.32%	7.18%
Sub-Total Credited Open Space	79.19	6.19%	10.30%
Total All Open Space	400.93	31.34%	52.14%
Total net developable area - total ha	788.39	60.11%	
Net developable area - residential (total) ha	788.39	60.11%	
Net developable area - employment (total) ha	-	-	



Commented [VPA6]: Changes to the plan as follows:
1. Plan updated to be consistent with other changes in the plan set.

3 IMPLEMENTATION

3.1 Image, Character, Heritage and Housing

3.1.1 Image, character, landscape & heritage

REQUIREMENTS

R1	<p>Subdivision layouts including road alignment, lot diversity and housing typologies must positively respond to the natural features of the area, including (but not limited to):</p> <ul style="list-style-type: none"> • topographical features and slopes • landscape Values • Kalkallo Creek • <u>retained, high quality native vegetation portion of Burrung Buluk (former Hanna Swamp)</u> • rural landscape interface west of old Sydney Road.
	<u>Subdivision layouts must include a Native Vegetation Retention and Removal Plan; subject to such a plan being required by the Department of Environment, Land, Water and Planning.</u>

GUIDELINES

G1	Subdivision layouts and development should respond to and address the relevant provisions of the Urban Design Guidelines for Victoria.
G2	Subdivisions that retain lots around existing dwellings should be designed to ensure that the future subdivision of retained lots will appropriately integrate with the surrounding subdivision layout.
G3	<p>Lots should front (in order of priority where a lot fronts multiple elements):</p> <ul style="list-style-type: none"> • public open space • landscape areas • local access streets • connector roads • arterial roads.
G4	Subdivision design should incorporate natural and constructed design elements which respond to local heritage, neighbouring land uses and

	topography to assist in place making and the achievement of a "sense of place".
G5	Significant landscape features, such as high points, vegetation, open space and waterways, should be used as focal points for view lines along streets.
G6	Where possible, salvaged rocks should be incorporated into the design of waterways, retaining structures, fences and other landscape features.
G7	Landmark sites on gateway entry points where shown on Plan 2 should be planned, developed and landscaped to create a sense of arrival and entry.
G8	A consistent suite of lighting and furniture should be used across neighbourhoods, appropriate to the type and role of street or public space, to the satisfaction of the responsible authority.
G9	Subdivision design should respond sensitively to the visual setting and character of heritage places.
G10	Aboriginal and historic cultural heritage should be recognised through the design of public places, infrastructure and interpretive installations. Opportunity should be explored through cultural heritage interpretation trails along public path networks in areas of known historic cultural history or areas of Aboriginal cultural heritage sensitivity, in consultation with relevant stakeholders
G11	Signage or interpretive opportunities should be integrated into the public realm to contribute to the knowledge and understanding of the local area's Aboriginal cultural and historic cultural history.
G12	<p>Dry stone walls that are retained should:</p> <ul style="list-style-type: none"> • be situated within public open space or a 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), 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 • 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.

G13	<p>Any reinstatement or repair of dry stone walls should 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):</p> <ul style="list-style-type: none"> 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 any walls approved for removal in the nearby area (including any stone which has been stockpiled by the responsible authority). <p>A list of suitably qualified professionals can be obtained from the responsible authority and the Dry Stone Walls Association of Australia.</p>
------------	---

3.1.2 Housing

REQUIREMENTS	
R2	Subdivision for residential development must provide for a diverse neighbourhood character by providing a range of lot sizes and dwelling types in appropriate locations across the Precinct, including achieving minimum average densities as specified in Table 2. The minimum average densities specified in Table 2 only apply to the residential component of a mixed-use development.
R3	Development adjoining the Sensitive Interface Areas identified in Plan 5 must be developed in accordance with the outcomes specified in Table 3
R4	Development must provide for active frontages to adjoining open space, landscape values areas, and waterway corridors.

GUIDELINES	
G14	<p>Subdivision should deliver a broad mix of lots that are an appropriate size and shape to support the planned neighbourhood character of the precinct, as specified in Table 2, by:</p> <ul style="list-style-type: none"> Providing a range of lot sizes, widths, depths and densities Providing higher residential densities and more intensive building typologies in locations where they will: <ul style="list-style-type: none"> support the viability and vibrancy of activity centres, access to community infrastructure and amenities

	<ul style="list-style-type: none"> have good access to public transport and support walking and cycling make a positive impact to planned neighbourhood character and identity.
G15	<p>Subdivision should provide a street separating private lots from adjoining open space, landscape value areas and waterways corridors. A street is to be provided for the waterway corridor adjacent to a proposed government school site. If not adjacent to a government school and if a street is not provided:</p> <ul style="list-style-type: none"> A "paper road" should be provided along the lot frontage that includes a footpath or shared path with a minimum dimension of 1.5 metres Lots should directly address the open space/waterway corridor and maximise opportunities for informal passive surveillance Vehicle access should be provided via a rear laneway. <p>All to the satisfaction of the responsible authority and Melbourne Water where adjacent to a waterway.</p> <p>See Appendix 4.5 for open space interface guidance.</p>
G16	An application for subdivision of land into residential lots or development of land for residential or mixed-use purposes should provide affordable housing as defined by the Planning and Environment Act 1987. The affordable housing should be located within walkable catchments and provide for a range of housing typologies to meet demonstrated local need.
G17	<p>Subdivision applications for super-lots identified for future medium density, high density, or integrated housing should demonstrate:</p> <ul style="list-style-type: none"> expected dwelling yield connections and active interfaces with adjacent streets, open space and waterways safe and effective internal vehicle and pedestrian circulation indicative treatments for sensitive interfaces, as identified in Plan 5.
G18	<p>Specialised housing forms, such as retirement living, or aged care should:</p> <ul style="list-style-type: none"> be integrated with adjoining development be accessible by public transport not present a barrier to movement through the surrounding road network be located within walkable catchments as shown on Plan 3.

Table 2 - Neighbourhood Design Guide






Note: The minimum average density provides guidance regarding the expected quantum of housing to be delivered within a development area. Applications for subdivision that do not meet the minimum average density but can demonstrate how the requirement will be achieved over time may be considered.

Development area	Planned neighbourhood character	Min avg density (dw/ndha)
Town Centre	Development will have an urban built character characterised by the greatest scale and intensity of built form within the precinct. Housing will generally comprise more intensive typologies with a form and scale that reinforces the town centres' sense of place and role as focal point for commercial and community activity.	25
Mixed use	The mixed-use area is anticipated to be used for primarily commercial and employment-based activities. Development will have an urban built character, characterised by a transition in scale and intensity between activity centres and residential areas. Where residential activities are proposed, housing will generally comprise more intensive typologies with a form and scale that makes a positive contribution to the vitality and vibrancy of town centres and supports the provision of public transport and community infrastructure.	25
Residential – Within walkable catchment	Development will have an urban neighbourhood character, characterised by buildings up to four storeys in height. Housing will comprise a variety of typologies, including low-rise apartments buildings, terraced homes and townhouses (including rear-loaded product), and detached dwellings.	25
Residential - Standard	Development will have a traditional suburban neighbourhood character characterised by buildings up to three storeys in height. Housing will generally comprise detached and semi-detached typologies, however more intensive forms of development such as terraced homes and townhouses may be provided in proximity to areas of high amenity, or where it can be demonstrated that a positive contribution will be made to neighbourhood character and identity.	18
Residential - Sloping Land	Development will have a variation in built form ranging from a natural/rural to traditional suburban character. Housing will generally comprise detached typologies using split-level, suspended or platform construction techniques. More intensive forms of development such as terraced homes may be provided where it can be demonstrated that the proposed response to landform will make a positive contribution to neighbourhood character and identity.	15
Residential – Sensitive Interface Area A – Old Sydney Road / Urban Growth Boundary	Development will have a rural landscape character generally characterised by larger residential lots. Housing will generally comprise detached typologies with sufficient setbacks and on-site landscaping to maintain the sense of an open and spaciousness environment at the interface of the urban growth boundary. More intensive forms of development such as terraced homes and townhouses may be provided in proximity to areas of high amenity, or where it can be demonstrated that a positive contribution will be made to neighbourhood character and identity.	12
Residential– Sensitive Interface Area B – Landscape	Development will have a natural landscape character generally characterised by larger residential lots. Housing will generally comprise detached typologies with sufficient setbacks and on-site landscaping to maintain the sense of an open and spaciousness environment, and to minimise adverse visual impacts into the Rural Conservation Zone. More intensive forms of development such as terraced homes and townhouses may be provided in proximity to areas of high amenity, or where it can be demonstrated that a positive contribution will be made to neighbourhood character and identity.	15.5
Total Average Density (Dw/NDHa)		20

Table 3 - Sensitive Interface Area Outcomes

Criteria	Sensitive interface areas		
	A Old Sydney road / Urban growth boundary	B landscape values	C Hume Freeway
Depth of Interface	First rows of lots adjoining the interface area.	First row of lots adjoining the interface area.	First row of lots adjoining the interface area.
General	One dwelling per lot		Must meet the requirements of 'VicRoads Traffic Noise Reduction Policy, 2005
Building Setbacks and Interface	<ul style="list-style-type: none"> • Lots should front onto Old Sydney Road • Building Setbacks: <ul style="list-style-type: none"> – Minimum 10m from Old Sydney Road reserve. Minimum 3m from side boundaries. <p>Building height should not exceed 1 storey above ground.</p>	The height of buildings should not impact the view lines into the RCZ, which should be maintained at <u>no more than at the equivalent</u> of 2 storeys (above ground).	Must provide an internal road adjacent to the acoustic noise wall as demonstrated in the freeway interface cross section – see Appendix 4.5.

Commented [VPA7]: Changes to the Plan as follows:
1. Plan updated to be consistent with other changes in the plan set.

-  precinct boundary
-  moderate slope (5 - 10%)
-  steep (10 - 15%)
-  very steep (15 - 20%)
-  extremely steep (> 20%)



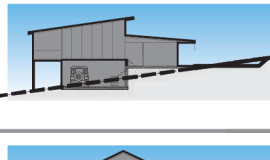




3.1.3 Topography

REQUIREMENTS	
R5	Subdivision of land with a design slope greater than 10% must respond to and address the dwelling construction methods shown in Table 4. Alternative responses that demonstrate a contextually appropriate response to development on sloped land may also be considered.
R6	Where retaining structures or changes to ground levels are necessary, they must be incorporated as a positive landscape or site feature by: <ul style="list-style-type: none"> integrating retaining as part of the building design by including the level difference within the building where practicable retaining walls or changes in ground level over 1m in height should be attractively designed and landscaped, and stepped where practicable, to avoid visual dominance or overshadowing effects as viewed from the street or the boundary of the application area.

GUIDELINES	
G19	Any retaining structures within public and private spaces (except for those which are part of a building) should be: <ul style="list-style-type: none"> no more than 1.0 metres in height between a dwelling and a street or public space, or where visible from a street or public space set back at least 1.0 metres from any building envelope staggered, with a minimum 0.75 metre distance between each stagger to allow for the inclusion of landscaping where cutting and filling is deeper than 1.0 metres positioned so that associated drainage infrastructure and structural foundation are fully located within the same lot.

Table 4 - Sites on Sloping Land

 EXTREME > 20° STEEP 14-18° MODERATE 6-12° FLAT 0 - 6°		<input checked="" type="checkbox"/> Single slab on ground <input checked="" type="checkbox"/> Split or multiple slab for slopes over 4° <input checked="" type="checkbox"/> Post and beam
		<input checked="" type="checkbox"/> Single slab on ground <input checked="" type="checkbox"/> Split or multiple slab <input checked="" type="checkbox"/> Post and beam
		<input checked="" type="checkbox"/> Single slab on ground <input checked="" type="checkbox"/> Split or multiple slab <input checked="" type="checkbox"/> Post and beam
		<input checked="" type="checkbox"/> Single slab on ground <input checked="" type="checkbox"/> Split or multiple slab <input checked="" type="checkbox"/> Post and beam <input checked="" type="checkbox"/> Pole house

3.2 Town Centres & Employment

3.2.1 Town Centres

Table 5 - Beveridge North West Town Centre Hierarchy

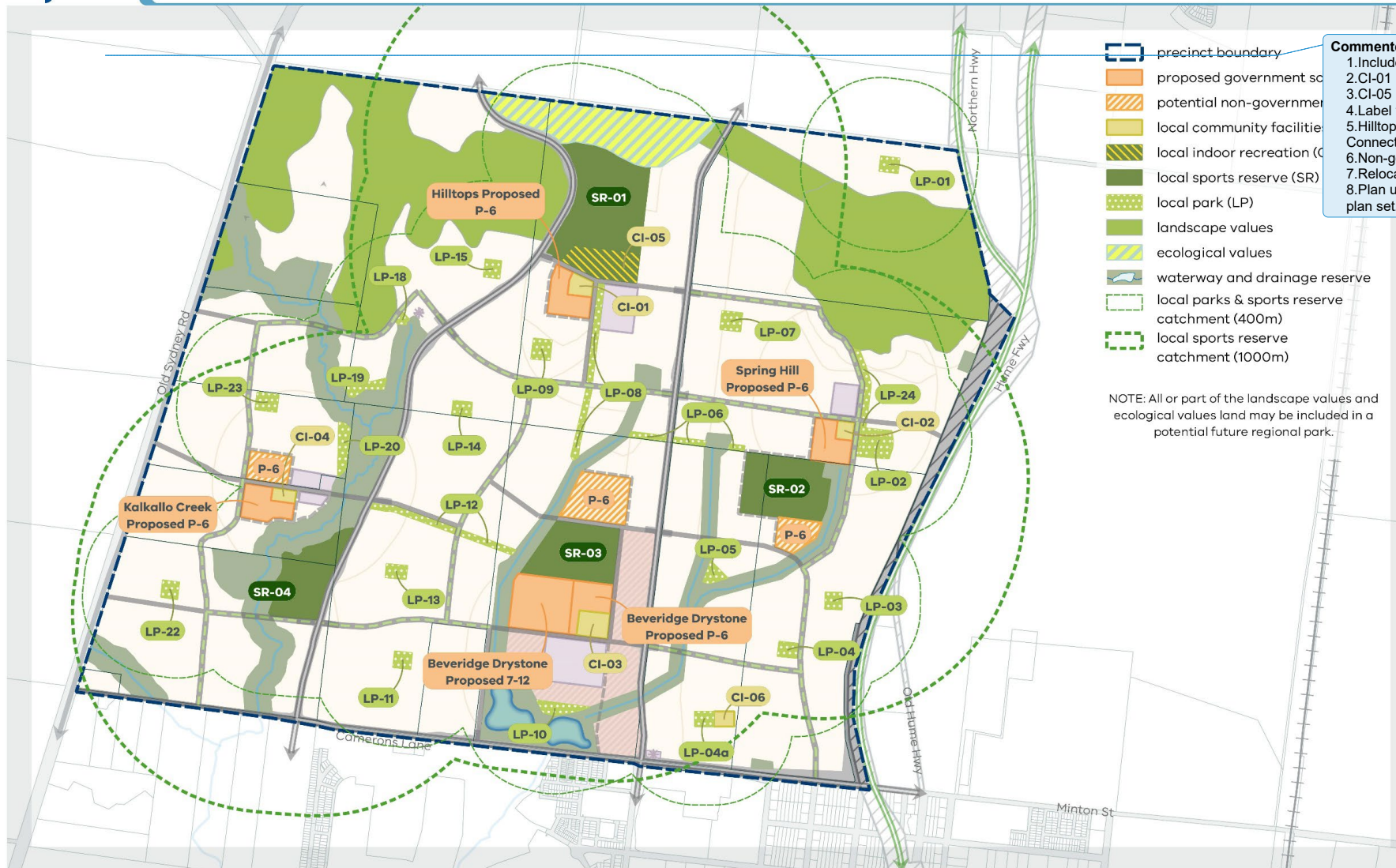
Internal town centre	Shop floor space	Commercial floor space	Location and uses
Southern LTC1	7,000m ²	2,700m ²	On the Eastern Arterial (Patterson Road/E14 Extension) that runs north-south and adjoins a planned mixed-use area, schools and open spaces. The Southern LTC1 is identified to be larger than the other three LTCs.
Eastern LTC2	3,300m ²	1,400m ²	East of the PSP area between the Eastern Arterial (Patterson Road/E14 Extension) and the Hume Freeway.
Northern LTC3	6,300 m ²	2,700m ²	North of the PSP area between the Western Arterial and Eastern Arterial (Patterson Road /E14 Extension).
Western LTC4	6,300m ²	2,700m ²	West of the PSP area between the Western Arterial and Old Sydney Road to the west.
Local Convenience Centre 1	1000m ²		West of the PSP area on the Western Arterial and north-east of LTC4.
Local Convenience Centre 2	1000m ²		On the north eastern corner of the intersection between Camerons Lane and the Eastern Arterial.

REQUIREMENTS	
R7	Proposals for subdivision and/or development within the Southern Town Centre Flexible Design Area) shown on Plan 3 must be designed in accordance with Table 6.
R8	<p>A Southern Town Centre Plan must be approved by the Responsible Authority for Southern Town Centre Flexible Design Area shown on Plan 3.</p> <p>The Southern Town Centre Plan must show:</p> <ul style="list-style-type: none"> • Town Centre Elements described at Table 6 • Street network, including hierarchy • Proposed land uses, including open space network • Active frontages • Pedestrian and cycle network • Integration between the Southern Town Centre Flexible Design Area and surrounding land. <p>The Southern Town Centre Plan may be amended with the written consent of Responsible Authority.</p> <p>A permit granted for the for use, subdivision or buildings and works on land within the Southern Town Centre Flexible Design Area must be generally in accordance with the approved Southern Town Centre Plan.</p>
R9	Applications involving the development of all Local Town Centres and Local Convenience Centres must demonstrate how the proposed design has appropriately considered and responded to the Design Guidelines in Appendix 4.5 and 4.6, having regard to local context and the functional requirements of the proposed activity.

GUIDELINES	
G20	Local town centres LTC2, LTC3 & LTC4 should be developed generally in accordance with the location shown on Plan 3 and should be consistent with the role and function of the centre outlined in Table 7.
G21	Subdivision layouts should provide for a range of lot configurations to cater for various uses, including small local enterprises.
G22	<p>If proposed, local convenience centres should be located where indicated on Plan 3.</p> <p>Additional local convenience centres may be provided subject to demonstrating that they do not compromise the function and role of nearby Local Town Centres.</p>

Table 6 – Southern Town Centre Flexible Design Area – Performance Requirements & Guidelines

Town centre element	Performance requirements	Performance guidelines
General	<ul style="list-style-type: none"> Must address all relevant elements of the Urban Design Guidelines of Victoria. 	<ul style="list-style-type: none"> Development should result in a walkable, pedestrian focused, mixed-use urban neighbourhood. Development should be structured to seamlessly integrate with surrounding land including the wetlands, waterways, and neighbourhoods. Development should be structured to create physical and visual connections with surrounding features and points of interest to reinforce the sense of place and identity Development should prioritise active transport and facilitate the provision of safe and direct off-road walking and cycling connections.
Retail Core (Local Town Centre)	<ul style="list-style-type: none"> Must provide an area of 7 net developable hectares for the provision of the Local Town Centre. The land area may be reduced at the discretion of the council 	<p>Should provide a core retail floor space of 7000m²</p> <ul style="list-style-type: none"> Should provide a commercial floor space of 2,700m². Development should deliver a compact, walkable street and block pattern. Development should include a high intensity, activated spine of retail and employment opportunities. Development of should include a centrally located civic plaza or public space that provides a clear point of focus for the retail core.
Mixed Use	<ul style="list-style-type: none"> Must not exceed an area of 28 net developable hectares. This area may be increased or reduced to the satisfaction of the Responsible Authority. 	<ul style="list-style-type: none"> Development should result in a walkable street and block pattern that provides strong physical connections and a sense of integration with the retail and commercial core. Development should provide a mix of flexible lot sizes to encourage a broad range of business and commercial activities. Development should provide a transition in scale and intensity of development between the retail and commercial core and the residential areas.
Proposed Government School	<ul style="list-style-type: none"> Must provide an area of 8.4ha for the provision of a proposed government secondary school, and 3.5ha for the provision of a proposed government primary school. Alternatives may be considered based on-site specifics, subject to advice from DET and to the satisfaction of the relevant authority 	<ul style="list-style-type: none"> Should be integrated with active transport connections, including those provided by the waterways. Should be located adjacent to and integrated with the active open space. Should be orientated east west, with a dimension ratio of 1:1.5. Should have three road frontages, one of which should be a connector road. Residential subdivision to the west of the proposed school site should provide a street separating private lots from the adjoining waterways corridor where that corridor directly abuts the proposed government school site.
Active Open Space	<ul style="list-style-type: none"> Must provide an area of 11.8ha for the provision of active open space. 	<ul style="list-style-type: none"> Should be located adjacent to waterways and integrated to facilitate the provision of walking and cycling connections. Should be located adjacent to and integrate with the future government schools. Should be adjacent to and integrate with the future government school.
Community Facilities	<ul style="list-style-type: none"> Must provide an area of 2.0ha for the provision of a community facility. 	<ul style="list-style-type: none"> Should be located adjacent to and integrated with the proposed government primary school and the retail core.
Local Park (LP10)	<ul style="list-style-type: none"> Must provide an area of 1.15ha for local park. 	<ul style="list-style-type: none"> Should act as a gateway and provide a transitional gateway between the 'retail core' and the wetlands.



3.3 Open Space, Community Facilities & Education

3.3.1 Open space and natural system

REQUIREMENTS	
R10	<p>Trees in streets, civic places and the open space network must be provided in accordance with Mitchell Shire Council's Street and Park Tree Policy and:</p> <ul style="list-style-type: none"> • complement the existing native indigenous and exotic species • be larger species to facilitate continuous canopy cover • be planted in modified and improved soil to support tree establishment • be appropriately sized to nature strips, nearby utilities and buildings • suited to local conditions. <p>Or, be provided to the satisfaction of the responsible authority.</p>
R11	<u>Existing high-quality vegetation must be retained within public space, including road reserves and open spaces, where safe and practicable.</u>
R12	<u>The eastern and western sides of the Rural Conservation Zone must be linked by undeveloped open space.</u>

GUIDELINES	
G23	Open space should be provided where shown on Plan 7 and as outlined in Table 10.
G24	Public recreation and open space areas should be located in areas where they will make a positive contribution to neighbourhood character and identity and where they will support the delivery of diverse housing products.
G25	<p>Alternative locations and configurations for credited open space with location flexibility, as illustrated on Plan 7, may be considered subject to:</p> <ul style="list-style-type: none"> • Open space being retained within the same landownership, unless otherwise agreed with the affected landowners. • walkable access as demonstrated on Plan 7 not being adversely impacted. • not diminishing the quality or usability of the space.

	<ul style="list-style-type: none"> • not adversely impacting on the overall diversity of the precinct open space network. • being equal to or more than the passive open space provision shown in table 49-7. • still being supported by the preferred path network outlined in Plan 109.
G26	<p>The open space network should:</p> <ul style="list-style-type: none"> • Include a range of open space typologies and sizes • Maximise the amenity and value of service open space through the provision of shared paths, trails and other recreational elements. • <u>Maximise the usage of stormwater, through retention, infiltration and reuse where practicable</u> • Respond to the values of adjoining open space, waterways, and Aboriginal and post-contact heritage. • Provide flexible recreational opportunities that allow for the anticipated range of sporting reserves, and local parks and recreational uses required by the community.
G27	<p>Linear parks should be located and designed to:</p> <ul style="list-style-type: none"> • Enhance the wider walking and cycling network • Connect and integrate key neighbourhood destinations and landscape features • Support neighbourhood legibility and sense of place • Enhance the diversity of open space environments • Incorporate drainage depressions and seasonal wetlands where practical • Provide active frontages in accordance with R4 • Avoid vehicle crossings
G28	Where a local park illustrated on Plan 7 spans multiple parcels, the first development proponent to lodge a permit application for land containing the park should prepare a master plan for the entire park. Consultation with all relevant landowners should be undertaken as part of the master plan preparation.
G29	All open space and public landscaped areas should contain extensive canopy tree planting.
G30	Any fencing of open space should be low scale and visually permeable to facilitate public safety and surveillance.
G31	Appropriately managed and sensitively designed community access to conservation and landscape values areas should be provided where

	practicable, and where protection of the primary conservation and landscape values can be maintained
--	--

3.3.2 Community Facilities & Education

REQUIREMENTS	
R13	Education facilities must have a minimum of two road frontages (three preferred), with one connector road abutting the school with a road easement wide enough to allow for school bus movement while accommodating on-street parking and two-way traffic movement.
R14	Any connector road or access street abutting a community or education facility must be designed to achieve slow vehicle speeds and provide designated pedestrian crossing points in the vicinity of the school site.

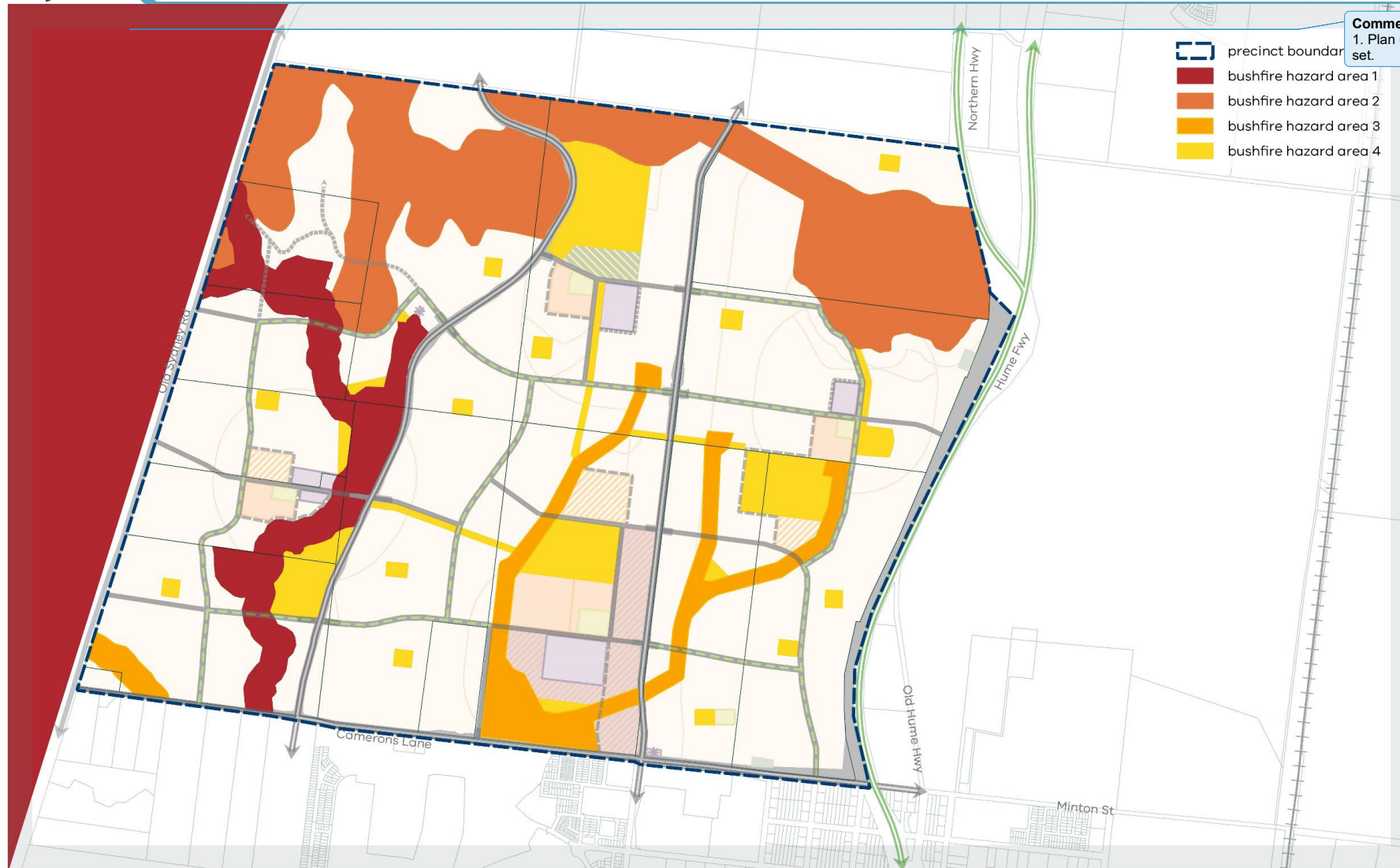
GUIDELINES	
G32	Any lot created for a government school site should be designed to the satisfaction of DET, including meeting the minimum site dimensions as outlined in the Victorian Government School Site Selection Criteria .
G33	Education, community facilities and sports reserves should be co-located and accessible by active and public transport routes and provide active street frontages.
G34	Subdivision and development should facilitate integration of schools, kindergartens , sports reserves and community facilities where they are co-located and promote: <ul style="list-style-type: none"> • integration with neighbouring facilities to maximise efficiencies through the sharing of car parking and other complementary infrastructure • out-of-hours use, street activation and permeability • safe and convenient pedestrian and cyclist shared path access.
G35	Educational, community or civic infrastructure not shown on Plan 3 should be located within or proximate to a town centre, local convenience centre, community hub or council community building, as appropriate.
G36	Emergency services should have access to the arterial road network to maximise coverage and reduce response times.

G37	Public health and justice services should be located within or adjacent to a community hub or town centre and with access to public transport.
G38	Where the responsible authority is satisfied that land shown as a non-government school site is unlikely to be used for a school at ultimate development of the PSP, that land must be used for an alternative purpose that is compatible with the surrounding land uses and the provisions of the applied zone. Justification should be provided in accordance with the VPA's guidance note titled <i>Development of Non-Government School Sites for an Alternative Purpose</i> .
G39	The indicative layout of community facilities and open space as illustrated in Plan 7 may be altered to the satisfaction of the relevant responsible authorities.

Table 7 - Credited Open Space Delivery Guide

Park id	Area	Type	Locational attributes	Responsibility
LP-01	0.75	Local Park	Passive open space located to the north of landscape values area (Spring Hill Cone).	Mitchell Shire Council
LP-02	2.55	Local Park	Passive open space to protect aboriginal heritage site, adjacent boulevard connector street and Local Town Centre.	Mitchell Shire Council
LP-03	0.75	Local Park	Passive open space, central to the surrounding residential community.	Mitchell Shire Council
LP-04	0.75	Local Park	Passive open space, adjacent to the intersection of two connector roads, central to the surrounding residential community.	Mitchell Shire Council
LP-04a	0.75	Local Park	Passive open space, central to the surrounding residential community.	Mitchell Shire Council
LP-05	0.75	Local Park	Passive open space, located between two drainage corridors.	Mitchell Shire Council
LP-06	1.25	Local Park	Linear passive open space running east-west. Connects LP-09, two drainage corridors and SR-02.	Mitchell Shire Council
LP-07	1.0	Local Park	Passive open space, central to the surrounding residential community.	Mitchell Shire Council
LP-08	4.04	Local Park	Linear passive open space running north-south, connects drainage and Northern Local Town Centre LTC-3	Mitchell Shire Council
LP-09	1.40	Local Park	Passive open space central to surrounding residential community	Mitchell Shire Council
LP-10	1.15	Local Park	Passive open space, located at the southern edge of the Southern Local Town Centre LTC-1, abutting drainage reserve, or as otherwise agreed to through the development of the Southern Town Centre Layout Plan	Mitchell Shire Council
LP-11	0.75	Local Park	Passive open space, central to surrounding residential community.	Mitchell Shire Council
LP-12	3.05	Local Park	Linear passive open space linking Southern Local Town Centre LTC-1 and Western Local Town Centre LTC-4.	Mitchell Shire Council

Park id	Area	Type	Locational attributes	Responsibility
LP-13	0.75	Local Park	Passive open space central to surrounding residential community	Mitchell Shire Council
LP-14	0.75	Local Park	Passive open space, adjacent to connector street boulevard and central to surrounding residential community.	Mitchell Shire Council
LP-15	0.75	Local Park	Passive open space located at proximity to landscape values area (Hilltops Reserve), central to surrounding community.	Mitchell Shire Council
LP-16	0.46	Local Park	Passive open space adjoining SR-01 and LP-08.	Mitchell Shire Council
LP-17	0.75	Local Park	Passive open space, central to surrounding residential community.	Mitchell Shire Council
LP-18	0.25	Local Park	Linear passive open space, connection landscape values area (Hilltops Reserve) and drainage corridor.	Mitchell Shire Council
LP-19	0.89	Local Park	Passive open space located between drainage corridor and Kalkallo Creek corridor.	Mitchell Shire Council
LP-20	1.36	Local Park	Passive open space, abutting the Kalkallo Creek corridor.	Mitchell Shire Council
LP-22	0.75	Local Park	Passive open space, central to surrounding residential community.	Mitchell Shire Council
LP-23	1.0	Local Park	Passive open space, central to surrounding residential community.	Mitchell Shire Council
LP-24	0.98	Local Park	Linear passive open space connects LP-02 and landscape value areas (Spring Hill Cone).	Mitchell Shire Council
SR-01	20.01	Sports Reserve	Northern active open space bordered by RD-03 (west), RD-04 (east) and Northern Local Town Centre LTC-3 (south).	Mitchell Shire Council
SR-02	13.32	Sports Reserve	Eastern active open space, adjacent to drainage corridor, abutting two schools (north and south).	Mitchell Shire Council
SR-03	12.02 11.80	Sports Reserve	Southern active open space, adjacent to drainage corridor, abutting two schools	Mitchell Shire Council
SR-04	9.96	Sports Reserve	Western active open space, located between the Kalkallo Creek corridor (west) and RD-03 (east).	Mitchell Shire Council



- precinct boundary
- bushfire hazard area 1
- bushfire hazard area 2
- bushfire hazard area 3
- bushfire hazard area 4

Commented [VPA9]: Changes to the Plan as follows:
1. Plan updated to be consistent with other changes in the plan set.

3.4 Biodiversity and Bushfire Management

3.4.1 Biodiversity

NOTE: Operation of Commonwealth Environmental Laws:

The Commonwealth Department of Environment and Energy has granted an approval for urban development in Melbourne's Growth Corridors under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

This approval covers the Beveridge North West Precinct. Provided the conditions of this approval are satisfied, individual assessment and approval under the EPBC Act is not required.

NOTE: Native vegetation requirements are specified at Clause 52.17 and its schedule in this planning scheme. This plan must be read in conjunction with those provisions.

If no native vegetation is proposed to be retained within the precinct, a Native Vegetation Retain and Remove Plan is not required, all native vegetation within the precinct will be subject to the Clause 52.17 exemption.

GUIDELINES	
G40	All vegetation outside of a bushfire hazard area shown on Plan 8 should be managed to ensure a low risk of bushfire.
G41	Where practicable, existing vegetation should be retained, protected and enhanced, and indigenous revegetation undertaken to provide habitat and movement corridors for local fauna.
G42	The layout and design of waterways, wetlands and retarding basins (including the design of paths, bridges and boardwalks, and the stormwater drainage system) should integrate with the future proposed regional park, biodiversity and natural systems to the satisfaction of Melbourne Water and other relevant responsible authorities.

3.4.13.4.2 Bushfire Management

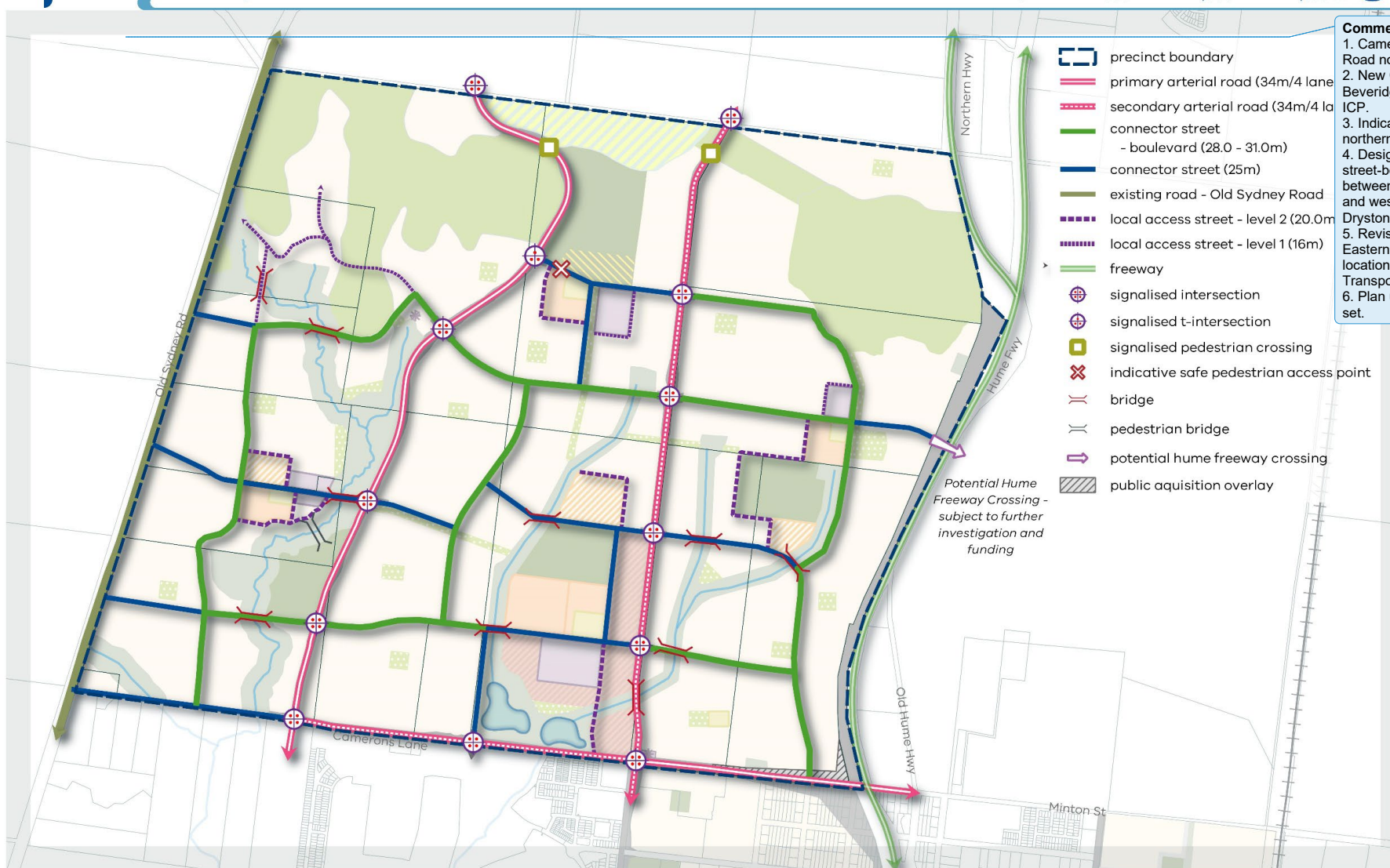
REQUIREMENTS	
R15	Vegetation within bushfire hazard areas shown on Plan 8 must be managed in accordance with Table 8
R16	Development adjoining bushfire hazards shown on Plan 8 must be setback in accordance with Table 8

R17	<p>Where a setback from a bushfire hazard area is required by Table 8, unless otherwise agreed by the Responsible Authority and relevant fire authority, vegetation within the setback must be managed as follows:</p> <ul style="list-style-type: none"> Grass must be short cropped and maintained during the declared fire danger period. All leaves and vegetation debris must be removed at regular intervals during the declared fire danger period. Within 10 metres of a building, flammable objects must not be located close to the vulnerable parts of the building. Plants greater than 10 centimetres in height must not be placed within 3m of a window or glass feature of the building. Shrubs must not be located under the canopy of trees. Individual and clumps of shrubs must not exceed 5 sq. metres in area and must be separated by at least 5 metres. Trees must not overhang or touch any elements of the building. The canopy of trees must be separated by at least 2 metres. There must be a clearance of at least 2 metres between the lowest tree branches and ground level.
------------	--

GUIDELINES	
G43	All vegetation outside of a bushfire hazard area shown on Plan 8 should be managed to ensure a low risk of bushfire.
G44	Subdivision adjoining a bushfire hazard area should include a publicly accessible perimeter road.
G45	Subdivision should include a network of streets that provide multiple evacuation routes away from bushfire risks and areas of bushfire hazard.
G46	Where a setback is required from a bushfire hazard, the setback should be provided on public land where practical.
G47	All fencing adjoining Bushfire Hazard areas 1, 2 & 3 shown on Plan X should be made from non-combustible materials.
G48	Lot design adjoining bushfire Hazard Area 2, shown on Plan X should allow for the provision of a static water supply of <u>2,500</u> litres for personal firefighting where practical.
G49	Landscape design and plant selection in open spaces, including waterways and drainage corridors, should not increase bushfire risk.

Table 8 - Bushfire Hazard Vegetation Management & Setback Requirements

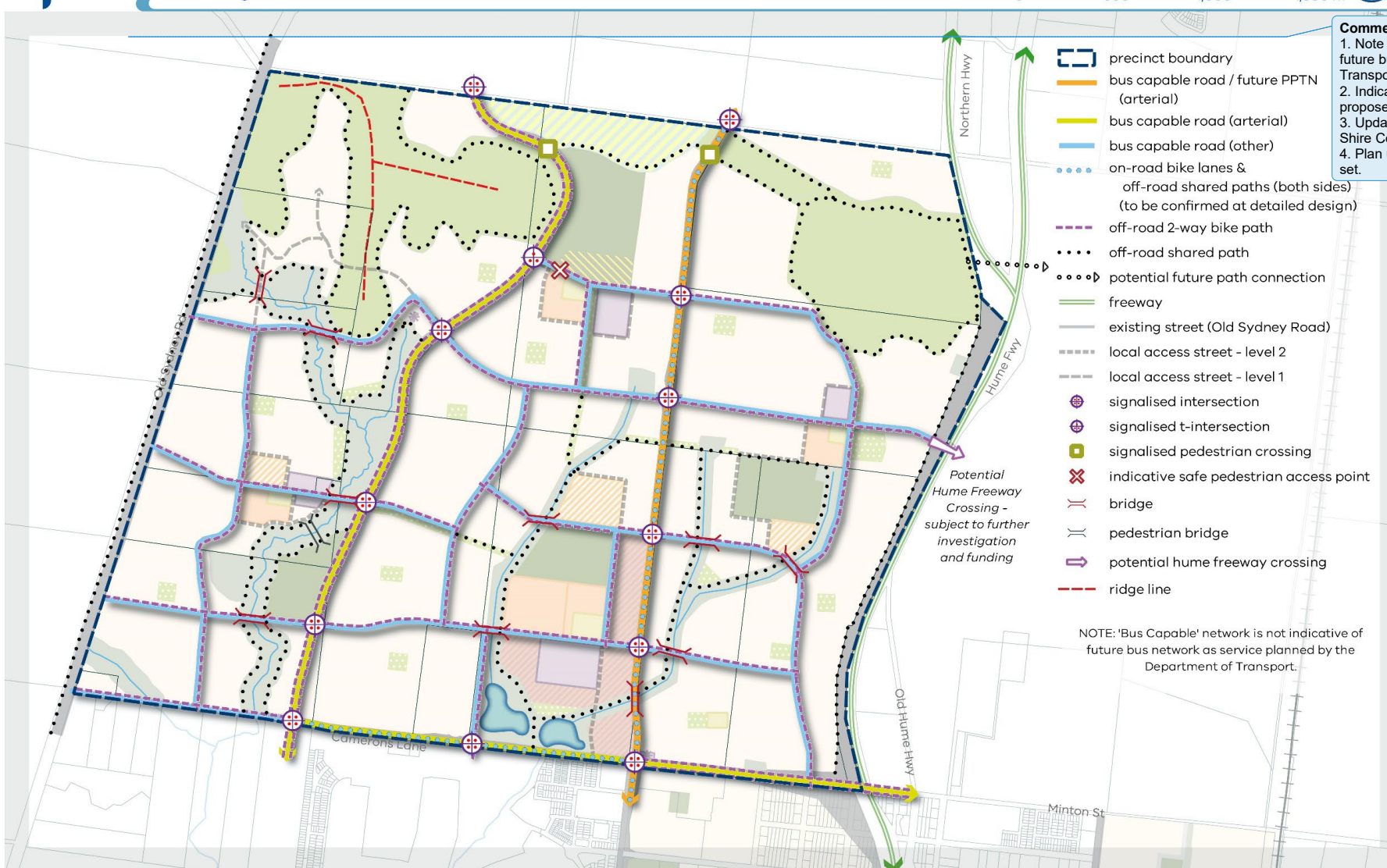
	Bushfire hazard area 1	Bushfire hazard area 2	Bushfire hazard area 3	Bushfire hazard area 4 and streetscapes
Vegetation management class	Woodland	Grassland	Low threat	Low threat
Setback Distance from Bushfire Hazard Area	33m	19m	0m	0m



- precinct boundary
- primary arterial road (34m/4 lane)
- secondary arterial road (34m/4 lane)
- connector street
 - boulevard (28.0 - 31.0m)
 - connector street (25m)
- existing road - Old Sydney Road
- local access street - level 2 (20.0m)
- local access street - level 1 (16m)
- freeway
- signalised intersection
- signalised t-intersection
- signalised pedestrian crossing
- indicative safe pedestrian access point
- bridge
- pedestrian bridge
- potential hume freeway crossing
- public acquisition overlay

Commented [VPA10]: Changes to the Plan as follows:

1. Camerons Lane between Hume Freeway and Pattersons Road now Primary Arterial.
2. New Connector Street to provide connection between Beveridge North West and Beveridge Central PSP (RD-05 in ICP.
3. Indicative Pedestrian Signalised Intersection shown near northern town centre.
4. Designation of connector street changed from 'connector street-boulevard (28.0 - 31.0m)' to 'connector street (25m)' between IN-07 and eastern edge of SR-01 and between IN-13 and western edge of the waterway adjacent to Beveridge Drystone proposed 7-12.
5. Revised location of pedestrian signalised intersections on Eastern and Western arterials adjacent to Burrung Buluk (final location to be determined in consultation with Department of Transport at detailed design).
6. Plan updated to be consistent with other changes in the plan set.



Commented [VPA11]: Changes to the Plan as follows:
 1. Note added – 'Bus capable' network is not indicative of future bus network as service planned by the Department of Transport.
 2. Indicative safe pedestrian access point shown near proposed government school Hilltops P-6
 3. Updated shared Pathways as per submission from Mitchell Shire Council
 4. Plan updated to be consistent with other changes in the plan set.

- precinct boundary
- bus capable road / future PPTN (arterial)
- bus capable road (arterial)
- bus capable road (other)
- on-road bike lanes & off-road shared paths (both sides) (to be confirmed at detailed design)
- off-road 2-way bike path
- off-road shared path
- potential future path connection
- freeway
- existing street (Old Sydney Road)
- local access street - level 2
- local access street - level 1
- signalised intersection
- signalised t-intersection
- signalised pedestrian crossing
- indicative safe pedestrian access point
- bridge
- pedestrian bridge
- potential hume freeway crossing
- ridge line

NOTE: 'Bus Capable' network is not indicative of future bus network as service planned by the Department of Transport.

3.5 Transport & Movement

3.5.1 Public Transport

REQUIREMENTS

R18	Any Road nominated in Plan 9 as a potential public transport route must be constructed (including partial construction where relevant) in accordance with the corresponding cross section in the PSP and the Department of Transport's guidance for public transport and land use development, to the satisfaction of the responsible authority.
------------	--

GUIDELINES

G50	Bus stop facilities should be located in close proximity to town centres and key activity generating land uses such as schools, sports fields and employment areas.
G51	The street network should be designed to ensure all households have direct and convenient walking access to public transport services.

3.5.2 Walking & Cycling

GUIDELINES

G52	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.
G53	The alignment of off-road bicycle paths must be designed for cyclists travelling up to 30km/hr.
G54	In addition to waterway pedestrian crossings shown on Plan 9, development proponents should provide waterway crossings at intervals no greater than 400m or corresponding with all perpendicular through roads or pedestrian and cycle paths.

3.5.3 Street Network








REQUIREMENTS									
R19	<p>Design of all subdivisions, streets and arterial roads must provide:</p> <ul style="list-style-type: none"> a permeable, direct and safe street network prioritising walking and cycling safe and convenient crossing points of connector roads and local streets at all intersections and on key desire lines as well as crossing 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 safe and convenient transition between on- and off-road bicycle networks convenient access to regional and local points of interest and destinations for effective integration with neighbouring properties, parkland and sports reserves direct and convenient walking access to public transport services. 								
R20	Road networks and street types must be designed and developed to an urban standard generally in accordance with the cross sections in Appendix 4.4: Street Cross Sections, unless otherwise agreed by the relevant authority.								
R21	<p><u>Street trees to be provided on both sides of all roads and streets (excluding laneways) at regular intervals appropriate to tree size at maturity, unless otherwise agreed by the responsible authority.</u></p> <table> <tr> <th><u>Average Interval</u></th><th><u>Tree Size</u></th></tr> <tr> <td><u>8 – 10 metres</u></td><td><u>Small trees (less than 10 metre canopy)</u></td></tr> <tr> <td><u>10- 12 metres</u></td><td><u>Medium trees (10 - 15 metre canopy)</u></td></tr> <tr> <td><u>12 – 15 metres</u></td><td><u>Large trees (canopy larger than 15 metres)</u></td></tr> </table>	<u>Average Interval</u>	<u>Tree Size</u>	<u>8 – 10 metres</u>	<u>Small trees (less than 10 metre canopy)</u>	<u>10- 12 metres</u>	<u>Medium trees (10 - 15 metre canopy)</u>	<u>12 – 15 metres</u>	<u>Large trees (canopy larger than 15 metres)</u>
<u>Average Interval</u>	<u>Tree Size</u>								
<u>8 – 10 metres</u>	<u>Small trees (less than 10 metre canopy)</u>								
<u>10- 12 metres</u>	<u>Medium trees (10 - 15 metre canopy)</u>								
<u>12 – 15 metres</u>	<u>Large trees (canopy larger than 15 metres)</u>								

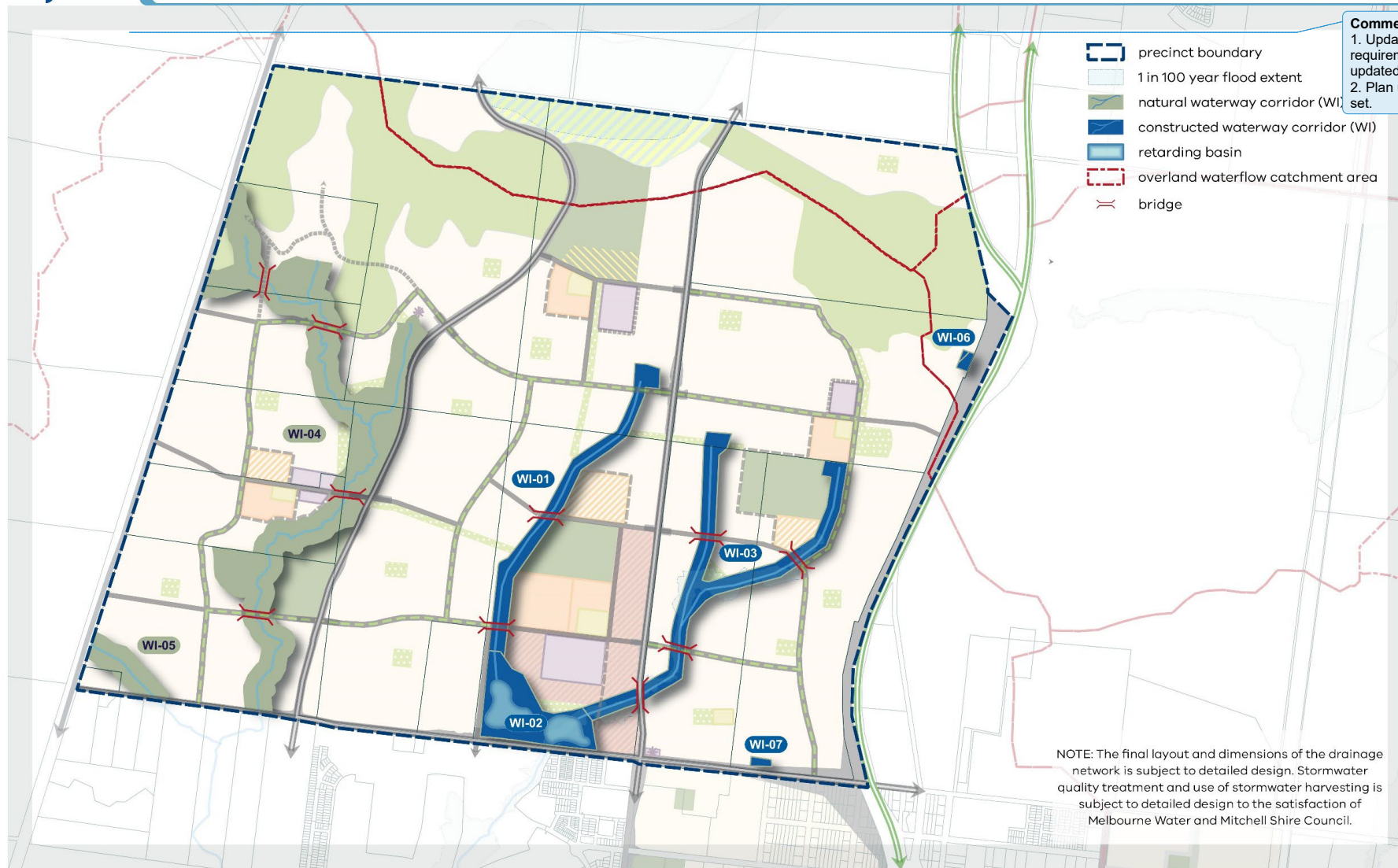
GUIDELINES	
G55	Slip lanes should be avoided in areas of high pedestrian activity and only provided at intersections between connector streets and arterial roads where they are necessitated by high traffic volumes but with pedestrian priority crossings.
G56	Cul-de-sacs should be avoided where practical. .

G57	<p>The frequency and impact of vehicular crossovers on verges of connector roads should be minimised through the use of a combination of:</p> <ul style="list-style-type: none"> rear loaded lots with laneway access vehicular access from the side streets combined or grouped crossovers increased lot widths. 								
G58	All signalised intersections should be designed having regard to the working document <i>Guidance for Planning Road Networks in Growth Areas</i> November 2015 (as updated), to the satisfaction of the Department of Transport.								
G59	<p><u>Street trees should be provided on both sides of all roads and streets (excluding laneways) at regular intervals appropriate to tree size at maturity, unless otherwise agreed by the responsible authority.</u></p> <table> <tr> <th><u>Average Interval</u></th><th><u>Tree Size</u></th></tr> <tr> <td><u>8 – 10 metres</u></td><td><u>Small trees (less than 10 metre canopy)</u></td></tr> <tr> <td><u>10- 12 metres</u></td><td><u>Medium trees (10 - 15 metre canopy)</u></td></tr> <tr> <td><u>12 – 15 metres</u></td><td><u>Large trees (canopy larger than 15 metres)</u></td></tr> </table>	<u>Average Interval</u>	<u>Tree Size</u>	<u>8 – 10 metres</u>	<u>Small trees (less than 10 metre canopy)</u>	<u>10- 12 metres</u>	<u>Medium trees (10 - 15 metre canopy)</u>	<u>12 – 15 metres</u>	<u>Large trees (canopy larger than 15 metres)</u>
<u>Average Interval</u>	<u>Tree Size</u>								
<u>8 – 10 metres</u>	<u>Small trees (less than 10 metre canopy)</u>								
<u>10- 12 metres</u>	<u>Medium trees (10 - 15 metre canopy)</u>								
<u>12 – 15 metres</u>	<u>Large trees (canopy larger than 15 metres)</u>								
G60	<p>A variety of cross sections should be utilised in subdivision layouts, and in some instances on arterial roads, to create differentiation, placemaking and neighbourhood character.</p> <p>Alternative cross sections should ensure that:</p> <ul style="list-style-type: none"> 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. Relevant minimum road reserve widths for the type of street are maintained, unless otherwise approved by the responsible authority. 								

Formatted: No bullets or numbering

Commented [VPA12]: Changes to the Plan as follows:
1. Updated Kalkallo Creek DSS in line with Melbourne Water requirements, including revision of western Town Centre and updated SR-04.
2. Plan updated to be consistent with other changes in the plan set.

-  precinct boundary
-  1 in 100 year flood extent
-  natural waterway corridor (WI)
-  constructed waterway corridor (WI)
-  retarding basin
-  overland waterflow catchment area
-  bridge



NOTE: The final layout and dimensions of the drainage network is subject to detailed design. Stormwater quality treatment and use of stormwater harvesting is subject to detailed design to the satisfaction of Melbourne Water and Mitchell Shire Council.

3.6 Integrated Water Management & Utilities







3.6.1 Integrated Water Management

REQUIREMENTS	
R21R22	Development must give effect to the relevant policies and strategies being implemented by the responsible authority, Melbourne Water and Yarra Valley Water, including any approved integrated water management plan.
R22R23	Stormwater conveyance and treatment must be designed to avoid or mitigate the risk of erosion from sodic and/or dispersive soils to the satisfaction of Melbourne Water and the responsible authority. Note: this may result in variation to MW DSS as shown on Plan 11.
R23R2	Final designs and boundaries of wetlands, retarding basins, stormwater quality treatment infrastructure, and associated paths, boardwalks, bridges, and planting, must include appropriate treatments to provide protection for dispersive soils where these are present and be designed to the satisfaction of both the responsible authority and Melbourne Water.
R24R2	Development staging must provide for the delivery of ultimate waterway and drainage infrastructure, including stormwater quality treatment, and consider opportunities for early establishment of waterways. 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. Development staging and interim solutions must avoid or mitigate the risk of erosion from sodic and/or dispersive soils.
R25R2	Stormwater runoff from the development must meet the performance objectives of the <i>CSIRO Best Practice Environmental Management Guidelines</i> for Urban Stormwater prior to discharge to receiving waterways and as outlined on Plan 11, unless otherwise approved by Melbourne Water and the responsible authority. Proposals that exceed the performance objectives will be considered to the satisfaction of the relevant authority.
R26R2	Applications must demonstrate how: <ul style="list-style-type: none"> Waterways and integrated water management design enable 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. Melbourne Water and the responsible authority freeboard requirements for overland flow paths will be adequately contained within the road reserves.

	<ul style="list-style-type: none"> Relevant Integrated Water Management (IWM) requirements of this PSP will be achieved to the satisfaction of the retail water authority, including the supply of recycled water where required by the relevant water authority.
--	--

GUIDELINES	
G61G6	Subdivision and development in areas identified as being affected by sodic and/or dispersive soils should be managed to avoid or mitigate the potential risk of erosion, both in the master planned design response to the subdivision, during construction phase, and on an ongoing basis.
G62G6	<p>Stormwater runoff in areas identified as being affected by sodic and/or dispersive soils should be designed to manage the potential risk of erosion.</p> <p>Potential management methods may include but is not limited to:</p> <ul style="list-style-type: none"> Widening the buffer distances between the core riparian zone and the outside vegetated buffers that allows sufficient tolerances for channel migration. Diversion of water away from sodic and/or dispersive materials Minimising potential convergence and/or ponding of surface flows Compacting to reduce pore spaces and minimise water movement through material Physical and chemical soil ameliorants. Maintenance of topsoil across undisturbed land, preferably with grasses to provide surface soil stability and root anchorage. Minimise the amount of time land is exposed (e.g. by staging development). Ensure that culverts and drains excavated into dispersive subsoils are capped with non-dispersive topsoil, gypsum stabilised and vegetated.
G63G6	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 stormwater infiltration , overland flow paths, Water Sensitive Urban Design initiatives such as street swales, rain gardens and/or locally treated storm water for irrigation to contribute to a sustainable and green urban environment.
G64G6	Where practical, and where primary waterway or conservation functions are not adversely affected, land required for integrated water management initiatives should be integrated-co-located with the precinct open space and recreation system and as depicted on Plan 7 to the satisfaction of the Responsible Authority .

NOTE: Sewer in the northern region to be serviced via Rows Lane Branch Sewer from Wallan South PSP

-  precinct boundary
-  proposed electrical conductor
-  proposed recycled water mains
-  proposed sewer
-  proposed water mains
-  retarding basin

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

Commented [VPA13]: Changes to the Plan as follows:
1. Realignment of proposed sewer lines
2. Plan updated to be consistent with other changes in the plan set.

3.6.2 Utilities

REQUIREMENTS	
R27R	All existing above ground electricity cables (excluding substations and cables with voltage 66kv or greater) must be placed underground as part of the upgrade of existing roads or subdivision works.
R28R	All new electricity supply infrastructure (excluding substations and cables with voltage 66kv or greater) must be provided underground.
R29R	Above ground utilities must be identified at the subdivision design stage to ensure effective integration with the surrounding neighbourhood, to minimise amenity impacts and be designed to the satisfaction of the relevant authority. Where that infrastructure is intended to be located in utilities cannot be avoided in public open space, the land required to accommodate that infrastructure will not be counted as contributing to public open space requirements specified and will be additional to the areas designated in Table 10.

GUIDELINES	
G65G	The delivery of underground services should be coordinated, located and bundled (utilising common trenching) to facilitate tree and other planting within road verges.
G66G	Utilities should be placed outside of landscape values 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 landscape values area or natural waterway corridor, they must be located 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.
G67G	All new above-ground utilities, including temporary utilities, should be located outside of key view lines and screened with vegetation, as appropriate.
G68G	Trunk services should be placed along the general alignments shown on Plan 12, subject to any refinements as advised by the relevant servicing authorities <u>including Department of Education and Training</u> .
G69G	Design and location of underground services should be guided by Appendix 4.6.

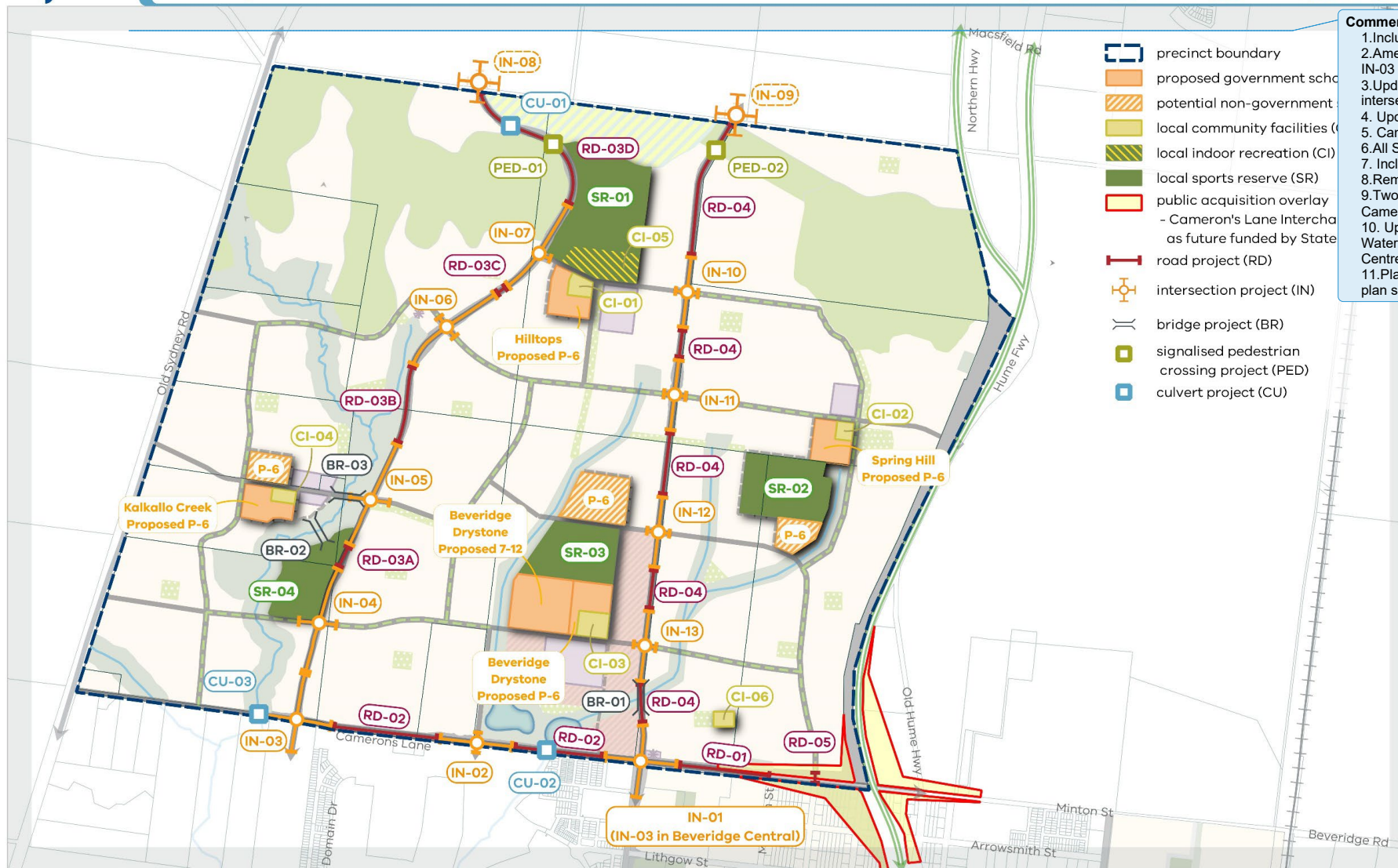
G70G	Utilities should generally be located within the road reserve. Where this is not practical, easements to place utilities at the rear of lots may be considered.
-------------	---

Table 9 - Water Infrastructure

Ref	Asset	Location	Area (ha)	Responsibility
WI-01	Constructed waterway	Centrally located within the precinct, running adjacent to the connector street	10.34	MWC
WI-02	Retarding Basin/Wetlands	Centrally located within the precinct, adjacent to Camerons Lane	14.08	MWC
WI-03	Constructed waterway	Located to the east of the precinct running north south	18.56	MWC
WI-04	Natural Waterway (Kalkallo Creek)	Located to the west of the precinct running north south	44.79	MWC
WI-05	Natural Waterway	Located on the south western corner of the precinct	2.14	MWC
WI-06	Retarding Basin/Wetlands	Located on southern edge of precinct, adjacent to Cameron's Lane interchange Located on east edge of precinct, south of Spring Hill Cone	0.30	MWC
WI-07	Retarding Basin/Wetlands	Located on east edge of precinct, south of Spring Hill Cone Located on southern edge of precinct, adjacent to Cameron's Lane interchange	0.50	MWC

(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.)

MWC= Melbourne Water Corporation



Commented [VPA14]: Changes to the Plan as follows:

1. Include CU-01 Label consistent with ICP
2. Amend Label IN-01 to reference Beveridge Central PSP IN-03 designation (IN-01 (IN-03 in Beveridge Central))
3. Update IN-01 and IN-03 Intersection to show 4-way intersections consistent with ICP
4. Update IN-02 to now be a 4- way intersection
5. Camerons Lane Interchange PAO added to plan
6. All Schools now labelled in PIP
7. Inclusion of new ICP road project RD-05
8. Removal of label RD-03 and road shown on plan
9. Two additional culverts (CU-02 and CU-03) along Camerons Lane
10. Updated Kalkallo Creek DSS in line with Melbourne Water requirements, including revision of western Town Centre and updated SR-04.
11. Plan updated to be consistent with other changes in the plan set.

3.7 Precinct Infrastructure Plan & Staging

3.7.1 Development Staging

REQUIREMENTS	
R30R	<p>Development staging must provide for the timely provision and delivery of:</p> <ul style="list-style-type: none"> arterial road reservations connector streets and connector street bridges street links between properties, constructed to the property boundary on- and off-road pedestrian and bicycle network paths essential infrastructure land for community infrastructure, sports fields and local open space connection of the north-south Arterial network between Camerons Lane and Hadfield Road where practicable.

GUIDELINES	
G71G	The staging of development should provide for the early delivery of community facilities to the satisfaction of the responsible authority.
G72G	<p>Staging of development should be determined largely by the development proposals on land within the precinct and the availability of infrastructure services. Development applications should demonstrate how the development will:</p> <ul style="list-style-type: none"> integrate with adjoining developments, including the timely provision of roads and path connections, to a practical extent provide open space and amenity to new residents in the early stages of the development, where relevant provide sealed road access to each new allotment deliver any necessary trunk service extensions, including confirmation of the agreed approach and timing by the relevant service provider avoid and minimise impacts to BCS conservation areas with regard to the location of essential and other services.
G73G	Sports fields, community facilities, local parks and playgrounds should be delivered as early as possible within each neighbourhood and may be delivered in stages.

G74G	<p>Infrastructure projects identified in the Precinct Infrastructure Plan at Appendix 4.1 should be delivered as per the timing priority identified in the timing column of Appendix 4.1.</p> <p>Where infrastructure is proposed to be delivered outside ahead of the sequence identified in Appendix 4.1, the onus is on the developer to fund the infrastructure works as 'Works In Kind'.</p> <p>Note: <i>Project delivery timing outlined in Appendix 4.1 is indicative and subject to periodic review by the relevant responsible authority.</i></p>
G75G	<p>Development staging should have regard to:</p> <ul style="list-style-type: none"> proximity to existing or proposed development fronts or serviced land proximity to significant existing public transport infrastructure or public transport service proximity to existing or committed community infrastructure, such as schools proximity to new or existing arterial or connector road infrastructure its role in facilitating delivery of the above infrastructure. <p>Staging that meets alternative criteria to the above may be considered by the responsible authority where an applicant satisfactorily demonstrates that development will not be isolated from basic and essential infrastructure and services.</p>

3.7.2 Subdivision Works

REQUIREMENTS	
R31R	<p>Subdivision of land within the PSP must provide and meet the cost for all local infrastructure, other than that provided for within the Beveridge North West ICP. This includes (but is not limited to):</p> <ul style="list-style-type: none"> connector roads and local streets, including Old Sydney Road local bus stop infrastructure (where locations have been agreed in writing by Public Transport Victoria) landscaping, including canopy tree planting, of all existing and future roads and local streets intersection works and traffic management measures along arterial roads, connector streets, and local streets council approved fencing and landscaping (where required) along arterial roads and reserves 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

	<ul style="list-style-type: none"> 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 to the satisfaction of the Responsible Authority (refer to open space delivery below) local drainage system and water sensitive urban design (WSUD) features local street or pedestrian path crossings of waterways unless 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 remediation and / or reconstruction of dry-stone walls where required.
R32R	<p>All public open space (where not otherwise provided via the Beveridge North West ICP) must be finished to a standard that satisfies the requirements of the responsible authority prior to the transfer of the public open space, including but not limited to:</p> <ul style="list-style-type: none"> removal of all existing and disused structures, foundations, pipelines, and stockpiles basic levelling including the supply and spread of minimum 75mm topsoil and subsoil if required on the proposed areas of open space to provide a stable free draining surface clearing of rubbish, weeds and rocks, 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, gas and electricity connection points must also be provided to land identified as sports reserve planting of trees and shrubs (with drought tolerant species) adequate protection of existing trees that are to be retained including exclusion zones as appropriate

	<ul style="list-style-type: none"> vehicular exclusion devices (fence, bollards, or other suitable method) maintenance access points construction of minimum 1.5-metre-wide pedestrian paths around the perimeter of the reserve, connecting and linking into any other surrounding paths or points of interest, except where shown as a shared path on Plan 9 installation of park furniture including barbecues, shelters, tables, local scale play grounds and other local scale play elements such as half basketball courts and hit-up walls, a skate park with associated amenities, rubbish bins and appropriate paving to support these facilities, consistent with the type of public open space listed in the open space delivery guide at Table 10.
R33R	<p>Sports reserves must be vested in the relevant authority in the following condition:</p> <ul style="list-style-type: none"> free from surface and protruding rocks and structures reasonably graded and/or top soiled to create a safe and regular surface, with a maximum 1:6 gradient bare, patchy and newly graded areas seeded, top-dressed with drought resistant grass. <p>Consistent with the Beveridge North West ICP, where these works are not considered to be temporary, works are eligible for a works-in-kind credit against an ICP obligation. Works associated with adjacent road construction, such as earthworks for a road embankment, are not eligible for works-in-kind credit.</p>

GUIDELINES

G76G	Where an inter-parcel connection is intended or indicated in the PSP, streets should be constructed to property boundaries at the relevant stage of development required or approved by the responsible authority. Provision should be made for temporary vehicle turning until the inter-parcel connection is delivered.
-------------	---

4 APPENDICES

4.1 Town Centre Hierarchy – External to Precinct

External town centre	Retail floor space	Location and ancillary uses
Mandalay Estate Town Centre	5,000 m ²	Located on the corner of Camerons Lane and Patterson Road south of the precinct to service the community in Beveridge Central and Mandalay Estate. The town centre is located with a State Primary School and Community Centre.
Beveridge Central Local Convenience Centre	3,000 m ²	Located on the corner of Camerons Lane and Patterson Street, adjacent to the planned town centre in the Mandalay Estate. The centre may include a small line supermarket/specialty retail and small office uses.
Lockerbie North Northern Town Centre	9, 000 m ²	Located to service the community to the east of the Hume Freeway.
Beveridge Major Town Centre	TBC	Located in Beveridge South West PSP. Identified in the North Growth Corridor Plan and Plan Melbourne 2017-2050. Major Town Centres provide a broad mix of higher-order activities relating to various retail, entertainment and commercial uses including health and education.

[Tables 4.3 Precinct Infrastructure Plan include staging for when the infrastructure projects are expected to be delivered. The infrastructure projects have been identified as short \(S\), medium \(M\) and long \(L\) term stages:](#)

[Short \(S\): 0-75 years approx.](#)

[Medium \(M\): 7-15 years approx.](#)

[Long \(L\): 15 years and beyond](#)

4.2 Anticipated Population and Employment Creation within Precinct

Land use	Metric	Measure	Quantity in PSP	Estimated
Residential				
Town centre	Dwell /NDHA	25	15.81	395
Mixed use	Dwell /NDHA	25	28.82 28.74	865 721
Residential within walkable catchment	Dwell /NDHA	25	203.83 192.54	5,096 4,814
Standard residential	Dwell /NDHA	18	424.67 399.40	7,804 7,189
Sloping land	Dwell /NDHA	15	430.67 110.30	4,960 1,655
Sensitive interface area A	Dwell /NDHA	12	6.00 11.60	72 139
Sensitive interface area B	Dwell /NDHA	15.5	8.87 10.53	137 163
Estimated dwellings	Dwell /NDHA			46,464 15,075
Total estimated population	People/Dwell	3.1		80,000 45,734
Employment				
LCC1	Jobs/Ha	40	0.10	4
LCC2	Jobs/Ha	40	0.25	10
LTC1	Jobs/Ha	40	7.00	280
LTC2	Jobs/Ha	40	2.00	80
LTC3	Jobs/Ha	40	4.00	160
LTC4	Jobs/Ha	40	2.46	99
Mixed use	Jobs/Ha	40	28.82	1,153
Estimated jobs - town centres & mixed-use				1,786
CI-01	Jobs/Ha	10	0.80 1.20	8.00
CI-02	Jobs/Ha	10	0.80	7.99
CI-03	Jobs/Ha	10	2.00	20.00
CI-04	Jobs/Ha	10	0.80	8.00
CI-05	Jobs/Ha	10	4.60 5.00	46.00
CI-06	Jobs/Ha	10	0.80	8.01
Estimated jobs - community centres				98
Govt primary school	Jobs /campus	45	4	180
Govt secondary school	Jobs /campus	100	1	100
Non-govt primary school	Jobs /campus	30	2	60
Non-govt secondary school	Jobs /campus	100	1	100
Estimated jobs - schools				440
Home based business	Jobs/dwelling	0.05	16,161	808
Total estimated jobs				3,131

4.3 Precinct Infrastructure Plan

Category	Ref	Title	Description	Lead agency	Component included in ICP			Timing	Apportionment funding source	Apportionment
					Ultimate land	Interim Construction	Ultimate Construction			
Road	RD-01	Camerons Lane between Eastern Arterial (Patterson Road/E14 extension) and existing Malcolm Street.	Arterial road (34m). Provision of land for 34m wide road reserve and construction of upgraded carriageway	Mitchell Shire Council	Yes	Yes	No	S - M	Beveridge Central ICP	50.00%
Road	RD-02	Camerons Lane between Eastern Arterial (Patterson Road/E14 extension) and Western Arterial.	Arterial road (34m). Provision of land for 34m wide reserve and construction of one traffic lane in each direction (interim treatment).	Mitchell Shire Council	Yes	Yes	No	S	n/a	100.00%
Road	RD-03a	Western Arterial between IN-04 and IN-05	Arterial road (34m). Provision of land for 34m wide reserve and construction of one traffic lane in each direction (interim treatment).	Mitchell Shire Council	Yes	Yes	No	M-L	n/a	100.00%
Road	RD-03b	Western Arterial between IN-05 and IN-06	Arterial road (34m). Provision of land for 34m wide reserve and construction of one traffic lane in each direction (interim treatment).	Mitchell Shire Council	Yes	Yes	No	M-L	n/a	100.00%
Road	RD-03c	Western Arterial between IN-06 and IN-07	Arterial road (34m). Provision of land for 34m wide reserve and construction of one traffic lane in each direction (interim treatment).	Mitchell Shire Council	Yes	Yes	No	M-L	n/a	100.00%
Road	RD-03d	Western Arterial between IN-07 and northern boundary of PSP	Arterial road (34m). Provision of land for 34m wide reserve and construction of one traffic lane in each direction (interim treatment).	Mitchell Shire Council	Yes	Yes	No	M-L	n/a	100.00%
Road	RD-04	Eastern Arterial (Patterson Road/E14 extension) between Camerons Lane and Hadfield Road reservation.	Arterial road (34m). Provision of land for 34m wide reserve and construction of one traffic lane in each direction (interim treatment).	Mitchell Shire Council	Yes	Yes	No	M-L	n/a	100.00%
Intersection	IN-01	Eastern Arterial (Patterson Road/E14 extension) / Camerons Lane.	Provision of land and construction of a 4-way signalised intersection.	Mitchell Shire Council	Yes	Yes	No	S - M	Beveridge Central ICP	75.00%
Intersection	IN-02	Camerons Lane / central connector street.	Construction of signalised T intersection.	Mitchell Shire Council	Yes	Yes	No	S - M	n/a	100.00%

Category	Ref	Title	Description	Lead agency	Component included in ICP			Timing	Apportionment funding source	Apportionment
					Ultimate land	Interim Construction	Ultimate Construction			
Intersection	IN-03	Western Arterial / Camerons Lane.	Construction of signalised 4-way intersection.	Mitchell Shire Council	Yes	Yes	No	S - M	Beveridge South West ICP	50.00%
Intersection	IN-04	Western Arterial and southern connector street.	Construction of a signalised 4-way intersection.	Mitchell Shire Council	Yes	Yes	No	S - M	n/a	100.00%
Intersection	IN-05	Western Arterial and central connector street.	Construction of a signalised 4-way intersection.	Mitchell Shire Council	Yes	Yes	No	M-L	n/a	100.00%
Intersection	IN-06	Western Arterial and Boulevard connector (central).	Construction of a signalised 4-way intersection.	Mitchell Shire Council	Yes	Yes	No	M-L	n/a	100.00%
Intersection	IN-07	Western Arterial and Boulevard connector (north).	Construction of a signalised T Intersection.	Mitchell Shire Council	Yes	Yes	No	M-L	n/a	100.00%
Intersection	IN-08	Western Arterial and future Hadfield Road (Wallan South).	Construction of a 4-way signalised Intersection.	Mitchell Shire Council	No	Yes	No	M-L	Wallan South ICP	50.00%
Intersection	IN-09	Eastern Arterial (Patterson Road/E14 extension) and future Hadfield Road (Wallan South)	Construction of a 4-way signalised Intersection.	Mitchell Shire Council	No	Yes	No	M-L	Wallan South ICP	50.00%
Intersection	IN-10	Eastern Arterial (Patterson Road/E14 extension) and Boulevard Connector Street (north).	Construction of a 4-way signalised Intersection.	Mitchell Shire Council	Yes	Yes	No	M-L	n/a	100.00%
Intersection	IN-11	Eastern Arterial (Patterson Road/E14 extension) and Boulevard Connector Street (central).	Construction of a 4-way signalised Intersection.	Mitchell Shire Council	Yes	Yes	No	M-L	n/a	100.00%
Intersection	IN-12	Eastern Arterial (Patterson Road/E14 extension) and Boulevard Connector Street (central).	Construction of a 4-way signalised Intersection.	Mitchell Shire Council	Yes	Yes	No	M-L	n/a	100.00%
Intersection	IN-13	Eastern Arterial (Patterson Road/E14 extension) and Connector Street (south).	Construction of a 4-way signalised Intersection.	Mitchell Shire Council	Yes	Yes	No	M-L	n/a	100.00%
Bridge	BR-01	Secondary arterial road Bridge across constructed waterway.	Construction of a single carriageway crossing of the constructed waterway on Patterson Road/E14 extension.	Roads Corporation	Yes	Yes	No	S - M	n/a	100.00%
Bridge	BR-02	Pedestrian Bridge over Kalkallo Creek.	Construction of a pedestrian bridge over the Kalkallo Creek.	Mitchell Shire Council	Yes	Yes	No	M	n/a	100.00%

Category	Ref	Title	Description	Lead agency	Component included in ICP			Timing	Apportionment funding source	Apportionment
					Ultimate land	Interim Construction	Ultimate Construction			
Bridge	BR-03 (Standard Levy)	Connector Road Bridge across Kalkallo Creek	Construction of a single carriageway crossing of Kalkallo Creek.	Mitchell Shire Council	Yes	Yes	No	S - M	Beveridge North West Supplementary Levy	67.67%
Bridge	BR-03 (Supplementary Levy)	Connector Road Bridge across Kalkallo Creek	Construction of a single carriageway crossing of Kalkallo Creek.	Mitchell Shire Council	Yes	Yes	No	S - M	Beveridge North West Standard Levy	32.33%
Pedestrian crossing	PD-01	Signalised pedestrian crossing	Construction of a signalised pedestrian crossing over secondary arterial road	Mitchell Shire Council	n/a	n/a	Yes	M-L	n/a	100.00%
Pedestrian crossing	PD-02	Signalised pedestrian crossing	Construction of a signalised pedestrian crossing over secondary arterial road	Mitchell Shire Council	n/a	n/a	Yes	M-L	n/a	100.00%
Culvert	CU-01	Culvert	Construction of a culvert under secondary arterial interim treatment) adjoining Burrung Buluk (Hanna Swamp)	Mitchell Shire Council	Yes	Yes	No	M-L	n/a	100.00%
Community Infrastructure	CI-01	Community Facility - Level 2 (northern TC)	Construction of a Community Centre collocated with the northern local town centre	Mitchell Shire Council	Yes	N/A	Yes	M	n/a	100.00%
Community Infrastructure	CI-02	Community facility - Level 1 (eastern TC)	Construction of a Community Centre collocated with the eastern local town centre	Mitchell Shire Council	Yes	N/A	Yes	M	n/a	100.00%
Community Infrastructure	CI-03	Community Facility - Level 3 (southern TC)	Construction of a Community Centre collocated with the southern local town centre	Mitchell Shire Council	Yes	N/A	Yes	S - M	n/a	100.00%
Community Infrastructure	CI-04	Community facility - Level 1 (western TC)	Construction of a Community Centre collocated with the western local town centre	Mitchell Shire Council	Yes	N/A	Yes	S - M	n/a	100.00%
Community Infrastructure	CI-05	Local indoor recreation facility	Provision of land for indoor recreation facility adjoining the northern sports reserve (SR-01)	Mitchell Shire Council	Yes	No	No	M-L	n/a	-
Community Infrastructure	CI-06	Community Facility - Level 1	Construction of a Community Centre collocated with the eastern sports reserve (SR-02)	Mitchell Shire Council	Yes	N/A	Yes	S-M	n/a	100.00%

Category	Ref	Title	Description	Lead agency	Component included in ICP			Timing	Apportionment funding source	Apportionment
					Ultimate land	Interim Construction	Ultimate Construction			
Community Infrastructure	CI-07	Community Infrastructure Construction Allowance	Construction allowance for increased construction costs due to the physical and topographical conditions of the land in Beveridge North West.	Mitchell Shire Council	N/A	N/A	N/A	N/a	n/a	100.00%
Sporting Reserve	SR-01	Sports fields	Construction of sports fields, hard courts and multi-purpose pavilion collocated with the northern town centre	Mitchell Shire Council	Yes	N/A	Yes	M - L	n/a	100.00%
Sporting Reserve	SR-02	Sports fields	Construction off sports fields, hard courts and multi-purpose pavilion collocated with the eastern local town centre	Mitchell Shire Council	Yes	N/A	Yes	S - M	n/a	100.00%
Sporting Reserve	SR-03	Sports fields	Construction of sports fields, hard courts and multi-purpose pavilion collocated with the southern local town centre	Mitchell Shire Council	Yes	N/A	Yes	M - L	n/a	100.00%
Sporting Reserve	SR-04	Sports fields	Construction of sports fields, hard courts and multi-purpose pavilion collocated with the western local town centre	Mitchell Shire Council	Yes	N/A	Yes	S - M	n/a	100.00%
Local Park	LP-01	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-02	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-03	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	S - M	n/a	100.00%
Local Park	LP-04	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	S - M	n/a	100.00%
Local Park	LP-04a	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	S - M	n/a	100.00%
Local Park	LP-05	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	S - M	n/a	100.00%
Local Park	LP-06	Passive Linear Open Space	Provision of land for a linear local park	Mitchell Shire Council	Yes	No	No	S - M	n/a	100.00%
Local Park	LP-07	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%

Category	Ref	Title	Description	Lead agency	Component included in ICP			Timing	Apportionment funding source	Apportionment
					Ultimate land	Interim Construction	Ultimate Construction			
Local Park	LP-08	Passive Linear Open Space	Provision of land for a linear local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-09	Passive Linear Open Space	Provision of land for a linear local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-10	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-11	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-12	Passive Linear Open Space	Provision of land for a linear local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-13	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-14	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-15	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-18	Passive Linear Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-19	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-20	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-22	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-23	Passive Open Space	Provision of land for a local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%
Local Park	LP-24	Passive Open Space	Provision of land for a linear local park	Mitchell Shire Council	Yes	No	No	M - L	n/a	100.00%

4.4 Parcel Specific Land Budget

Parcel ID	Total Area (Hectares)	Transport			Community & Education			Open Space					Total Net Developable Area (Hectares)	Total Contribution Land (Hectares)	Transport (Hectares)
		Arterial Road - Existing Road Reserve	Arterial Road - Public Acquisition Overlay	Arterial Road - New / Widening / Intersection Flaring (ICP land)	Government School	Potential Non-Government School	ICP Community Facilities	Waterway and Drainage Reserve	Landscape Values	Ecological Values	Local Sports Reserve (ICP land)	Local Network Park (ICP land)			
Total PSP (including road reserve)	1,279.35	25.50	2.61	35.4437	23.0022.39	13.00	10.609.80	98.50125.36	1757.2044	21.1744	55.2275	24.073.97	768.89793.22	894.12948.24	35.4435.37
BN-01	178.38	-	-	6.96	-	-	-	6.203.43	79.08	3.83	-	2.632.50	79.6882.57	89.2892.05	6.966.98
BN-02	40.97	-	-	-	-	-	-	14.079.63	13.39	-	-	-	13.5145.92	13.5145.92	-
BN-03	41.46	-	-	-	-	-	-	10.687.31	1.434.70	-	-	0.01-	29.3432.45	29.3532.45	-
BN-04	138.50	-	-	10.36	3.5079	-	-	3.07-	6.185.98	17.34	20.00	3.793.77	68.0571.84	108.40411.29	10.3640.27
BN-05	116.98	-	-	0.01	-	-	6.20	-	62.70	-	-	0.750.75	53.5353.53	54.2954.29	0.010.01
BN-06	115.49	-	-	0.60	3.5080	-	-	1.534.50	12.42	-	-	5.405.47	91.2590.90	98.0597.77	0.600.60
BN-07	42.74	-	-	-	-	3.00	0.80	1.664.04	-	-	-	2.361.90	35.7237.73	38.0838.73	-
BN-08	40.14	-	-	-	3.50	-	-	7.485.80	-	-	2.18	-	26.1727.70	29.1530.84	-
BN-09	90.23	-	-	3.25	-	-	0.80	21.9741.88	-	-	7.28	0.750.75	56.9866.62	68.2678.35	3.253.25
BN-10	2.09	-	-	-	-	-	-	0.12-	-	-	-	-	1.972.09	1.972.09	-
BN-11	115.92	-	-	5.07	-	-	-	10.669.23	-	-	0.62	3.434.92	96.1396.13	105.26406.69	5.075.08
BN-12	16.42	-	-	0.66	-	-	-	-	-	-	-	-	15.7745.77	16.4246.42	0.660.66
BN-13	134.97	-	-	6.43	11.8990	7.00	-	27.7328.49	-	-	11.80	1.871.90	66.2665.45	88.3687.58	6.436.43
BN-14	80.19	-	0.13	2.11	-	-	2.00	13.3343.32	-	-	3.46	1.491.50	58.8858.88	66.7466.75	2.112.11
BN-15	99.38	-	2.48	-	-	3.00	0.80	6.876.89	-	-	9.88	1.501.50	75.6575.65	87.0387.04	-
BN-R1	-	16.36	-	-	-	-	-	-	-	-	-	-	-	-	-
BN-R2	-	9.14	-	-	-	-	-	-	-	-	-	-	-	-	-

4.5 Beveridge North West Local Town Centre – Design Principles

Principles	Performance criteria
1. Distribution Local Town Centres should provide an accessible and evenly distributed network	<ul style="list-style-type: none"> Local Town Centres should be located to maximise the number of households within a 10min/800m walkable catchment. Local Town Centres should be located within walkable distance of future railway stations or other forms of transit stops to maximise access to commercial and community facilities and services. Local Town Centres should be located on or near the intersection of key transport routes to reinforce place identity and encourage opportunities for passing trade.
2. Location The location of Town Centres should reinforce the sense of place and local identity	<ul style="list-style-type: none"> Local Town Centres should be located 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. The design of the Local Town Centre should complement and enhance the character of the surrounding area and incorporate views and visual cues to reinforce place identity. Other Local Town Centre locations may be considered where: <ul style="list-style-type: none"> The number of households within the walkable catchment is increased 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 The new location will not undermine the viability of other town centres
3. Land Use & Activity Town Centres should provide a range of activities and services that meet the everyday needs of the local community	<ul style="list-style-type: none"> Local Town Centres should include a range of business and community facilities and services including: <ul style="list-style-type: none"> Retail Commercial Medical Recreation and leisure Community needs Local Town Centres should generally include one full line supermarket supported by a range specialty stores, while also allowing opportunities for local specialisation. Services and facilities to support home based and smaller businesses should be provided within the local town centre
4. Housing Local town centres should include a range of medium and high-density housing and other forms of residential uses.	<ul style="list-style-type: none"> Medium and high-density housing should be provided in and around the local town centre to support commercial viability and provide passive surveillance. Residential development should generally be provided at upper levels, or in high-amenity locations at the edge of the centre that have strong pedestrian and cycle connections to the commercial core. Development should include a range of housing types (including retirement living) to provide for a cross section of the community in close proximity to the commercial core.

<p>5. Urban Structure Local town centres should have a robust and legible structure that provides a strong sense of place and the capacity to adapt over time</p>	<ul style="list-style-type: none"> • Land uses should be arranged to maximise the accessibility of the commercial core to households within the 10min/800m walkable catchment it serves. • Development should complement and enhance the character of the surrounding area by responding to key visual cues associated with the topography and other natural features. • Local centres should generally be oriented around a centrally located axis or node of commercial and civic activity such as a main street or civic plaza. • Anchor businesses should be located to encourage pedestrian movement along key streets and public spaces. • Subdivision should provide a fine grain pattern of development that includes smaller individual tenancies to encourage for diversity and facilitate participation of small local business investment. • Landmark features and elements should be located in key places (such as at important intersections, terminating key view lines and vistas) to reinforce legibility and sense of place. • Schools, childcare, medical centres and specialised accommodation (for example, aged care, nursing home, student accommodation, and serviced apartments) should generally be located at the edge of the commercial core or where they will make a positive contribution to the spatial structure. • Agglomeration of similar land uses into character precincts is encouraged. • Car parking areas should be located to the rear of street-based retail frontages and wrapped or sleeved with built form where practical. • Carparking areas should be designed to accommodate flexible uses and allow for long term development opportunities. • Buildings should include flexible floor spaces (including floor to ceiling heights) to enable localised commercial uses to locate amongst the activity of the local town centre.
<p>6. Public Realm Local Town Centres should provide a rich and interesting public realm that serves as the primary location for community activity</p>	<ul style="list-style-type: none"> • Building facades should be built on or close to the street boundary and/or key public spaces to provide a positive sense of definition for the public realm. • Primary commercial street frontages should include access points at regular intervals to encourage activity along the length of the street. • Building facades should be visually rich, interesting and well-articulated when viewed at a walking pace. • Large format developments such as supermarkets should either: <ul style="list-style-type: none"> ◦ directly address the main street and/or town square so that the use integrates with and promotes activity within the main street and public spaces/ thoroughfares (Planning permits for buildings and works should condition against the use of "whitewashed" or frosted glass windows, excessive window advertising and obtrusive internal shelving or 'false walls' offset from the glazing), or ◦ be wrapped or sleeved with smaller, outward facing shops that provide attractive, active frontages to the public realm. • Large format developments that incorporate a small access mall may be considered provided that the primary access to the mall is from a main street and/or the town square there are limited number of internalised shops. • A centrally located civic space should be provided that acts as the central meeting place within the local town centre. This space may take the form of a town square, town park, public plaza space, public marketplace or a similar locally responsive option designed to function as the identifiable 'centre' or 'heart'.

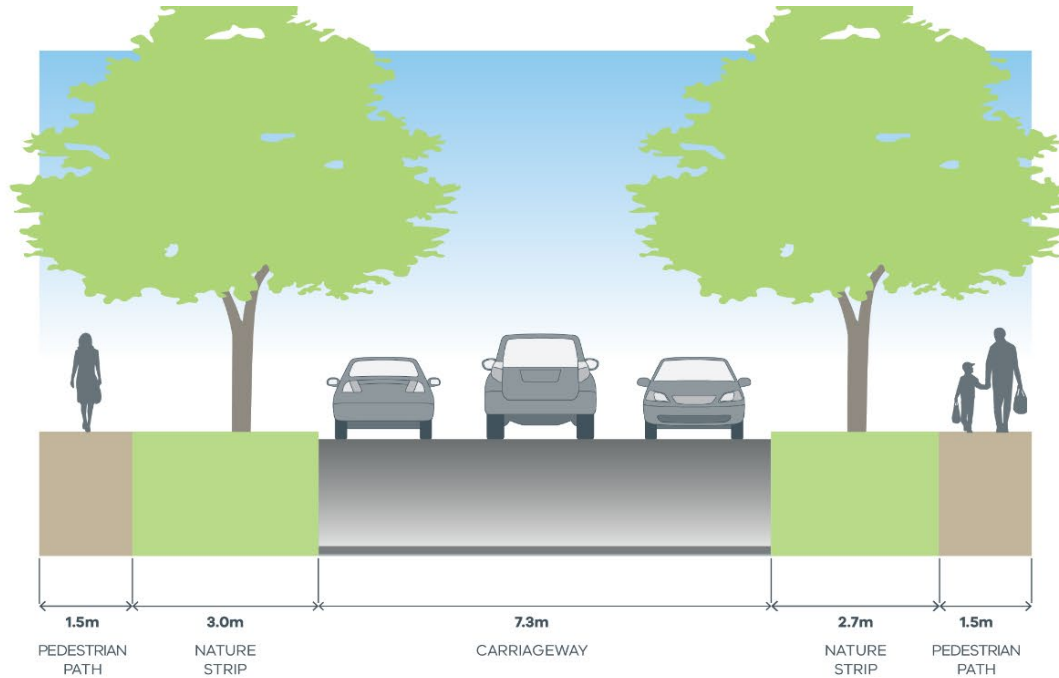
	<ul style="list-style-type: none"> • The main public space or town square should have a minimum area of 500 square metres. Smaller public spaces which are integrated within the built form design, surrounded by active frontages and facilitate high levels of pedestrian movement are also encouraged. • Public spaces should be oriented to capture north sun and protect from prevailing winds and weather • Public spaces should be flexible and adaptable so that a range of uses can occur within them at any one time. Such uses may include people accessing daily shopping and business needs as well as social interaction, relaxation, celebrations and temporary uses (such as stalls, exhibitions and markets). • Public spaces should be integrated with pedestrian and cycle links around and through the local town centre. • Footpath widths within and around the public space as well as along the main street should be sufficient to provide for universal access as well as outdoor dining and smaller gathering spaces. • Materials and design elements, including all visible side or rear facades, should provide an attractive cohesive and legible environment.
<p>7. Movement and Access Local Town Centres should be accessible, pedestrian focused environments that provide for a range of transportation choices</p>	<ul style="list-style-type: none"> • A permeable, pedestrian-focused network of streets walkways and public spaces should be provided to provide linkages throughout the centre and to designated pedestrian crossing points. • Main streets should be designed as low speed environments with traffic speeds of 40 kilometres per hour or less. • Vehicle access to arterial roads should be designed to the satisfaction of the Department of Transport and generally be restricted to left in left out movements unless otherwise approved • Public transport infrastructure and facilities should be provided in convenient locations for commuters. • Bus stops should be designed in accordance with the Public Transport Guidelines for Land Use and Development, to the satisfaction of the Department of Transport. • Local Town Centres should include a cohesive, suite of clear and concise signage and wayfinding aids that provide effective direction to local facilities. • Bicycle parking should be provided within the street network and public spaces in highly visible locations and close to key destinations. • On-street carparking should be provided to assist with the calming of traffic and to encourage short stay/convenience uses. • Off street carparking areas should provide: <ul style="list-style-type: none"> ○ appropriate levels of landscaping ○ dedicated pedestrian routes ○ ability for passive surveillance. • Secondary access to large format retail and supermarkets from car parking areas should only be considered where it facilitates convenient trolley access and does not diminish the role of the primary access from the main street and or town square. • Car parking access crossovers should be grouped or limited the number of car park access crossovers. • Loading and delivery areas should be located to the rear or side of street-based retail frontages. Heavy vehicle access points should be located to limit the potential for pedestrian and vehicle conflict.

	<ul style="list-style-type: none"> • All streets, public spaces and car parks to be lit to Australian standards and with pedestrian (generally white) light. Lighting should be designed to avoid unnecessary spill to the side or above.
<p>8. Amenity Local Town Centres should have pleasant, high-amenity environment</p>	<ul style="list-style-type: none"> • Appropriate transition between the commercial core and traditional residential neighbourhoods should be provided to minimise the potential for adverse noise effects. • Landscaping of all interface areas should be of a high standard as an important element to complement the built form design. • Where practical, urban art should be incorporated into the design of the public realm and commercial spaces. • 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 Town Centre. • Public toilets should be provided in safe, convenient and accessible locations. • Centralised waste collection points should be screened to minimise the potential for adverse amenity effects on 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.
<p>9. Sustainability Local Town Centres should encourage environmental sustainability and reduce the need for travel</p>	<ul style="list-style-type: none"> • Local Town Centre should encourage the localisation of services which will contribute to a reduction of travel distance to access local services and less dependence on private vehicles. • The Local Town Centre should be designed to be sympathetic to its natural surrounds by: <ul style="list-style-type: none"> ○ 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 Town 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 ○ investigating other opportunities for the built form to reduce greenhouse gas emissions associated with the occupation and the ongoing use of buildings.

4.6 Local Convenience Centre Performance Criteria

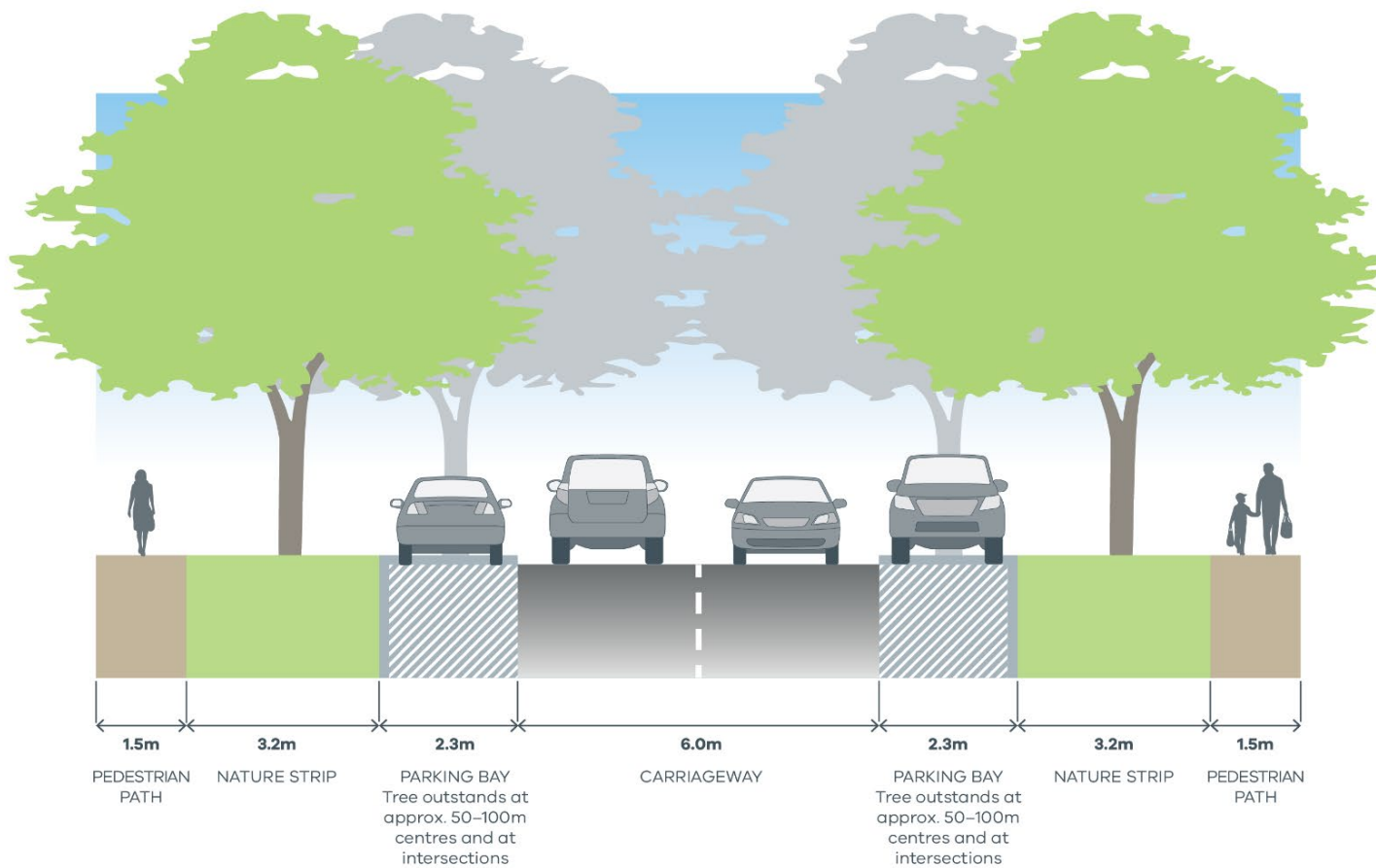
Principles	Performance Criteria
1. Location Local convenience Centres should facilitate access to goods, services, community facilities and opportunities for social interaction	<ul style="list-style-type: none"> Local Convenience Centres should make a positive contribution to the structure and planned future character of neighbourhoods Local Convenience Centres should reinforce neighbourhood legibility and sense of place Local Convenience Centres should support the delivery of more diverse and higher density forms of housing.
2. Layout and Design Local Convenience Centres should provide for the convenience needs of the local community	<ul style="list-style-type: none"> Local Convenience Centres should be of a form, scale and design quality that reinforces their role as focal points for the community. Commercial activities within Local Convenience Centres should be limited to a range and scale that meets the convenience needs of local residents and passers-by. Local Convenience Centres should be adaptable to a range of uses and allow activities to change over time. Local Convenience Centres should make a positive contribution to the visual quality and interest of streets and other public open spaces.
7. Movement and Access Local Town Centres should be safe, accessible, environments that provide for a range of transportation choices	<ul style="list-style-type: none"> Local Convenience Centres should make a positive contribution to pedestrian amenity, movement, safety and convenience for people of all ages and abilities. At grade parking and vehicle access should be located and designed in such a manner as to avoid or mitigate adverse effects on pedestrian safety and amenity, and the streetscape. 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. Bus stops should be designed in accordance with the Public Transport Guidelines for Land Use and Development, to the satisfaction of the Department of Transport.

4.7 Street Cross Sections



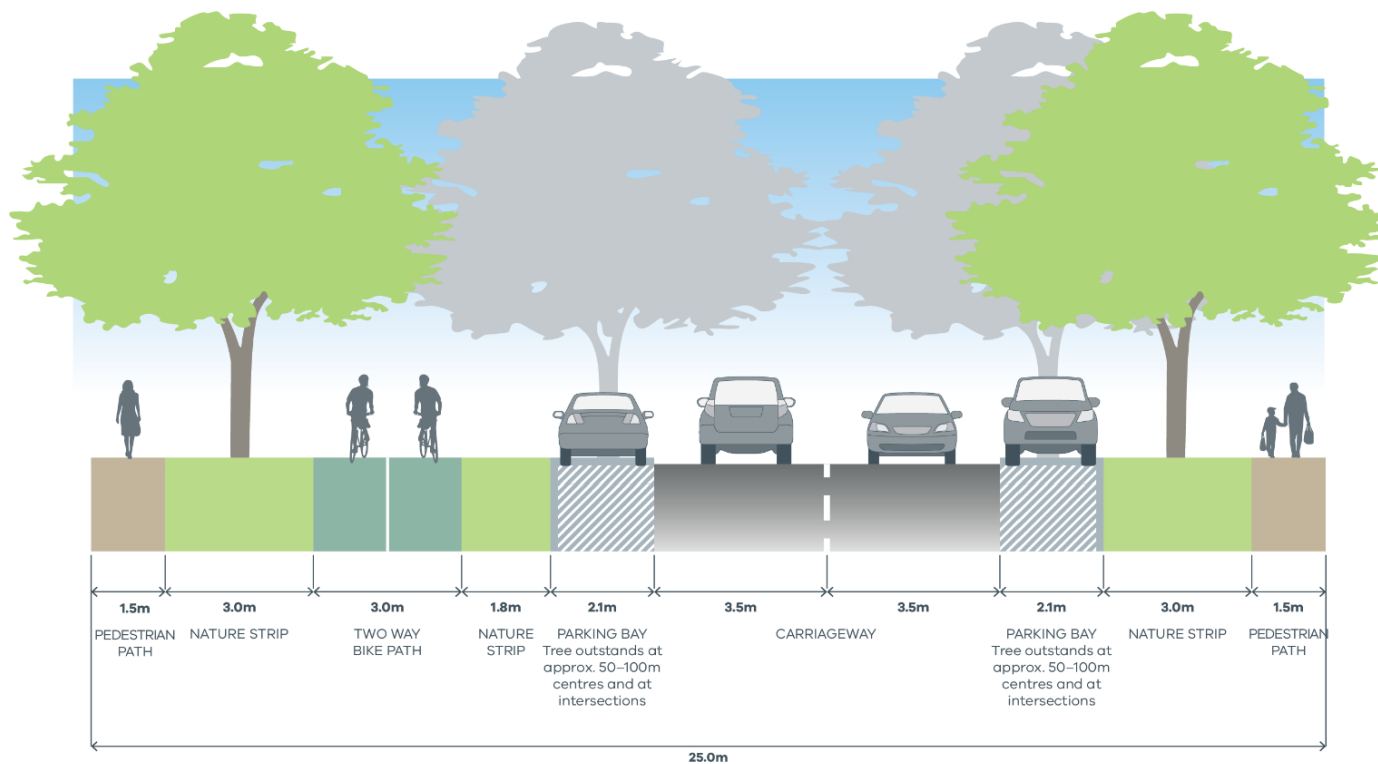
NOTES:

- Minimum street tree mature height 15 metres
- All kerbs are to be B2 Barrier Kerb
- Flexibility in the provision of cross sections within the PSP is allowed so long as the individual modal elements are all provided in a similar manner within each cross section, and subject to agreement with the relevant road authorities and responsible authority.



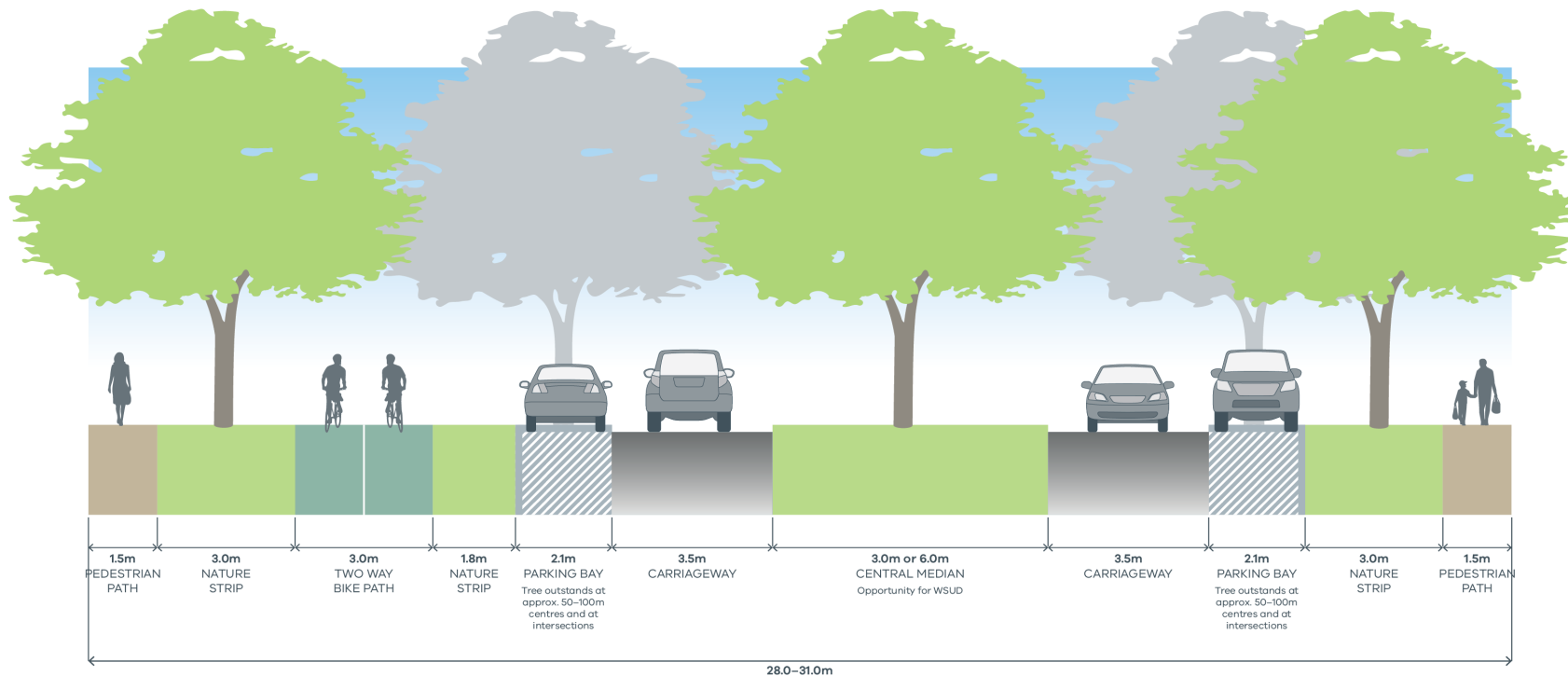
NOTES:

- 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.
- Flexibility in the provision of cross sections within the PSP is allowed so long as the individual modal elements are all provided in a similar manner within each cross section, and subject to agreement with the relevant road authorities and responsible authority.



NOTES:

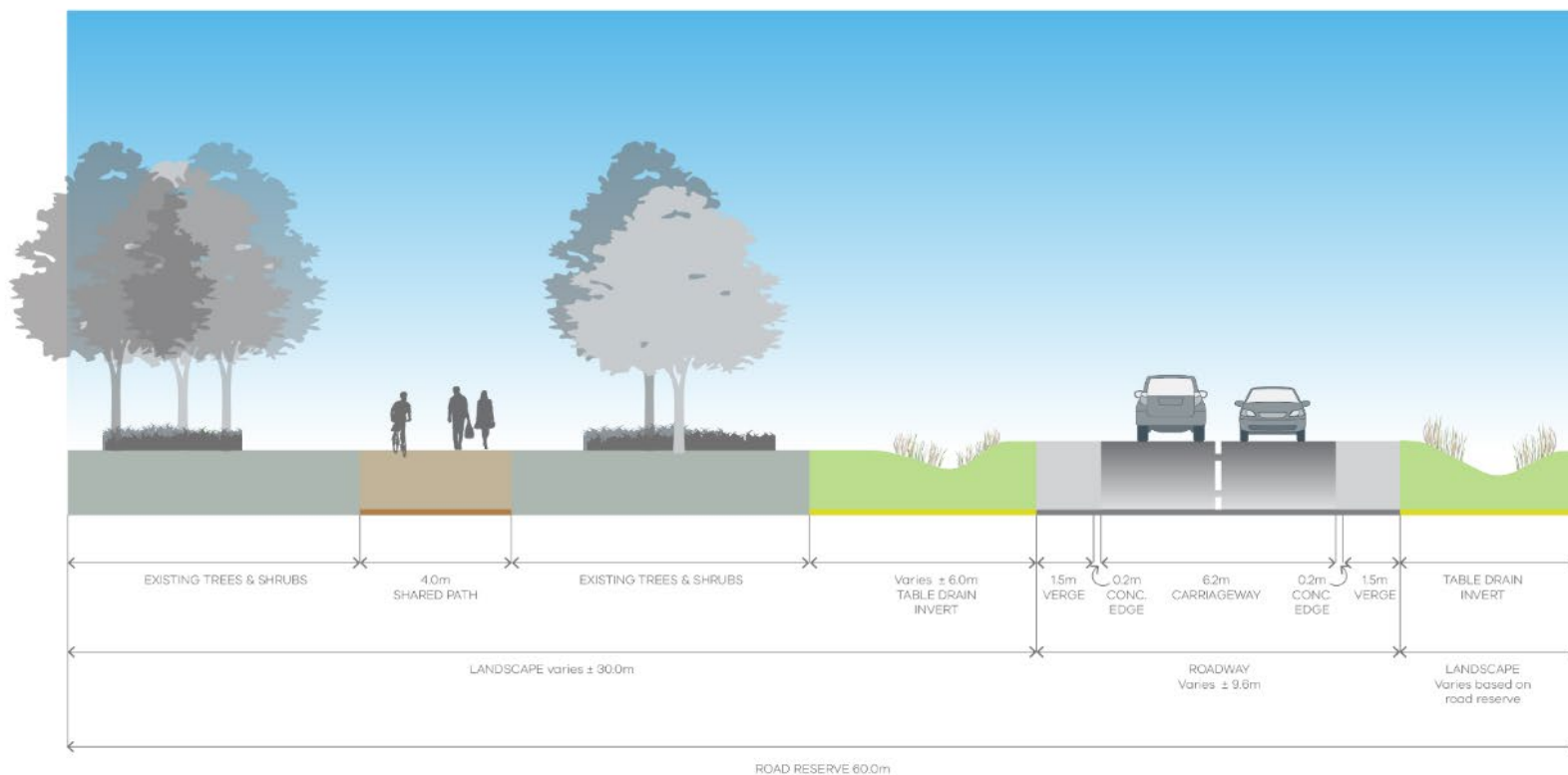
- Minimum street tree mature height 15 metres.
- All kerbs are to be B2 Barrier Kerb.
- Where roads abut school drop-off zones and thoroughfares, grassed nature strip should be replaced with pavement. Canopy tree planting must be incorporated into any additional pavement.
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.
- Variations to indicative cross-section may include water sensitive urban design (WSUD) outcome. These could include but are not limited to bioretention tree planter systems and/or median bioretention swales. Such variations must be to the satisfaction of the responsible authority.
- Flexibility in the provision of cross sections within the PSP is allowed so long as the individual modal elements are all provided in a similar manner within each cross section, and subject to agreement with the relevant road authorities and responsible authority.
- This cross section may be varied where appropriate adjacent to waterways.



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. Canopy tree planting must be incorporated into additional paved area.
- 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.
- Variations to indicative cross-section may include water sensitive urban design (WSUD) outcome. These could include but are not limited to bioretention tree planter systems and/or median bioretention swales. Such variations must be to the satisfaction of the responsible authority.
- Flexibility in the provision of cross sections within the PSP is allowed so long as the individual modal elements are all provided in a similar manner within each cross section, and subject to agreement with the relevant road authorities and responsible authority.
- This cross section may be varied where appropriate adjacent to waterways.

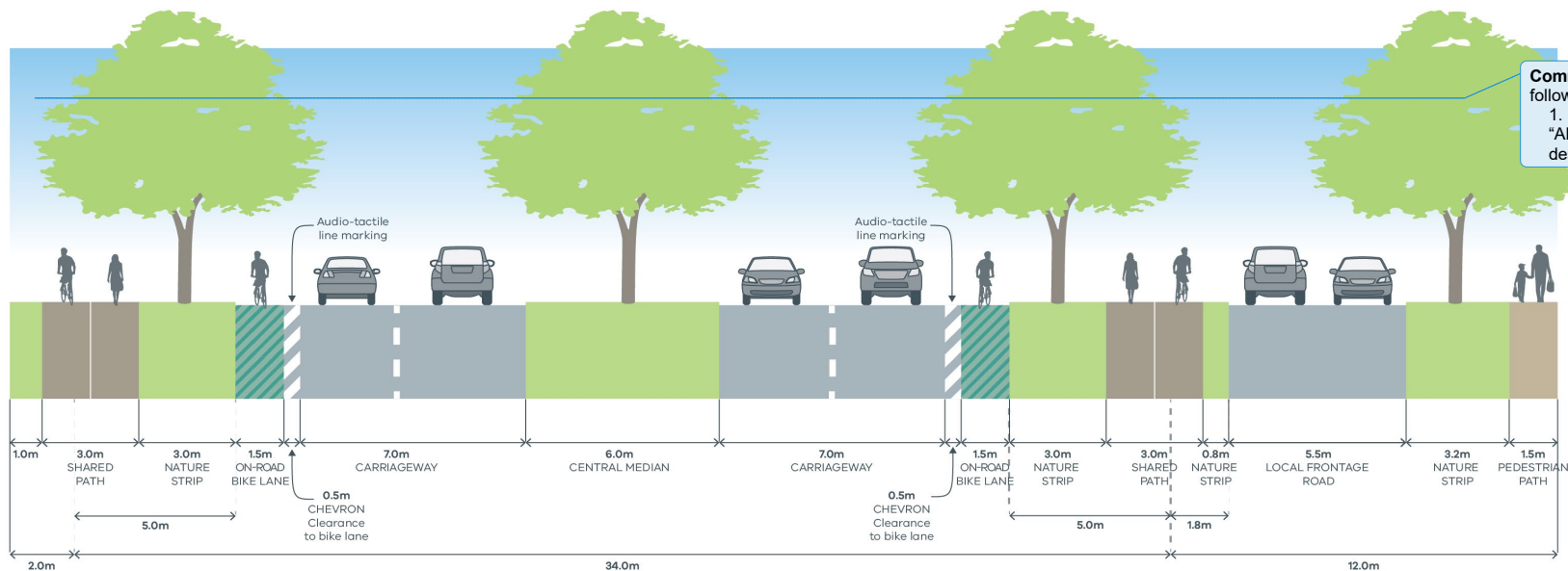
Connector Street (28.0–31.0m) Boulevard



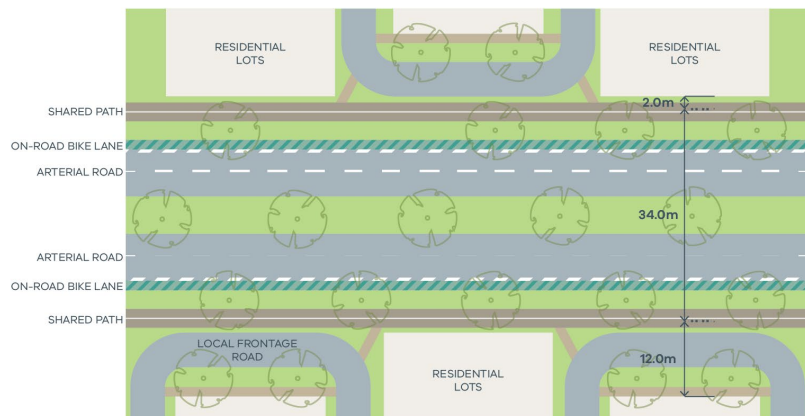
NOTES:

- Flexibility in the provision of cross sections within the PSP is allowed so long as the individual modal elements are all provided in a similar manner within each cross section, and subject to agreement with the relevant road authorities and responsible authority.

Cross Section (Non - Standard) Old Sydney Road



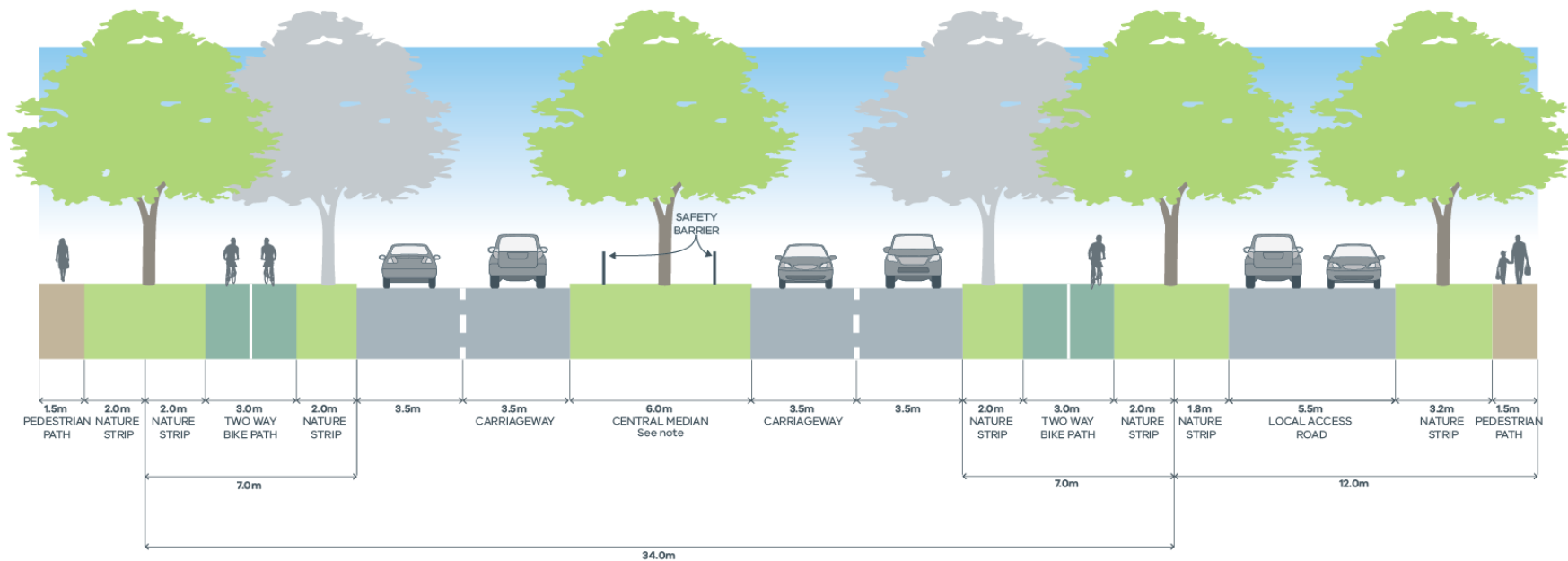
Commented [VPA15]: Change to the Cross-section as follows:
 1. New Note:
 "Alternative bike lane location to be confirmed at detailed design stage".



NOTES:

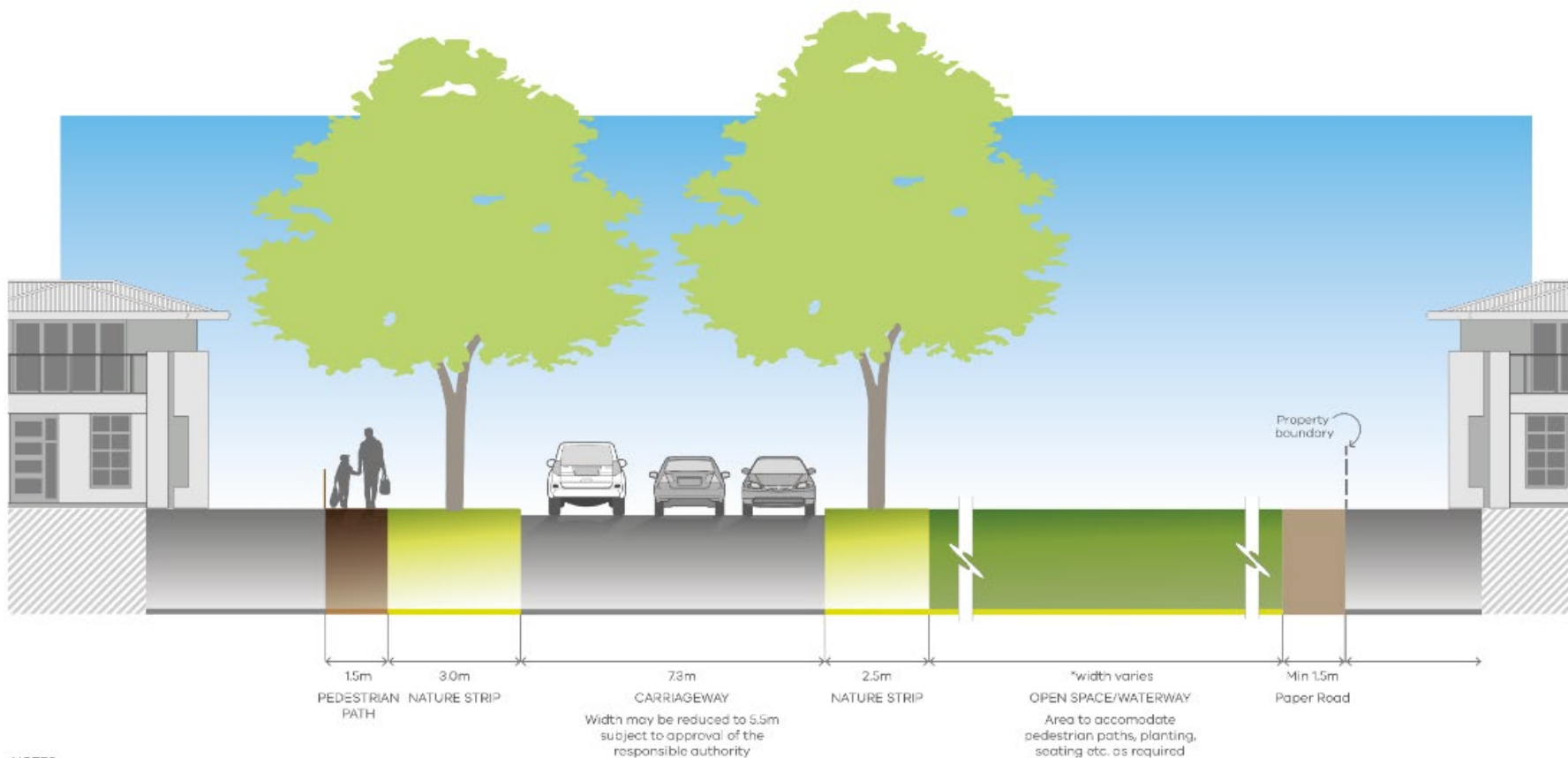
- Includes typical residential interface both sides.
- Minimum street tree mature height 15 metres.
- Kerbs for arterial carriageways are to be SM2 Semi-Mountable Kerb, and local frontage roads are to be B2 Barrier Kerb.
- Cross section indicative, final location of infrastructure and landscaping to be developed at detailed design stage.
- Variations to indicative cross-section may include water sensitive urban design (WSUD) outcomes. These could include but are not limited to bioretention tree planter systems and/or median bioretention swales. Such variations must be to the satisfaction of the responsible authority.
- Flexibility in the provision of cross sections within the PSP is allowed so long as the individual modal elements are all provided in a similar manner within each cross section, and subject to agreement with the relevant road authorities and responsible authority.
- Alternative bike lane location to be confirmed at detailed design stage

Secondary Arterial Road 4 lane: (34.0m)



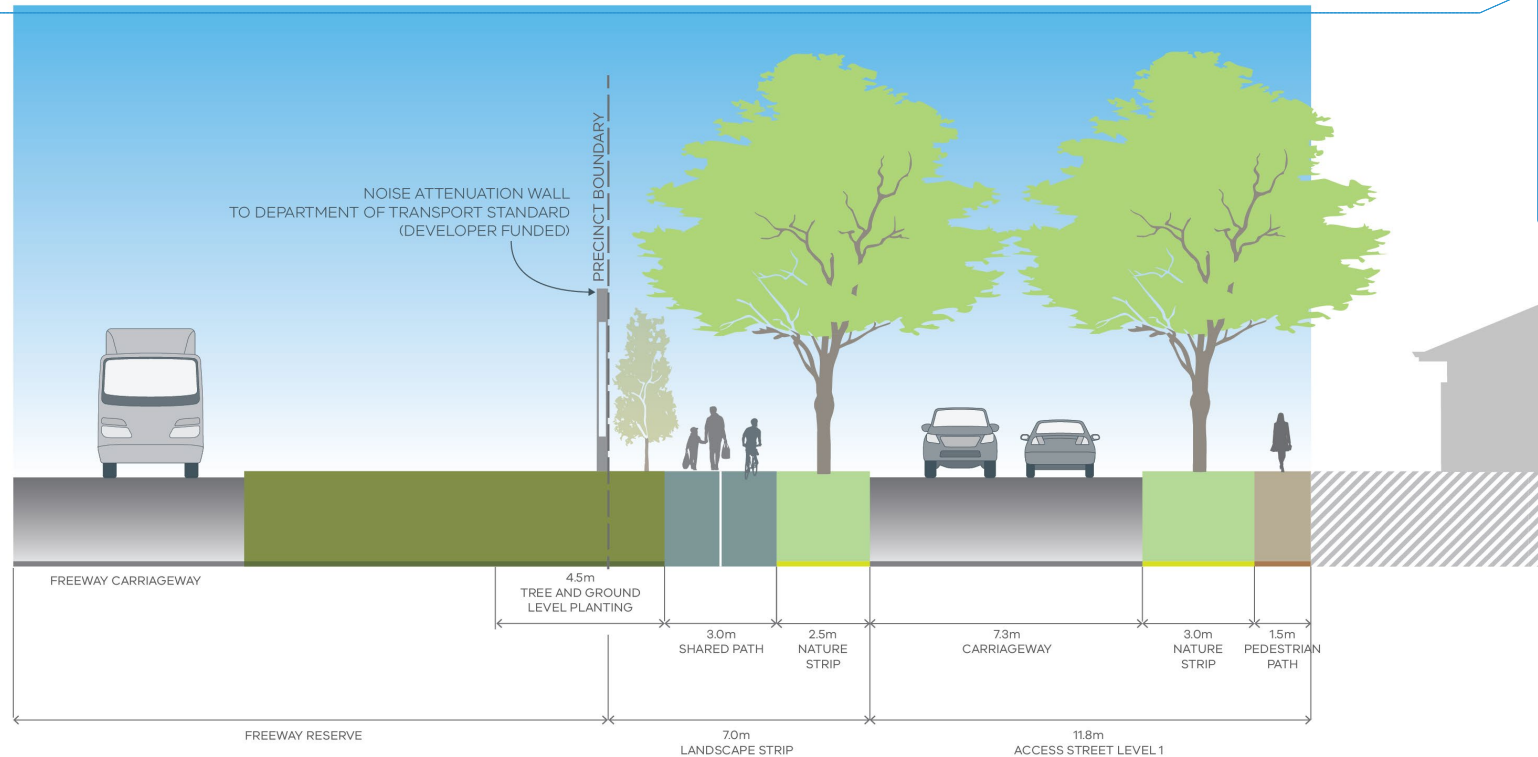
- NOTES:
- Includes typical residential interface both sides.
 - Minimum street tree mature height 15 metres.
 - Kerbs for arterial carriageways are to be SM2 Semi-Mountable Kerb, and local frontage roads are to be B2 Barrier Kerb.
 - See VicRoads Tree Planting Policy. Large trees within the road reserve to be protected by safety barriers where required.
 - Flexibility in the provision of cross sections within the PSP is allowed so long as the individual modal elements are all provided in a similar manner within each cross section, and subject to agreement with the relevant road authorities and responsible authority.

- This cross section may be varied where appropriate adjacent to waterways.
 - Expected posted speeds:
 - Interim - 60km/hr
 - Ultimate - 80km/hr
- Final operational speed will be determined by DoT to meet the network operational requirements.



NOTES:

- Where active interfaces to waterways are not provided, waterway corridor widths will be increased in order to ensure maintenance access, to the satisfaction of Melbourne Water
- Where a 2.5m nature strip adjacent to the open space/waterway is not needed for tree planting and/or provision of services, the width may be reduced, to the satisfaction of the Responsible Authority
- Public access will be provided along the 'paper road'
- Indented parking required adjacent to sporting reserves
- Flexibility in the provision of cross sections within the PSP is allowed so long as the individual modal elements are all provided in a similar manner within each cross section, and subject to agreement with the relevant road authorities and responsible authority.



Commented [VPA16]: Change to the Cross-section as follows:

1. New Note in line with Beveridge Central PSP:
The 3 metre meandering shared path is to be located within a 4.5 metre maintenance strip which will include strips of landscaping on both sides. The width of these strips will vary along the extent of the path, and landscaping will be subject to approval by the Responsible Authority
2. Amended the location of the Noise Attenuation Wall in line with the Precinct Boundary
3. Note: Noise attenuation wall to Department of Transport Standard (Developer Funded)

NOTES:

- The shared path is to be located outside of the freeway reserve, unless a proposal to locate the path within the freeway reserve is approved in writing by DoT
- All kerbs are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority
- Shared paths to be delivered as developer works.
- Flexibility in the provision of cross sections within the PSP is allowed so long as the individual modal elements are all provided in a similar manner within each cross section, and subject to agreement with the relevant road authorities and responsible authority.
- The 3 metre meandering shared path is to be located within a 4.5 metre maintenance strip which will include strips of landscaping on both sides. The width of these strips will vary along the extent of the path, and landscaping will be subject to approval by the responsible authority.

4.8 Service Placement Guidelines

4.8.1 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 C containing grassed nature strips, footpaths and road pavements.

4.8.2 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 TREES ¹	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	<p>1 Trees are not to be placed directly over property service connections</p> <p>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</p> <p>3 Where allotment size/frontage width allows adequate room to access and work on a pipe</p> <p>4 Where connections to properties are within a pit in the pedestrian pavement/footpath</p>
--------------	--

4.8.3

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 (e.g. drainage, street light electricity supply) closer to the road carriageway
- Maintain appropriate services clearances and overlap these clearances wherever possible

