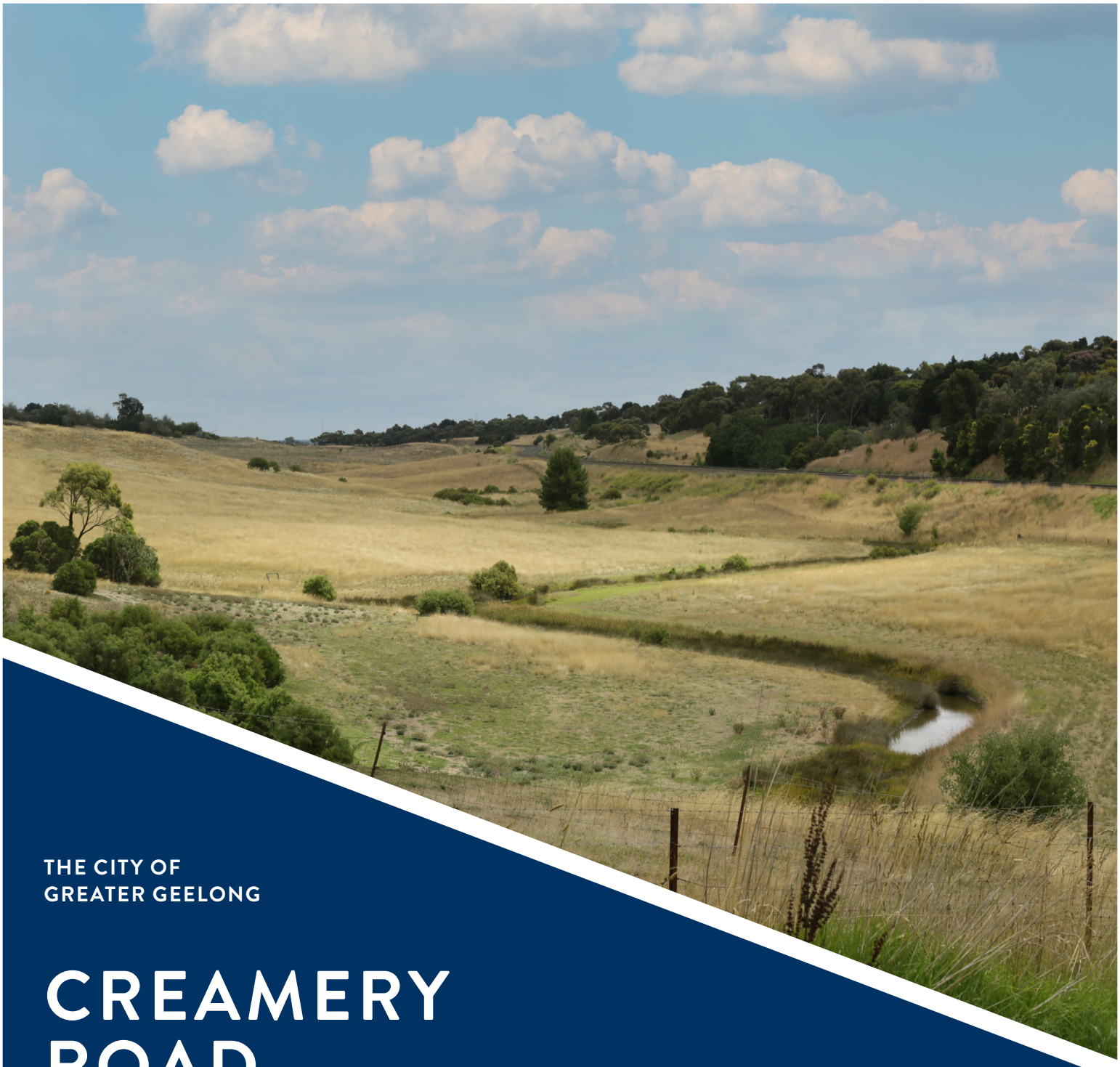


THE CITY OF
GREATER GEELONG

CREAMERY ROAD
PRECINCT STRUCTURE PLAN

NOVEMBER 2025

CITY OF GREATER
GEELONG



ACKNOWLEDGEMENT OF COUNTRY

We Acknowledge the Wadawurrung People as the Traditional Owners of the Land, Waterways and Skies. We pay our respects to their Elders, past, present and emerging. We Acknowledge all Aboriginal and Torres Strait Islander people who are part of our Greater Geelong community today.

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1.0 INTRODUCTION

The Creamery Road Precinct Structure Plan (the PSP) has been prepared by the City of Greater Geelong (the City) in collaboration with government agencies, service authorities, major stakeholders and the community.

The PSP is a long-term strategic plan to guide urban use and development. It describes how land is expected to be developed, what natural assets must be protected, and how and where services are planned to support this development.

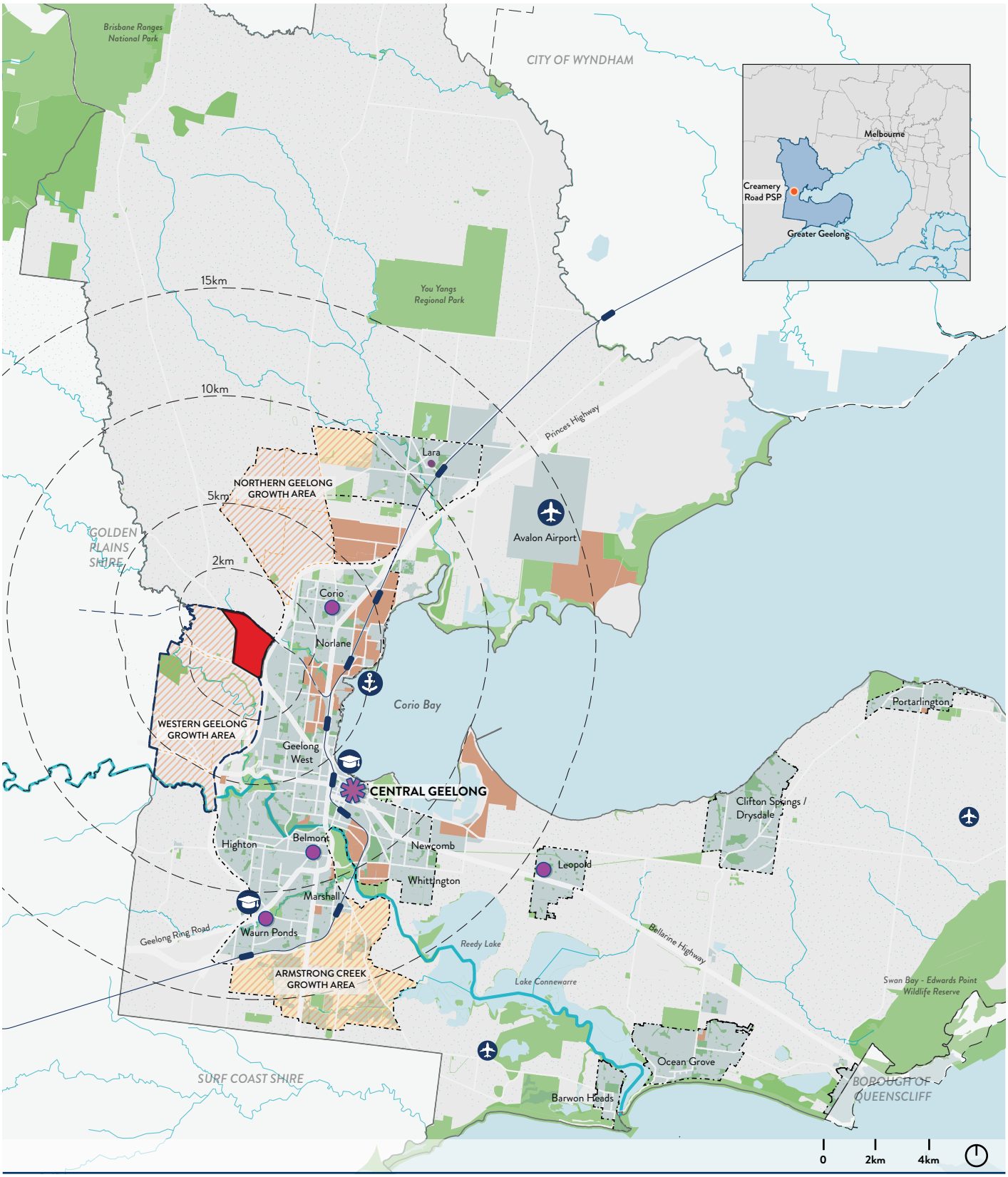
The PSP:

- Sets out plans to guide the delivery of quality urban environments in accordance with the *The Precinct Structure Planning Guidelines: New Communities in Victoria (VPA, 2021) (PSP Guidelines);*
- Enables the transition of non-urban to urban land;
- Outlines the vision for how land should be developed and the desired outcomes to be achieved;
- Outlines the projects required to ensure that future residents, visitors and workers within the area are 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 City, developers, investors and local communities with certainty about all future use and development;
- Addresses the aspirations and actions of *Northern and Western Geelong Growth Areas Framework Plan (August 2020)*;
- Addresses the requirements of the *Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act 1999)* through the Northern and Western Growth Areas EPBC Plan and Strategic Impact Assessment

The PSP is informed by:

- The Planning Policy Framework as set out in the Greater Geelong Planning Scheme;
- *NWGGA Standing Advisory Committee Referral 1 Report – Volumes 1 & 2 (Creamery Road Precinct Structure Plan and Development Contributions)*
- *The Precinct Structure Planning Guidelines: New Communities in Victoria (VPA, 2021)*;
- *Northern and Western Geelong Growth Areas Framework Plan (City of Greater Geelong, August 2020*);
- *The Northern and Western Geelong Growth Areas Integrated Water Management Plan (City of Greater Geelong, Barwon Water, 2018)*
- *Plan for Victoria (Victorian Government, 2025);* and
- Creamery Road PSP Background Report and the Creamery Road Native Vegetation Precinct Plan (NVPP).

P1. REGIONAL CONTEXT



LEGEND

- Creamery Road Precinct Area
- Western Geelong Growth Area
- Municipal Boundary - City of Greater Geelong
- Municipal Boundary - Other Councils
- Urban Growth Area
- PSP Boundary
- Completed PSP
- Established Urban Area
- Settlement Boundary
- Industrial Area
- Farmland
- Regional Activity Centre – Central Geelong
- Sub Regional Centre
- Airport
- Port
- University / Educational Institution
- Train Station
- Freeway/Highway
- Arterial Road
- Connector Street
- Waterway
- Waterbody
- Open Space

1.1 REALISING THE ASPIRATIONS OF THE NORTHERN & WESTERN GEELONG GROWTH AREAS FRAMEWORK PLAN

The Northern and Western Geelong Growth Areas Framework Plan – August 2020 (Framework Plan) is a high-level strategic document which guides the urban development of the Northern and Western Geelong Growth Areas (NWGGA). It includes actions and objectives to be responded to in the preparation of precinct structure plans for the NWGGA.

The NWGGA is the largest greenfield planning project in regional Victoria, containing approximately 5,300 hectares. It is anticipated to deliver up to 40,000 new dwellings to accommodate a population of approximately 112,000 people.

The NWGGA is located north-west of the Geelong CBD. Both the Northern and the Western Growth Areas consist of largely open, treeless agricultural land primarily utilised for grazing and cropping activities and are also home to nationally significant flora and fauna.

The Western Growth Area is bound by the Geelong Ring Road to the east, the Barwon River to the south and the Geelong-Ballarat rail line to the north. It has an area of 3,241 hectares and is anticipated to deliver up to 22,953 new dwellings for a population exceeding 64,000. The landscape is characterised by Cowies Creek, Barwon and Moorabool Rivers, views across the Barrabool Hills, and Batesford Quarry.

The Creamery Road Precinct is the first precinct proposed for development in the NWGGA. It is located in the north eastern corner of the Western Growth Area at the intersection of the Geelong Ballarat Railway line and the Geelong Ring Road.

Planning scheme amendment C395 incorporated the Framework Plan into the Greater Geelong Planning Scheme. It was gazetted on the 6th of May 2021. The amendment introduced Clause 11.02-2L - Northern and Western Geelong Growth Areas and recognises the Framework Plan as a background document which will inform the preparation of precinct structure plans in the NWGGA.

The Framework Plan sets out the following vision for the NWGGA:

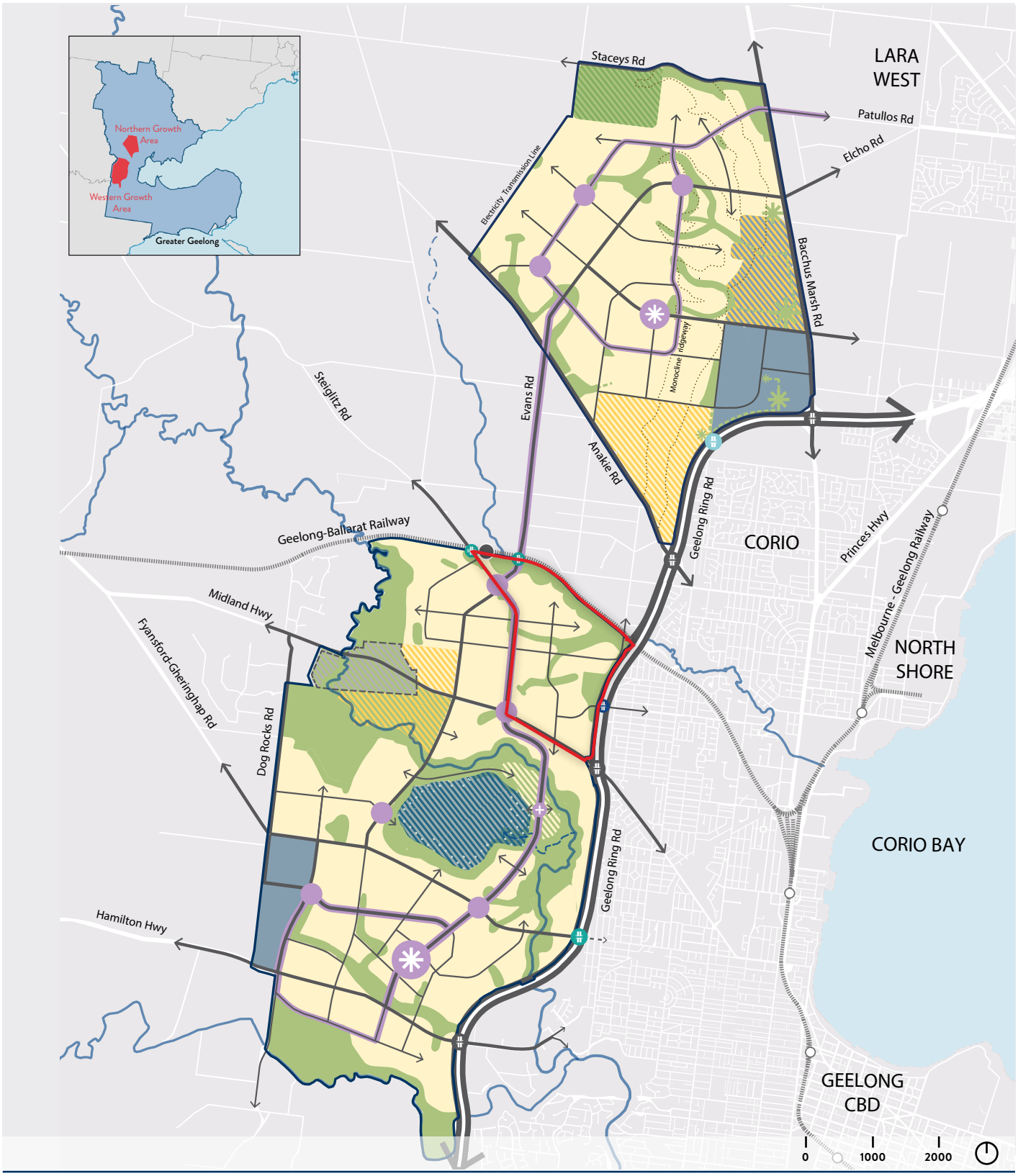
The Northern and Western Geelong Growth Areas will exemplify Geelong's transformation as a clever and creative city by building diverse, localised and sustainable neighbourhoods that prioritise self-sufficiency whilst maximising connections to the Geelong community, economy and identity.

The Framework Plan pursues innovation in the design and development of the NWGGA precinct structure plans to enable:

- Comfortable climate resilient communities;
- Zero carbon and zero waste communities;
- Integrated water management systems around major catchments;
- A Clever and Creative network that prioritises active transport and transit to develop 20 minute neighbourhoods;
- Smart city infrastructure; and
- Environmentally sustainable development (ESD).

This PSP seeks to address the aspirations, objectives and actions of the Framework Plan and determine land uses and the urban structure for the Creamery Road Precinct.

P2. NORTHERN & WESTERN GROWTH GEELONG GROWTH AREAS FRAMEWORK PLAN 2020: FUTURE URBAN STRUCTURE



LEGEND

- Creamery Rd PSP
- Study Area
- Geelong Ring Road
- Arterial Road
- Connector St. (Indicative Alignment)
- Future Railway Station
- Public Transport (Potential Connection)
- Residential
- Employment
- Waterways
- Rural Living (Future Investigation of Residential)
- Rural Living (Future Investigation of Employment)
- Agriculture (Future Investigation of Conservation)
- Agriculture (Future Investigation of Rural Living)
- Lakeside Residential (Future Investigation of Conservation)
- Batesford Township
- Lake Waterbody
- Clever & Creative Corridor
- Activity Centre (Sub-Regional / Specialized Neighbourhood)
- Geelong Ring Road (Pedestrian Connection)
- Geelong Ring Road (New Connection)
- Geelong Ring Rd. (Upgrade Connection)
- Railway Crossing (Grade Seperation)
- Major Watercourse
- Potential Waterways
- Monocline Escarpment

1.2 A CLEVER & CREATIVE APPROACH

ZERO CARBON & ENVIRONMENTALLY SUSTAINABLE DEVELOPMENT

The *City's Climate Change Response Plan 2021-30* establishes a target of net zero community emissions by 2035. Similarly, the Framework Plan requires PSPs to deliver zero carbon and environmentally sustainable development (ESD).

ESD and zero carbon actions, requirements and guidelines have been embedded throughout the PSP to ensure that subdivision and building design responds to the City's ESD and net zero targets. The PSP has also been guided by the *Sustainable Subdivisions Framework*, prepared by the Council Alliance for a Sustainable Built Environment (CASBE).

ZERO WASTE COMMUNITIES

The Framework Plan requires waste minimisation, reuse, and recycling to be addressed in the construction and occupation of new neighbourhoods to fulfil the City's strategic goal of zero waste to landfill.

The PSP seeks to mitigate waste streams by planning and managing construction processes to incentivise waste minimisation through material selection, reuse, and resource recovery. It also seeks to mitigate the environmental impact of construction by encouraging the use of locally sourced materials with high recycled content and low embodied carbon.

The City will be addressing zero waste to landfill as it applies to waste collection, transfer, and treatment at a municipality scale with the delivery of the City's Sustainability Framework and Action Plan (2020), and the Waste and Resource Recovery Strategy 2020-2030.

COMPLETE STREETS & THE CLEVER & CREATIVE NETWORK

The Framework Plan prioritises safe, convenient, and integrated active and public transport in the design of its neighbourhoods. It seeks to create neighbourhoods that encourage walking and cycling, reduce car dependency, promote community safety and connectivity, support the delivery of greening, canopy trees and water sensitive urban design.

The Clever and Creative Corridor (CCC) is a dedicated active and public transport network that will connect all major activity centres and key land uses across the growth areas to support separated bicycle lanes, rapid public transit, and wide, tree-canopy lined pedestrian paths.

Its central location in each precinct, combined with streets and intersections designed to prioritise walking and cycling, will support the development of walkable and cyclable neighbourhoods around key land uses and destinations.

The main CCC network passes through the north-west of the Creamery Road Precinct, linking to Evans Road to join the Western and Northern Geelong Growth Areas. A spur line of this network, named the Clever and Creative Boulevard (CCB), runs north-south through the Creamery Road Precinct. The CCB follows the topography of the land. Parks and other land uses have been located on the CCB to maximise views and proximity to natural assets and waterways.

TREE CANOPY

The City's Urban Forest Strategy 2015-2025 establishes a 25% canopy cover target for urban areas. Clause 12.06-1S of the Greater Geelong Planning Scheme includes a strategy to achieve an overall 30% tree canopy target for urban areas. In response to these targets and the aspirations of the Framework Plan, the PSP promotes the retention of existing canopy trees and sets localised minimum canopy targets for each land use, seeking to achieve a minimum of 30% canopy coverage across the precinct.

COMPACT HEALTHY NEIGHBOURHOODS

This PSP encourages greater dwelling densities in and around areas of higher amenity including activity centres, along the CCB, and near community facilities, schools, and open space. This approach will enable more people to live within a short walk to key services such as schools, parks, food and groceries and encourage walking, cycling and healthy lifestyles.

INTEGRATED WATER MANAGEMENT

Integrated water management recognises the interrelationships between different types of water and recognises the needs of local catchments and waterways, communities, and industries.

This approach to managing and supplying water is a key component of the NWGGA Integrated Water Management Plan (2021) which guides the preparation of all NWGGA precincts.

It will provide recycled water to every dwelling, support passive irrigation of street trees and open spaces, and enable stormwater capture, harvesting and treatment through detention and retarding basins to enhance environmental flows to Cowies Creek and local tributaries.

Integrated water management will contribute to cool urban landscapes that minimise urban heat island effect, create environments that sustain natural assets, and protect and improve the habitat of native species.

PROTECTING & RESTORING BIODIVERSITY

Cowies Creek supports a range of environmental values including a significant population of Growling Grass Frog *(Litoria raniformis*), listed as vulnerable under the EPBC Act 1999. Populations of Growling Grass Frog have also been recorded downstream of the PSP, highlighting the significance of the waterway in supporting the species.

The regionally significant Eastern Long-necked Turtle (*Chelodina longicollis)* was also recorded in Cowies Creek.

With respect to vegetation, nationally listed Adamson's Blown Grass *(Lachnagrostis adamsonii)* has been recorded along the creekline in addition to remnant patches of Creekline Grassy Woodland (EVC 68). Over 20 hectares of Plains Grassland EVC 132 persist throughout the precinct.

The Northern and Western Growth Areas EPBC Plan and supporting documents including the Biodiversity Conservation Strategy prepared by the City will inform biodiversity protection and conservation in the precinct and broader growth area in addition to the NVPP.

SMART CITIES

The PSP supports and enables the adoption of smart technologies and digital innovation that will provide high-performance information technology infrastructure, help the City manage local assets such as roads, intersections and car parking, and monitor the precinct's sustainability performance.

P3. LOCAL CONTEXT



LEGEND

- Creamery Road Precinct Area
- Western Geelong Growth Area
- Municipal Boundary
- Other Growth Area
- Established Urban Area
- Overhead Transmission Power Line
- Existing Quarry
- Future Open Space
- Train Station
- Freeway/Highway
- Arterial Road
- Connector Street
- Waterway
- Waterbody
- Open Space

1.3 HOW TO READ THIS DOCUMENT

The PSP guides land use and development where a permit is required under Schedule 8 to the Urban Growth Zone (UGZ) (Clause 37.07 of the Greater Geelong Planning Scheme), or any other provision of the Greater Geelong Planning Scheme that references the PSP.



1 STEP

REVIEW THE URBAN GROWTH ZONE SCHEDULE

The Urban Growth Zone Schedule 8 (UGZ8) of the Greater Geelong Planning Scheme sets out whether a planning permit is required for land use or development and includes requirements and conditions which must be met, in addition to decision guidelines.



2 STEP

UNDERSTANDING THE VISION & OBJECTIVES

A permit application and subsequent planning permit must respond to and implement the PSP vision and objectives outlined in *Section 2*.



3 STEP

IMPLEMENTATION

The implementation section is divided into a series of themes, derived from the overarching vision and objectives of the PSP. Each theme contains specific **Objectives**, **Requirements**, and **Guidelines**.

Objectives describe the desired outcome to be achieved by a proposal.

Requirements are mandatory and must be adhered to in developing land. Where they are not demonstrated to be met in a permit application, the application may be refused, or requirements may be included as a planning permit condition.

Guidelines are discretionary and should be adhered to in developing land, at the discretion of the responsible authority. If the responsible authority is satisfied that an application applies an alternative approach and it achieves the objectives, the responsible authority may approve the alternative approach.

Meeting the requirements and guidelines will achieve the PSP's vision, objectives, and desired outcomes.



4 STEP

OTHER CONSIDERATIONS

This PSP does not include every aspect that must be considered by a responsible authority when determining proposals on land within the precinct. The responsible authority will also determine proposals and issue permits in accordance with its powers under the Planning and Environment Act 1987 and the Greater Geelong Planning Scheme and, where necessary, apply discretion allowed for by these instruments.

Development must also comply with other statutes and approvals where relevant e.g., the EPBC Act 1999 in the case of biodiversity and the Aboriginal Heritage Act 2006 in the case of cultural heritage, amongst others.

1.4 LAND TO WHICH THIS PSP APPLIES

The Creamery Road Precinct is the first precinct to be developed in the NWGGA.

The precinct is located in the northeast corner of the Western Geelong Growth Area as shown on *Plan 3 Local Context.*

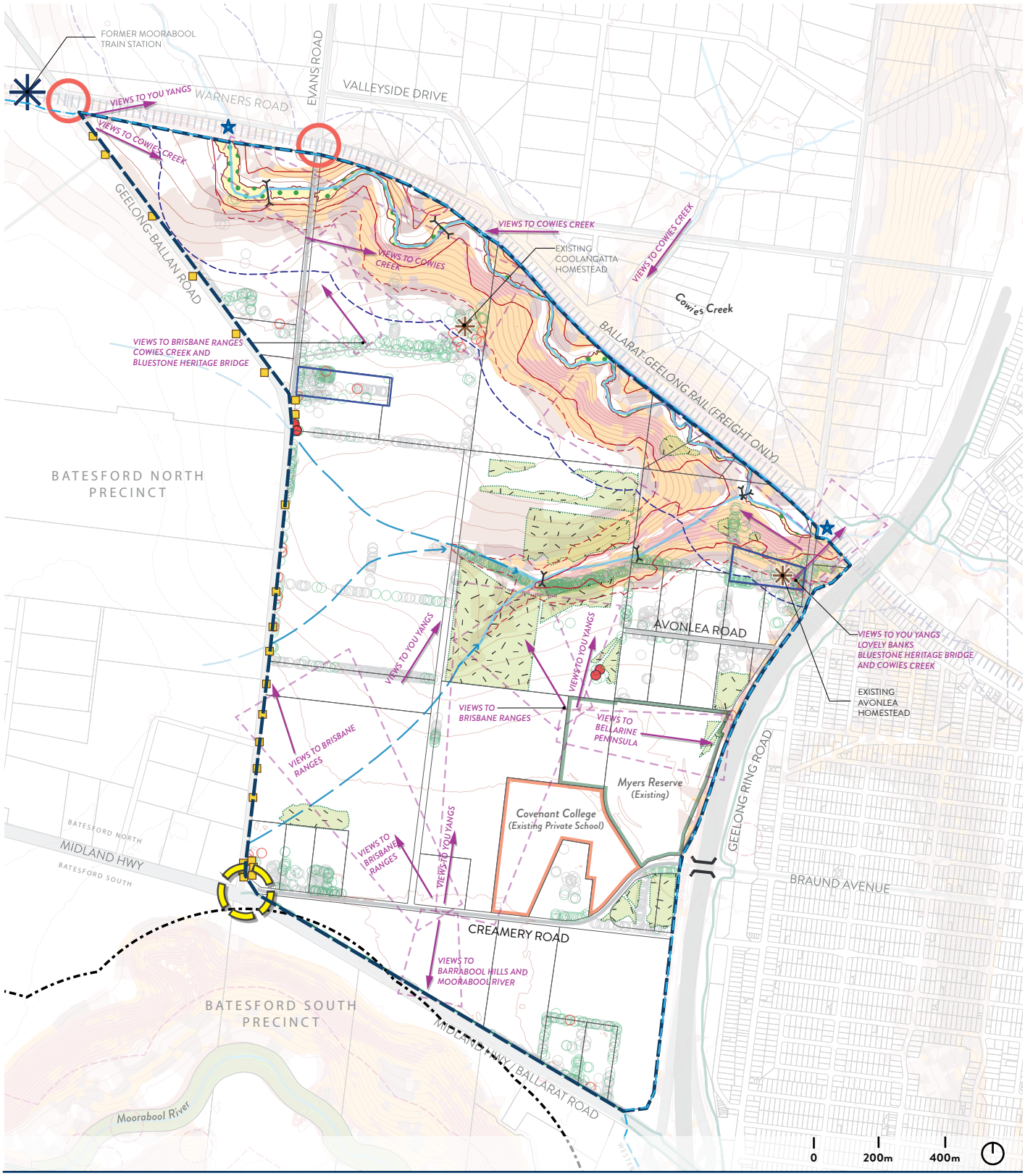
It occupies approximately 350 hectares of land and is bound by the Midland Highway/Ballarat Road to the south, the Princes Freeway/Geelong Ring Road to the east, Geelong-Ballan Road to the west and the Cowies Creek corridor and the Geelong-Ballarat rail line to the north. Cowies Creek runs from east to west inside the northern boundary of the precinct. The precinct topography features shallow gradients sloping toward Cowies Creek as shown on *Plan 4 Precinct Features.*

The PSP abuts the future Batesford North PSP to its immediate west (separated by Geelong-Ballan Road) and Batesford South PSP to its south (separated by the Midland Highway/ Ballarat Road). Land north of the railway corridor is utilised for rural living.

East of the precinct and Geelong Ring Road is the established suburb of Bell Post Hill. Most of the precinct's land is currently within the boundaries of Bell Post Hill.

Land south of Creamery Road is contained in the township of Batesford. The triangular corner of the precinct located west of Evans Road at present belongs to the locality of Moorabool.

P4. PRECINCT FEATURES



LEGEND

- Creamery Road PSP Area
- WGGA Boundary
- Property Parcels
- Contours (2.5m)
- Areas of Cultural Heritage Sensitivity
- Existing Educational
- Existing Sports Reserve
- Medium Potential for Contamination
- Existing Train Line
- Major Intersection
- Level Crossing
- Potential Future Railway Station
- Heritage Homestead
- Heritage Rail Bridge
- Informal Waterway Crossing
- Road Over Bridge
- Quarry Buffer
- Power Poles
- Viewline & View Cones
- Plains Grassland EVC132
- Creekline Grassy Woodland
- 100m Buffer to Cowies Creek
- Significant Grade Change (Slope 2-20%)
- Critical Rated Trees
- High Rated Trees
- Moderate Rated Trees
- Other Trees
- Direction of Drainage
- Waterbody
- Moderate Landslide Susceptibility Zone
- High Landslide Susceptibility

1.5 BACKGROUND INFORMATION

The Creamery Road 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 summarises the technical studies that have informed preparation of the PSP. It also outlines the further work completed in response to the Standing Advisory Committee's recommendations.

1.6 DEVELOPMENT CONTRIBUTIONS PLAN

The Creamery Road Development Contributions Plan (the DCP) sets out the requirements for developers to contribute towards the basic and essential infrastructure required to support development of the precinct.

The DCP is a separate document to the PSP. It is incorporated into the Greater Geelong Planning Scheme under Clause 72.04 Incorporated documents and implemented through Schedule 11 to Clause 45.06 of the Greater Geelong Planning Scheme. The DCP Overlay applies to the same land as the PSP.

1.7 NATIVE VEGETATION PRECINCT PLAN

The Creamery Road Native Vegetation Precinct Plan (NVPP) is informed by the Biodiversity Conservation Strategy.

The NVPP identifies:

- Native vegetation to be protected;
- Native vegetation that can be removed, destroyed or lopped without a requiring a planning permit;
- Offsets that must be sourced by landowners, as outlined in the NVPP, prior to the removal of native vegetation; and
- Conditions that must be met to protect and retain vegetation.

The statutory basis for the NVPP is Clause 52.16 of the Greater Geelong Planning Scheme. The NVPP is a separate document to the PSP and is incorporated into the Greater Geelong Planning Scheme under Clause 72.04 Incorporated documents.

2.0

OUTCOMES

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2.1 VISION

The Creamery Road PSP will support a thriving, well connected and climate resilient community.

The Clever and Creative Boulevard (CCB) will form a dedicated active and public transport link, and connect the activity centres and key land uses to the wider growth area.

Increased housing density and diversity along the CCB and within and around the Neighbourhood Activity Centre (NAC) will allow residents to live within walking distance of day-to-day necessities and public transport. The precinct will support a range of housing typologies that support varying housing needs.

The street network will showcase 'blue-green' infrastructure, support canopy trees and prioritise walking and cycling and the creation of environments that are attractive and designed to a human scale. Best practice stormwater management and water sensitive urban design will deliver functional, high-amenity community spaces.

The precinct's open space system will recognise cultural values and perform an important role in conservation, recreation, greening and cooling.

Community facilities will be provided to ensure access to community services and spaces for social connection.

The PSP provides a framework to achieve zero carbon operation subdivision and development including the delivery of a fully electric precinct that includes energy efficient buildings and supports neighbourhood scale renewable energy opportunities.

The PSP will contribute to zero waste initiatives by encouraging the use of sustainable and locally sourced materials with low embodied carbon and high recycled content.

2.2 OBJECTIVES

SITE LAYOUT, LIVEABILITY & CHARACTER

CHARACTER	• Protect cultural heritage and create opportunities for cultural awareness and education. • Ensure view corridors to significant features. • Ensure neighbourhoods and buildings respond to natural features, character and cultural heritage.
HOUSING	• Facilitate 4.5% affordable housing in all residential areas. • Facilitate housing diversity to cater to the needs of a diverse population. • Deliver environmentally sustainable and climate resilient housing that supports zero carbon outcomes. • Support greater densities of housing within walking distance of key destinations, amenities, and infrastructure. • Deliver a range of lot sizes and housing typologies that integrate with, and respond to, surrounding land uses and context.
COMMUNITY FACILITIES	• Deliver well designed community facilities and schools which are integrated, adaptable, sustainable and responsive to the context. • Support the timely delivery of community facilities and schools that cater to a diverse community. • Ensure community and education facilities are accessible by public transport, walking and cycling.
ACTIVITY CENTRES	• Deliver a walkable and vibrant neighbourhood activity centre that provides a range of retail commercial, community, and residential uses to serve the community and encourage best practice urban design. • Encourage the Activity Centre to achieve best practice in ESD and support a zero operational carbon neighbourhood

STREETS & PUBLIC REALM

STREET NETWORK	• Establish a CCB that is vibrant, sustainable, encourages diverse land uses and supports an integrated movement network. • Provide high quality public and active transport for people early in the development of the precinct that links key spaces and places. • Develop a network of streets and paths that are designed for people at a human scale which are permeable, legible and inviting, and that prioritise pedestrians and cycling.
OPEN SPACE SYSTEMS	• Create a network of high amenity open spaces which integrate with the street network and provide recreational transport links to support the development of healthy communities • Deliver community parks which reflect local character and recognise and acknowledge Aboriginal and heritage values. • Provide sports (active) reserves that assist in meeting the sporting needs of the community. • Support expansive canopy coverage and the retention of valued trees to improve the amenity and use of open spaces. • Design open spaces which promote a sense of place and cater to users of all genders, ages, abilities and cultures.

2.2 OBJECTIVES

ENERGY & TECHNOLOGY

SUSTAINABLE ENERGY & ZERO CARBON

Zero Carbon

- Ensure utilities and services contribute towards the development of a fully electric, zero carbon precinct.
- Reduce greenhouse gas emissions during the construction of the precinct, including through construction management practice and the selection of materials.
- Ensure that all subdivision and development consider and responds to the whole-of-life cycle impacts of design and construction by using lower embodied carbon, local and recycled materials.

Supporting Renewable Energy

- Achieve carbon neutrality in ongoing operations of the precinct.
- Encourage the design and provision of utilities to promote sustainability and zero carbon operational neighbourhoods.
- Encourage development and subdivision to support, generate and supply renewable energy and achieve zero operational carbon by 2035.

SMART CITIES

- Ensure that technology and communications infrastructure can deliver and support smart city technologies.
- Ensure that smart city infrastructure integrates into the public realm.
- Facilitate the provision of EV charging facilities that meet the future needs of the community.

BIODIVERSITY, THREATENED SPECIES & NATIVE VEGETATION

- Prioritise the retention and enhancement of the Cowies Creek Conservation Area in accordance with relevant legislation, regulation and management plans.
- Protect and enhance biodiversity values within the Cowies Creek Conservation Area and increase community understanding and involvement in biodiversity conservation.

INTEGRATED WATER MANAGEMENT

- Achieve best practice stormwater management and water sensitive urban design that delivers functional, high amenity places for the community, including reducing the urban heat island effect.
- Promote sustainable water practices and technologies which protect local water resources and minimise potable water consumption.
- Respond effectively to climate change including flood and drought through best use of water in the landscape, including harvest and use.
- Ensure blue green infrastructure achieves best practice IWM outcomes via constructed waterways, treatment wetlands and other water sensitive urban design (WSUD) solutions to create high amenity spaces .
- Protect and enhance the hydrological, geomorphological, ecological and cultural values of Cowies Creek and its tributaries.
- Provide all lots with safe, reliable, potable and recycled water, services and reticulated sewerage.

2.2 OBJECTIVES

CLIMATE RESILIENT COMMUNITIES

- Provide climate resilient housing and neighbourhoods and safe, comfortable places to live; considering bushfire risk, urban heat, thermal comfort, water usage, flood risk and stormwater management.

URBAN GREENING	• Combat the urban heat island effect, improve community resilience and wellbeing, protect existing vegetation while increasing biodiversity and Green (vegetation) Infrastructure.
BUSHFIRE RESILIENCE	• Ensure that bushfire hazards are identified and appropriately addressed in the layout and design of subdivisions, the local street network, and buildings and works.

CIRCULAR ECONOMY

- Maximise resource recovery and recycling during construction.
- Minimise levels of embodied carbon in buildings.
- Encourage a whole-of-lifecycle approach towards buildings and infrastructure, including the use of high-quality, locally sourced, sustainable construction materials that can be easily recycled or sustainably disposed.

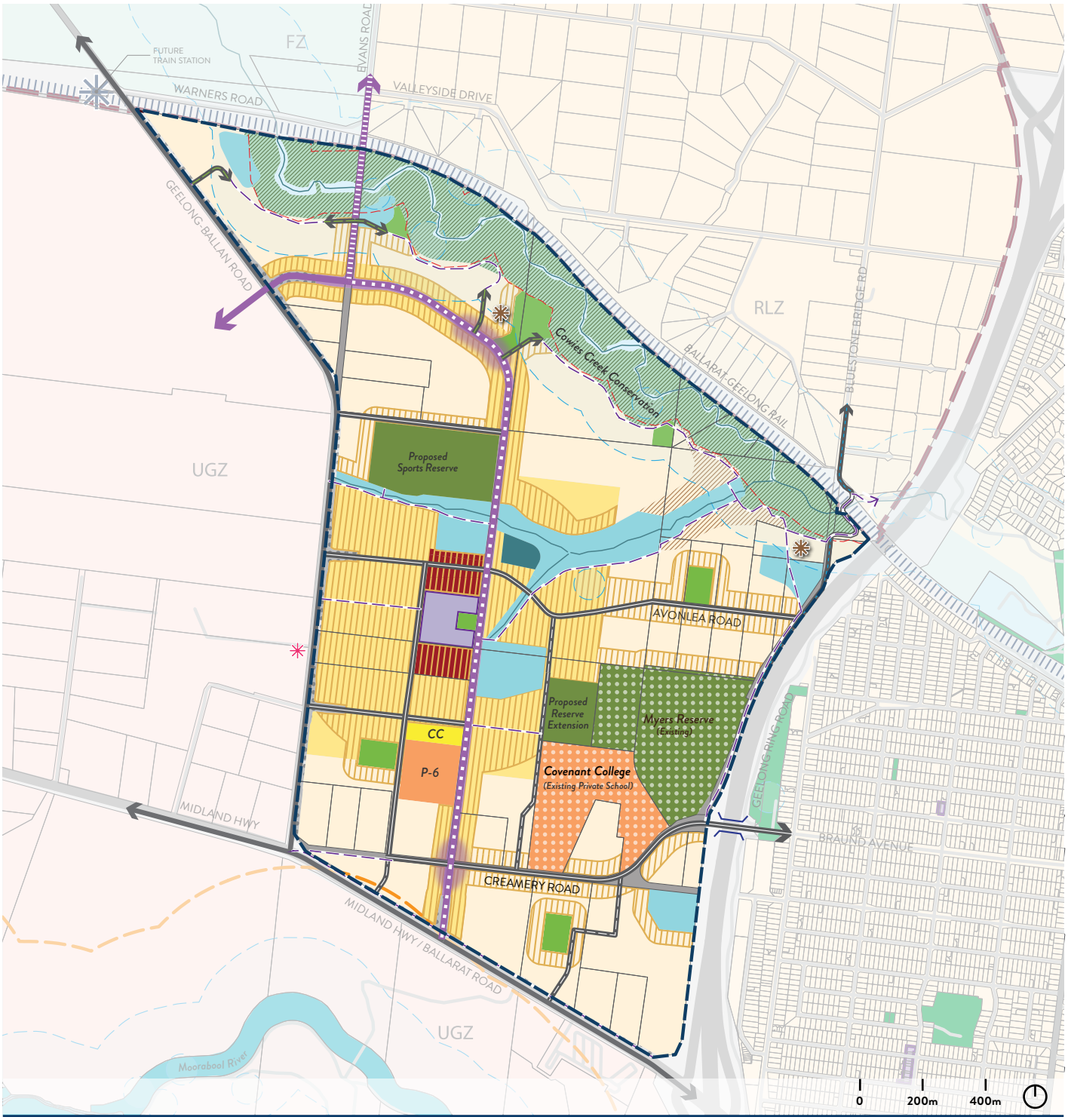
DELIVERY

- Ensure the timely and early delivery of key local and state infrastructure to facilitate early development of liveable communities.
- Encourage development staging to be co-ordinated with the delivery of key infrastructure.

2.3 FUTURE URBAN STRUCTURE

The Future Place Based Plan identifies the urban structure and sets out the precinct's land uses and primary street network.

P5. FUTURE PLACE BASED PLAN



LEGEND

- Precinct Boundary
- Parcel Boundary
- Urban Growth Boundary
- NAC Precinct Boundary
- Railway Corridor
- Potential Future Railway Station
- Heritage Homestead
- Emergency Hub (Indicative)
- 100m Buffer to Cowies Creek
- 500m Quarry Buffer
- Area of Cultural Sensitivity

FUTURE URBAN STRUCTURE

- General Residential Zone (GRZ)
- Residential Growth Zone (RGZ)
- Mixed Use Zone (MUZ)
- Local Convenience Centre (RGZ)
- Neighbourhood Activity Centre (C1Z)
- Amenity Area
- Barwon Water Facility
- Waterway & Drainage Asset
- CC Early Years & Community Hub
- P-6 Government Primary School
- Existing Private School
- Community Park
- Proposed Sports Reserve
- Existing Sports Reserve
- Cowies Creek Conservation
- Investigation Area (Subject to Stormwater & Geotechnical Assessment)

MOVEMENT NETWORK

- Clever & Creative Corridor
- Clever & Creative Corridor (Evans Road Variation)
- Clever & Creative Boulevard
- Key Pedestrian Street
- Recreational Transport Links
- Bridge
- Future Road Infrastructure
- Existing Road being Retained
- Arterial Road
- Connector Road
- Indicative Local Access Street
- Conservation Interface Street
- Bluestone Bridge Road

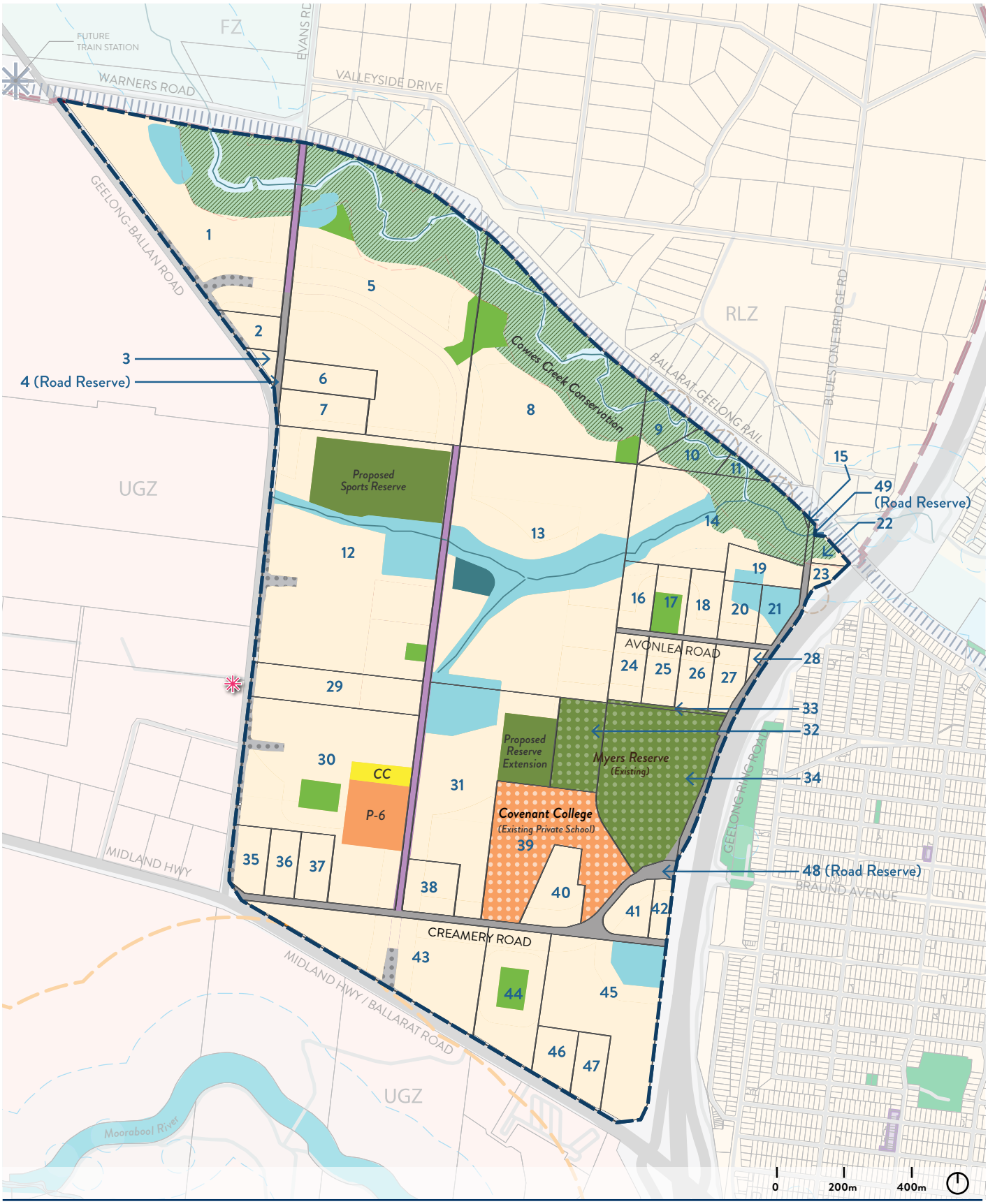
2.4 LAND USE BUDGET & POPULATION

***Table 1 Summary Land Use Budget* provides a summary of the land required for transport, community facilities, government education facilities and open space and identifies the total amount of land available for development.**

The total area of the precinct is 344.57 hectares, 61% of which is available for development. This translates to a net developable area (NDA) of 210.22 hectares. The NDA is inclusive of the following areas: Conventional Residential Areas (CRA), Amenity Area and the Neighbourhood Activity Centre (NAC).

Based on the residential density thresholds established in *Table 3 Housing Delivery Guide* and *Table 4 Dwelling Density Minimums*, the PSP is expected to generate an estimated 4,204 dwellings to accommodate approximately 11,772 new residents.

P6. PRECINCT LAND USE BUDGET PLAN



LEGEND

- Precinct Boundary
- NDA
- Existing Road being Retained (Clever & Creative Network)
- Existing Road
- Future Road Infrastructure
- CC Proposed Early Years & Community Hub
- P-6 Proposed Government Primary School
- Existing Private School
- Community Park
- Cowies Creek Conservation
- Proposed Sports Reserve
- Existing Sports Reserve
- Waterway & Drainage Asset
- Barwon Water Facility

T1. SUMMARY LAND USE BUDGET

A property specific land budget table is provided in *Table 16 Property Specific Land Use Budget.*

DESCRIPTION	HECTARES	% OF PRECINCT	% OF NDA
TOTAL PRECINCT AREA (HA)	**344.566**	**100%**	
TRANSPORT			
Existing Road Being Retained (incl. non-developed road)	11.244	3.26%	
Road Widening (incl. intersections)	5.800	1.68%	
SUB TOTAL TRANSPORT	**17.044**	**4.95%**	
COMMUNITY & EDUCATION			
Existing Non-Government School	11.611	3.37%	
Proposed Government Primary School	3.500	1.02%	
Proposed Early Years and Community Hub	1.000	0.29%	
SUB TOTAL COMMUNITY & EDUCATION	**16.111**	**4.68%**	
OPEN SPACE			
UNCREDITED (ENCUMBERED) OPEN SPACE			
Cowies Creek Conservation Reserve	42.045	12.20%	
Drainage Assets (including Waterway Corridor Reserve)	22.659	6.58%	
Barwon Water Facilities	1.000	0.29%	
Existing Sports (Active) Reserve - Myers Reserve	17.316	5.03%	
SUB TOTAL UNCREDITED OPEN SPACE	**83.020**	**24.09%**	
CREDITED OPEN SPACE			
Sports (Active) Reserve	8.641	2.51%	4.11%
Myers Reserve Extension - Sports (Active) Reserve	3.250	0.94%	1.55%
Community Parks (including Town Square)	6.280	1.82%	2.99%
SUB TOTAL CREDITED OPEN SPACE	**18.171**	**5.27%**	**8.64%**

TOTAL PRECINCT AREA	344.566
TRANSPORT	17.044
COMMUNITY & EDUCATION	16.111
UNCREDITED OPEN SPACE	83.020
CREDITED OPEN SPACE	18.171
TOTAL ENCUMBERED LAND	134.346

TOTAL NET DEVELOPABLE AREA (NDA)	210.220
NAC (Commercial 1 Zone)	2.700
NAC (Mixed Use)	3.912
Residential Growth Zone (incl. amenity area)	66.297
General Residential Zone (incl. amenity area and all other NDA)	137.311

3.0

IMPLEMENTATION

3.0	Implementation	36
3.1	Site Layout, Liveability and Character	38
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3.7	Circular Economy	125
3.8	Delivery	126

3.0 IMPLEMENTATION

The implementation section is divided into a series of themes derived from the overarching vision and objectives of the PSP.

THE THEMES ARE:

1.	**SITE LAYOUT, LIVEABILITY & CHARACTER**	• Character • Housing Diversity, Density & Choice • Community Facilities & Education • Activity Centre
2.	**STREETS & PUBLIC REALM**	• Complete Streets • Open Space Systems
3.	**ENERGY & TECHNOLOGY**	• Sustainable Energy and Zero Carbon • Smart Cities
4.	**BIODIVERSITY, THREATENED SPECIES & NATIVE VEGETATION**	
5.	**INTEGRATED WATER MANAGEMENT**	
6.	**CLIMATE RESILIENT COMMUNITIES**	• Urban Greening • Bushfire Resilience
7.	**CIRCULAR ECONOMY**	
8.	**DELIVERY**	• Subdivision Works • Development Staging



3.1 SITE LAYOUT, LIVEABILITY & CHARACTER

3.1.1	Character	40
3.1.2	Housing Diversity, Density & Choice	46
3.1.3	Community Facilities & Education	54
3.1.4	Activity Centres & Employment	60



3.1.1 CHARACTER

The precinct will ensure neighbourhoods and buildings are designed to respond to the surrounding natural landscape, character and cultural heritage.

P7. CHARACTER



LEGEND

- Precinct Boundary
- Clever & Creative Corridor
- Clever & Creative Corridor (Evans Road Variation)
- Clever & Creative Boulevard
- Cowies Creek Waterway
- 100m Buffer to Cowies Creek
- 500m Quarry Buffer
- Acoustic Treatment (Subject to Investigation)
- Area of Cultural Sensitivity
- Aboriginal Cultural Heritage Extent & 50m Buffer
- Medium Potential for Contamination
- Viewline & View Cones
- Heritage Homestead
- Heritage Rail Bridge
- Precinct Gateway
- Activity Centre Gateway

3.1.1 CHARACTER

REQUIREMENTS

R1

Subdivision design must respond to the natural and built features of the precinct including; topography, view lines and view cones, waterways, the Cowies Creek Conservation Area, planned gateways, interfaces and land uses as guided by *Plan 7 Character*.

R2

Any application for subdivision or development within moderate landslide susceptibility areas as shown on *Plan 4 Precinct Features* and *Plan 7 Character)* must undertake a geotechnical assessment in accordance with Australian Geomechanics Guidelines for Landslide Risk Management (2007) and include that geotechnical assessment as part of the planning permit application.

Prior to commencement of works for each relevant stage of a subdivision, any geotechnical or landslide risks must be addressed and mitigated in accordance with the recommendations of the geotechnical assessment.

A letter from a suitably qualified geotechnical practitioner must be submitted following mitigation works. It must indicate risks of landslide susceptibility and confirm that any hazards are acceptable and will remain acceptable for the duration of the use and/or development in accordance with *Australian Geomechanics Guidelines for Landslide Risk Management (2007).*

R3

Permanent habitable building and structures must be avoided in high landslide susceptibility areas, as shown on *Plan 4 Precinct Features* and *Plan 7 Character.*

For any other development proposed in high landslide susceptibility areas, the following condition applies:

An application for development and/or subdivision within the 'high landslide susceptibility areas', as shown on *Plan 4 Precinct Features* and *Plan 7 Character*, must be accompanied by a full geotechnical assessment in accordance with the *Australian Geomechanics Guidelines for Landslide Risk Management (2007)* which includes detailed subsurface investigation and risk evaluation for both individual risk and societal risk.

The assessment must achieve low to very low risk levels to allow development. The geotechnical assessment must be submitted as part of the planning permit application.

Prior to commencement of works any geotechnical or landslide risks must be addressed and mitigated in accordance with the recommendations of the geotechnical assessment.

A letter from a suitably qualified geotechnical practitioner must be submitted following mitigation works. It must indicate risks of landslide susceptibility and confirm that hazards are acceptable and will remain acceptable for the duration of the use and/or development in accordance with *Australian Geomechanics Guidelines for Landslide Risk Management (2007).*

R4

Placemaking opportunities identified in *Table 2 Key Placemaking Opportunities* and supporting *Plan 7 Character* must be addressed to provide focal points, a sense of place and contribute to local neighbourhood interest.

R5

The design and layout of a subdivision must ensure the connection of the shared path along the waterway drainage corridor within the Conservation Interface Street (as shown on *Appendix 3.2 Street Types & Cross Sections*), to provide a continuous network, in accordance with *Plan 7 Character.*

R6

Subdivision and development abutting the Cowies Creek Conservation Area must be separated from the conservation area by the Conservation Interface Street (as shown on *Appendix 3.2 Street Types & Cross Sections*) or an appropriate local street.

R7

Any application for development and/or subdivision within the Acoustic Treatment Area identified on *Plan 8 Housing* and which proposes the construction of an acoustic barrier must be accompanied by plans (drawn to scale and dimensioned) which show the design of the acoustic barrier. The design and built form of the barrier must be to the satisfaction of the responsible authority or relevant authority.

T2. KEY PLACE MAKING OPPORTUNITIES

KEY CHARACTER ELEMENT	PLACEMAKING OPPORTUNITIES
PSP Gateways	These gateways identify vehicular entries to the precinct. These locations provide opportunities for landscaping embellishment, landmark built form which draws attention, wayfinding and signage and material changes to the road surface.
Activity Centre Gateways	The activity centre gateways nominated are key active and public transport entries to the NAC Precinct. To address this function, a greater focus on the human scale is required with respect to built form and architectural design, interface treatments and materiality. These locations provide opportunities for landscaping embellishment, landmark built form which draws attention, wayfinding and signage and material changes to the road surface.
View Lines	The precinct benefits from views to local features and significant landscapes as identified in *Plan 4 Precinct Features*. The alignment of the CCB and the siting of several open spaces and community infrastructure seek to capitalise on these views. The configuration of streets in subdivision layouts, design of buildings and open spaces should consider and address view lines.
The CCB & Abutting Development	Developments in the NAC Precinct (including the Mixed Use Area) abutting the CCB should allow activity to flow into the CCB and encourage people to engage and dwell in the corridor. Non-residential uses in the NAC Precinct, Mixed Use Area, Amenity Areas and in Local Convenience Centres, are encouraged on the ground floor level of buildings fronting the CCB. Non-residential ground floor uses must incorporate active frontages to the CCB. The landscaping and street furniture on the CCB should encourage people to rest, meet and dine.

3.1.1 CHARACTER

GUIDELINES

G1

Rear and side fencing as well as solid high front fencing adjacent to open spaces should be avoided, as appropriate.

G2

Subdivisions that retain existing dwellings within lots should be designed to effectively integrate with the neighbourhood and surrounding present context, and ultimate likely development of the retained dwelling lot.

G3

Where possible, salvaged natural and manufactured materials (e.g. cut stone, site rock, timber, significant fallen trees) should be incorporated into public realm as landscape features to provide a distinctive sense of place and connection to the landscape.

G4

A consistent suite of lighting and street furniture responsive to the type and role of the street and place should be used across neighbourhoods and be in accordance with the City's Street Lighting Policy.

G5

An application for development and/or subdivision should respond to the recommendations of the Cultural Values Assessment (2023) associated with the PSP.

G6

Subdivision and/or development of land within the Heritage Homestead or Aboriginal Cultural Heritage Extent & 50m buffer, as identified in *Plan 7 Character*, should have regard to the cultural/heritage significance of the site and incorporate significant elements throughout a development and/or subdivision including:

- Providing an appropriate design response for a sensitive interface;
- Appropriately scaled development, proportion and materials; and
- Providing wider community access to the heritage features where appropriate.

G7

Visibility and recognition of Aboriginal history and culture should be prioritised through close consultation with the Wadawurrung Traditional Owners Aboriginal Corporation to incorporate where possible:

- Aboriginal names for places, streets and major new public infrastructure including open space and public buildings;
- Site interpretation through signage, public art or other mechanisms to promote awareness and appreciation of local Aboriginal cultural heritage;
- Materials which have significance to the Aboriginal community in landscaping public and open spaces; and
- Any relevant intangible values, such as views or connections.

G8

Lots and development abutting the Clever and Creative Corridor (CCC) or Clever and Creative Boulevard (CCB) should front the CCC/CCB, and in all other areas should front (in order of priority where there are multiple fronting elements):

- Drainage corridors and public open space;
- Cowies Creek conservation area;
- Local streets*;
- Connector roads;
- Arterial roads; and
- Schools.

*Local streets include pedestrian streets, micro streets, local access streets (1 and 2), and parking streets, as shown on *A3.2 Street Types & Cross Sections.*

G9

Facade treatment should be used to mitigate noise from adjoining roads and railway lines as opposed to the construction of an acoustic barrier.

Where an acoustic barrier is proposed, it should be designed to respect the surrounding neighbourhood and incorporate visually permeable materials, to the satisfaction of the responsible authority.

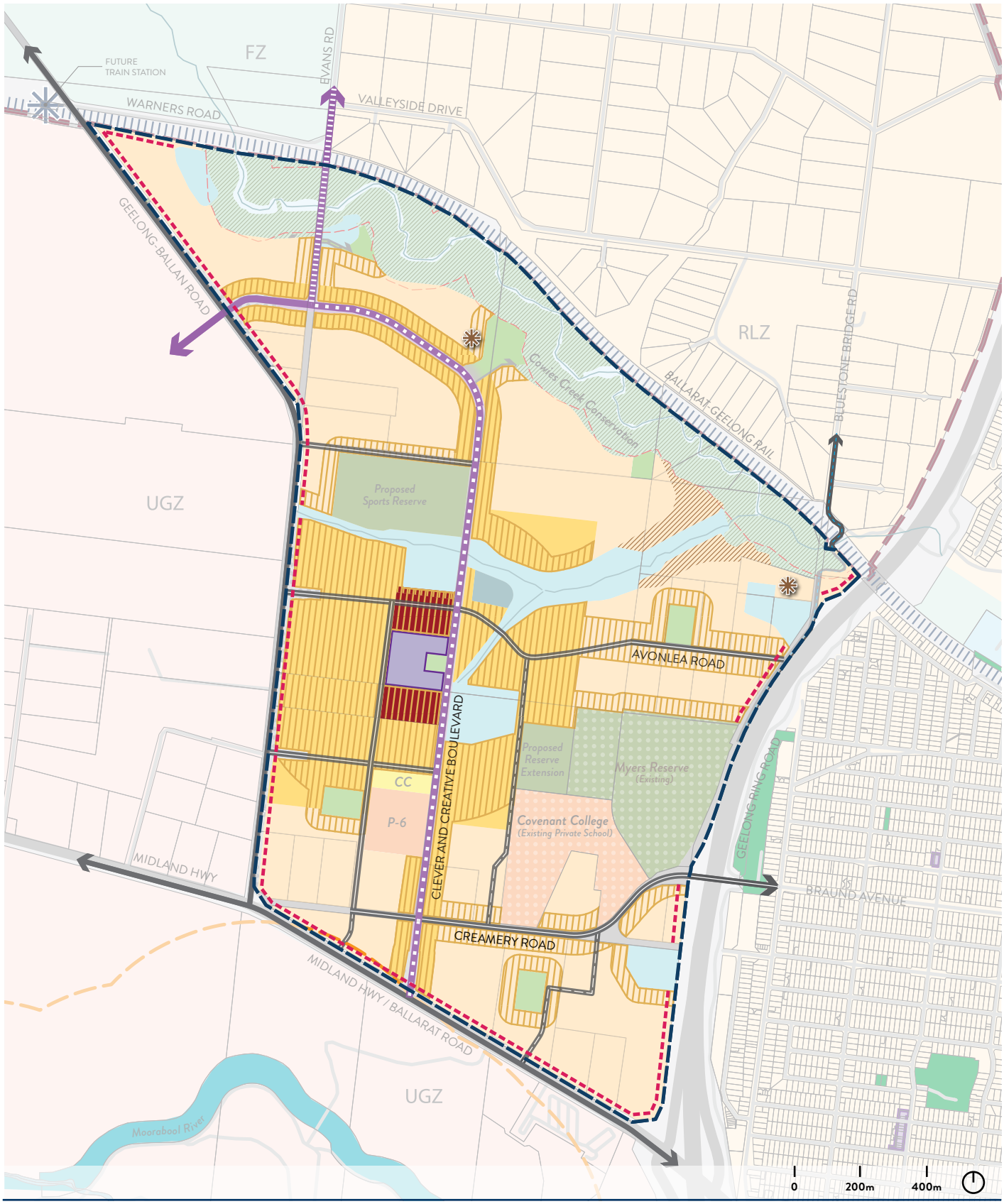
3.1.2 HOUSING DIVERSITY, DENSITY & CHOICE

The precinct will support a diversity of housing types in conventional residential areas, amenity areas, and the neighbourhood activity centre.

Residential ESD Guidelines will be prepared for all residential subdivisions to help deliver environmentally sustainable and climate resilient housing.

The use of Coolangatta and Avonlea Homesteads for recreational and non- residential uses which are respectful of these heritage places is encouraged.

P8. HOUSING



LEGEND

- Precinct Boundary
- General Residential Zone (GRZ)
- Residential Growth Zone (RGZ)
- Mixed Use Zone (MUZ)
- Local Convenience Centre (RGZ)
- Neighbourhood Activity Centre (C1Z)
- Amenity Area*
- Investigation Area (Subject to Stormwater & Geotechnical Assessment)
- Heritage Homestead
- 500m Quarry Buffer
- Acoustic Treatment (Subject to Investigation)
- Clever & Creative Corridor
- Clever & Creative Corridor (Evans Road Variation)
- Clever & Creative Boulevard
- Arterial Road
- Connector Road
- Indicative Local Access Street

*Residential land outside the amenity area is considered Conventional Residential Area (CRA), regardless of underlying applied zone.

3.1.2 HOUSING DIVERSITY, DENSITY & CHOICE

REQUIREMENTS

R8

An application for subdivision and/or development must be capable of accommodating a variety of dwelling types in accordance with *Plan 8 Housing* and *Table 3 Housing Delivery Guide.*

R9

Residential subdivisions must submit a density plan which:

a. Responds to *Table 4 Dwelling Density Minimums.*

b. Calculates the dwellings per hectare over the entire area of the subject site.

c. Demonstrates how the minimum density is achieved and how it achieves a range of lots and housing typologies as per the housing delivery guide.

d. Identifies indicative dwelling targets for super lots.

R10

Subdivision applications containing super lots must be accompanied with a concept layout plan (drawn to scale and dimensioned) which demonstrates how the required dwelling yields can be achieved.

R11

Deleted.

R12

Deleted.

R13

An application for residential subdivision or residential building and works (whichever comes first) must be accompanied by Residential ESD Guidelines which includes mechanisms to achieve environmentally sustainable and climate resilient housing to the satisfaction of the responsible authority.

- Subdivision: The Residential ESD Design Guidelines must be applied as a restriction on the relevant plan of subdivision for each stage. Prior to the certification of each plan of subdivision, Residential ESD Design Guidelines must be prepared and submitted to the satisfaction of the responsible authority.
- Building and works: The Residential ESD Design Guidelines must be submitted to the satisfaction of the responsible authority prior to a planning permit being granted. The required contents of the guidelines are to be shown on the endorsed plans.

GUIDELINES

G10

The design of residential subdivision and nomination of housing typologies should respond to the individual site context, opportunities and constraints.

G11

Deleted.

G12

Deleted.

G13

Specialised housing forms, such as retirement villages, residential aged care facilities and residential villages should:

- Provide a range of residential built form types;
- Integrate in to the wider urban structure;
- Avoid inactive interfaces, such as solid fencing/gates and walls, and blank facades;
- Be located within walkable proximity to the CCC/CCB;
- Be accessible by public transport;
- Not present a barrier to movement through the surrounding movement network and instead contribute to the permeability of the street network; and
- Be located within BAL 2 areas as shown on *Plan 23 Bushfire Resilience.*

G14

The development of gated communities should be avoided.

+G-A

Applications for subdivision or development of land for residential, or commercial or mixed-use purposes with a residential component, are encouraged to provide a contribution towards the 4.5% affordable housing target.

+G-B

Where an affordable housing contribution is being provided, applications should include an Affordable Housing Delivery Strategy which addresses:

- The contribution to be provided, including the amount and form of the contribution i.e. affordable/social, lots/dwellings, etc.;
- How the contribution will be achieved and secured, including the identification of intended agencies, the owner/s of land and the responsible authority entering into an agreement pursuant to section 173 of the Planning and Environment Act 1987, timeframes, built form, and a response teach of the matters specified by the Minister by notice published in the Government Gazette in accordance with section 3AA(2) of the Planning and Environment Act 1987;
- Staging requirements to ensure that social housing and affordable housing are provided in a timely manner as development occurs; and,
- Affordable housing principles to ensure contribution provides a range of lot sizes or housing types, promotes an integrated and equitable distribution of housing options across the precinct, and, where relevant, delivers dwellings that are functionally and visually distinct from one another.

+G-C

Affordable housing products should be located across the precinct, including in high amenity areas close to services and community facilities, and provide for a range of housing typologies.

3.1.2 HOUSING DIVERSITY, DENSITY & CHOICE

GUIDELINES

+G-D

The Residential ESD Design Guidelines should contain sustainability provisions including, but not limited to:

- No connection to any existing or future reticulated gas network.
- Roof and shading structures with cooling colours and finishes that have a solar reflectance index (SRI) of:
  - For roofing with less than 15 degree pitch, a three-year SRI of minimum 64.
  - For roofing with a pitch of greater than 15 degrees, a three-year SRI of minimum 34.
- Residential lots to provide a dedicated electrical circuit terminating in a garage or carport that is capable of supporting a minimum 7kW (32A) Electric Vehicle Charging Point (EVCP).
- Solar photovoltaic (PV) system with the following minimum capacity:
  - single dwelling: 3kW up to two bedrooms, with additional capacity provided for each additional bedroom, or
  - apartment building: either 25W per square metre of site coverage, or 1kW per dwelling.
  - note: neighbourhood scale renewable energy generation will be considered as an alternative to individual solar PV systems in any Residential ESD Design Guidelines.
- Or a suitable alternative to the satisfaction of the responsible authority.



T3. HOUSING DELIVERY GUIDE

LAND USE	HOUSING VISION	HOUSING TYPOLOGY	APPLIED ZONE	MAX. NO. OF STOREYS (EXCLUDING BASEMENTS)
Housing within the Neighbourhood Activity Centre (NAC)	The NAC will serve as the retail core of the precinct. High residential densities alongside retail and commercial use are encouraged to maximise the number of people living within the NAC. Dwellings and apartments are designed to provide high levels of amenity to residents.	The mix of dwelling typologies which integrate with retail and commercial uses should include, but is not limited to: • Compact housing forms • Shop top housing • Apartments	Commercial 1 Zone	N/A
Amenity Area	Increased densities are supported in these locations given their proximity to the NAC, transport, open space and other amenities. Proponents are encouraged to test and implement new housing typologies.	Housing typologies will vary to include a range of types and forms to create diversity and support medium to high residential densities. The mix of dwelling typologies should include, but is not limited to: • Low-rise apartments • Soho-type dwellings • Co-housing • Townhouses & terraced housing Combined subdivision/development applications within super lots are strongly encouraged, particularly on land adjacent the CCC/CCB to ensure that developments are not occurring in isolation of each other and provide cohesive and well- designed built form outcomes.	Mixed Use Zone, Residential Growth Zone and General Residential Zone (Schedule 1)	6
Mixed Use Area (MUA)	MUA support non-residential and residential uses in the same development. Non-residential uses compatible in a residential environment, such as small offices and cafes, are encouraged on the ground floor of developments.	The mix of housing typologies should include, but is not limited to, mixed-use developments that incorporate non- residential uses at the ground floor with shop top housing.	Mixed Use Zone	6
Conventional Residential Area (CRA)* *All residential land outside the amenity area, regardless of underlying applied zone.	CRA will provide for traditional suburban lots. Dwelling design should create variation in housing form and design to create unique neighbourhoods and add visual interest. Three storey development is encouraged.	The mix of dwelling typologies should include, but is not limited to: • Single dwellings and townhouses • Detached housing • Semi-detached housing (2-3 storeys)	General Residential Zone (Schedule 1)	3

T4. DWELLING DENSITY MINIMUMS

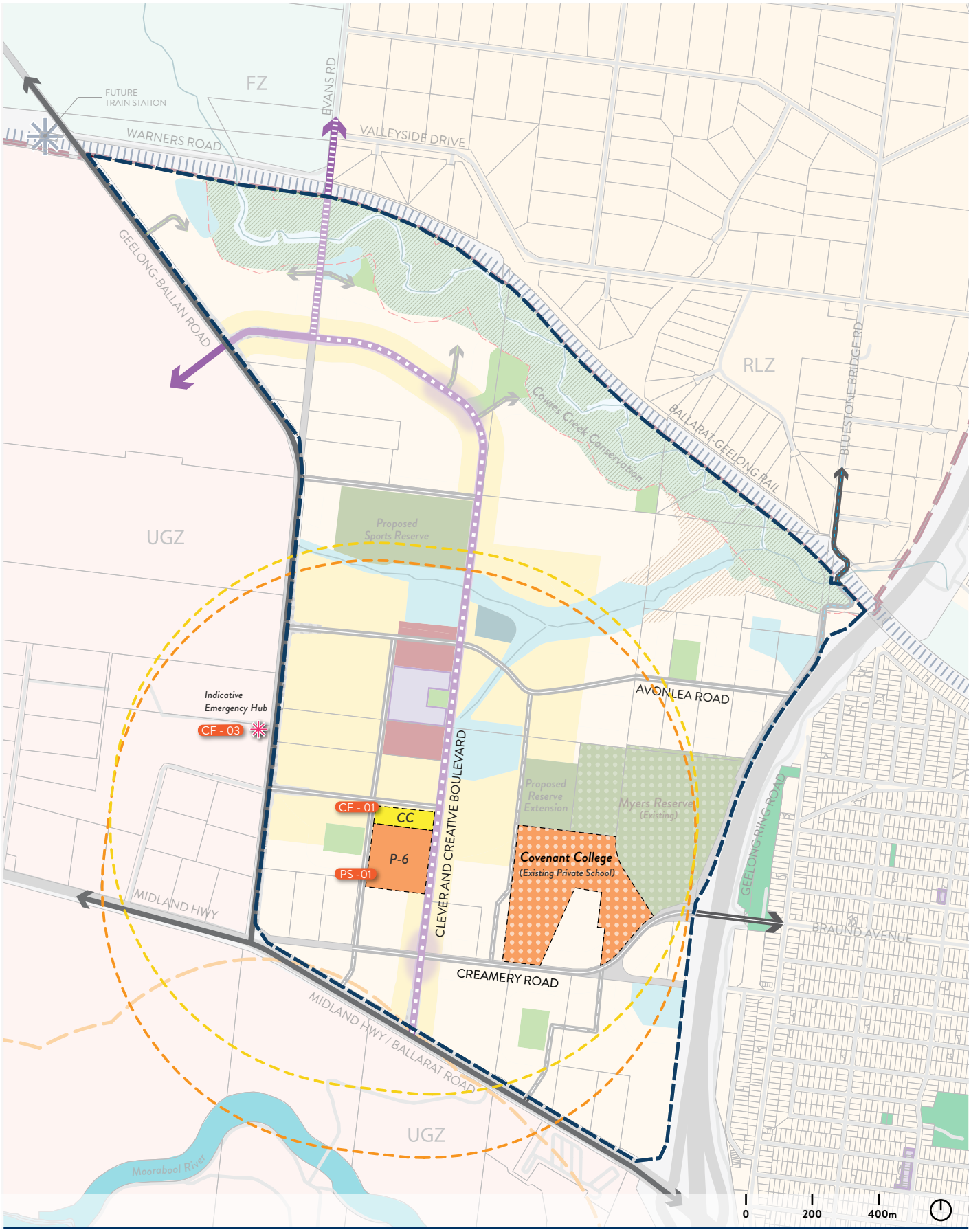
LAND USE AS PER PLAN 8 HOUSING	APPLIED ZONE	MINIMUM DENSITY (DWELLINGS/HA)
Neighbourhood Activity Centre (NAC)	Commercial 1 Zone	23
Amenity Area	Mixed Use Zone, Residential Growth Zone and General Residential Zone (Schedule 1)	23
Conventional Residential Area (CRA)* *All residential land outside the amenity area, regardless of underlying applied zone.	Residential Growth Zone and General Residential Zone (Schedule 1)	17

3.1.3 COMMUNITY FACILITIES & EDUCATION

Social infrastructure is the fabric of our community. It refers to the places and spaces that bring us together, foster social cohesion, stay active, learn new skills and access important services. Social infrastructure is essential for the health, wellbeing and economic prosperity of the community. The PSP will support one government primary school, a non-government school and an Early Years Hub.

The Early Years & Community Hub will benefit from proximity to the CCB, NAC Precinct, open space and recreational transport links. The facilities will provide a strong civic presence in the community, reflect cultural heritage and demonstrate best practice sustainable design.

P9. COMMUNITY FACILITIES & EDUCATION



LEGEND

- Precinct Boundary
- CC Early Years & Community Hub
- 800m Community Facility Catchment
- P-6 Government Primary School
- 800m Government Primary School Catchment
- Existing Private School
- Emergency Hub (Indicative)

3.1.3 COMMUNITY FACILITIES & EDUCATION

REQUIREMENTS

R14

The design and siting of community facilities and schools must be generally in accordance with; *Plan 9 Community Facilities & Education* and *Table 5 Community Facilities Delivery Guide* and respond to and address the following:

- The CCC/CCB and adjacent road network;
- *Section 3.2.1 Complete Streets* as appropriate; and
- Prioritise walking and cycling access.

R15

If abutting the CCC/CCB, community facilities and schools must be designed to front (main entrance) the CCC/CCB with car parks and any vehicular entries located away from the main entry.

R16

In accordance with *Plan 9 Community Facilities & Education*, proposed school sites must have a minimum of two road frontages. At least one frontage must be a connector road to provide for student drop-off/pick up zones and on-street indented parking in addition to other street functions.

R17

Any road abutting a school or community facility must be designed in accordance with *Appendix 3 Complete Streets* and be designed to:

- Achieve slow vehicle speeds;
- Provide pedestrian and cyclist priority; and
- Have safe pedestrian crossing points.

R18

Deleted.

R19

An application for buildings and works for community facilities or an education centre with a gross floor area that is equal to or greater than 2,000 square metres must commit to the use of a best practice environmental performance rating tool, such as a Green Star Buildings, that is equivalent to net zero in operation (i.e. 4 stars), or an equivalent rating achieved through a similar tool. In the case of subdivision, this tool must be applied as a restriction on the relevant plan of subdivision. Prior to occupation of the development, a certificate of rating issued by the relevant best practice environmental performance rating tool must be submitted to the satisfaction of the responsible authority.

R20

Any lot created for a proposed government school site must be designed and serviced to the satisfaction of the Department of Education (DoE).

GUIDELINES

G15

Subdivision and development should facilitate integration of community facilities, schools and active (sports) reserves where they are co-located and promote:

- 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; and
- Safe and convenient pedestrian and cyclist shared path access.

G16

The design of community facilities should:

- Maximise land use efficiency through multi-storey building formats and through shared (and reduced) car parking;
- Include extensive canopy tree planting, bollards and/or similar unobtrusive structures, where appropriate, as a security perimeter against vehicular threats;
- Encourage flexibility in the range of uses which can occur at the site and allow for future adaptability and shared use of spaces;
- Incorporate appropriate opportunities for:
  - urban food production, community gardens and associated infrastructure (garden beds, vertical herb gardens, sheds, water tanks and compost)
  - spaces for community art making, performance, rehearsal, storage and/or exhibition.
- Minimise high fencing to encourage out-of-hours use; and
- Be designed to be adaptable, universally accessible, provide a sense of place and sustainable.

G17

Deleted.

G18

Deleted.

G19

A private childcare, education, medical or similar facility not shown on *Plan 9 Community Facilities & Education* should be located within the NAC Precinct or fronting the CCC/CCB.

+G-E

Community facilities, schools, and active (sports) reserves that are co-located should be designed concurrently to maximise sharing opportunities of car parking and other complementary infrastructure, unless otherwise agreed to by the responsible authority.

T5. COMMUNITY FACILITIES DELIVERY GUIDE

	AREA (HA)	TYPE	POTENTIAL SERVICES	LOCATIONAL ATTRIBUTES
PS01	3.5	Proposed Government Primary School	N/A	The school is located to the south of the Early Years & Community Hub fronting the CCB. The school will service the precinct and should be co-designed with the Early Years & Community Hub.
CF01	1	Early Years & Community Hub	The Early Years & Community Hub consists of a Multipurpose Community Centre and Early Learning Centre. The Multipurpose Community Centre allows for a neighbourhood house program, flexible community meeting spaces including community kitchen, co working spaces and community garden. The Early Learning Centre is integrated with the Multipurpose Community Centre and provides for maternal and child health, kindergarten programs, family support services and a multipurpose space for playgroups.	This facility is located north of PS01 (a proposed government primary school) and is accessible via the CCB and a north-south connector road. This facility should be designed in conjunction with PS01.



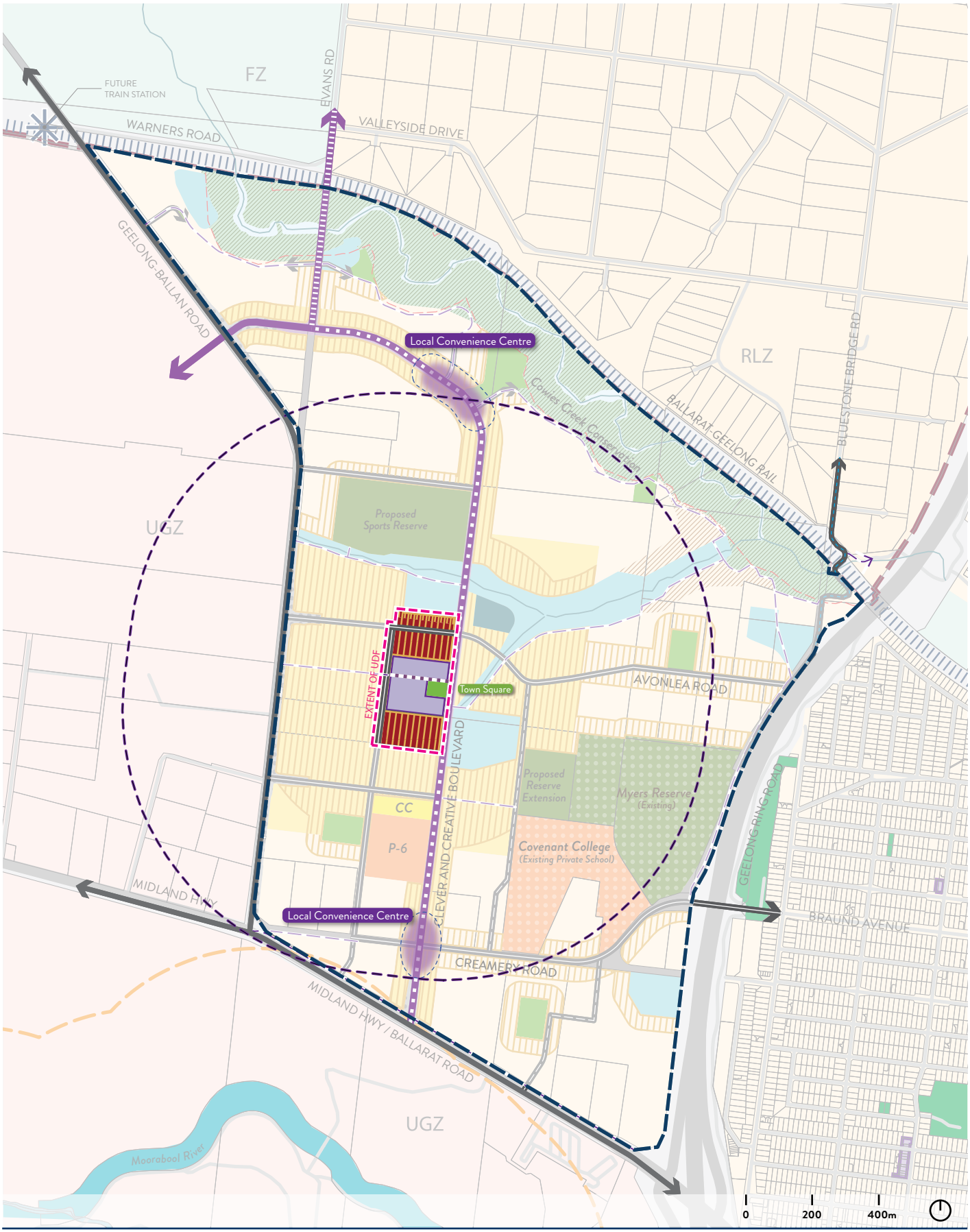
3.1.4 ACTIVITY CENTRES & EMPLOYMENT

The PSP is supported by a centrally located Neighbourhood Activity Centre. The NAC Precinct, shown on *Plan 10 Activity Centres* and *Plan 11 Neighbourhood Activity Centre (NAC) Precinct Concept Plan*, is formed by the Activity Centre, Town Square (Open Space), and Mixed Use Area.

The design of the NAC Precinct will reflect and respond to the natural features of the precinct and Aboriginal cultural values and heritage. The NAC Precinct will achieve best practice ESD and support a zero operational carbon neighbourhood.

The NAC Precinct will be a vibrant activity centre that supports the emerging needs of the community and accommodates a range of retail, commercial and community focused uses, start-ups and innovative businesses as well as a diverse housing mix.

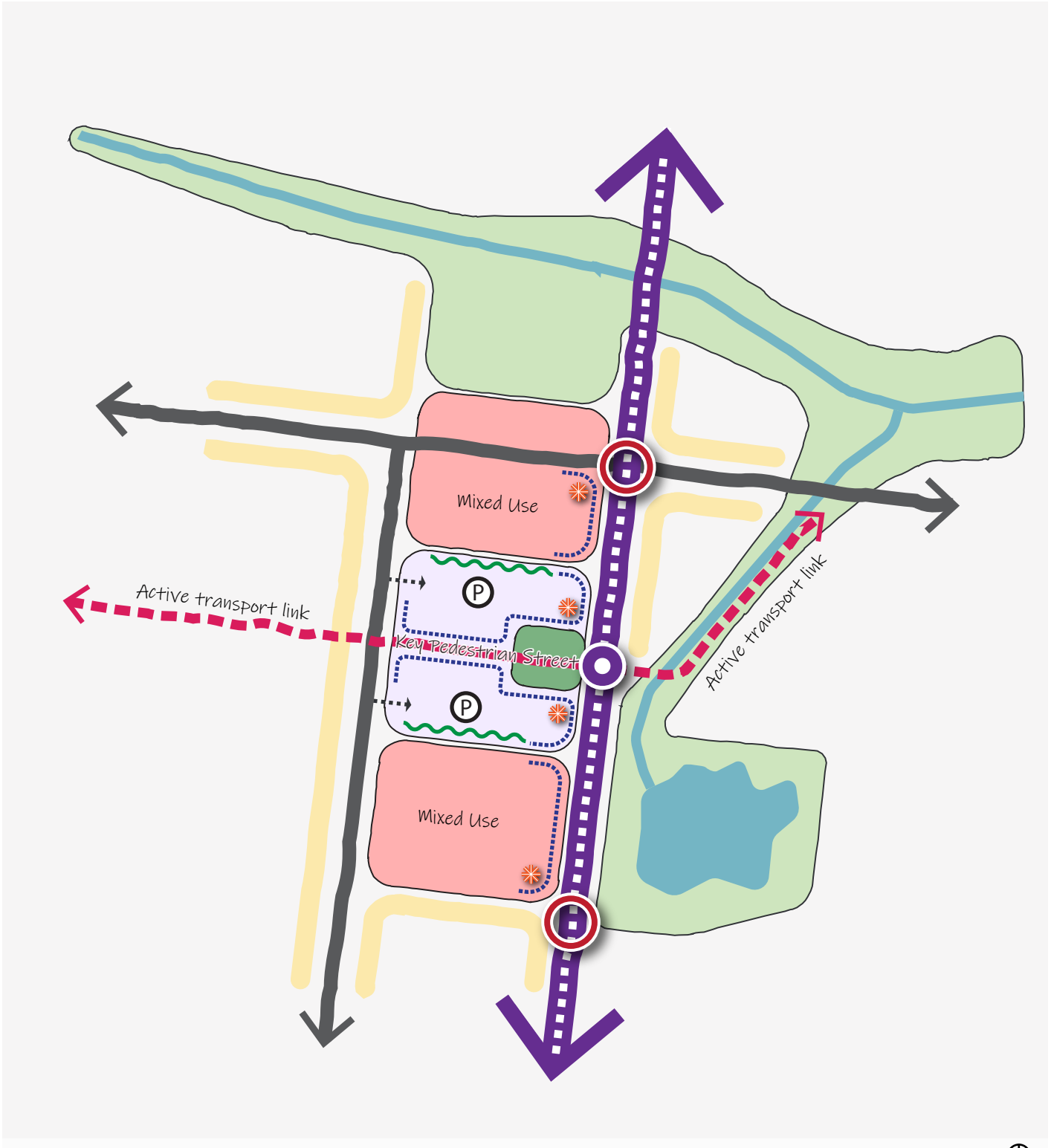
P10. ACTIVITY CENTRES



LEGEND

- Precinct Boundary
- NAC Precinct Boundary (Extent of UDF)
- Mixed Use Zone (MUZ)
- Amenity Area
- Neighbourhood Activity Centre (C1Z)
- 800m NAC Catchment
- Local Convenience Centre (RGZ)
- Community Park
- Key Pedestrian Street

P11. NEIGHBOURHOOD ACTIVITY CENTRE (NAC) PRECINCT CONCEPT PLAN



LEGEND

- Clever & Creative Boulevard
- Connector Road
- Active Transport Link
- Key Pedestrian Street
- Vehicular Access to NAC from Connector
- Active Frontage
- Neighbourhood Activity Centre (C1Z)
- Mixed Used Zone (MUZ)
- Waterway & Drainage
- Surrounding Residential (RGZ)
- Town Square
- Sensitive Interface - Parking to be Screened
- Public Transit Stop
- Activity Centre Gateway
- Landmark Building - Taller Built Form
- Parking - Sleeved by active frontage

3.1.4 ACTIVITY CENTRES & EMPLOYMENT

REQUIREMENTS

R21

Prior to the issue of a planning permit for the subdivision or development of land within the NAC Precinct (as shown on *Plan 10 Activity Centres*) an Urban Design Framework (UDF) plan for the entire NAC Precinct must be submitted to and approved by the responsible authority.

Once approved, the UDF plan will guide future land use and development in the NAC Precinct.

R22

The UDF plan must:

Demonstrate how the vision and design intent in *Appendix 5 - Table 23 Neighbourhood Activity Centre (NAC) Design Principles* will be achieved. Design elements may be altered;

- Address and respond to *Appendix 5 - Table 24 Activity Centre and Commercial Development Design Principles* and the precinct vision and objectives;
- Be generally in accordance with *Plan 11 Neighbourhood Activity Centre Precinct Concept Plan;*
- Address and respond to all other relevant requirements and guidelines in the PSP pertaining to the different land uses in the NAC Precinct such as housing, open space and community facilities and *Section 3.2.1 Complete Streets*, *Section 3.6.1 Urban Greening* and *Section 3.8 Delivery*;
- Demonstrate how the design of the NAC Precinct:
  - achieves a main street environment along the length of the CCB and the key pedestrian street abutting the NAC Precinct;
  - delivers a civic focussed town square;
  - integrates and connects different uses intended in the NAC Precinct; and
  - allows for the long-term evolution and growth of the NAC Precinct to meet the changing demands of the market and uses such as small local enterprises.
- Set out clear and specific strategies, actions and guidelines for the development of the NAC Precinct that may be used as an assessment tool for future development applications within the precinct, including built form massing and architectural guidelines, and a landscape and public realm master plan;
- Determine appropriate areas for high and medium density housing within the NAC Precinct and demonstrate how minimum dwelling densities will be achieved;
- Include a staging and implementation plan;
- Outline provisions for car parking including principles and requirements on the location and design of parking areas (including location of EVCPs), minimising off-street car parking, reducing and concealing the footprint of any on-grade car parking areas, and maximising shared and consolidated car parking opportunities;
- Set out arrangements for the provision of service areas for delivery and waste disposal, including access for larger vehicles and measures to minimise the impact on adjoining neighbourhoods, and enable the safety of pedestrians and vehicle users; and
- Address the relevant sections of the City's Positive Ageing Strategy;

all to the satisfaction of the responsible authority.

R23

Deleted.

R24

An application for buildings and works for commercial or mixed use buildings with a gross floor area that is equal to or greater than 2,000 square metres must commit to the use of a best practice environmental performance rating tool, such as a Green Star Buildings, that is equivalent to net zero in operation (i.e. 4 stars), or an equivalent rating achieved through a similar tool.

In the case of subdivision, this tool must be applied as a restriction on the relevant plan of subdivision.

Prior to occupation of the development, a certificate of rating issued by the relevant best practice environmental performance rating tool must be submitted to the satisfaction of the responsible authority.

3.1.4 ACTIVITY CENTRES & EMPLOYMENT

REQUIREMENTS

+R-A

Land use and development within the Local Convenience Centres (LCC) must demonstrate how the proposed design has appropriately considered and responded to the Activity Centre Design Guidelines in *Appendix 5 – Table 24 – Activity Centre Design Principles* and to existing views and local features including but not limited to the Coolangatta Homestead as per *Plan 4: Precinct Features* unless otherwise approved by the responsible authority.

GUIDELINES

G20

Deleted.

G21

Deleted.

G22

Deleted.

G23

Retail and commercial floor space may be increased beyond the threshold in *Table 6 Neighbourhood Activity Centre* as part of permit applications for subdivision and development within the NAC Precinct or within the LCCs, where the following criteria are met and supported through an economic assessment completed by a suitably qualified person:

- The increased floorspace must not impact the role and function of existing centres in the City's retail hierarchy (as per Clause 17.02 of the Greater Geelong Planning Scheme) and the viability of existing/planned activity centres across Northern and Western Geelong Growth Area;
- The increased floorspace must not impede on the ability to create walkable 20-minute neighbourhoods across the PSP;
- The increased floorspace is required to support changing economic trends and needs of the community;
- The development incorporates housing, such as apartments, shop top/multi storey housing and high-quality town houses, particularly if the increased floor area is requested in an area primarily designated for residential use;
- The design provides additional quality built form and development outcomes and/or other community or ESD benefits; and
- The minimum dwelling density per hectare can still be achieved.

all to the satisfaction of the responsible authority.

G24

Subdivision layouts should provide for a range of lot configurations to cater for various land uses, including but not limited to small local enterprises.

G25

Deleted.

+G-F

In addition to the requirements of Clause 17.02-2L, out-of-centre commercial development should:

- Be located on an arterial road or along the CCC/CCB
  - Where located on an arterial road, all vehicular access must be directly from the arterial road and not from surrounding residential streets.
  - Where located on the CCB, development must provide direct pedestrian access from the CCB. Vehicular crossovers may only be from the nominated side of the CCB where permitted. Access from residential streets behind the CCB is not acceptable.
- Provide small-scale day-to-day goods and services that meet localised needs, rather than competing with the designated activity centres.
- Be designed in response to the Activity Centre Design Guidelines in *Appendix 5 – Table 24 – Activity Centre Design Principles.*

T6. NEIGHBOURHOOD ACTIVITY CENTRE

LAND USE	RETAIL FLOOR SPACE	COMMERCIAL FLOOR SPACE	LOCATION & ANCILLARY USES
Neighbourhood Activity Centre (NAC)	5,625 sqm	1,875 sqm	Located centrally within the NAC Precinct, fronting the CCB and co-located with the mixed use amenity area. Provides for a full line supermarket and specialty retail shops. Other uses such as offices, shared spaces, and medical uses are encouraged to support a vibrant centre. Large format retail uses, service stations and drive-through establishments are discouraged.
Local Convenience Centre (LCC) – North	1,310 sqm (including shop)	435 sqm	Located along the CCB, situated near the Coolangatta Homestead. Retail and commercial uses are encouraged on the ground floor level, with residential uses above. Full line supermarkets and large format retail uses are discouraged.
Local Convenience Centre (LCC) – South	1,310 sqm (including shop)	435 sqm	Located on the CCB at the intersection with Creamery Road. Retail and commercial uses are encouraged on the ground floor level, with residential uses above. Full line supermarkets and large format retail uses are discouraged.

Indicative numbers, to be confirmed prior to finalisation.

Note: Commercial development outside the designated NAC and LCC areas shall be considered Out of Centre commercial development.

T7. ANTICIPATED EMPLOYMENT CREATION IN THE PRECINCT

JOBS IN NAC	WORK FROM HOME	SOCIAL INFRASTRUCTURE	TOTAL
479	196	195	**870**

Indicative numbers, to be confirmed prior to finalisation.

3.2 STREETS & PUBLIC REALM

3.2.1 Complete Streets 70
3.2.1.1 Public Transport 75
3.2.1.2 Cycling 76
3.2.1.3 Parking 78

3.2.2 Open Space Systems 80



3.2.1 COMPLETE STREETS

The PSP proposes a suite of street types, named 'Complete Streets', which are designed to support a street network that accommodates canopy trees and water sensitive urban design, provides a human scale experience, and prioritises walking and cycling.

The PSP is consistent with the Department of Transport and Planning's Movement and Place Framework which provides guidance for planning quality outcomes that achieve efficient movement and balance competing travel modes. Streets are more than movement corridors but can also be used as a place for people to dwell, stay, linger, shop and play. The PSP is consistent with Clause 18 Transport within the Planning Policy Framework in the Greater Geelong Planning Scheme.

P12. STREET NETWORK



LEGEND

- Precinct Boundary
- Railway Corridor
- Potential Future Railway Station
- Future Road Infrastructure
- Pedestrian Operated Signalised Crossing
- Clever & Creative Corridor
- Clever & Creative Corridor (Evans Road Variation)
- Clever & Creative Boulevard
- Signalised Intersection
- Left In - Left Out
- Existing Road being Retained
- Existing Arterial Road
- Connector Road (25m)
- Indicative Local Access Street
- Conservation Interface Street
- Bluestone Bridge Road
- Existing Bridge (Active Travel Upgrade)
- Existing Road under Bridge (Active Travel Upgrade)
- Indicative Culverts
- 40 Speed Limit on the Clever & Creative Network

3.2.1 COMPLETE STREETS

REQUIREMENTS

R25

The design of subdivisions must be consistent with the movement network nominated in *Plan 12 Street Network* and must only utilise alternative street cross sections in accordance with *Appendix 3.1 - Table 18 Street Types & Attributes* and *Appendix 3.2 Street Types & Cross Sections*, to the satisfaction of the responsible authority.

R26

A minimum of two different street cross-sections which respond to *Appendix 3.1 - Table 18 Street Types & Attributes* and *Appendix 3.2 Street Types & Cross Sections*, must be utilised in a subdivision layout in response to the context and use of the land, to provide a legible and permeable street network which prioritises walking and cycling and reduces car use.

R27

The design of all subdivisions and streets must provide:

- A permeable, direct and safe street network which encourages walking and cycling particularly near schools, community facilities and activity centres; and
- Convenient access to local points of interest and destinations for effective integration with neighbouring properties.

R28

Recreational transport links (shared cycling/pedestrian paths) must be delivered in accordance with the network shown on *Plan 12 Street Network* using one or a combination of the following, to the satisfaction of the responsible authority:

- A pedestrian street consistent with *Appendix 3.2 Street Types & Cross Sections*;
- A minimum 3m wide shared path delivered as part of the road reserve; and/or
- An off-road 3m wide shared path.

R29

Recreational transport links (including crossings) along waterways and drainage assets must be:

- Located above the 1:100 year flood level, to maintain hydraulic functions of the waterway to the satisfaction of the responsible authority.
- Designed in accordance with all biodiversity approvals and have regard for protection and enhancement of habitat and fauna movement.
- Allow sufficient design width to accommodate emergency vehicle access and include Services Locations.

R30

Vehicle access to lots fronting and/or abutting the western interface of the CCB must be provided from a rear laneway or street.

R31

Deleted.

R32

Vehicle access to a lot that is six metres or less in width must be provided via a rear laneway unless otherwise agreed by the responsible authority. Configuration of vehicle access to all other lots must ensure there is sufficient separation between crossovers to allow for the planting of street trees in accordance with the objectives and requirements of this PSP and the City of Greater Geelong Vehicle Crossings Code of Practice & Guidelines (2022) or as amended.

GUIDELINES

G26

Placemaking design concepts, pedestrian amenities and other embellishments are encouraged within Micro Streets and Pedestrian Streets (See *Appendix 3 Complete Streets*).

The installation of any embellishments should not infringe on the pedestrian clearway nor be to the detriment of integrated water management outcomes.

G27

The frequency of vehicular crossovers on protected bike lanes and verges of connector roads should be minimised, as appropriate, through a combination of:

- Rear loaded lots with laneway access;
- Vehicular access from side streets;
- Combined or grouped crossovers;
- Increased lot widths; and/or
- Consolidated parking areas separate to dwellings.

G28

Consistent wayfinding signage should be utilised across the precinct and use clear visual imagery including walking time and distances to key destinations, in accordance with the guidelines outlined in Wayfound Victoria (2020) or as amended.

G29

Recreational transport links (shared cycling and pedestrian paths) should utilise shared paths incorporated in the design of drainage assets and road reserves, where appropriate; and avoid duplicating infrastructure.

G30

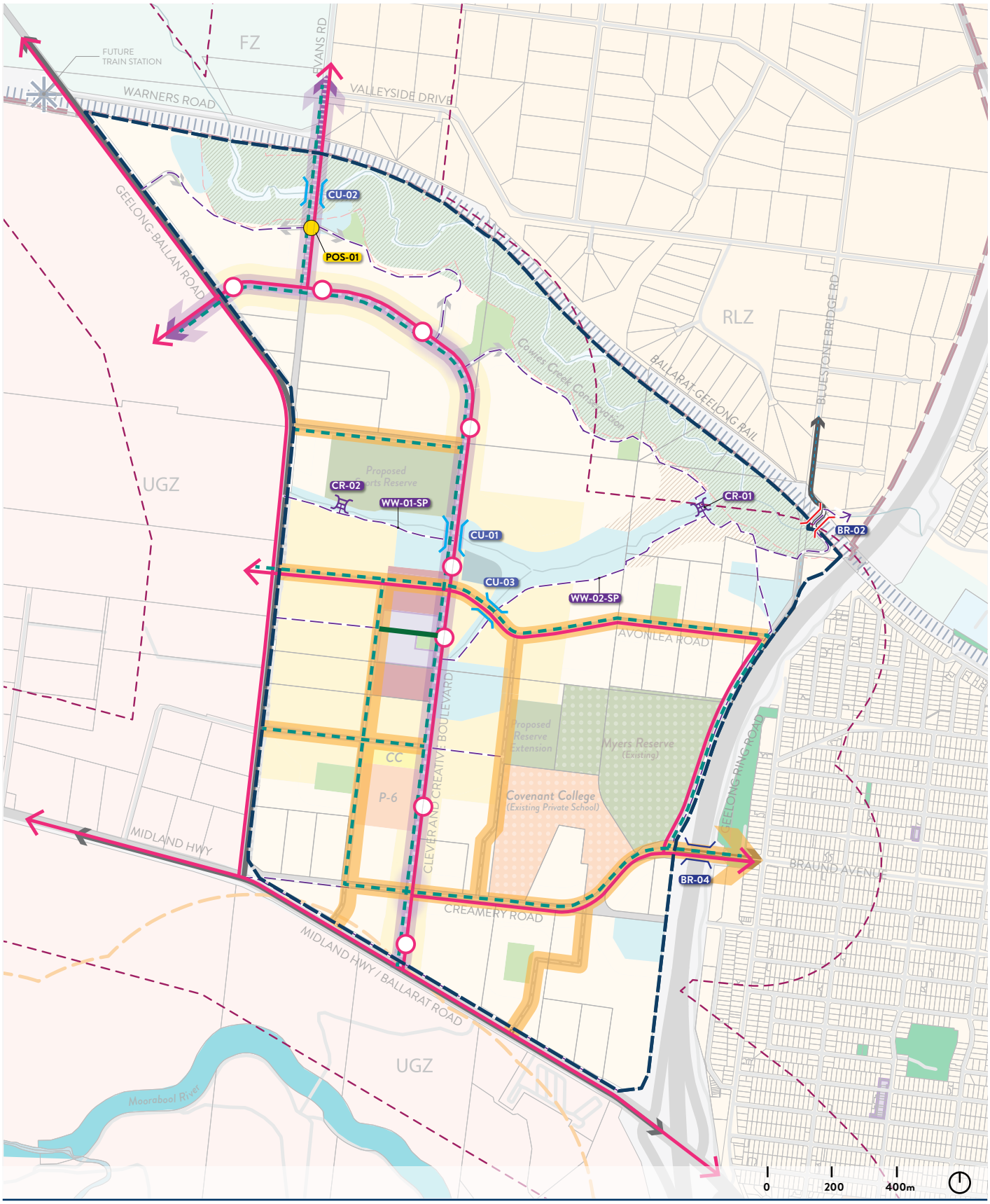
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G31

Cul-de-sacs should be avoided in the design of subdivision layouts.

When provided, cul-de-sacs should include connections to the surrounding pedestrian network by using a Pedestrian Street in accordance with *Appendix 3.2 Street Types & Cross Sections.*

P13. PUBLIC & ACTIVE TRANSPORT



LEGEND

- Precinct Boundary
- Railway Corridor
- Potential Future Railway Station
- On Road Major Bicycle Path
- Public Transport Link (Bus Route)
- Indicative Public Transport Stop
- Bus Capable Street
- Pedestrian Operated Signalised Crossing
- Clever & Creative Corridor
- Key Pedestrian Street
- Indicative Recreational Transport Links
- 400m Bus Capable Street Buffer
- Existing Bridge (Active Travel Upgrade)
- Existing Road under Bridge (Active Travel Upgrade)
- Indicative Culverts

3.2.1.1 PUBLIC TRANSPORT

REQUIREMENTS

R33

Any bus capable carriageway and/or street suitable for other public transport systems, as nominated in *Plan 13 Public & Active Transport*, must be constructed in accordance with the Department of Transport's Public Transport Guidelines for Land Use and Development, or as amended, to the satisfaction of the responsible authority.

R34

Streets, intersections, and transit stops must be provided in accordance with *Table 19 Intersection Requirements, Table 20 Complete Streets General Requirements* and *Table 21 Transit & Transit Stop Design Requirements (all appendices)*, respectively, to prioritise the efficiency of transit services over traffic and avoid conflict between pedestrians and other road users, all to the satisfaction of the responsible authority.

GUIDELINES

G32

Wombat crossings (raised pedestrian crossings) should be located to enable safe access to key destinations e.g., schools, community facilities, the activity centre and local parks as appropriate and in accordance with *Table 19 Intersection Requirements,* to the satisfaction of the responsible authority.

G33

Transit stops should be prioritised in commuter-friendly convenient locations adjacent to key destinations e.g., the activity centre, schools, community centres and local parks.

G34

Where bus stops and/or other public transport system facilities are located, they should be provided in accordance with the Department of Transport's Public Transport Guidelines for Land Use and Development (or as amended), to the satisfaction of the responsible authority.

3.2.1.2 CYCLING

REQUIREMENTS

R35

Bicycle parking infrastructure must accommodate a diversity of bicycle types and sizes, including cargo bicycles and electric bicycles.

R36

Bicycle parking must be provided in accordance with *Table 8 Bicycle Parking Minimums*.

An application for use and/or development that does not provide the minimum bicycle parking requirement as per *Table 8 Bicycle Parking Minimums*, must be accompanied by a Bicycle Parking Demand Assessment.

The Bicycle Parking Demand Assessment must address the following matters, to the satisfaction of the responsible authority:

- The variation of bicycle parking demand likely to be generated by the proposed use;
- The short-stay and long-stay bicycle parking demand likely to be generated by the proposed use;
- The availability of public transport within reasonable proximity to the land;
- The anticipated bicycle ownership rates of likely or proposed visitors to or occupants (residents or employees) of the land; and,
- The provision of public bicycle parking facilities within reasonable proximity to the land.

GUIDELINES

G35

Recreational transport links (shared pedestrian and cycling paths) in addition to those nominated in *Appendix 3 Street Complete Streets* should be lit in accordance with the *City's Public Street Lighting Policy* and be supported by passive surveillance.

G36

Local streets should include traffic calming measures to encourage low driving speeds, without reducing the connectivity of the street network for people walking and cycling.

G37

Visitor or shopper bicycle parking provided in accordance with *Table 8 Bicycle Parking Minimums* should be located in convenient, undercover, well-lit locations near the building entrance.

G38

Charging facilities for electric bicycles should be provided near bus stops and bicycle parking along connector roads and other key destinations.

T8. BICYCLE PARKING MINIMUMS

LAND USE	LONG STAY BICYCLE PARKING (RESIDENTS OR EMPLOYEES)	SHORT STAY BICYCLE PARKING (VISITORS)
Residential	• 1 space to a 1- and 2-bedroom dwelling • 2 spaces per 3-bedroom dwelling • 1 space per bedroom for dwellings with no car parking	2 spaces per 5 dwellings
Retail Premises (including shop)	1 space per 400sqm	1 space per 100sqm
Office	9 spaces per 800sqm	1 space per 800sqm
All other uses not listed in this table	Other uses as per rates listed in Clause 52.34 of the Greater Geelong Planning Scheme.	

3.2.1.3 PARKING

REQUIREMENTS

R37

Car parking must not:

- Dominate the building facade/street interface;
- Create unsafe or uncomfortable places to walk or cycle.

R38

Loading areas and all other service areas must not have any interface with the CCC/CCB.

On all other streets, loading and service areas must be on the side, rear or screened to minimise views to the street.

The treatment of loading and service areas must be integrated into the building design to provide visual interest.

GUIDELINES

G39

Off-street parking provided in activity centres should be co-located and consolidated into a shared, multi-user area to promote efficiency.

G40

Car parking areas should be designed to allow passive surveillance and ensure public safety through positioning and lighting.

G41

Car parking areas should be designed to provide dedicated pedestrian routes and adequate landscaping areas to the satisfaction of the responsible authority.


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3.2.2 OPEN SPACE SYSTEMS

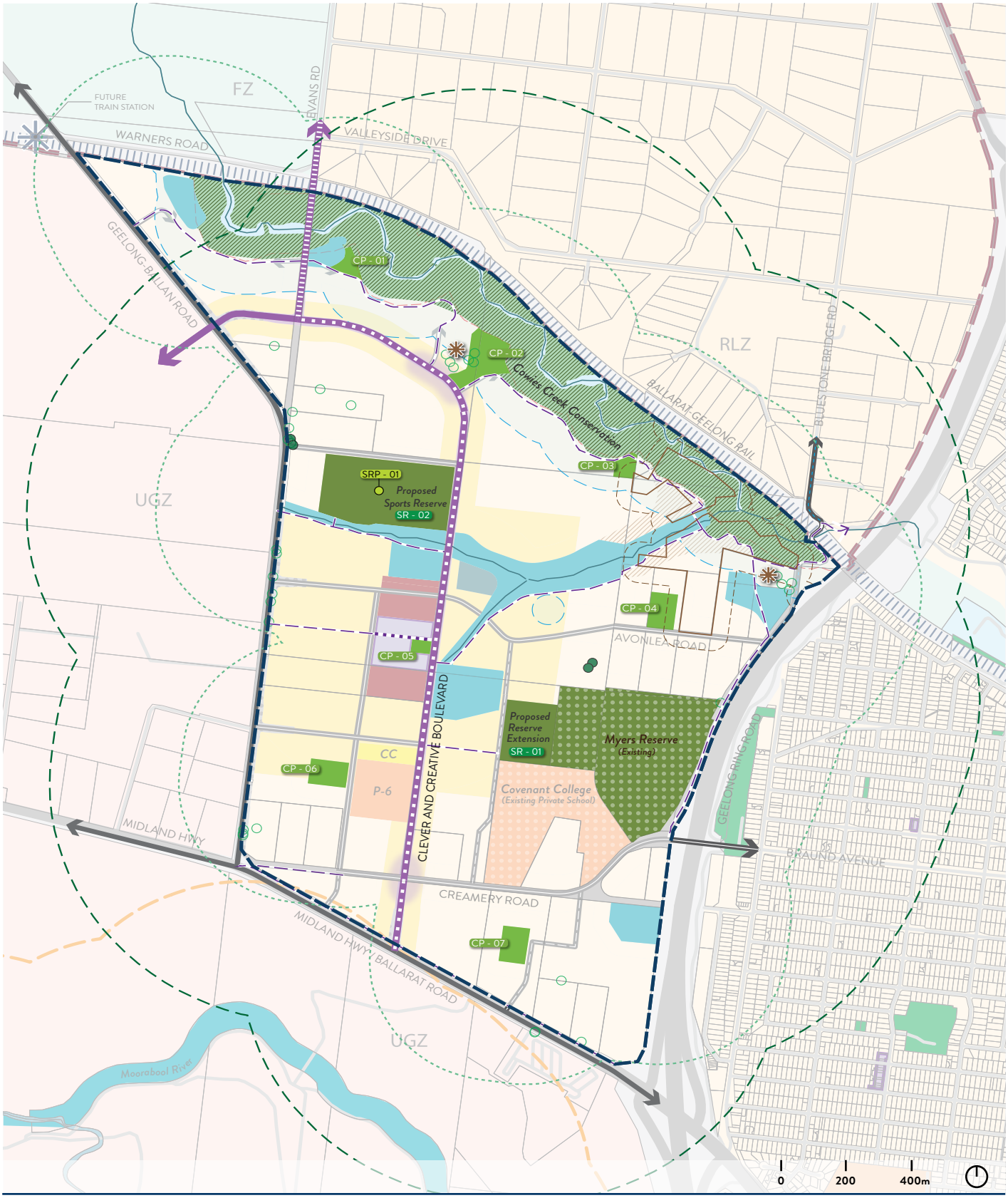
The open space system creates passive and structured play, recreation and sport opportunities for future neighbourhoods.

Community parks and sporting reserves are located within walking distance of residential areas, and along spines of existing encumbered land, and conservation areas.

Open spaces will support tree canopy coverage and serve as destinations in the precinct's active transport network.

Community parks and sports (active) reserves will be designed to address the needs of the future community and provide neighbourhoods with a distinct sense of place and identity.

P14. OPEN SPACE SYSTEMS



LEGEND

- Precinct Boundary
- Area of Cultural Sensitivity
- Aboriginal Cultural Heritage Extent & 50m Buffer
- Heritage Homestead
- Community Park
- Proposed Sports Reserve
- Existing Sports Reserve
- Cowies Creek Conservation
- Sports Pavillion
- Waterway & Drainage Asset
- Local Park - 400m catchment
- Open Space > 1ha - 800m Catchment
- Existing Trees to be Retained
- High Rated Trees
- Clever & Creative Corridor
- Clever & Creative Corridor (Evans Road Variation)
- Clever & Creative Boulevard
- Key Pedestrian Street
- Recreational Transport Links

3.2.2 OPEN SPACE SYSTEMS

REQUIREMENTS

R39

All community parks, sports (active) reserves and other public open spaces must be located, designed and developed to the satisfaction of the responsible authority in accordance with the following documents:

- *Plan 14 Open Space Systems;*
- *Table 9 Open Space Delivery Guide;*
- *Appendix 4 – Table 22 Open Space Delivery Requirements* and,
- Relevant Council policy and guidelines.

R40

Where a community park as shown on *Plan 14 Open Space Systems* is located over multiple properties, the first development proponent to lodge a permit application must undertake a master plan for the entire park, to the satisfaction of the responsible authority. The proponent delivering the master plan for a local park that traverses multiple property ownerships must consult with the landowners of parcels covered by the park when preparing the plan to ensure an integrated design.

R41

Open spaces must have a road frontage to at least 3 boundaries, except where:

- The open space adjoins and alternate open space use i.e. conservation area;
- Lots directly face the open space and allow for vehicular access via a rear laneway with the provision of a 4m wide paper road fronting the open space;
- Primary pedestrian access to lots is provided via a 1.8m wide pedestrian path contained within the paper road; and
- Visually permeable and low scale fencing (less than 1.2 metres high) facilitates public safety and passive surveillance.

R42

Deleted.

R43

For the purposes of Clause 53.01 of the Greater Geelong Planning Scheme, a Community Park, Urban Park or Town square within the PSP is defined as Public Open Space.

All land contributed as public open space must be unencumbered and a contribution provided in accordance with *R34*.

R44

Where land is identified as a credited (unencumbered) open space, such as a local community park, as shown on *Plan 14 Open Space Systems* and specified in *Table 9 Open Space Delivery Guide*, if the land is:

- Equal to 4.34% of the Net Developable Area – Residential (NDAR) of the lot, the land must be transferred to Council at no cost;.
- Less than 3.78% of the NDAR of the lot, the land must be transferred to Council at no cost, and a cash contribution must be made to Council to bring the total contribution to a value of 4.34% NDAR; and
- Greater than 4.34% of the NDAR of the lot, the land must be transferred to Council at no cost to Council. Council will pay an amount to the permit applicant equivalent to the value of the land provided in excess of 3.78% NDAR, but no greater than the difference between 4.34% NDAR and the amount of land shown as a community park on *Plan 5 Future Urban Structure.*

Where a subdivision is staged, the responsible authority may agree to the release of one or more stages where the open space is in a future stage.

The value of land for equalisation purposes is to be assessed as an equivalent proportion of the value of the whole land, and in accordance with Sections 18a and 19 of the *Subdivision Act 1988*.

R45

Where a permit applicant proposes, and the responsible authority agrees, to provide unencumbered public open space in addition to that shown on *Plan 14 Open Space Systems* and *Table 9 Open Space Delivery Guide*, the land and embellishment must be provided at the development proponent's cost. The additional unencumbered public open space shall not be included nor affect the equalisation scheme.

R46

Above ground utilities (such as electricity substations, kiosk and sewer pumps) must not be located within any community parks or sports (active) reserves.

GUIDELINES

G42

Open spaces should be designed to promote a sense of place and cater for users of all genders, ages, abilities, and cultures by providing opportunities to interact in structured and unstructured recreational activities.

T9. OPEN SPACE DELIVERY GUIDE

PARK REF	AREA (HA)	TYPE	LOCATIONAL ATTRIBUTES	DELIVERY RESPONSIBILITY
CP01	0.5 ha	Local Community Park	This park is located at the intersection of Evans Road and the conservation interface street adjacent to Cowies Creek boundary. It is serviced by the street network and recreational transport links. The park will benefit from views into the Cowies Creek valley, offer an attractive resting point for pedestrians and cyclists and serve as a passive recreation space for surrounding residents.	Development proponent
CP02	1.973 ha	Local Community Park	This park is located adjacent to the Coolangatta Homestead. It will provide passive recreation opportunities and strong views in most directions. Detailed designs should consider how the extensive views can be captured. The design of the park should integrate with the significant heritage building.	Development proponent
CP03	0.5 ha	Local Community Park	This park is located in the northern east corner, adjacent to the Cowies Creek Conservation area boundary.	Development proponent
CP04	1.0 ha	Local Community Park	This park is in close proximity to the waterway drainage corridor north of Avonlea Road.	Development proponent
CP05	0.296 ha	Town Square	Located on the southern side of the Pedestrian Street and adjoining the CCB to the east is the NAC town square. This park will provide an important civic programming and community gathering function for commercial/retail users, workers and residents.	Development proponent
CP06	1.0 ha	Local Community Park	This park will predominately service the south-west of the precinct. It is located opposite the proposed government primary school surrounded by residential areas. It is connected to the precinct's recreational transport link network to connect with surrounding areas, ensuring broad accessibility.	Development proponent
CP07	1.0 ha	Local Community Park	This park will predominately service the residential area in the south-east. Located on the bend of the local access 2 street	Development proponent

PARK REF	AREA (HA)	TYPE	LOCATIONAL ATTRIBUTES	DELIVERY RESPONSIBILITY
SR01	3.25 ha	District Sports Reserve	This land will allow for the western expansion of Myers Reserve. A shared path connects to the road reserve north of Myers Reserve. It will provide district level passive components (play &/or informal recreation infrastructure) promoting activation, community usage of the sports reserve and physical activity.	City of Greater Geelong
SR02	8.644 ha	District Sports Reserve	This district reserve is located in the north-west and is bound by the CCB, a connector road, and a waterway drainage corridor. The site is connected to the precinct's active transport network with north-south and east-west links making it highly accessible. The reserve is close to the potential non-government school. It will provide district level passive components (play &/or informal recreation infrastructure) promoting activation, community usage of the sports reserve and physical activity.	City of Greater Geelong

Note: Public open space contributions are comprised of 5.66% active open space and 2.99% passive open space.

3.3 ENERGY & TECHNOLOGY

3.3.1 Sustainable Energy & Zero Carbon 88
3.3.2 Smart Cities 92

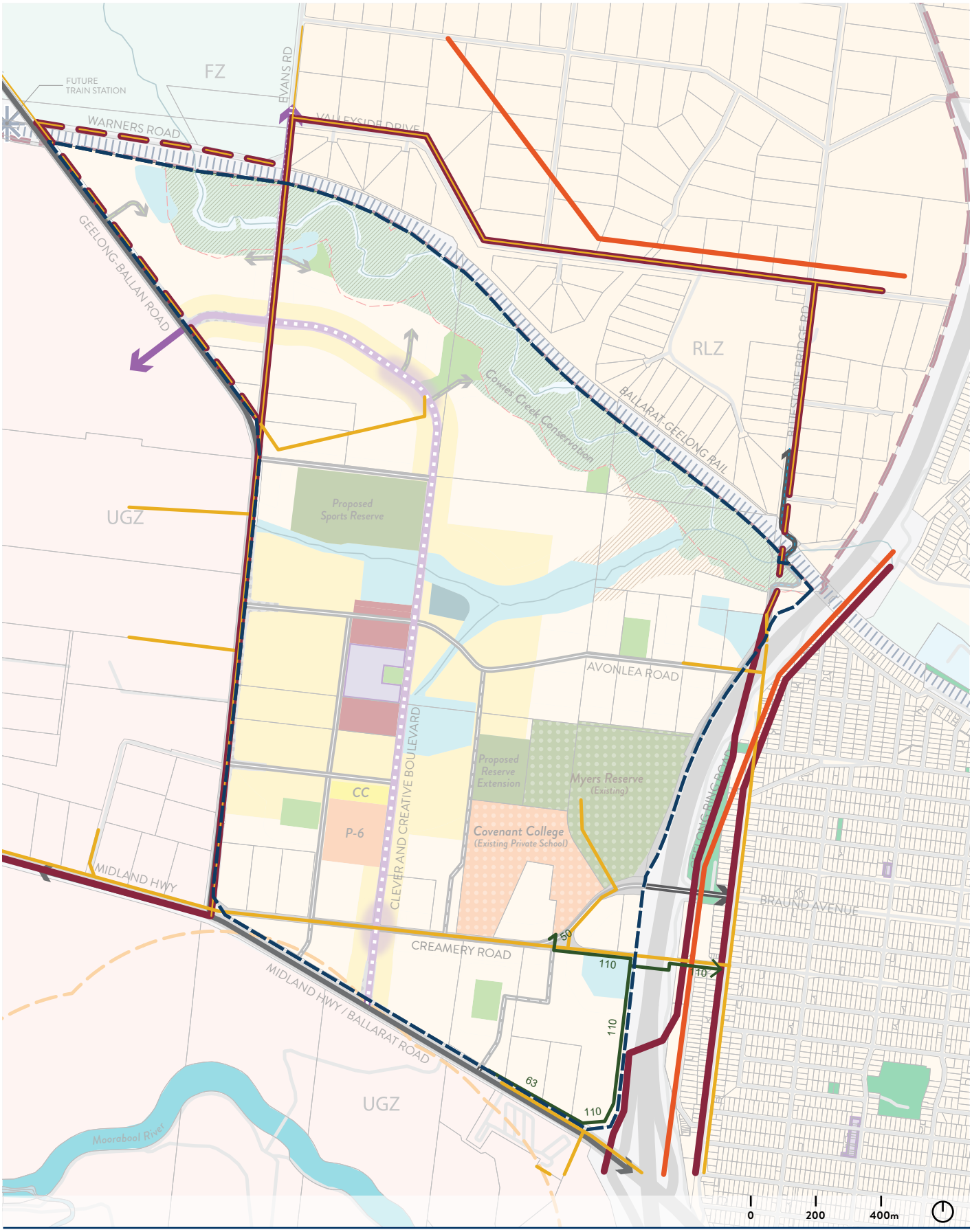


3.3.1 SUSTAINABLE ENERGY & ZERO CARBON

Communities in the precinct will be planned and designed to achieve a zero operational carbon footprint.

Applicants will be required to demonstrate how lot design, building design and renewable energy sources, combined with fully electric (no gas network) subdivisions, can achieve zero operational carbon neighbourhoods.

P15. UTILITIES, ENERGY & TECHNOLOGY



LEGEND

- Precinct Boundary
- Existing AusNet Transmission Line
- Existing Powercor Distribution Feeders (22 kV)
- Existing Powercor 66 kV Overhead Feeder
- Existing Powercor 66 kV & 22kV Overhead Feeder
- Proposed Future Sub-Transmission Lines (66 kV & 22kV)
- Existing Gas Main

3.3.1 SUSTAINABLE ENERGY & ZERO CARBON

REQUIREMENTS

R47

The location of proposed trunk infrastructure must be in general accordance with *Plan 15 Utilities, Energy & Technology*, unless otherwise agreed by the relevant authority.

R48

Deleted.

R49

Deleted.

R50

Above ground utilities (such as electricity substations, kiosk and sewer pumps) must be identified at the subdivision design stage to ensure effective integration with the surrounding neighbourhood and to minimise amenity impacts, all to the satisfaction of the responsible authority and relevant authorities.

R51

A Functional Layout Plan must be submitted to and endorsed by the responsible authority. The plan must show the locations of the following infrastructure, including but not limited to:

- Underground services;
- Vehicle crossovers;
- Street lights;
- Street trees (including root growth zones to achieve the relevant canopy cover and relevant passive irrigation detail);
- Future bus stops and/or other public transport facilities;
- Bicycle parking infrastructure (e.g., bicycle racks);
- Shared pedestrian and bicycle paths;
- All local traffic management items;
- Utility installations on or adjacent to public reserves; and
- Any relevant smart city infrastructure (as shown on *Plan 16 Smart Cities & Digital Connectivity* in the Creamery Road PSP) including conduit lines, branches and pits, LoRaWAN Gateways, EV charging locations and Smart Street poles.

The cross sections must also nominate above and below ground placement of services, streetlights, and trees and passive irrigation.

Where relevant, any smart city infrastructure to be provided in accordance with the *NWGGA Smart City Technical Specifications (2022)* or as amended.

R52

All new electricity supply infrastructure and existing above ground electricity cables (excluding substations and cables with voltage of 66 kV or greater) must be placed underground as part of subdivision works and upgrades to existing roads.

GUIDELINES

G43

The design and placement of utilities and services should be in general accordance *Appendix 6 - Table 24 Services Placement Guidelines* and demonstrate how the relevant requirements and guidelines from *Section 3.6.1 Urban Greening* in this PSP are met, all to the satisfaction of the relevant authorities.

G44

Above ground utilities should be located outside of key view lines and be screened.

G45

Opportunities for alternative infrastructure and utility delivery models that achieve best practice ESD and support the development of zero operational carbon neighbourhoods are encouraged.

G46

Deleted.

G47

Provision of neighbourhood scale battery storage and virtual power plants to store and utilise excess renewable energy produced within the precinct is strongly encouraged.

+G-G

An application for subdivision or building and works (whichever comes first) should be accompanied by a Zero Carbon Operational Energy Plan which demonstrates how the subdivision or works supports the development of a zero carbon operational energy precinct through consideration of, but not limited to:

- Subdivision and infrastructure design.
- Lot and neighbourhood scale renewable energy generation and storage.
- Green energy power purchasing agreements.
- Infrastructure proposed to manage and monitor energy loads.

+G-H

Any non-residential subdivision or development within the PSP should not connect to any existing or future reticulated gas networks.

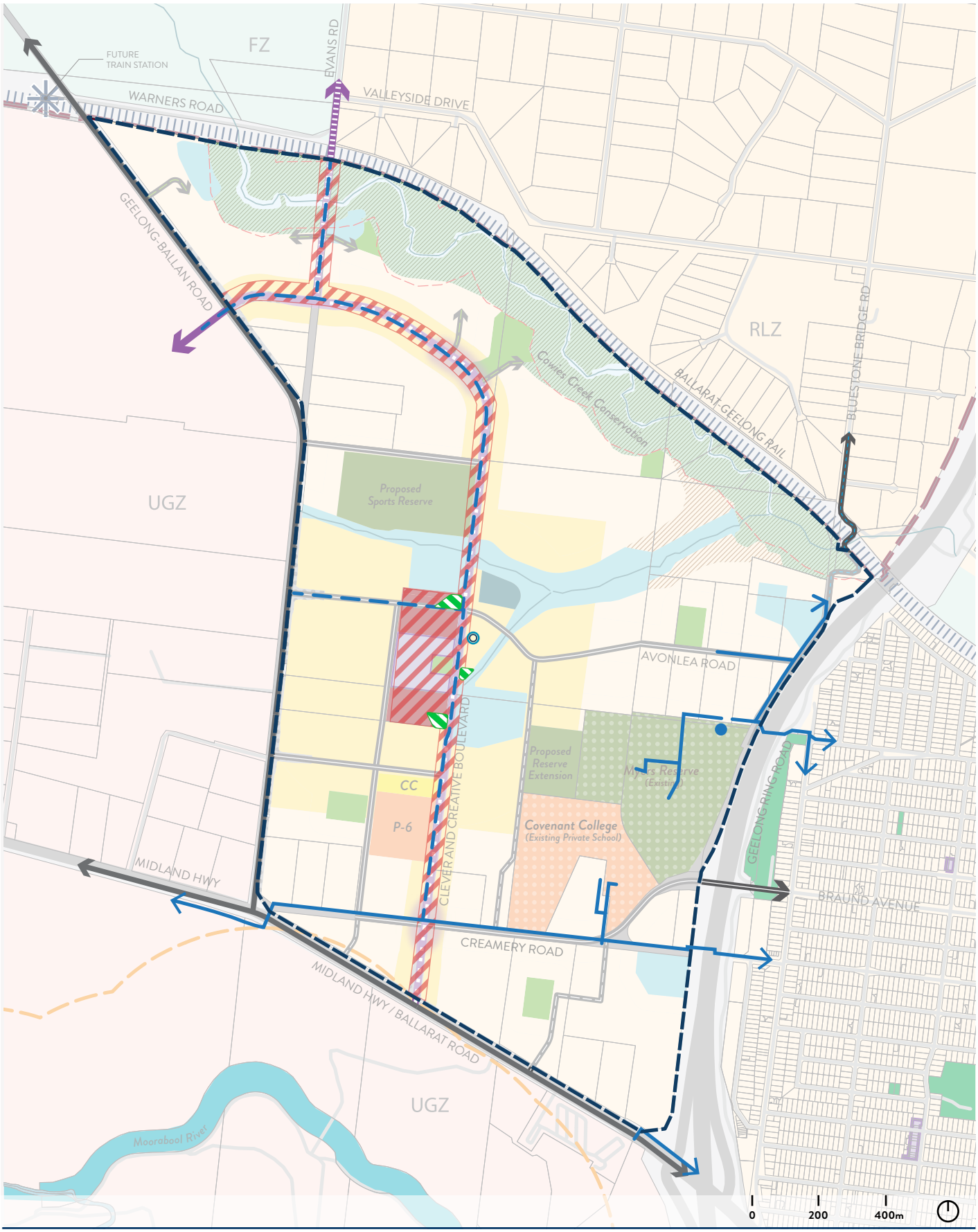
3.3.2 SMART CITIES

The precinct will use smart city infrastructure to monitor and assess the precinct's sustainability performance, support and enable the adoption of smarter and cleaner technologies, and help monitor and manage local assets and services to allow for forward planning and improved decision-making.

The PSP seeks to ensure the provision of base infrastructure required for smart technologies is provided at subdivision, to ensure the cost-effective installation of smart technologies in the future.

Innovative approaches to sustainable transport that support climate resilience and reduce greenhouse gas emissions will be encouraged.

P16. SMART CITIES & DIGITAL CONNECTIVITY



LEGEND

- Precinct Boundary
- Property Parcel

SMART CITIES & DIGITAL CONNECTIVITY

- Conduits & Smart Lighting
- Proposed Smart Pole Locations
- Proposed Trunk Infrastructure
- Existing NBN Network
- LoRaWAN Gateway
- Existing CMTS Site (Mobile Phone Tower)

3.3.2 SMART CITIES

REQUIREMENTS

R53

Smart city infrastructure must be provided in accordance with the NWGGA Smart City Technical Specifications (2022) or as amended, and *Plan 16 Smart Cities & Digital Connectivity.*

Smart city infrastructure must be identified on the plan of subdivision with an application, to the satisfaction of the responsible authority. This includes but is not limited to the design and placements of conduit lines, branches and pits, LoRAWAN Gateways and smart street poles as shown on *Plan 16 Smart Cities & Digital Connectivity.*

R54

Smart infrastructure (both above and below ground) as shown on *Plan 16 Smart Cities & Digital Connectivity* must passively integrate into the public realm and natural landscape.

The infrastructure must not detract from visual amenity of the public realm or inhibit convenient pedestrian and vehicular connections and accessibility.

Infrastructure must be designed in a way that its maintenance does not impact pedestrian or vehicular traffic or other infrastructure.

R55

Deleted.

GUIDELINES

G48

Where possible, telecommunications conduits should be co-located with other utility infrastructure, such as electricity, to optimise use of underground space.

G49

Deleted.

G50

Deleted.

G51

Road design, line markings, traffic signs and other road infrastructure should, where practical meet best practice standards for autonomous vehicles including shuttle services, in accordance with the *NWGGA Smart City Technical Specifications (2022)* or as amended.

G52

Variations in pavements and landscaping should use contrasting patterns to assist vision impaired persons to easily navigate the area, aid computer machine vision, and provide future opportunity for robots, and autonomous vehicles to easily navigate the area.

G53

All pits and cabinets of utilities in the precinct should have adequate space for Internet of Things (IoT) sensors to the satisfaction of the responsible authority and other relevant authorities.

G54

In or above ground parking sensors should be provided for on-street parking bays to generate usage pattern data. Any agreements dependent on the asset entered should be to the satisfaction of the responsible authority and transferable as part of the handover process.

G55

Smart infrastructure should be serviced by in situ renewable energy generation and storage, such as solar PV and batteries, where possible.

+G-I

An application for non-residential subdivision or building and works exceeding 5,000 square metres gross floor area (GFA) should provide:

- EV charging infrastructure and signage installed for at least 5% of all off-street parking.
- At least 20 percent of off-street car parking spaces (or at least one space) that are capable of supporting the provision of an appropriate moderate speed EV charging outlet, and appropriate EV infrastructure and cabling to ensure peak demand is managed.

3.4 BIODIVERSITY & THREATENED SPECIES

The PSP will protect and enhance habitat values of the Cowies Creek Conservation Area including the Growling Grass Frog (Litoria raniformis), listed as Vulnerable under the EPBC Act, Adamson's Blown-grass (Lachnagrostis adamsonii), listed as endangered under the EPBC Act, and the Ecological Vegetation Classes Creekline Grassy Woodland and Plains Grassland present in the conservation area. The PSP also includes areas of Plains Grassland EVC.

The conservation area will be managed for the primary purpose of improving biodiversity values but also serve as a place of learning and cultural awareness.

All native vegetation within the precinct, including the native vegetation within the Cowies Creek Conservation Area will be retained or permitted for removal through the Creamery Road NVPP.

P17. BIODIVERSITY & THREATENED SPECIES



LEGEND

- Precinct Boundary
- Waterway Corridor
- Cowies Creek Conservation
- Cowies Creek Masterplan Extent
- 100m Buffer to Cowie's Creek
- 50m Cowies Creek Masterplan Buffer (Triggers Construction Environment Management Plan)
- Native vegetation with critical retention values. To be retained and managed in accordance with Creamery Road NVPP
- Native vegetation that may be removed To be managed in accordance with Creamery Road NVPP

TREE RETENTION

- Critical Rated Trees
- High Rated Trees

ECOLOGICAL VEGETATION CLASS

- Plains Grassland
- Creekline Grassy Woodland

VICTORIAN BIODIVERSITY ATLAS RECORD

- Adamson's Blown-Grass

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

3.4 BIODIVERSITY & THREATENED SPECIES

REQUIREMENTS

R56

The Cowies Creek Conservation Masterplan Area as shown in *Plan 17 Biodiversity & Threatened Species* and identified in *Table 10 Conservation Area Attributes* must be created and managed in accordance with the following documents:

- Approvals under the EPBC Act 1999;
- NWGGA Biodiversity Conservation Strategy;
- Creamery Road Native Vegetation Precinct Plan (June 2024);
- Cowies Creek Landscape Masterplan (June 2024) or as amended; and
- Cowies Creek *Growling Grass Frog Conservation Management Plan* (June 2024) or as amended.

R57

Applications for development and/or subdivision on land within the Cowies Creek Masterplan Area as shown on *Plan 17 Biodiversity & Threatened Species* must have regard to the Cowies Creek Landscape Masterplan (June 2024) or as amended.

R58

Works including earthworks, paths, in-stream pools, ephemeral soaks and street furniture within the Cowies Creek Masterplan Area as shown in *Plan 17 Biodiversity & Threatened Species* must be generally in accordance with *Plan 18 Cowies Creek Landscape Plan* and have regard to the Cowies Creek *Growling Grass Frog Conservation Management Plan*, to the satisfaction of the responsible authority.

R59

Public lighting must be designed and baffled to prevent light spill and glare within and adjacent to the Cowies Creek Masterplan Area, unless otherwise agreed in writing by the responsible authority.

R60

Deleted.

R61

All infrastructure, including additional drainage assets, and all utility services must be located outside of the *Cowies Creek Conservation Area* unless otherwise shown on *Plan 17 Biodiversity & Threatened Species* and the Cowies Creek Landscape Masterplan, or agreed to by the responsible authority.

R62

Infrastructure located within the Cowies Creek Masterplan Area must be designed and located in accordance with the Cowies Creek Landscape Masterplan and the Cowies Creek Conservation Management Plan, unless approved in writing by the responsible authority.

R63

Community parks, drainage corridors, waterway corridors, utilities easements and other public open spaces, including encumbered open spaces must be designed to:

- Protect and enhance biodiversity values and protect the conservation area from unplanned entry;
- Provide flexible recreational opportunities;
- Provide habitat enhancement for rare and threatened species as documented in the EHP existing conditions report, WWGA *Cowies Creek Conservation Area, Growling Grass Frog Conservation Management Plan* and NWGGA Biodiversity Conservation Strategy or superseding document or standard as updated; and
- Respond to and acknowledge Aboriginal cultural values as appropriate;

all to the satisfaction of the responsible authority.

R64

At least six months prior to the commencement of works on land adjacent to the *Cowies Creek Conservation area*, wetlands for the Growling Grass Frog must be constructed as per the habitat creation recommendations in the *WGGA Cowies Creek Conservation Area, Growling Grass Frog Conservation Management Plan*, unless otherwise approved in writing by the responsible authority.

GUIDELINES

G56

Vegetation should be retained and protected where possible to provide habitat and movement corridors for local fauna and contribute to the character and amenity of the precinct.

G57

Where community access to the Cowies Creek conservation area is possible, the access should be sensitively designed to protect the primary conservation and landscape values of the area.

G58

Landscaping and embellishment of public open spaces should contribute to habitat for fauna.

T10. CONSERVATION AREA ATTRIBUTES

AREA (HA)	TYPE	ATTRIBUTES	DELIVERY RESPONSIBILITY
42.045	Local Conservation Reserve	The landscape character consists of a narrow waterway that weaves through rolling grassed hills. There are limited trees within the creek corridor, its vegetation mostly consists of low grasses and reed species. The primary function of the land is to serve as a conservation area for the Growling Grass Frog, listed as Vulnerable under the EPBC Act 1999 and local biodiversity. Conservation will be separated from any development by a combination of edge roads, local parks, recreational transport links and drainage assets.	City of Greater Geelong Council together with the development proponent

P18. COWIES CREEK LANDSCAPE PLAN



GROWLING GRASS FROG HABITAT MANAGEMENT AND IMPROVEMENT PRINCIPLES AND ACTIONS

1. Maintain a buffer of at least 100 metres around Cowies Creek to protect GGF habitat.
2. Any revegetation of Cowies Creek bed, banks and adjacent riparian benches and terrestrial areas to be carried out in accordance with the Department of Energy, Environment and Climate Action's (DEECA) Growling Grass Frog Habitat Design Standards and the Growling Grass Frog Conservation Management Plan (GGFCMP) to encourage Growling Grass Frog foraging and dispersal.
3. Retain and strategically increase the size of existing key instream pools in accordance with the GGFCMP to enhance habitat opportunities for the Growling Grass Frog and other associated native species.
4. Assess hydraulic opportunities and constraints to install 6 GGF wetlands within the conservation area as recommended within the GGFCMP.
5. Develop and implement a strategic weed management program to control and manage high-threat weeds while protecting GGF habitat in accordance with the GGFCMP.
6. Provide areas of jumbled rock piles to waterway interfaces in accordance with DEECA's GGF Habitat Design Standards and the GGFCMP to provide areas of warmer water, basking sites and overwintering habitat.
8. Maintain open areas surrounding Cowies Creek and the proposed GGF wetlands to provide important dispersal corridors and foraging habitat. Ensure vegetation management to maintain low, grassy vegetation up to 10 centimeters high, with minimal tree and shrub cover.
9. Conduct ongoing population and habitat monitoring in accordance with the GGFCMP. Monitoring shall encompass water quality monitoring, aquatic and terrestrial vegetation monitoring, and GGF population monitoring.

GENERAL REVEGETATION PRINCIPLES

1. Typically all plant species shall be of local provenance collected from seed or cuttings from the local bio-region.
2. Plant selection and mix to be prepared in consultation with, Wadawurrung Traditional Owners Aboriginal Corporation (WTOAC), DEECA and the City of Greater Geelong.
3. Species selection and mix shall increase overall biodiversity of the site and habitat opportunities for the Growling Grass Frog and other native fauna to fulfil cultural and environmental objectives.
4. Tree species shall be placed in consideration of view lines, path locations and habitat requirements in accordance with the GGFCMP and the GGF Habitat Design Standards.
5. Any grades greater than 1:4 shall be vegetated for ease of maintenance and safety of maintenance operators.
6. Detailed planting design within the conservation reserve shall be guided by the recommendations of the GGFCMP, existing topography, aspect, patches of remnant vegetation and the requirements of the GGF Habitat Design Standards.
7. Planting and revegetation should occur primarily outside of the key active period for the Growling Grass Frog (GGF), which is between September and April. This is to minimize disturbance during critical lifecycle periods
8. Mulch shall not be used within 50m of the Cowies Creek banks
9. Where sedges and tussock forming grasses are used for revegetation within 10m of Cowies Creek banks ensure that planting density does not exceed 20 per cent cover when mature in accordance with the GGFCMP and the Growling Grass Frog Habitat Design Standard.
10. Tree planting to northern aspect of Cowies Creek shall be sensitively considered to prevent over shadowing of waterway areas. Tree cover within the designated Conservation Zone should not exceed 10 percent.
11. Shrub cover within the designated Conservation Zone should not exceed 10%.

PLAINS GRASSLAND SPECIES PLANTING LIST

SUB - SHRUBS

Botanical Name	Common name
Eutaxia microphylla	Common Eutaxia
Pimelea curviflora	Curved Rice-flower
Pimelea glauca	Smooth Rice-flower
Pimelea humilis	Common Rice-flower
Podolepis linearifolia	Basalt Podolepis
Dianella longifolia var. grandis s.l.	Glaucous Flax-lily
Senecio macrocarpus	Large-fruit Fireweed

HERBS

Botanical Name	Common name
Bulbine bulbosa	Bulbine Lily
Brachyscome dentata	Lobe-seed Daisy
Caesia calliantha	Blue Grass-lily
Calotis anthemoides	Cut-leaf Burr-daisy
Calotis scabiosifolia	Rough Burr-daisy
Calotis scapigera	Tufted Burr-daisy
Geranium retrorsum	Grassland Cranesbill
Haloragis heterophylla	Varied Raspwort
Linum marginale	Native Flax
Pelargonium rodneyanum	Magenta Stork's-bill
Plantago gaudichaudii	Narrow Plantain
Ptilotus macrocephalus	Feather Heads
Ptilotus spathulatus	Pussy Tails
Tricoryne elatior	Yellow Rush-lily
Triptilodiscus pygmaeus	Common Sunray
Veronica gracilis	Slender Speedwell
Vittadinia gracilis	Woolly New Holland Daisy
Wahlenbergia capillaris s.s.	Tufted Bluebell
Wahlenbergia luteola	Bronze Bluebell

GRAMINOIDES

Botanical Name	Common name
Arthropodium minus	Small Vanilla-lily
Arthropodium strictum	Chocolate Lily
Rytidosperma carphoides	Short Wallaby-grass
Rytidosperma eriantha	Hill Wallaby-grass
Rytidosperma geniculata	Kneed Wallaby-grass
Rytidosperma laeve	Smooth Wallaby-grass
Rytidosperma penicillatum	Slender Wallaby-grass
Rytidosperma pilosum	Velvet Wallaby-grass
Rytidosperma racemosum	Stiped Wallaby-grass
Austrostipa bigeniculata	Kneed Spear-grass
Austrostipa mollis	Supple Spear-grass
Austrostipa scabra subsp. Falcata	Rough Spear-grass
Austrostipa semibarbata	Fibrous Spear-grass
Carex breviculmis	Common Grass-sedge
Carex inversa	Knob Sedge
Deyeuxia quadriseta	Reed Bent-grass
Dianella revoluta	Black-anther Flax-lily
Lomandra micrantha	Small-flower Mat-rush
Microlaena stipoides	Weeping Grass
Poa sieberiana var. sieberiana	Grey Tussock-grass
Schoenus apogon	Common Bog-sedge

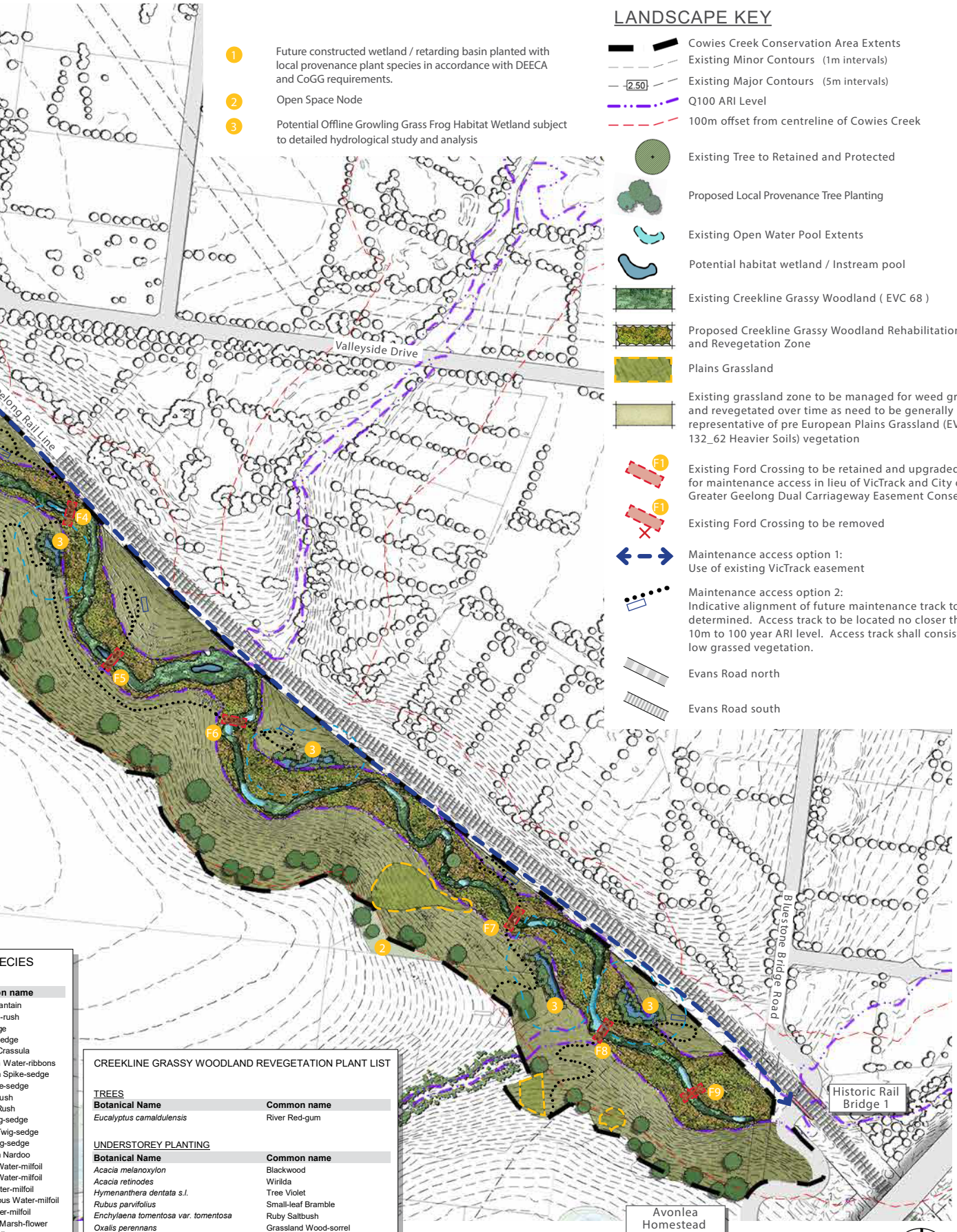
SCRAMBLERS / CLIMBERS

Botanical Name	Common name
Cullen parvum	Small Scurf-pea
Desmodium varians	Slender Tick-trefoil
Glycine tabacina	Variable Glycine

INSTREAM AND WETLAND PLANT SPI

AQUATIC VEGETATION SPECIES LIST

Botanical Name	Commo
Alisma plantago-aquatica	Water Pl
Bolboschoenus caldwellii	Salt Club
Carex appressa	Tall Sedg
Carex tereticaulis	Basket S
Crassula helmsii	Swamp C
Cycnogeton procerum	Common
Eleocharis acuta	Common
Eleocharis sphacelata	Tall Spik
Juncus amabilis	Hollow R
Juncus flavidus	Golden R
Machaerina arthrophylla	Fine Twig
Machaerina articulata	Jointed T
Machaerina juncea	Bare Twi
Marsilea drummondii	Common
Myriophyllum caput-medusae	Coarse W
Myriophyllum crispatum	Upright W
Myriophyllum salsugineum	Lake Wa
Myriophyllum simulans	Amphibic
Myriophyllum verrucosum	Red Wat
Ornduffia reniformis	Running
Ottelia ovalifolia subsp. Ovalifolia	Swamp L
Persicaria decipiens	Slender K
Potamogeton cheesemanii	Red Pon
Potamogeton crispus	Curly Pon
Potamogeton ochreatus	Blunt Pon
Ruppia megacarpa	Large-fru
Ruppia polycarpa	Many-fru
Stuckenia pectinata	Fennel F
Utricularia australis	Yellow B
Vallisneria australis	Eel Gras



LANDSCAPE KEY

- Cowies Creek Conservation Area Extents
- Existing Minor Contours (1m intervals)
- Existing Major Contours (5m intervals)
- Q100 ARI Level
- 100m offset from centreline of Cowies Creek
- Existing Tree to Retained and Protected
- Proposed Local Provenance Tree Planting
- Existing Open Water Pool Extents
- Potential habitat wetland / Instream pool
- Existing Creekline Grassy Woodland (EVC 68)
- Proposed Creekline Grassy Woodland Rehabilitation and Revegetation Zone
- Plains Grassland
- Existing grassland zone to be managed for weed growth and revegetated over time as need to be generally representative of pre European Plains Grassland (EVC 132_62 Heavier Soils) vegetation
- Existing Ford Crossing to be retained and upgraded for maintenance access in lieu of VicTrack and City of Greater Geelong Dual Carriageway Easement Consent
- Existing Ford Crossing to be removed
- Maintenance access option 1: Use of existing VicTrack easement
- Maintenance access option 2: Indicative alignment of future maintenance track to be determined. Access track to be located no closer than 10m to 100 year ARI level. Access track shall consist of low grassed vegetation.
- Evans Road north
- Evans Road south

CREEKLINE GRASSY WOODLAND REVEGETATION PLANT LIST

TREES

Botanical Name	Common name
Eucalyptus camaldulensis	River Red-gum

UNDERSTOREY PLANTING

Botanical Name	Common name
Acacia melanoxylon	Blackwood
Acacia retinodes	Wirilda
Hymenanthera dentata s.l.	Tree Violet
Rubus parvifolius	Small-leaf Bramble
Enchylaena tomentosa var. tomentosa	Ruby Saltbush
Oxalis perennans	Grassland Wood-sorrel
Azolla filiculoides	Pacific Azolla
Lemna disperma	Common Duckweed
Austrostipa bigeniculata	Kneed Spear-grass
Poa labillardierei	Common Tussock-garss
Austrodanthonia racemosa var. racemosa	Stiped Wallaby-grass
Austrodanthonia caespitosa	Common Wallaby-grass
Microlaena stipoides var. stipoides	Weeping Grass
Glycine clandestina	Twining Glycine

ECIES

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Crassula
Water-ribbons
Spike-sedge
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Twig-sedge
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Pondweed
Bladderwort
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Project No: 22026
Creamery Road PSP
Cowies Creek, Geelong
Landscape Master Plan
GbLA.COM.AU

MP 28

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1 : 6000 @ A3

P18. COWIES CREEK LANDSCAPE PLAN




LANDSCAPE KEY

3.5 INTEGRATED WATER MANAGEMENT

Integrated water management (IWM) will help create a network of enhanced and thriving natural environments and waterways that connect neighbourhoods and residents and provide access to nature.

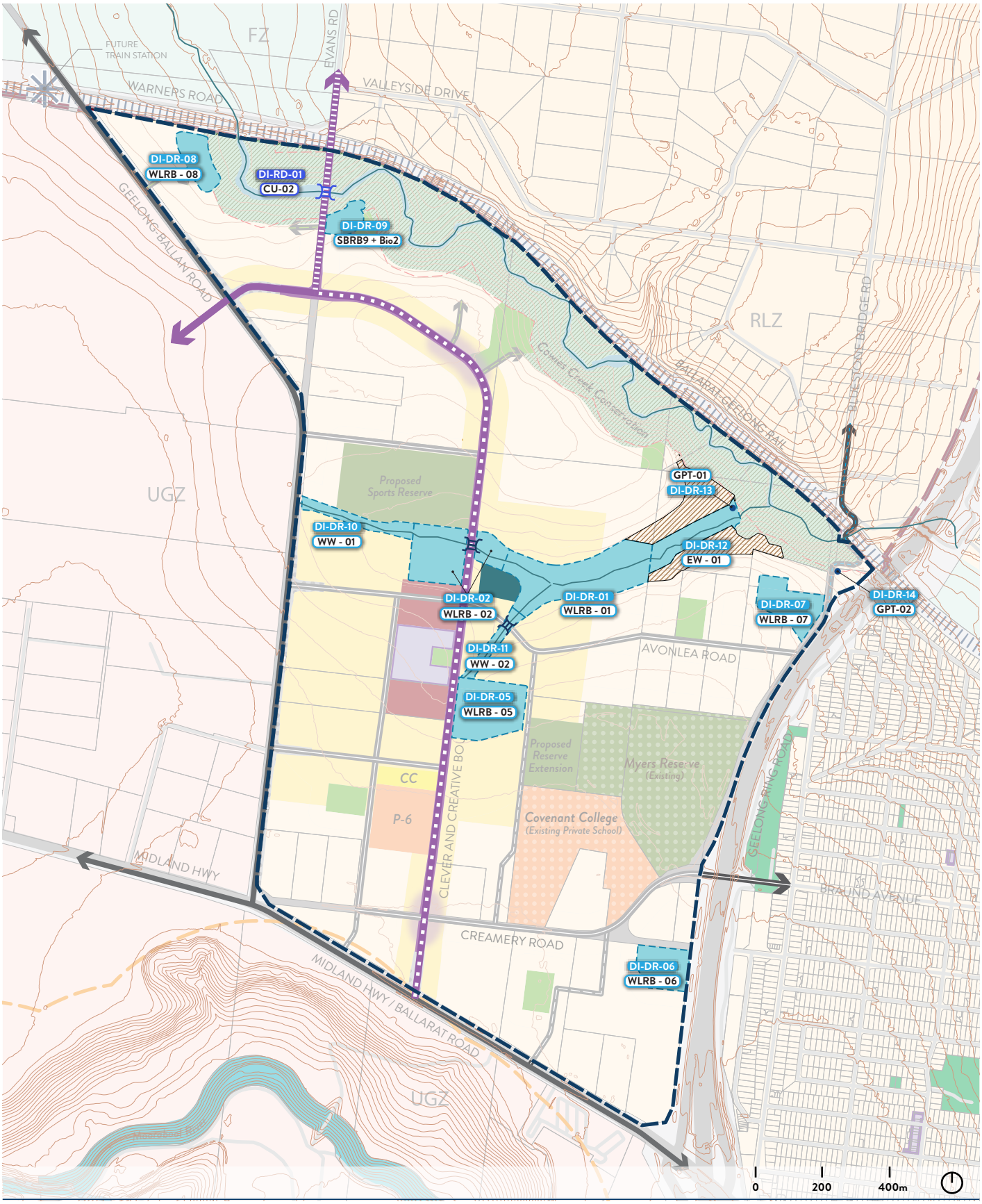
The City and water authorities will support and work collaboratively with development proponents to achieve best practice stormwater management and water sensitive urban design which delivers highly functional amenity places.

Blue-green infrastructure, including constructed waterways, will be delivered to create high quality streetscapes and other accessible open spaces. Cowies Creek will be protected from the adverse impacts of stormwater to ensure that its overlapping hydrological, geomorphological, ecological and cultural values are protected.

The PSP seeks to provide recycled water to all dwellings and passive irrigation of street trees and open spaces. Stormwater will be captured through detention and retarding basins and protect flows to Cowies Creek and local tributaries.

Both the natural ephemeral tributary to Cowies Creek and constructed waterways will convey treated stormwater to Cowies Creek and be restored to provide habitat for native flora and fauna.

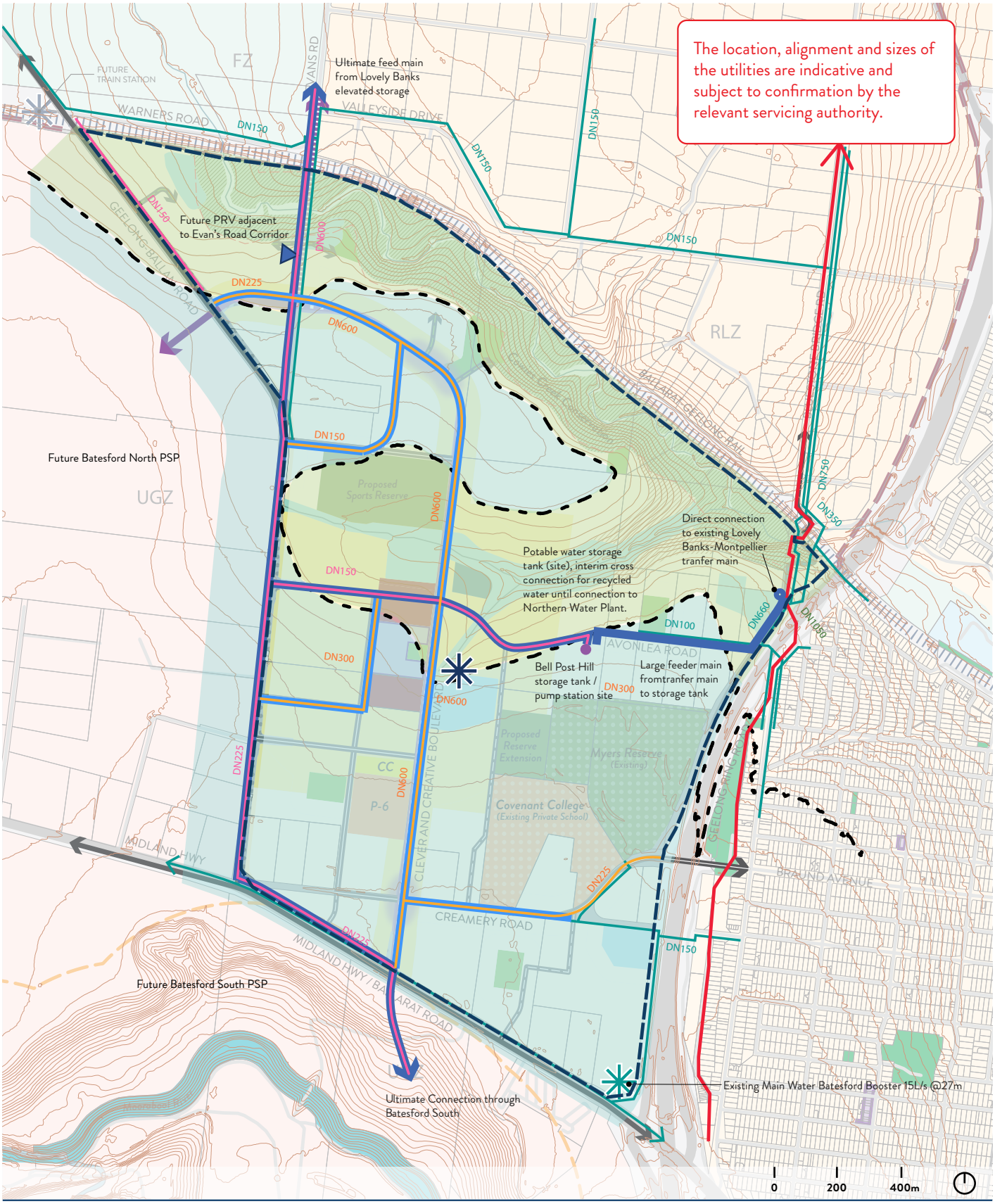
P19. INTEGRATED WATER MANAGEMENT



LEGEND

- Precinct Boundary
- Contours (2.5M)
- Existing Waterway
- Culvert
- Gross Pollutant Trap (GPT)
- Waterway & Drainage Asset
- Barwon Water Facility
- Investigation Area (Subject to Stormwater & Geotechnical Assessment)
- Clever & Creative Corridor
- Clever & Creative Corridor (Evans Road Variation)
- Clever & Creative Boulevard
- A-A-00 Project Identification Number (Refer to Precinct Infrastructure List)
- AA-00 DCP Code

P20. POTABLE & RECYCLED WATER INFRASTRUCTURE



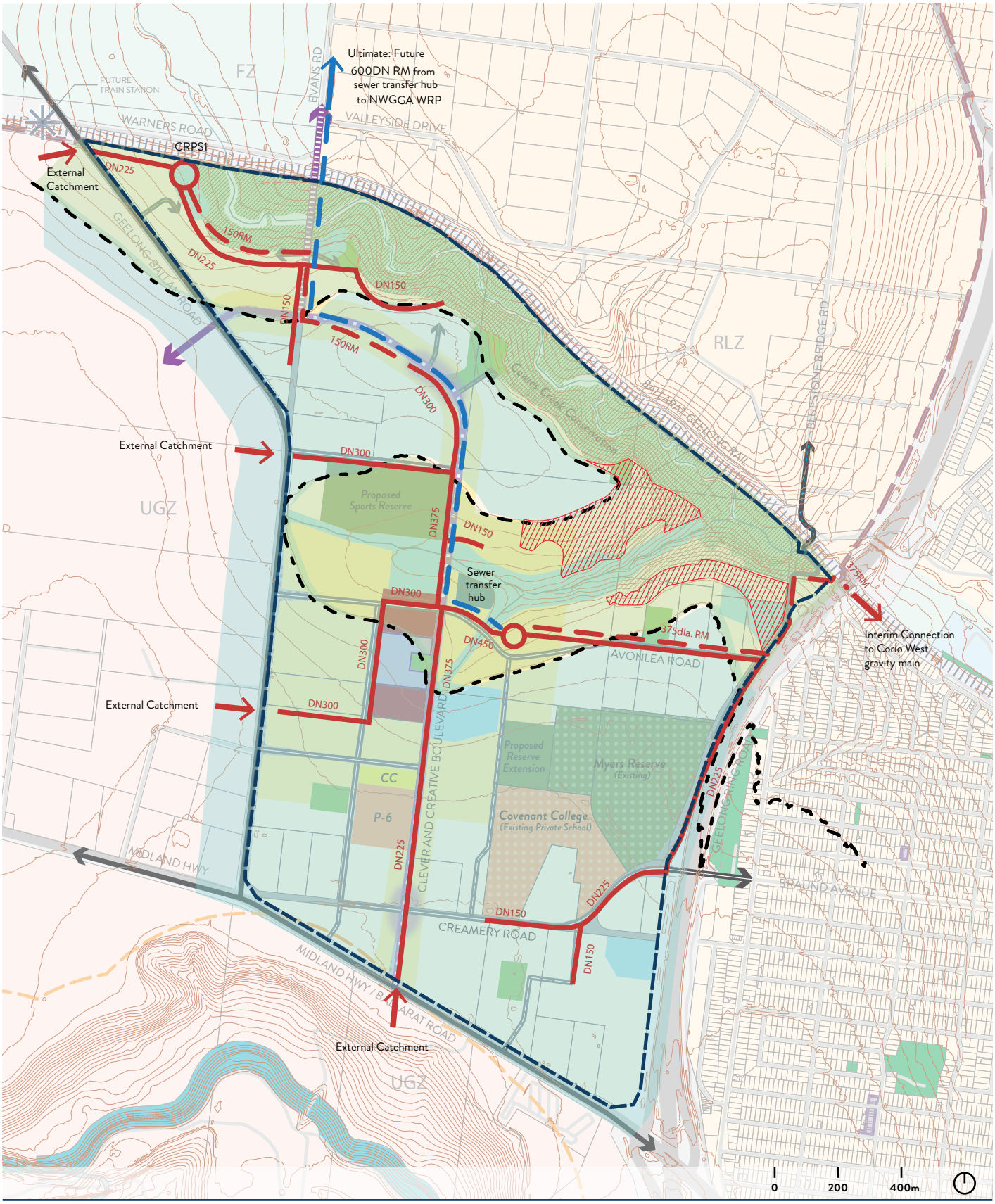
LEGEND

- Precinct Boundary
- Contours (2.5m)

PORTABLE & RECYCLED WATER

- Existing Water Mains
- Lovely Banks-Montpellier Transfer Main
- Proposed Water Mains
- Proposed Secondary Water Mains
- Proposed Key Recycled Water Mains
- Proposed Secondary Recycled Water
- 60m Contour
- Bell Post Hill Gravity Zone
- Bell Post Hill Pressure Boosted Zone

P21. SEWER INFRASTRUCTURE



LEGEND

- Precinct Boundary
- Contours (2.5m)

SEWER INFRASTRUCTURE

- Proposed Gravity Sewer
- Proposed Rising Main Sewer
- Ultimate Rising Main
- Additional Pumped Catchments (TBC)
- 60m Contour
- Bell Post Hill Gravity Zone
- Bell Post Hill Pressure Boosted Zone

3.5. INTEGRATED WATER MANAGEMENT

REQUIREMENTS

R65

Trunk infrastructure for potable water infrastructure, sewer and recycled water infrastructure must be placed along the general alignments illustrated on *Plan 20 Potable & Recycled Water Infrastructure* and *Plan 21 Sewer Infrastructure* or as otherwise agreed to by relevant authorities.

R66

All lots must be connected to:

- A safe and reliable potable water supply and sewerage services; and
- A reticulated recycled water system to provide for the supply of recycled water from a suitable scheme for toilet flushing and garden watering.

Where a reticulated recycled water supply system is not available, a lot must be connected to a rainwater tank for toilet flushing and garden watering or an alternative grey water recycling system to the satisfaction of the responsible authority and Barwon Water.

The utilisation of rainwater tanks on individual lots is for potable conservation purposes only and is not to be used as a potential flood mitigation solution for a subdivision.

R67

Stormwater conveyance and treatment must be designed generally in accordance with the Creamery Road Development Services Scheme (DSS), or subsequent drainage management plan, and *Plan 19 Integrated Water Management* to the satisfaction of the responsible authority.

Where development staging does not provide for the delivery of ultimate infrastructure for stormwater conveyance and treatment, development proposals must demonstrate how any interim solution can adequately manage and treat stormwater and construction sediment prior to discharge from the development, and how the interim solution will not prejudice the delivery of an ultimate drainage solution, to the satisfaction of the responsible authority.

R68

The final layout and design of stormwater infrastructure (including but not limited to constructed wetlands, retarding basins, stormwater quality treatment infrastructure) and associated paths, boardwalks, bridges, and planting, must be designed to include appropriate measures to mitigate the risk of erosion, to the satisfaction of the responsible authority.

R69

Alternative IWM responses to those presented in *Plan 19 Integrated Water Management* and the Creamery Road DSS must be to the satisfaction of the responsible authority and must demonstrate that:

- All applicable legislative and policy requirements are met;
- The staging of development as outlined in the PSP is not negatively impacted; and
- Net community benefit is demonstrated whereby the overall IWMP benefits outweigh the disbenefits.

Alternative IWM responses must:

- Reduce overall costs without compromising satisfaction of legislative and policy requirements (including State targets for quantity and quality management of stormwater);
- Increase amenity; and
- Integrate and connect with the public realm including activity centres, community infrastructure and the open space network.

Alternative IWM responses must not be placed in the Cowies Creek Conservation Area or any existing and/or proposed open space areas.

R70

The Integrated Water Management Plan submitted as part of the application must:

- Demonstrate that Stormwater runoff levels and quality are maintained to pre-development hydrology standard regimes in conservation areas;

- Meet State and Federal requirements and approvals for altered flows to support the ecological values of the Cowies Creek catchment (including its existing tributaries, billabongs and ephemeral systems) and the design, location and placement of stormwater infrastructure must be consistent with the Northern and Western Growth Areas EPBC Plan and Strategic Impact Assessment;
- Demonstrate compliance with the staged delivery of ultimate drainage infrastructure in accordance with the Creamery Road DSS and include the provision, staging and timing of stormwater drainage infrastructure;
- Assess the existing surface and subsurface drainage conditions on the site;
- Nominate the location, type and surface area (m2) of proposed WSUD treatment systems, including how each internal sub-catchment area is to be treated and connected to a WSUD element, e.g. road surfaces to passively irrigate open space/street trees, and/or treated via tree pits, biofilters, wetlands;
- Include modelling of all IWM and WSUD infrastructure, including a summary of model parameters used, justification where appropriate and results, as well as a copy of all MUSIC model files (*.sqz) with corresponding MUSIC Auditor reports showing compliance to BPEM targets;
- WSUD design and MUSIC Modelling parameters are to be to City of Greater Geelong Design Note 3;
- Provide an Asset Maintenance Plan for IWM/WSUD infrastructure that includes 'as constructed' asset design components, maintenance frequency and actions required to maintain assets in good operational order for the expected life of the asset, including inspection checklists for maintenance;
- The Asset Maintenance Plan must outline:
  - Works, including temporary outfall provisions, to the satisfaction of the responsible authority;
  - How the design of all assets takes into consideration maintenance and access requirements and seeks to minimise ongoing maintenance and operating needs and costs; and
  - How the assets will be maintained and protected during the construction delivery phase and defects liability period prior to practical completion and asset handover.

R71

New surface runoff storage(s) must be designed as multi-functional assets (integrated treatment, retardation, harvested storage) to minimise asset land take or footprints and in accordance with the Creamery Road (DSS) or any flood management strategy, to the satisfaction of the responsible authority and other relevant authorities.

R72

Water use efficiency must be optimised in the design of streets and open spaces through passive irrigation methods with the landscape (topography, natural overland flow paths) to ensure the long term viability of vegetation.

R73

Street trees and canopy trees within open spaces and car parking areas at street level must be passively irrigated through an appropriate WSUD solution.

R74

The layout and design of waterways, wetlands and retarding basins (including the design of paths, bridges and boardwalks, and the stormwater drainage system) must integrate with biodiversity and natural systems to the satisfaction of relevant authorities.

R75

An application to develop and/or subdivide land within any areas identified as 'untreated for drainage' as shown on *Plan 19 Integrated Water Management*, must be accompanied with a drainage catchment and water quality treatment assessment as part of the stormwater strategy proposal.

R76

The waterway corridor reserve for EW-01 and WW-01 (as shown on *Plan 19 Integrated Water Management*) must be ecologically rehabilitated, in accordance with local EVC characteristics with habitat features such as stags, rock or hollow logs and bushfire requirements for grassland classification.

3.5. INTEGRATED WATER MANAGEMENT

GUIDELINES

G59

Drainage and stormwater assets should be designed and incorporated into the overall street or path network as a visual feature and complement and build on the existing landscape features of the precinct to the satisfaction of the responsible authority.

G60

Where practical, and where primary waterway, open space and conservation functions are not adversely affected, IWM initiatives should be co-located with the precinct open space and recreation network.

G61

Sewer and recycled water infrastructure should be generally in accordance *Appendix 6 - Table 24 Service Placement Guidelines*, to the satisfaction of relevant authorities.

T11. INTEGRATED WATER MANAGEMENT ASSET SUMMARY

ASSET ID	TYPE	RESPONSIBILITY	AREA (HA)
WLRB01 (DI_DR_01)	Sediment Basin with Wetland	City of Greater Geelong	5.479
WLRB02 (DI_DR_02)	Sediment Basin with Wetland	City of Greater Geelong	3.580
WLRB05 (DI_DR_05)	Sediment Basin with Wetland	City of Greater Geelong	3.371
WLRB06 (DI_DR_06)	Sediment Basin with Wetland	City of Greater Geelong	1.826
WLRB07 (DI_DR_07)	Sediment Basin with Wetland	City of Greater Geelong	2.139
WLRB08 (DI_DR_08)	Sediment Basin with Wetland	City of Greater Geelong	1.406
SBRB9 + Bio2 (DI_DR_09)	Sediment Basin with Bioretention System	City of Greater Geelong	0.871
WW01 (DI_DR_10)	Existing Waterway	City of Greater Geelong	1.172
WW02 (DI_DR_11)	Existing Waterway	City of Greater Geelong	0.908
EW01 (DI_DR_12)	Ephemeral Waterway	City of Greater Geelong	1.917

3.6 CLIMATE RESILIENT COMMUNITIES

The PSP considers present and future risks presented by climate change and recognises the need to reduce exposure and vulnerability to climate related extreme weather events such as heatwaves, drought, bushfires and flooding.

The PSP includes a range of measures to embed community resilience and enable climate responsive outcomes.

3.6.1 Urban Greening 114

3.6.2 Bushfire Resilience 120



3.6.1 URBAN GREENING

The PSP seeks to achieve a minimum 30% canopy coverage across the precinct. This aim is supported by localised minimum canopy cover targets for various land uses, and will contribute to the achieving the canopy target set out in the Framework Plan and the City's Urban Forest Strategy.

P22. CANOPY COVER & TREE RETENTION

Deleted.

3.6.1 URBAN GREENING

REQUIREMENTS

R77

Trees nominated to have critical and high retention value (as shown *Plan 17 Biodiversity and Threatened Species*) must be retained within open spaces, road reservations or other public space with Tree Protection Zones applied in accordance with AS 4970-2009.

R78

Permit applications for development and/or subdivision must achieve the localised minimum canopy coverage stipulated by *Table 12 Canopy Coverage Requirement by Land Use* as part of the development's overall contribution to the 30 per cent canopy target for urban areas in Clause 12.06-1S (Urban forests).

The canopy cover requirements must be calculated in accordance with Clause 52.37 (Canopy trees) of the Greater Geelong Planning Scheme.

R79

Street trees must be provided on both sides of all roads and streets (excluding laneways) at regular intervals appropriate to tree size at maturity and not exceeding the average intervals below unless otherwise approved by the responsible authority.

AVERAGE	TREE SIZE
8 – 10m	Small Trees (less than 10m canopy)
10 – 12m	Medium Trees (10m to 15m canopy)
12 – 15m	Large Trees (larger than 15m canopy)

R80

Street tree planting must use locally appropriate species and be consistent with any guidance provided on the relevant cross section within this PSP unless otherwise approved by the responsible authority.

R81

The location, placement and species of canopy trees must enable the bushfire vegetation classifications, as shown on *Plan 23 Bushfire Resilience* to be achieved and maintained.

R82

Deleted.

R83

Canopy trees provided in streets and public areas must:

- Be suitable for local conditions;
- Be planted into soil within all nature strips and road verges in accordance with Australian Standard AS4419-2018 for Landscape Soils.
- Be planted in zones of modified and improved soil (such as structural soil), in accordance with Appendix 1 of Code of Practice, Management of Infrastructure in Road Reserves, Road Management Act 2004.
- Combine existing soil/bases to support tree establishment. The subsoil must be cultivated to the following depths:
  - a minimum depth of 400mm for small to medium sized trees.
  - a minimum depth of 800mm (or unless otherwise agreed by the responsible authority) for large trees.
- Comprise a mix of native and exotic, flowering and non-flowering species, and incorporate fire wise tree species as determined by the CFA guidelines Landscaping for Bushfire Garden Design and Plant Selection (June 2021) or as amended, as appropriate.

R84

Development of non-residential uses must ensure that all car parking areas achieve a minimum 25% canopy cover and 15% understory planting.

T12. CANOPY COVERAGE REQUIREMENT BY LAND USE

LAND USE AS PER FUS	LOCALISED MINIMUM CANOPY COVERAGE*	SITE AREA THE CANOPY IS TO BE CALCULATED ACROSS
Drainage Corridors	10%	Centreline of abutting roads and/or parcel boundaries where appropriate
Drainage Reserves	10%	Site Boundary
Education Facilities (including Existing School)	25%	Centreline of abutting roads
Community Facility (Early Years & Community Hub)	20%	Centreline of abutting roads
Active (Sports) Reserve (including Existing Myers Reserve)	15%	Centreline of abutting roads
Community Parks	35%	Centreline of abutting roads
Activity Centre (NAC)	15%	Centreline of abutting roads
Residential	20%	Centreline of abutting roads
Carparking (non-residential)	25% + 15% understory planting	Extent Boundary

The following apply:

- Any trees shown on *Plan 17 Biodiversity and Threatened Species* which are retained by the proposal are counted towards the canopy coverage requirements.
- The diameter of a tree at maturity included in the calculation of tree canopy coverage in *Table 12 Canopy Coverage Requirement by Land Use* must be no less than 3m.
- Street trees existing or proposed within the site area are counted towards the land use based canopy cover requirement.
- Only trees contained within private land which serves as part of the public realm count towards the minimum canopy target by land use. Examples of such spaces are car parking areas, school grounds, public open spaces and land managed by body-corporate entities (or similar).

3.6.1 URBAN GREENING

GUIDELINES

G62

Tree species selection should be varied and based on the specimen's ability to easily establish and achieve their genetic potential in the local climate.

The use of fire wise tree species as determined by the *CFA guidelines Landscaping for Bushfire Garden Design and Plant Selection (June 2021)* or as amended, is encouraged.

G63

Tree species utilised on roads adjacent to the Cowies Creek Conservation Area should support and enhance the biodiversity values of the conservation area.

G64

Tree planting should maximise the shading of paved surfaces.

G65

Feature street trees should be selected where appropriate to serve as local landmarks and define key nodes, the activity centre, park frontages, and key intersections and entrances.

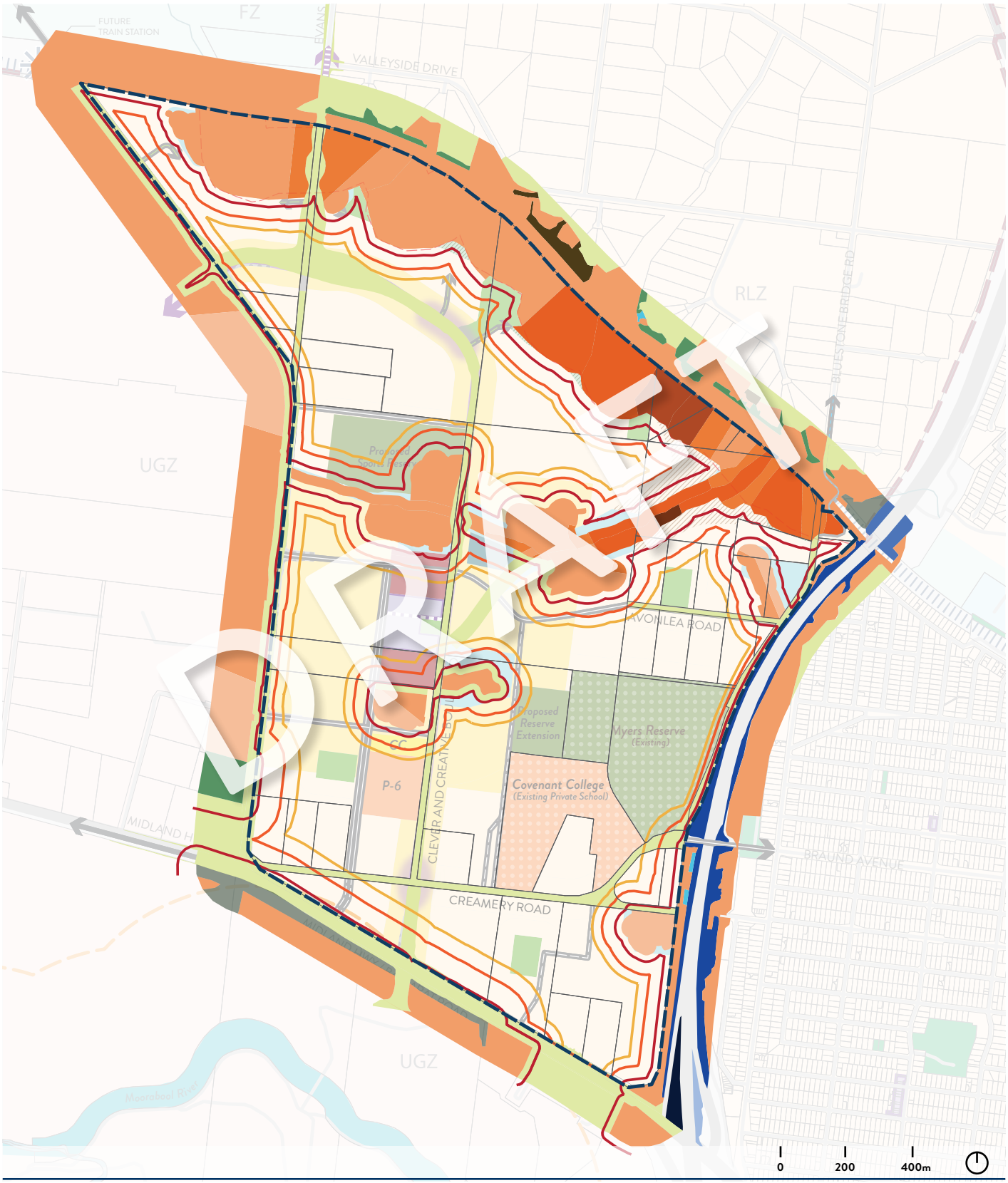
G66

Where practical, trees nominated to have moderate retention value should be retained within open spaces, road reservations or other public space with Tree Protection Zones applied in accordance with AS 4970- 2009.

3.6.2 BUSHFIRE RESILIENCE

The PSP will ensure that bushfire hazards are identified and that appropriate protection measures are implemented in the layout and design of the local street network, subdivisions and buildings and works.

P23. BUSHFIRE RESILIENCE



LEGEND

BUSHFIRE HAZARD AREAS

- Low Threat
- HA0 Grassland Flat
- HA1 Grassland > 0 to 5
- HA2 Grassland > 5 to 10
- HA3 Grassland > 10 to 15
- HA4 Grassland > 15 to 20
- HA5 Grassland > 20 to 25
- HA6 Forest Flat
- HA7 Forest > 0 to 5
- HA8 Woodland Flat
- HA9 Shrubland Flat
- HA10 Shrubland 0 to 5
- HA11 Shrubland > 5 to 10
- HA12 Shrubland > 10 to 15
- HA13 Scrub > 0 to 5
- Precinct Boundary

REQUIRED BAL RATING MINIMUMS

- BAL 12.5
- BAL 4
- BAL 2

3.6.2 BUSHFIRE RESILIENCE

REQUIREMENTS

R85

Deleted.

R86

Vegetation within the Cowies Creek Conservation Area, waterway corridor and drainage assets must be managed in accordance with the associated bushfire vegetation classification as shown on *Table 13 Creamery Road Precinct Bushfire Vegetation Classifications*, or at a standard which achieves a lower bushfire hazard classification in accordance with AS3959 2018 (or as amended) prior to the land being vested to the City.

All vegetation within and external to the Creamery Road precinct boundary must be established and managed in accordance with *Table 13 Creamery Road Precinct Bushfire Vegetation Classifications*, or to achieve a lower bushfire threat.

R87

Deleted.

R88

Development adjoining bushfire hazards (shown on *Plan 23 Bushfire Resilience*), must be set back in accordance with the corresponding bushfire hazard designations to the satisfaction of the responsible authority and relevant fire authority.

R89

Vegetation located in a setback required for bushfire management purposes must be managed in accordance with the following requirements, unless otherwise agreed by the responsible authority and relevant fire authority:

- 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 3 metres 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 square 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 5 metres.
- There must be a clearance of at least 2 metres between the lowest tree branches and ground level.

R90

Subdivision and development directly adjoining a bushfire hazard area must include a perimeter road unless otherwise agreed by the responsible authority and relevant fire authority.

GUIDELINES

G67

Deleted.

G68

Deleted.

G69

Landscape design and plant selection in open spaces, including waterways and drainage corridors should not increase bushfire risk, to the satisfaction of the responsible authority and relevant fire authority. .

G70

Subdivision design should include a network of streets that provide multiple evacuation routes away from Bushfire Hazard Areas into urban areas identified as low risk.

T13. CREAMERY ROAD BUSHFIRE VEGETATION CLASSIFICATIONS

LAND USE TYPE	VEGETATION CLASSIFICATION (AS3959)
EXTERNAL VEGETATION	
External precinct buffer of 150m	Vegetation surrounding the precinct assessed and mapped in June 2024, as indicated on the map. This is likely to change over time and will require updated bushfire assessments.
INTERNAL PRECINCT VEGETATION	
Cowies Creek Conservation Area	All vegetation to be AS3959:2018 classified grassland.
Waterway Drainage Corridors	Parcels EW-01 and WW - 01 to be AS3959:2018 grassland. Parcel WW-02 to be low threat vegetation as specified by AS 3959:2018 2.2.3.2..
All Drainage Assets	Swales and wetlands will be AS3959:2018 grassland or shrubland (BAL setbacks).
All other Land Areas within the Precinct	AS3959:2018 2.2.3.2 low threat vegetation.

T14. VEGETATION CLASSIFICATIONS OF BUSHFIRE HAZARD AREAS & SETBACKS FOR HABITABLE BUILDINGS TO ACHIEVE BAL 12.5.

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3.7 CIRCULAR ECONOMY

Waste minimisation, reuse and recycling will be implemented in the construction phases and development of new neighbourhoods to fulfil the City's strategic goal of zero waste to landfill.

The PSP seeks to mitigate waste by planning and managing construction processes to incentivise waste minimisation through material selection, reuse and resource recovery. The environmental impact associated with construction will be mitigated by encouraging the use of locally sourced materials with high recycled content and low embodied carbon.

REQUIREMENTS

R91

Deleted.

GUIDELINES

+G-J

Development should consider circular economy principles, such as the use of, but not limited to:

- Existing built form or other infrastructure where reuse is feasible.
- Recycled content in:
  - road construction materials, including road base and asphalt wearing course.
  - concrete for footpaths, shared paths, cross overs, kerb and channel.
  - drainage infrastructure including pipes (concrete and flexible) and drainage pits.
  - street furniture.
- Locally sourced landscaping materials.
- Certified low volatile organic compound products.
- Timber that is certified by the Forest Stewardship Council or Program for the Endorsement of Forest Certification.



3.8 DELIVERY

The PSP will ensure the early delivery of key local and state infrastructure to support the development of liveable and well-connected communities.

3.8.1	Subdivision Works	129
3.8.2	Development Staging	131


CSIRO
NA

P24. PRECINCT INFRASTRUCTURE



LEGEND

- Precinct Boundary
- Early Years & Community Hub
- School
- Community Park
- Sports (Active) Reserve
- Waterway & Drainage Asset
- Land for Road Widening
- Recreational Transport Links
- Sports Pavillion
- Intersection
- Pedestrian Operated Signalised Crossing
- Bridge (Indicative)
- Gross Pollutant Trap (GPT)
- Culvert (Indicative)
- Waterway Crossing
- AA-00 Project Identification Number (Refer to Precinct Infrastructure List)

3.8.1 SUBDIVISION WORKS

REQUIREMENTS

R92

Subdivision of land within the PSP must provide for all local infrastructure, other than that provided for within the Creamery Road DCP, including (but not limited to):

- Roads and streets including:
  - Connector roads and local streets.
  - Internal loop roads and service roads that abut arterial roads.
- Local bus stop infrastructure (where locations have been agreed in writing by Department of Transport and Planning).
- Landscaping of all existing and future roads and local streets.
- Intersection works and traffic management measures along arterial roads, connector streets, and local streets (except those included in the DCP).
- Fencing and landscaping, including along arterial roads, including, where required, any noise mitigation measures such as acoustic fences or barriers.
- Recreational transport links (shared pedestrian and bicycle paths) along local arterial roads, connector roads, streets and within local parks including bridges, intersections, and barrier crossings.
- Community parks
- Bicycle parking facilities as required in this PSP.
- Basic improvements to local reserves and open space (refer to R86 below with regards to open space delivery).
- Local drainage system where required.
- Construction of culverts for waterway crossings of all connector streets and local streets.
- Local street or pedestrian path crossings of waterways and the electricity transmission line easement unless included in the DCP or outlined as the responsibility of another agency in the Precinct Infrastructure Plan.
- Infrastructure as required by utility service providers including water (potable, recycled and water tapping for potential open space), stormwater, sewerage, drainage (except where the item is funded through a Development Services Scheme), electricity and telecommunications.

R93

All encumbered and unencumbered public open space (where not provided via the Creamery Road DCP) must be designed and developed to a standard that satisfies the requirements of the responsible authority prior to the transfer or vesting of the public open space, including:

- Removal of all existing and disused structures, foundations, pipelines and stockpiles.
- Basic levelling and spread of minimum 100mm topsoil and subsoil if required on the proposed areas of open space to provide a stable free draining surface.
- Clearing of rubbish and environmental weeds and rocks, levelled, topsoiled and grassed with Warm climate grass (unless conservation reserve requirements dictate otherwise).
- Provision of water tapping, potable and/or recycled water connection points (where available).
- Provision of sewer and electricity connection points as required within the road reserve on the boundary of all proposed sports reserve and community parks.
- Canopy trees and other plantings.
- Soil preparation for new tree planting to a depth of 400- 500mm.
- Construction of minimum 1.8m wide pedestrian paths outside the perimeter of the reserve, connecting and linking into any other surrounding paths or points of interest.
- Protection of trees that are to be retained including exclusion zones as appropriate.
- Vehicular exclusion devices (landscape treatments, fences, bollards or other suitable methods) and maintenance access points.
- Installation of park furniture and recreation infrastructure to support these facilities consistent with the type of public open space listed in *Appendix 4 - Table 22 Open Space Delivery Requirements.*
- Mitigation of risks associated with landslide susceptibility in accordance with AGS 2007.

3.8.1 SUBDIVISION WORKS

R94

Sports (active) reserves as identified in *Table 15 Precinct Infrastructure* must be transferred to or vested in the relevant authority in the following conditions, including but not limited to:

- Free from surface and/or protruding rocks, structures and contaminated soil.
- Reasonably graded and/or top soiled to create a safe and regular surface with a maximum 1:6 gradient.
- Seeded and top-dressed with drought-resistant grass in bare, patchy and newly graded areas.
- Provision of sewer, telecommunications, electricity, potable and recycled water (if available) connection points to reserve boundaries in consultation with the responsible authority.

R95

Any conservation area to be transferred to or vested in the relevant authority must be done so in a standard that satisfies the requirements of that authority. Works required prior to the transfer include, but may not be limited to:

- Site amelioration works, such as rubbish removal, demolition of existing structures, removal of old fence lines, foundations, pipelines, farm dams or stockpiles;
- Pest plant and animal eradication as appropriate;
- Repairs to and stabilisation of any existing structures to be retained onsite if appropriate; and
- Any fencing required to ensure the safety of the public.

Any works carried out must be consistent with any relevant CHMP, the Cowies Creek Conservation Management Plan and other relevant approvals.

R96

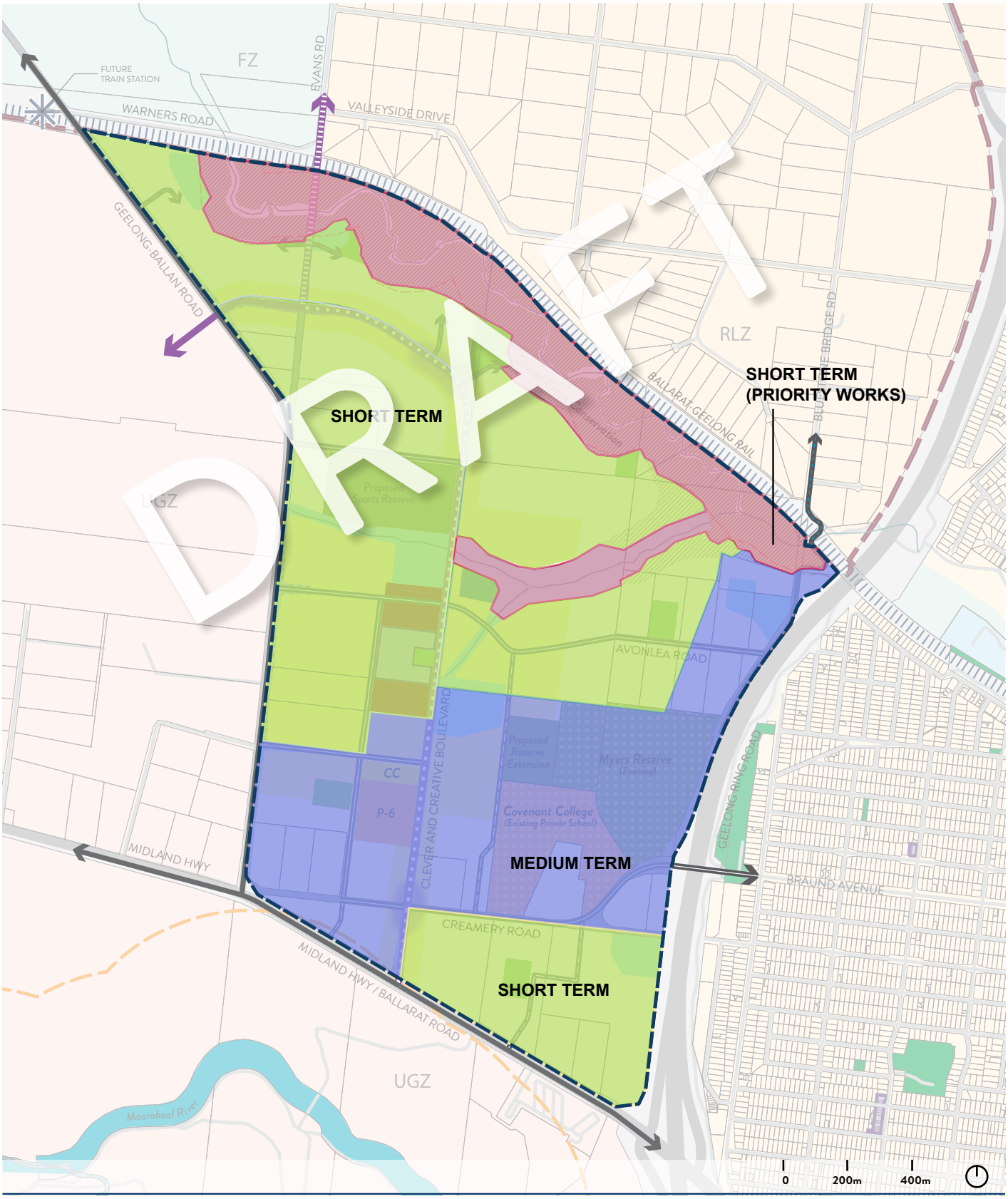
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R97

All infrastructure including roads, utilities and drainage infrastructure located within the PSP must be designed to prevent the impacts of earthworks (including stockpiles) on the health and viability of vegetation retained as per the NVPP and be supported with appropriate plans that define and set appropriate protection zones throughout all subdivisional works.

3.8.2 DEVELOPMENT STAGING

P25. INFRASTRUCTURE & DEVELOPMENT STAGING



LEGEND

Precinct Boundary

STAGING PLAN

- Short Term (Priority Works)
- Short Term
- Medium Term

8.3.2 DEVELOPMENT STAGING

REQUIREMENTS

R98

Development staging must ensure that the CCC/CCB (when located in the planning permit area) is delivered within the first half of the development.

Development staging of infrastructure must be in accordance with *Table 15 Precinct Infrastructure* to the satisfaction of the responsible authority.

R99

Where applicable, development and subdivision staging must provide for the delivery of:

- Drainage assets;
- Intersections of the CCC/CCB, connector streets and arterial roads;
- Connector streets, bridges/culverts and pedestrian culverts;
- Street links between properties, constructed to the property boundary;
- Recreational transport links and other path networks; and
- Community infrastructure, sports fields and other open spaces.

R100

Where the development proponent seeks to proceed with delivery of an interim solution or asset, the following criteria must be met:

- The asset must not constrain nor prejudice the ultimate delivery of any other development or other infrastructure within the precinct nor constrain the sequencing and viability of other staging areas;
- It must not constrain nor prejudice the ultimate use of the land nor impact on the provision trigger for the use as defined in the PSP and DCP, on which the temporary asset is located;
- The asset must be able to form part of the ultimate infrastructure solution and after use, be reinstated to a condition commensurate with the intended ultimate use of the land;
- The need for the interim infrastructure must be justified on the basis that previous staging area requirements are not capable of being delivered at the time the construction of the temporary infrastructure is proposed;
- The asset must be delivered through an agreement made under Section 173 of the *Planning and Environment Act 1987* and the proposal must comply with the best practice requirements of the ultimate infrastructure;
- All costs of the temporary infrastructure must be fully funded by the proponent; and
- The asset must be contained to land owned by the proponent or the land on which the ultimate infrastructure is proposed and must not be located on land nominated for future public use such as community, education facilities, and open space,

all to the satisfaction of the responsible authority.

This does not apply to the delivery of the CCC where the ultimate infrastructure must be provided.

R101

Development and subdivision staging must provide for the delivery of ultimate waterway and stormwater drainage infrastructure including stormwater retardation, treatment, harvest and use.

R102

Infrastructure projects identified in *Plan 24 Precinct Infrastructure* must be delivered in accordance with the timing priority identified in the timing column of *Table 15 Precinct Infrastructure* or as amended.

Any out of sequence development to that identified in *Table 15 Precinct Infrastructure* must be supported by written confirmation from all relevant authorities and agencies to ensure that the development proposed does not compromise the delivery of the ultimate infrastructure required, nor the capacity for other developments to proceed.

R103

Community parks, sports (active) reserves, drainage corridors, waterway corridors and other public open spaces, including encumbered open spaces, must be delivered together with a stage containing residential lots.

GUIDELINES

G71

Development applications should demonstrate:

- How the proposal integrates with adjoining developments, through the timely provision of connecting roads and walking/cycling paths;
- How community parks will be provided in the early stages of the development;
- How sealed road access will be provided to each new allotment; and
- How any necessary trunk service extensions will be delivered, including confirmation of the agreed approach and timing by the relevant service provider.

G72

Development staging, in accordance with *Plan 25 Infrastructure and Development Staging*, should ensure:

- Safe pedestrian links to the NAC, community facilities and school sites are included;
- Proximity to existing development or serviced land;
- Proximity to existing public transport and infrastructure;
- Proximity to existing or proposed community and education facilities; and
- Proximity to new or existing arterial or connector road infrastructure.

T15. PRECINCT INFRASTRUCTURE

TRANSPORT

PROJECT CATEGORY	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	LEAD AGENCY	DCP (YES/ NO)	DELIVERY TRIGGER/ TIMING	APPOR-TION-MENT
ROADS							
Land	LA_02	Geelong-Ballan Road Widening	LAND for Geelong-Ballan Road widening	Department of Transport and Planning	DI_RD_02_L	The first subdivision requiring the associated road section	50%
Land	LA_03	Midland Highway Widening	LAND for Midland Road widening	Department of Transport and Planning	DI_RD_03_L	The first subdivision requiring the associated road section	100%
Evans Road	ER_RD_02_04	Evans Road upgrade	DELIVERY of Evans Road upgrade (northern section) – works between DI_IN_16 to future Anakie Road intersection	COGG	No	70% of dwellings in Creamery Road Precinct constructed	
Evans Road	ER_RD_02_03	Evans Road upgrade	DELIVERY of Evans Road upgrade (southern section) – works between DI_IN_16 to precinct boundary	COGG	No	70% of dwellings in Creamery Road Precinct constructed	13.66%
Shared Path	WW_01_SP	WW_01 Shared Path	DELIVERY of shared path along WW_01 reserve	COGG	DI_TR_01	Upon completion of WW_01 (DI_DR_10) works	
Shared Path	WW_02_SP	WW_02 Shared Path	DELIVERY of shared path along northern boundary of WLRB_01	COGG	DI_TR_02	Upon completion of WLRB_01 (DI_DR_01) works	
Shared path	Nil	Recreational Transport Link - Land & Works	Recreational Transport Link network throughout Creamery Road Precinct (unless defined as a separate DCP project)	Developer	No	Upon subdivision	
Road	Nil	Clever and Creative Boulevard – Land & Works		Developer	No	Upon subdivision	
Road	Nil	Connector Road (Suburban, Modified Urban, Modified Connector) – Land & Works		Developer	No	Upon subdivision	

PROJECT CATEGORY	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	LEAD AGENCY	DCP (YES/ NO)	DELIVERY TRIGGER/ TIMING	APPOR-TION-MENT
Road	Nil	Connector intersections - Land & Works		Developer	No	Upon subdivision	
Road	Nil	Local Access Street (Level 1 & 2) - Land & Works		Developer	No	Upon subdivision	
Road	Nil	Pedestrian Street (Narrow & Wide) - Land & Works		Developer	No	Upon subdivision	
Road	Nil	Micro Street - Land & Works		Developer	No	Upon subdivision	
Road	Nil	Laneway - Land & Works		Developer	No	Upon subdivision	
Road	Nil	Parking Street - Land & Works		Developer	No	Upon subdivision	
Road	Nil	Conservation Interface Street - Land & Works		Developer	No	Upon subdivision	

T15. PRECINCT INFRASTRUCTURE

TRANSPORT

PROJECT CATEGORY	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	LEAD AGENCY	DCP (YES/ NO)	DELIVERY TRIGGER/ TIMING	APPOR-TION-MENT
INTERSECTIONS							
CCC Intersection	IN_01	CCC/Geelong-Ballan Rd Intersection	Intersection Geelong - Ballan Road and North-South CCC	COGG	DI_IN_01	The first subdivision requiring the intersection delivery	50%
CCC Intersection	IN_12	CCC/Evans Rd Intersections - Works	DELIVERY of intersection CCC and Evans Road - SIGNALS ONLY	COGG	DI_IN_12	The first subdivision requiring the intersection delivery	100%
Evans Road Upgrade Intersection	ER_IN_16	Evans Road/ Lovely Banks Road Intersection	DELIVERY of Evans Road/Lovely Banks Road Intersection - Signalised through intersection - 4 leg intersection	COGG	No	When DI_RD_04 and DI_RD_05 are required	
Intersection	IN_03	External Intersection - Works (interim)	DELIVERY of intersection: Geelong - Ballan Road and East-West Connector Road	COGG	DI_IN_03	The first subdivision requiring the intersection delivery	50%
Intersection	IN_04	External Intersection - Works (interim)	DELIVERY of intersection: Geelong - Ballan Road and East-West Connector Road	COGG	DI_IN_04	The first subdivision requiring the intersection delivery	50%
Intersection	IN_05	External Intersection - Works (interim)	Land & works for arterial signalised 'T' intersection - Midland Hwy and Geelong-Ballan Road	COGG	DI_IN_05 DI_IN_05_L	50% of dwellings in Creamery Road Precinct constructed	50%
Intersection	IN_06	External Intersection - Works (interim)	DELIVERY of intersection North-South CCB and Midland Hwy	COGG	DI_IN_06	The first subdivision requiring the intersection delivery	50%
Intersection	IN_07	Internal Intersection - Works	DELIVERY of intersection North-South CCB and Key Local Road - SIGNALS ONLY	COGG	DI_IN_07	The first subdivision requiring the intersection delivery	100%
Intersection	IN_09	Internal Intersection - Works	DELIVERY of intersection North-South CCB and Connector Road - SIGNALS ONLY	COGG	DI_IN_09	The first subdivision requiring the intersection delivery	100%

PROJECT CATEGORY	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	LEAD AGENCY	DCP (YES/ NO)	DELIVERY TRIGGER/ TIMING	APPOR-TION-MENT
PEDESTRIAN CROSSINGS							
Pedestrian crossing	POS_01	Pedestrian Operated Signalised crossing on Evans Road	Delivery of a pedestrian crossing located between IN_12 and CU_02.	Developer	No	Once construction of IN_12 is complete	
BRIDGES							
Bridge	BR_01	Batesford South PSP bridge (arterial road - Lynnburn Road over Moorabool River)	Land & works for interim bridge for arterial road extension of Lynnburn Road over Moorabool River	COGG	DI_BR_01	To be determined when Batesford South PSP is developed.	7.8%
Bridge	BR_02	Bluestone Bridge Road underpass	Bluestone Bridge Road underpass upgrade and shared path connection -install traffic signals to allow one way movements and shared path (recreational transport link) connection	COGG	DI_BR_02	Concurrent to the completion of conservation works in the Cowies Creek Worneenanyook Masterplan Area delineated by properties 14 and 22 in the Creamery Road Place Based Plan.	29.56%
Bridge	BR_04	Creamery Road Pedestrian Bridge over Geelong Ring Road	Land & works for active travel upgrade to existing Bridge on Creamery Road over the Geelong Ring Road	COGG	DI_BR_04	30% of dwellings in Creamery Road Precinct constructed.	100%

T15. PRECINCT INFRASTRUCTURE

DRAINAGE

PROJECT CATEGORY	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	LEAD AGENCY	DCP (YES/ NO)	DELIVERY TRIGGER/ TIMING	AP-POR-TION-MENT
WETLAND & SEDIMENT BASINS							
Wetland & Retarding Basin	WLRB_01	Wetland & Retarding Basin 1	Land & works for drainage asset - 5.479 Ha (TBC final area)	COGG	DI_DR_01 DI_DR_01_L	Short term Outfall into DI_DR_12 and Conservation are which must be completed first.	100%
Wetland & Retarding Basin	WLRB_02	Wetland & Retarding Basin 2	Land & works for drainage asset - 3.580 Ha (TBC final area)	COGG	DI_DR_02 DI_DR_02_L	Short term Must be functioning before contributing sub-catchments and upstream catchment can develop and after DI_DR_01 is functioning.	100%
Wetland & Retarding Basin	WLRB_05	Wetland & Retarding Basin 5	Land & works for drainage asset - 3.371 Ha (TBC final area)	COGG	DI_DR_05 DI_DR_05_L	Short term Must be functioning before contributing sub-catchments can develop and after DI_DR_01 and DI_DR_11 is functioning.	100%
Wetland & Retarding Basin	WLRB_06	Wetland & Retarding Basin 6	Land & works for drainage asset - 1.826 Ha (TBC final area)	COGG	DI_DR_06 DI_DR_06_L	Short term Must be functioning before contributing sub-catchments can develop and after outfall is functioning.	100%
Wetland & Retarding Basin	WLRB_07	Wetland & Retarding Basin 7	Land & works for drainage asset - 2.139 Ha (TBC final area)	COGG	DI_DR_07 DI_DR_07_L	Short term Must be functioning before contributing sub-catchments can develop and after outfall to Cowies Creek through Conservation area is functioning.	100%
Wetland & Retarding Basin	WLRB_08	Wetland & Retarding Basin 8 - Works	Works for drainage asset - 1.406 Ha (TBC final area)	COGG	DI_DR_08	Short term Must be provided before the contributing sub-catchment can develop and after Conservation zone works and outfall to Cowies Creek is established.	100%
Sediment Basin & Bioretention System	SRB_09 -Bio_02	Sediment Basin & Bioretention System 2 (Bio2) -Works	Land & works for sediment basin, bioretention basin and Growling Grass Frog Pond. 0.871 Ha (TBC final area)	COGG	DI_DR_09 DI_DR_09_L	Short term Must be provided before the contributing sub-catchment can develop and after Conservation zone works and outfall to Cowies Creek is established.	100%

PROJECT CATEGORY	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	LEAD AGENCY	DCP (YES/ NO)	DELIVERY TRIGGER/ TIMING	APPOR-TION-MENT
WATERWAY CORRIDOR WORKS							
Waterway	WW_01	Waterway 1 - Works	Land & works for Waterway No.1 (1.172 Ha – TBC final area) The alignment of this corridor should follow the natural overland flow path and provide abundant revegetation and landscaping wherever possible. A recreational transport link (shared path) will also be co-located in the reserve.	COGG	DI_DR_10	Short term Must be provided with DI_DR_02 sub-catchments and before upstream catchment can develop.	100%
Waterway	WW_02	Waterway 2 - Works	Land & works for Waterway No.2 (0.908 Ha – TBC final area) The alignment of this corridor should follow the natural overland flow path of the land and provide abundant revegetation and landscaping wherever possible. A recreational transport link (shared path) will also be co-located in the reserve where allowable.	COGG	DI_DR_11	Short term Must be provided before DI_DR_05 sub-catchment can develop and after DI_DR_01 is functioning.	100%
Waterway	EW_ 01	Ephemeral (Natural) Waterway - Works	Land & works for Ephemeral Waterway. (1.917 Ha – TBC final area) EW_01 is downstream of the confluence of both WW_01 and WW_02 and enters Cowies Creek. The alignment of this corridor should follow the natural overland flow path of the land provide abundant re- vegetation and landscaping wherever possible. A recreational transport link (shared path) will also be co-located in the reserve where allowable.	COGG	DI_DR_12	Short term Must be provided before upstream catchment can develop and after Conservation zone works and outfall to Cowies Creek is established.	100%
Waterway	CR_01	Waterway Crossing Works	Land and Bridge/Culvert Works for the recreational transport link over EW_01	Developer	No	Required on completion of EW_01 upgrade works	
Waterway	CR_02	Waterway Crossing Works	Land and Bridge/Culvert Works for the recreational transport link over WW_01	Developer	No	Required on completion of WW_01 works	

T15. PRECINCT INFRASTRUCTURE

DRAINAGE

PROJECT CATEGORY	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	LEAD AGENCY	DCP (YES/ NO)	DELIVERY TRIGGER/ TIMING	APPOR-TION-MENT
CULVERTS							
Culvert	CU_01	Culvert works	DELIVERY of Culvert - Ephemeral waters to flow under North South Collector Road	COGG	No		
Culvert	CU_02	Culvert works	DELIVERY of Culvert & Roadworks - Cowies Creek under Evans Road	COGG	DI_RD_01	Concurrent with the construction of Evans Road	100%
Culvert	CU_03	Culvert works	DELIVERY of Culvert - Ephemeral waters to flow under Avonlea Rd	COGG	No		
STORMWATER FILTERING SYSTEMS							
Gross Pollutant Trap	GPT_01	Gross Pollutant Trap 1 - Works	Works for drainage asset (TBC final area)	COGG	DI_DR_13	Long term Water quality objectives meet through delivery of all other WLRBs in Precinct.	100%
Gross Pollutant Trap	GPT_02	Gross Pollutant Trap 2 - Works	Works for drainage asset (TBC final area)	COGG	DI_DR_14	Long term Water quality objectives meet through delivery of all other WLRBs in Precinct.	100%



T15. PRECINCT INFRASTRUCTURE

OPEN SPACE

PROJECT CATEGORY	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	LEAD AGENCY	DCP (YES/ NO)	DELIVERY TRIGGER/ TIMING	APPOR-TION-MENT
COMMUNITY PARKS							
Community Park	CP01	Local Community Park 1	Land & works for CP01 - 0. 5 Ha The local park is located at the intersection of Evans Road and the conservation interface street at the north-western section of the PSP adjacent to Cowies Creek boundary.	COGG	No	Upon subdivision	
Community Park	CP02	Local Community Park 2	Land & works for CP02 - 1.973 Ha This local park is located adjacent to the Coolangatta Homestead. It will provide passive recreation opportunities and strong views in most directions.	COGG	No	Upon subdivision	
Community Park	CP03	Local Community Park 3	Land & works for CP03 - 0.5 Ha This local park is located to the northern east corner, adjacent to the Cowies Creek Conservation area boundary.	COGG	No	Upon subdivision	
Community Park	CP04	Local Community Park 4	Land & works for CP04 – 1.0 Ha This local park is located in close proximity to the drainage corridor north of Avonlea Road.	COGG	No	Upon subdivision	
Town Square	CP05	Town Square	Land & works for CP05 - 0.296 Ha This local town square park is located within the NAC Precinct, on the southern side of the Pedestrian Street and adjoining the CCB to the east.	COGG	No	Upon subdivision	
Community Park	CP06	Local Community Park 6	Land and works for CP06 - 1.0 Ha It is located opposite the proposed government primary school surrounded by residential areas, and connected to the precinct's recreational transport network.	COGG	No	Upon subdivision	
Community Park	CP07	Local Community Park 7	Land & works for CP07 - 1.0 Ha This local park is located along a local access street and forms a focal point of the precinct.	COGG	No	Upon subdivision	

PROJECT CATEGORY	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	LEAD AGENCY	DCP (YES/ NO)	DELIVERY TRIGGER/ TIMING	APPOR-TION-MENT
SPORTS (ACTIVE) RESERVES							
Sports Reserve	SR_01	Myers Reserve Extension	Land & works for Myers Reserve Extension – 3.25 Ha	COGG	DI_OS_01 DI_OS_01_L	Prior to 40% of dwellings delivered in Creamery Road Precinct, or as required according to demand levels and subject to DCP funding	70%
Sports Reserve	SR_02	Northern Sports Reserve	Land & works for the Northern Sports Reserve - 8.644 Ha	COGG	DI_OS_02 DI_OS_02_L	Prior to 60% of dwellings delivered in Creamery Road Precinct, or as required according to demand levels and subject to DCP funding	100%
OTHER							
Pavillion	SRP_01	Creamery Road Pavilion	Works for the pavilion located within the Northern Sports Reserve	COGG	CI_OS_01	Concurrent to works for SR_02 (DI_OS_01) Northern Sports Reserve	100%

T15. PRECINCT INFRASTRUCTURE

COMMUNITY FACILITIES & EDUCATION

PROJECT CATEGORY	PROJECT NO.	PROJECT NAME	PROJECT DESCRIPTION	LEAD AGENCY	DCP (YES/ NO)	DELIVERY TRIGGER/TIMING	AP-POR-TION-MENT
EDUCATION							
Education	PS_01	Primary School 1	Proposed Government School located in the south of the precinct	Department of Education	No	Subject to State Government provision planning	
COMMUNITY FACILITIES							
Community Facility	CF_01	Early Years & Community Hub	Land & works for the Early Years & Community Hub (1 Ha) is formed by a consolidated Multipurpose Community Centre and Early Learning Centre, located above PS_01 (a proposed government primary school)	COGG	DI_CF_01	Prior to 20% of development build out within precinct	100%
OTHER							
Community Facility	CF_ML_01	McCanns Lane Cultural Hub	Land & works for McCanns Lane Cultural Hub including library and museum	COGG	CI_CF_ ML_01	Prior to 80% of dwellings delivered in WGGA, or as required according to demand levels and subject to DCP funding	10.74%
Emergency Hub	CF_03	Western Growth Area Emergency Hub	One emergency hub incorporating ambulance, fire and state emergency services	State Government	No	Subject to State Government provision planning	
Police	CF_ML_03	Police & Justice Centre	One police station collocated with a justice centre	Department of Justice	No	District level facility serving WGGA	



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APPENDICES

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A1. PROPERTY SPECIFIC LAND BUDGET

T16. PROPERTY SPECIFIC LAND BUDGET

PROPERTY DETAILS		TOTAL AREA	TRANSPORT				COMMUNITY & EDUCATION			UNCREDITED OPEN SPACE						CREDITED OPEN SPACE		NDA							TOTAL NDA	PUBLIC LAND EQUALISATION METHOD UNDERS & OVER CALCULATION				
Address	Prop No	Total Area	Existing Road Being Retained*	Intersec-tion Extent	Intersec-tion Extent (DCP Land)*	Road Widening (DCP Land)	Existing Non-Govern-ment School	Proposed Early Years Hub (DCP Land)	Proposed Govern-ment School	Barwon Water Facilities	Cowies Creek Conser-vation Reserve	Drainage*	Drainage (DCP Land)*	Existing AOS (Myers Reserve)	Waterway	Active Open Space (DCP Land)	Local Open Space	NAC	Mixed Use Zone	Residential Growth Zone	Residential Growth Zone & Amenity Area	General Residential Zone*	General Residential Zone & Amenity Awrea	Investigation Area (Subject to Stormwater & Geotechnical Assessment)	Total NDA	Valuers 'Before Area'	DCP Residential Contri-bution (All)	Average Under Area	Under Provision	Over Provision
200 Ballan Road, MOORABOOL VIC 3213	1	24.481		0.990		0.583					7.919	1.406					1.290				2.368	10.504	0.711		13.583	14.166	0.583	1.832	0.583	-
35 Evans Road, MOORABOOL VIC 3213	2	1.535		0.215		0.004																1.316			1.316	1.320	0.004	0.178	0.004	-
35 Evans Road, MOORABOOL VIC 3213	3	0.543		0.001		0.140																0.402			0.402	0.542	0.140	0.054	0.054	0.086
Existing Road Reserve	4	1.702	1.702																						0.000	-	-	-	-	-
20 Evans Road, BELL POST HILL VIC 3215	5	37.626									11.796	0.400	0.471				1.290				6.521	14.474	2.674		23.669	24.140	0.471	3.193	0.471	-
10 Evans Road, BELL POST HILL VIC 3215	6	2.435																				2.435			2.435	2.435	-	0.328	-	-
2 Evans Road, BELL POST HILL VIC 3215	7	2.892				0.038																2.344	0.510		2.854	2.892	0.038	0.385	0.038	-
20 Evans Road, BELL POST HILL VIC 3215	8	22.670									12.167						1.690				1.116	7.237	0.460		8.813	8.813	-	1.189	-	-
PARENT - 30 Avonlea Road, BELL POST HILL VIC 3215	9	2.039									1.798											0.189		0.052	0.241	0.241	-	0.033	-	-
PARENT - 30 Avonlea Road, BELL POST HILL VIC 3215	10	2.061									1.825											0.092		0.144	0.236	0.236	-	0.032	-	-
PARENT - 30 Avonlea Road, BELL POST HILL VIC 3215	11	0.594									0.594														0	-	-	-	-	-
100 Ballan Road, BELL POST HILL VIC 3215	12	36.968		0.966		0.318						0.554	2.223		1.172	8.641	0.300	2.700	2.426		14.529	1.066	2.073		22.794	33.976	11.182	3.075	3.075	8.107
60 Avonlea Road, BELL POST HILL VIC 3215	13	37.989								1.000		2.522	4.288		0.908					2.243	13.312	10.741	2.694	0.281	29.271	33.559	4.288	3.949	3.949	0.339
PARENT - 30 Avonlea Road, BELL POST HILL VIC 3215	14	13.088									5.293				1.880							1.922		3.993	5.915	5.915	-	0.798	-	-
165 Bluestone Bridge Road, BELL POST HILL VIC 3215	15	0.040									0.040														0	-	-	-	-	-
50 Avonlea Road, BELL POST HILL VIC 3215	16	2.027													0.037							0.665	1.058	0.267	1.990	1.990	-	0.268	-	-
40 Avonlea Road, BELL POST HILL VIC 3215	17	2.025															1.000					0.337	0.688		1.025	1.025	-	0.138	-	-
PARENT - 30 Avonlea Road, BELL POST HILL VIC 3215	18	2.025																				1.164	0.861		2.025	2.025	-	0.273	-	-
85-105 Bluestone Bridge Road, BELL POST HILL VIC 3215	19	2.098									0.011		0.328									1.759			1.759	2.087	0.328	0.237	0.237	0.091
20 Avonlea Road, BELL POST HILL VIC 3215	20	2.035											0.600									0.815	0.620		1.435	2.035	0.600	0.194	0.194	0.406
65-75 Bluestone Bridge Road, BELL POST HILL VIC 3215	21	1.606											1.211									0.098	0.297		0.395	1.606	1.211	0.053	0.053	1.158
	22	0.657									0.368											0.289			0.289	0.289	-	0.039	-	-
90-140 Bluestone Bridge Road, BELL POST HILL VIC 3215	23	0.541																				0.541			0.541	0.541	-	0.073	-	-
45 Avonlea Road, BELL POST HILL VIC 3215	24	2.025																				0.956	1.069		2.025	2.025	-	0.273	-	-
35 Avonlea Road, BELL POST HILL VIC 3215	25	2.025																				0.957	1.068		2.025	2.025	-	0.273	-	-
25 Avonlea Road, BELL POST HILL VIC 3215	26	2.025																				0.958	1.067		2.025	2.025	-	0.273	-	-
15 Avonlea Road, BELL POST HILL VIC 3215	27	1.810																				0.910	0.900		1.810	1.810	-	0.244	-	-
5 Avonlea Road, BELL POST HILL VIC 3215	28	0.300																				0.070	0.230		0.300	0.300	-	0.040	-	-
60 Ballan Road, BELL POST HILL VIC 3215	29	5.281		0.137		0.007													1.846		3.269	0.022			5.137	5.144	0.007	0.693	0.007	-
445 Ross Road, BATESFORD VIC 3213	30	23.719		0.775	0.081	0.014		1.000	3.500								1.000			1.155	10.705	4.468	1.021		17.349	18.444	1.095	2.340	1.095	-
65 Creamery Road, BELL POST HILL VIC 3215	31	18.048											2.833			3.250				0.704	7.214	3.541	0.506		11.965	18.048	6.083	1.614	1.614	4.469
125 Creamery Road, BELL POST HILL VIC 3215	32	3.790												3.790											0	-	-	-	-	-
125 Creamery Road, BELL POST HILL VIC 3215	33	0.366												0.366											0	-	-	-	-	-
125 Creamery Road, BELL POST HILL VIC 3215	34	13.305	0.145											13.160											0	-	-	-	-	-
5 Creamery Road, BELL POST HILL VIC 3215	35	2.127			0.265																	1.862			1.862	2.127	0.265	0.251	0.251	0.014
15 Creamery Road, BELL POST HILL VIC 3215	36	1.825																				1.825			1.825	1.825	-	0.246	-	-
25 Creamery Road, BELL POST HILL VIC 3215	37	2.025																				2.025			2.025	2.025	-	0.273	-	-
55 Creamery Road, BELL POST HILL VIC 3215	38	2.429																			0.781	1.120	0.528		2.429	2.429	-	0.328	-	-
105 Creamery Road, BELL POST HILL VIC 3215	39	11.611					11.611																		0	-	-	-	-	-
85 Creamery Road, BELL POST HILL VIC 3215	40	3.197																				2.255	0.942		3.197	3.197	-	0.431	-	-
110 Creamery Road, BELL POST HILL VIC 3215	41	1.864																				0.874	0.990		1.864	1.864	-	0.251	-	-
120 Creamery Road, BELL POST HILL VIC 3215	42	1.000																				0.801	0.199		1.000	1.000	-	0.135	-	-
375 Ballarat Road, BATESFORD VIC 3213	43	12.337		0.629		0.254															2.020	8.295	1.139		11.454	11.708	0.254	1.545	0.254	-
375 Ballarat Road, BATESFORD VIC 3213	44	7.023				0.140											1.000					2.069	3.814		5.883	6.023	0.140	0.794	0.140	-
305 Ballarat Road, BATESFORD VIC 3213	45	13.078				0.082						0.400	1.426									9.187	1.983		11.170	12.678	1.508	1.507	1.507	0.001
341-345 Ballarat Road, BATESFORD VIC 3213	46	2.024				0.083																1.941			1.941	2.024	0.083	0.262	0.083	-
335-339 Ballarat Road, BATESFORD VIC 3213	47	2.024				0.078																1.946			1.946	2.024	0.078	0.263	0.078	-
Existing Road Reserve	48	6.791	6.791																						0	-	-	-	-	-
Existing Road Reserve	49	2.840	2.606								0.234														0	-	-	-	-	-
PRECINCT TOTAL		344.566	11.244	3.713	0.346	1.741	11.611	1.000	3.500	1.000	42.045	5.282	13.380	17.316	3.997	11.891	6.280	2.700	4.272	4.102	61.835	104.472	28.102	4.737	210.220	238.578	28.358	28.359	13.687	14.671

A2. INTEGRATED DEVELOPMENT AREA PRINCIPLES

T17. INTEGRATED DEVELOPMENT AREA PRINCIPLES

Deleted.

A3. COMPLETE STREETS
A3.1 STREET TYPE & ATTRIBUTES

T18. STREET TYPES & ATTRIBUTES

The table below provides guidance on how the different street types can be used to develop a network of streets and roads.

STREET TYPE	LANEWAY (8M)	MICRO STREET (10M)	PEDESTRIAN STREET (10M & 16M)	PARKING STREET (16M)	LOCAL ACCESS 1 (16M)	LOCAL ACCESS 2 (20M)	CONNECTOR (MODIFIED URBAN)	CONNECTOR (SUBURBAN) (25M)	CONNECTOR (URBAN) (25M)	CLEVER & CREATIVE CORRIDOR (34M) & CLEVER AND CREATIVE BOULEVARD (28M)	EVANS ROAD (CLEVER & CREATIVE CORRIDOR) (20M)	CONSERVATION INTERFACE STREET (20M)
PURPOSE	To provide car access to enable car-free frontage streets, providing streets for people.	To provide an inviting shared environment where private vehicles are permitted as guests.	To provide streets for people which also serve as a public 'backyard' space.	To provide a safe and amenable street environment that can accommodate on-street parking at the periphery of Micro Street and Pedestrian Street clusters.	To provide the option for residential neighbourhood streets that prioritise private vehicles.	To provide the option for residential neighbourhood streets that accommodate local bus services, noting no dedicated cycling infrastructure.	To provide a primary connection for people and goods through the centre of Activity Centre that creates a main street experience with very high place quality.	To connect neighbourhoods and link local streets to the Clever and Creative Corridor and the external arterial road network through residential areas. To provide safe and direct places to walk, ride, drive between neighbourhoods and local centres.	To provide streets that serve as a destination and a place to stay and dwell. To support an urban environment which seeks to provide non-residential ground floor uses and accommodate on street parking. The street type seeks to provide connections between focal points in local neighbourhoods.	To provide a dedicated public and active transport corridor which promotes the use of sustainable transport as the most direct route connecting activity centres.	To provide the principal connection for the local movement of people, vehicles and goods between the Northern and Western Geelong Growth Areas.	To provide an amenable interface to conservation areas that provides access to walking and cycling routes for transport and recreation.
APPLICATION	Micro streets Pedestrian streets.	In conjunction with laneways, pedestrian streets and generally all local streets.	In conjunction with laneways, pedestrian streets and generally all local streets providing highly permeable places for people.	On the perimeter of walkable clusters comprised of Micro Streets and Pedestrian Streets (ideally within 5min walking distance / 400m).	For all local street areas.	For local Streets with bus services.	To provide connections to, and provide a focal point for Activity Centres. The street is a key community destination and place to meet, stay and dwell.	Connections between neighbourhoods and major local destinations on corridors with bus services and traffic volumes of up to 7,000 vehicles per day.	Main street connections through local activity centres with bus services and traffic volumes of up to 10,000 vehicles per day.	As nominated in the Plan 5 Future Urban Structure and Plan 12 Street Network.	As nominated in the Plan 5 Future Urban Structure and Plan 12 Street Network.	Streets adjoining a conservation area.
DOES THIS STREET SUPPORT CROSSOVERS?	Yes	Limited	No	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes
TARGET SPEED (NOT POSTED SPEED)	10 km/h (shared)	10 km/h (shared)	NA	30 km/h	30 km/h	40 km/h	30 km/h	40 km/h	40 km/h	40 km/h vehicles 60 km/h bus	40 km/h within PSP boundary	40 km/h
NOTIONAL VEHICLE TRAFFIC VOLUME	< 300 vpd (per Cl 56.06-8)	< 1,000 vpd (per Cl 56.06-8)	N/A	1,000 - 2,000 vpd (per Cl 56.06-8)	1,000 -2,000 vpd (per Cl 56.06-8)	2,000-3,000 vpd (per Cl 56.06-8)	3,000-10,000 vpd	3,000 - 7,000 vpd (per Cl 56.06-8)	3,000 -10,000 vpd	15,000 vpd Maximum	Up to 20,000 vpd	2,000 - 3,000 vpd (per Cl 56.06-8)
BUS CAPABLE	No	No	No	No	No	Yes	No	Yes	Yes	Yes	Yes	Yes

T19. INTERSECTION REQUIREMENTS

	ARTERIAL	CCC	CONNECTORS	OTHER
Unsignalized intersections	N/A	Wombat crossings at all legs of intersections with local access streets.	At intersections with roundabouts, wombat crossings at all legs. At other intersections, wombat crossings across minor street only.	Wombat crossings at all legs of intersections with roundabouts.
Midblock	N/A	Wombat crossings at entry points to all key destinations (e.g., schools, community facilities, activity centre, local parks).		Wombat crossings at entry points to key destinations to the satisfaction of the Responsible Authority.

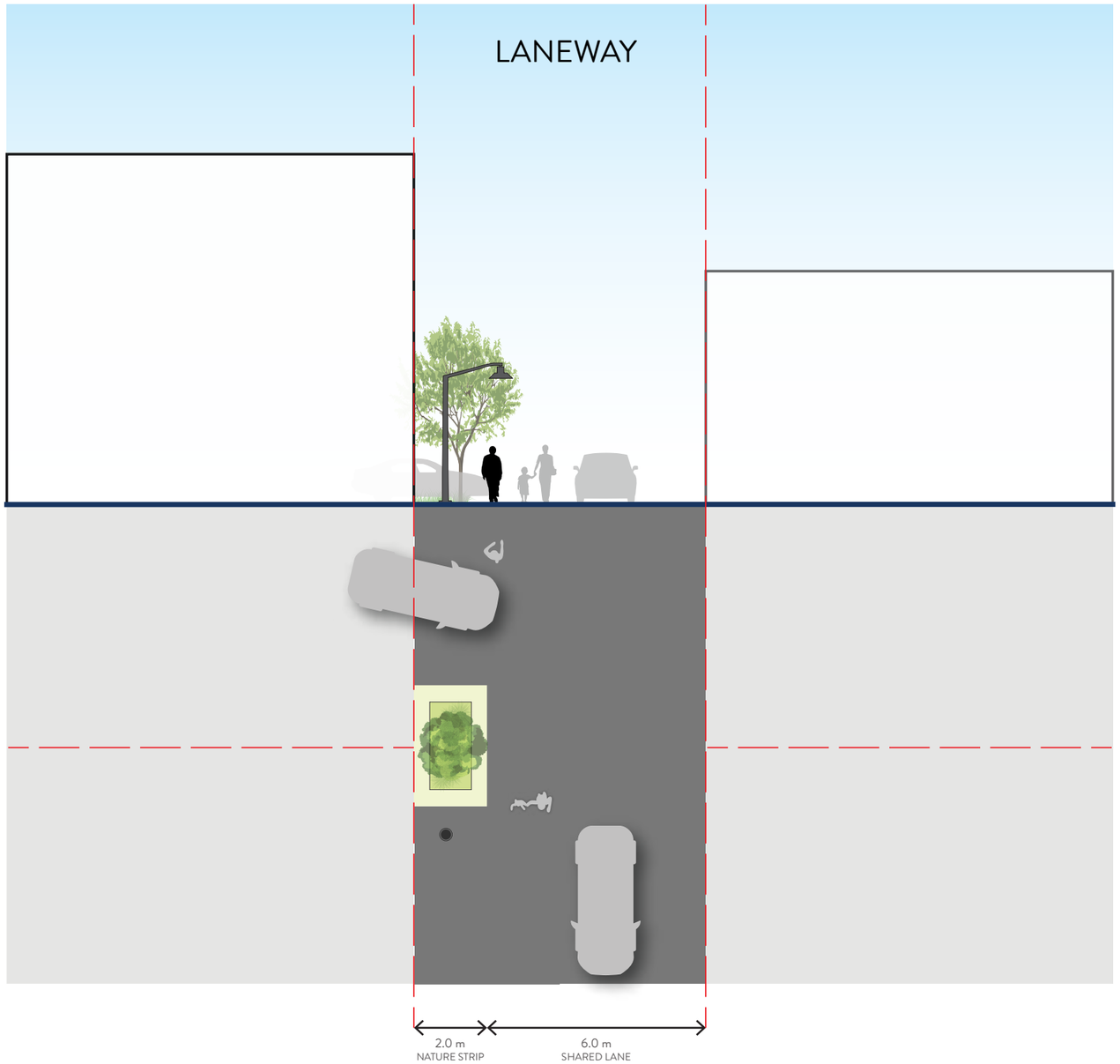
T20. COMPLETE STREETS GENERAL REQUIREMENTS

GENERAL	
1	Intersections should be designed with compact geometry to improve pedestrian safety and legibility generally in accordance with intersections within the *Appendix 3.3 Street Intersections.* Infrequent large vehicles (including emergency vehicles, delivery trucks, rubbish collection vehicles) will be expected to make turns by using multiple lanes, including adjacent or opposing lanes.
2	Slip lanes must not be provided on local streets or in areas of high pedestrian activity such as the NAC Precinct, along the CCC or CCB, connector streets and abutting community uses.
3	Speed bumps must be used to enforce slow speeds (e.g. 10 km/h). Wombat crossings on minor roads to an intersection must use the following ramp gradients to enforce slow speeds: • Ramp gradients on bus-capable roads, must be as steep as practical to achieve slow speeds. • Surfaces on shared streets must comply with the Disability Discrimination Act, and include other measures used to ensure low vehicle speeds are enforced. • Ramp gradients approaching wombat crossings must be between 1:20 and 1:16.
4	Vision impaired guidance, including tactile ground surface indicators must be applied: • To achieve best practice to denote hazards such as street crossings, provide wayfinding, and guide pedestrians to the kerb. • Ground surface indicators should be of a contrasting colour to ensure contrast and maximise visibility.
CLEVER AND CREATIVE CORRIDOR (CCC) & CLEVER AND CREATIVE BOULEVARD (CCB)	
5	Controlled intersections and crossings (signalised or wombat crossings) must be provided at frequent intervals between key destinations to ensure safe navigation.
6	At all unsignalized intersections on the CCC and CCB and areas that experience pedestrian activity such as adjacent to the NAC, schools and open space areas, wombat crossings must be used on both sides to provide pedestrian and cyclist priority.
7	Motor vehicles will only be permitted to travel across the CCC and CCB at signalised intersections. Other intersections are left-in, left-out for motor vehicles but permit pedestrians and cyclists to cross the CCC and CCB.

T21. TRANSIT & TRANSIT STOP DESIGN REQUIREMENTS

TRANSIT DESIGN REQUIREMENT	ALONG CCC & CCB	ALONG OTHER BUS ROUTES
Bus stops to be provided between cycling lanes and bus route to the satisfaction of DoT or relevant authority	Bus stops are provided in the CCC or CCB median to the satisfaction of DoT.	Where cycling lanes are provided (i.e., connector roads), the bus stop is to be between these lanes and the traffic lane to the satisfaction of DoT Pedestrian priority crossing the cycling lane must be provided.
Signage and/or line marking to be provided on approach to bus stops for cyclists	Signage to be provided at pedestrian and cyclist crossing points of the transit lanes to remind these users to give way to buses.	Signage and line marking to be provided on approach to bus stops to remind cyclists and drivers to slow down.
Bus stops must form part of the trafficable lane (not indented)	N/A	
All-weather shelters, bins, seating, electronic service information and landscaping to be provided at stops	Yes	

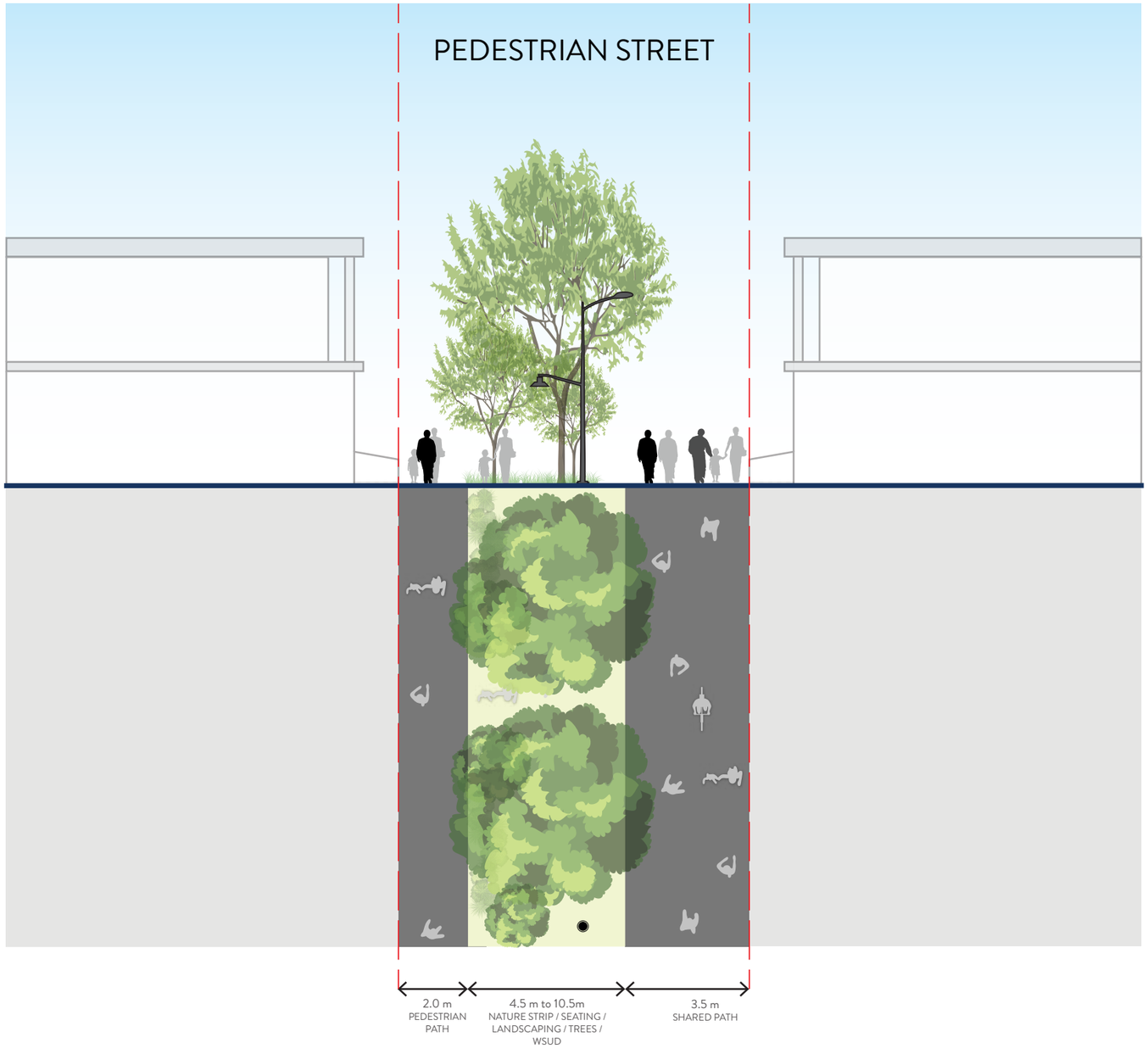
A3.2 STREET TYPES & CROSS SECTIONS



Cross-Section 1	8.0m

Refer to Servicing Placement Guidelines for direction on utility servicing provision

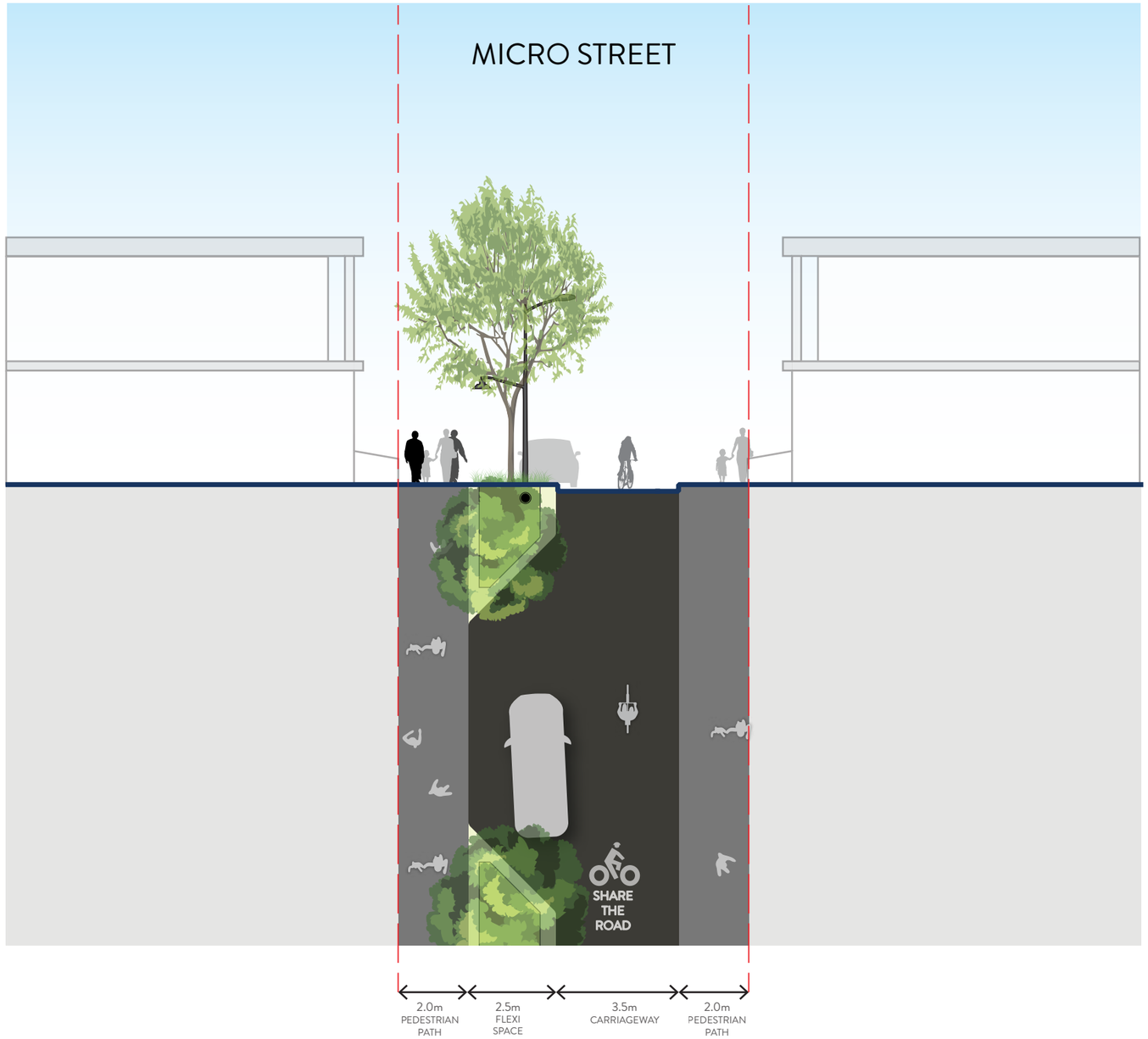
A3.2 STREET TYPES & CROSS SECTIONS



Cross-Section 2	10.0m

Refer to Servicing Placement Guidelines for direction on utility servicing provision

A3.2 STREET TYPES & CROSS SECTIONS



Cross-Section 3	10.0m

Refer to Servicing Placement Guidelines for direction on utility servicing provision

A3.2 STREET TYPES & CROSS SECTIONS



Cross-Section 5	16.0m

Refer to Servicing Placement Guidelines for direction on utility servicing provision

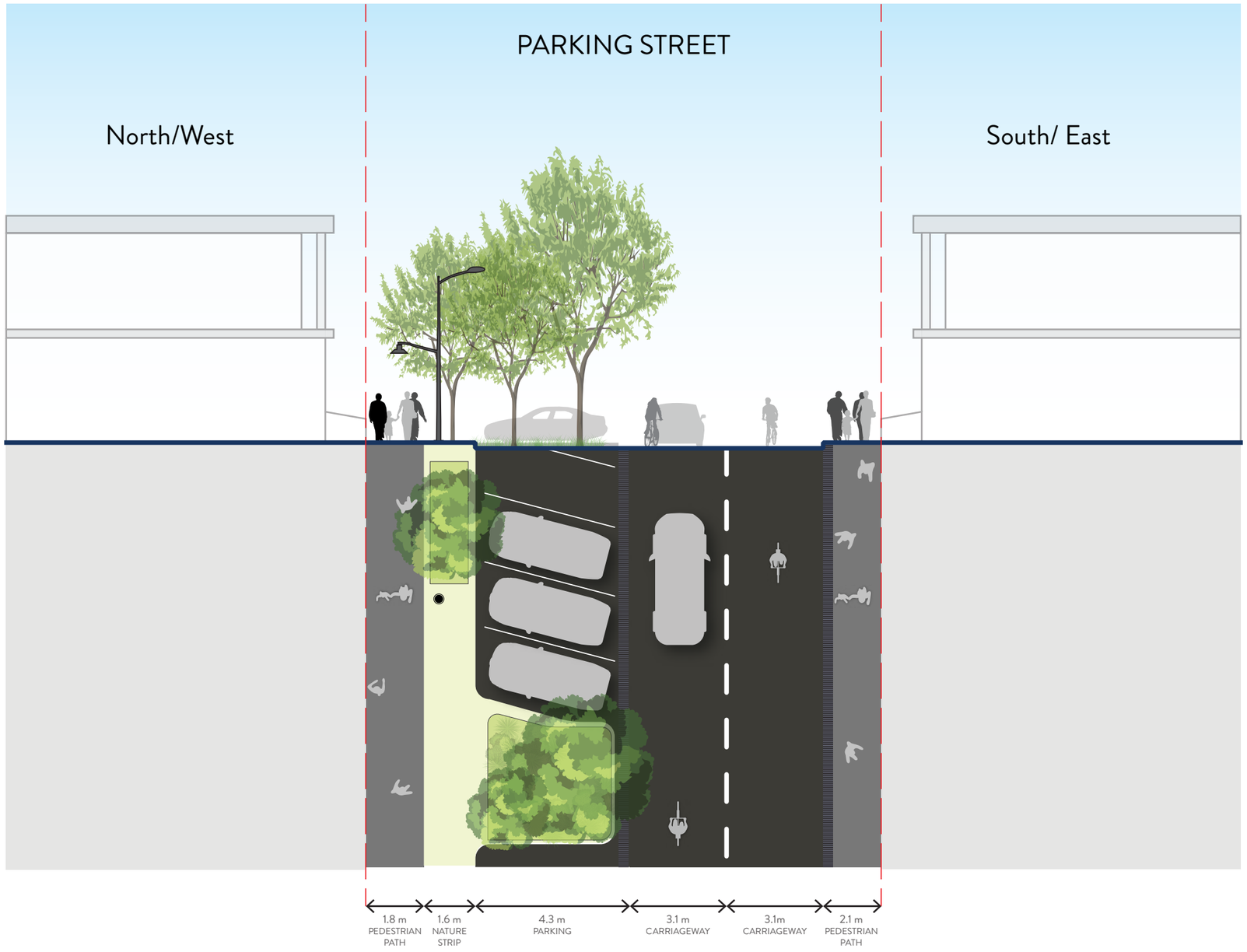
A3.2 STREET TYPES & CROSS SECTIONS



Cross-Section 6	20.0m

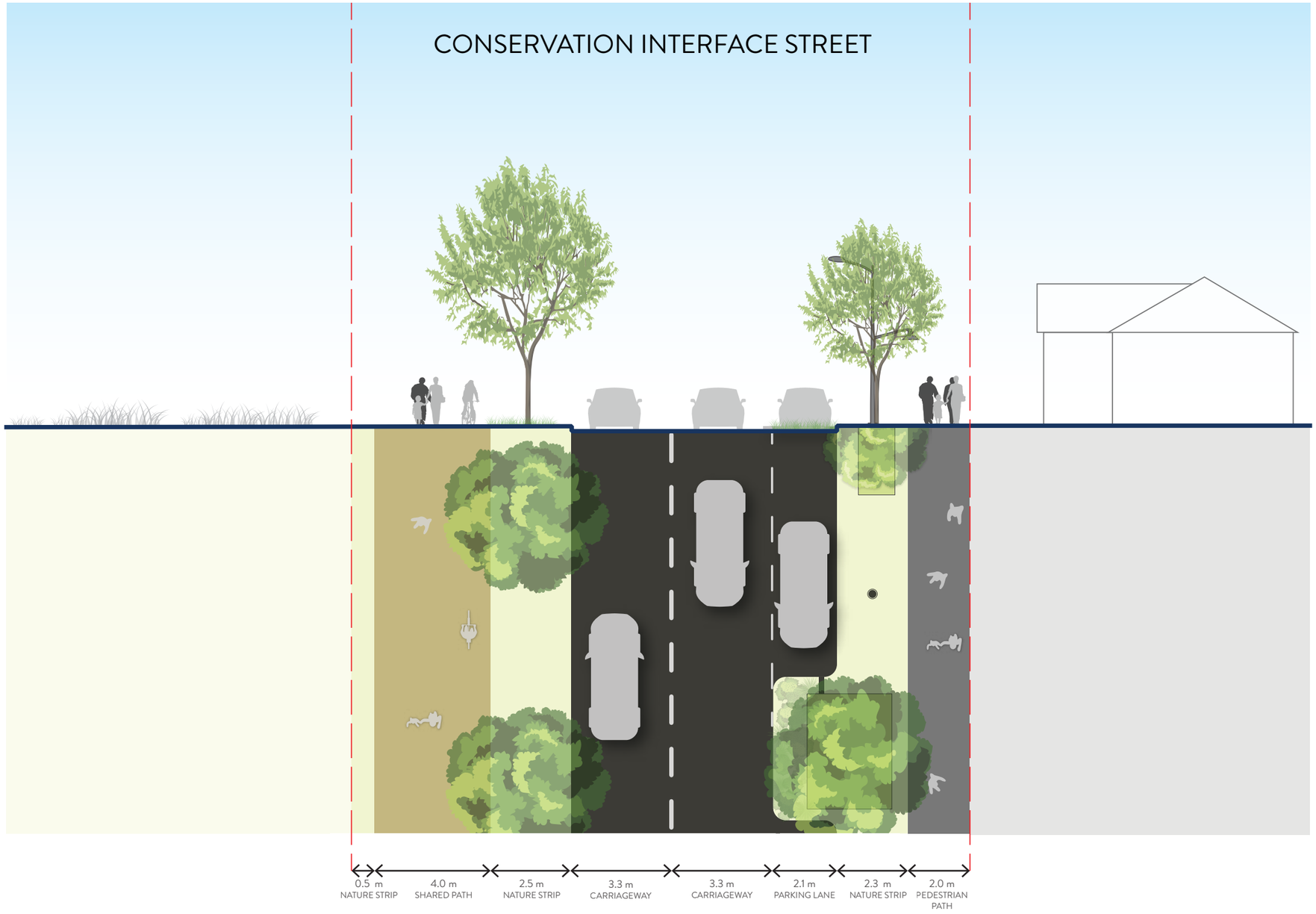
Refer to Servicing Placement Guidelines for direction on utility servicing provision

A3.2 STREET TYPES & CROSS SECTIONS



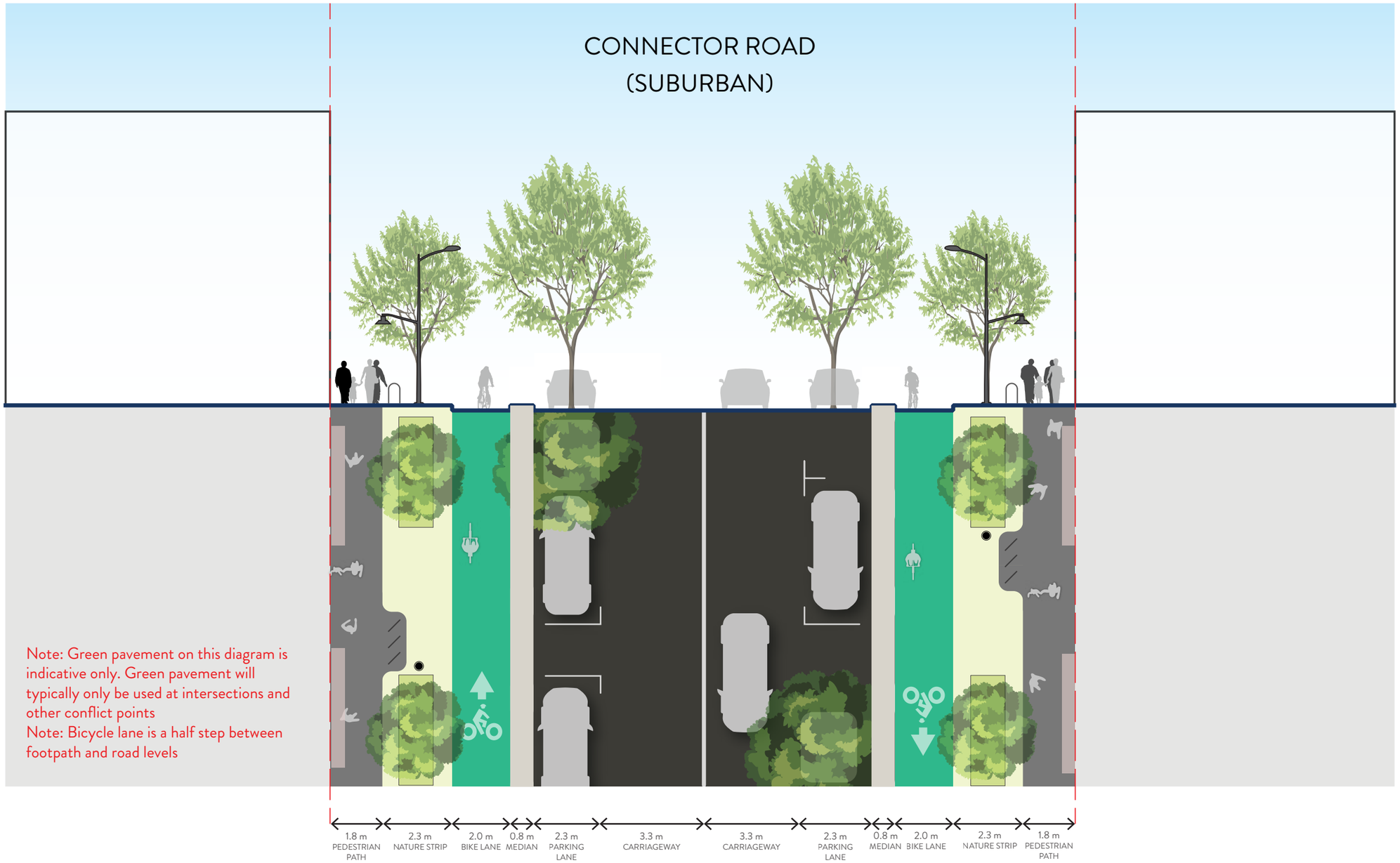
Cross-Section 7	16.0m

Refer to Servicing Placement Guidelines for direction on utility servicing provision



Cross-Section 8	20.0m

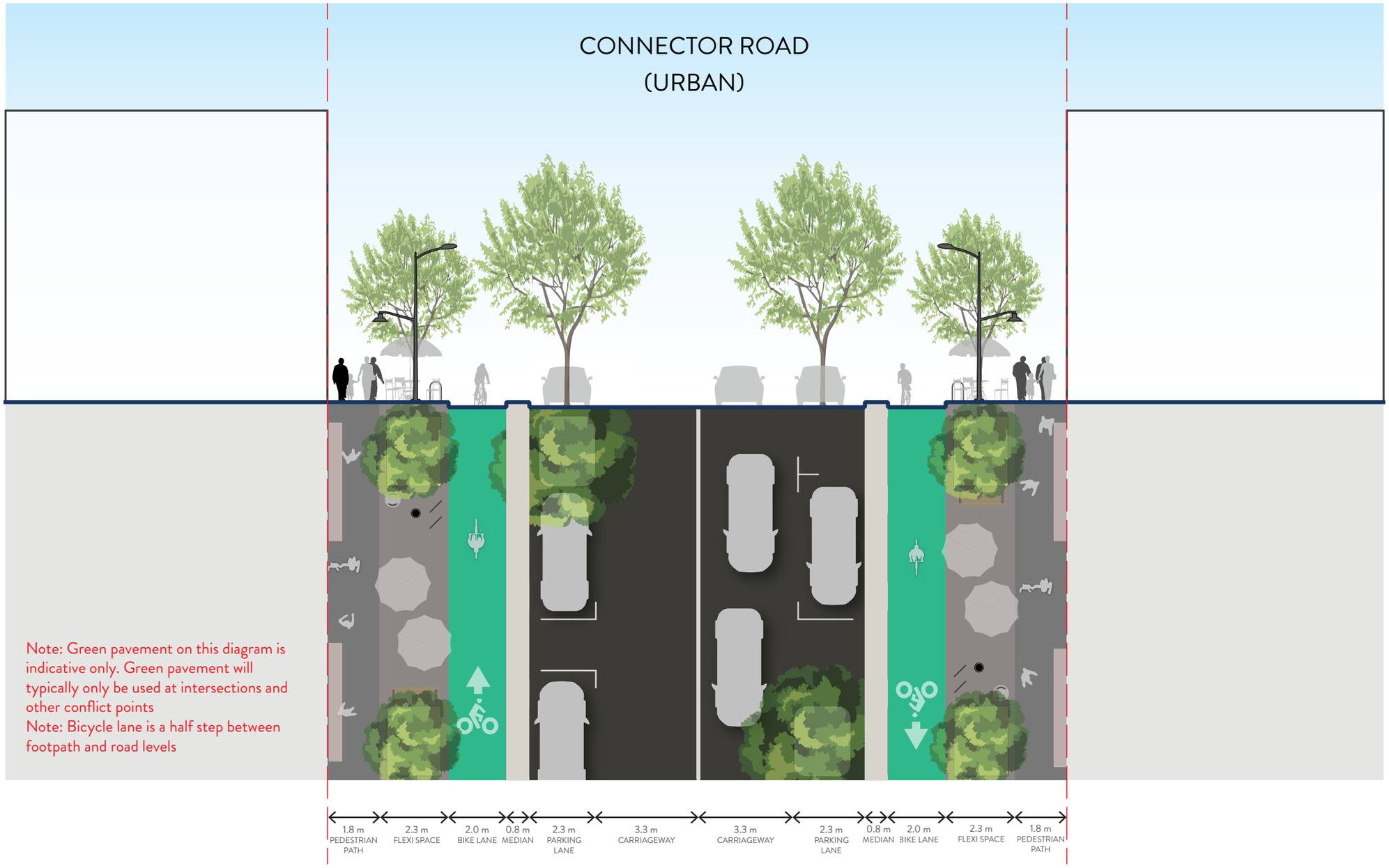
Refer to Servicing Placement Guidelines for direction on utility servicing provision



Note: Green pavement on this diagram is indicative only. Green pavement will typically only be used at intersections and other conflict points
Note: Bicycle lane is a half step between footpath and road levels

Cross-Section 9	25.0m

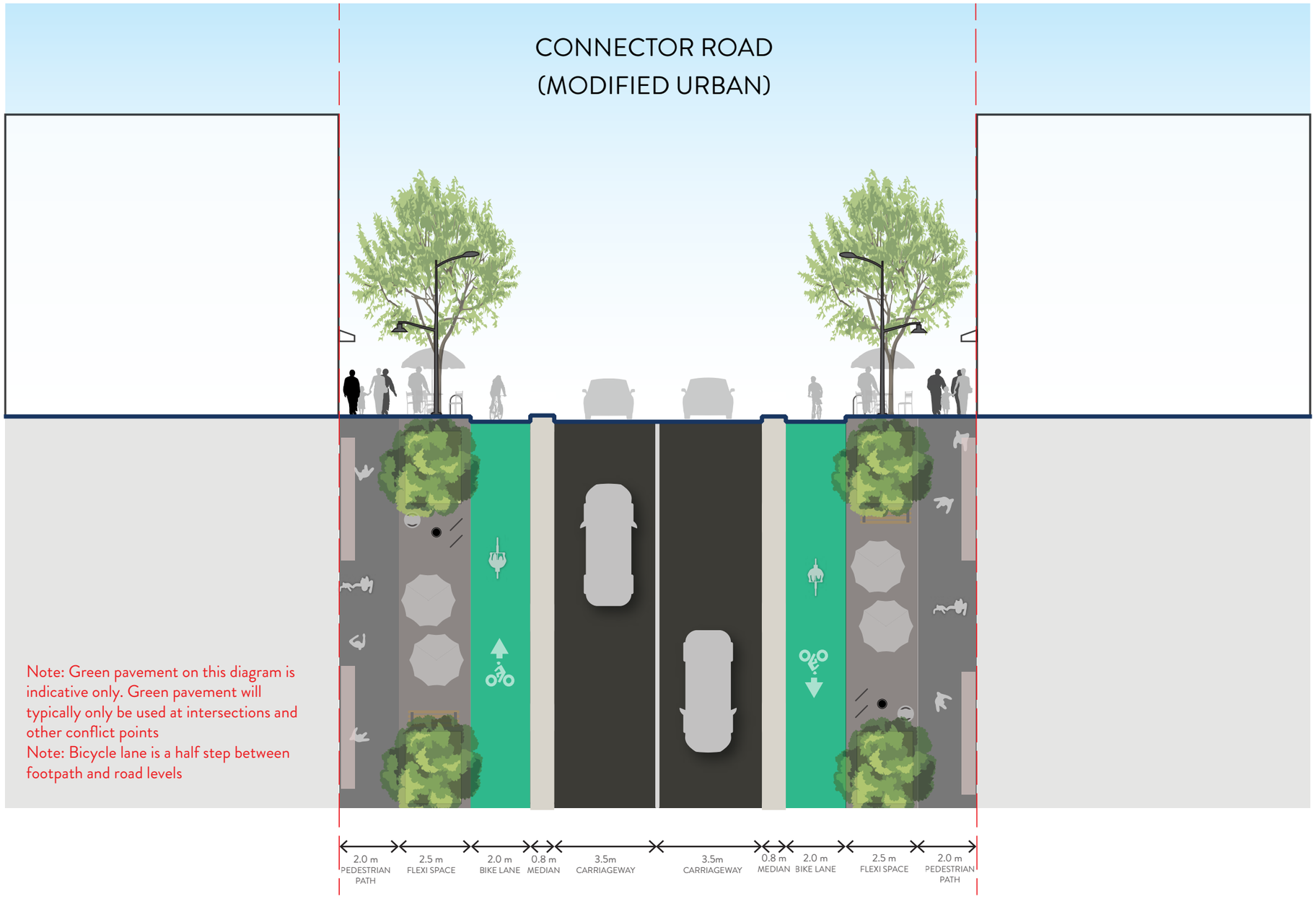
Refer to Servicing Placement Guidelines for direction on utility servicing provision



Note: Green pavement on this diagram is indicative only. Green pavement will typically only be used at intersections and other conflict points
Note: Bicycle lane is a half step between footpath and road levels

Cross-Section 10	25.0m

Refer to Servicing Placement Guidelines for direction on utility servicing provision

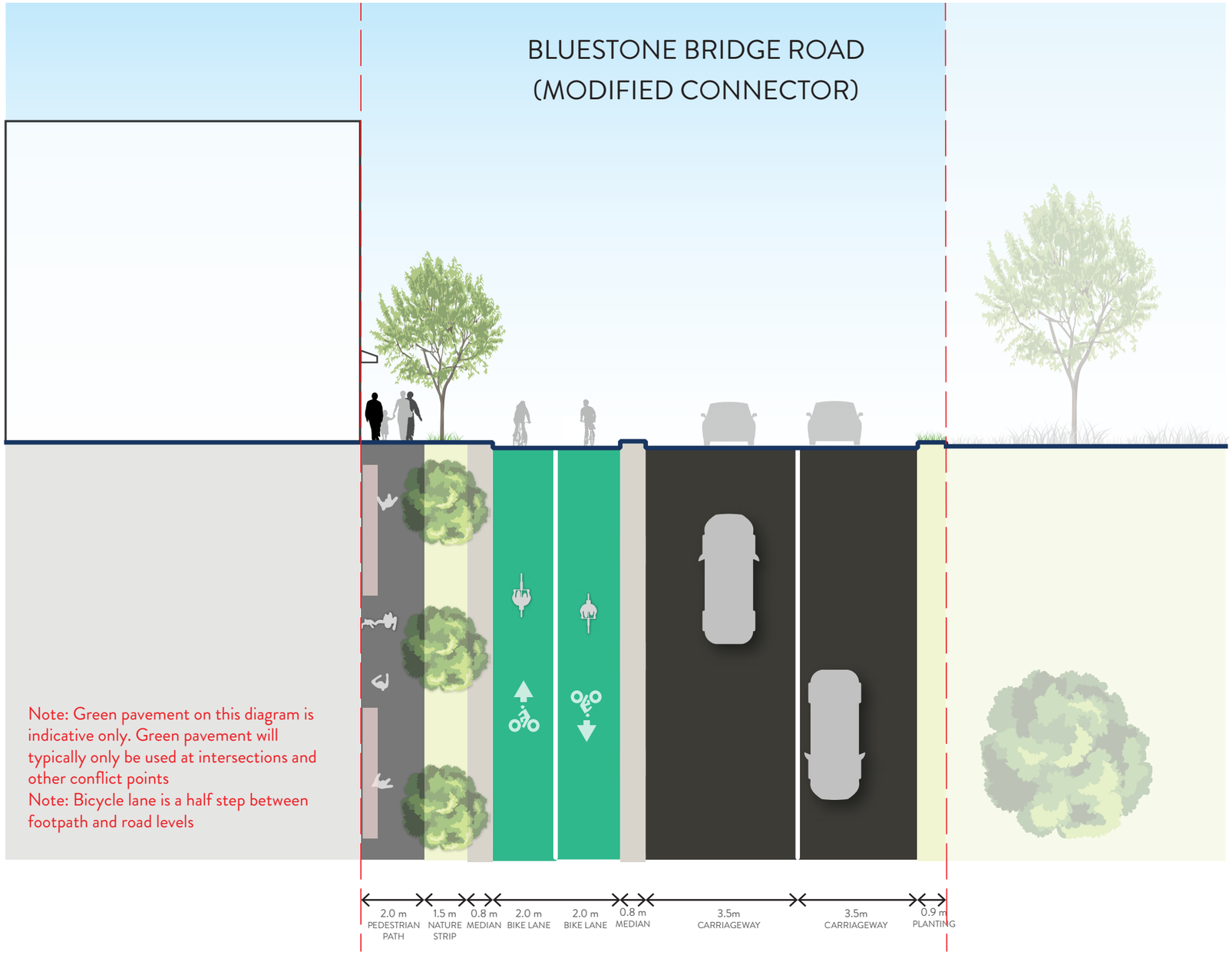


Note: Green pavement on this diagram is indicative only. Green pavement will typically only be used at intersections and other conflict points
Note: Bicycle lane is a half step between footpath and road levels

Cross-Section 11	21.6m

Refer to Servicing Placement Guidelines for direction on utility servicing provision

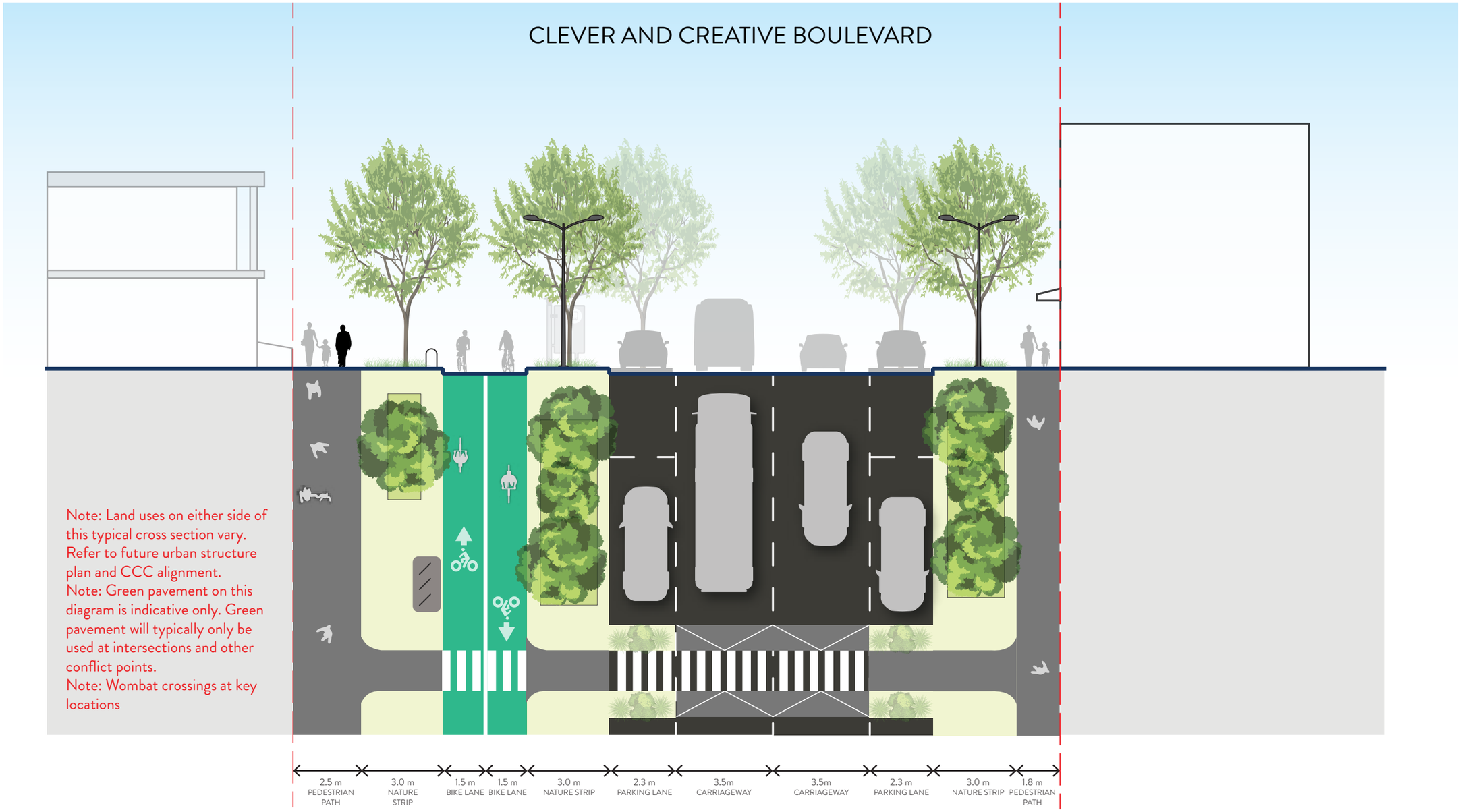
A3.2 STREET TYPES & CROSS SECTIONS



Note: Green pavement on this diagram is indicative only. Green pavement will typically only be used at intersections and other conflict points
Note: Bicycle lane is a half step between footpath and road levels

Cross-Section 11A	17.0m

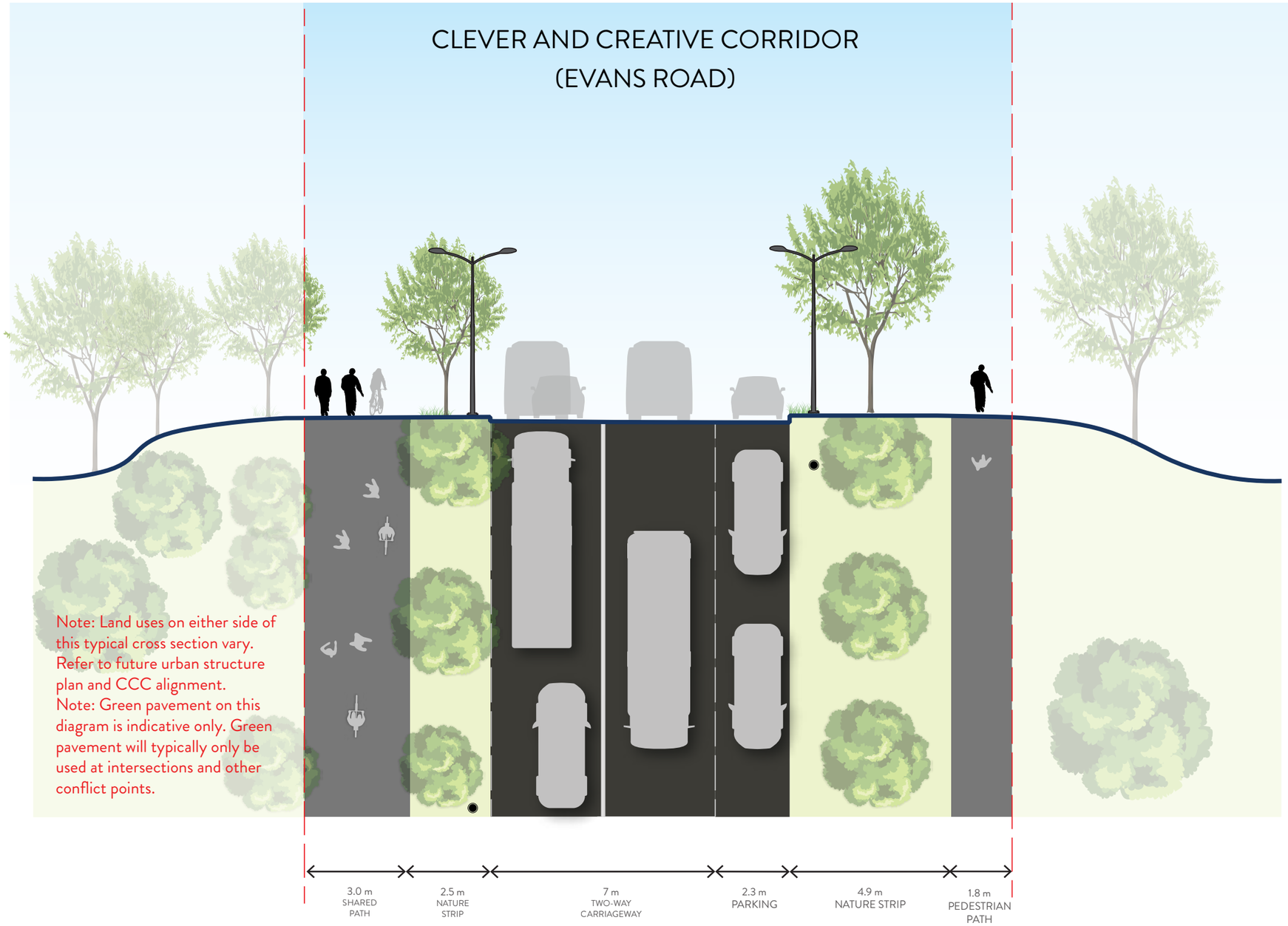
Refer to Servicing Placement Guidelines for direction on utility servicing provision



Note: Land uses on either side of this typical cross section vary. Refer to future urban structure plan and CCC alignment.
Note: Green pavement on this diagram is indicative only. Green pavement will typically only be used at intersections and other conflict points.
Note: Wombat crossings at key locations

Cross-Section 12	27.9m

Refer to Servicing Placement Guidelines for direction on utility servicing provision

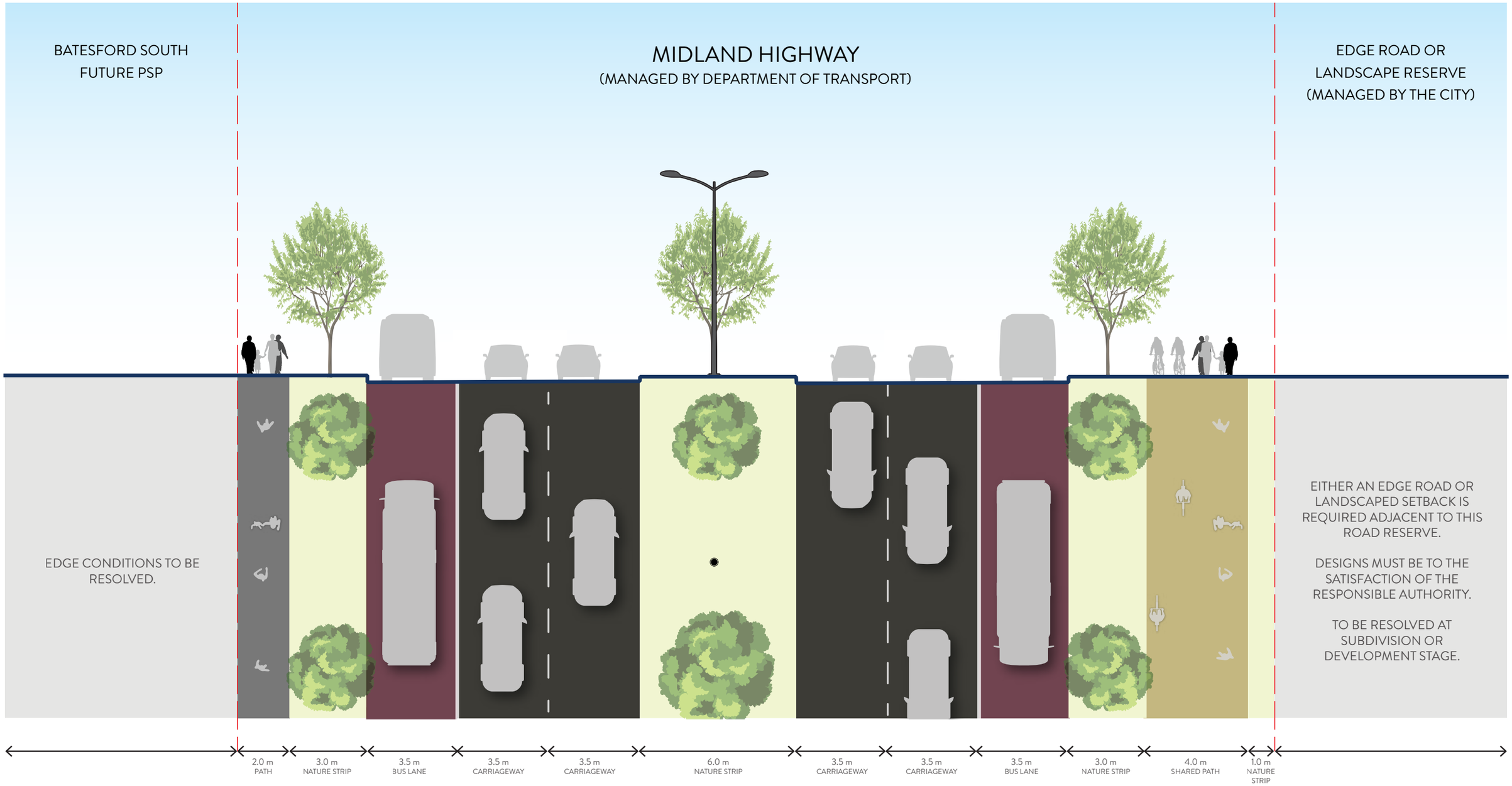


Note: Land uses on either side of this typical cross section vary. Refer to future urban structure plan and CCC alignment.
Note: Green pavement on this diagram is indicative only. Green pavement will typically only be used at intersections and other conflict points.

Cross-Section 15	21.5m

Refer to Servicing Placement Guidelines for direction on utility servicing provision

A3.2 STREET TYPES & CROSS SECTIONS

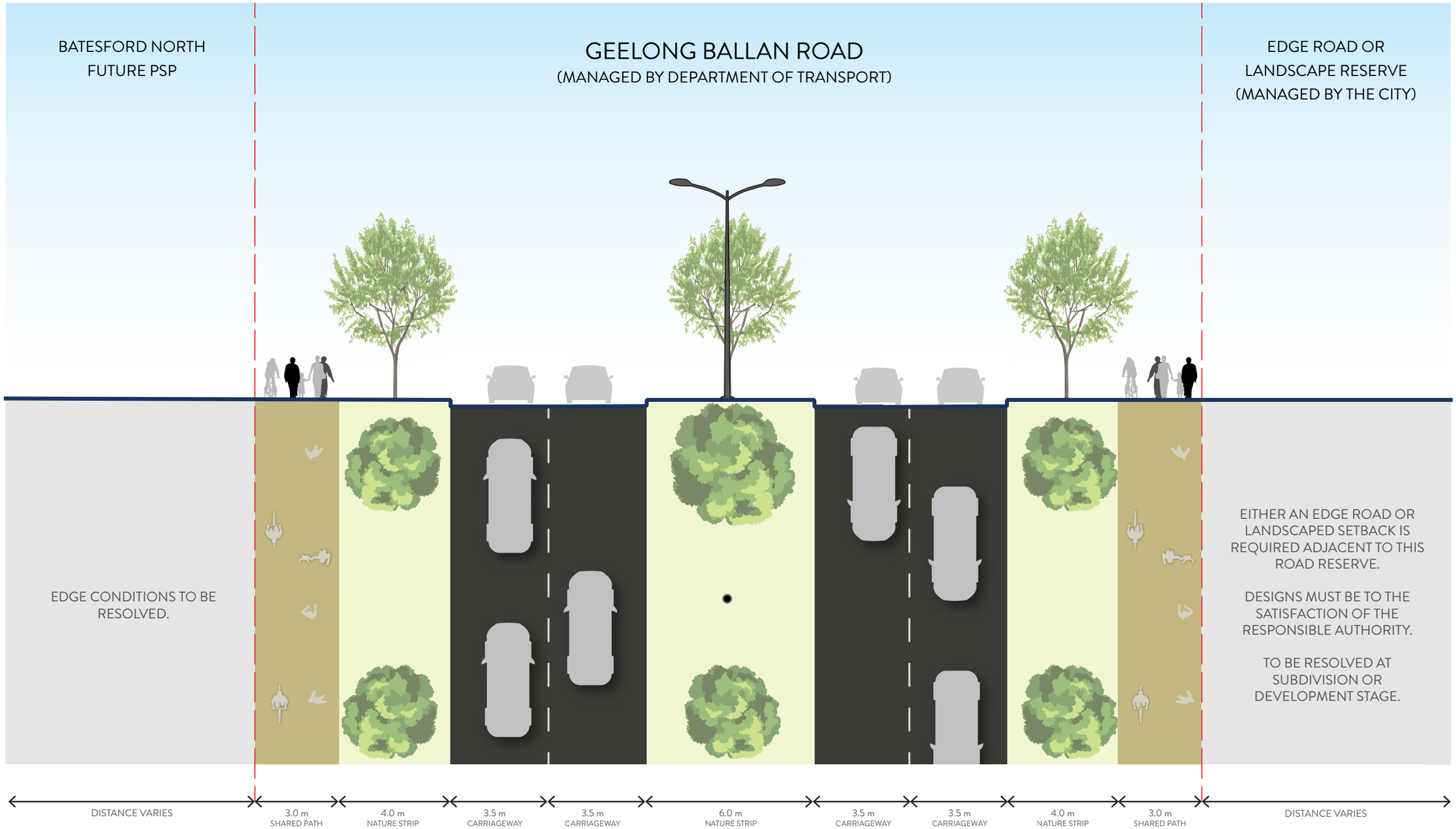


Note: Landuses on either side of this typical cross section vary. Refer to future urban structure plan.

Cross-Section 16	40.0m

Refer to Servicing Placement Guidelines for direction on utility servicing provision

A3.2 STREET TYPES & CROSS SECTIONS



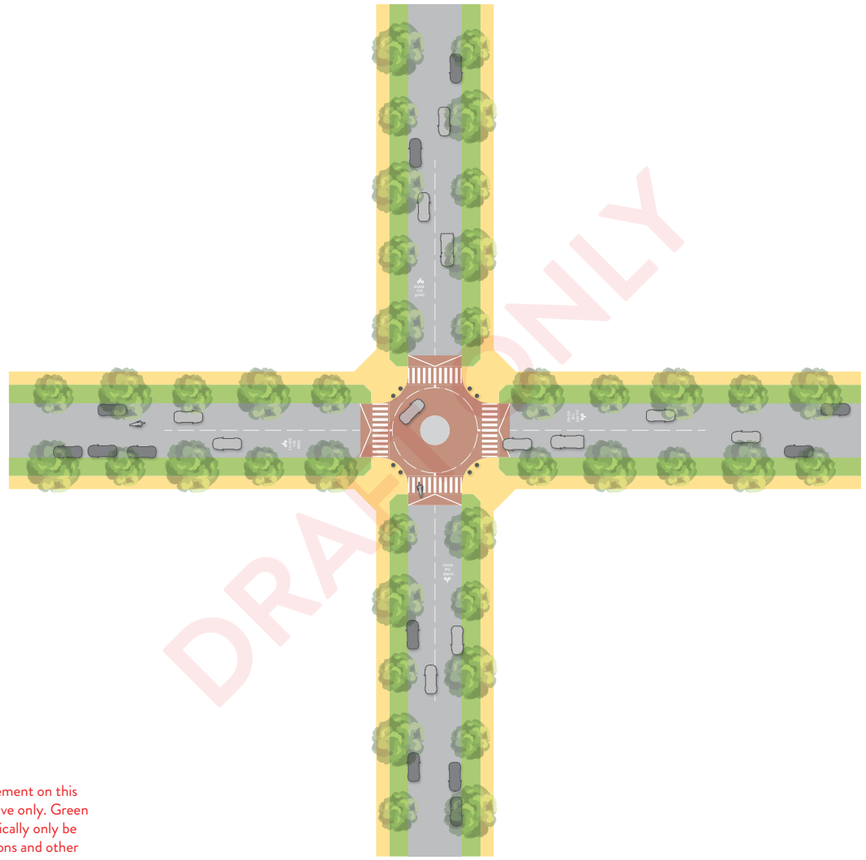
Note: Landuses on either side of this typical cross section vary. Refer to future urban structure plan.

Cross-Section 17	34.0m

Refer to Servicing Placement Guidelines for direction on utility servicing provision

A3.3 STREET INTERSECTIONS

Compact Roundabout
Local Access Streets

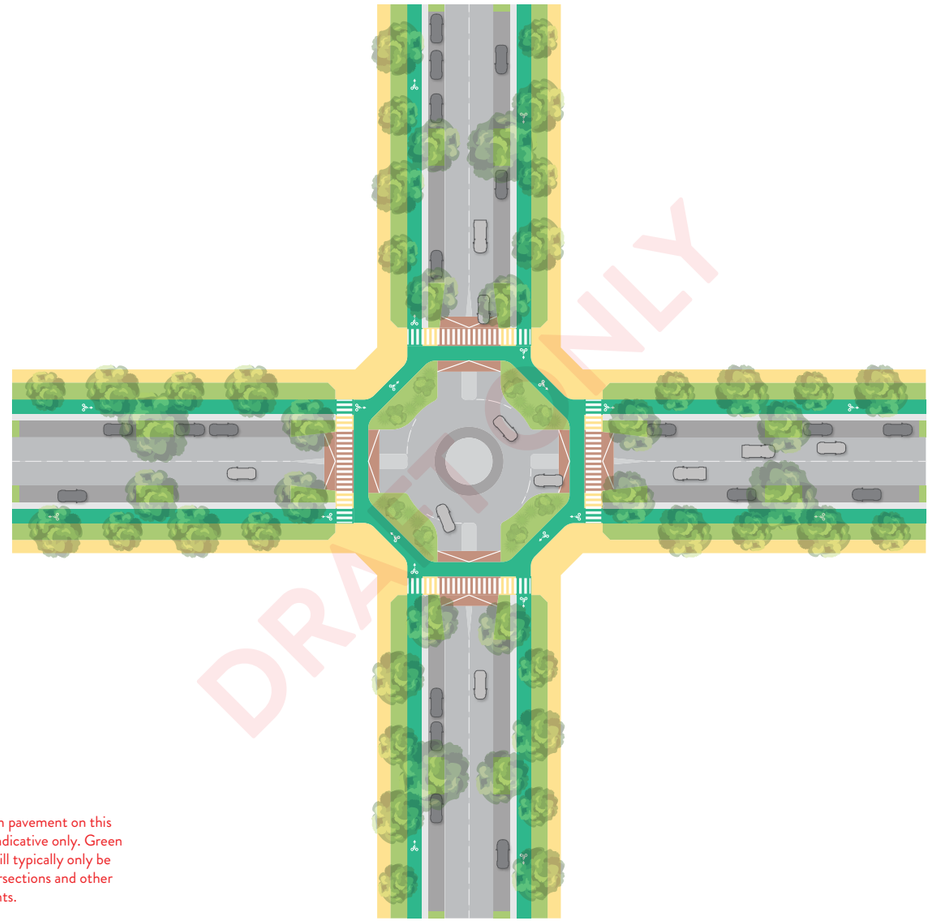


Note: Green pavement on this diagram is indicative only. Green pavement will typically only be used at intersections and other conflict points.

LEGEND

- Vehicle Lanes/Parking
- Dedicated Bus Lanes
- Pedestrian Paths
- Bicycle Lanes
- Indicative Verge/Curb
- Raised Areas of Intersection

Roundabout
Connector Roads



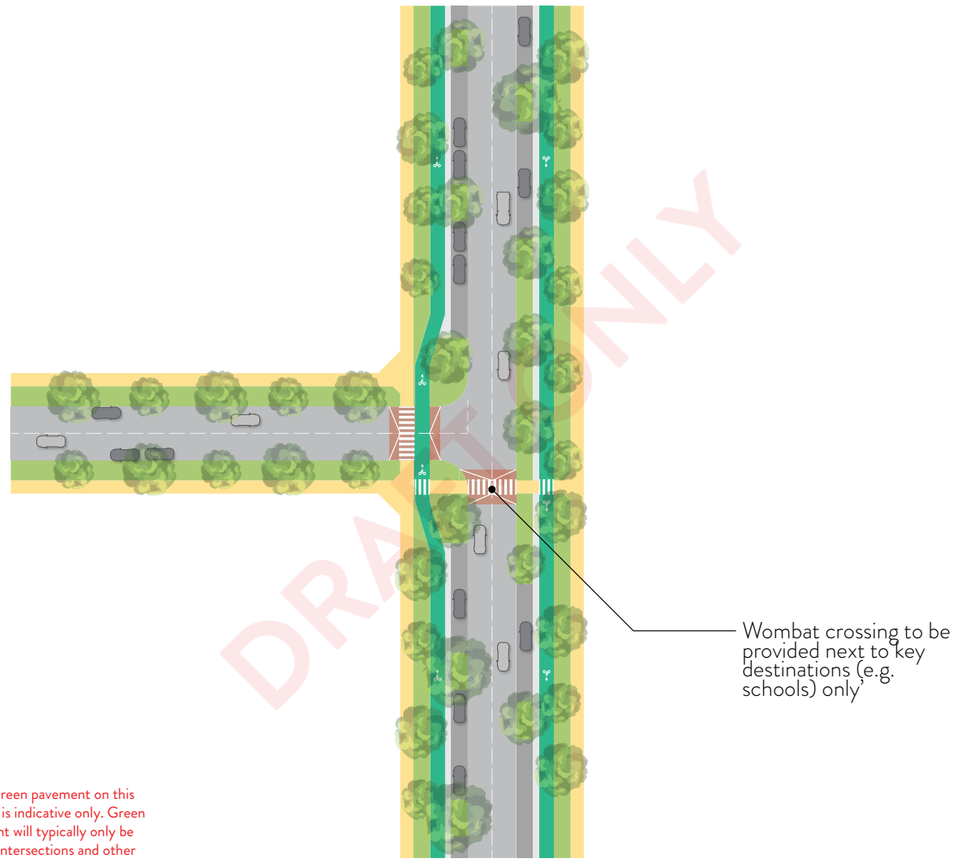
Note: Green pavement on this diagram is indicative only. Green pavement will typically only be used at intersections and other conflict points.

LEGEND

- Vehicle Lanes/Parking
- Dedicated Bus Lanes
- Pedestrian Paths
- Bicycle Lanes
- Indicative Verge/Curb
- Raised Areas of Intersection

DRAFT ONLY

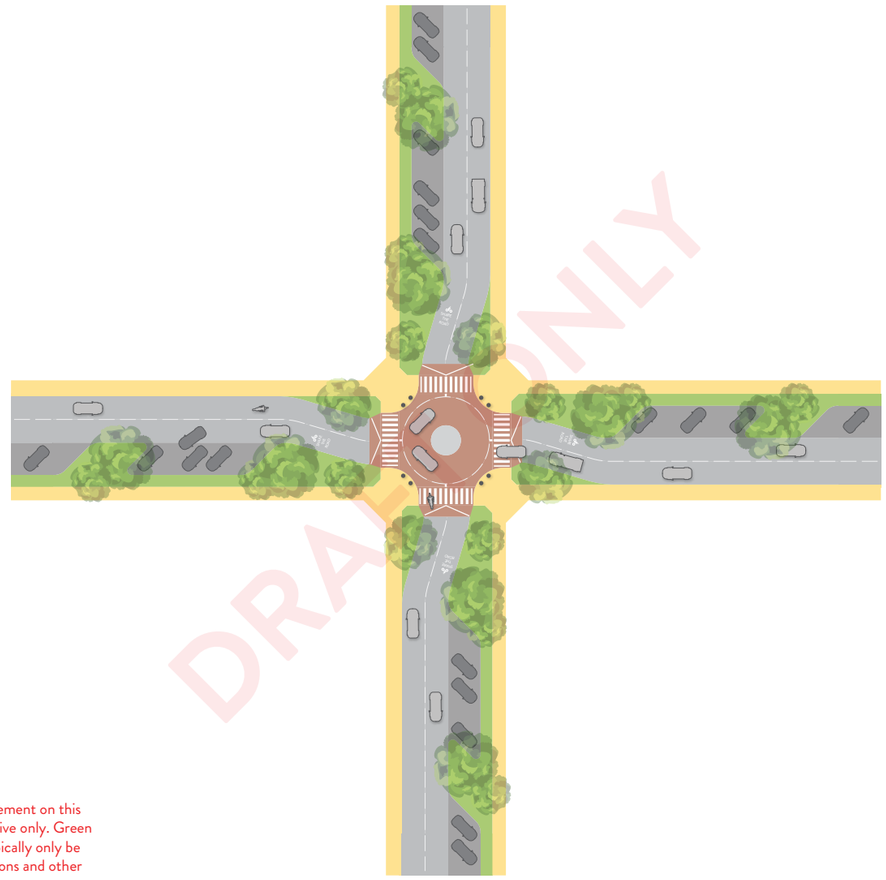
Give Way T-Intersection
Local Access Streets + Connector Road



Note: Green pavement on this diagram is indicative only. Green pavement will typically only be used at intersections and other conflict points.

LEGEND
- Vehicle Lanes/Parking
- Dedicated Bus Lanes
- Pedestrian Paths
- Bicycle Lanes
- Indicative Verge/Curb
- Raised Areas of Intersection

Compact Roundabout
Parking Streets



Note: Green pavement on this diagram is indicative only. Green pavement will typically only be used at intersections and other conflict points.

LEGEND
- Vehicle Lanes/Parking
- Dedicated Bus Lanes
- Pedestrian Paths
- Bicycle Lanes
- Indicative Verge/Curb
- Raised Areas of Intersection

A4. OPEN SPACE DELIVERY REQUIREMENTS

T22. OPEN SPACE DELIVERY REQUIREMENTS

OPEN SPACE CATEGORY	DESCRIPTION	GENERAL SHAPE GUIDELINE	CATCHMENT REQUIREMENT	MINIMUM EMBELLISHMENTS	EXTRA EMBELLISHMENTS*
Local Community (Passive) Park	• Park developed to meet basic non- competitive recreational pursuits in a predominantly informal setting.	• Broadly square or rectangular with no sides greater than 2:1 • 0.5-1ha • > 0.5ha when attached to encumbered open space suitable for secondary recreation.	• Services the immediate neighbourhood, approx. 750-3000 people. • Urban and suburban: within 400m from 95% of residents. • Walking or cycling is the preferred mode of transport to these parks, therefore suburban footpaths, pram ramps, pedestrian crossings and refuge islands are key infrastructure items to facilitate ease of access.	• Designed for short stay visitation. • Embellishment may include a playground, shade trees, lawn 'kick and throw' area and seating, preferably arranged to encourage social interaction. • On street carparking, external footpaths, accessible internal concrete path network to play/social space, seating, park name signage, landscape - trees, garden beds, lawn area and vehicle access point. • Utilities such as electrical, potable water, recycled water and sewer require tapping points at park boundary. • In employment areas an emphasis on break-out social spaces such as seating, picnic tables, shelter in a pleasant, landscaped environment.	• Shade sails for play areas, shelter or shade structure for social seating area, drinking fountain, picnic table, disability wheelchair access, recreation court / goals / equipment, lighting, irrigation, fencing / vehicle access barriers.
District Community (Passive) Park	• Park developed to meet a range of non- competitive recreational pursuits in a predominantly informal setting.	• Broadly square or rectangular with no sides greater than 3:1 • 1-2.5ha ideally.	• Services several neighbourhoods, approx. 3000-5000 people. • Urban and suburban: within 1km from 95% of residents. • Walking or cycling to these parks is facilitated through footpaths, bike lanes and shared path network. • Proximity to public transport. • On street parking, occasionally (where warranted) onsite parking.	• Designed for long stay visitation. • Embellishment may include multi-age playground, informal recreation infrastructure (court/skate bowls/goals etc), shade sails/trees, large covered social space, picnic area, drinking fountains, bicycle racks, irrigated landscape and lawn 'kick and throw' area. • Mix of seating options, preferably arranged to encourage social interaction. BBQ's and public toilets. • High emphasis on accessibility within the park and infrastructure. • Utilities such as electrical, potable water, recycled water and sewer require tapping points at park boundary and connection to relevant infrastructure.	• On site carparking. Shade structures for play areas, lighting, fencing / vehicle access barriers.
Town Square	• Predominately hard landscaped open space with an urban character suitable for respite, small events, social gatherings.	• Broadly square or rectangular with no sides greater than 3:1 • <0.3ha	• Located in the core of activity centres. • Urban catchment: 200m.	• Designed for long stay visitation. • Embellishments support workers, visitor and resident usage, gathering and minor events. • Hardstand ground plane, landscaped beds (on ground and/or raised), various seating options, shade, drinking fountain, bike racks, smart technologies, accessible power outlets, USB charging points, public art, irrigation, park & wayfinding signage. Public lighting & 3 phase power. • Public toilets located within town centre retail buildings.	• Shelter, landscape pots/ containers, large screen tv (by negotiation). • Outdoor dining adjacent in commercial private land.
District Sports (Active) Reserve	• An outdoor open space which provides a venue for organising sporting activities such as team completions, physical skill development and training. • Playing surfaces can be accessed by the general community outside club licence times. • Balance of grounds can contain informal recreational components such as play space, skate bowls which are always publicly accessible.	• Broadly square or rectangular with no sides greater than 3:1 • 8-15ha (Preference 12-15ha)	• Services several neighbourhoods, approx. 3000-5000 people. • Urban and suburban: within 1km from 95% of residents. • Walking or cycling to these parks is facilitated through footpaths, bike lanes and shared path network. • Proximity to public transport is desirable. • Onsite parking according to sporting requirements. Overflow on street parking.	• Sporting grounds and associated infrastructure according to sport provision requirements. • Pavilion and carparking (size depending on sport usage). • Associated passive infrastructure (play space, informal recreation). • Public toilets external to pavilion.	• Shelters, spectator seating, electronic scoreboards, netting, amphitheatre spectator seating.

*Items listed in Embellishments are at the discretion and approval of the responsible authority.

A4. OPEN SPACE DELIVERY REQUIREMENTS

All public open space (excluding conservation areas) shall be designed and developed to a standard that satisfies the requirements of the City prior to the transfer of the land, including the following:

- All public landscaped areas must be designed and constructed in accordance with relevant Australian standards.
- Open spaces are to be designed and developed to assist in promoting a 'sense of place' and cater for a broad range of users, by providing a mix of spaces and planting to support structured and unstructured play for all ages and abilities.
- Installation of park furniture including BBQs, shelter, tables, rubbish bins, playgrounds and other play elements such as multi- courts and hit-up walls, rubbish bins and appropriate paving to support these facilities must be consistent with the classification and hierarchy of the open space as listed in Table 11 Open Space Delivery Guide and the City's Sustainable Communities Infrastructure Development Guidelines (including all relevant updates).
- Open space must not be delivered in a standalone stage, it must be included with a stage containing residential lots.
- The design and layout of waterway corridors and other encumbered open space is to maximise the potential for integration of recreational uses, utility infrastructure and storm water quality assets, where it does not conflict with the primary function of the land.
- Trees at 75% maturity to shade no less than 25% of the open space.
- Vehicle exclusion devices (fence, bollards, or other suitable method) and maintenance access points to be installed as requested by the responsible authority.
- Where fencing of local parks is required, it must be lowscale and designed to guide appropriate movement and access rather than act as a barrier. Design and materials shall complement the park setting.
- Path networks associated with open space to include way finding which clearly identifies key destinations and communicates necessary information to all users.
- Signage should clearly identify key destinations and communicates necessary information to all users.
- Any pedestrian link through a dedicated trail, drainage reserve/corridor or adjoining the road network to include a provision of park seating at appropriate intervals.
- Appropriately scaled lighting shall be installed along all major pedestrian thoroughfares traversing the public open space and active transport network to the satisfaction of the responsible authority.
- All structures are to be sited above the 1% AEP flood event level and designed to integrate with and complement rather than dominate the landscape.
- Paths are to be designed above the 1% AEP. Where this is not possible, they must comply with Melbourne.
- Water's Shared Pathways Guidelines.
- Opportunities should be considered for appropriate urban art, to the satisfaction of the City's Arts & Culture Department.

A5. ACTIVITY CENTRES

T23. NAC PRECINCT KEY DESIGN INTENT

The NAC Precinct shall be the vibrant heart of the neighbourhood, where goods, services and employment can be accessed through public transport, cycling or a 20-minute walk, Co-located with community facilities, the NAC will enhance accessibility and active living, through a healthy mix of uses, where residential co-exists with ground-level retail that spills into the public realm creating an active, vibrant and safe environment. The below NAC Key Design Intents will enable a walkable, mixed-use environment where the public realm is the focus, sustainable design outcomes are embedded, and access to goods, services, employment and transit supports a true 20-minute neighbourhood can be delivered.

NAC PRECINCT KEY DESIGN INTENT	
01.	Provide a high-quality east-west Key Pedestrian Street that responds to land use context, allows uninterrupted visual and physical connections through the NAC to the town square and the Clever and Creative Boulevard (CCB), providing opportunities for retail, hospitality and community activities to spill out into the public realm, reinforcing the NAC as a vibrant people-focused hub.
02.	Provide a Town Square (Civic Open Space) adjoining the CCB in accordance with *Table 9 Open Space Delivery Guide* and *Table 15 Precinct Infrastructure*, creating a 'key gathering place' by co-locating the Town Square at the intersection of the Key Pedestrian Street and the CCB, and providing a key transit stop at this location.
03.	Design the Key Pedestrian Street to be generally in accordance with the Key Pedestrian Street cross sections provided in *Appendix 3 Complete Streets.*
04.	Provide safe and continuous pedestrian connections from the NAC precinct to the active transport link in the East-West Drainage Corridor, the high amenity areas surrounding the NAC precinct, and to the key transit stop along the CCB, prioritising pedestrians through raised wombat crossing, or other pedestrian priority treatments as agreed by the responsible authority
05.	Provide a diverse mix of retail, office and commercial uses at ground floor level to maximise opportunities for activity to spill out onto the Key Pedestrian Street and Town Square.
06.	Consolidate parking across the NAC Precinct where possible and sleeve car parking areas with active built form, primarily along the Key Pedestrian Street and the CCB, and secondarily to surrounding connector roads.
07.	Deliver multi-level buildings in the NAC precinct that provide opportunities for mixed use development, including community and residential uses on upper levels.
08.	Sleeve anchor retail with finer grain complementary uses along the frontage to the Key Pedestrian Street and provide primary pedestrian access to anchor retail from Key Pedestrian Street.
09.	Avoid loading bay access for anchor retail from the CCB.
10.	Provide active frontages and fine grain retail along the Key Pedestrian Street, Town Square and the CCB, incorporating narrow tenancies. Active frontages include shop fronts, shop entrances, outdoor dining and cafes, active display windows and any other treatments to the satisfaction of the Responsible Authority. Street based retail centre designs are preferred. Internalised mall designs should be avoided.
11.	Avoid blank facades along the Key Pedestrian Street, Town Square and CCB.

NAC PRECINCT KEY DESIGN INTENT	
12.	Provide primary frontages to the CCB. Primary frontages include building entrances, lobbies, balconies, front yards, bike parking and high-quality pedestrian safe landscaping.
13.	Deliver Landmark Building Architecture in nominated locations shown within the NAC Precinct Concept Plan or as listed below. Ensure these contribute towards a unique character and wayfinding by ensuring they are taller than surrounding built form, visually prominent, of high architectural value and utilise high quality materials. Any signage or branding should not be visually prominent. Key locations include: • Intersection between Connector Roads and the CCB; • South of the Town Square along the CCB; • Community Facility along the CCB.
14.	Provide a seamless transition between the NAC and the surrounding residential area by developing higher density residential within the Mixed-use amenity area, as shown on *Plan 11 NAC Concept Plan*, and a. Providing vehicular access from the rear, particularly on sites directly facing the NAC b. Encouraging the inclusion of verandahs, balconies and entrances from the street facing the NAC.
15.	Incorporate key landscape design features (artwork/sculpture) within the Town Square such as public art, sculptures, street furniture, and landscaping.
16.	Ensure the design of the NAC Precinct integrates Aboriginal cultural values and interpretation into the public realm, through materials, artwork, planting and storytelling, strengthening its role as a place of cultural connection as well as commerce.
17.	Encourage collaboration between adjoining developments to allow for cohesive and well considered design outcomes and efficient use of space such as sharing of amenities such as parking.
18.	Mixed Use Developments should encourage a consistent retail street frontage by avoiding residential development at the ground floor level in accordance with *Table 3 Housing Delivery Guide*
19.	Provide awnings, verandahs or other weather protection devices along Key Pedestrian Streets and the Town Square to support pedestrian comfort and encourage year-round outdoor activity.
20.	Incorporate a high-quality landscape and public realm treatment along the CCB, Key Pedestrian Street and Town Square, including forecourts, street trees, seating, lighting, and public art, to reinforce the role of the NAC as the civic heart.
21.	Encourage corner buildings to be designed with dual frontages, active edges and architectural expression to reinforce wayfinding and avoid blank side walls.
22.	Ensure that service areas, utilities and waste storage are located away from key pedestrian frontages and are screened by active or built form treatments to maintain an attractive streetscape.
23.	Ensure the ground floor of all mixed-use buildings provides a minimum floor-to-ceiling height of 4.0 metres to allow long-term adaptability between commercial, retail and community uses.

A5. ACTIVITY CENTRES

T24. ACTIVITY CENTRE & COMMERCIAL DEVELOPMENT DESIGN PRINCIPLES

DESIGN PRINCIPLE	DETAILS
PRINCIPLE 1 **URBAN STRUCTURE, LAND USE & ACTIVATION** Activity Centres and commercial development will be designed to be legible and highly permeable with vibrant activity pockets to enrich the pedestrian experience.	• Provide an accessible, permeable and functional urban structure of blocks, laneways, and streets that enables access to the centre from surrounding residential areas. • Offer a high degree of community interaction and provide a vibrant and viable mix of retail, recreation and community uses with varying shopfront widths, floor space areas, opportunities for local business investment and extended hours of activation. • Encourage development that provides a combination of uses within a mixed-use building. • Locate anchor businesses to encourage pedestrian movement along key streets and public spaces. • Be designed to have active frontages by providing clear and visible main entrances, windows and displays along ground and first floor frontages, particularly abutting the Town Square and the CCB. • Provide flexibility in the public realm to facilitate pop-up interim uses and community events, allowing for temporary activation and other activation strategies. • Ensure car parks are designed to be flexible to accommodate temporary uses at non-peak times. • Locate childcare, medical centres and specialised accommodation (e.g. – aged care, nursing home, student accommodation, and serviced apartments) at the edge of the centre to contribute to the centre's activity and the resident's access to services. • Locate service stations and large format retail including but not limited to homemaker centres, hardware stores, showrooms and bulky goods along arterial roads, ensuring active and well-designed frontages to the street. • Car-oriented services and drive-through establishments for commercial uses should not be located nearby the CCB. Where provided within the NAC precinct, must be screened with active uses (such as convenience store or food and beverage), with direct pedestrian access from the key pedestrian routes.

DESIGN PRINCIPLE	DETAILS
PRINCIPLE 2 **MOVEMENT & PARKING** Activity Centres and commercial development will be designed to be pedestrian friendly and accessible by all modes including cycling and public transport, while enabling private vehicle access.	• Carefully consider orientation, shading, planting and windbreaks to create comfortable microclimates for users through all seasons. • Prioritise pedestrians and their amenity in parking areas through dedicated walking paths with appropriate landscaping elements. • Provide pedestrian friendly treatments (e.g. zebra crossings, variations in road material, increased landscaping, bollards, and reduced width of roads) at key street crossings as required. • Ensure all streets, paths, and active transport corridors are well lit and safe outside of business hours. • Avoid conflicts between pedestrians, cyclists and other modes of transport by providing well delineated and connected movement networks. • Provide convenient and safe access through spill over spaces and plazas including shared pickups/traffic ride bays. • Limit crossovers where possible. • Encourage shared parking provision. • Ensure parking areas are not visible from the CCB. • Ensure multi-level car parks are safe and well maintained with legible pedestrian paths/crossings provided to enhance amenity and safety of users. • Sleeve parking areas with built form to ensure these are located at the side or rear of buildings. • Ensure parking areas are planted with suitable canopy trees and achieve the canopy target specified in *3.6.1 Urban Greening.* • Provide universal access throughout the centre and ensure all users have convenient and safe access to public spaces. • Provide bicycle parking facilities in safe, convenient, accessible and visible locations close to key destinations including anchor retail, Town Square and transit stops. • Provide transit stops in accordance with the Public Transport Guidelines for Land Use and Development, to the satisfaction of the Department of Transport. • Provide safe access to transit stops.

A5. ACTIVITY CENTRES

T24. ACTIVITY CENTRE & COMMERCIAL DEVELOPMENT DESIGN PRINCIPLES

DESIGN PRINCIPLE	DETAILS
PRINCIPLE 3 **SENSE OF PLACE** Activity Centres and commercial development will create a sense of place with high quality engaging urban design and well defined public spaces.	• Be responsive to its context with a focus on delivering fine-grain urban fabric and integrate built form with the wider landscape setting, the CCB and adjoining land uses. • Use high-quality finishes and design elements in buildings and the public realm, that contribute to a cohesive and legible character, cultural values and unique sense of place. • Maximise opportunities for active and passive surveillance through design of public space elements and building facades. • Orient public spaces to capture the northern sun and to be protected from prevailing winds, weather and overshadowing. • Ensure landscaping is of a high standard and complements the built form design. • Demonstrate how the design of public spaces responds to the principles of universal access and CPTED (Crime Prevention through Environmental Design). • Provide design responses that support night-time economy through lighting and passive surveillance. • Discourage fencing to the CCB. If proposed, they must be low in height (maximum 1.5m high) and be at least 50% permeable.

DESIGN PRINCIPLE	DETAILS
PRINCIPLE 4 **BUILDING DESIGN** The design of buildings will incorporate visually interesting designs, high quality external materials and contribute to a sense of character and place.	• Be appropriate to their context and of a scale and character consistent with the desired future character for the precinct. • Be built on or close to the street boundary and/or key public spaces, with a continuous frontage, to provide a positive sense of definition for the public realm. • Be designed to an appropriate scale that complements the streets and provides activated and accessible frontages with a limited number of internal shops. • Be designed to respect existing views and vistas by incorporating them into the building design promoting a connection to nature, cultural values and natural features as identified in *Plan 4 Precinct Features Plan.* • Consider amenity impacts in building design and limit noise, odour smell and wind impact to residential areas. • Be designed to provide equitable access to sunlight in the public realm. • Provide public toilets in safe and accessible locations. • Locate loading areas, building plant facilities, waste collecting points and any other back of house facilities including mechanical plant/service structures at the rear of buildings, and provide appropriate visual screening to avoid adverse amenity impacts. • Be designed to minimise views to car parking areas. • Be designed to minimise the need for privacy screens. • Mixed-use developments to be designed to avoid conflict between residential and commercial tenants in the future. • Activate façades through considered treatments including but not limited to murals, green walls, and architectural articulation. • Encourage flexible building design that can support different uses such as residential, offices, co working hubs, startups and creative industries, particularly on upper floors. • Buildings on the CCB must directly address the CCB and/or town square so that the use integrates with and promotes activity within the CCB and public spaces. 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. • Encourage variation of façade materiality, roof forms, treatments and articulation between adjoining buildings. • Encourage use of sustainable building materials, with preference towards recycled materials.

A5. ACTIVITY CENTRES

T24. ACTIVITY CENTRE & COMMERCIAL DEVELOPMENT DESIGN PRINCIPLES

DESIGN PRINCIPLE	DETAILS
PRINCIPLE 5 **ESD & ZERO CARBON** Activity Centres and commercial development will demonstrate best practice ESD and zero carbon from the design stage through to construction and operation.	• Provide energy efficient design, buildings and construction methods. • Optimise passive solar orientation. • Implement appropriate design solutions to minimise building energy consumption and maximise internal user comfort, such as external shading and appropriate glazing and ventilation. • Minimise urban heat island effect through light roofs, canopy coverage and minimising hardscaped surfaces. • Use renewable energy for heating and cooling. • Create comfortable microclimates by including provision of shades and shelters (sun and wind). • Employ WSUD principles and provide WSUD elements in streetscape and car parking design. • Group waste collection points where possible. • Investigate other opportunities for built form to reduce greenhouse gas emissions associated with the construction and ongoing operation of buildings to net zero. • Incorporate space for EV charges into car park design. • Incorporate bicycle parking facilities and supporting infrastructure.

DESIGN PRINCIPLE	DETAILS
PRINCIPLE 6 **STREET FURNITURE AND URBAN ART & DESIGN** Public art and street furniture will be functional, visually appealing and contribute to a unique sense of place.	• Incorporate robust and easy to maintain public art and objects into the design of the public realm that supports safety and amenity whilst being visually appealing. • Consider artistic opportunities inspired by local creatives and cultural connections from the region. • Appropriately locate street and park furniture in areas that are highly visible and close to or adjoining pedestrian desire lines/gathering spaces which are functional, attractive, and comfortable. • Design street lighting and signage to avoid unnecessary spill to residential uses and roads while supporting night users and creating a sense of safety. • Incorporate signage into the design of buildings. • Design of the streetscape should include signages to provide wayfinding opportunities for pedestrians and cyclists. • Design illuminated signage to avoid excessive light spill. • Encourage the selection of street furniture with high levels of recycled content.

A6. SERVICE PLACEMENT GUIDELINES

T25. SERVICE PLACEMENT GUIDELINE

SERVICE	UNDER PEDESTRIAN PAVEMENT	UNDER NATURE STRIPS	DIRECTLY UNDER STREET TREES	UNDER KERB	UNDER ROAD PAVE-MENT	WITHIN ALLOT-MENTS	NOTES
Sewer	Preferred	Possible	Not Preferred	No	Not Preferred	Possible (1)	1. Rear easement sewer and drainage lines are common on allotments. Less common are sewer and drainage easements within front setback of allotment.
Potable Water	Not Preferred (2)	Preferred	Not Preferred	No	Possible (3)	No	2. Property connections under hard services require Fitzroy boxes. 3. Placement of services under road pavement is typically not preferred by authorities. However, consideration may be given to placement of services beneath parking bays and bicycle lanes.
Recycled Water	Not Preferred (2)	Preferred	Not Preferred	No	Possible (3)	No	4. Property connections under hard services require Fitzroy boxes. 5. Placement of services under road pavement is typically not preferred by authorities. However, consideration may be given to placement of services beneath parking bays and bicycle lanes.
Gas (4)	No	No	No	No	No	No	6. The precinct will not be serviced by gas. If and where gas must be provided to a critical non-residential land use, preferred placement for gas services is under nature strips or directly under trees (under pedestrian pavement also possible).
Electricity	Preferred (5, 6)	Preferred (6)	Not Preferred	No	Not Preferred	No	7. Subject to power authority approval. 8. Pits are to be placed either wholly within the footpath or wholly within the nature strip.
FTTH/ Telecomm-unications	Possible (6)	Preferred	Not Preferred	No	Not Preferred	No	9. Pits are to be placed either wholly within the footpath or wholly within the nature strip.
Drainage	Not preferred	Possible	Not Preferred	Pre-ferred	Not Preferred	Not Preferred (1)	10. Rear Easement sewer and drainage lines are common on allotments. Less common are sewer and drainage easements within front setback of allotment.
Trunk Services	Possible	Possible	Not Preferred	Possible	Possible	No	

Notes:

- Placement of services under street trees and nature strips is not preferred by Council. Service placement must not negatively impact the long-term growth of any street tree.
- In accordance with IDM SD630 a tree root zone of 0.6 m depth must be applied where services are placed under nature strips. Any service installation must be at a greater depth than the tree root zone.
- Trees are not to be placed directly over property service connections.
- 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.
- Where allotment size/frontage width allows adequate room to access and work on a pipe .
- Place water supply on 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.

A7. CANOPY COVER

A7.1 CANOPY COVER REQUIREMENT BY LAND USE

Deleted.

A7.2 EXAMPLE TREE SPECIES LIST

T26. EXAMPLE TREE SPECIES LIST

SPECIES	TREE CANOPY DIAMETER (M)	STREETSCAPE TREE LISTS (BY DIAMETER)			
		3-7M	5-20M	7-20M	10-20M
Cupressus sempervirens 'Stricta'	3				
Quercus palustris 'Pringreen'	3				
Koelreuteria 'Golden Candles'	3				
Prunus cerasifera 'Oakville Crimson Spire'	3				
Elaeocarpus eumundii	4				
Lagerstroemia indica	4				
Prunus cerasifera 'Nigra'	4				
Prunus x blireana	4				
Pyrus calleryana 'Capital'	4				
Pyrus calleryana 'Southworth Dancer'	4				
Brachychiton 'Griffith Pink'	5				
Tilia 'Greenspire'	5				
Zelcova 'Mushashino'	5				
Acer platanoides 'Globosum'	6				
Banksia marginata	6				
Pyrus calleryana 'Chanticleer'	6				
Pyrus calleryana x Pyrus betulaefolia 'Edgewood'	6				
Pyrus fauriei 'Korean Sun'	6				
Ulmus parvifolia 'Todd', 'Burnley Select', 'Inspire'	6				
Acer freemanii 'Jeffersred'	8				
Acer negundo 'Sensation'	8				
Brachychiton populneus	8				
Fraxinus excelsior 'Aurea'	8				
Fraxinus pennsylvanica 'Urbanite'	8				
Fraxinus pennsylvanica 'Cimmaron'	8				
Robinia pseudoacacia 'Frisia'	8				

SPECIES	TREE CANOPY DIAMETER (M)	STREETSCAPE TREE LISTS (BY DIAMETER)			
		3-7M	5-20M	7-20M	10-20M
Gleditsia triacanthos var. inermis 'Shademaster'	10				
Lophostemon confertus	10				
Melia azederach	10				
Fraxinus angustifolia 'Raywood'	12				
Ulmus glabra 'Lutescens'	12				
Waterhousea floribunda	12				
Brachychiton acerifolius	15				
Eucalyptus sideroxylon	15				
Eucalyptus sideroxylon 'Rosea'	15				
Quercus palustris	15				
Platanus acerifolia	20				
Quercus robur	20				

5.0

GLOSSARY

5.0 GLOSSARY

A

Annual Exceedance Probability (AEP)
The probability that a given rainfall total accumulated over a given duration will be exceeded in any one year.

Active open space
Land designated for formal outdoor sports. May also include passive recreation opportunities.

Active transport
Relates to physical activity undertaken as a means of transport including walking, cycling and the use of other non-motorised vehicles.

Amenity Areas
Areas adjacent to the NAC, the Clever and Creative Boulevard, open spaces and public transport routes where medium density and a diverse range of building forms is encouraged. Appropriate non-residential uses are supported in order to support 20-minute neighbourhoods. These areas have been selected for their proximity to activity centres, sustainable transport link and placemaking opportunities.

B

Blue green infrastructure
An urban area designed to incorporate natural systems that provide the ecological and amenity value associated with urban greening, and also provide stormwater management. Often 'green' assets (trees, parks, gardens) and 'blue' assets (WSUD drainage areas and flood storage) are planned separately, however often the same asset can provide multiple services that benefit both 'green' and 'blue' objectives.

C

Canopy tree
A tree with spreading branches with a diameter no less than 3m at maturity.

Cultural Heritage Management Plan (CHMP)
A written report prepared by a Heritage advisor that assesses the potential impact of a proposed activity on Aboriginal cultural heritage. It then outlines measures to be taken before, during and after an activity to manage and protect Aboriginal cultural heritage in the area. For some activities proposed in some areas, a CHMP is required by law.

Community Infrastructure Levy (CIL)
The Planning and Environment Act 1987 enables the DCP system to impose a community infrastructure levy (levy) to fund projects involving the construction of community buildings or facilities. Applied to new development for community infrastructure (can include libraries, sporting facilities etc) and is paid by a landowner prior to a Building Permit being issued (unless agreed to be paid by the developer).

Crime Prevention through Environmental Design (CPTED)
A multi-disciplinary approach of crime prevention that uses urban and architectural design and the management of built and natural environments. Wide-ranging recommendations to architects include the planting of trees and shrubs, the elimination of escape routes, the correct use of lighting, and the encouragement of pedestrian and bicycle traffic in streets.

D

Drainage corridor (DC)
An above-ground swale, gully or impression in the landscape that carries stormwater runoff or spring water.

Development Contributions Plan (DCP)
The Planning and Environment Act 1987 (the Act) enables the DCP system to impose a community infrastructure levy (levy) to fund projects involving the construction of community buildings or facilities. The requirements for development proponents to contribute towards basic/ essential infrastructure required to support development of the precinct.

Design guidelines
Prepared by subdivision permit applicant as a condition of permit to address dwelling/lot level sustainability. May include considerations such as housing footprint, renewable energy generation and storage, passive heating and cooling, urban heat mitigation, ground permeability and vegetation outcomes.

Development Infrastructure Levy (DIL)
Applies to developments and contributes to funding development infrastructure.

Development Services Scheme (DSS)
A masterplan for drainage in a specific catchment area. The scheme guides the standards in order to provide effective flood protection, water quality and waterway health.

E

Ecological Vegetation Classes (EVC)
Standard unit for classifying vegetation types in Victoria. EVCs are described through a combination of floristics, lifeforms and ecological characteristics, and through an inferred fidelity to particular environmental attributes.

Encumbered open space
Land that is constrained for development purposes.

- Environmental risks such as flooding and landslip
- Infrastructure and easements, such as utilities and drainage
- Retarding basins or wetlands
- Contamination or landfill
- Habitat conservation and native vegetation
- Heritage values
- Waterways and drainage
- Buffer areas
- Steep slopes

These areas may be used for a range of recreation activities (walking trails, sports fields), however is not provided as credit against public open space requirements.

Environmentally Sustainable Development (ESD)
A set of principles which aim to improve the health and comfort of buildings for occupants whilst at the same time reducing negative impacts on the environment. ESD can provide affordable living outcomes, improved comfort levels and environmental benefits.

N

Neighbourhood Activity Centre (NAC)
The NAC Precinct is the area nominated as 'NAC Precinct' in *Plan 10 Activity Centres* which will require an Urban Design Framework be prepared prior to development. A NAC is a local centres that provide access to local goods, services and employment opportunities and serve the needs of the surrounding community. These centres serve smaller, local areas and have an important role in giving people the ability to meet most of their everyday needs within a 20-minute walk, cycle or local public transport trip of their home.

Net Developable Area (NDA)
Land within a precinct available for development. This excludes encumbered land, arterial roads, railway corridors, significant heritage, schools and community facilities and public open space. It includes lots, local streets and connector streets. Net Developable Area may be expressed in terms of hectare units (i.e. NDHa).

Net Developable Area – Residential
As for Net Developable Area but excluding commercial/ retail component of town centres and other existing or permitted non-residential land uses (e.g. golf course sites).

P

Permeable Street Network
This refers to the extent to which the urban structure permits, or restricts, the movement of people or vehicles through an area, and the capacity of the area network to carry people or vehicles. Walking and cycling is prioritised to create a direct and safe street network.

5.0 GLOSSARY

U

Unencumbered open space
Land designated for open space without encumbrances such as easements, flooding, waterways/drainage, conservation etc. Only unencumbered open space is recognised as open space development contribution.

Urban Design Framework (UDF)
An Urban Design Framework (UDF) is a strategic planning tool that sets out a design vision for the future development of a place. It includes aims for the future area which may be brought into force by a planning scheme amendment.

W

Works in Kind (WIK)
Either works or land or a combination of both that a developer provides under a WIK agreement in lieu of paying cash. Developers may elect to provide DCP infrastructure items to offset their development contributions liability, this is known as providing 'works in kind'.



6.0

REFERENCES

6.1 Abbreviations 188

6.1 ABBREVIATIONS

CCC
Clever and Creative Corridor

CCB
Clever and Creative Boulevard

LCC
Local Convenience Centre

NAC
Neighbourhood Activity Centre

NWGGA
Northern and Western Growth Areas

NVPP
Native Vegetation Precinct Plan

PSP
Precinct Structure Plan

WGGA
Western Geelong Growth Area

WLRB
Wetland and Retarding Basin



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