

Ballarat West Precinct Structure Plan



CITY OF BALLARAT
February 2025



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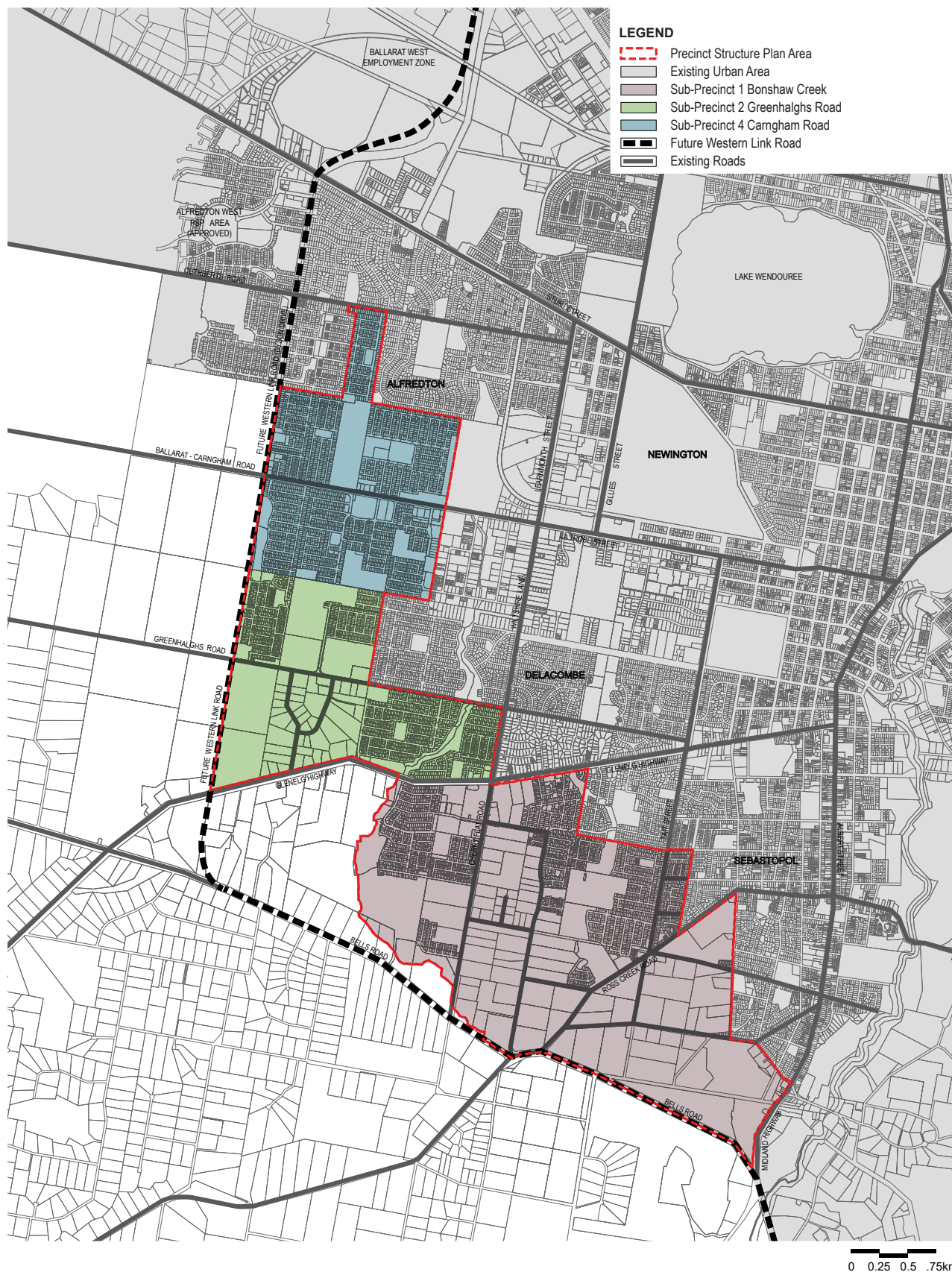
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Plan 1 PSP Area



1 Introduction

The Ballarat West Precinct Structure Plan (Ballarat West PSP) has been prepared by the City of Ballarat (Council) with the assistance of government agencies, service providers and key stakeholders. The document should be read in conjunction with the Ballarat West Native Vegetation Precinct Plan (Ballarat West NVPP) and the Ballarat West Development Contributions Plan (Ballarat West DCP).

The role of these documents and their inter-relationship with the Ballarat West PSP are set out below.

The Ballarat West PSP is a comprehensive plan which provides direction for future urban development within the Ballarat West Precinct and is informed by the Ballarat West Growth Area Plan (2009). The Ballarat West PSP describes how land is expected to be developed and identifies the community infrastructure and services required to support development.

The Ballarat West PSP guides the delivery of a quality urban environment in accordance with current best practice and Victorian Government Guidelines. The Ballarat West PSP:

- Enables the transition of non-urban land to urban land;
- Sets out the vision for how land should be developed and the objectives to be achieved;
- Determines the overall layout of future land use and development;
- Outlines projects required to ensure that future residents, visitors and workers within the Precinct can be provided with timely access to services, transport, jobs, shops, open space and recreation facilities to support a quality, affordable lifestyle;
- Details the form and conditions that must be met by future land use and development;
- Provides the basis for the use and development controls that apply in the Schedule 2 to the Urban Growth Zone (UGZ2) and identifies which permits may be granted under this Schedule;
- Provides developers, investors and local communities with certainty about future development within the Ballarat West PSP area; and
- Enables the assessment, protection and enhancement of biodiversity and heritage values in the Precinct.

The Ballarat West PSP is informed by:

- The State Planning Policy Framework set out in the Ballarat Planning Scheme and the Precinct Structure Planning Guidelines (Victorian Planning Authority 2021);
- The Ballarat West Growth Area Plan (2009); and
- The Local Planning Policy Framework of the Ballarat Planning Scheme, including local policies and strategies.

The Ballarat West DCP has been prepared concurrently with this document. The DCP sets out requirements for development proponents to make a contribution toward the necessary infrastructure to support the implementation of the Ballarat West PSP. The Ballarat West DCP only applies to the Ballarat West PSP area.

1.1 Land to which the Precinct Structure Plan Applies

The Ballarat West PSP applies to approximately 1,290 hectares of land in the Ballarat West Growth Area as shown in Plan 1. The land is zoned Urban Growth Zone (UGZ) Schedule 2. The Ballarat West PSP comprises three Sub-Precincts as shown on Plan 1.

- Sub-Precinct 1: Bonshaw Creek is approximately 707 hectares;
- Sub-Precinct 2: Greenhalghs Road is approximately 296 hectares; and
- Sub-Precinct 4: Ballarat-Carngham Road is approximately 287 hectares.

The Ballarat West Growth Area also includes the Alfredton West Precinct (now renamed Lucas). Lucas was originally identified as Sub-Precinct 3, and does not form part of the Ballarat West PSP. The Alfredton West Precinct was prepared by the developer for the area in conjunction with City of Ballarat and was approved in June 2011.



1.2 The Ballarat West Native Vegetation Precinct Plan

The Ballarat West NVPP has been prepared to enable native vegetation issues to be considered in a co-ordinated way across the Ballarat West PSP area. The Ballarat West NVPP has been prepared in a manner consistent with the requirements of Clause 52.16 of the Ballarat Planning Scheme. It identifies:

- Native vegetation which may be removed without a planning permit;
- Native vegetation which cannot be removed without a planning permit;
- The offset that must be provided to remove affected native vegetation; and
- Conditions that must be met in relation to vegetation that is to be protected.

The Ballarat West NVPP is one of the planning tools used to facilitate development and is a separate incorporated document within the Ballarat Planning Scheme (Schedule to Clause 72.04).

1.3 Implementation

The Ballarat West PSP is implemented by:

- Development proponents who develop land generally in accordance with this PSP;
- The Victorian Government, the City of Ballarat and developers by funding, delivering and managing a range of infrastructure and services to support the development of the Precinct;
- Non-government service providers and individuals such as volunteers who manage and deliver services; and
- The Ballarat Planning Scheme including:
 - Schedule 2 to the Urban Growth Zone at Clause 37.07;
 - The Ballarat West Development Contributions Plan incorporated in the Scheme at Clause 45.06;
 - The Ballarat West Native Vegetation Precinct Plan incorporated in the Scheme at Clause 52.16;
 - Open space requirements under Clause 53.01 of the Scheme;
 - Applying the Environmental Audit Overlay at Clause 45.03 to land with a high potential for contamination;
 - Applying the Heritage Overlay at Clause 43.01 to identified heritage sites of local significance; and
 - Any other requirements of the Ballarat Planning Scheme.

1.4 Reference Material

A Glossary and other information such as technical studies supporting the preparation of this PSP are listed in Section 6 – Other Information.

1.5 Monitoring and Review

The City of Ballarat will monitor the implementation of the Ballarat West PSP. The effectiveness of the Ballarat West PSP will be evaluated regularly, at least every five years. The Ballarat West PSP may be revised and updated following review, which may trigger a review of the Ballarat West DCP.

The first review of this PSP was undertaken in 2016.

The main features of the review included in the revised document are summarised below:

- A review and update of the document to ensure that the content is current and the original vision of the PSP is realised
- Reviewing and updating of infrastructure requirements
- Update to the existing and proposed land use and built form changes including provision of public open space
- Update to all relevant plans where changes have occurred including the Future Urban Structure Plan
- Update of the Net Developable Area and Table 1 Summary Land Use Budget
- Update to Table 2 Distribution of Housing Densities to reflect development that has occurred and anticipated yields currently being delivered
- Identification of any updates required to environmental and biodiversity objectives. This specifically relates to the NVPP and Growling Grass Frog Conservation Management Plan (GGF CMP).

The review is informed by the following technical reports:

- Transport Projects Review, Milward Engineering Management, February 2024
- Community and Recreation Infrastructure, ASR Research, May 2024
- Ballarat West PSP Review Drainage Strategy Update, Engeny, 19 December 2024



2 Strategic Context

Plan Melbourne 2017-2050 (2017) identifies a number of regional cities including Ballarat, that the State Government will invest in to support housing and economic growth, as well as improving connections between cities and regions.

The Ballarat municipality is expected to grow by 55,000 people in 2041. The Ballarat Strategy 2040 (2015) identifies the need for planning for at least 15 years of land supply for housing in greenfield sites, which includes opportunities for medium to long term greenfield development for future housing to support the growing population in Ballarat.

The focus on housing is underpinned by the Housing Statement (2023), which outlines the State Government's commitment to the delivery of 2.24 million homes to support the growth of Victoria by 2051. There will be 425,600 homes constructed in regional Victoria.

As part of the Housing Statement, the \$1 billion Regional Housing Fund will deliver more than 1,300 homes across Regional Victoria to deliver a mix of social and affordable housing. There will be 34 homes proposed to be delivered in the Central Highlands region.

Additional programs include the Big Housing Build, which is a \$5.3 billion program that includes 25 per cent of social and affordable homes to be delivered in regional Victoria. This program is currently underway.

Another is the Development Facilitation Program which will streamline the planning process for significant regional housing developments which are worth at least \$15 million and deliver at least 10 per cent affordable housing (including built-to-rent projects).

2.1 District Context

The Ballarat West PSP area is located approximately 5km west of Ballarat CBD and 120km from Melbourne.

The Central Highlands Regional Growth Plan (2014) identifies that the Central Highlands Region, in which Ballarat is located, is viewed as a sustainable living alternative to Melbourne with the population of Ballarat expected to increase by 32,200 people between 2011 and 2031. It identifies the key strengths of Ballarat and the Central Highlands Region including:

- its location on the east-west transport corridor connecting Melbourne, western Victoria and Adelaide;
- proximity to the western metropolitan area of Melbourne, where major infrastructure and population growth is planned;
- the most developed and integrated higher education and training system network in regional Victoria;
- the highest concentration of IT and computing services and capacity in regional Victoria;

- location within a highly productive agricultural area; and
- an economy that is restructuring and embracing new opportunities in areas such as IT, advanced manufacturing, education and tourism.

The Regional Growth Plan identifies that Ballarat is able to attract and support people who relocate from Melbourne and elsewhere and has significant opportunities to capitalise on its proximity and connections to Melbourne.

Urban growth in Ballarat is recognised as an alternative to growth around metropolitan activity centres which lack the infrastructure, services and jobs already available in Ballarat.

The Regional Growth Plan supports urban growth in the Ballarat West Growth Area and recognizes this is a major growth area for the Central Highlands Region.

Ballarat also provides highly regarded primary and secondary education services and higher order health services for the Central Highlands Region through the Ballarat Base Hospital and St John of God Hospital.

High-quality rail services connect Ballarat with Melbourne, Ararat and Maryborough with the Ballarat Railway Station located at the northern end of the CBD and the Wendouree Railway Station, which offers park and ride services, located approximately 3km to the north of the Ballarat West PSP area.

There will be improved access through transport infrastructure upgrades such as the Regional Rail Link as Melbourne's western growth corridor continues to develop into the future.

There is an opportunity to connect these railway stations with the Ballarat West PSP area through future bus services.

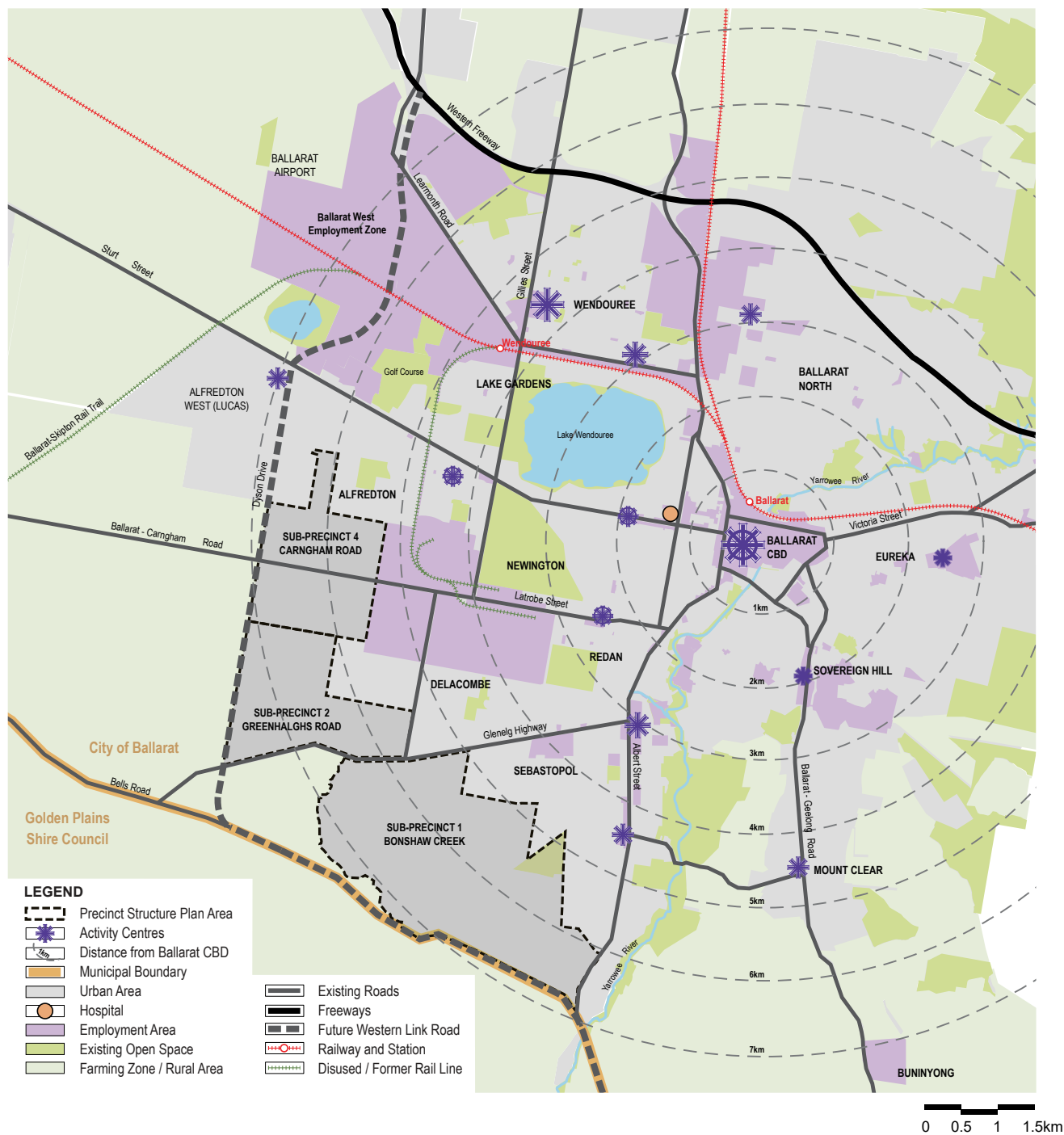
The Ballarat Airport is located approximately 3 km north of the site and provides a key infrastructure node for Ballarat and the region. Council continues to undertake extensive investigations into potential development options (including industrial, commercial and associated development opportunities) for the Airport and adjacent land, collectively known as the Ballarat West Employment Zone.

The Western Freeway is the key road transport corridor between Melbourne and Ballarat. The Midland Highway provides regional road connections from Ballarat to Geelong and Bendigo. The Glenelg Highway provides the road connection from Ballarat to Hamilton.

Improved connections from the Ballarat West PSP area to the Western Freeway will be created by the proposed Western Link Road which defines the outer south-western extent of the Ballarat West PSP area. Plan 2 shows the site in its district context.



Plan 2 District Context



2.2 Local Context

Plan 3 shows the site within its local context.

Ballarat is the largest inland urban centre in Victoria. It is part of the municipality of the City of Ballarat which encompasses an area of 740 square kilometres

2.2.1 History

The Wadawurrung people have inhabited the land in the Ballarat West PSP area for at least the last 25,000 years. The Wadawurrung territory extended from the southern side of Werribee River to Port Phillip, the Bellarine Peninsula, the Otway forests, and northwest to Mount Emu and Mount Misery, and encompassed the Ballarat goldfields.

The post-contact heritage of Ballarat is defined by its gold mining past. Ballarat is one of the most significant Victorian era boomtowns in Australia. Gold was discovered near Ballarat in 1851 spawning the Victorian gold rush.

Ballarat was found to be a rich alluvial field where gold could easily be extracted. The arrival of over 10,000 migrants to the city within a year transformed it from a sheep station to the largest settlement in the newly proclaimed Colony of Victoria.

2.2.2 Employment and Activity Centres

Activity Centres

Ballarat's large, centrally located Central Business District (CBD) comprises an estimated 194,749 square metres of retail floor space, located in approximately 500 retail tenancies. It provides retail, commercial, community, education and cultural facilities which serve the Western Victoria region.

The City of Ballarat has recently completed a CBD Strategy which seeks to guide the growth and revitalisation of the CBD over the long term. The CBD is supported by activity centres of varying sizes including:

- a Major Activity Centre at Wendouree in the northwest of Ballarat;
- two large Neighbourhood Activity Centres; Howitt Street and Sebastopol North; and
- A mixture of small and Local Activity Centres including a smaller Neighbourhood Activity Centre at Sebastopol and Lucas.

Since the Ballarat West PSP was prepared, the Major Activity Centre identified at Delacombe has been partially constructed. Some land changes have occurred through the planning permit process which will be reflected in the amended Future Urban Structure and other relevant plans.

Employment

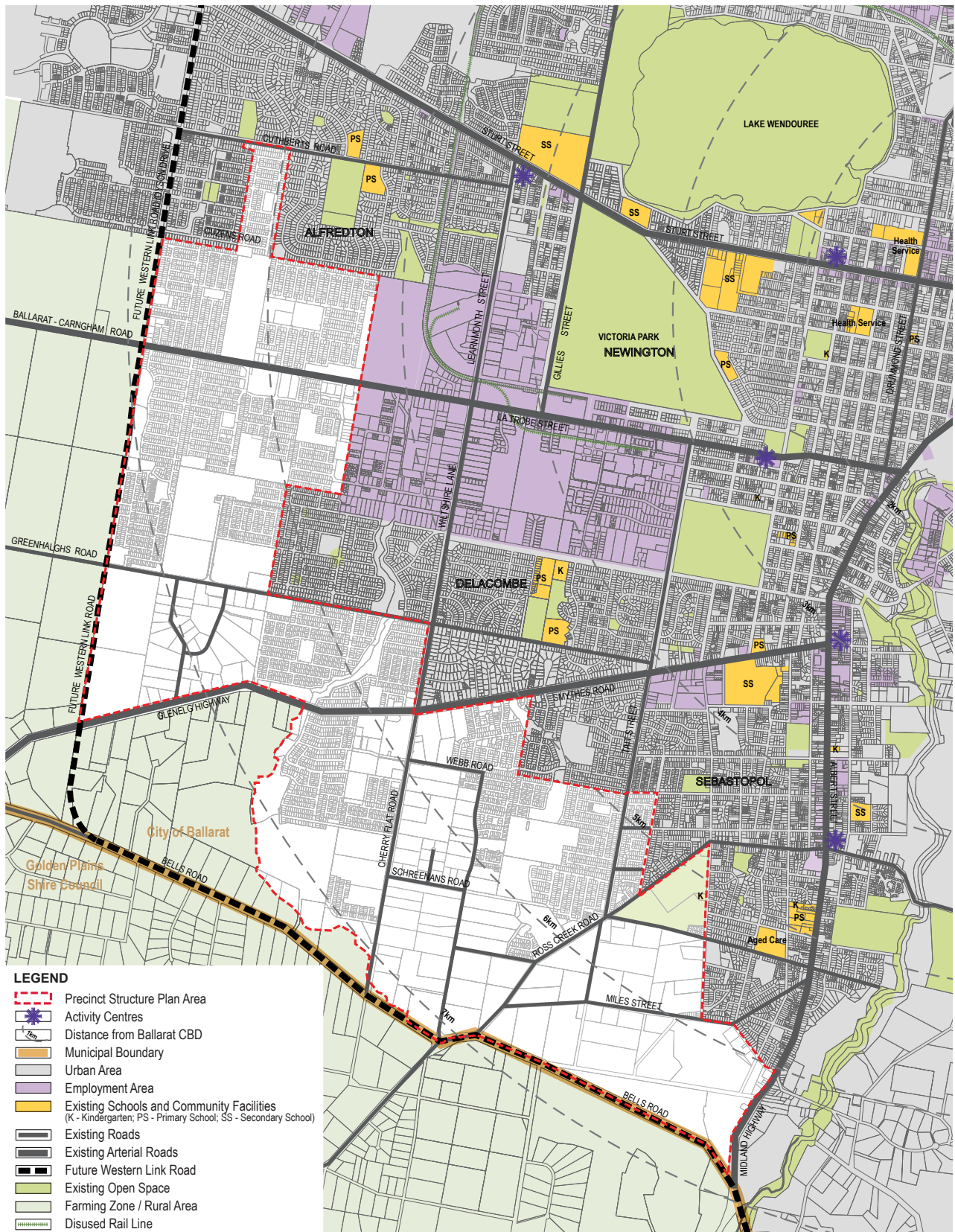
There are a number of employment areas that surround the Ballarat West PSP area which are expected to provide employment opportunities for future residents.

These include:

- Ballarat CBD, which acts as the primary employment centre for retail and commercial jobs. This includes the hospitals and health precinct on Mair and Drummond Streets, which is a major employment node for the city;
- The Delacombe Industrial Area abuts the eastern boundary of Sub-Precinct 4 and currently provides various industrial employment opportunities comprising a mix of large and small businesses;
- The Ballarat West Employment Zone located to the north of the Ballarat West PSP area. It comprises a large area of land at and around the Ballarat Aerodrome, the southern extent of which is approximately 2.5km from the Ballarat West PSP area. The Ballarat West Employment Zone is a critical asset for the Ballarat community, with significant potential as an airport to service the region's aviation needs, as well as providing a future supply of industrial and employment based activities. This area will provide opportunities for new industrial, freight and aviation business; and
- The existing activity centres, education and community facilities in the surrounding neighbourhoods will also provide local employment opportunities.



Plan 3 Local Context



0 0.25 0.5 .75km



2.2.3 Community Facilities

Ballarat is well serviced by a range of community facilities including education, passive and active open space, entertainment and health care facilities, all of which are easily accessible to the Ballarat West PSP area.

Primary and Secondary education facilities in close proximity to the Precinct include:

- Alfredton Primary School and St Thomas Moore Primary School in Alfredton;
- Delacombe Primary School and Lumen Christi Primary School in Delacombe;
- Lucas Primary School and Siena Catholic Primary School in Lucas;
- Sebastopol Primary School, St James Parish School, Phoenix P-12 Community College and Ballarat Christian College in Sebastopol;
- Ballarat High School;
- Loreto College;
- Ballarat and Clarendon College; and
- St Patricks College.

Early development in the Ballarat West PSP area will have good access to a range of social, health and community infrastructure including hospitals, childcare, maternal and child health, libraries and community centres in the CBD and surrounding neighbourhoods. New facilities for childcare, maternal and child health, libraries and community centres will be required as the population grows.

Since the Ballarat West PSP was prepared, two PSP projects, a childcare facility in the south of the PSP area and a combined childcare and community centre in the north of the PSP area have been delivered.

The Integrated Education precinct (comprising of one P-6 State School and one P-6 private school), active open space and community centre in Lucas (north-west of the Ballarat West PSP area) have also been delivered.

2.2.4 Open Space and Recreation

The Ballarat West PSP area is in close proximity to a range of passive and active open spaces and recreational facilities which cater for the variety of interests and ages within the community. These include:

- Ballarat Aquatic Centre;
- Alfredton Sports Reserve;
- Prince of Wales Park;
- Lake Wendouree;
- Botanical Gardens;
- Ballarat Skipton Rail Trail;
- Ballarat Golf Club;
- Victoria Park;
- Marty Busch Reserve;
- Moreshead Park; and
- Doug Dean Reserve.

As the population of the Ballarat West PSP area grows, some additional facilities will be required; particularly neighbourhood and district open spaces.

Additional regional sporting facilities will also be required as population in the Ballarat West PSP area grows, however existing regional facilities have the capacity to meet the needs of some sports such as golf and swimming

Since the Ballarat West PSP was prepared, a number of passive reserves have been delivered as part of developments and 4ha of active open space have been delivered. Remaining active open space requirements have been included in the community and recreation infrastructure review



2.2.5 Transport and Movement

The Ballarat West PSP area is currently traversed east-west by three key routes:

- Ballarat-Carngham Road, an arterial road that provides connections through to the Delacombe Industrial Area and Ballarat CBD. It also provides access to the Western Freeway via Dyson Drive and Sturt Street. Ballarat-Carngham Road is currently subject to a Public Acquisition Overlay to widen the section through the Ballarat West PSP area to a 40m road reservation to facilitate an ultimate 4 lane divided carriageway;
- Greenhalghs Road, a City of Ballarat road, provides an east-west connection from Delacombe, across Wiltshire Lane through the Ballarat West PSP area to the proposed Western Link Road; and
- Glenelg Highway is an arterial road and is a key transport route into Ballarat from Hamilton and south-west Victoria.

Key north-south routes that currently traverse the Ballarat West PSP area include:

- Wiltshire Lane / Learmonth Street, a City of Ballarat Road, providing north-south connections between Sturt Street / Remembrance Drive and the Glenelg Highway; South of the Glenelg Highway, Wiltshire Lane becomes Cherry Flat Road which connects with Bells Road (the future Western Link Road) to the south.
- A Public Acquisition Overlay in favour of the City of Ballarat applies to land on the east side of Cherry Flat Road, south of Schreenans Road; and

- Tait Street, a City of Ballarat Road, currently provides a north-south connection between the Glenelg Highway and Ross-Creek Road, which provides connections to Bells Road (the future Western Link Road).

The proposed Ballarat Western Link Road will improve access opportunities between the Ballarat West PSP area, the Ballarat West Employment Zone, the Western Freeway and Geelong. It will be directly accessed from the Ballarat West PSP area via Ballarat-Carngham Road, Greenhalghs Road, Glenelg Highway and so forth.

At present the public transport network consists of bus services along Dyson Drive and Cuthberts Road to the north and routes which run along the eastern edge of the Ballarat West PSP area through Delacombe and Sebastopol.

All routes provide direct access to Ballarat CBD.

The Ballarat West PSP area is also located approximately 5km from Ballarat Railway Station and 3km from Wendouree Railway Station.

There is currently only a limited on and off road bike path network in surrounding areas – however a much more extensive network is envisaged in the Ballarat Bicycle Strategy. Key existing links include:

- On-road cycle lanes along Wiltshire Lane between Ballarat-Carngham Road and the Glenelg Highway and along parts of Cuthberts Road; and
- Off-road paths within Alfredton that will eventually link to Victoria Park.

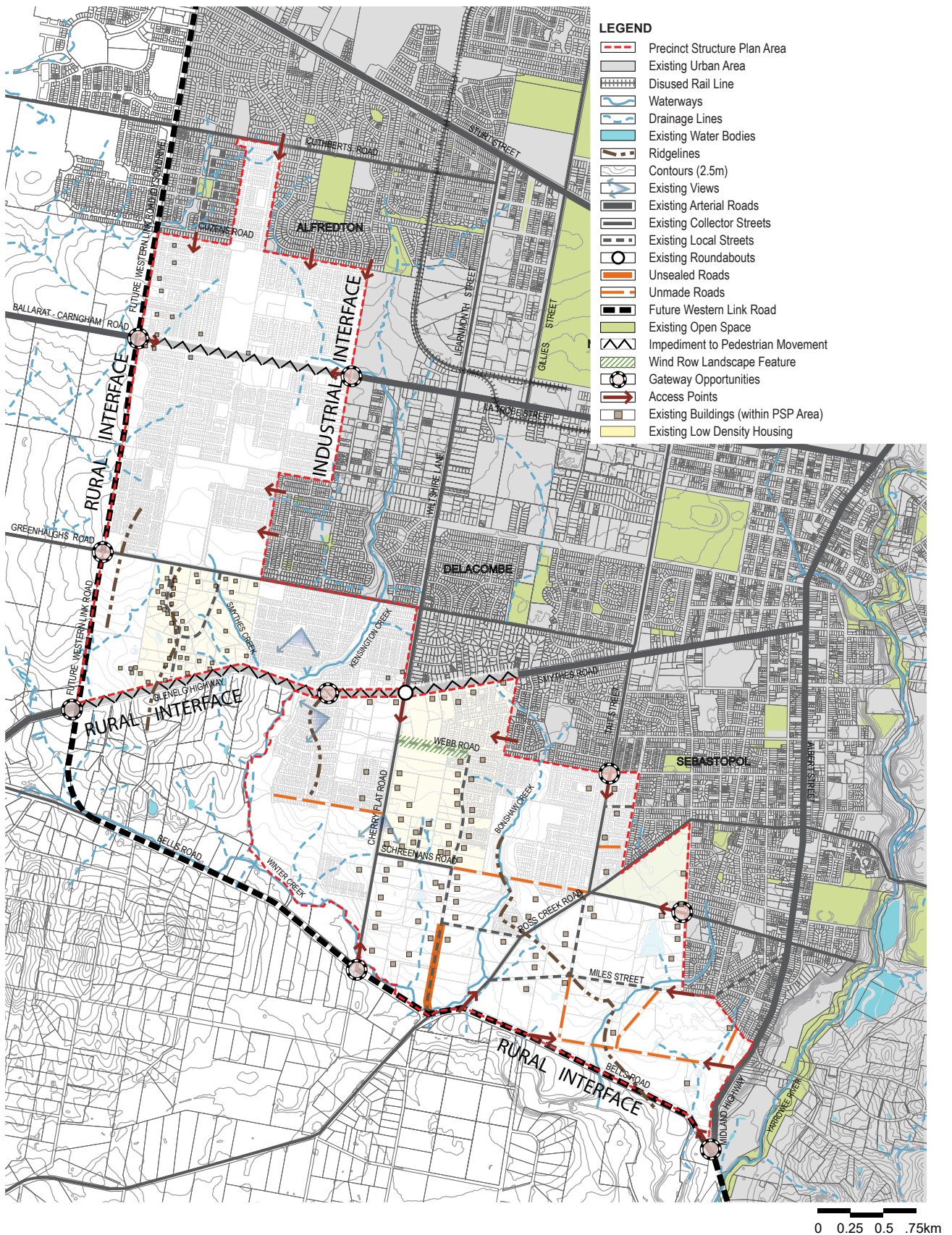
Footpaths exist within much of the surrounding street networks and can be connected into new developments to create an integrated walking network.

Since the Ballarat West PSP was prepared, a number of PSP transport projects have been or are in the process of being delivered, these include an upgrade to Tait Street and a major signalised intersection at Wiltshire Road and Glenelg Highway. The outstanding PSP transport projects are included in the review.



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Plan 4 Site Features



3 Precinct Features

Plans 4 to 7 show the key features of the Ballarat West PSP area as described in the following sections.

3.1 Topography and Landform

The northern section of the Ballarat West PSP area at Sub-Precinct 4 is relatively flat with mild undulating land.

In Sub-Precinct 2, south of Greenhalghs Road, the land falls towards the Glenelg Highway and Winter Creek.

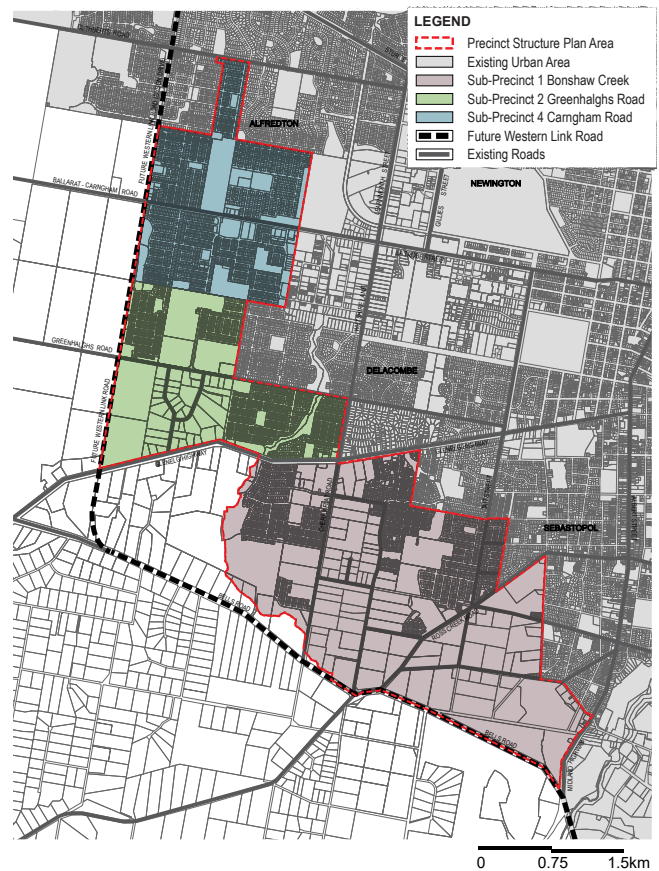
Within Sub-Precinct 2, Kensington Creek is defined by steep slopes which are unsuitable for development, with minor ridgelines along the western edge and centre (north to south). A minor plateau to the north-west of Kensington Creek provides views across the open farmland and rural landscape to the south.

The northern section of Sub-Precinct 1 to the south of Glenelg Highway and west of Tait Street is relatively flat. South-east of this area the topography slopes gradually towards the Winter, Bonshaw and Kensington Creeks, to a minor escarpment running north-west/south-east across the middle of the Sub-Precinct. Below the escarpment, the land falls gradually to the floodplains of Winter and Kensington Creeks.

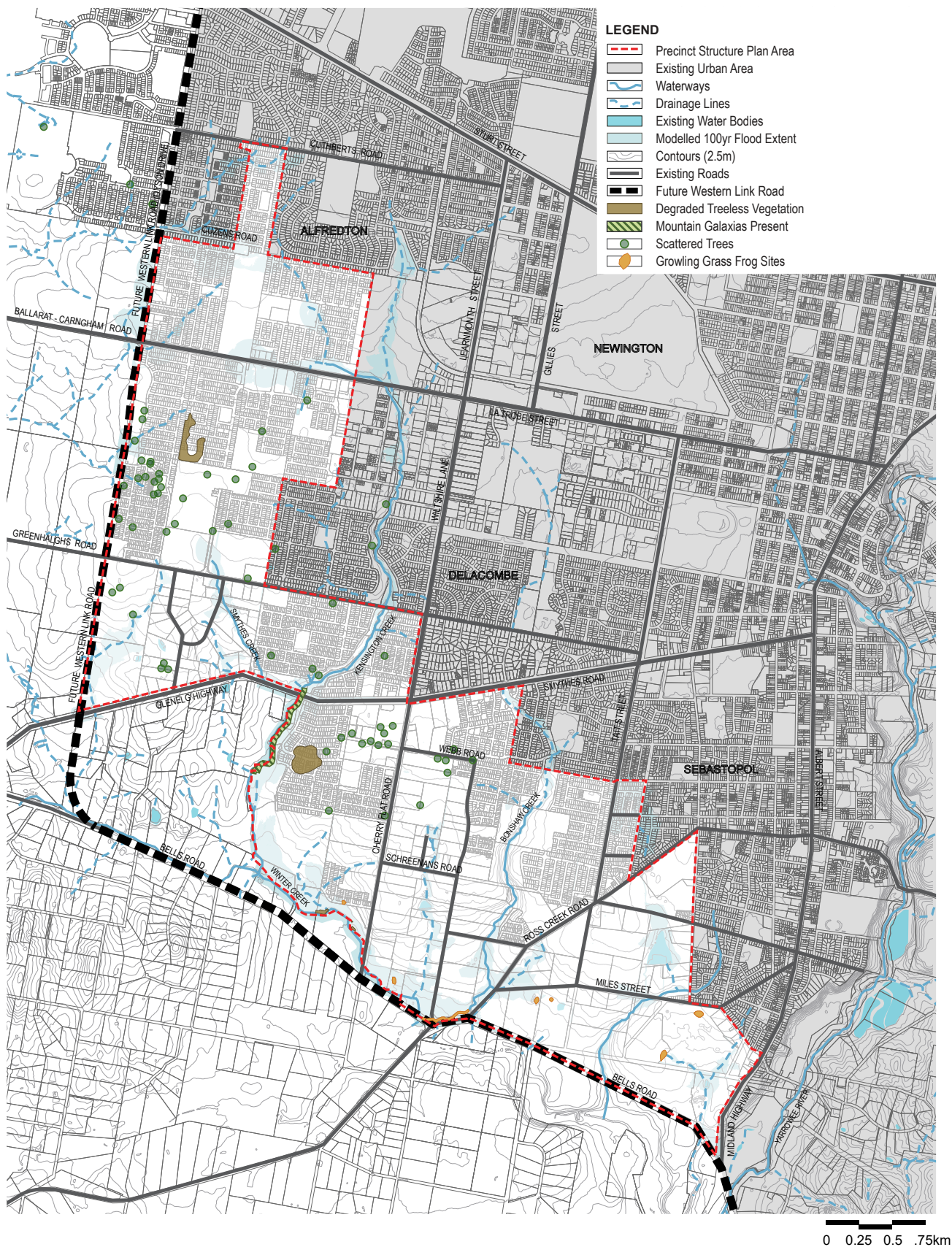
Winter and Kensington Creeks define the southern and western boundaries of the Ballarat West PSP area.

Kensington Creek, within Sub-Precinct 2, runs north-south through the eastern section of sub-Precinct. It has incised edges at the northern end, which present potential barriers crossings of this creek in this location.

Bonshaw Creek bisects Sub-Precinct 1. It runs north from Winter Creek and is incised in many places as it passes through the escarpment. The incised edges of the creek prevent crossing sections of the creek



Plan 5 Environmental Features



3.2 Biodiversity

3.2.1 Flora

The Ballarat West PSP area falls within the Victorian Volcanic Plains Bioregion. A Flora and Fauna Assessment of the area, undertaken in 2010 found that it is highly modified and dominated by exotic vegetation due to past clearance associated with agriculture and gold mining. In total, 57 remnant scattered trees of high and low significance were identified. The remnant vegetation is associated with two Ecological Vegetation Classes (EVCs): Plains Grassy Woodland and Creekline Herb-rich Woodland.

3.2.2 Fauna

The habitat within the Ballarat West PSP area was identified in the Flora and Fauna Assessment undertaken in 2010 as being highly fragmented. Notwithstanding this, a total of 62 fauna species were recorded, comprising of 54 birds (49 native and five introduced), five mammals (two native and three introduced) and three native frogs.

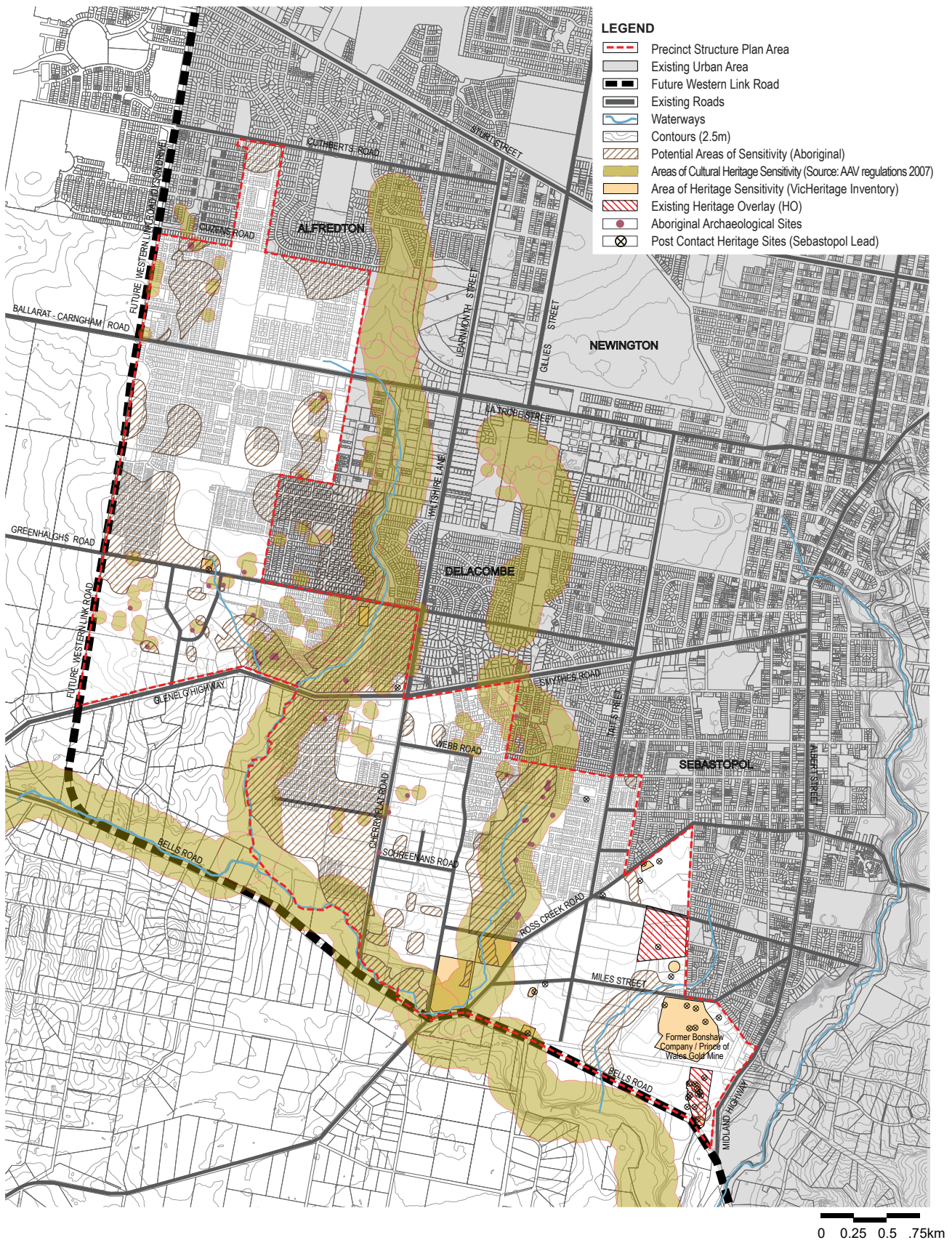
Targeted studies were undertaken in 2010 due to the presence of suitable habitat for the nationally significant fauna species, Growling Grass Frog *Litoria raniformis*. The Growling Grass Frog is listed as a Vulnerable species under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)*. It is also listed as a threatened species under the *Flora and Fauna Guarantee Act 1988*.

Growling Grass Frogs were recorded in the southern section of Sub-Precinct 1. One was recorded within the watercourse that runs along the south edge of the Precinct. The other recorded sightings were found in dams.

The targeted studies recorded eight Mountain Galaxias' along the Creek in the north-eastern section of Sub-Precinct 1. The Mountain Galaxias is listed as a threatened species under the *Flora and Fauna Guarantee Act* and is of State conservation significance.



Plan 6 Heritage



3.3 Heritage

3.3.1 Aboriginal Heritage

The Wadawurrung are the traditional inhabitants of this region. The Wadawurrung Traditional Owners Aboriginal Corporation is the Registered Aboriginal Party (RAP) under the *Aboriginal Heritage Act 2006*.

The Aboriginal and Historical Heritage Assessment undertaken in 2010 found that the Ballarat West PSP area contains a number of areas of cultural sensitivity, as defined by the *Aboriginal Heritage Regulations 2018*. In total, 26 Aboriginal heritage sites were identified in the Ballarat West Growth Area; 11 in Sub-Precinct 1, 10 in Sub-Precinct 2 and 3 in Sub-Precinct 4 (Refer to Plan 6).

The majority of the identified sites were found along creek lines, typically contained 1 to 2 isolated artefact scatters and were considered of low significance from a scientific perspective (the Wadawurrung people consider all artefacts to be of cultural significance). Two sites of moderate significance were identified in Sub-Precinct 1. Three sites of moderate significance were identified in Sub-Precinct 2. All sites of moderate significance were located along creek corridors.

The study that identified these artefact scatters also identified areas with potential to contain Aboriginal heritage material outside of the areas of cultural heritage sensitivity prescribed by the *Aboriginal Heritage Act 2006*.

The preparation of the Ballarat West PSP has incorporated the findings of the archaeological and heritage reports by creating linear open space corridors along creeks in order to protect these areas from development.

In accordance with the *Aboriginal Heritage Act 2006* and the *Aboriginal Heritage Regulations 2018*, all areas of cultural heritage sensitivity require a Cultural Heritage Management Plan (CHMP) to be prepared and approved prior to development of the land. Voluntary Cultural Heritage Management Plans have been recommended for areas identified as possessing potential Aboriginal heritage material.

Since the Ballarat West PSP has been prepared, the mapping of cultural heritage has changed (refer to Plan 6).

As most of Ballarat West has been developed, the requirement of a CHMP is subject to any changes to the mapping of cultural heritage. A suitably qualified person must demonstrate a CHMP is not required to the satisfaction of the Responsible Authority.

3.3.2 Post-Contact Heritage

The Aboriginal and Historical Heritage Assessment undertaken in 2011 found 11 post-contact heritage sites in Sub-Precincts 1 and 2. No post-contact heritage sites were identified in Sub-Precinct 4.

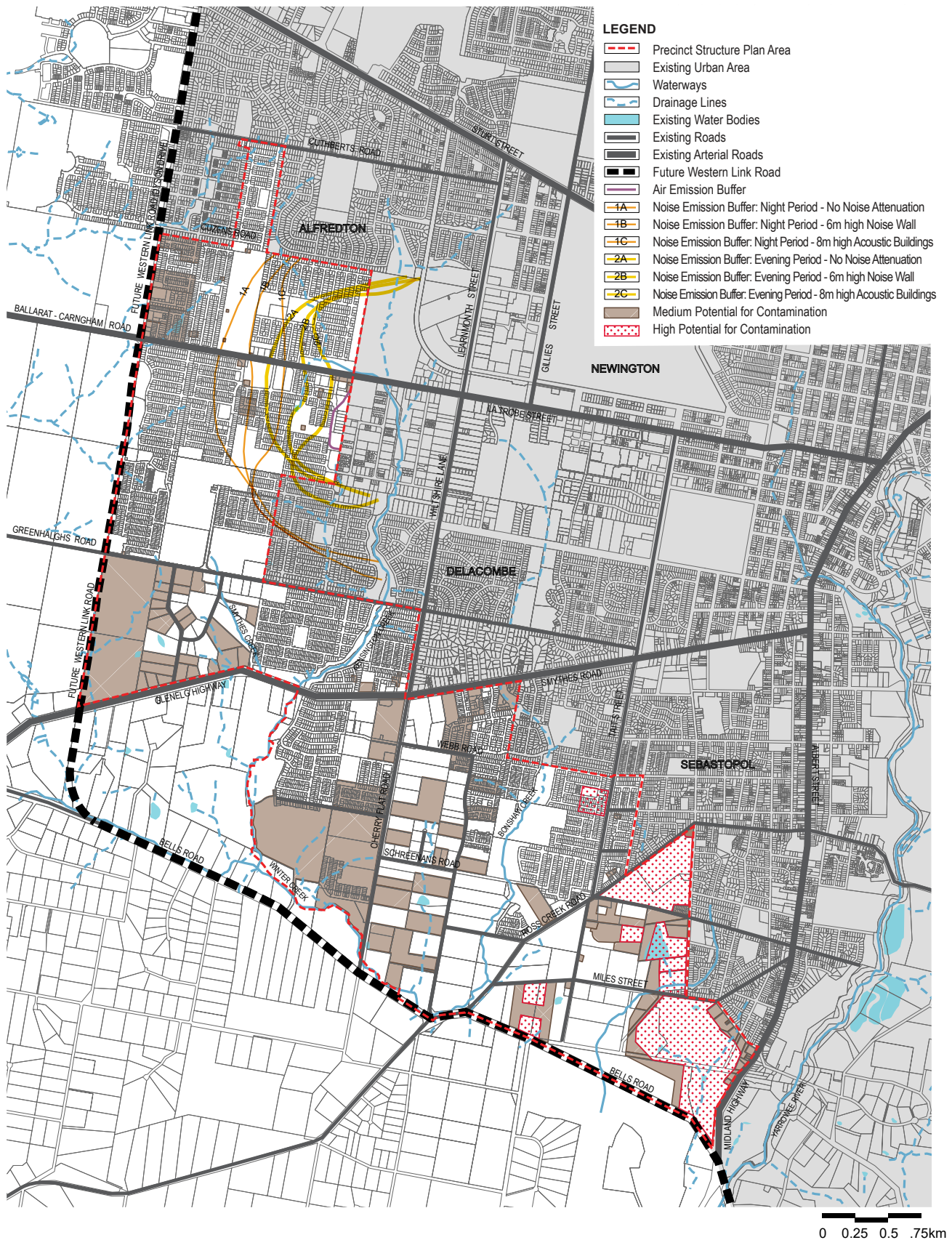
The heritage sites recorded relate to historic gold mining activities and later rural settlement in the area. Of the 11 sites identified, none were identified as being of State or regional significance; all are listed on the Victorian Heritage Inventory.

One of the sites (the former Bonshaw Company/Prince of Wales gold mine in Sub-Precinct 1) has been identified as being of local significance and will be protected through the City of Ballarat Planning Scheme. In addition, a series of former gold mining sites along the Sebastopol Lead has been identified as having importance as a cultural landscape. Both of these items are addressed through the Ballarat West PSP.

Sub-Precinct 1 also contains an existing heritage site which is covered by Heritage Overlay Schedule 142 (HO142) - Former St Joseph's Home, which is to be retained. This site is also being considered for State listing.



Plan 7 Environmental Issues



3.4 Catchments and Drainage

The Ballarat West PSP Area is mostly located within the Winter Creek Catchment, with a small area that flows more directly to the Yarrowee River via minor creeks. The management of the quantity and quality of water discharged from the Ballarat West PSP area is critical in ensuring there are no detrimental impacts to the existing watercourses within the catchment as a result of future development.

There are three existing named creeks within the Precinct: Kensington Creek, Winter Creek and Bonshaw Creek. This network forms a continuous creek corridor through Sub-Precincts 1 and 2. In existing urban areas adjacent to the Ballarat West PSP area, these creeks are supported by an existing drainage network consisting of open channels, underground pipes, pits, retarding basins and various hydraulic structures.

As part of the Ballarat West PSP, the Drainage Scheme for the study area has been reviewed. An integrated trunk drainage system is required to protect future properties and water quality. There are also opportunities for stormwater harvesting, for example for irrigation of sportsgrounds.

3.5 Site Contamination

In accordance with Ministerial Direction 1, studies have been carried out to identify areas within the Ballarat West PSP area that have Potential for Contamination (PFC) as a result of past land uses. Properties were classified into categories; High and Medium PFC. Areas identified as having a high PFC will have the Environmental Audit Overlay applied to them.

Areas identified as having a medium PFC will be required, where they are to be developed for sensitive uses, to provide evidence that the land is suitable for future use of the land prior to development commencing on any affected landholdings. Conditions to be met for medium PFC areas in relation to sensitive land uses, are detailed in the Urban Growth Zone Schedule that applies to the land.

Low PFC will be removed from Plan 7 in accordance with Ministerial Direction 1 and Planning Practice Note 30. This is based on previous studies as properties identified to be low PFC had no significant evidence of potential contamination.

Most of the properties have remained as farmland and do not have any structures or activities that have potential to contaminate.

3.6 Roads and Access

Ballarat Western Link Road

The Western Link Road will act as a key traffic route for Ballarat, linking the Western Freeway to the north of the airport and the Midland Highway to the south of Sebastopol. The proposed alignment of the Western Link Road will extend southward from Dyson Drive defining the western edge of Sub-Precincts 2 and 4 and the southern boundary of Sub-Precinct 1. The ultimate road design will be two lanes in each direction between the Western Freeway and Glenelg Highway, one lane in each direction between Glenelg Highway and Cherry Flat Road, and either one or two lanes from there to the Midland Highway, depending on future traffic volumes. Service lanes may also be provided by developers.

Access to the Western Link Road from the PSP area will be limited to Ballarat-Carngham Road, Greenhalghs Road, the Glenelg Highway, Cherry Flat Road, Ross Creek Road and the proposed Schreenans Lane extension. The Western Link Road will fulfil both a local and regional function in the PSP area as development occurs in the Ballarat West Growth Area. Land for part of the Western Link Road reservation will need to be reserved and acquired within the Ballarat West PSP area in Sub-Precincts

Opportunities for the Future Road Network

There are opportunities to provide an integrated, walking, cycling, public transport and vehicle network throughout the Ballarat West PSP area. Opportunity exists for an additional north-south link through Sub-Precincts 2 and 4 which will provide opportunity for public transport routes, walking and cycling paths.

Schreenans Road and Webb Road provide additional east-west connections in the southern parts of the Ballarat West PSP area. The new road cross section for these key roads will incorporate carriageways and verges that can accommodate public transport routes and bike and foot paths to support a range of transport nodes and provide walking and cycling connections throughout the precinct.

The Ballarat West PSP Road network, Public Transport and Walking plans provide for the extension of existing networks into the Ballarat West PSP Area and expansion of existing networks throughout the PSP area.



3.7 Land Use

3.7.1 Existing Land Uses

Land in the original Ballarat West PSP comprised predominantly farming and rural-residential land. Since the Ballarat West PSP has been prepared, as land has been developed only a part of Ballarat West remains as farming land.

Existing Low Density Residential Zoned Land

There are two existing areas of Low Density Residential Zone (LDRZ) within the Precinct:

- LDRZ Area 1 in Sub-Precinct 1 to the east of Cherry Flat Road and south of Glenelg Highway; and
- LDRZ Area 2 in Sub-Precinct 2 to the south of Greenhalghs Road and north of Glenelg Highway (Masada Boulevard and Fay Drive precinct).

LDRZ Area 1 comprises 110ha hectares across 48 properties. Properties in this low density area vary in size and character. Some properties are of conventional residential character while others have a more rural character. Landholdings vary in size from 4,000 square metres to over 16ha. Land could be subdivided to conventional residential densities in the medium term once services are available, however there would be a requirement to provide for additional access roads and public open space should this occur.

LDRZ Area 2 comprises 66 hectares across 45 properties. Due to the configuration of the streets, landholdings in this area have irregular shapes and sizes. The fragmented nature of landholdings in this area and the irregular shape of lots place constraints on how this area could be further developed. There is potential to further subdivide this area in the long-term to accommodate more conventional residential density, once services are available. New east-west road connections to the development will be critical to ensuring integration with future development.

A concept plan (figure 2) has been included for the Masada Boulevard/Fay Drive precinct which was previously zoned Low Density Residential. This plan is required to give guidance to landowners on how the existing parcel configuration and road network can be incorporated into future subdivision layouts to ensure an orderly and rational integration of this fragmented land.

Miscellaneous Uses

An existing regional park, MR Power Park, is located in the east of Sub-Precinct 1. This park is currently underutilised and offers excellent potential to improve the quality of the recreational provision and landscape character.

There is also a small Mixed Use Zone in the south-east corner of Sub-Precinct 1 which will be rezoned to the Urban Growth Zone.

3.7.2 Interfaces

There are a number of sensitive interfaces which have been considered in the preparation of the Ballarat West PSP. The western edges of Sub-Precincts 2 and 4 are defined by farming areas and the future alignment of the Western Link Road.

The southern edge of the Ballarat West PSP area abuts the City of Ballarat municipal boundary with Golden Plains Shire. This land within the Golden Plains Shire is designated for rural-residential purposes.

The northern and eastern boundaries of the Ballarat West PSP area abut the existing residential communities of Alfredton, Delacombe and Sebastopol which are predominantly suburban residential density, with the exception of the Delacombe Industrial Area (discussed below). The Ballarat West PSP will ensure that future development is integrated with the existing communities.

The Delacombe Industrial Area abuts the eastern edge of Sub-Precinct 4. Historically this area was the preferred location for heavy industry in Ballarat. As a consequence, the area has an Industrial 1 Zoning. There are a number of existing industrial uses that require substantial buffers from sensitive land uses to accord with Clause 53.10 of the Ballarat Planning Scheme.

There is also a section of undeveloped Industrial 3 Zoned land abutting the eastern boundary of Sub-Precinct 4 to the north of Ballarat-Carngham Road.

Studies have been undertaken to investigate the demand for further industrial land as well as identifying buffer requirements for existing industry to protect it from the encroachment of sensitive land uses. These studies concluded that:

- There was little current demand for new industrial uses in the eastern portion of Sub-Precinct 4, though population growth in the Ballarat West Growth Area will bring demand in the longer term;
- An air emissions buffer is required which incorporates part of Sub-Precinct 4. No sensitive land uses are permitted within the air emission buffer area;



- The industrial area produces noise emissions that need to be mitigated before sensitive uses can be built in parts of Sub-Precinct 4; and
- There are a number of noise mitigation options available to achieve an acceptable noise environment at future sensitive uses within the PSP area having regard to the standards and amenity sought to be protected and achieved by the Noise Protocol.

3.7.3 Land Ownership

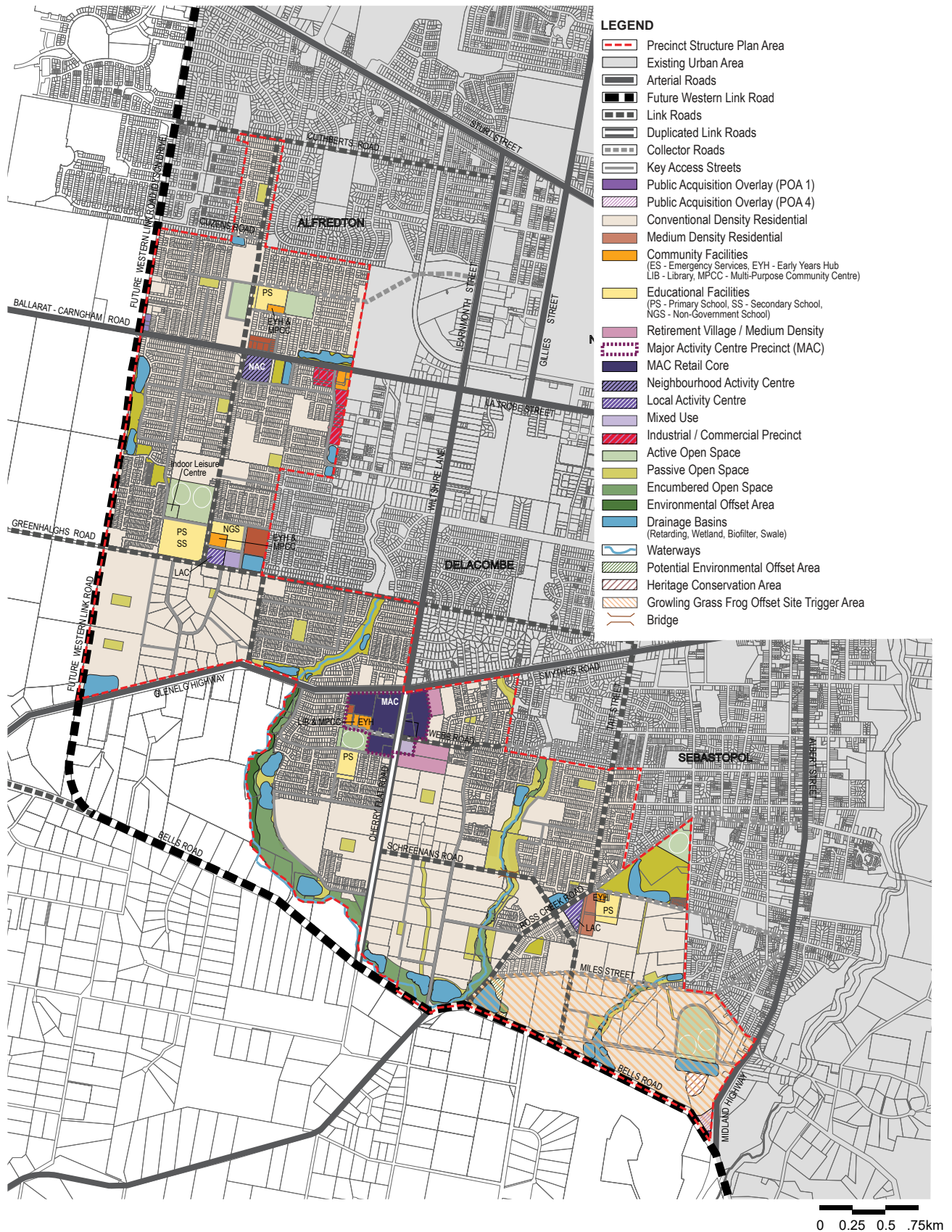
The Ballarat West PSP has a total area of approximately 1,290 hectares which originally comprised of 230 properties. The review undertook an audit of the number parcel that have been consolidated and developed. The consolidation of parcel now means that there are 187 parcels. Of these, 115 properties have been developed and 72 properties remain undeveloped.

Many of the undeveloped properties are small landholdings of 4 hectares or less and result in a fragmented landownership. The fragmented land ownership of the Ballarat West PSP was originally seen as a significant challenge to the development of the area, specifically in Sub-Precincts 1 and 2.

The PSP provides a robust framework to manage these issues and support integrated development outcomes. Moreover in recent years development applications in Sub-Precincts 1 and 2 have been submitted which suggests the challenges of fragmentation are not insurmountable.



Plan 8 Future Urban Structure



4 Integrated Precinct Design

4.1 Vision

Ballarat West is the City's primary residential growth area and will be designed for the Ballarat context. It will draw on and continue Ballarat's excellent service provision, employment opportunities, recreation opportunities and accessibility. The built form will take cues from Ballarat's history, the form of its established areas and its landforms and rural environment. While each neighbourhood will form its own community with its own character, it will also be integrated into the broader city and all that it offers.

Ballarat West will be a place where people can enjoy healthy, affordable and sustainable lifestyles.

The community will be a vibrant and prosperous series of neighbourhoods which offer housing choice and diversity supported by schools and community facilities and a network of passive and active open spaces which cater for a range of recreational pursuits. The neighbourhoods will be interconnected by a walkable street and trail network, with access to public transport to ensure that all residents have access to a range of community, retail and recreational uses within their community.

A network of accessible 'neighbourhood centres' with differing functions will provide a community focus for each neighbourhood and form part of the larger Ballarat community, encouraging integration between the existing and new. These centres will accommodate a major activity centre, a neighbourhood activity centre and two local activity centres with co-located commercial, community, education and/or open space facilities. An Industrial/Commercial Precinct at Ballarat-Carngham Road will provide an appropriate interface with the existing Delacombe Industrial Area and opportunities for local employment.

These centres will prioritise pedestrian access over vehicle movement to contribute to safer and more active shopping streets. This high accessibility to a range of facilities will reduce transport costs for households and businesses, reduce carbon emissions through reduced car travel and enhance the quality of life for local communities.

Ballarat West will provide a wide range of housing types to improve housing choice and cater for all sectors of the market. This choice will include affordable urban living; opportunities for retirement villages and conventional residential houses. Opportunities will be provided for higher density housing near the activity centres, the education and community hub and areas of open space.

The built environment will incorporate leading practice Environmentally Sustainable Design standards in order to achieve exceptional high quality urban design and amenity.

The Precinct will embrace sustainable urban development practices such as maintaining and restoring native vegetation where appropriate, providing treed streets and landscape trails, and incorporating water sensitive urban design solutions.

Ballarat West will be developed in a logical and orderly manner to ensure that residents are supported by community facilities and other essential infrastructure from the early stages of development.



4.2 Future Urban Structure

This section describes how the Ballarat West PSP delivers the Vision through the principles and objectives of integrated neighbourhood design. Plan 8 shows the Future Urban Structure Plan which has been updated from the original PSP to reflect on the ground changes that have occurred through development.

4.2.1 To establish a sense of place and community

The Ballarat West PSP establishes a framework for the development of environmentally, socially and economically sustainable communities. The key land uses are interlinked and combine to create an urban environment that promotes healthy lifestyles and strong, diverse communities.

Neighbourhoods are safe and efficiently designed, making it easy to walk or cycle to shops, local jobs, schools, community facilities and public transport stops.

A sense of place and community is fostered through careful planning of public spaces and community facilities such as schools and community hubs. This will ensure all facilities are central to their catchment and linked to other services directly via the key road, public transport and pedestrian and cycle networks. The plan seeks to respond to natural features by retaining them within the public realm in prominent locations and view lines. Winter, Bonshaw and Kensington Creeks will provide a central unifying landscape element that links the Sub-Precincts. Enhancing connection to past communities is also important. A sense of place will be achieved by recognising and incorporating the gold mining heritage areas of Sub-Precinct 1.

The environment for positive community interaction is further enhanced by the Major Activity Centre and smaller supporting activity centres. The provision of shops to meet regular shopping needs will promote interaction through the associated creation of formal and informal meeting spaces. This is further enhanced by the specific desire to see the Major Activity Centre develop over time as a place that offers more than retail services. The centre will provide opportunities to establish non-retail related businesses which service both the immediate community and the broader catchment. The non-retail component will provide local employment opportunities over time.

4.2.2 To create greater housing choice

The Ballarat West PSP encourages the development of a range of housing densities that will lead to the creation of a variety of lot sizes and housing types across various levels of affordability. This diversity will provide opportunities to cater for people in different stages of their lives and to age in place, contributing to the creation of a strong community. The Ballarat West PSP promotes affordable housing through a mix of alternatives, such as private and social housing in and around the activity centres.

The mix of housing typologies in the Precinct will include:

- Medium to higher density housing within and around the activity centres and around high amenity areas such as the Education and Community hub;
- Conventional density housing with a broad design diversity across the range of lot sizes.

The Ballarat West PSP is to achieve a minimum average net density of 16 dwellings per developable hectare.

4.2.3 To create highly accessible and vibrant activity centres

The network of activity centres in the Ballarat West PSP area will provide local employment opportunities and community based services within walkable catchments. All of the centres will offer a mix of retail, non-retail, community services and other employment opportunities serviced by safe cycling, pedestrian and public transport networks.

A major activity centre has been nominated on Cherry Flat Road and is supported by a neighbourhood activity centre at Ballarat-Carngham Road and two smaller local activity centres at Greenhalghs Road and Ross Creek Road.

The activity centres are accessible to their residential catchments, being located within a reasonable walking distance for the majority of residents. This creates opportunity to reduce the dependency on private vehicles.

While initially providing local retail services, the planning for each centre is flexible enough to enable an appropriately scaled response to retail and non-retail demand over time.

Each activity centre is co-located with community facilities and higher density residential development to ensure that these centres are well used throughout the day and evening, creating safe and vibrant streets.



4.2.4 Deliver integrated, accessible and adaptable community facilities

The Ballarat West PSP seeks to service the changing needs of the community through the provision of accessible, integrated and adaptable community facilities. The Ballarat West PSP makes provision for a range of community infrastructure to serve the diverse needs of the local community. Community facilities will be delivered as early as possible to foster a sense of community in the new neighbourhoods.

Community & Early Years Hubs

A network of community and early years hubs are provided within Ballarat West. These hubs are co-located with schools and where appropriate, activity centres, to create focal points for community activity and interaction within each neighbourhood.

The Precinct offers a wide range of education facilities; government primary and secondary and non government primary schools. Early Years Hubs are co-located with schools and provide opportunities for the provision of kindergarten, childcare, child and maternal health and flexible community spaces. All schools and Early Years Hubs within the Precinct are located on the connector street network to maximise community access by walking, cycling and public transport.

Open Space

The open space network within the Precinct will cater for the diverse ages and interests within the local community. The open spaces range from neighbourhood to regional parks and will provide for a variety of active and passive recreational pursuits.

The Winter, Kensington and Bonshaw Creek linear parks will provide a green link with a shared path network through the heart of the development. This linear park network will provide connections to open spaces and other key community uses.

Other components of the open space network include neighbourhood parks, passive open space (conservation areas and linear open space) as well as active open space (including district and regional sport reserves).

4.2.5 Provide for Local Employment and Business Activity

The Ballarat West PSP area will support a variety of local economic development opportunities which will generate local employment in a number of sectors including retail, business and service industries. The Major Activity Centre, the Neighbourhood Activity Centre and Industrial/Commercial Precinct will provide a range of employment opportunities for the community. Employment opportunities will also be provided by schools, early years hubs, public and private community facilities and other uses such as retirement and aged care facilities that establish within the Precinct.

The employment areas are co-located with supporting uses and are planned to be easily accessible via the public transport and walking and cycling networks, as well as the proposed road network.

The Ballarat West PSP also promotes:

- The establishment of home based businesses;
- The development of serviced and small offices located within and at the edge of the major and neighbourhood activity centres; and
- The development of flexible buildings in mixed use areas to ensure they can adapt over time to meet changing market needs.

Local employment opportunities will also be provided outside the Ballarat West PSP, in close proximity to the Ballarat West Employment Zone to the north.



4.2.6 Provide better transport choices

Access to Local Employment

A key element in creating a more ecologically, socially and economically sustainable urban structure is to design the Precinct in a manner that reduces travel distances, increases travel time efficiency and reduces carbon emissions generated by journey to work trips.

The future urban structure reduces travel distances to work by providing local employment opportunities that reduce travel times and out commuting

Efficient Road and Public Transport Network

The arterial road and connector street network facilitates efficient road and public transport movement on a grid network within the Ballarat West Growth Area. It will provide strong connections with neighbouring precincts and existing development areas in all directions.

Existing rural standard roads will be upgraded to an urban standard, with several upgrades to be funded through the Ballarat West DCP.

The future urban structure provides the basis for the provision of efficient public transport by locating at least 95 per cent of dwellings within 400 metres walking distance of an existing or proposed bus stop.

The bus network will link residents and employees to the activity centres, Industrial/Commercial Precinct and education facilities within the Precinct and the wider Ballarat area. It will also provide access to the rail network and other employment uses and community infrastructure external to the Ballarat West PSP area.

Safe and Walkable Local Street Network

The proposed grid based road patterns will promote the creation of a local street network with high levels of permeability, walkability and passive solar orientation throughout the Precinct.

The Ballarat West PSP provides for a safe pedestrian and bicycle network via the:

- On and off road paths within the road network; and
- The provision of a walking and cycling trail network along creek corridors and linear links throughout the Precinct. This network will include pedestrian bridges over the creek network, where required.

Activity centres, community facilities and sporting and recreational activities will be clustered along the pedestrian and cycle network to support walking access to these key destinations. The co-location of activity centres, community hubs and open space promotes a road, pedestrian and bicycle network that facilitates permeability and safe walking and cycling for all residents



4.2.7 Deliver Environmentally Sustainable Communities

The framework provided by Ballarat West PSP promotes an integrated land use and transport planning solution to optimise the number of people who have access to a safe and efficient walking, cycling and public transport network.

The Ballarat West PSP makes provision for a range of retail, employment and community facilities to service the daily and weekly needs of the residents. This supports a reduction in the extent of car use by minimising travel distances and also optimises the viability of alternative modes of transport.

Access to local jobs within and in close proximity to the Precinct will reduce journey-to-work travel distances.

A greater range of choice in travel modes will be provided through implementation of the Ballarat West PSP, with the road network designed to accommodate buses, cyclists and pedestrians.

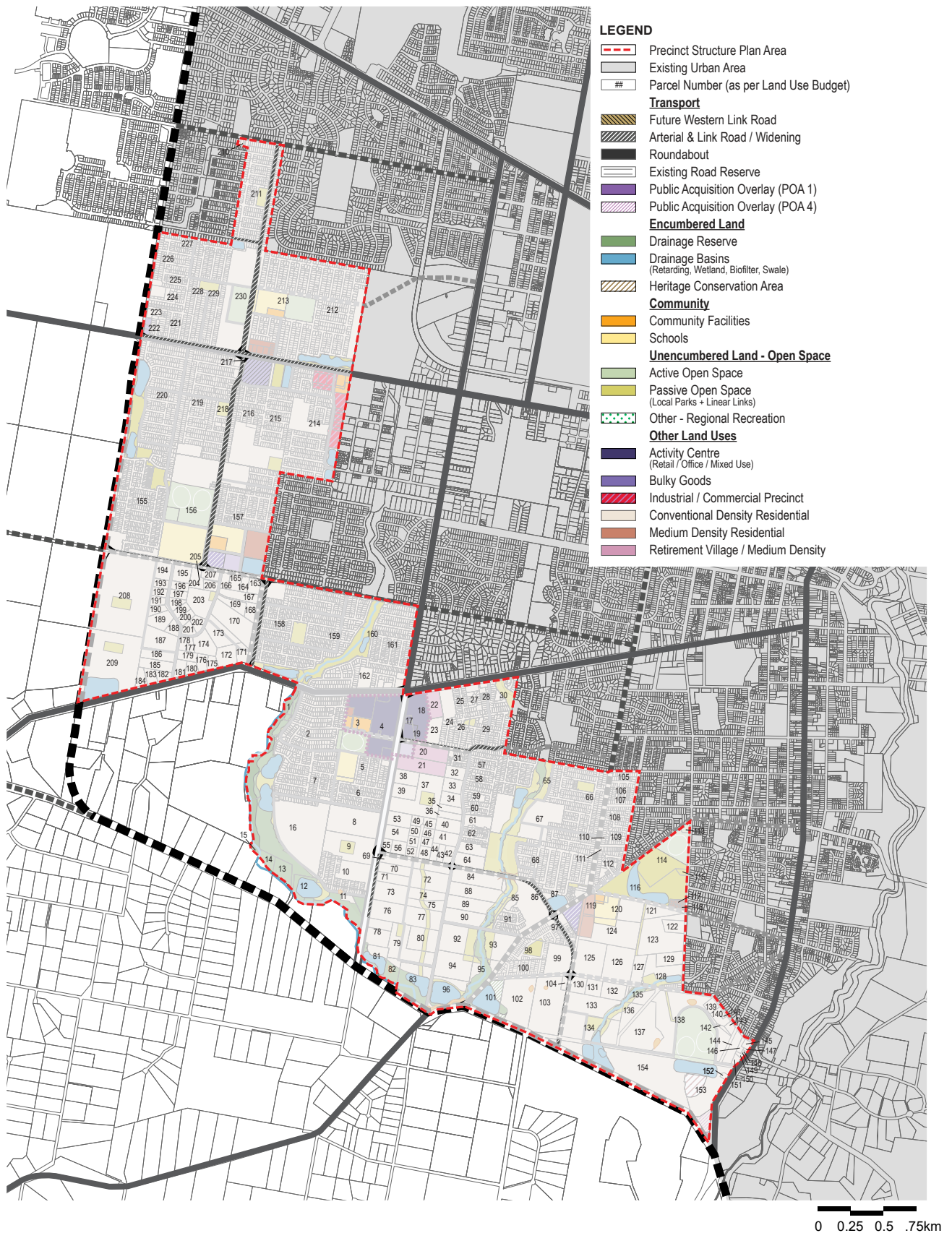
The Ballarat West PSP provides a framework for subdivision design that promotes solar access, to minimise the energy use of dwellings, community infrastructure and buildings in the activity centres.

Water Sensitive Urban Design (WSUD) aims to reduce the quantity of stormwater and improve the quality of water that is either discharged or re-used on site. WSUD techniques are to be incorporated through measures such as a network of retarding basins and wetlands that are integrated with the existing drainage lines and creeks. Utilising the existing drainage systems on the site reduces the requirement for piping and channelling of water and maintenance costs.

Remnant native vegetation has been retained as shown in the Ballarat West NVPP. The NVPP was used as a way to assist in creating a distinctive landscape character for the area and enhance biodiversity values to contribute to improved local biodiversity.



Plan 9 Land Use Budget



4.3 Land Use Budget

Table 1: Summary Land Use Budget provides an overview of the land use components of the overall Ballarat West PSP area and for each Sub-Precinct. A more detailed land use budget by property is provided in Table 3 and contained in Attachment 1. Plan 9: Land Use Budget provides a key for this table.

The original Land Use Budget has been reviewed and updated to reflect development changes that have occurred through subdivision design, adopted Urban Design Frameworks, changes to infrastructure projects including a major drainage scheme review and adjustments to other land features such as environmental offset areas.

4.3.1 Land Use Budget Summary

The Ballarat West PSP covers a total area of approximately 1,297 hectares across three Sub-Precincts (see Plan 1 and section 1.1):

- Sub-Precinct 1: Bonshaw Creek comprising approximately 707 hectares;
- Sub-Precinct 2: Greenhalghs Road comprising approximately 296 hectares; and
- Sub-Precinct 4: Ballarat-Carngham Road comprising approximately 287 hectares.

The Net Developable Area ('NDA') is 972.04 hectares. The NDA is established by deducting the land required for community facilities, education facilities and passive and active open space (unencumbered), from the Gross Development Area ('GDA'). The GDA is established by deducting any arterial roads, existing road reserves and encumbered land such as waterways and drainage reserves from the total Precinct area.

Table 2: Distribution of Housing Densities, demonstrates that the urban structure plan established by the amended Ballarat West PSP achieves a lot density of 16.66 dwellings per Net Developable Hectare ('NDHa'). Based on this density, the Ballarat West PSP area is estimated to provide for a yield of approximately 15,518 dwellings. This compares with an original estimated lot density of 15.19 dwellings per NDA and yield of 14,442 dwellings.

Table 4 provides details of housing yields by property and is contained in Attachment 2.

The areas identified for activity centres, mixed use and other employment uses have been included as part of the NDA but excluded for the purposes of calculating projected lot yields. Note that the Major Activity Centre is also likely to provide some dwellings. However, dwelling numbers in this area will not be known until an Urban Design Framework is completed by the landowners.

The future urban structure plan encourages the development of medium density development around activity centres and community facilities which may result in the estimated housing yields being exceeded over time if higher density housing is developed at these locations.

4.4 Population and Demographic Projections

Ballarat's estimated resident population (ERP) in 2010 was around 96,000 people, an increase of around 13,000 people since 2001. Between 2011 and 2021, the population of Ballarat increased by 18,297 people (an increase of 19%) or an average of 1.8% per year (ABS, 2021).

Based on the population projections for Ballarat within the Housing Strategy (2023), the population is expected to grow to almost 171,429 by 2041, an increase of around 3000 persons per year.

Figure 1 Population projections 2021 – 2041

Population	2021	2026	2031	2036	2041
Ballarat Housing Strategy Projections	113,482	128,810	139,478	154,630	171,429

The Ballarat West PSP area is projected to accommodate almost 80 per cent of the population growth identified for the wider Ballarat West Growth Area. The Ballarat West PSP is forecast to accommodate approximately 15,518 lots and a population of around 39,150 people based on an eventual average household size of 2.5 persons per household.

The projected demographic profile for the area is:

- 33% couples with children;
- 23% couples without children;
- 16% other families;
- 25% lone person households; and
- 3% group person households.



Table 1 Summary Land Use Budget

DESCRIPTION % of Total	Precinct 1			Precinct 2			Precinct 4			Precincts 1, 2 & 4		
	Area			Area			Area			Area		
	Hectares	% of Total Precinct	% of Gross Developable Area	Hectares	% of Total Precinct	% of Gross Developable Area	Hectares	% of Total Precinct	% of Gross Developable Area	Hectares	% of Total Precinct	% of Gross Developable Area
TOTAL PRECINCT AREA (ha)	705.95			295.64			285.18			1286.77		
Transport												
Future Ballarat Western Link Road (reservation)	0.00	0.00%		4.68	1.58%		0.53	0.19%		5.20	0.40%	
Arterial / Widening	4.84	0.697%		4.09	1.38%		7.24	2.54%		16.17	1.26%	
Intersections	0.71	0.10%		0.45	0.15%		0.41	0.14%		1.57	0.12%	
Road Reserves	51.39	7.28%		7.42	2.51%		3.16	1.11%		61.97	4.82%	
SUB-TOTAL	56.93	8.06%		16.64	5.63%		11.34	3.98%		84.91	6.60%	
OPEN SPACE												
Encumbered Land												
Waterway / Drainage Line	35.24	4.99%		6.56	2.22%		0.58	0.20%		42.37	3.29%	
Drainage Basins	31.96	4.53%		9.02	2.41%		7.69	2.70%		48.67	3.78%	
Environmental Conservation Area (potential vegetation offset area)	0.00	0.00%		0.00	4.55%		4.86	1.70%		4.86	0.38%	
Heritage Conservation Area	3.34	0.47%		0.00	0.00%		0.07	0.02%		3.41	0.27%	
SUB-TOTAL	70.54	9.99%		15.58	5.27%		13.20	4.63%		99.31	7.72%	
GROSS DEVELOPABLE AREA (ha)	578.48			263.42			260.64			1102.55		
Unencumbered Land Available for Recreation												
Active Open Space	18.63	2.64%	3.22%	10.03	3.39%	3.81%	7.98	2.80%	3.06%	36.64	2.85%	3.32%
Passive Open Space	47.92	6.79%	8.28%	9.48	3.21%	3.60%	7.72	2.71%	2.96%	65.11	5.06%	5.91%
SUB-TOTAL	66.55	9.43%	11.50%	19.51	6.60%	7.41%	15.70	5.51%	6.02%	101.75	7.91%	9.23%
TOTAL OPEN SPACE	137.09	19.42%		35.08	11.87%		28.90	10.13%		201.06	15.63%	
Community Facilities												
Community Services Facilities	2.40	0.34%	0.41%	1.30	0.44%	0.49%	0.7	0.25%	0.27%	4.40	0.34%	0.40%
SUB-TOTAL	2.40	0.34%	0.41%	1.30	0.44%	0.49%	0.7	0.25%	0.27%	4.40	0.34%	0.40%
Education												
Government Schools	6.79	0.96%	1.17%	10.00	3.38%	3.80%	4.07	1.43%	1.56%	20.86	1.62%	1.89%
Non-Government Schools	0.00	0.00%	0.00%	3.50	1.18%	1.33%	0.00	0.00%	0.00%	3.50	0.27%	0.32%
SUB-TOTAL	6.79	0.96%	1.17%	13.50	4.57%	5.12%	4.07	1.43%	1.56%	24.36	1.89%	2.21%
NET DEVELOPABLE AREA (NDA) (ha)	502.74	71.21%	86.91%	229.12	77.50%	86.98%	240.18	84.22%	92.15%	972.04	75.54%	88.16%

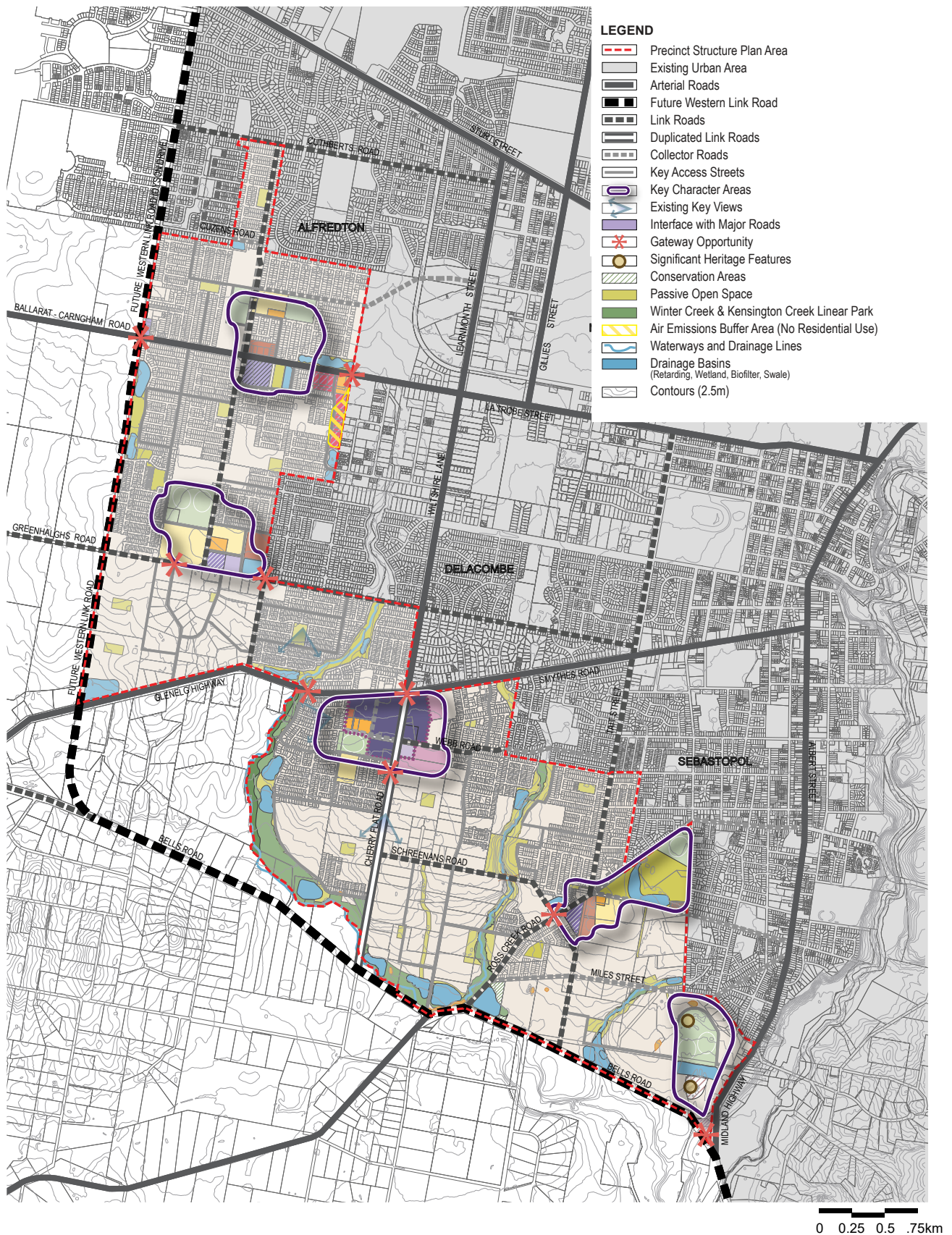


Table 2 Distribution of Housing Densities

DESCRIPTION	Precinct 1			Precinct 2			Precinct 4			Precincts 1, 2 & 4		
NET DEVELOPABLE AREA (NDA) ha	502.74			229.12			240.18			972.04		
Retail / Employment & Other	Ha			Ha			Ha			Ha		
Activity Centre (Retail / Office / Mixed Use)	16.43			3.26			7.11			26.80		
Bulky Goods	4.86			0.00			0.00			4.86		
Industrial / Commercial	2.55			1.71			4.86			9.12		
SUB-TOTAL	23.84			4.97			11.97			40.78		
NET RESIDENTIAL AREA (NRA) ha	478.91			224.15			228.20			931.26		
RESIDENTIAL	NRA (Ha)	Dwell / NRHa	Dwellings	NRA (Ha)	Dwell / NRHa	Dwellings	NRA (Ha)	Dwell / NRHa	Dwellings	NRA (Ha)	Dwell / NRHa	Dwellings
Residential - Conventional Density	468.36	20	8001	217.95	20	3673	225.82	20	3195	912.13	20	14870
Residential - Medium Density	10.55	25	407	6.20	25	163	2.38	25	78	19.13	25	648
Subtotal Against Net Residential Area (NRA)	478.91	17.56	8408	224.15	17.12	3836	228.20	14.35	3274	931.26	16.66	15518
Combined Residential / Retail / Employment / Other	NDA (Ha)	Dwell / NDHa	Dwellings	NDA (Ha)	Dwell / NDHa	Dwellings	NDA (Ha)	Dwell / NDHa	Dwellings	NDA (Ha)	Dwell / NDHa	Dwellings
Totals Residential Yield Against NDA	502.74	16.72	8408	229.12	16.74	3836	240.18	13.63	3274	972.04	15.96	15518



Plan 10 Image and Character



5 Elements

This chapter sets out objectives and planning and design guidelines for the following elements:

- Image and character;
- Housing;
- Employment and Activity Centres;
- Community Facilities;
- Open Space and Natural Systems;
- Biodiversity Assets;
- Integrated Water Management;
- Heritage;
- Transport and Movement; and
- Utilities and Staging.

Each element includes:

- **Objectives:** An objective describes the desired outcome to be achieved in the completed development;
- **Plans:** A plan sets out a spatial expression of objectives;
- **Planning and Design Guidelines:** Planning and design guidelines including figures and tables that:
 - must be met; or
 - should be met.

Any planning and design guideline that must be met is a requirement that must be reflected in planning permit applications. Any planning and design guideline that should be met is a preferred outcome for developments that should be reflected in planning permit applications. To meet the objective, an alternative may be proposed.

If the Responsible Authority is satisfied that the alternative meets the objective, then the alternative may be considered provided it is to the satisfaction of the Responsible Authority.

5.1 Image and Character

5.1.1 Image and Character Objectives

The image and character objectives are:

- To create distinctive neighbourhoods, vibrant streets and attractive spaces that reflect the character and traditions of development in Ballarat;
- To achieve environmentally responsive development that makes use of the existing natural features of the Precinct by incorporating remnant trees and natural watercourses;
- To establish a strong sense of place through the creation of a series of 'centres', which provide opportunities for interaction within the neighbourhoods;
- To create a network of tree lined streets that create an attractive safe road network;
- To create a legible and integrated road and path network that connects with the linear trail networks;
- To enhance creek and drainage corridors and transform them into significant landscape features that enhance visual amenity and contribute to a sense of place;
- To encourage development that is flexible and adaptable to the changing needs of the community; and
- To protect and enhance valuable heritage features in the area and incorporate them into future developments through the open space network.

5.1.2 Implementation

The objectives for image and character are met by implementation of all of the following:

- Plan 8: Future Urban Structure Plan;
- Plan 10: Image and Character Plan;
- Plan 11: Housing Plan;
- Plan 14: Open Space Plan;
- Plan 16: Gold Mining Heritage Plan;
- Plan 19: Walking and Trails Plan; and
- Planning and Design Guidelines set out in Section 5.1.3



5.1.3 Planning and Design Guidelines

General

The following planning and design guidelines must be met:

- Community Hubs and Activity Centres will define the character of each neighbourhood and must be designed to create pedestrian focussed street networks, active frontages and opportunities for social interaction within a high quality built environment;
- Development is to address roads to create a network of safe and permeable streets;
- Design development with an interface to Winter, Bonshaw and Kensington Creeks and drainage lines to promote public use and passive surveillance;
- Design development to provide a strong urban frontage to the future Ballarat Western Link Road, Glenelg Highway, Ballarat-Carngham Road, Wiltshire Lane and Cherry Flat Road, and promote passive surveillance of these roads;
- Development along arterial roads must consider the future amenity (visual and noise) for future dwellings;
- Development must consider the orientation of buildings and maximise opportunities to reduce energy consumption and water use;
- As shown on Plan 11, a linear landscape buffer of at least 20m depth must be provided separating:
 - sensitive uses and the Industrial/Commercial Precinct (see Section 5.3.4); and
 - sensitive uses and any land in an Industrial Zone;
- Open spaces including linear parks must provide for active and passive recreation and accommodate a range of facilities including playgrounds, shelters and seating;
- Bonshaw, Winter and Kensington Creeks must create a high quality open space link which is connected to activity centres, open spaces and community facilities through a safe shared path trail; and
- Incorporate Water Sensitive Urban Design features such as retarding basins and wetlands to manage stormwater flows and create habitat for native plants and animals along the creeks and drainage lines.
- Biodiversity habitats along Winter Creek or other suitable locations for the relocation of the Growling Grass Frog.

The following planning and design guidelines should be met:

- The design of the Emergency Services facility should be sympathetic to the residential character of the surrounding areas and protect homes from negative amenity issues such as night-time noise and visual impact;
- Locate medium density development adjacent to activity centres, schools and where appropriate, active open space to reflect the higher amenity values associated with those areas;
- Development should minimise impacts on existing topography;
- Open spaces should be designed to incorporate existing vegetation, habitat or heritage features wherever possible;
- Define key entries to the Precinct and important character areas through the use of landscape treatments or built form;
- Provide opportunities for landmark buildings, public spaces and public art within the activity centres;
- Design and arrange lots to maximise solar efficiency through orientation; and
- Road frontage should be provided along creek corridors and public spaces unless it can be demonstrated that abutting development will provide passive surveillance and activation of abutting public spaces.
- Growling Grass Frog (GGF) Compensatory habitats should be setback more than 35 metres from Winter Creek and may be co-located with existing stormwater infrastructure. Road crossings are discouraged in these areas and pedestrian and cycling links, and linear infrastructure is to be designed to allow for the efficient movement of GGF.



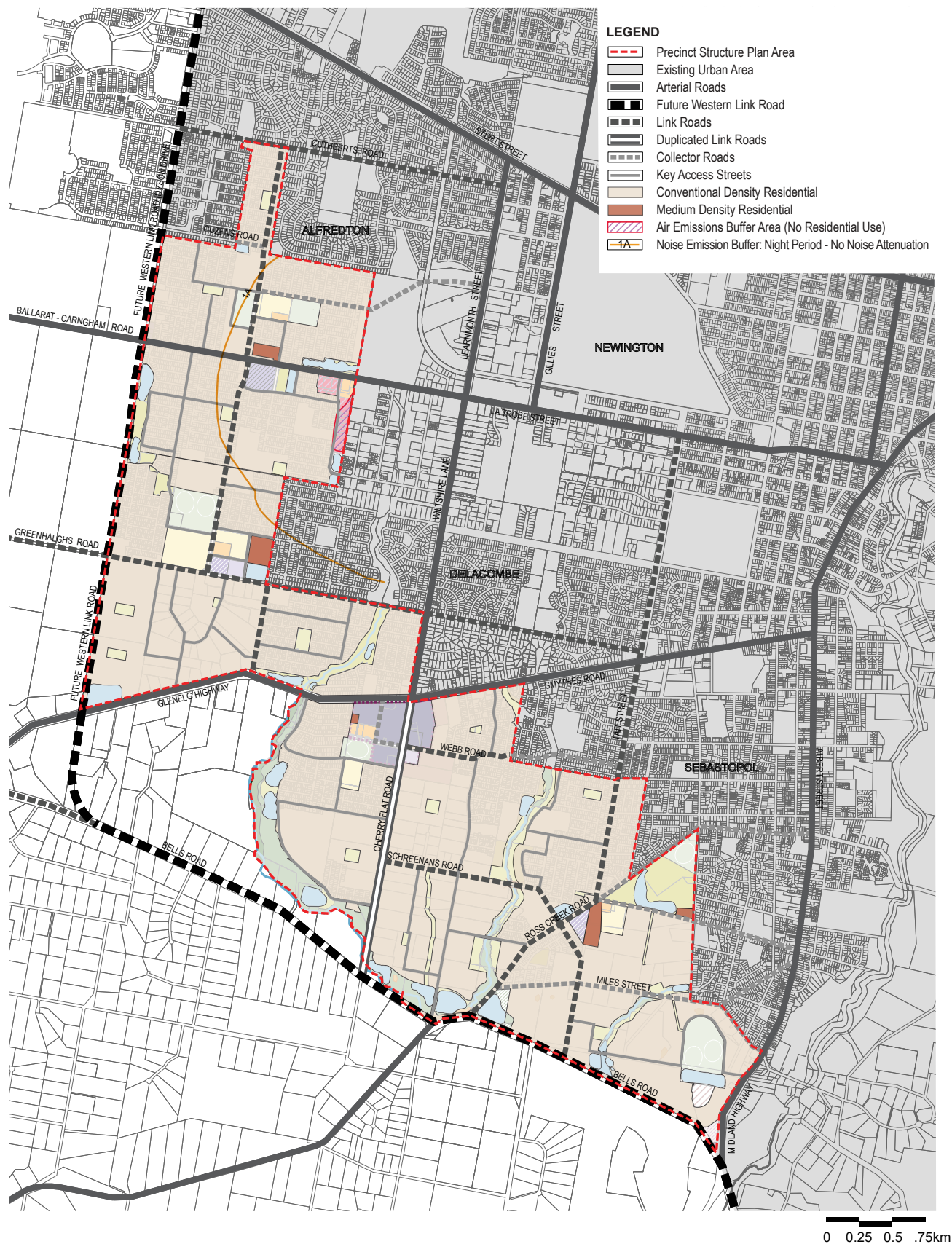
Landscape Design

The following planning and design guidelines should be met:

- Street trees along access streets should encourage pedestrian movement and promote low speed traffic environments;
- Ensure landscaping of public spaces creates safe public spaces that have ample passive surveillance;
- Landscape design within activity centres, neighbourhood parks and streets should:
 - Contribute to the creation of visually interesting public spaces that create a sense of place and identity;
 - Consider the impacts of landscaping on the microclimate, including the need for wind protection and summer shade;
 - Provide for the retention of existing vegetation that contributes to the character of the area, where possible;
 - Ensure the size of the street tree species relates to the scale of the street and is suitable for pedestrian environments;
- Landscaping along creek lines and within encumbered land should:
 - Be planted with species indigenous to Ballarat where possible, enhance and improve biodiversity along creek corridors and provide potential habitat;
 - Allow opportunities for passive recreation;
- Landscaping should be in accordance with the City of Ballarat's Landscape Character Areas Policy and any applicable street furniture guidelines; and
- Vegetation selection should be suitable for Ballarat's climate, minimise the need for ongoing irrigation and have regard to ease of maintenance.



Plan 11 Housing



5.2 Housing

5.2.1 Housing Objectives

The objectives for housing are:

- To create walkable residential neighbourhoods that have accessibility to local services, community facilities, a range of open spaces and offer a high standard of living;
- To ensure a range of lot sizes and housing types are provided to meet the needs and aspirations of the new community and to provide for the changing needs of the community over time;
- To achieve a minimum density of 16 dwellings per Net Developable Hectare (NDHa) throughout the Ballarat West PSP area and encourage a minimum density of 20 dwellings for subdivisions to reflect the updated targets in the PSP Guidelines 2.0;
- To encourage medium density housing within walking distance of key amenities such as activity centres, community hubs and open space;
- To support specialised housing forms such as retirement villages close to activity centres, community facilities and the public transport network to ensure that future residents have good access to a range of services;
- To support the opportunity for larger lots to be provided at the south east of Sub-Precinct 1 at Winter Creek to provide a transition between the existing rural areas and urban development and accommodate sloping topography;
- Affordable housing should be located in areas that have convenient access to commercial and community facilities, services and public transport.
- To ensure integration of the existing low density residential areas within Sub-Precincts 1 and 2 with development of surrounding properties;
- To encourage flexibility in subdivision design and planning/building approvals to enable better adaptation of housing to changing needs and create interesting and diverse living environments throughout the Precinct;
- To ensure subdivision and lot layouts provide creative and innovative design solutions for fragmented land ownership;
- To ensure subdivision and lot layouts maximise solar efficiency through the orientation of lots;
- To protect industrial businesses in the Delacombe Industrial Area from the possible negative impacts of residential encroachment;

- To protect homes and other sensitive uses from the possible negative impacts created by the Delacombe Industrial Area; and
- To encourage home based businesses within residential areas that do not detract from the primary use or amenity of the area.

Since the Ballarat West PSP was prepared, some of the larger lots at the south-east of Sub-Precinct 1 at Winter Creek have been further subdivided into small lots on the rural and residential interface.

5.2.2 Implementation

The objectives for housing are met by implementation of all of the following:

- Plan 8: Future Urban Structure Plan;
- Plan 11: Housing Plan;
- Plan 14: Open Space Plan;
- Table 2: Distribution of Housing Densities; and
- Planning and design guidelines set out in Section 5.2.3 and 5.2.4.



5.2.3 Planning and Design Guidelines

General

The following planning and design guidelines must be met:

- Residential development across the Ballarat West PSP must include a range of dwelling densities including conventional and medium density residential lots, and specialised housing (terms defined in glossary);
- Development must address drainage, visual amenity and privacy issues caused by developing new homes along the interface with existing homes in Alfredton Drive, Alfredton. Management options may include raising the height of fences, landscaping/vegetation requirements and controlling the height of new dwellings;
- Eliminate the need for a planning permit for small lot housing (less than 300m²) in appropriate locations where the requirements of the Small Lot Housing Code are met;
- Taking into account the density of development that has already occurred, future development must achieve a minimum average of 16 dwellings per Net Residential Hectare (NHRa) across the PSP area;
- Development of conventional density housing must:
 - Achieve an overall average of 16 dwellings per Net Residential Hectare (NHRa);
 - Provide a mix of lot sizes and dwelling types throughout the Precinct; and
 - Ensure dwellings address streets and public spaces and maximise passive surveillance.
- Development of medium density housing must:
 - Achieve an overall average of 25 dwellings per Net Residential Hectare (NHRa);
 - Be overlooking, abutting or within close proximity to activity centres, community hubs, public transport stops or open space; and
 - Be provided in a variety of forms including terrace/townhouse development, integrated development sites and/or retirement villages;
- Housing abutting open spaces and linear links must:
 - Enhance passive surveillance of the open space through design features such as having dual frontage to the road and open space; and
 - Have low or semi-transparent fencing along boundaries to public space;

The following general planning and design guidelines should be met:

- Medium density developments or lots less than 250 square metres should avoid garages fronting parks and linear links;
- Housing abutting open spaces and linear links should:
 - Integrate open spaces into the design of subdivisions;
 - Have a strong built form along the park edges to provide a backdrop and interface to the open spaces;
 - Provide a secondary entry to dwellings from the park to give them a sense of address;
 - Provide a clear transition between public and private spaces; and
 - Provide opportunities for passive surveillance and pedestrian activities along laneways;
- Higher density housing (in excess of 25 dwellings per hectare) is encouraged in close proximity to the Major Activity Centre, Neighbourhood Activity Centre and Local Activity Centres.



Subdivision of existing rural-residential areas to conventional density

The following planning and design guidelines must be met:

- Create an integrated road network within the existing rural-residential area and provide opportunities for road connections to abutting landholdings where possible;
- Avoid the creation of cul-de-sacs; and
- Provide through-connections (road, walking and cycling) between the existing rural-residential area and surrounding parcels to integrate the rural-residential area with the broader community.

The following planning and design guidelines should be met:

- Consider the character of existing residences to be retained within future developments; and
- Respect and enhance the existing streetscapes and landscape character, for example through street tree selection and setbacks.

A concept plan (figure 2) has been included for the Masada Boulevard/Fay Drive precinct which was previously zoned Low Density Residential.



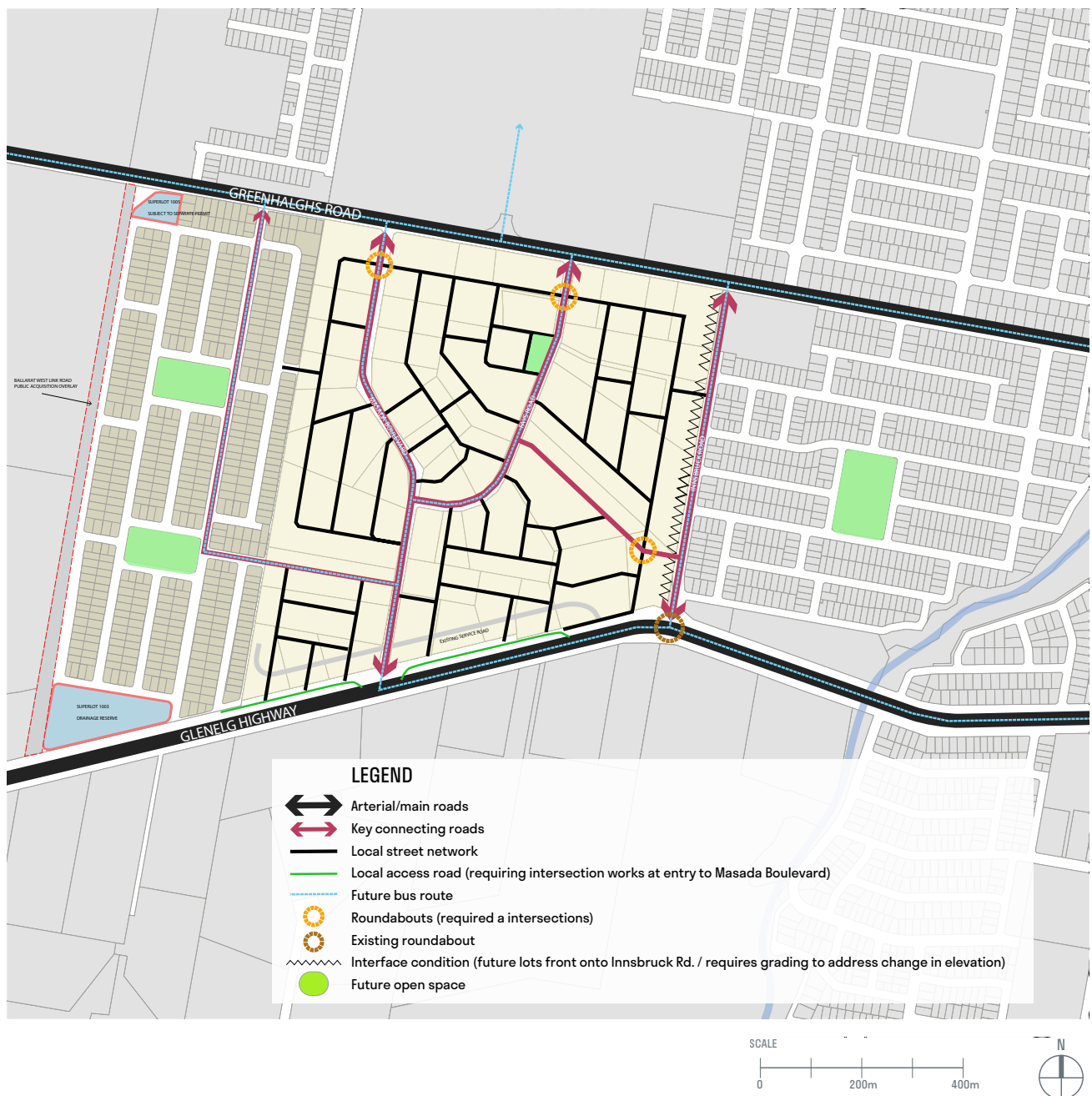


Figure 2 Masada Boulevard - Indicative Concept Plan

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5.2.4 Sensitive uses in Sub-Precinct 4

Air Emissions Buffer Area

The following planning and design guidelines must be met:

- Sensitive uses must not locate within the Air Emissions Buffer Area shown in Figure 3.



Figure 3 Industrial / Air Emissions Buffer

LEGEND

- Precinct Structure Plan Area
- Existing Urban Area
- Arterial Roads
- Collector Roads
- Key Access Streets
- Drainage Basins (Retarding, Wetland, Biofilter, Swale)
- Commercial / Industrial Precinct
- Air Emissions Buffer Area (No Residential Use)
- Passive Open Space

Sensitive uses within the noise-affected area

The following planning and design guidelines must be met:

- Subdivision or use of land for sensitive uses within the noise-affected area shown on Plan 11 must achieve an acceptable noise environment having regard to the standards and amenity sought to be protected and achieved by the Noise Protocol. The noise levels to be achieved at a sensitive land use within the affected area are listed in the table below;
- | Period | Noise Limits (dB(A)) having regard to Noise |
|---------|---|
| Day | 48 |
| Evening | 43 |
| Night | 39 |
- Sensitive land uses include dwellings, residential buildings, private open space of a dwelling/residential buildings, caretaker's house, hospital, hotel, institutional home, motel, reformatory institution, tourist establishment or work release hostel;
 - The noise mitigation measures may include, but are not limited to:
 - The attenuation of noise at the source of emission;
 - The attenuation of noise at the receptor (eg residential dwelling);
 - The construction of a noise wall between the source of emissions and receptors;
 - The construction of new buildings between the source of emissions and receptors that have the affect of reducing noise-sensitive uses.

- Noise mitigation measures must:
 - Allow the creation of an integrated neighbourhood in Sub-Precinct 4 and not create isolated developments that cannot be integrated with abutting developments;
 - Not prevent activation and passive surveillance of public spaces;
 - Be of a scale and form that will not detract from the future character of the area;
 - Not have substantial adverse impacts on abutting landholdings;
 - Be designed to have a life of no less than 30 years; and
 - Consider the maintenance and ongoing management obligation of any attenuation measure. Any noise mitigation measure selected must be cost effective and easily maintainable;
- If deemed necessary by the Responsible Authority, an agreement under Section 173 of the Act will be placed on any lot created which will contain a sensitive land use to ensure that future buildings are designed having regard to the standards and amenity sought to be protected and achieved by the Noise Protocol; and
- A permit cannot be granted for development within the noise buffer unless the Responsible Authority is satisfied the noise levels specified can be achieved.

Visual amenity

The following planning and design guidelines must be met:

- As shown in Figure 2, a linear landscape buffer of at least 20m depth must be provided separating:
 - sensitive uses and the Industrial/Commercial Precinct (see Section 5.3.4); and
 - sensitive uses and any land in an Industrial Zone.
- The linear landscape buffer is to be landscaped and integrated within abutting development. Landscaping in this area must include canopy tree plantings that will help screen and soften views to the Industrial/Commercial Precinct; and
- New development abutting the linear landscape buffer is to provide passive surveillance and activation of the buffer.

Protection of industrial land

The following planning and design guidelines must be met:

- The minimum separation between a sensitive use and land in an Industrial 1 Zone shall be 100m.





Figure 4 Example Layout: Medium Density Lots

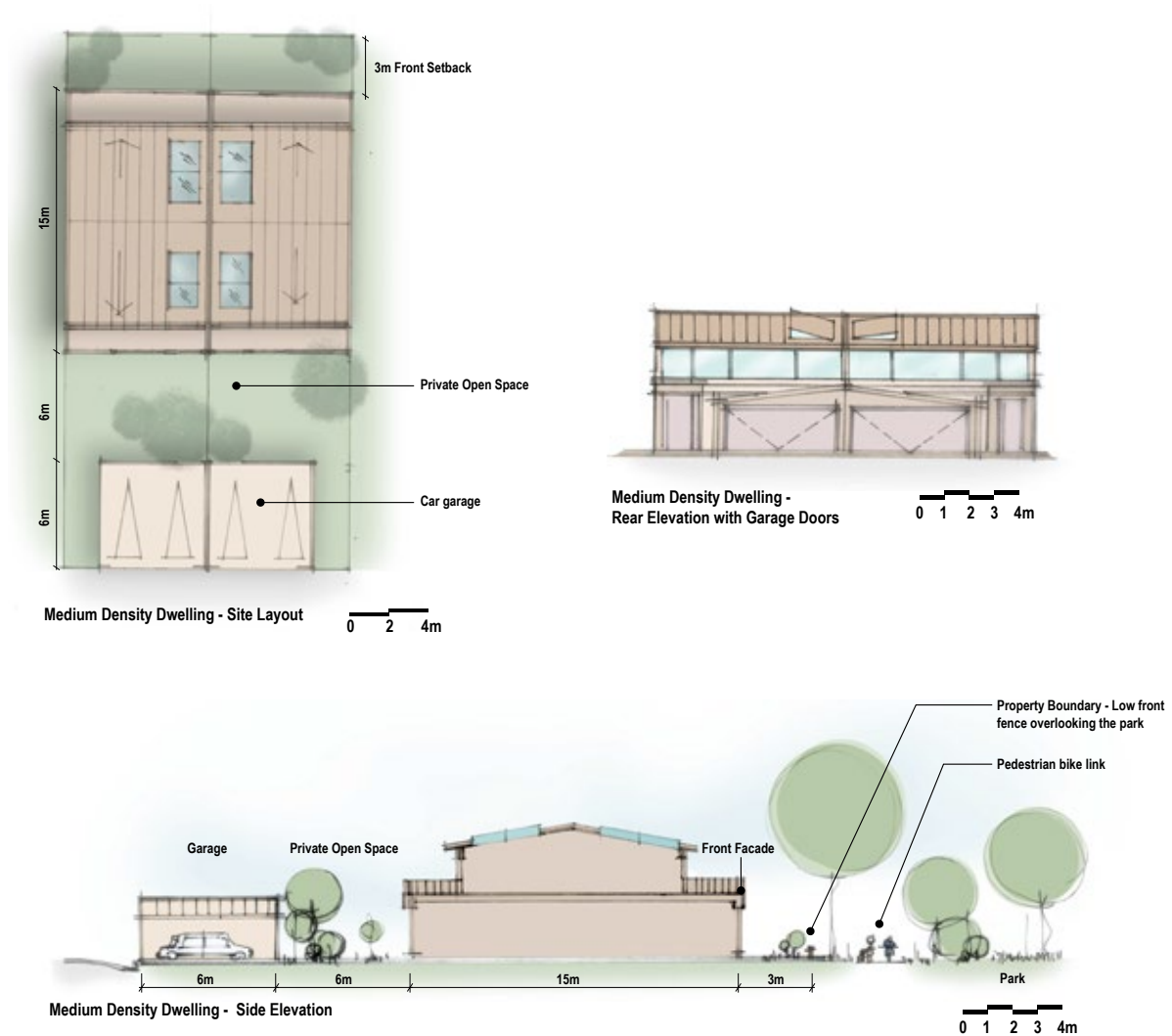


Figure 5 Example Layout: Medium Density Housing fronting Open Space

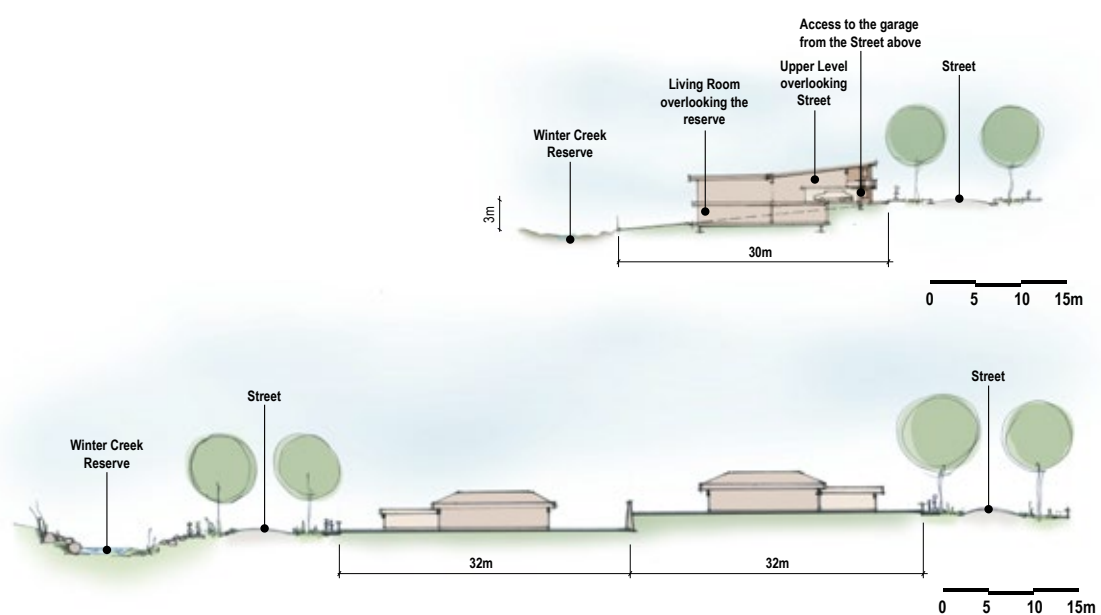
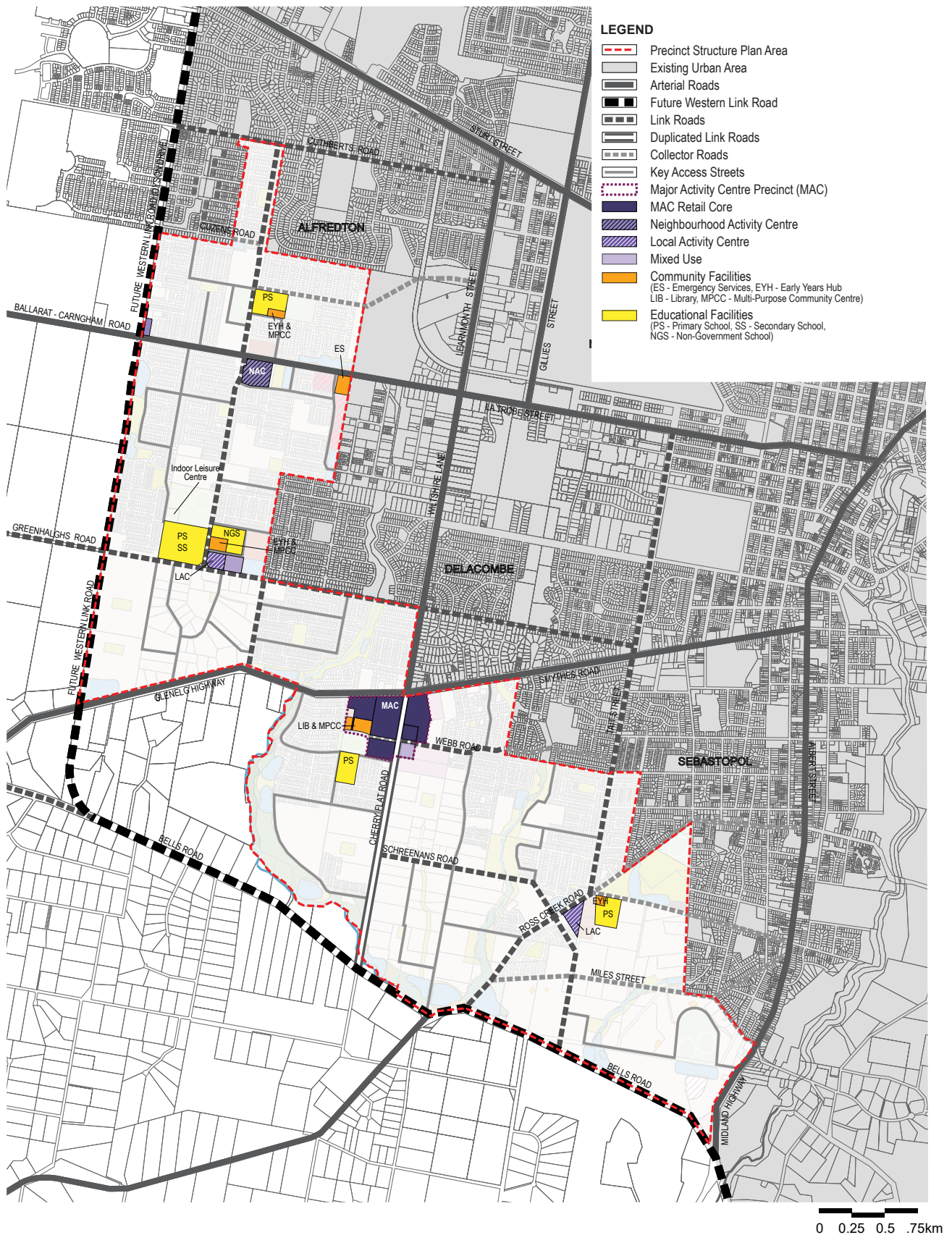


Figure 6 Example Layouts: Lots adjacent to Winter Creek

Plan 12 Employment and Activity Centres



5.3 Employment and Activity Centres

5.3.1 Employment and Activity Centre Objectives

Activity Centres

The objectives for Activity Centres are:

- To establish a hierarchy of vibrant 'Main Street' based activity centres that service the Ballarat West PSP area and parts of the surrounding community. These activity centres will provide a mix of retail, commercial and community uses to increase opportunities for employment in the Precinct and avoid the creation of 'dormitory suburbs';
- To ensure that new activity centres do not detract from the function and catchment of existing retail centres;
- To ensure that the Major Activity Centre provides opportunity for a mixture of retail, commercial, residential and service uses, and caters to the needs of the wider area;
- To ensure that the Neighbourhood Activity Centre serves a local function and acts as a weekly shopping destination for local residents;
- To create Local Activity Centres that cater for the day to day needs of residents and become a central focus for their communities;
- To ensure that Activity Centres are integrated with adjacent residential neighbourhoods;
- To ensure that the Major Activity Centre and Neighbourhood Activity Centre have the capacity to accommodate growth and adapt to changing market trends over time;
- To connect all activity centres with an integrated and accessible transport network which caters for a range of transport modes; and
- To acknowledge and appropriately address the interface with Ballarat-Carngham Road and Glenelg Highway when designing the Neighbourhood Activity Centre and the Major Activity Centre respectively.

5.3.2 Implementation

The objectives for activity centres are met by the implementation of all of the following:

- Plan 8: Future Urban Structure Plan;
- Plan 12: Employment and Activity Centres Plan;
- Plan 13: Community Facilities Plan;
- Table 5: Activity Centre and Employment Hierarchy;
- Planning and Design Guidelines set out in Section 5.3.3;
- Figure 7: Urban Design Framework for the Major Activity Centre; and
- Figure 8: Indicative Concept Plan for the Neighbourhood Activity Centre.



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5.3.3 Activity Centre Planning and Design Guidelines

General

Built form and the public realm

The following planning and design guidelines must be met:

- Developments must achieve a high degree of integration and connectivity between all uses within the activity centre;
- Active street frontages must be provided to primary street frontages within activity centres; and
- A main street through each activity centre must be created. The main street must encourage pedestrian movement and support a mixture of street based activities;

The following planning and design guidelines should be met:

- Build retail and commercial frontages to the edge of footpaths with clearly defined principal entrances addressing streets or public spaces;
- Place large retail formats (such as supermarkets and discount department stores) behind street-front retail tenancies;
- Provide high quality pedestrian spaces throughout activity centres to allow for connection, congregation and informal activity;
- Provide active uses at street level along 'main streets' to ensure a high level of activation of streets and pedestrian spaces;
- Establish pedestrian oriented environments that are permeable, visually interesting, accessible, well connected, safe and prioritise pedestrian movement over vehicle movement;
- Street facades must be well articulated, visually interesting and contribute to local character.
- Extensive blank facades to the street should be avoided;
- Corner sites should not be anchored by petrol stations or fast food outlets;
- Active frontages should be provided with continuous awnings or similar shelter to encourage pedestrian movement in all weather conditions;
- Advertising signage should be co-ordinated for each premises to avoid unnecessary visual clutter; and
- Activity Centres should incorporate Water Sensitive Urban Design measures.

Parking and movement

The following planning and design guidelines should be met:

- Locate car parking areas behind buildings to screen these areas from shopping streets and provide access from side-streets or rear laneways;
- Car parking areas should be designed to ensure passive surveillance and public safety through adequate positioning and lighting;
- Bicycle parking should be provided in a number of prominent and easily accessible locations and must be clearly visible, well lit, and preferably under cover;
- Bus stops should be centrally located to both community and retail facilities, in an area of high amenity and located in areas with a high level of passive surveillance; and
- Service areas should be screened from the public realm.



Major Activity Centre

The following planning and design guidelines must be met:

- Proposals are to be consistent with the role and function of the centre as described in Table 5.

The following planning and design guidelines should be met:

- The first stage of development within the MAC Retail Core should create a main street with activity on both sides, provide legible, high-quality pedestrian connections to residential areas and be integrated with the community facility and primary school sites;
- Locate a landmark frontage on each side of the intersection of Glenelg Highway and Cherry Flat Road, as well as at the entry to the MAC Retail Core at Webb Road, to signal the entry point to the major activity centre to passing traffic;
- Create a main street in the MAC Retail Core that provides protection from prevailing winds, rain and takes advantage of morning or afternoon solar access;
- Provide high-quality on-street pedestrian connections linking the MAC Retail Core to other parts of the Major Activity Centre. Footpaths should be broad; enabling outdoor dining and encouraging informal social interaction;
- Provide tree lined streets, street furniture and urban art to give the centre a unique sense of place;
- Encourage visually interesting buildings and streetscapes;
- Major retail anchors, entrances to enclosed centres, and street parking should be designed to generate passing trade for street-based shopfronts;
- Create a nexus between the district park and the activity centre by locating community facilities between retail and open space;
- Create a nexus between the district park and the activity centre by locating community facilities between retail and open space;
- Use built form to the north and east of the district park to form a well defined edge to park land and maximise passive surveillance opportunities;
- Configure the district park to reach the ridgeline to the west to maximise views from the activity centre to the south-west;

- Encourage medium density residential development around the periphery of the town centre over time;
- Consider provision of shop top housing and other residential mixed-use built forms to help activate the town centre throughout the day and evening;
- Provide a variety of employment and business opportunities through the provision of community, retail and non-retail commercial activities;
- Limit access to Cherry Flat Road between Webb Road and Glenelg Highway. Any access proposed should be from a service lane or allow left-in, left-out movements only; and
- Create a town square or similar public space within the MAC Retail Core. This space should be:
 - Edged with active frontages;
 - Located in an area with high pedestrian activity and
 - accessible from multiple places;
 - Located adjacent to or directly addressed by community
 - facilities;
 - Located to have good solar orientation; and
 - Accessible to both shade and rain sheltered areas.

Major Activity Centre – Bulky Goods Precinct

The following planning and design guidelines must be met:

- Proposals are to be consistent with the role and function of the centre as described in Table 5.

The following planning and design guidelines should be met:

- Create an appropriate interface between the bulky goods precinct and abutting residential development;
- Ensure development addresses Glenelg Highway, Cherry Flat Road and Webb Road;
- Landmark frontages should be provided at the intersection of Glenelg Highway and Cherry Flat Road and Cherry Flat Road and Webb Road, unarticulated facades to these intersections will not be supported; and
- The scale of development in this precinct must have regard to the scale of development in surrounding residential areas.



Neighbourhood Activity Centre

The following planning and design guidelines should be met:

- Provide a landmark frontage at the intersection of Ballarat-Carngham Road and the future north-south collector road and at prominent corner sites within the activity centre;
- Orientate buildings to address Ballarat-Carngham Road, the proposed collector road and the future residential development to the south and east;
- Create a tree lined 'main street' feel through the activity centre by providing active street frontages to all proposed internal roads and the north-south collector.
- Future development should not present blank facades to Ballarat-Carngham Road, the north-south collector road or the proposed 'main street';
- Locate car parking areas behind retail buildings to screen these areas from key shopping areas;
- Integrate the activity centre with future residential development; and
- Locate medium density residential adjacent to the Neighbourhood Activity Centre.

Urban Design Frameworks – Major Activity Centre and Neighbourhood Activity Centre

A permit should not be granted to use or subdivide land, or to construct a building or construct and carry out works within the Major Activity Centre or the Neighbourhood

Activity Centre until an Urban Design Framework has been prepared, or where one has already been approved, amended, if required, to the satisfaction of the Responsible Authority

The Urban Design Framework should:

- Address the whole of the activity centre unless a staged Urban Design Framework is agreed to by the Responsible Authority;
- Address any relevant design guidelines prepared by the Victorian Government or Responsible Authority;
- Demonstrate an appropriate design response that addresses the relevant Activity Centre Planning and Design Guidelines and the indicative concept plans illustrated in Figures 7 & 8;
- Explain how the Framework responds to feedback received following consultation with infrastructure agencies including VicRoads and the Department of Transport and landowners within the activity centre;
- Show how the activity centre relates to existing or approved development in the area;
- Include an overall landscape concept for the activity centre;
- Demonstrate how the activity centre will positively address environmental sustainability including integrated water management and energy conservation;
- Show the proposed location and design of car parking areas, and detail car parking rates for proposed uses within the activity centre;
- Show proposed staging of development;
- Set out design principles for the provision of advertising Signs; and
- Set out arrangements for the provision of service areas for deliveries and waste disposal including access for larger vehicles and measures to minimise the impact on the amenity of the activity centre and adjoining neighbourhoods.





Figure 7 Sub-Precinct 1 Major Activity Centre - Existing Urban Design Framework (Approved 20 April 2023)

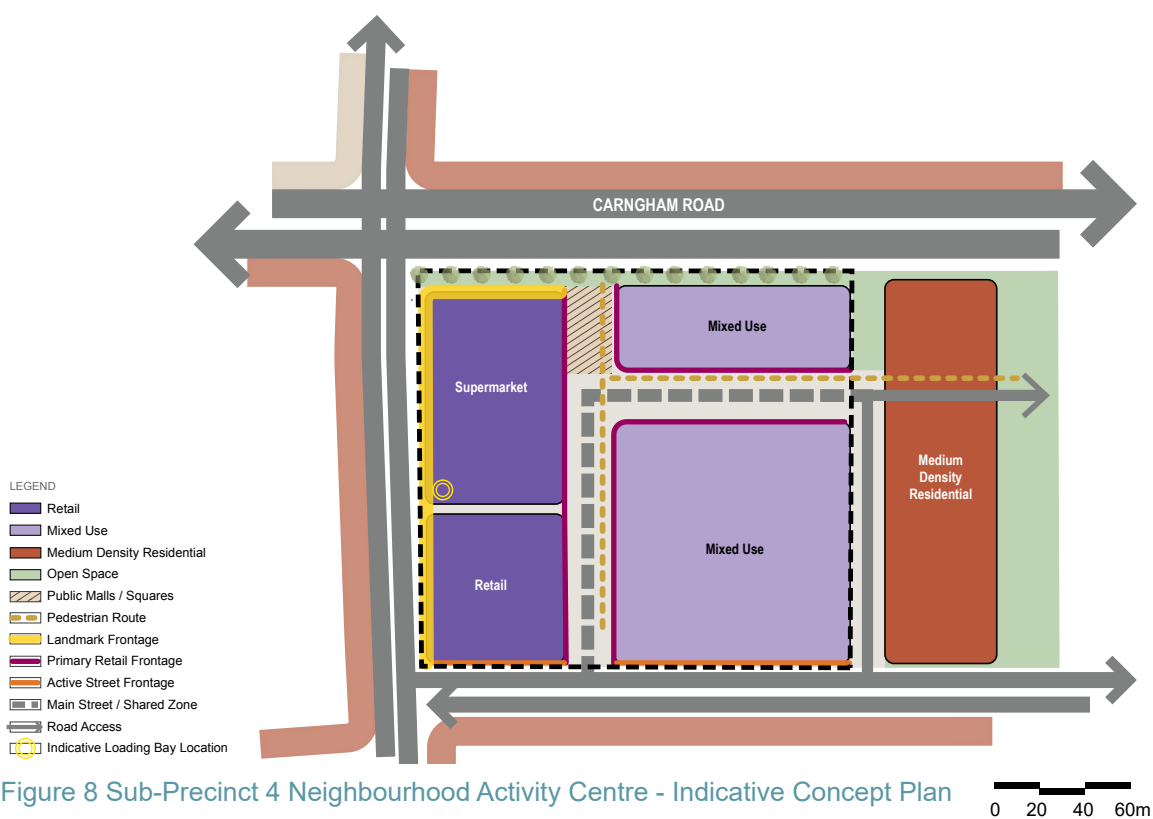


Figure 8 Sub-Precinct 4 Neighbourhood Activity Centre - Indicative Concept Plan

5.3.4 Industrial / Commercial Precinct Objectives

The objectives for the Industrial/Commercial precinct are:

- To provide an air emissions buffer between the existing Delacombe Industrial Area and residential neighbourhoods in the Ballarat West PSP;
- To protect heavy industries in the Delacombe Industrial Area from residential encroachment;
- To create a unique industrial/commercial precinct that accommodates a mixture of non-sensitive land uses that provide employment opportunities supporting the Precinct;
- To provide passive surveillance of the linear landscape buffer;
- To support high quality built forms and uses such as office and small business workshops to provide an attractive interface between the Delacombe Industrial Area and residential land uses to the west; and
- Provide built forms within the Industrial/Commercial precinct that serve a noise attenuation function and assist to reduce noise impacts on the surrounding residential area.

5.3.5 Implementation

The objectives for the Industrial/Commercial Precinct are met by the implementation of all of the following:

- Plan 8: Future Urban Structure Plan;
- Plan 12: Employment and Activity Centres Plan;
- Table 5: Activity Centre and Employment Hierarchy; and
- Industrial/Commercial Precinct Planning and Design Guidelines set out in Section 5.3.6.



5.3.6 Industrial / Commercial Precinct Planning and Design Guidelines

The following planning and design guidelines must be met:

- Proposals must be consistent with and enhance the Activity Centre and Employment Hierarchy described in Table 5;
- Development facing the Linear Landscape Buffer must address the buffer area, be well landscaped and ensure passive surveillance;
- Buildings fronting the Linear Landscape Buffer and Ballarat-Carngham Road must be designed to a high standard and provide a well-articulated front facade;
- Building designs must consider their presentation to residential areas and provide an appropriate transition between residential and non-residential uses;
- Uses within the precinct must not create new amenity buffer requirements for air, noise or light emissions that would extend the existing buffers or levels identified in this PSP;
- No sensitive land uses are permitted within the Industrial/ Commercial Precinct;
- Office uses must be commensurate in scale with an out-of-centre, suburban location and must not undermine the function of the Central Business District and the proposed Major Activity Centre;
- Restricted retail (bulky goods) uses must be appropriate in scale with an out-of-centre location, not undermine the retail hierarchy defined by the *Ballarat Activity Centres Strategy (2011)* and not undermine the function of the bulky goods precinct within the Major Activity Centre; and
- Other non-sensitive, non-industrial uses such as an indoor sports centre may be acceptable.

The following planning and design guidelines should be met:

- To minimise dumping of rubbish, lots in the Industrial/ Commercial Precinct should not directly abut the Linear Landscape Buffer.



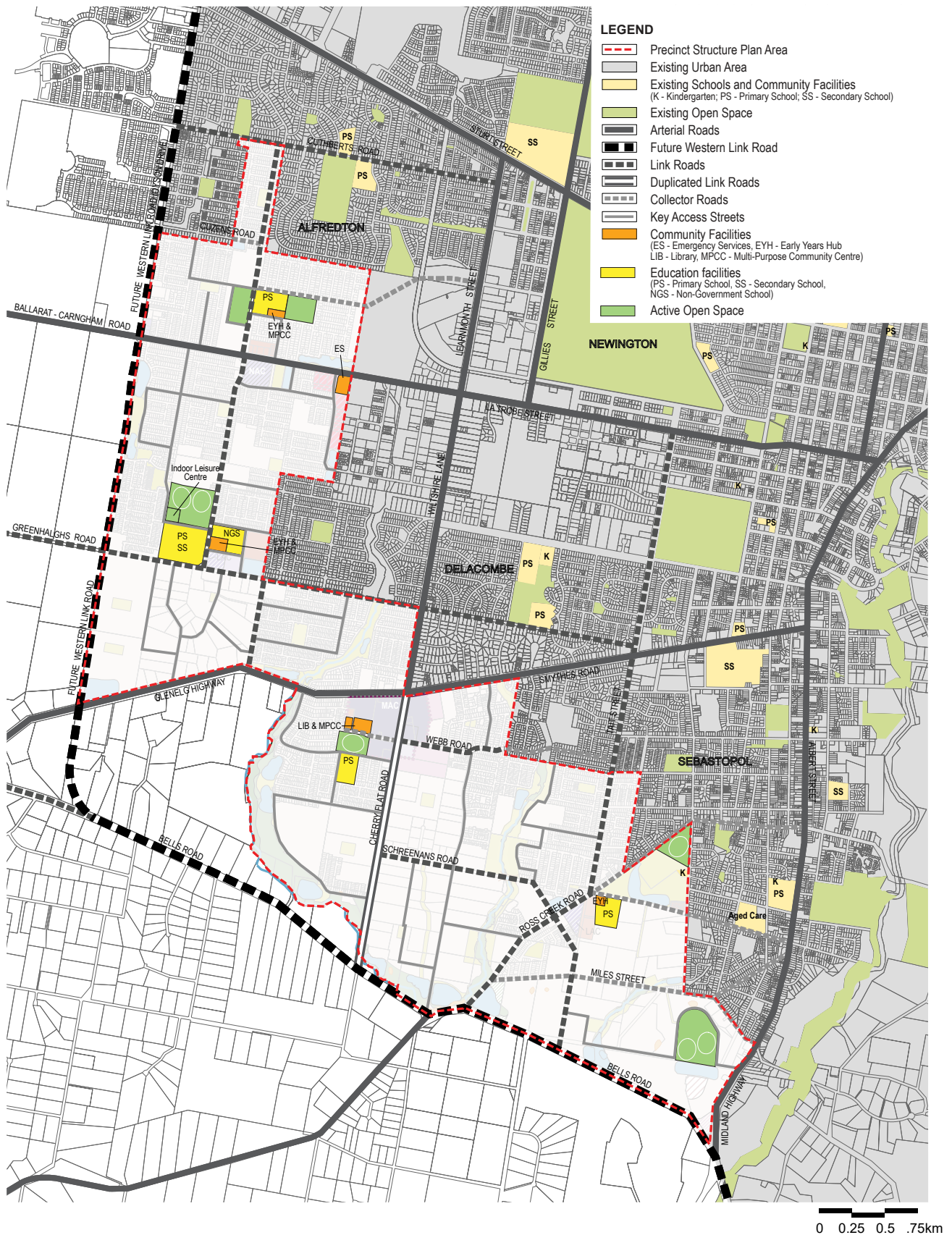
Table 5 Activity Centre and Employment Hierarchy

Activity Centre	Role and Function
Glenelg Highway Major Activity Centre	<ul style="list-style-type: none"> • Act as the main shopping precinct for Ballarat West; • Primarily serve the population of the Ballarat West Growth Area; • Provide for up to 29,500 m² of retail floor space, up to 23,000 m² of floor space for restricted retail premises and up to 21,500 m² of office space. Provision of this floor space will be staged in line with demand growth in the catchment (the Ballarat West Growth Area); • At full development of the catchment (the Ballarat West Growth Area), accommodate two full-line supermarkets, discount department stores and specialty shops and services; • Have a civic function and include a library and multi-purpose community centre; and • Allow residential uses and encourage the introduction of office/ home developments around the periphery of the centre.
Ballarat-Carngham Road Neighbourhood Activity Centre	<ul style="list-style-type: none"> • Medium sized neighbourhood activity centre; • Provide for up to 6,000 m² of retail floor space, with opportunities to provide up to 3000 m² office uses; • Provision for one supermarket and a variety of specialty shops and services; and • Development should be anchored along a main street which runs through the centre.
Local Activity Centres	<ul style="list-style-type: none"> • Provide for up to 1500 m² of retail floor space and 500 m² of office space; • Provide opportunity for a small supermarket supported by convenience shops and services; and • Serve daily shopping needs.
Industrial / Commercial Precinct	<ul style="list-style-type: none"> • Employment precinct that provides for manufacturing and service industries, offices, associated commercial and industrial uses, and other non-sensitive land uses, which are compatible with sensitive land uses; • Provides flexibility for integrated office/industry developments that is not readily accommodated in the Central Business District and Glenelg Highway Major Activity Centre; • Provides an air emissions buffer between existing industry and sensitive uses. This area is not to include sensitive uses; • Provides manufacturing and service industries to meet the needs of the future Ballarat West community, allowing flexibility for development of a range of associated commercial uses including offices; • Provide some capacity for Restricted Retail Premises up to a total of 8,500 m² across the Industrial/ Commercial Precinct. Restricted Retailing in this area should form part of a balanced mixture of land uses which do not undermine the role of the retail hierarchy or the Major Activity Centre. The primary focus for Restricted Retailing is to be the Major Activity Centre; and • This employment area is not intended to become an activity centre or be integrated with the Ballarat-Carngham Road Neighbourhood Activity Centre. Land use proposals in this area should not detract from the function and role of planned and existing activity centres, considering Ballarat's wider activity centre hierarchy. <p>This may need to be demonstrated to the satisfaction of the Responsible Authority.</p>

The floor areas are indicative of the size of the centre based on the retail assessment undertaken by Macroplan as part of the preparation of the PSP. Variations to the indicative floor area may be permitted provided it does not change the role of the Activity Centre. A retail or economic assessment will be required.



Plan 13 Community Facilities



5.4 Community Facilities

5.4.1 Community Facilities Objectives

The objectives for community facilities are:

- To provide a well-connected network of community hubs across the Precinct;
- To foster community activity and interaction within each neighbourhood by co-locating community uses, activity centres, play space, open space, and transport facilities;
- To provide community facilities in line with future population growth;
- To provide opportunities for adaptable, shared, co-located and/or integrated community facilities (land and buildings);
- To plan for a range of community facilities, cultural venues and services to meet the varying needs of local residents;
- To plan for community facilities of a high standard that have flexible designs which can accommodate a range of uses, meet the changing needs of the community and allow for both indoor and outdoor activities;
- To locate community facilities with active and passive open space and, where appropriate, education facilities;
- To plan for community facilities which have safe and convenient access by public transport, walking, cycling, the mobility aided and car;
- To plan for physical connections that integrate future adjoining land uses for community use;
- To provide sporting facilities and supporting infrastructure identified in the plan;
- To allow for the timely delivery of community facilities such as schools, health and children's services and formal recreation facilities as population thresholds are reached and funding becomes available; and
- To provide for an emergency services facility (CFA, Ambulance and possibly Police and SES) to cater for growth outside of their existing service areas.

5.4.2 Implementation

The objectives for community facilities are met by implementation of all of the following:

- Plan 8: Future Urban Structure Plan;
- Table 6: Community Facilities;
- Plan 13: Community Facilities Plan;

- Figure 9: Delacombe Community Hub;
- Figure 10: Winterfield North Community Hub;
- Community Facilities Planning and Design Guidelines set out in Section 5.4.3; and
- Community Facilities Delivery Statement set out in Section 5.4.4.

5.4.3 Community Facilities planning and design guidelines

General

The following planning and design guidelines must be met:

- Community facilities must be integrated with other community facilities, activity centres and/or open space, and be co-located with proposed children's playgrounds, recreation infrastructure and kindergartens; and
- Education and community services (public and private) and other activities (such as childcare centres) must:
 - Be within or nearby community hubs or activity centres;
 - Be located so they are easily accessible by walking, cycling and public transport; and
 - Provide safe drop-off and pick up locations on access streets and collector roads, not arterial roads.

The planning and development of community facilities should:

- Accommodate a diverse range of users;
- Promote social interaction and foster a sense of place;
- Ensure that built form is of a high standard and of a proportion, scale and character appropriate to their urban context;
- Ensure principal entrances of buildings to streets and/or public spaces are clearly visible from the street and are not isolated from view;
- Be designed with adaptable spaces that can be modified to respond to changing community demands and needs;
- Capitalise on any natural features that currently exist, and emphasise any unique characteristics that may be present; and
- Schools may be designed to incorporate uses such as places of worship or other welfare/community facilities if required.



5.4.4 Community Facilities Delivery Statement

It is important that community facilities are delivered in-line with population growth in the Ballarat West PSP area and provided when demand arises.

Integrated, efficient and timely provision

Sources of funding for community facilities include:

- The Ballarat West DCP;
- City of Ballarat's Capital Works Program;
- Developer funded delivery of an item in the Ballarat West DCP through a works-in-kind agreement. Works-in-kind agreements require approval from the City of Ballarat who is the collecting agency for Development Contributions;
- Non-government organisations. Some community infrastructure may be able to be delivered by the Council working in partnership with non-Government organisations; and
- State and Federal Government Programs. The State and Federal Government have a range of grant programs that could potentially provide funding for a range of community facilities.

Community Facilities Concept Planning

Delivery of integrated and timely community facilities is a complex and evolving task. It requires involvement from many stakeholders with shifting priorities. Models for the delivery of infrastructure also evolve and change over time. This PSP has been designed to be flexible enough to accommodate change over time.

Co-ordination and delivery of community facilities will be assisted by:

- Establishing a governance model for the concept and master planning of 'hubs' that co-locate a number of facilities (for example schools and City of Ballarat services); this may be facilitated by the City of Ballarat through a steering committee;
- The preparation of community hub concept plans; and
- The preparation of master plans that provide details of the delivery of the concept plans.

Governance arrangements and engagement are important parts of identifying, discussing and resolving issues around facility design, ownership, leasing, capital works funding, service delivery funding, management, maintenance and upgrade over time.

The opportunities for integrated facility delivery apply equally to sporting facilities as they do to items such as community centres and schools. Opportunities for shared use of clubhouse and pavilion buildings should be investigated and, if appropriate, accommodated through flexible facility design and integration through hub master planning.

Where facilities are associated with schools, they should be designed concurrently to ensure integrated facility delivery and to maximise sharing opportunities.

The design of education and community hubs should be undertaken in consultation with the local community and the service providers who are likely to operate it.

One of the complexities of planning for community hubs is the need to take into account previous decisions and consider how this may impact the eventual delivery of the facilities required. For example at Delacombe Major Activity Centre, at the time of writing there is live planning permit for a private childcare centre which conflicts with Council's preferred location for an early years hub. Council recognizes that the landowner has an accrued right to act on the permit prior to its expiry condition. However Council needs to reserve the right to implement the PSP vision in the event that the permit is not acted upon. Therefore the future urban structure plan shows the land as community facilities.

Non-Government Schools

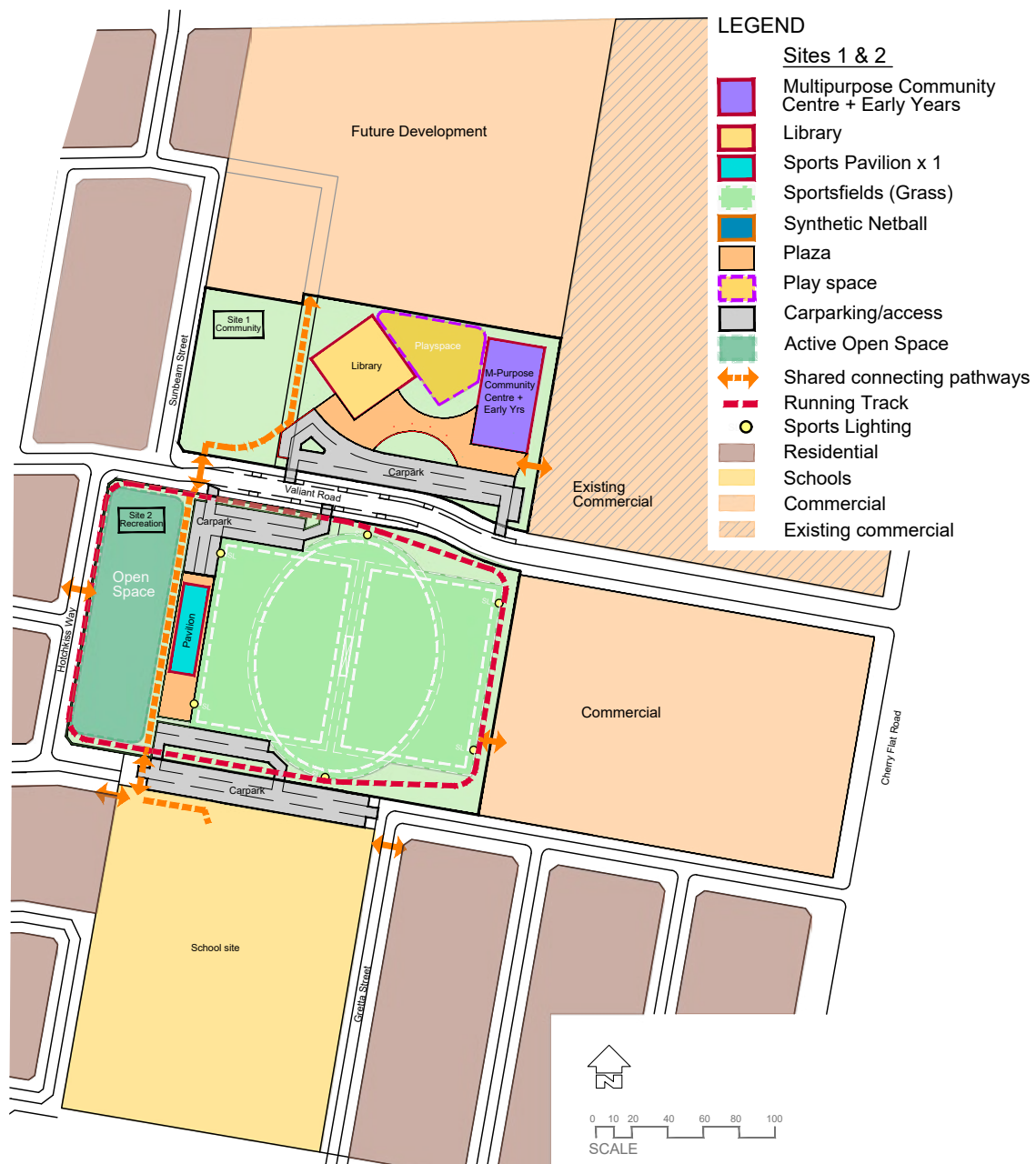
The PSP makes provision for one site for a non-Government school (3.5ha). The layout of the education and community hub in Sub-Precinct 2 allows several other site options, for example on the northern side of the Indoor Leisure Centre. Options in other Sub-Precincts include land adjacent to the education and community hub in Sub-Precinct 4.



Table 6 Community Facilities

Community Facilities and Services	Location	Area (ha)	Responsibility
State Government School (P-12)	Education and Community Hub in Sub-Precinct 2	10.00ha	Department of Education (DET)
State Primary School	Sub-Precinct 1: Major Activity Centre between Kensington Boulevard and Reynolds Parade	3.42ha	Department of Education (DET)
	Sub-Precinct 1: Co-locate with LAC and MR Power Park	3.37ha	Department of Education (DET)
	Sub-Precinct 4: Co-located with District Park between Kilkenny Drive and Donegal Drive	4.07ha	Department of Education (DET)
Non-Government Primary School	Education and Community Hub in Sub-Precinct 2	3.5ha	Private provider
Early Years Hubs	Sub-Precinct 1: Major Activity Centre co-located with community centre on Valiant Road	1.0ha	City of Ballarat
	Sub-Precinct 1: Co-locate with school on Morgan Street	0.5ha	City of Ballarat
	Sub-Precinct 2: Education and Community Hub located on Presentation Boulevard	0.5ha	City of Ballarat
	Sub-Precinct 4: Co-locate with Primary School and Community Hub	0.7ha	City of Ballarat
Multi Purpose Community Centres	Level 3 Centre: Sub-Precinct 1: Major Activity Centre co-located on Valiant Road with branch library	0.9ha	City of Ballarat
	Level 1 Centre: Sub-Precinct 2: Co-located with the Education and Community Hub located on Presentation Boulevard	0.8ha	City of Ballarat
	Level 1 Centre: Sub-Precinct 4: Co-located with Primary school and Early Years Hub	0.7ha	City of Ballarat
Library – 1800m ² branch library	Sub-Precinct 1: Major Activity Centre co-located with community centre	0.9ha	City of Ballarat
Indoor Recreation Facility	Sub-Precinct 2: Education and Community Hub	1.3ha	City of Ballarat
District Parks (active open space)	Sub-Precinct 1: South Eastern section	11.13ha	City of Ballarat
	Sub-Precinct 1: Major Activity Centre	3.5ha	City of Ballarat
	Sub-Precinct 1: M R Power Park	4.00ha	City of Ballarat
	Sub-Precinct 2: Education and Community Hub	10.00ha	City of Ballarat
	Sub-Precinct 4: co-located with the School	7.98ha	City of Ballarat
Neighbourhood Parks	Throughout the Precinct and within 400m of almost all residents.	Total: 36.19ha	City of Ballarat - constructed by development proponents
	Sub-Precinct 1: 10 parks (including M R Power Park)	approx 5 x <0.5ha parks	
	Sub-Precinct 2: 4 parks	approx 14 x 0.5-5ha parks	
	Sub-Precinct 4: 5 parks	1 x approx. 14ha park	





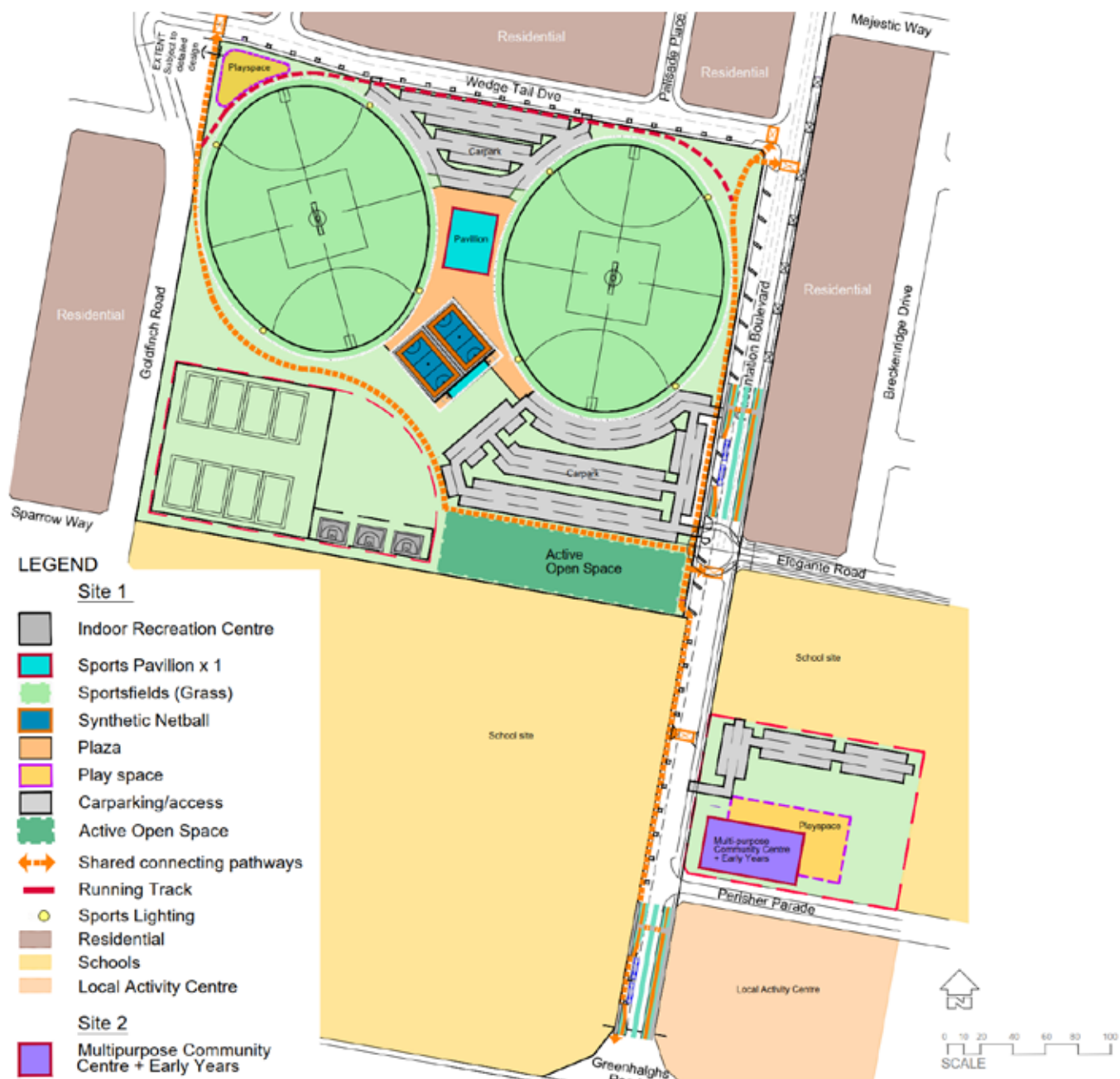
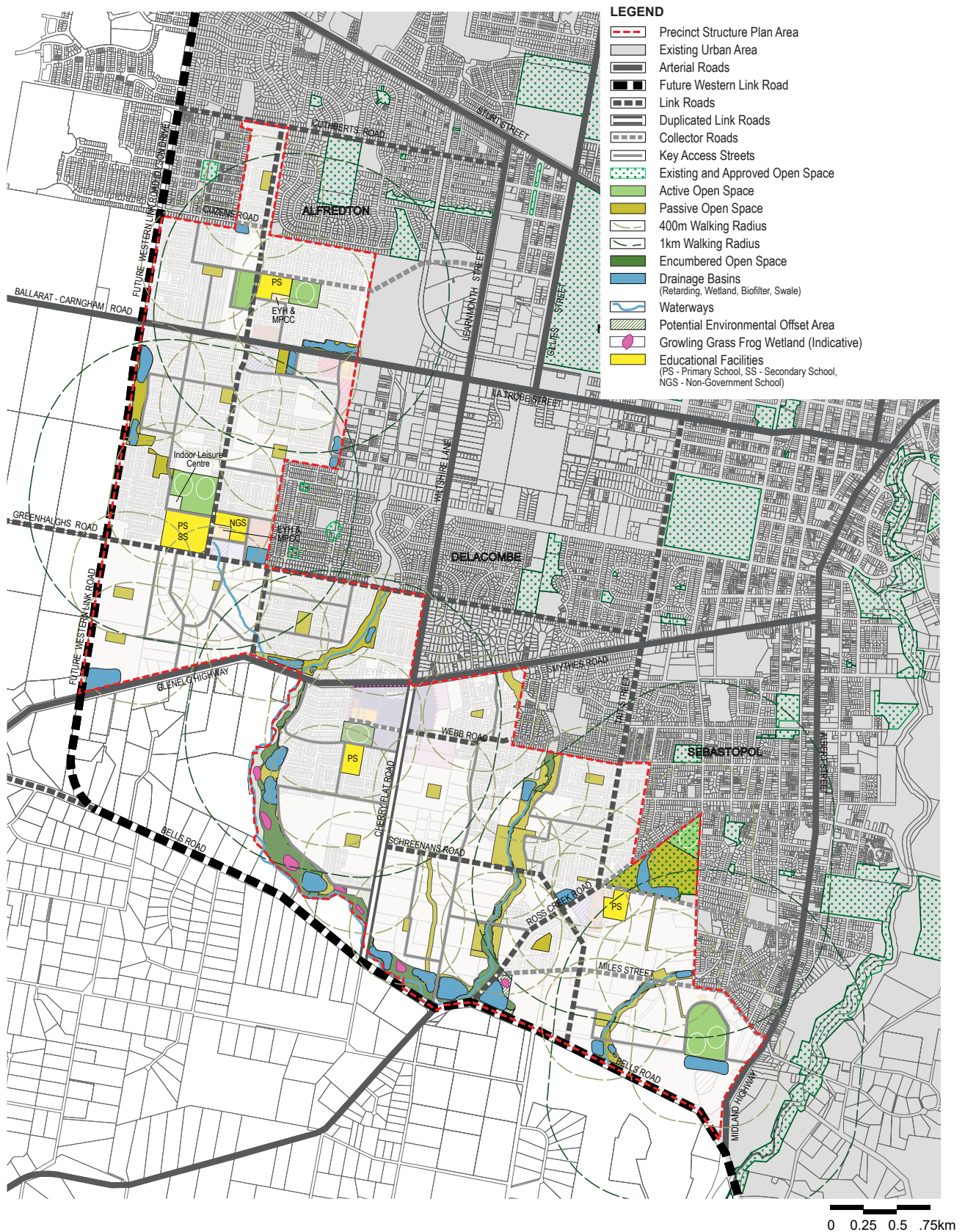


Figure 10 Winterfield North Community Hub - Indicative Concept Plan

Plan 14 Open Space



5.5 Open Space and Natural Systems

5.5.1 Open Space Objectives

The objectives for open space are:

- To provide an accessible and connected network of open spaces suitable for a broad range of civic, passive and active recreation uses;
- To provide a variety of open spaces to meet the active and passive recreation needs of the community;
- To maintain and enhance environmental, landscape and heritage features within open space, where possible;
- To protect and enhance areas of significant native vegetation and fauna habitat and integrate these areas with open spaces;
- To restore and enhance existing natural creek lines and establish an attractive urban environment with a strong sense of place; and
- To protect Growling Grass Frogs in line with obligations under the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* and any Growling Grass Frog Management Plan.

5.5.2 Implementation

The objectives for open space are met by implementation of all of the following:

- Plan 8: Future Urban Structure Plan;
- Plan 14: Open Space Network Plan;
- Plan 19: Walking and Trails Plan;
- Figure 11: Ballarat-Carngham Road Concept Plan;
- Figure 12: MR Power Park Concept Plan;
- Figure 13: Winter Creek Master Plan;
- Open Space Planning and Design Guidelines at Section 5.5.3;
- Ballarat West Native Vegetation Precinct Plan; and
- Ballarat West Development Contributions Plan.



5.5.3 Open space planning and design guidelines

General

The following planning and design guidelines must be met:

- Open spaces must be designed to address Crime Prevention through Environmental Design principles (refer *Urban Design Guidelines for Victoria, Department of Environment, Land, Water and Planning 2017*);
- Streetscape planting and paths must complement and integrate with the adjoining parkland design;
- Residential, commercial and/or community facilities adjacent to open space must be designed to enhance the open space area; and
- Open space must be designed and constructed to meet its designated purpose, to the satisfaction of the Responsible Authority.

The following planning and design guidelines should be met:

- Neighbourhood parks should be central to their catchment, in a prominent location such as on the intersection of two key local streets and be in a location where streets provide a high degree of connectivity;
- Car parking areas should be designed and located to maximise safety and security;
- Open spaces should be connected through an integrated network of pedestrian and cycle paths;
- The design and construction of open spaces should consider and reflect any natural or heritage elements in the area;
- All edges of open spaces should have either a road frontage or a direct frontage that is activated and provides passive surveillance of the open space;
- Passive parks should cater for a broad range of users by providing a mix of spaces and planting to support both structured and informal recreational activities;
- Active recreation reserves should be designed to allow co-location and sharing opportunities between complementary sports and school facilities;
- Parks should contain both open areas for unstructured activities, as well as areas for shade and shelter;
- The design and layout of open spaces should implement Water Sensitive Urban Design (WSUD) principles;
- Parks should be designed to make efficient use of water and implement best practice storm water quality standards; and
- Paths for pedestrian and cyclist movement should be provided along all creek corridors.

Bonshaw, Kensington and Winter Creek

The following planning and design guidelines must be met:

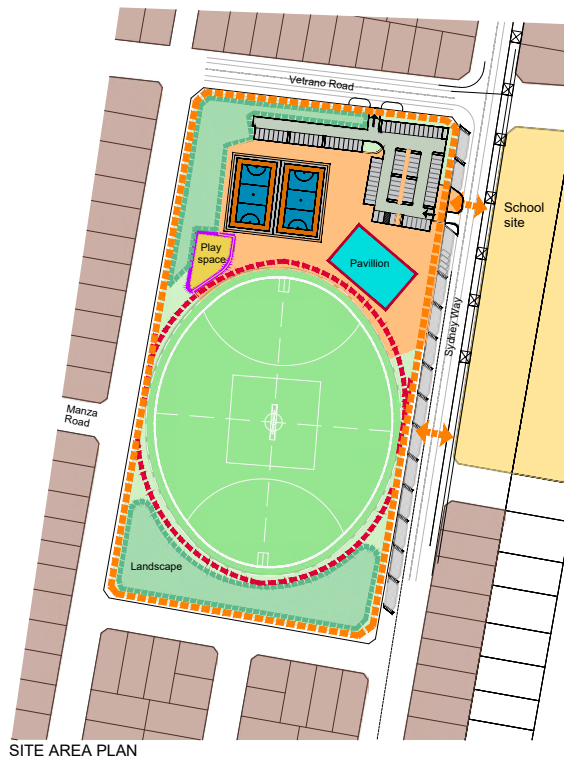
- Provide a minimum width of 35 metres of open space on each side of the named creeks (measured from centre line of creek) to provide habitat for significant flora and fauna species, as well as catering for drainage requirements;
- Create significantly wider nodes for passive recreation by locating unencumbered local open space abutting the encumbered open space along the creek lines;
- Ensure habitat is created for Growling Grass Frogs along the creek line in accordance with the Ballarat West Growling Grass Frog Conservation Management Plan; and
- Where the creek forms the boundary between the Ballarat West PSP area and rural areas, the landscape design of the creek corridor must minimise the risk of bushfire transmission into developed areas, in accordance with the requirements of the Country Fire Authority and any applicable standards.

Open Space Improvements

Individual development proponents are required to provide basic improvements to local parks and passive open space including earthworks, fencing, water tapping, grassing, tree planting, local playgrounds, shared paths and footpaths, furniture and paving.

The City of Ballarat may add to these basic improvements over time with the provision of additional facilities through its Capital Works Program.





SITE AREA SCHEDULE Total area = 4ha.

Legend

- Modified grass sportsfield
- Pavilion
- Netball courts (synthetic)
- Plaza
- Play space
- Carparking (on site)
- Carparking (on road)
- Landscaping
- Shared connecting pathways
- Running Track
- Residential
- School site

Areas

- 17000m²
- 1no. AFL (modified to fit site)
- 1000m²
- 2100m²
- 2no. n/ball courts
- 1750m²
- 850m²
- 2700m²
- 83 spaces
- 75 parks
- 6500m²
- 1200 lin. m 2400m²

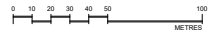


Figure 11 Ballarat Carngham Road Site Area - Indicative Concept Plan

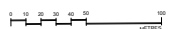


Figure 12 MR Power Park - Indicative Concept Plan



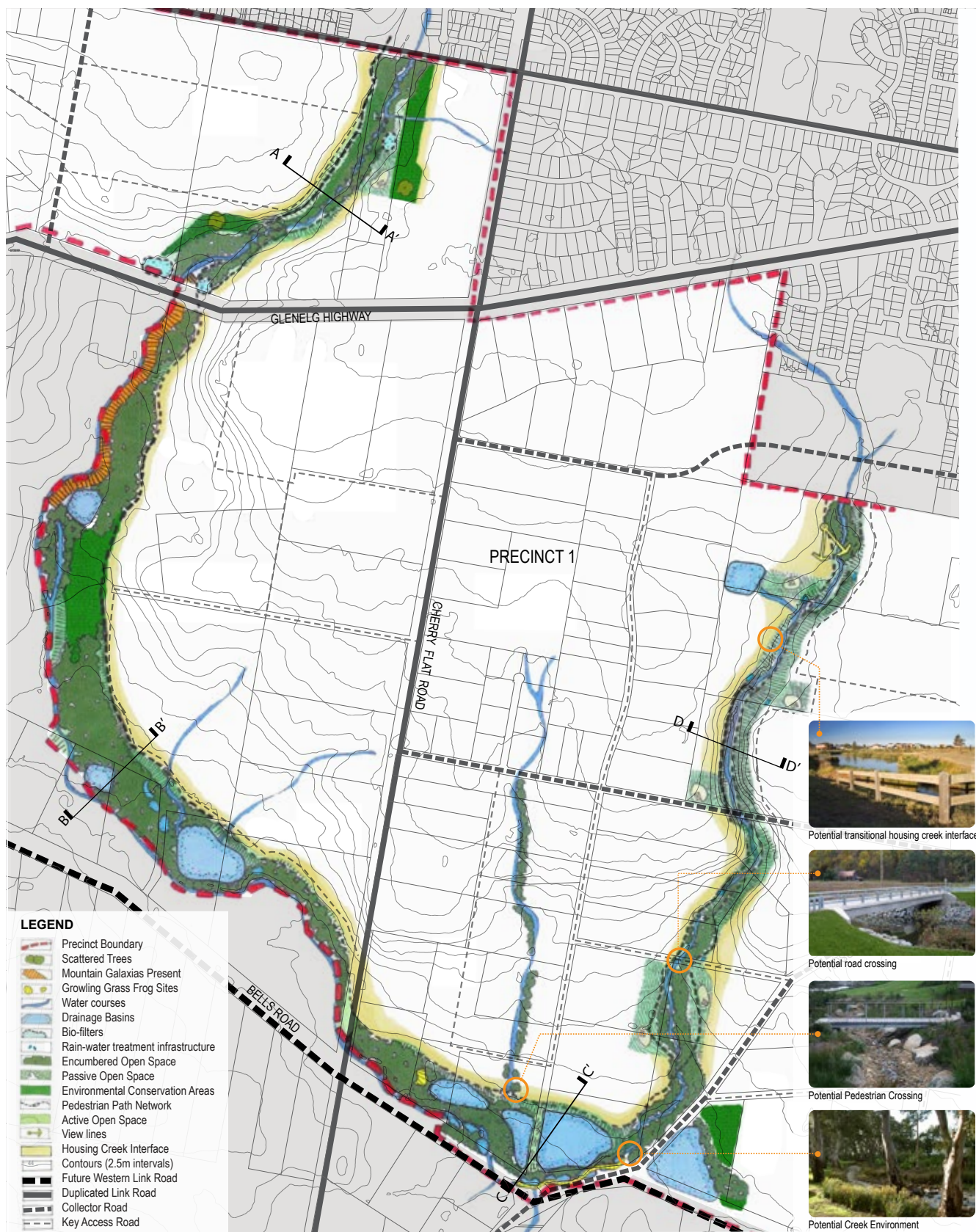
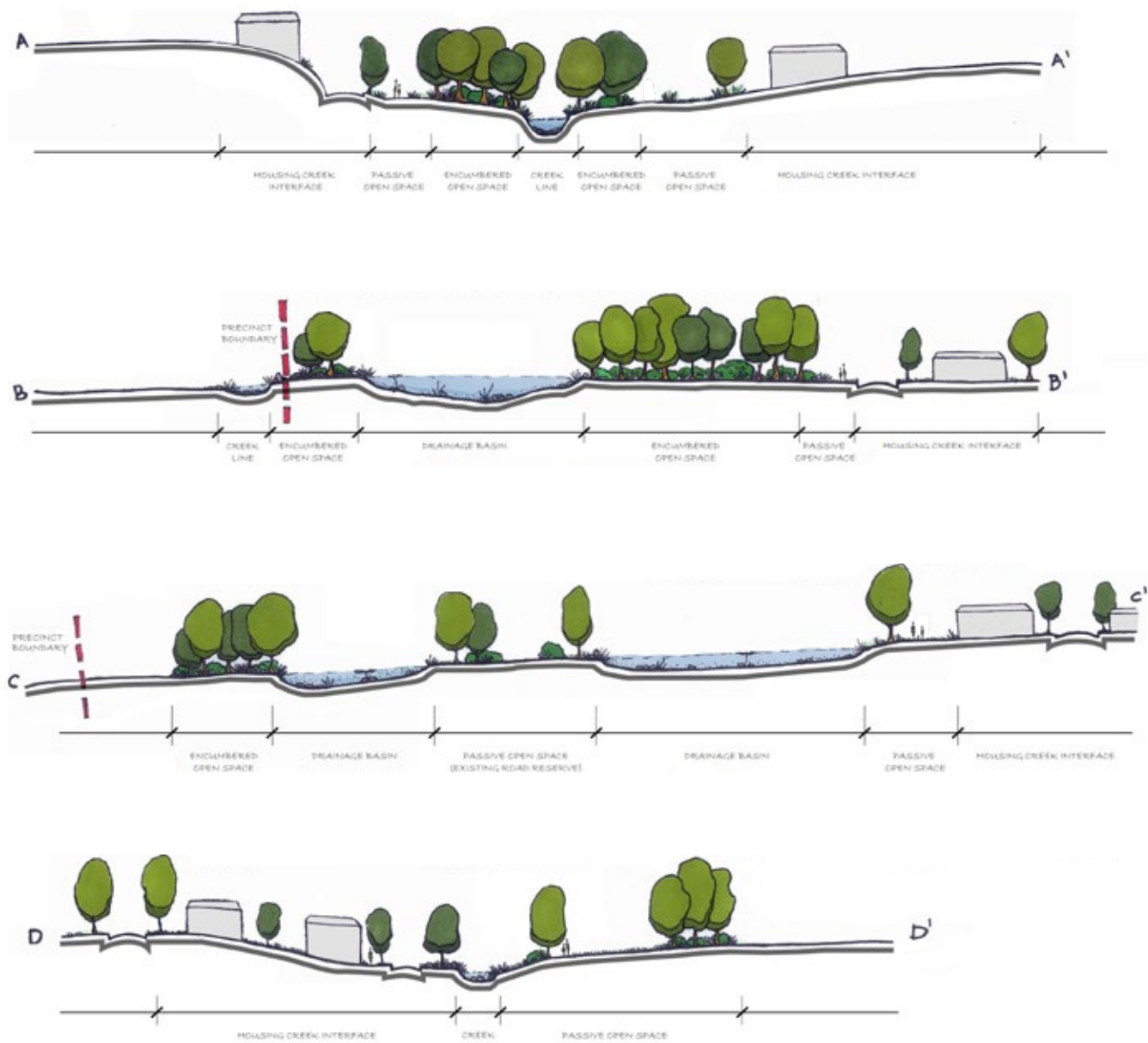


Figure 13 Winter Creek Master Plan



Cross Sections - Winter Creek Master Plan

5.5.4 How to make a passive open space contribution

Clause 53.01 of the Ballarat Planning Scheme specifies a public open space contribution which must be made upon the subdivision of the land. This requirement is only in respect of passive public open space. Active open space is addressed through the Ballarat West Development Contributions Plan (February 2025).

Because the Ballarat West PSP identifies a desired distribution of passive open space across the area of the PSP (land shown as Passive Open Space in Plan 14), all landowners must make a passive open space contribution equivalent to the amount set out in the schedule to clause 53.01 either in land or in cash or a combination of both as advised by Council. Landowners who contribute more land than the specified open space contribution required by clause 53.01 will be entitled to a payment. This process is referred to as equalisation and is explained further below.

All land within the Ballarat West Precinct Structure Plan area must make a passive open space contribution specified at 5.91% Gross Developable Area (GDA).

Where land is required by Council for unencumbered passive public open space purposes and that area of land is less than or equal to 5.91% of the Gross Developable Area of that land, that land is to be transferred to Council at no cost.

Where no land or less than 5.91% of the GDA of any land is provided to Council for unencumbered passive public open space purposes, a cash contribution is to be made to Council to bring each property's total passive public open space contribution up to an amount equivalent to 5.91% of the value of the Gross Developable Area.

Where the land required by Council for unencumbered passive public open space purposes is more than 5.91% of the GDA of any land, Council will pay an amount equivalent to the value of the additional land being provided by that property over the 5.91% of the area required as a passive public open space contribution but Council will not pay an amount for land provided as public open space which is in excess of the land required by Council to be set aside as passive public open space.

5.6 Biodiversity Assets

The following flora and fauna are present within the Precinct:

- Growling Grass Frog species and suitable habitat (listed under the *Environmental Protection and Biodiversity Act 1999*);
- Mountain Galaxias (listed under the *Flora and Fauna Guarantee Act 1986*); and
- A number of scattered remnant trees.

5.6.1 Biodiversity Objectives

The objectives for biodiversity are:

- To provide for the long term conservation and management of areas of significant vegetation in accordance with the Ballarat West NVPP ;
- To plan for the enhancement of creek corridors and drainage lines and integration of these spaces into the open space network;
- To protect and create suitable habitat for the Growling Grass Frog along Kensington, Winter and Bonshaw Creeks in accordance with the Ballarat West Conservation Management Plan; and
- To provide native vegetation offsets within the conservation areas identified in the Ballarat West Native Vegetation Precinct Plan .

5.6.2 Implementation

The objectives for biodiversity are met by implementation of all of the following:

- Plan 8: Future Urban Structure Plan;
- Figure 13: Winter Creek Master Plan;
- Plan 15: Integrated Water Management Plan;
- Ballarat West Native Vegetation Precinct Plan;
- Biodiversity Planning and design guidelines set out in Section 5.6.3; and
- Growling Grass Frog Conservation Management Plan set out in Section 5.6.4.

5.6.3 Biodiversity Planning and Design Guidelines

The following planning and design guidelines must be met:

- Green links, drainage corridors and linear parks are to be re-vegetated with indigenous flora species to provide habitat for local fauna, including Growling Grass Frogs where appropriate;
- Indigenous vegetation will be retained as shown on the Ballarat West NVPP;
- In accordance with the Ballarat West NVPP, native vegetation offsets are to be provided within the conservation areas. If offsets cannot be provided in these areas, offsets are to be secured off-site; and
- Development on any site identified in the Ballarat West Conservation Management Plan as being a site where Growling Grass Frogs have been found or as being within the Growling Grass Frog Offset Trigger Area must be in accordance with the Ballarat West Conservation Management Plan and any approvals pursuant to the *Environmental Protection and Biodiversity (EPBC) Act 1999*.

5.6.4 Growling Grass Frog Conservation Management Plan

The following objectives must be met:

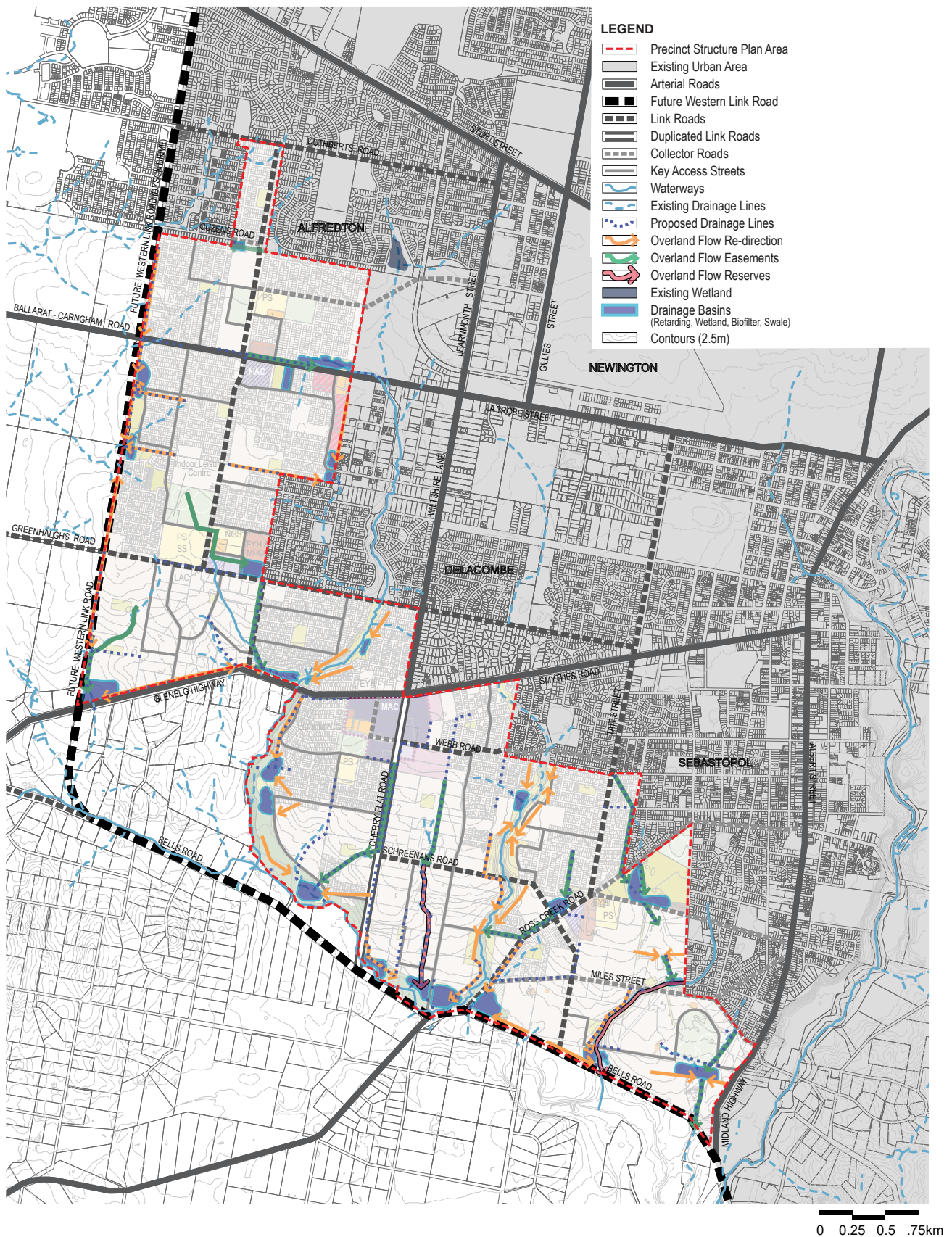
- Development on any site identified in the Ballarat West Conservation Management Plan as being a site where Growling Grass Frogs have been found or as being within the Growling Grass Frog Offset Trigger Area must ensure the long-term viability of the Growling Grass Frogs:.
- Increase the amount of high quality GGF habitat in the by the creation of compensatory wetland habitat;
- Incorporate the compensatory habitat prior to the removal of currently used habitat to ensure successful dispersal and colonisation; and
- Develop a monitoring program to assess the effectiveness of the CMP and/or provide further management actions that may be required to ensure the objectives are met.

The following design guidelines must be met:

- Kensington and Winter Creek are the preferred location for GGF compensatory habitat.
- Any new GGF habitats should be consistent with the design standards outlined in the CMP.



Plan 15 Integrated Water Management



5.7 Integrated Water Management

Integrated Water Management is an approach which considers the whole of the water cycle with an aim to make the most of water resources. This is achieved through integrating the various water systems such as water supply, stormwater and wastewater in ways which achieve improved social, economic and environmental outcomes.

Engeny Water Management was originally engaged by SMEC Urban to prepare a drainage report to assist with drainage and water sensitive urban design (WSUD) for the precinct area. This report formed the basis for the original Integrated Water Management Plan. Engeny have been re-engaged by the City of Ballarat to undertake an updated stormwater management strategy to align with the most recent guidelines and standards. Updated RORB modelling was applied to the study area to calculate the peak 100 year ARI flow rates, to understand the impact on retarding basins and waterways. Retarding basins are used to maintain the pre-development 100 year ARI event peak flow rate, as required by the Corangamite CMA.

Water discharging into existing waterways is required to meet the Best Practice Environmental Guideline Targets for Stormwater Treatment. This is achieved through the use of water sensitive urban design techniques such as wetlands and biofilters or rain gardens.

The amended drainage functions shown in Plan 15 are integrated with other land uses in a way which will maximise both development and environmental potential.

The updated Integrated Water Management Plan has been designed in a way which will lead to complimentary open space, recreation and ecological benefit. This is achieved through the co-location of retarding basins and open space where possible, and by retaining natural drainage and creek lines. This not only provides for the drainage needs of the urban area but creates focal points for communities and adjacent development and attractive recreation areas.

The biodiversity value of encumbered land is maximised through providing for the protection of vegetation and fauna habitat. Further WSUD elements can be incorporated into individual developments which will enhance the integrated water management objectives and amenity of the public realm.

5.7.1 Integrated Water Management Objectives

The objectives for Integrated Water Management are:

- To meet the drainage needs of the planned future urban environment;
- Protect the urban areas from flooding through managing the flows of stormwater run-off.

To manage the flows of stormwater runoff and improve the quality of water entering downstream systems:

- Provide stormwater detention to the satisfaction of the Responsible Authority;
- Maintain pre-development stormwater flows to receiving waterways;
- Reduce and filter sediment and nitrogen levels through an integrated water sensitive urban design system; and
- Design developments to meet the current best practice performance objectives for stormwater quality as contained in the *Urban Stormwater – Best Practice Environmental Management Guidelines (Victorian Stormwater Committee 1999)* as amended.

Design leads to maximising the habitat values and management of wetlands, waterways and open space functions:

- Protect downstream waterways from adverse impacts from urban stormwater run-off.

Water use and savings meet any policy targets for the Ballarat and District Water Supply System set by the Water Authority:

- Reduce potable water consumption through the use of alternative fit-for-purpose water sources;
- Encourage the use of recycled and harvested storm water within the Precinct;
- Encourage consultation with Central Highlands Water, the Corangamite Catchment Management Authority and City of Ballarat regarding the efficiency and sustainability of providing recycled water through harvesting storm water and/or third pipe systems, roof capture and use of water within properties; and
- Encourage consultation with Central Highlands Water, the Corangamite Catchment Management Authority and City of Ballarat regarding the treatment and storage of water within local aquifers.

5.7.2 Implementation

The objectives for Integrated Water Management are met by implementing all of the following:

- Plan 8: Future Urban Structure Plan;
- Plan 15: Integrated Water Management Plan; and
- Integrated Water Management Planning and Design guidelines set out in Section 5.7.3.



5.7.3 Integrated Water Management planning and design guidelines

Each planning permit application submitted must include an Integrated Water Management Statement which addresses how the objectives and guidelines of the Integrated Water Management Plan are achieved.

Water management solutions may deviate from the centralised drainage scheme yet must meet the technical engineering and water quality requirements needed to protect urban areas from flooding. Proposed solutions must be consistent with the financial management and staging principles contained within this Precinct Structure Plan.

The following planning and design guidelines must be met:

- All developments must achieve the provisions and standards in Clause 56-07 and other relevant provisions of the Ballarat Planning Scheme which promote Integrated Water Management;
- All drainage and waterway reserves must be designed to cater for 1:100 year flow events and the requirements of the Responsible Authority at the time of submission. Final sizes of drainage and waterway reserves will be subject to detailed design and approval by the Responsible Authority;
- Proposed water management arrangements must not hinder future development downstream and must consider the ultimate depth and location of piping further downstream; and
- All development must be in accordance with the City of Ballarat Water Sensitive Urban Design Guidelines, Stormwater Management Policy and related policies adopted by Council, as amended.

The following planning and design guidelines should be met:

- If new development brings forward the need for new drainage infrastructure or works, the developer should ensure that drainage requirements are managed without adversely affecting the financial capacity of the drainage authority to fund infrastructure using development contributions levies. Out of sequence development should be avoided unless infrastructure requirements can be funded or financed by developers;
- Drainage systems should be designed to ensure that stormwater quality is enhanced to best practice standards prior to discharge to the drainage lines;
- Design of drainage infrastructure should provide a high degree of visual amenity to adjacent residential areas and allow for recreational use where possible;

- Where retarding of storm flows is required in or adjacent to open space, the area used for retarding should be integrated into the open space. The area available for recreation use outside of flood periods should be maximised. Dual use of land for retarding and active open space (for example ovals) is encouraged;
- Maximise the potential for the collection, retention and re-use of stormwater by using site topography;
- Provide opportunities for stormwater harvesting and re-use in public open spaces, where possible;
- Ensure a net-gain of flora and fauna habitat in the construction of wetlands, water courses and associated constructed features;
- All development should demonstrate a 40% reduction on potable water demand from business as usual;
- Encourage the use of rainwater tanks for uses within domestic, commercial and community facility buildings, and for external irrigation; and
- Consider and explore opportunities to implement innovative solutions including the installation of:
 - Stormwater harvesting and capture systems;
 - Aquifer recharge and retrieval systems;
 - A third pipe recycled water system either using decentralised treatment or linked to the Ballarat South Wastewater Treatment Plant; and
 - Other to be determined based on best practice, new technologies or Government Policy.

The City of Ballarat, in consultation with Central Highlands Water and Corangamite CMA, is willing to explore the cost and feasibility of implementing innovations within the Precinct.

Drainage Network Delivery Statement

The drainage scheme has been designed to service the development with infrastructure that is optimal in terms of cost and performance while protecting properties, existing waterways and the environment.

Construction works for the drainage scheme will be completed in stages over the 30-plus year development of the Ballarat West PSP area. An annual capital works program will be prepared by City of Ballarat and works will be undertaken on a priority basis. Prioritisation of the scheme's works will include:

- allocation of funding over the life of the PSP, the flow of funding from the Ballarat West DCP and any medium term capital works plan developed by City of Ballarat;



- the rate of development within each sub-catchment;
- the estimated total cost of the downstream works required to provide trunk drainage for an individual parcel; and
- the likely timing of other civil infrastructure including sewerage and roads.

The City of Ballarat will generally undertake drainage scheme works from the downstream end first as it ensures that all properties in the sub-catchment receive the benefit of these works and are not adversely impacted by additional flows. Alternatively, where works are not 'out-of-sequence', these works may be constructed in conjunction with development as an in-kind contribution.

If finances are not available to deliver drainage infrastructure landowners may:

- submit proposals for works in kind which defray or avoid costs for drainage infrastructure accounted for in the DCP which enhance the financial position of the DCP;
- fund the required drainage works themselves, and seek reimbursement when funds become available to the Collecting Agency.

For sub-catchments with larger landholdings, developers will be encouraged to pool resources to fund permanent drainage works, rather than constructing temporary drainage works for individual development sites.

Where landholdings are more fragmented, this may affect the rate at which development can be expected to occur and in turn, the timing of new public works.

Out-of-sequence development

Developments may be required to provide temporary works where development is 'out-of-sequence' for drainage provision. If a developer provides an interim solution to service its development that benefits the scheme and results in significant savings to the scheme finances, development contributions may be reduced. This will be assessed on a case-by-case basis.

Where an out-of-sequence development brings forward works as an in-kind contribution, City of Ballarat may delay financial recognition of these works for the purposes of the Ballarat West DCP.

Non-scheme works and innovative solutions

City of Ballarat may compensate a developer or reduce the scheme contribution for non-scheme works or design innovations that financially benefit the scheme. The level of compensation will be based on the particular circumstances relating to each solution. The compensation or reduction in the scheme contribution will be based on the saving to the scheme and overall benefit of the solution.

Developers should note the following:

- Early development of the Major Activity Centre and the area north of Webb Road is within long-term drainage catchments and alternative solutions are likely to be required in consultation with the Responsible Authority.
- The stormwater treatment areas proposed in the drainage scheme have been sized assuming there are no rainwater tanks in the catchment as a conservative approach for preliminary sizing. Modelling assumptions such as this can be revisited when more information becomes available on the design of individual developments.

Design standards for drainage

Non-scheme works will generally be required to meet relevant design standards. Key design standards for the DCP area are as follows:

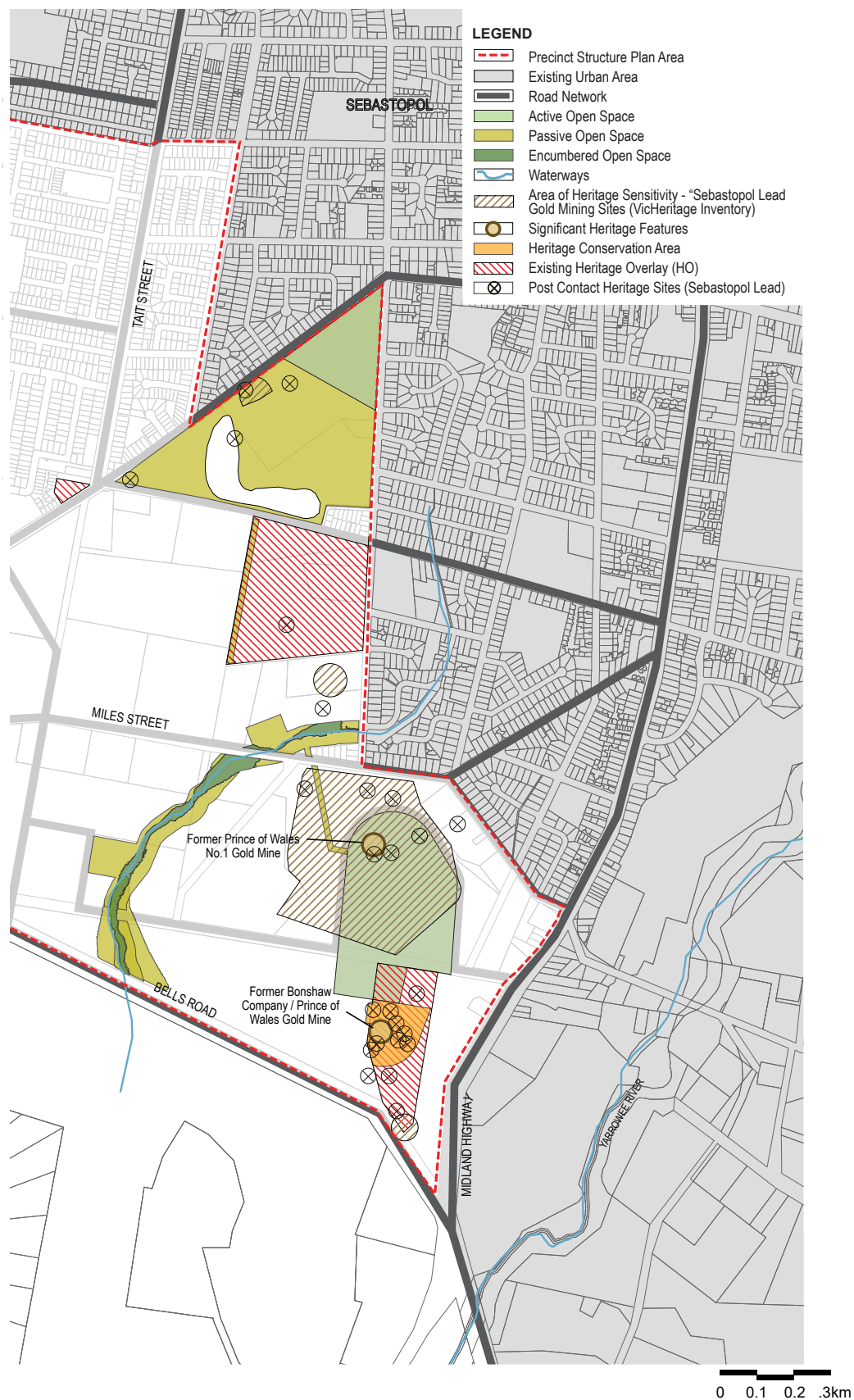
- downstream flows must be no greater than pre-development levels
- stormwater management should promote conservation and re-use of stormwater for non-potable purposes;
- all new development is to be protected from the 1:100 year flood;
- the local drainage system will have capacity to process a 1 in 5 year storm event;
- water quality is to be treated to best standard practice (currently 45% reduction in total nitrogen and phosphorus and 80% reduction in total suspended solids);
- development should protect and enhance the environmental, social (including heritage) and economic values of waterway.

Reviews

The scheme requires financial, engineering and environmental reviews on a regular basis to ensure costs are neither over nor under recovered and up-to-date requirements are met. Financial reviews will occur on an annual basis as part of setting the capital works program. Engineering reviews of the drainage scheme will be undertaken as part of regular reviews of the Ballarat West PSP and the Ballarat West DCP (approximately five-yearly). These will address the changing circumstances of the scheme, changes to engineering and environmental standards, revisions to climate change forecasts and so forth.



Plan 16 Gold Mining Heritage



5.8 Heritage

5.8.1 Heritage objectives

The objectives for heritage are:

- To protect and enhance the heritage values of the Ballarat West PSP area;
- To build sense of place through enhancing connection to past communities; and
- To incorporate significant heritage features into the public open space network.

5.8.2 Implementation

The objectives for heritage are met by implementing all of the following:

- Plan 8: Future Urban Structure Plan;
- Plan 14: Open Space Plan;
- Plan 16: Gold Mining Heritage Plan; and
- Heritage Planning and Design guidelines set out in Section 5.8.3.

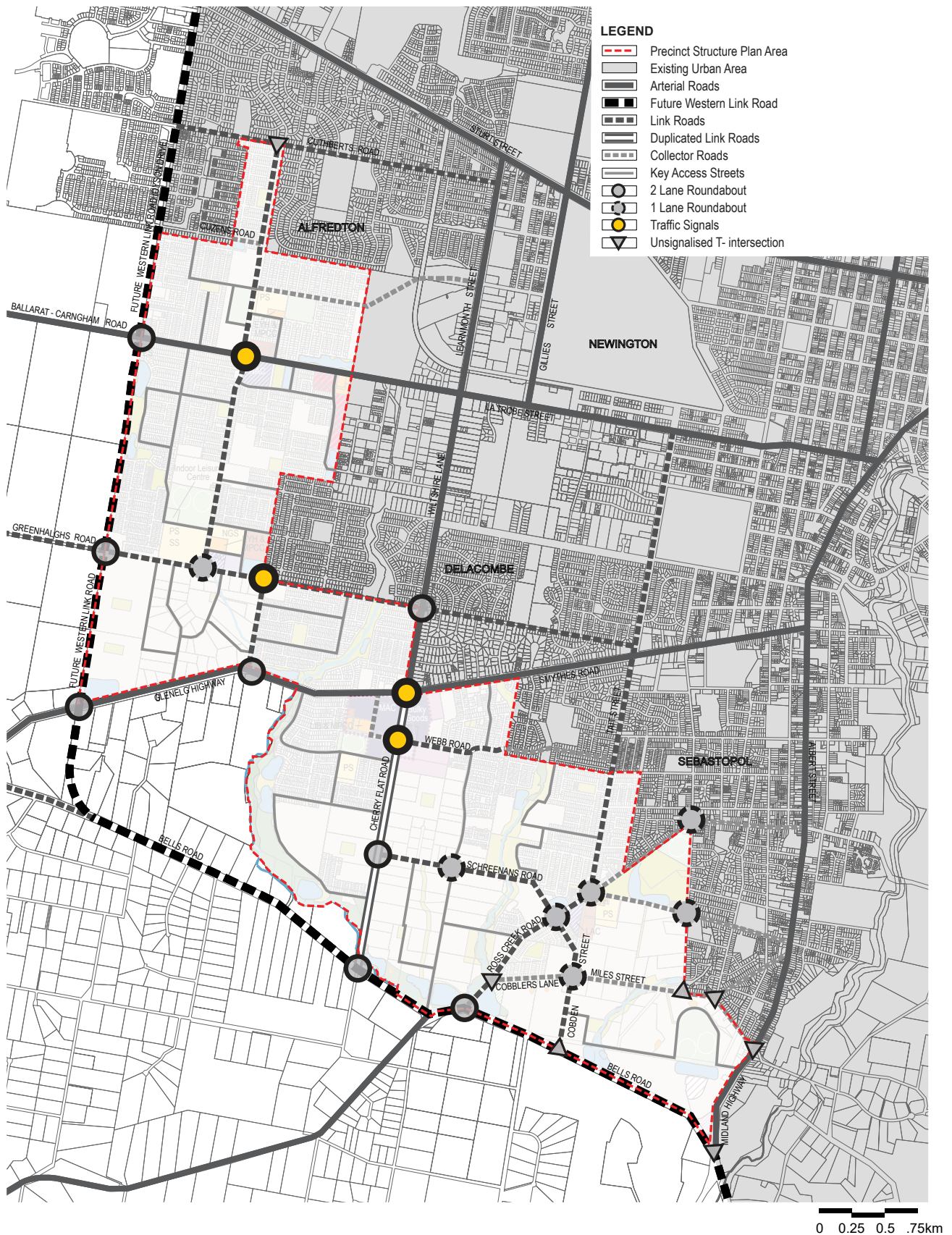
5.8.3 Heritage planning and design guidelines

The following planning and design guidelines must be met:

- Developments along the Sebastopol Lead historic gold mining area must respond to the following design principles:
 - The Prince of Wales / Bonshaw Company former gold mining site (H7622-0217 and H7622-0137 – Heritage Overlay under development) is to be incorporated into the south-eastern District Open Space. The site is to be managed to allow public access and provide heritage interpretation;
 - The key features of the Prince of Wales No. 1 former gold mining site (H7622-0136) are to be incorporated into the south-eastern District Open Space. This area will have a recreation function, and will be managed in a way that maintains key landscape features and provides heritage interpretation of the site;
 - Development will acknowledge the key features of the former gold mining use through heritage interpretation of the former mining camp, mine shaft and mullock heap sites;
 - Development will provide an urban design and/or heritage interpretation response to the path of the underground Sebastopol Lead;
 - Landscape treatments within the vicinity of the Sebastopol Lead and former gold mining sites heritage areas must take cues from the gold mining history of the area; and
 - Vistas should be maintained from the intersection of Miles and Grants Streets and the intersection of Queen, Miles and Prince Streets to the Prince of Wales No. 1 and the Prince of Wales / Bonshaw Company former gold mining sites. Appropriate heritage interpretation should be included at these view points.



Plan 17 Road Network



5.9 Transport and Movement

5.9.1 Transport and movement objectives

The objectives for transport and movement are:

- To encourage walking and cycling and reduce the dependency on cars by providing a sustainable transport and movement network;
- To design a safe and efficient pedestrian and bicycle network that connects to the activity centres, education and community hubs, and the open space network;
- To create quality on and off road pedestrian and cycle links that allow for safe and efficient movement between residential areas and key community infrastructure;
- To ensure roads can meet traffic demands and accommodate services;
- To balance the competing demands of encouraging direct and safe access to shops, schools and services and minimising traffic congestion within activity centres;
- To provide safe and efficient bus routes, with stops that promote passive surveillance and passenger safety;
- To ensure that 95% of dwellings are located within 400 metres of a bus route;
- To meet the access management requirements of
- Department of Transport and Planning (DTP) for arterial roads;
- To design a legible, permeable and interconnected street and links network;
- To integrate the Ballarat West PSP with the proposed Ballarat Western Link Road and to reserve land for it where required;
- To design streetscapes including landscaping and other urban design treatments to reinforce the identity of each place, legibility and safety of routes; and
- To create landscaped roads and streets which reflect the character of established boulevards in Ballarat.

5.9.2 Implementation

The objectives for transport and movement are met by implementation of all of the following:

- Plan 17: Road Network Plan;
- Plan 18: Public Transport Network Plan;
- Plan 19: Walking and Trails Plan;
- Table 7: Road Network;
- Figures 17-19: Road cross sections; and
- Transport Planning and design guidelines set out in Section 5.9.3.



5.9.3 Transport planning and design guidelines

The following planning and design guidelines must be met:

- All intersections with existing or proposed arterial and link roads as shown on Plan 17 must be designed, constructed and controlled to the satisfaction of the Responsible Authority;
- Staging of subdivision must provide for the timely connections of road links between properties to the arterial and link road network to support timely transport connections (walking, bus and cycle) to the satisfaction of the Responsible Authority; and
- Development must provide a permeable street network with a clear road hierarchy generally in accordance with the road cross sections in Figures 9-11.

Arterial and Duplicated Link Roads

The following planning and design guidelines must be met:

- Allow for the widening of Ballarat-Carngham Road to an ultimate road reserve of 40m wide in accordance with the existing Public Acquisition Overlay;
- Allow for the eventual widening of the southern section of Cherry Flat Road to a duplicated link road with an ultimate 40m road reserve in accordance with the existing Public Acquisition Overlay;
- Residential lots fronting arterial roads or duplicated link roads (including the Western Link Road) must be accessed from service roads or local roads and lanes only. No direct lot access is permitted to arterial roads or duplicated link roads;
- Intersection design must provide for the safe and efficient operation of the arterial road and the side road to the satisfaction of the relevant authority (Department of Transport and Planning (DTP) VicRoads for Arterial Roads, City of Ballarat for Duplicated Link Roads), with consideration to vehicle speeds, vehicle queues and conflicting movements on approach to and departure from the intersection; and
- Access points (temporary and permanent) to the existing or proposed arterial roads or duplicated link roads beyond those shown on Plan 17, will be considered on a case by case basis in accordance with VicRoads access management policies.

Link and Collector Roads

The following planning and design guidelines must be met:

- Allow for the widening of the following roads to an ultimate 24m road reserve:
 - Greenhalghs Road within the PSP boundary;
 - Webb Road (east-west section);
 - Cobden Street; and
 - Schreenans Road.

The following planning and design guidelines should be met:

- Where it is expected that higher than average bicycle traffic volumes may occur on a Link Road, consideration should be given to providing an alternative road cross section with Copenhagen bicycle lanes.

Bus Network

The following planning and design guidelines must be met:

- Ensure bus routes link the activity centres, education and community hubs and the Industrial/Commercial Precinct;
- Design roads designated as potential bus routes to accommodate bus movements to the satisfaction of the Responsible Authority in consultation with the Department of Transport and in accordance with the Public Transport Guidelines for Land Use and Development;
- Where a bus route is shown on a local street, the local street cross-section must be in accordance with Figure 11 Cross-Section 'CS1 - Collector Street: Constrained'; and
- Where a requirement for a bus route or bus stop has been nominated:
 - Bus stop facilities must be constructed by development proponents as part of the subdivision works (prior to the issue of a statement of compliance for the relevant stage) in accordance with the requirements of the Public Transport Guidelines for Land Use and Development to the satisfaction of the Director of Transport;
 - The facilities must be provided with DDA compliant direct and safe pedestrian access connected to an existing pedestrian/shared path; and
 - The facilities must be designed as an integral part of activity centres and activity-generating land uses, such as schools, sports fields and employment areas.



Walking and Cycling Network

The following planning and design guidelines must be met:

- Walking and cycling networks must be constructed by development proponents as part of subdivision works (prior to the issue of a statement of compliance for the relevant stage);
- Footpaths and cycle paths must be provided with increased width in areas expecting high foot traffic such as near schools, community centres, activity centres and bus stops;
- Pedestrian and cycle crossings must be provided at all relevant street intersections and along key desire lines, particularly along the interface between residential and employment areas and in the vicinity of bus stops;
- Bicycle lane connections must be designed to allow for the smooth transition between on-road and off-road facilities;
- Pedestrian and cycle paths must be designed and located to maximise passive surveillance and provided in wide road verges with safe crossing points at key locations;
- The local street network must be designed to provide permeable, direct and safe routes for walking and cycling to activity centres, community facilities, parks and open space, major trail networks and public transport;
- The local street network must provide connection between adjoining developments where possible, including future development sites; and
- Regular walking and cycling connections are to be provided across creeks, where residential development is expected on both sides.

The following planning and design guidelines should be met:

- The 'Sebastopol Lead' linear trail from the former gold mining sites within M R Power Park to the Prince of Wales / Bonshaw Company former gold mining site (see Plan 16) should follow the Sebastopol Lead and/or connect key mining features such as the former mining camp, mine shaft and mullock heap sites where possible. Heritage interpretation should be provided at key points;
- Paths and trails should be sealed rather than unsealed;
- The local street network should not create long barriers to walking and cycling; and
- On Link Roads with high bicycle traffic volumes, consideration should be given to providing an alternative road cross section with Copenhagen bicycle lanes.



Table 7 Road Network

Future Road Names	Road Hierarchy [^]	Road Cross Section Number	Indicative VPD	Existing road reservation	Proposed road reservation	Traffic Lanes	Designed Speed	Suitable for Buses	Cycle Facility	Shared Path	Ultimate Responsibility
Cuthberts Road	Link	N/A	10250	25	25	2	60	Yes	On-road	TBC	Council
Cuzens Road*	Collector	CS1	10750	18.5	18.5	2	60	No	No	No	Council
Ballarat-Carngham Road	Arterial 2	N/A	15250	20	40	4	70	Yes	On-road	Yes	VicRoads
Greenhalghs Road	Link	LR2	13000	20	24	2	60	Yes	On-road	Yes	Council
Glenelg Highway	Arterial 1	N/A	29000	60	60	4	70	Yes	On-road	Yes	VicRoads
Dyson Drive (future Western Link Road) ₁	Interim: Link Ultimate: Duplicated Link	LR1 DLR2	20500	20	60	2/4	80	Yes	On-road	Yes	Council
North-South Road 1 (Sub-Precincts 2 & 4)	Link	LR2	16000	0	24	2	60	Yes	On-road	Yes	Council
North-South Road 2 (Sub-Precinct 2)	Link	LR2	9500	0	24	2	60	Yes	On-road	Yes	Council
Wiltshire Lane	Arterial 2	N/A	22500	40	40	4	70	Yes	On-road	Yes	VicRoads
Cherry Flat Road ₂	Interim: Link Duplicated Link	LR2 DLR1/ DLR2	13750	40	40	2/4	70	Yes	On-road	Yes	Council
Tait Street ₃	Link	LR3	13250	40	40	2	60	Yes	On-road	Yes	Council
Cobden Street	Link	LR2	8000	20	24	2	60	Yes	On-road	Yes	Council
Webb Road (east-west section)	Link	LR2	15500	20	24	2	60	Yes	On-road	Yes	Council
Schreenans Road	Link	LR2	7000	20	24	2	60	Yes	On-road	Yes	Council
Ross Creek Road ₄	Link	LR2	5750	30	30	2	60	Yes	On-road	Yes	Council
Crown Street*	Collector	CS1	8250	20	20	2	60	Yes	Wider traffic lanes	Yes®	Council
Morgan Street*	Collector	CS1	7500	20	20	2	60	Yes	Wider traffic lanes	Yes®	Council



Future Road Names	Road Hierarchy [^]	Road Cross Section Number	Indicative VPD	Existing road reservation	Proposed road reservation	Traffic Lanes	Designed Speed	Suitable for Buses	Cycle Facility	Shared Path	Ultimate Responsibility
Cobblers Lane	Collector	CS2	6250	20	24	2	60	Yes	On-road	Yes	Council
Miles Street*	Collector	CS1	7500	20	20	2	60	Yes	Wider traffic lanes	No	Council
Prince Street*	Collector	CS1	4250	20	20	2	60	Yes	Wider traffic lanes	No	Council
Bells Road east of Cherry Flat Road and Three Chain Road, (future Western Link Road)	Interim: Link Ultimate: Duplicated Link	LR1 DLR2	16000	40	40	2/4	80	Yes	On-road	Yes	Council
Major Activity Centre western collector	Collector	CS2	Varies	N/A	24	2	60	Yes	On-road	Yes	Council
Sub-Precinct 4 East-West Collector	Collector	CS2	Varies	N/A	24	2	60	Yes	On-road	Yes	Council
Ascot Gardens Drive	Link	LR2	Varies	N/A	24	2	60	Yes	On-road	Yes	Council

* Existing road reserves which cannot be widened. Constrained road cross-section required.

@ Where road reservation is too narrow, may be provided within the adjacent Active Open Space.

[^] The terms Link and Collector relate to the City of Ballarat road hierarchy. State Government road hierarchies refer to these levels collectively as Connector roads.

1 - Service Roads should be provided and are outside the road reservation (developer land);

- Driveways and low-volume streets are not to be accessed directly from the Western Link Road traffic lanes.
- Once the ultimate (duplicated) alignment is installed, full intersections will be limited to the locations shown in the Ballarat West Precinct Structure Plan. Other locations will be left-in / left-out only. This is to be reflected in the design of interim arrangements and the local street network.

2 - Driveways are not to be accessed directly from Cherry Flat Road (i.e. are to be access from the rear, local streets or service roads).

- Service roads are optional and would be outside the road reservation (developer land) if a developer chooses to provide them.
- Once the ultimate (duplicated) alignment is installed, full intersections will be limited to key streets - other locations will be left-in / left-out only. This is to be reflected in the design of interim arrangements and the local street network.

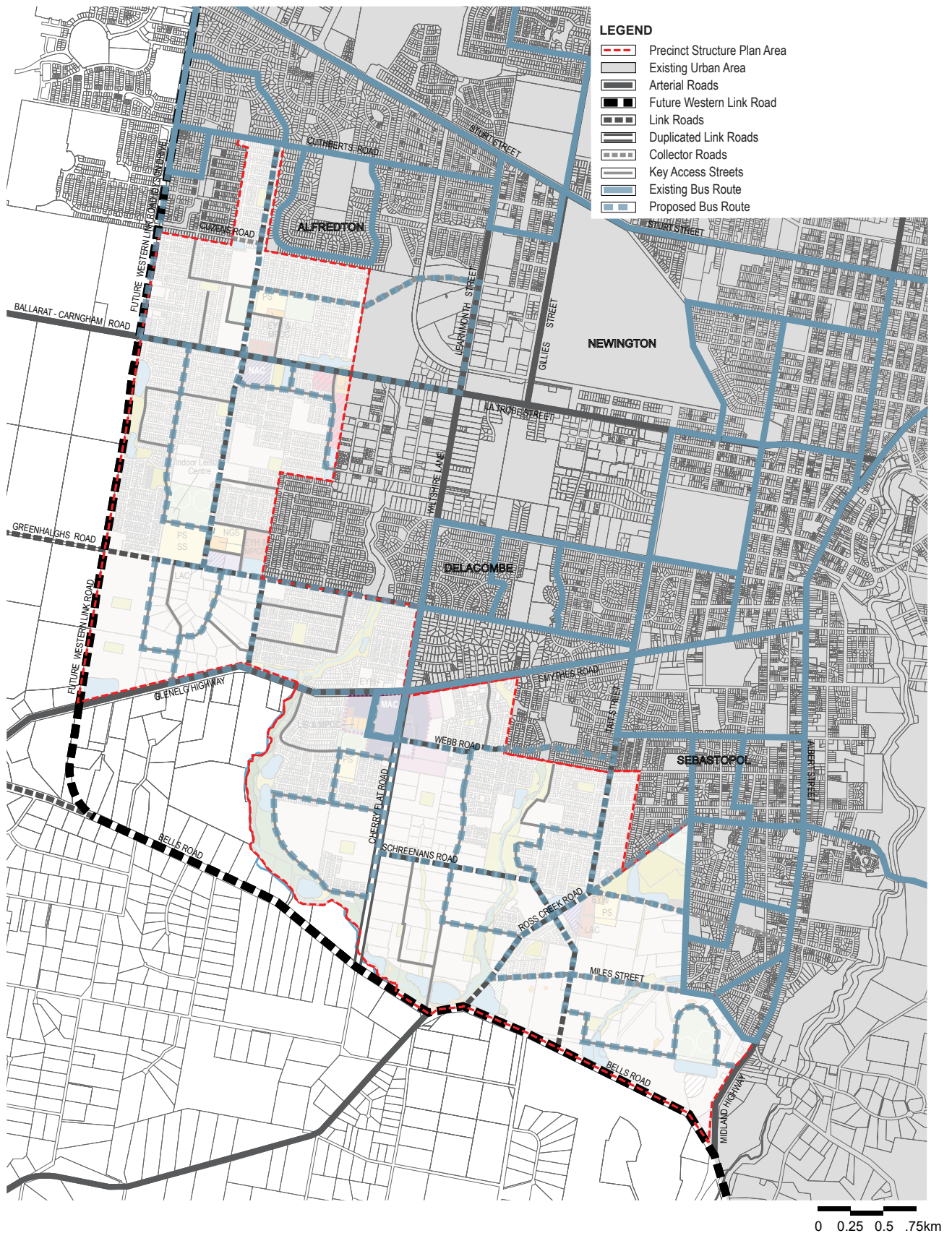
3 - Service roads are to be provided within the road reservation (City of Ballarat land).

- Driveways and low-volume streets are not to be accessed directly from Tait Street traffic lanes (i.e. accessed via the service road).
- Full intersections should be limited to key streets, other locations (e.g. entrances to service roads) are to be left-in / left-out only.

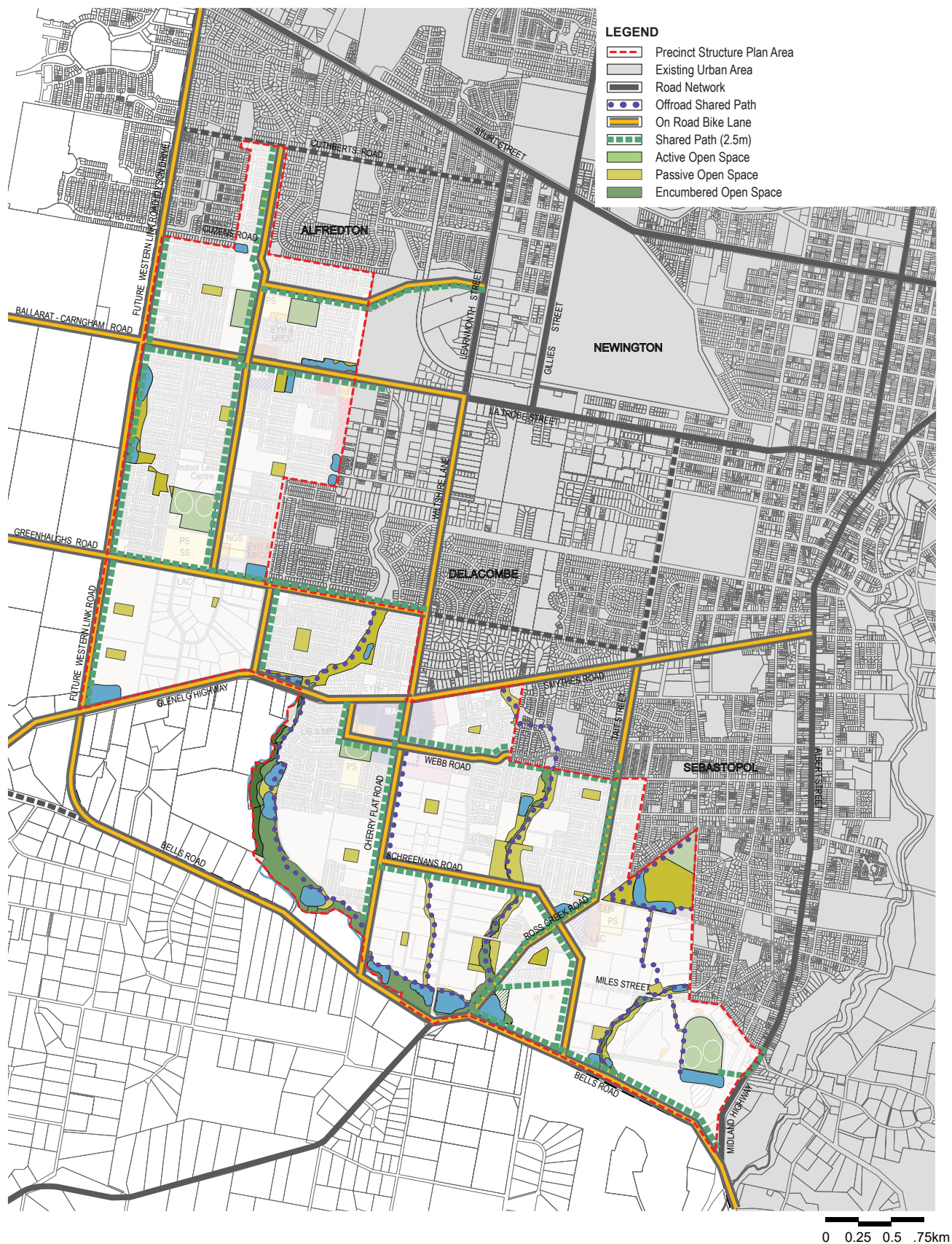
4 - Cross-section LR2 is to be used, with wider verges. The location of the current road seal within the Ross Creek Road Reserve varies and therefore the width of verges & the location of the centreline of the road will vary.



Plan 18 Public Transport



Plan 19 Walking and Trails



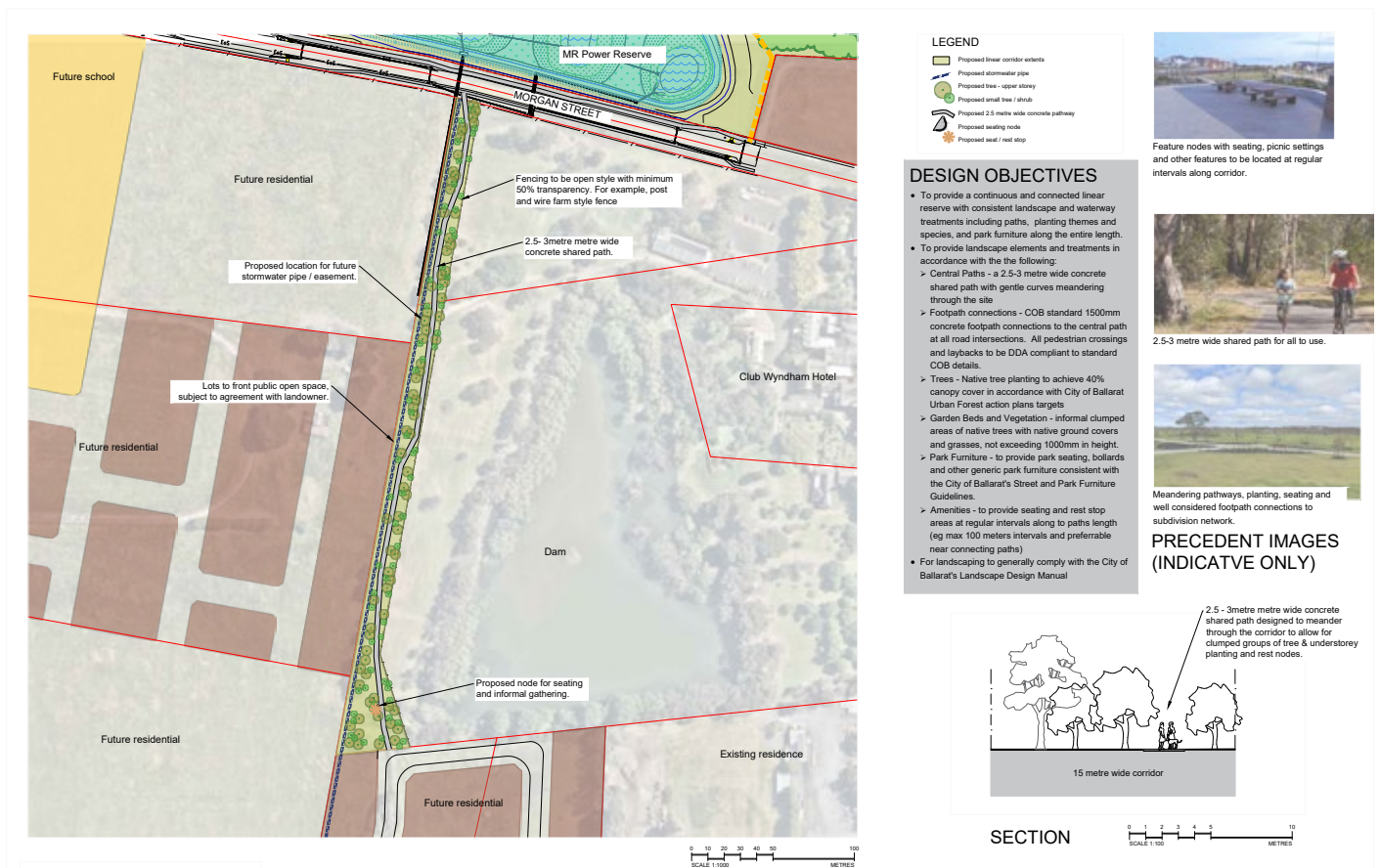


Figure 14: MR Power Park Southern Connection - Indicative Concept Plan

LEGEND

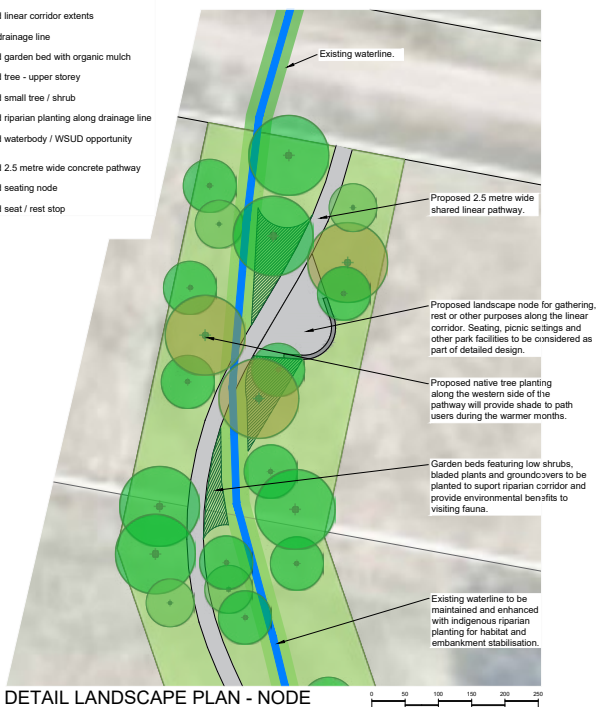
- Proposed linear corridor extents
- Existing drainage line
- Proposed garden bed with organic mulch
- Proposed tree - upper storey
- Proposed small tree / shrub
- Proposed riparian planting along drainage line
- Proposed waterbody / WSUD opportunity
- Proposed 2.5 metre wide concrete pathway
- Proposed seating node
- Proposed seat / rest stop



SITE PLAN

LEGEND

- Proposed linear corridor extents
- Existing drainage line
- Proposed garden bed with organic mulch
- Proposed tree - upper storey
- Proposed small tree / shrub
- Proposed riparian planting along drainage line
- Proposed waterbody / WSUD opportunity
- Proposed 2.5 metre wide concrete pathway
- Proposed seating node
- Proposed seat / rest stop



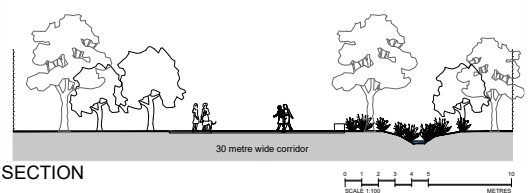
DETAIL LANDSCAPE PLAN - NODE

DESIGN OBJECTIVES

- To comply with the requirements of the Ballarat West Precinct Structure Plan for the provision of passive open space in the form of an approximately 1.5 km long x 30 metres wide linear reserve as per the Precinct Structure Plan (page 62 Plan 14 Open Space).
- To ensure that Cultural Heritage has been appropriately assessed.
- To provide a continuous and connected linear reserve with consistent landscape and waterway treatments including paths, planting themes and species, and park furniture along the entire length.
- To provide landscape elements and treatments in accordance with the following:
 - Waterways - open swales and channels wherever possible with WSUD plantings to swale and embankments
 - Central Paths - a 2.5 metres wide concrete shared path with gentle curves meandering through the site
 - Footpath connections - COB standard 1500mm concrete footpath connections to the central path at all road intersections. All pedestrian crossings and laybacks to be DDA compliant to standard COB details.
 - Trees - Native tree planting to achieve 40% canopy cover in accordance with City of Ballarat Urban Forest action plans targets
 - Garden Beds and Vegetation - informal clumped areas of native trees with native ground covers and grasses, not exceeding 1000mm in height.
 - Park Furniture - to provide park seating, bollards and other generic park furniture consistent with the City of Ballarat's Street and Park Furniture Guidelines.
 - Amenities - to provide seating and rest stop areas at regular intervals along to paths length (eg max 100 metres intervals and preferable near connecting paths)
- For landscaping to generally comply with the City of Ballarat's Landscape Design Manual



PRECEDENT IMAGES (INDICATIVE ONLY)



SECTION

Figure 15: Bonshaw Linear Corridor - Indicative Concept Plan



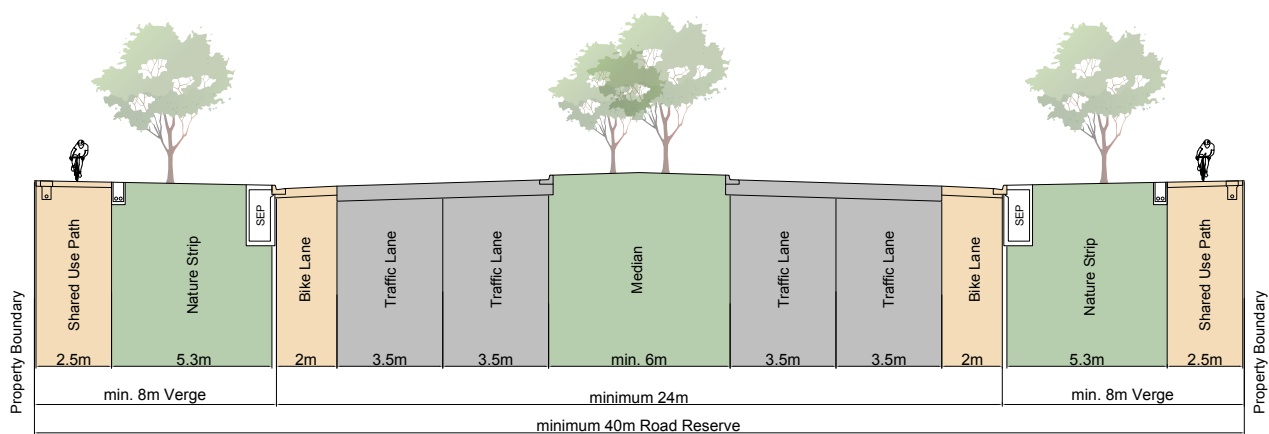


Figure 16: DLR1 - Duplicated Link Road with Verges on both sides

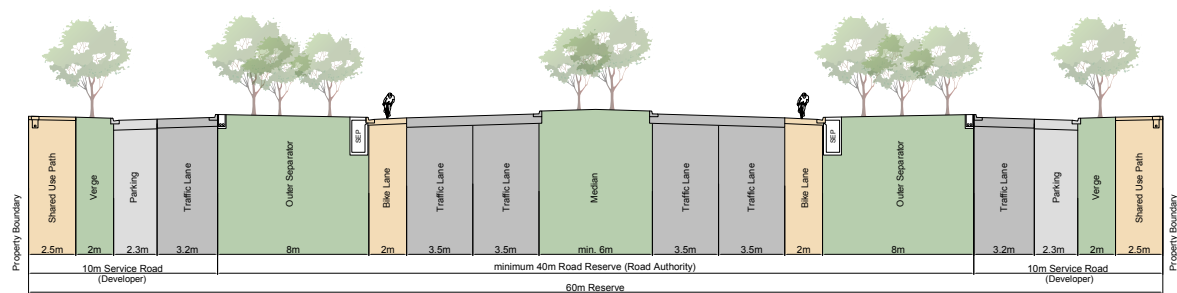
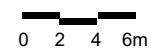


Figure 17: DLR2 - Duplicated Link Road with Service Road on both sides



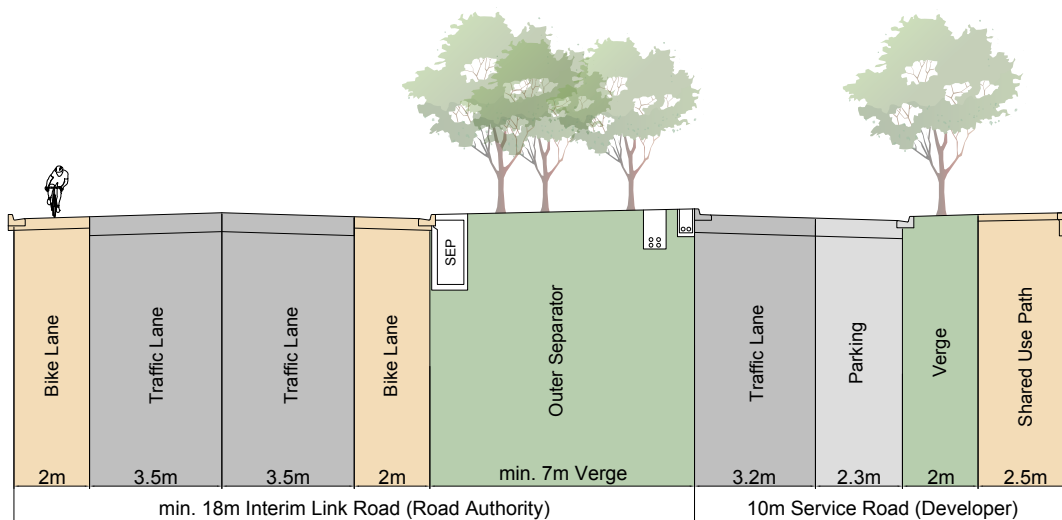


Figure 18: LR1 - Interim Link Road with Service Road on One Side

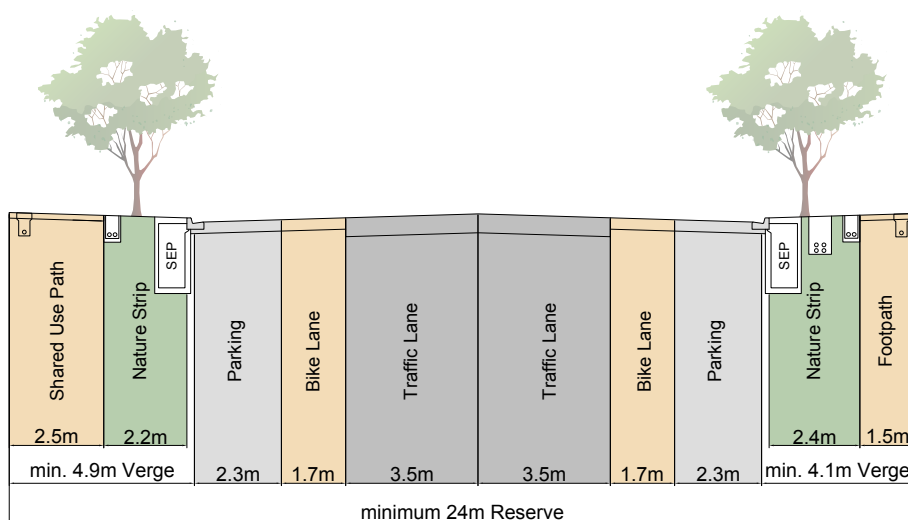


Figure 19: LR2 - Link Road with On-Road Bike Lane

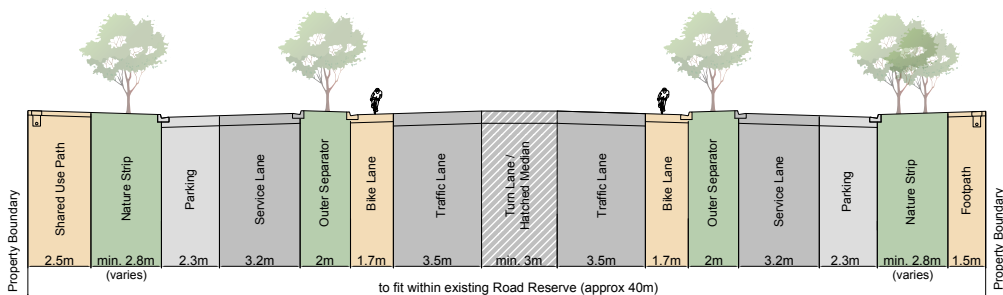
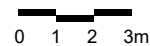
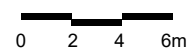


Figure 20: LR3 - Duplicated Link Road with Service Road on both sides



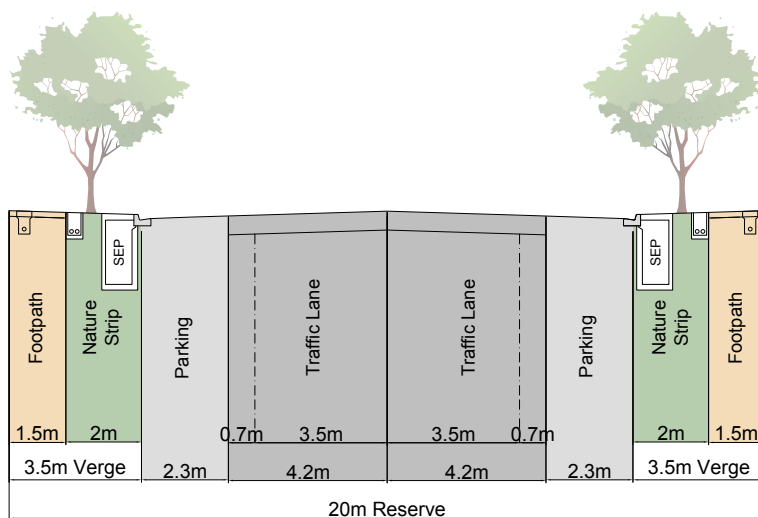


Figure 21: CS1 - Collector Street: Constrained

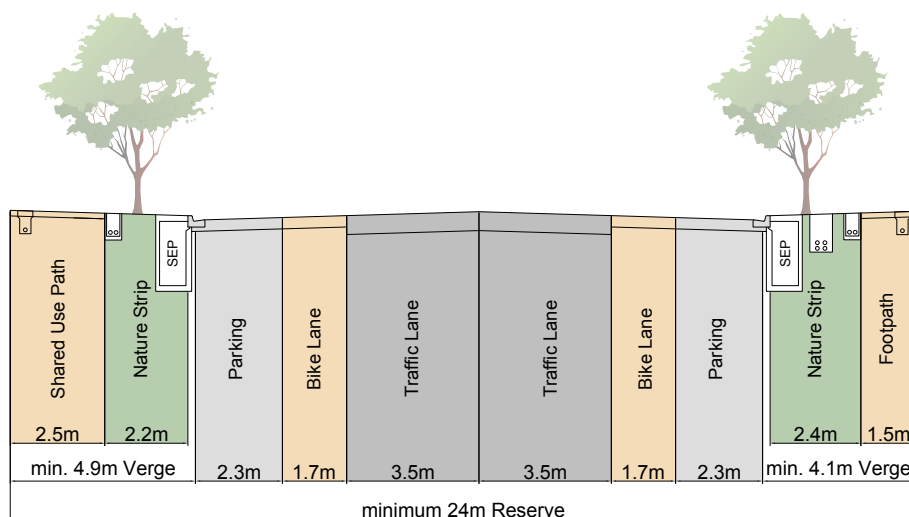


Figure 22: CS2 - Collector Street: Unconstrained

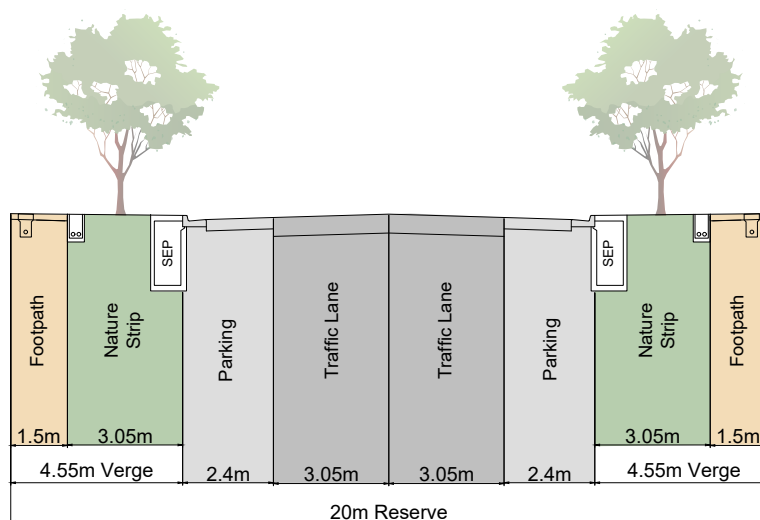
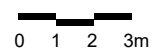
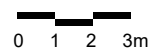


Figure 23: KA1 - Key Access Street



5.10 Utilities and Staging

5.10.1 Utilities and Staging objectives

The utilities and staging objectives are:

- To ensure development occurs in an orderly and sustainable manner, is integrated with existing development and makes best use of existing infrastructure;
- To promote a sequence of development which aligns with the delivery of required infrastructure; and
- To provide all developed lots, to the satisfaction of the Relevant Authority, with:
 - Potable water services;
 - Electricity;
 - Reticulated sewerage;
 - Drainage;
 - Telecommunications.

5.10.2 Implementation

The objectives for utilities and staging are met by implementing all of the following:

- Plan 15: Integrated Water Management;
- Plan 20 Water Supply Network;
- Plan 21 Sewerage Network;
- Plan 23 Power Supply;
- Planning and design guidelines set out in Section 5.10.3; and
- Meeting requirements of the relevant service authorities.

Servicing requirements for gas has been removed to be consistent with VC250. This includes the removal of references to gas and Plan 23 (Natural Gas Network).

Central Highlands Water has requested that Plan 22 (Central Highlands Water Ease of Servicing) to be removed



5.10.3 Utilities and Staging planning and design guidelines

Development Staging

Staging will be determined by the staging principles (described below), availability of infrastructure services and the development program of developers. Development will generally occur on land abutting or in close proximity to existing development and trunk infrastructure to ensure the timely and efficient provision of roads, services, walking and cycle paths and community services. Short to medium term development will generally proceed outwards from existing development and move towards the MAC, NAC and Industrial / Commercial Precinct.

The following staging principles must be met:

- Development staging must not create circumstances in which new residents are unreasonably isolated from commercial and community facilities or public transport;
- Development must, to the extent practicable, be integrated with adjoining development;
- Development staging must have regard to the availability of services, including the timely provision of connecting roads and walking/cycling paths;
- All relevant service authorities must be consulted to ensure services are provided in a logical and efficient manner;
- Each new lot must be serviced and accessible from a sealed road;
- Staging of lot development and road construction, including any temporary road access, must not cause traffic volumes to exceed the preferred volumes of roads as specified in the road hierarchy; and
- Developers, in meeting the above:
 - May still be out of sequence in terms of infrastructure such as sewer or transport provision. In these circumstances they may be liable for costs associated with extending and/or bringing forward infrastructure or provision of temporary facilities in advance of the sequential roll out of the providers' services; and
 - May still be out of sequence for drainage provision (i.e. may not have a permanent outfall). In these circumstances, developers will be required to negotiate adequate outfall arrangements with affected landowners and Responsible Authority. They may also be liable for costs associated with the construction of any temporary works to achieve adequate outfall.

If the above staging principles are not met, the development proponent will be required to bring forward infrastructure (i.e. fund up front) to the extent necessary to meet the principles outlined above. This may include temporary water, sewer and drainage connections, pump stations and similar infrastructure. Out of sequence developers will be encouraged to support innovative means of delivering permanent drainage infrastructure, in preference to temporary drainage infrastructure, by agreement with the City of Ballarat as drainage authority.

Where development is not in accordance with the staging requirements listed above, developers must demonstrate to the satisfaction of the Responsible Authority and relevant referral authorities how their development achieves orderly planning and will not unreasonably disadvantage residents or prejudice the delivery of infrastructure to be funded by public authorities.

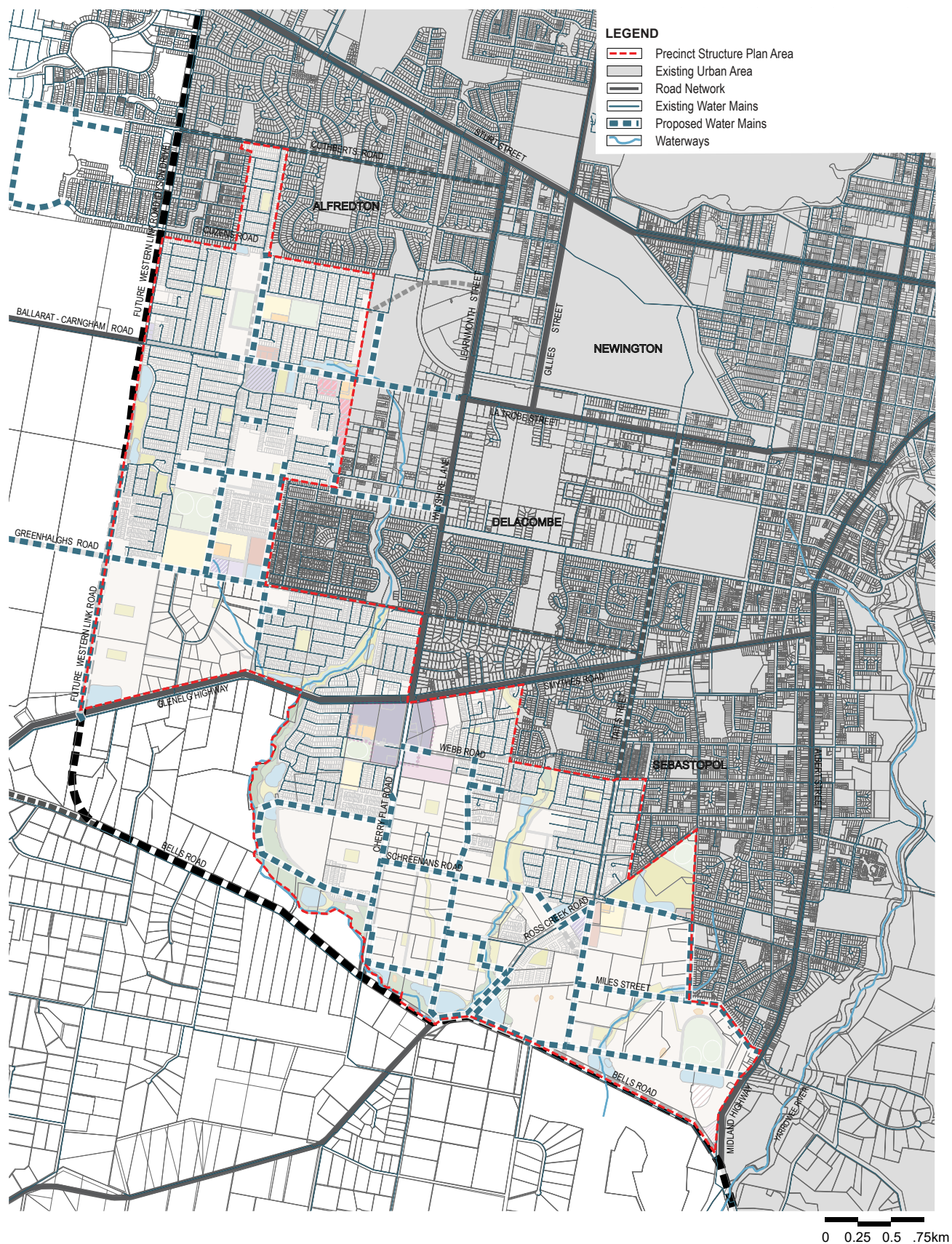
Utilities

The installation of underground utilities and services should be coordinated to maximise the use of common trenching.

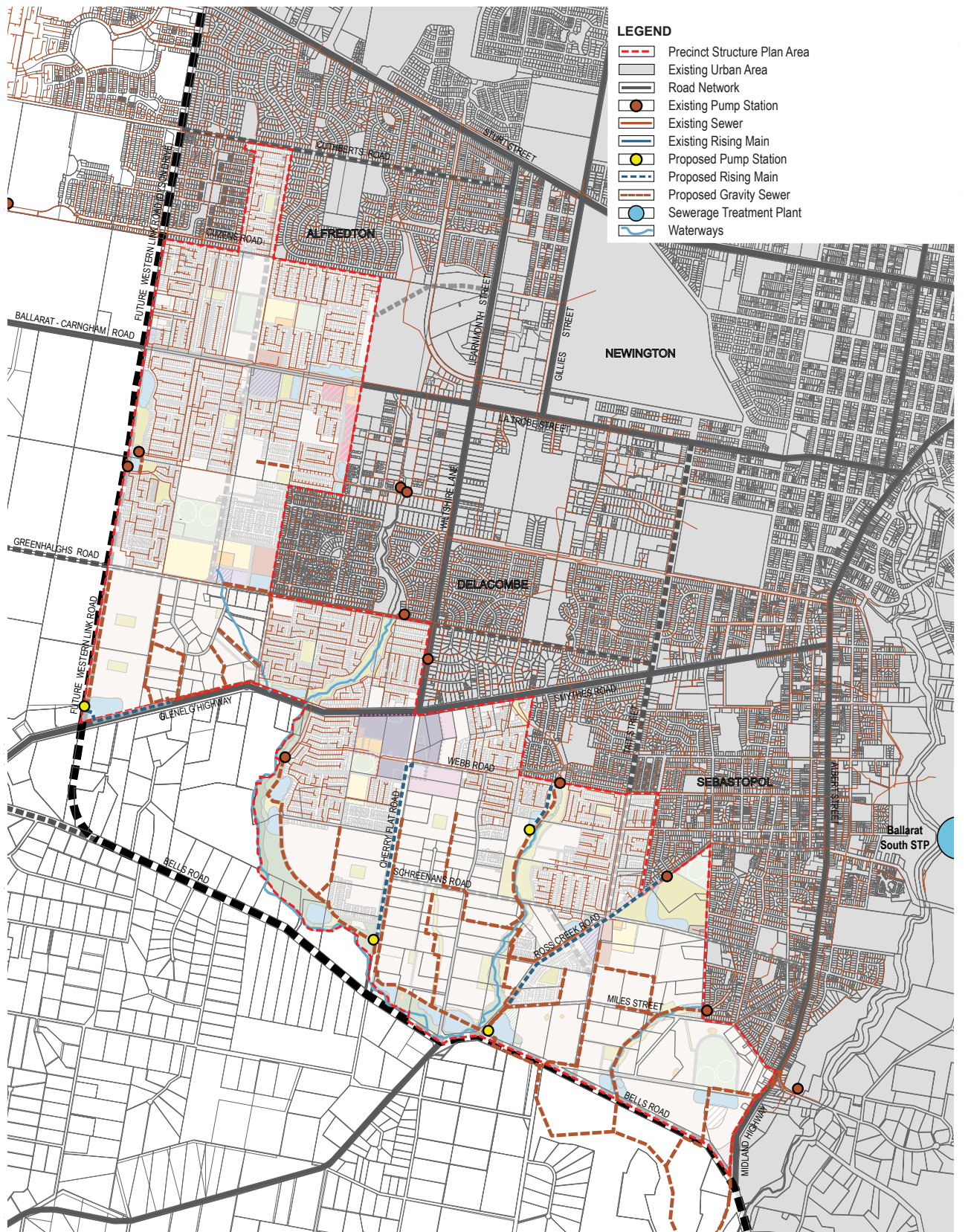
Where creek lines are to be used for utilities infrastructure, the easement should avoid heritage sites (e.g Aboriginal artefact scatters) and biodiversity constraints.



Plan 20 Water Supply Network



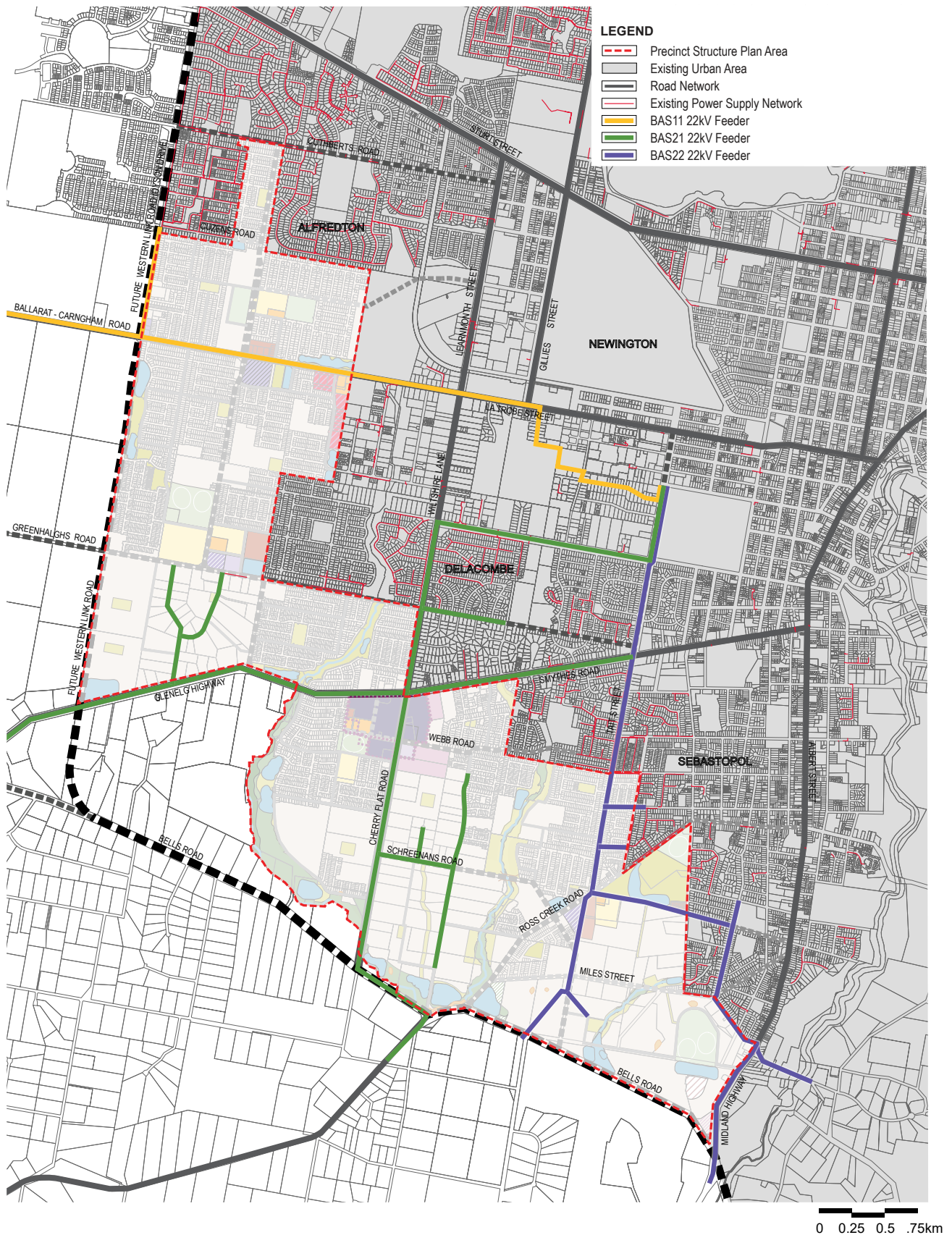
Plan 21 Sewerage Network



Note: The locations of proposed sewer infrastructure are indicative only and subject to change.

0 0.25 0.5 .75km

Plan 22 Power Supply



6 Other Information

6.1 Glossary of Terms

The following glossary explains a number of the key terms used in this PSP. It is intended to assist with reading and understanding of the PSP, rather than provide a legal definition of terms used. Legal definitions for many of these terms can be found in the Ballarat Planning Scheme and/or relevant Ministerial Directions.

Active Open Space: Land set aside for the specific purpose of formal and informal outdoor sports by the community.

Activity Centre: Provide the focus for services, commercial and retail based employment and social interaction. They are where people shop, work, meet, relax and live. They are well-served by public transport, they range in size and intensity of use. In the growth areas, these are referred to as principal activity centres, major activity centres, neighbourhood activity centres and local centres.

Arterial Road: A higher order road providing for moderate to high volumes at relatively high speeds typically used for inter-suburban journeys and linking to freeways, and identified under the Road Management Act 2004. All arterials are managed by the State Government roads authority.

Co-location: Adjoining land uses to enable complementary programs, activities and services and shared use of resources and facilities. For example, the co-location of schools and active open space.

Community Facilities: Infrastructure provided by government or non-government organisations for accommodating a range of community support services, programs and activities. This includes facilities for education and learning (e.g. government and non-government schools, universities, adult learning centres); early years (e.g. preschool, maternal and child health, childcare); health and community services (e.g. hospitals, aged care, doctors, dentists, family and youth services, specialist health services); community (e.g. civic centres, libraries, neighbourhood houses); arts and culture (e.g. galleries, museums, performance space); sport, recreation and leisure (e.g. swimming pools); justice (e.g. law courts); voluntary and faith (e.g. places of worship) and emergency services (e.g. police, fire and ambulance stations).

Conventional Density Housing: Housing with an average density of 15-20 dwellings per net developable hectare.

Development Contributions Plan: Document that sets out the contributions expected from each individual landowner to fund infrastructure and services. Refer to Part 3B of the Planning and Environment Act 1987.

District Park: An area of open space that incorporates a large area for active recreation such as field sports.

Early Years Hub: Located within or alongside other community or education facilities. Early Years Hubs provide early years services such as maternal and child health, kindergarten and childcare.

Encumbered Land: Land that is constrained for development purposes; including land to be set aside for easements for power/transmission lines, sewers, gas, waterways/ drainage; retarding basins/wetlands; landfill; conservation and heritage areas. This land is not provided as a credit against public open space requirements.

Frontage: The road alignment at the front of a lot. If a lot abuts two or more roads, the one to which the building or proposed building faces.

Gross Developable Area: Total precinct area excluding encumbered land, arterial roads and other roads with four or more lanes.

Housing Density (Net): The number of houses divided by net developable area.

Linear Open Space Network: Corridors of open space, mainly along waterways that link together, forming a network.

Land Budget Table: A table setting out the total precinct area, net developable area and constituent land uses proposed within the precinct.

Local Activity Centre: An activity centre smaller than a neighbourhood activity centre with a catchment radius of about 400 metres and may include a small supermarket or convenience store of 500 square metres to 1,500 square metres.

Major Activity Centre: An activity centre that has similar characteristics to a Principal Activity Centre but serves a smaller catchment areas and is complementary to the Principal Activity Centre.

Main Street: A function of an activity centre, where vitality and activity are created by orienting uses towards the street, and ensuring that the primary address of all retail stores is the street. This would normally not be a high-traffic street.

Medium Density Housing: Housing with an average density of 16 to 30 dwellings per net developable hectare.

Multi-purpose Community centre: Centres providing multiple spaces clustered together on one site servicing the neighbourhood / district / sub-region / region. They may include some or all of features such as libraries, hall or performance space, meeting spaces, kindergarten, family support, maternal and child health, senior citizen, youth or cultural clubs, outreach support services, consulting services, community garden, customer service, IT facilities, before or after school classes.

Native Vegetation: Plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses.



Native Vegetation Precinct Plan: A plan relating to native vegetation within a defined area that forms part of the precinct structure plan. Native vegetation precinct plans are incorporated into local planning schemes and listed in the schedule to Clause 52.16.

Neighbourhood Activity Centre: Activity centres that are an important community focal point and have a mix of uses to meet local needs. Accessible to a viable user population by walking, cycling and by local bus services and public transport links to one or more principal or major activity centres.

Net Developable Area: Total amount of land within the precinct that is made available for development of housing and employment buildings, including lots, local and connector streets. Total precinct area minus community facilities, schools and educational facilities and open space, arterial roads and encumbered land. Small local parks defined at subdivision stage are included in net developable area. Net Developable Area may be expressed in terms of hectare units (i.e. Net Developable Hectare ("NDHa")).

Net Residential Area: As per Net Developable Area but excludes neighbourhood activity centres, non-government schools and other existing or permitted non-residential land uses (e.g. golf course sites). Net Residential Area may be expressed in terms of hectare units (i.e. Net Residential Hectare ("NRHa")).

Passive Open Space: Open space that is set aside for parks, gardens, linear corridors, conservation bushlands, nature reserves, public squares and community gardens that are made available for passive recreation, play and unstructured physical activity including walking, cycling, hiking, revitalisation, contemplation and enjoying nature.

Precinct: An area of land within the Urban Growth Zone for which a precinct structure plan is to be produced. Their extent will be determined based on a need to create reasonably self-contained communities and on an understanding of the strategic level land use and topographical features. They will normally be between 200 hectares and 2000 hectares, but larger or smaller precincts may be defined in specific circumstances.

Precinct Infrastructure Plan: Section within the precinct structure plan that defines the priority regional and local infrastructure requirements for future planning and investment by council and government agencies.

Precinct Structure Plan: A statutory document that describes how a precinct or series of sites within a growth area will be developed over time. A precinct structure plan sets out the broad environmental, social and economic parameters for the use and development of land within the precinct.

Principal Activity Centre: Activity centres that accommodate a mix of activities that generate higher

numbers of trips, including business, retail, services and entertainment. Generally well served by multiple public transport routes. Has a very large catchment covering several suburbs and attract activities that meet metropolitan needs.

Public Open Space: Land that is set aside in the precinct structure plan for public recreation; or as parklands; or for similar purposes. Incorporates active and passive open space.

Shared or Joint Use: When councils, schools and community service organisations come together to plan, build and in some cases jointly manage a single facility to be used by multiple service providers. E.g. Using a school as a facility for wider community utilisation.

Small Lot Housing Code: Planning and Design Guidelines setting out the requirements for building envelopes on plans of subdivision on lots with an area less than 300 square metres.

Urban Growth Zone: Statutory zone that applies to land that has been identified for future urban development. The UGZ has four purposes: (1) to manage transition of non-urban land into urban land; (2) to encourage development of well-planned and well-serviced new urban communities in accordance with an overall plan; (3) to reduce the number of development approvals needed in areas where an agreed plan is in place; and (4) to safeguard non-urban land from use and development that could prejudice its future urban development.

Water Sensitive Urban Design: A sustainable water management approach that aims to provide water-quality treatment, flood management to reduce the pollution carried to our waterways and more sustainable urban landscapes. Key principles include minimising water resistant areas; recharging natural groundwater aquifers (where appropriate) by increasing the amount of rain absorbed into the ground; encouraging onsite reuse of rain; encouraging onsite treatment to improve water quality and remove pollution, and using temporary rainfall storage (retarding basins/ wetlands) to reduce the load on drains and improve landscape viability.

Wathaurang: Traditional land owners. Also known as the Wadda Wurrung people.

6.2 Other Information

The following documents may assist in understanding the background to the vision, objectives and other requirements of this Precinct Structure Plan.



6.2.1 Background technical reports

AECOM: Rainwater Tank Modelling, 2011
AECOM: Carngham Road Industrial Buffer Study –Stage 1, 2011
AECOM: Carngham Road Industrial Buffer Study – Stage 2, 2011
AECOM: Ballarat Western Link Road – Alignment Options Assessment Report, 2010
AECOM: Carngham Road Industrial Interface Study, 11 January 2012
ASR Research: Ballarat West Precinct Structure Plan Review – Community and Recreation Infrastructure, 29 May 2024
City of Ballarat: Precinct Structure Plans: Precincts 1, 2 and 4: Strategic Issues Paper, 2011
City of Ballarat: Landscape Character Policy, 2011
City of Ballarat: Ballarat Open Space Strategy, 2009
City of Ballarat: Alfredton West Precinct Structure Plan, 2011
City of Ballarat: Ballarat West Growth Area Plan, March 2009
Coffey: Detailed Environmental Contamination Assessment, 2011
Context: Ballarat West Growth Area – Bonshaw Creek and Greenhalghs Road Precincts Historical Archaeological Assessments, 2011
CPG: Social and Community Infrastructure Needs Assessment for the Ballarat West Growth Area, 2010
Ecology Partners: Flora and Fauna Assessment and Aquatic Fauna Review for the Ballarat West Growth Area, 2010
Ecology Partners: Targeted Threatened Fauna Surveys, 2011
Ecology Partners: Ballarat West Growth Area, Precinct 1, Bonshaw and Sebastopol, Victoria: Aboriginal and Historical Heritage Assessment, 2011
Ecology Partners: Ballarat West Growth Area, Precinct 2, Smythes Creek and Delacombe, Victoria: Aboriginal and Historical Heritage Assessment, 2011
Ecology Partners: Ballarat West Growth Area, Precinct 4, Alfredton and Delacombe, Victoria: Aboriginal and Historical Heritage Assessment, 2011
Engeny: Ballarat West PSP Review Drainage Strategy Update, 19 December 2024
Environmental Research Management (Australia) Pty Ltd: Ballarat West Precinct Structure Plan Review – Contaminated Land Review, July 2016
Environmental Research Management (Australia) Pty Ltd: Ballarat West Precinct Structure Plan Review of the 'Industrial/Commercial Precinct' – Air and Noise Assessment, July 2016
Environmental Research Management (Australia) Pty Ltd: Ballarat West Precinct Structure Plan (2012) Review- Planning Summary Report, July 2016
GHD: Stage 2 Preliminary Environmental Contamination Assessment, 2010
Halcrow: Pre-development flood mapping, 2010
Renaissance Planning: Ballarat Interim Activity Centre Policy Nov 2009
MacroPlan: Economic Assessment for Ballarat West Growth Area, 2010
Milward Engineering Management: Ballarat West Precinct Plan Transport Projects Review, February 2024

Practical Ecology: Ballarat West Precinct Targeted Growling Grass Frog Surveys, 2023
Renaissance Planning: Ballarat Interim Activity Centre Policy Nov 2009
SMEC: Ballarat West Conservation Management Plan, December 2011
SMEC: Ballarat West Native Vegetation Plan, June 2012
SGS: City of Ballarat Economic Strategy 2010-2014
Urban Enterprise: Ballarat West Development Contributions Plan, February 2025

General reference documents

A Strategic Framework for Creating Liveable New Communities, Growth Areas Authority, March 2008.

Today Tomorrow Together: The Ballarat Strategy 2040, City of Ballarat, 2015

Housing Strategy 2023-2041, City of Ballarat, 2024

Ballarat Long Term Growth Options Investigation, Hansen Partnership, Arup & Tim Nott, 2018

Development Contributions Guidelines, Department of Planning and Community Development, March 2007.

Flora and Fauna Guarantee Strategy: Victoria's Biodiversity, Department of Natural Resources and Environment, 1997.

Guidelines for Conducting Historical Archaeological Surveys, 2008, Heritage Council of Victoria and Heritage Victoria.

Healthy by Design: A planners' guide to environments for active living, National Heart Foundation of Australia, 2004.

Plan Melbourne 2017-2050, Victorian Government, 2017

Precinct Structure Planning Guidelines: New Communities in Victoria, Victorian Planning Authority, 2021

Central Highlands Regional Growth Plan, Victorian Government, 2014

Victoria in Future 2019, Department of Environment, Land, Water and Planning, July 2019.

Our Environment, Our Future, Department of Sustainability and Environment, 2006.

Planning for Community Infrastructure in Growth Areas, Australian Social and Recreation, 2008.

Public Transport Guidelines for Land Use Development, Department of Transport, 2008.

Safer Design Guidelines for Victoria, Department of Sustainability and Environment, June 2005.

Urban Design Guidelines for Victoria (Department of Environment, Land, Water and Planning, 2017)

Urban Development Program, Department of Planning and Community Development, annual.

Urban Stormwater Best Practice Environmental Management Guidelines, CSIRO, 1999.



7 Attachments

Attachment 1: Property Specific Land Use Budget

Attachment 2: Property Specific Land Use Budget - Housing Yield



Attachment 1: Property Specific Land Use Budget

Table 3 Property Specific Land Use Budget

Property Number		Total Area (Hectares)	TRANSPORT				ENCUMBERED LAND				COMMUNITY		UNENCUMBERED LAND OPEN SPACE			Total Net Developable Area (ha)
			Future Western Link Road Not Included in NDA	Arterial Road / Widening Not Included in NDA	Roundabout Not Included in NDA	Road Reserve Not Included in NDA	Drainage Reserve Not Included in OS%	Drainage Basins Not Included in OS%	Environmental Conservation Area Not Included in OS%	Heritage Conservation Area Not Included in OS%	Community Facilities Not Included in NDA	Schools Not Included in NDA	Active Open Space Included in OS%	Passive Open Space (Local parks & Linear reserves) Included in OS%	Other - Regional Recreation Included in OS%	
Property 1	2012292	0.82	0.00	0.00	0.00	0.00	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	0.00
Property 2 & 7 & 16		72.46	0.00	0.00	0.00	0.00	13.05	4.13	0.00	0.00	0.00	0.00	0.50	1.93	0.00	52.85
Property 3	2012291	8.70	0.00	0.00	0.00	0.45	0.00	0.00	0.00	0.00	1.90	0.00	3.00	0.00	0.00	3.35
Property 4	2035436	9.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.43
Property 5	2035447	8.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.95	0.00	0.00	0.00	5.15
Property 6	2035446	8.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.47	0.00	0.00	0.00	7.62
Properties 8 to 11		30.89	0.00	0.00	0.18	0.00	3.43	0.45	0.00	0.00	0.00	0.00	0.00	1.60	0.00	25.23
Property 12	2002746	3.33	0.00	0.00	0.00	0.00	1.24	1.92	0.00	0.00	0.00	0.00	0.00	0.17	0.00	0.00
Property 13	2002747	2.08	0.00	0.00	0.00	0.00	2.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Property 14	2002751	1.17	0.00	0.00	0.00	0.00	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Property 15	2002749	0.33	0.00	0.00	0.00	0.00	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Property 17 to 19		6.25	0.00	0.08	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	6.06
Property 20 to 21		8.13	0.00	0.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.92
Property 22	2029914	2.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.06
Property 23	2029915	2.09	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04
Property 25	2029912	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04
Property 24 & 26		7.17	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18	0.00	7.00
Property 27	2029911	2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.02
Property 28 & 29 & 30	2029909	15.33	0.00	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.89	0.00	12.80
Property 31	2034414	1.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.74
Property 32 to 33		2.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.91
Property 34	2034417	1.61	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.61
Property 35	2051664	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.91
Property 36	2051665	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93
Property 37	2035439	8.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	7.27
Property 38	2035437	2.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.04
Property 39	2035438	2.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.02
Property 40	2034419	1.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.93
Property 41	2034420	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.87
Property 42	2034421	1.00	0.00	0.03	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94
Property 43	2028681	0.68	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.66
Property 44	2028681	0.69	0.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.67
Property 45	2049703	0.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.77



Property Number		Total Area (Hectares)	TRANSPORT				ENCUMBERED LAND				COMMUNITY		UNENCUMBERED LAND OPEN SPACE			Total Net Developable Area (ha)
			Future Western Link Road Not Included in NDA	Arterial Road / Widening Not Included in NDA	Roundabout Not Included in NDA	Road Reserve Not Included in NDA	Drainage Reserve Not Included in OS%	Drainage Basins Not Included in OS%	Environmental Conservation Area Not Included in OS%	Heritage Conservation Area Not Included in OS%	Community Facilities Not Included in NDA	Schools Not Included in NDA	Active Open Space Included in OS%	Passive Open Space (Local parks & Linear reserves) Included in OS%	Other - Regional Recreation Included in OS%	
Property 46	2049704	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64
Property 47	2049705	0.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.64
Property 48	2049706	0.92	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88
Property 49	2049702	0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70
Property 50	2049701	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65
Property 51	2049700	0.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.65
Property 52	2049699	0.65	0.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62
Property 53	2035440	2.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03
Property 54	2035441	2.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03
Property 55	2051432	0.79	0.00	0.03	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68
Property 56	2051433	1.19	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.14
Property 57	2034430	3.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.92
Property 58	2034429	2.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.53
Property 59	2034428	2.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.83
Property 60 to 64		10.94	0.00	0.09	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.83
Property 65 to 66		24.58	0.00	0.00	0.00	0.00	1.75	0.40	0.00	0.00	0.00	0.00	0.00	3.50	0.00	18.93
Property 67	2042495	24.42	0.00	0.00	0.00	0.00	0.00	0.64	0.00	0.00	0.00	0.00	0.00	3.21	0.00	20.57
Property 69	2035443	3.25	0.00	0.12	0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.17	0.00	2.85
Property 70	2039204	2.04	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.90
Property 71	2035444	2.04	0.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.90
Property 72	2035448	4.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	3.62
Property 73	2035445	4.03	0.00	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.76
Property 74	2051046	2.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.26	0.00	1.92
Property 75	2051047	1.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.00	1.67
Property 76	2047568	4.06	0.00	0.26	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.80
Property 77	2028691	4.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.46	0.00	3.59
Property 78 to 81		16.84	0.00	0.00	0.00	0.00	0.34	1.70	0.00	0.00	0.00	0.00	0.00	1.31	0.00	13.49
Property 82	2002742	2.36	0.00	0.00	0.00	0.00	1.43	0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
Property 83	2002741	6.17	0.00	0.00	0.00	0.00	1.92	2.25	0.00	0.00	0.00	0.00	0.00	0.40	0.00	1.60
Property 84 & 88		8.35	0.00	0.00	0.03	0.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	7.87
Property 68 & 87		28.27	0.00	0.11	0.01	0.00	2.23	1.43	0.00	1.06	0.00	0.00	0.00	3.96	0.00	19.47
Property 89	2028688	4.02	0.00	0.00	0.00	0.00	0.29	0.00	0.00	0.00	0.00	0.00	0.00	0.41	0.00	3.32
Property 90	2028689	3.95	0.00	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	3.17
Property 85 & 86 & 91		12.78	0.00	0.62	0.07	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.76	0.00	10.20



Property Number		Total Area (Hectares)	TRANSPORT				ENCUMBERED LAND				COMMUNITY		UNENCUMBERED LAND OPEN SPACE			Total Net Developable Area (ha)
			Future Western Link Road Not Included in NDA	Arterial Road / Widening Not Included in NDA	Roundabout Not Included in NDA	Road Reserve Not Included in NDA	Drainage Reserve Not Included in OS%	Drainage Basins Not Included in OS%	Environmental Conservation Area Not Included in OS%	Heritage Conservation Area Not Included in OS%	Community Facilities Not Included in NDA	Schools Not Included in NDA	Active Open Space Included in OS%	Passive Open Space (Local parks & Linear reserves) Included in OS%	Other - Regional Recreation Included in OS%	
Property 92	2028690	5.70	0.00	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.00	0.00	1.47	0.00	4.14
Property 93	2027855	5.26	0.00	0.00	0.00	0.00	1.44	0.00	0.00	0.00	0.00	0.00	0.00	1.25	0.00	2.57
Property 94	2039846	5.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	5.06
Property 95	2041312	3.91	0.00	0.00	0.00	0.00	2.46	0.00	0.00	0.00	0.00	0.00	0.00	0.28	0.00	1.17
Property 96	2031574	5.36	0.00	0.00	0.02	0.00	0.59	3.56	0.00	0.00	0.00	0.00	0.00	0.43	0.00	0.77
Property 97 & 98 & 100	2027853	15.62	0.00	0.62	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30	0.00	13.65
Property 99	2005747	4.42	0.00	0.22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	4.19
Property 101	2000321	4.21	0.00	0.00	0.00	0.00	0.00	3.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81
Property 102	2000321	8.22	0.00	0.00	0.00	0.00	0.00	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.02
Property 103	2000321	9.92	0.00	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	9.79
Property 104	2031578	0.50	0.00	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45
Property 105 & 106 & 107		4.43	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.43
Property 108	2031571	3.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.67
Property 109 & 110		1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.77
Property 111 & 112	2006617	4.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.14
Property 113	2041363	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36	0.00	0.00	0.00
Property 114	2012845	9.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.64	6.32	0.00	0.00
Property 115	2012845	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.33	0.00	0.00
Property 116	2012844	11.41	0.00	0.00	0.00	0.00	0.00	4.43	0.00	0.00	0.00	0.00	0.00	6.98	0.00	0.00
Property 117 & 118		0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80
Property 119 & 120		7.39	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	2.52	0.00	0.00	0.00	4.37
Property 121	2012842	2.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.15	0.00	1.90
Property 122	2012842	1.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.48
Property 123	2012842	8.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.45	0.00	7.76
Property 124	2005750	8.63	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85	0.00	0.00	0.00	7.78
Property 125	2023250	5.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.86
Property 126	2001990	5.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.85
Property 127 & 128	2045173	7.66	0.00	0.00	0.00	0.00	0.00	0.59	0.00	0.00	0.00	0.00	0.00	1.96	0.00	5.11
Property 129	2012840	2.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.03
Property 130	2000321	1.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47
Property 131	2000321	1.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.47
Property 132	2000321	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02	0.00	2.23
Property 133	2000321	6.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.62	0.00	5.84



Property Number		Total Area (Hectares)	TRANSPORT				ENCUMBERED LAND				COMMUNITY		UNENCUMBERED LAND OPEN SPACE			Total Net Developable Area (ha)
			Future Western Link Road Not Included in NDA	Arterial Road / Widening Not Included in NDA	Roundabout Not Included in NDA	Road Reserve Not Included in NDA	Drainage Reserve Not Included in OS%	Drainage Basins Not Included in OS%	Environmental Conservation Area Not Included in OS%	Heritage Conservation Area Not Included in OS%	Community Facilities Not Included in NDA	Schools Not Included in NDA	Active Open Space Included in OS%	Passive Open Space (Local parks & Linear reserves) Included in OS%	Other - Regional Recreation Included in OS%	
Property 134	2000321	8.11	0.00	0.00	0.00	0.00	0.00	1.13	0.00	0.00	0.00	0.00	0.00	0.87	0.00	6.11
Property 135	2000321	2.25	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.31	0.00	1.94
Property 136	2000321	2.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27	0.00	1.93
Property 137	2000321	7.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	7.10
Property 138	2049676	22.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.19	0.44	0.00	11.83
Property 139 & 140 & 141	2026429	1.98	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.98
Property 142 & 143		0.70	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.70
Property 144	2026428	1.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.54
Property 145	2000330	0.41	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.41
Property 146	2000328	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.36
Property 147	2000328	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
Property 148	2000327	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
Property 149	2000326	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.06
Property 150	2000325	0.18	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.18
Property 151	2000324	0.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.38
Property 152	2000322	0.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20
Property 153	2000323	10.69	0.00	0.79	0.00	0.00	0.00	2.34	0.00	2.28	0.00	0.00	0.00	0.00	0.00	5.28
Property 154	2000321	19.51	0.00	0.08	0.00	0.00	0.00	3.35	0.00	0.00	0.00	0.00	0.00	0.58	0.00	15.50
Property 155	2012306	32.90	1.60	0.14	0.00	0.00	0.00	0.85	0.00	0.00	0.00	0.00	0.00	2.61	0.00	27.69
Properties 156 to 157	2012998	65.44	0.00	2.15	0.22	0.00	0.00	2.00	0.00	0.00	1.30	13.50	10.03	0.00	0.00	36.24
Property 158 & 159 & 160 & 161	2012289	82.32	0.00	1.80	0.15	0.00	6.56	2.31	0.00	0.00	0.00	0.00	0.00	4.44	0.00	67.07
Property 162	2012289	1.64	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.64
Property 163	2039201	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09
Property 164	2039199	0.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.68
Property 165	2039200	1.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.09
Property 166	2013004	0.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.73
Property 167	2010410	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.89
Property 168	2040644	1.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.30
Property 169	2040447	1.44	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.44
Property 170	2010408	5.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5.46
Property 171	2040200	1.26	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.25
Property 172	2012288	2.33	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.33
Property 173	2010411	3.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.46
Property 174	2040444	2.47	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.47
Property 175	2012287	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81
Property 176	2012286	0.99	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.99



Property Number		Total Area (Hectares)	TRANSPORT				ENCUMBERED LAND				COMMUNITY		UNENCUMBERED LAND OPEN SPACE			Total Net Developable Area (ha)
			Future Western Link Road Not Included in NDA	Arterial Road / Widening Not Included in NDA	Roundabout Not Included in NDA	Road Reserve Not Included in NDA	Drainage Reserve Not Included in OS%	Drainage Basins Not Included in OS%	Environmental Conservation Area Not Included in OS%	Heritage Conservation Area Not Included in OS%	Community Facilities Not Included in NDA	Schools Not Included in NDA	Active Open Space Included in OS%	Passive Open Space (Local parks & Linear reserves) Included in OS%	Other - Regional Recreation Included in OS%	
Property 177	2042211	0.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.60
Property 178	2022615	0.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.56
Property 179	2022633	1.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.05
Property 180	2012285	0.79	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.79
Property 181	2022616	1.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.03
Property 182	2012284	0.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.78
Property 183	2012283	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89
Property 184	2012307	0.95	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.95
Property 185	2046230	2.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.01
Property 186	2046231	2.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.01
Property 187	2022619	3.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.87
Property 188	2022620	0.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.88
Property 189	2022621	2.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.07
Property 190	2022622	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90
Property 191	2022623	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80
Property 192	2022624	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80
Property 193	2022625	0.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.80
Property 194	2022626	1.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.60
Property 195	2022627	1.72	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.72
Property 196	2022628	0.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.86
Property 197	2022629	0.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.85
Property 198	2022630	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83
Property 199	2022631	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83
Property 200	2022632	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83
Property 201	2010409	0.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.81
Property 202	2022614	0.94	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.94
Property 203	2010407	3.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.25	0.00	3.35
Property 204	2013003	1.24	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.24
Property 205	2047864	0.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.27
Property 206	2045820	0.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.83
Property 207	2045819	1.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.93
Property 208 & 209	2012306	43.92	3.07	0.00	0.00	0.00	0.00	3.86	0.00	0.00	0.00	0.00	0.00	2.18	0.00	34.80
Property 210	2036739	0.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.40
Property 211	2036738	21.77	0.00	1.94	0.00	0.00	0.00	0.50	0.00	0.00	0.00	0.00	0.00	1.02	0.00	18.31
Property 212 & 213	2036752	65.40	0.00	0.00	0.00	0.00	0.00	2.76	3.27	0.00	0.70	3.46	3.98	0.00	0.00	51.23
Property 214	2001989	32.03	0.00	0.00	0.00	0.00	0.58	1.09	0.00	0.07	0.00	0.00	0.00	0.00	0.00	30.29



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Properties 215 to 216		33.23	0.00	0.93	0.08	0.00	0.00	1.10	0.00	0.00	0.00	0.00	0.00	2.37	0.00	28.75
Property 217	2001991	0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
Property 218	2001992	16.39	0.00	1.89	0.13	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.00	0.00	13.37
Property 219	2001993	15.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	15.83
Property 220	2001994	32.73	0.53	0.00	0.00	0.00	0.00	1.84	1.59	0.00	0.00	0.00	0.00	2.33	0.00	26.44
Property 221	2036749	4.05	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.74
Property 222	2036748	2.14	0.00	0.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.83
Property 223	2042384	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.89
Property 224	2036747	3.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.42
Property 225	2036746	4.34	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	4.34
Property 226 & 227	2036744	8.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.30
Property 228 & 229	2036750	20.28	0.00	0.05	0.00	0.00	0.00	0.07	0.00	0.00	0.00	0.00	0.00	1.00	0.00	19.16
Property 230	2036751	19.74	0.00	1.81	0.20	0.00	0.00	0.33	0.00	0.00	0.00	0.61	4.00	0.00	0.00	12.79
Sub-Total		1223.01	5.20	16.17	1.57	0.59	42.37	48.67	4.86	3.41	4.40	24.36	35.70	65.11	0.00	970.60
Existing Road Reserves		63.76	0.00	0.00	0.00	61.38	0.00	0.00	0.00	0.00	0.00	0.00	0.94	0.00	0.00	1.44
		1286.77	5.20	16.17	1.57	61.97	42.37	48.67	4.86	3.41	4.40	24.36	36.64	65.11	0.00	972.04



Attachment 2: Property Specific Land Use Budget - Housing Yield

Table 4 Property Specific Land Use Budget - Housing Yields

Property Number		Total Area (Hectares)	Total net Developable Area (Hectares)	OTHER LAND USES			Total Net Residential Area (Hectares)	CONVENTIONAL DENSITY (15 Dwellings/NRHa)		MEDIUM DENSITY (25 Dwellings/NRHa)		TOTAL COMBINED		
				Activity Centre (Retail / Office / Mixed Use)	Bulky Goods	Industrial / Commercial		NRHa	Indicative Dwellings	NRHa	Indicative Dwellings	NRHa	Indicative Dwellings / NRHa	Indicative Dwellings
Property 1	2012292	0.82	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0	0.00	-	0
Property 2 & 7 & 16		72.46	52.85	0.00	0.00	0.00	52.85	52.85	735	0.00	0	52.85	14	735
Property 3	2012291	8.70	3.35	2.99	0.00	0.00	0.37	0.01	0	0.36	54	0.37	148	54
Property 4	2035436	9.43	9.43	9.43	0.00	0.00	0.00	0.00	0	0.00	0	0.00	-	0
Property 5	2035447	8.10	5.15	0.00	0.00	0.29	4.86	4.86	64	0.00	0	4.86	13	64
Property 6	2035446	8.09	7.62	0.00	0.00	0.00	7.62	7.62	133	0.00	0	7.62	17	133
Properties 8 to 11		30.89	25.23	0.00	0.00	0.00	25.23	25.23	439	0.00	0	25.23	17	439
Property 12	2002746	3.33	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0	0.00	-	0
Property 13	2002747	2.08	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0	0.00	-	0
Property 14	2002751	1.17	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0	0.00	-	0
Property 15	2002749	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0	0.00	-	0
Property 17 to 19		6.25	6.06	1.20	4.86	0.00	0.00	0.00	0	0.00	0	0.00	-	0
Property 20 to 21		8.13	7.92	1.00	0.00	0.00	6.92	4.01	59	2.91	145	6.92	29	204
Property 22	2029914	2.06	2.06	0.00	0.00	2.06	0.00	0.00	0	0.00	0	0.00	-	0
Property 23	2029915	2.09	2.04	0.00	0.00	0.00	2.04	0.00	0	2.04	56	2.04	27	56
Property 25	2029912	2.04	2.04	0.00	0.00	0.00	2.04	2.04	33	0.00	0	2.04	16	33
Property 24 & 26		7.17	7.00	0.00	0.00	0.00	7.00	7.00	85	0.00	0	7.00	12	85
Property 27	2029911	2.02	2.02	0.00	0.00	0.00	2.02	2.02	34	0.00	0	2.02	17	34
Property 28 & 29 & 30	2029909	15.33	12.80	0.00	0.00	0.00	12.80	12.80	180	0.00	0	12.80	14	180
Property 31	2034414	1.74	1.74	0.00	0.00	0.20	1.54	1.54	31	0.00	0	1.54	20	31
Property 32 to 33		2.91	2.91	0.00	0.00	0.00	2.91	2.91	50	0.00	0	2.91	17	50
Property 34	2034417	1.61	1.61	0.00	0.00	0.00	1.61	1.61	32	0.00	0	1.61	20	32
Property 35	2051664	0.91	0.91	0.00	0.00	0.00	0.91	0.91	18	0.00	0	0.91	20	18
Property 36	2051665	0.93	0.93	0.00	0.00	0.00	0.93	0.93	19	0.00	0	0.93	20	19
Property 37	2035439	8.27	7.27	0.00	0.00	0.00	7.27	7.27	145	0.00	0	7.27	20	145
Property 38	2035437	2.04	2.04	0.00	0.00	0.00	2.04	2.04	41	0.00	0	2.04	20	41
Property 39	2035438	2.02	2.02	0.00	0.00	0.00	2.02	2.02	33	0.00	0	2.02	16	33
Property 40	2034419	1.93	1.93	0.00	0.00	0.00	1.93	1.93	34	0.00	0	1.93	18	34
Property 41	2034420	1.87	1.87	0.00	0.00	0.00	1.87	1.87	37	0.00	0	1.87	20	37
Property 42	2034421	1.00	0.94	0.00	0.00	0.00	0.94	0.94	19	0.00	0	0.94	20	19
Property 43	2028681	0.68	0.66	0.00	0.00	0.00	0.66	0.66	13	0.00	0	0.66	20	13
Property 44	2028681	0.69	0.67	0.00	0.00	0.00	0.67	0.67	13	0.00	0	0.67	20	13
Property 45	2049703	0.77	0.77	0.00	0.00	0.00	0.77	0.77	15	0.00	0	0.77	20	15



Property Number		Total Area (Hectares)	Total net Developable Area (Hectares)	OTHER LAND USES			Total Net Residential Area (Hectares)	CONVENTIONAL DENSITY (15 Dwellings/NRHa)		MEDIUM DENSITY (25 Dwellings/NRHa)		TOTAL COMBINED		
				Activity Centre (Retail / Office / Mixed Use)	Bulky Goods	Industrial / Commercial		NRHa	Indicative Dwellings	NRHa	Indicative Dwellings	NRHa	Indicative Dwellings / NRHa	Indicative Dwellings
Property 46	2049704	0.64	0.64	0.00	0.00	0.00	0.64	0.64	13	0.00	0	0.64	20	13
Property 47	2049705	0.64	0.64	0.00	0.00	0.00	0.64	0.64	13	0.00	0	0.64	20	13
Property 48	2049706	0.92	0.88	0.00	0.00	0.00	0.88	0.88	18	0.00	0	0.88	20	18
Property 49	2049702	0.70	0.70	0.00	0.00	0.00	0.70	0.70	14	0.00	0	0.70	20	14
Property 50	2049701	0.65	0.65	0.00	0.00	0.00	0.65	0.65	13	0.00	0	0.65	20	13
Property 51	2049700	0.65	0.65	0.00	0.00	0.00	0.65	0.65	13	0.00	0	0.65	20	13
Property 52	2049699	0.65	0.62	0.00	0.00	0.00	0.62	0.62	12	0.00	0	0.62	20	12
Property 53	2035440	2.03	2.03	0.00	0.00	0.00	2.03	2.03	41	0.00	0	2.03	20	41
Property 54	2035441	2.03	2.03	0.00	0.00	0.00	2.03	2.03	41	0.00	0	2.03	20	41
Property 55	2051432	0.79	0.68	0.00	0.00	0.00	0.68	0.68	14	0.00	0	0.68	20	14
Property 56	2051433	1.19	1.14	0.00	0.00	0.00	1.14	1.14	23	0.00	0	1.14	20	23
Property 57	2034430	3.92	3.92	0.00	0.00	0.00	3.92	3.92	60	0.00	0	3.92	15	60
Property 58	2034429	2.53	2.53	0.00	0.00	0.00	2.53	2.53	39	0.00	0	2.53	15	39
Property 59	2034428	2.83	2.83	0.00	0.00	0.00	2.83	2.83	43	0.00	0	2.83	15	43
Property 60 to 64		10.94	10.83	0.00	0.00	0.00	10.83	10.83	189	0.00	0	10.83	17	189
Property 65 to 66		24.58	18.93	0.00	0.00	0.00	18.93	18.93	276	0.00	0	18.93	15	276
Property 67	2042495	24.42	20.57	0.00	0.00	0.00	20.57	20.57	345	0.00	0	20.57	17	345
Property 69	2035443	3.25	2.85	0.00	0.00	0.00	2.85	2.85	57	0.00	0	2.85	20	57
Property 70	2039204	2.04	1.90	0.00	0.00	0.00	1.90	1.90	38	0.00	0	1.90	20	38
Property 71	2035444	2.04	1.90	0.00	0.00	0.00	1.90	1.90	38	0.00	0	1.90	20	38
Property 72	2035448	4.07	3.62	0.00	0.00	0.00	3.62	3.62	72	0.00	0	3.62	20	72
Property 73	2035445	4.03	3.76	0.00	0.00	0.00	3.76	3.76	75	0.00	0	3.76	20	75
Property 74	2051046	2.18	1.92	0.00	0.00	0.00	1.92	1.92	38	0.00	0	1.92	20	38
Property 75	2051047	1.91	1.67	0.00	0.00	0.00	1.67	1.67	33	0.00	0	1.67	20	33
Property 76	2047568	4.06	3.80	0.00	0.00	0.00	3.80	3.80	76	0.00	0	3.80	20	76
Property 77	2028691	4.05	3.59	0.00	0.00	0.00	3.59	3.59	72	0.00	0	3.59	20	72
Property 78 to 81		16.84	13.49	0.00	0.00	0.00	13.49	13.49	235	0.00	0	13.49	17	235
Property 82	2002742	2.36	0.89	0.00	0.00	0.00	0.89	0.89	18	0.00	0	0.89	20	18
Property 83	2002741	6.17	1.60	0.00	0.00	0.00	1.60	1.60	32	0.00	0	1.60	20	32
Property 84 & 88		8.35	7.87	0.00	0.00	0.00	7.87	7.87	157	0.00	0	7.87	20	157
Property 68 & 87		28.27	19.47	0.00	0.00	0.00	19.47	19.47	297	0.00	0	19.47	15	297
Property 89	2028688	4.02	3.32	0.00	0.00	0.00	3.32	3.32	66	0.00	0	3.32	20	66
Property 90	2028689	3.95	3.17	0.00	0.00	0.00	3.17	3.17	63	0.00	0	3.17	20	63
Property 85 & 86 & 91		12.78	10.20	0.00	0.00	0.00	10.20	10.20	184	0.00	0	10.20	18	184



Property Number		Total Area (Hectares)	Total net Developable Area (Hectares)	OTHER LAND USES			Total Net Residential Area (Hectares)	CONVENTIONAL DENSITY (15 Dwellings/NRHa)		MEDIUM DENSITY (25 Dwellings/NRHa)		TOTAL COMBINED		
				Activity Centre (Retail / Office / Mixed Use)	Bulky Goods	Industrial / Commercial		NRHa	Indicative Dwellings	NRHa	Indicative Dwellings	NRHa	Indicative Dwellings / NRHa	Indicative Dwellings
Property 92	2028690	5.70	4.14	0.00	0.00	0.00	4.14	4.14	83	0.00	0	4.14	20	83
Property 93	2027855	5.26	2.57	0.00	0.00	0.00	2.57	2.57	51	0.00	0	2.57	20	51
Property 94	2039846	5.39	5.06	0.00	0.00	0.00	5.06	5.06	101	0.00	0	5.06	20	101
Property 95	2041312	3.91	1.17	0.00	0.00	0.00	1.17	1.17	23	0.00	0	1.17	20	23
Property 96	2031574	5.36	0.77	0.00	0.00	0.00	0.77	0.77	15	0.00	0	0.77	20	15
Property 97 & 98 & 100	2027853	15.62	13.65	1.81	0.00	0.00	11.84	9.97	157	1.87	64	11.84	19	221
Property 99	2005747	4.42	4.19	0.00	0.00	0.00	4.19	4.19	84	0.00	0	4.19	20	84
Property 101	2000321	4.21	0.81	0.00	0.00	0.00	0.81	0.81	16	0.00	0	0.81	20	16
Property 102	2000321	8.22	8.02	0.00	0.00	0.00	8.02	8.02	160	0.00	0	8.02	20	160
Property 103	2000321	9.92	9.79	0.00	0.00	0.00	9.79	9.79	196	0.00	0	9.79	20	196
Property 104	2031578	0.50	0.45	0.00	0.00	0.00	0.45	0.45	9	0.00	0	0.45	20	9
Property 105 & 106 & 107		4.43	4.43	0.00	0.00	0.00	4.43	4.43	89	0.00	0	4.43	20	89
Property 108	2031571	3.67	3.67	0.00	0.00	0.00	3.67	3.67	64	0.00	0	3.67	17	64
Property 109 & 110		1.77	1.77	0.00	0.00	0.00	1.77	1.77	34	0.00	0	1.77	19	34
Property 111 & 112	2006617	4.14	4.14	0.00	0.00	0.00	4.14	4.14	84	0.00	0	4.14	20	84
Property 113	2041363	0.36	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0	0.00	-	0
Property 114	2012845	9.96	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0	0.00	-	0
Property 115	2012845	0.33	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0	0.00	-	0
Property 116	2012844	11.41	0.00	0.00	0.00	0.00	0.00	0.00	0	0.00	0	0.00	-	0
Property 117 & 118		0.80	0.80	0.00	0.00	0.00	0.80	0.00	0	0.80	20	0.80	25	20
Property 119 & 120		7.39	4.37	0.00	0.00	0.00	4.37	3.12	61	1.25	31	4.37	21	92
Property 121	2012842	2.05	1.90	0.00	0.00	0.00	1.90	1.90	29	0.00	0	1.90	15	29
Property 122	2012842	1.48	1.48	0.00	0.00	0.00	1.48	1.48	22	0.00	0	1.48	15	22
Property 123	2012842	8.21	7.76	0.00	0.00	0.00	7.76	7.76	116	0.00	0	7.76	15	116
Property 124	2005750	8.63	7.78	0.00	0.00	0.00	7.78	7.05	135	0.73	22	7.78	20	157
Property 125	2023250	5.86	5.86	0.00	0.00	0.00	5.86	5.86	117	0.00	0	5.86	20	117
Property 126	2001990	5.85	5.85	0.00	0.00	0.00	5.85	5.85	117	0.00	0	5.85	20	117
Property 127 & 128	2045173	7.66	5.11	0.00	0.00	0.00	5.11	5.11	82	0.00	0	5.11	16	82
Property 129	2012840	2.03	2.03	0.00	0.00	0.00	2.03	2.03	41	0.00	0	2.03	20	41
Property 130	2000321	1.47	1.47	0.00	0.00	0.00	1.47	1.47	29	0.00	0	1.47	20	29
Property 131	2000321	1.47	1.47	0.00	0.00	0.00	1.47	1.47	29	0.00	0	1.47	20	29
Property 132	2000321	2.25	2.23	0.00	0.00	0.00	2.23	2.23	45	0.00	0	2.23	20	45
Property 133	2000321	6.46	5.84	0.00	0.00	0.00	5.84	5.84	117	0.00	0	5.84	20	117



Property Number		Total Area (Hectares)	Total net Developable Area (Hectares)	OTHER LAND USES			Total Net Residential Area (Hectares)	CONVENTIONAL DENSITY (15 Dwellings/NRHa)		MEDIUM DENSITY (25 Dwellings/NRHa)		TOTAL COMBINED		
				Activity Centre (Retail / Office / Mixed Use)	Bulky Goods	Industrial / Commercial		NRHa	Indicative Dwellings	NRHa	Indicative Dwellings	NRHa	Indicative Dwellings / NRHa	Indicative Dwellings
Property 134	2000321	8.11	6.11	0.00	0.00	0.00	6.11	6.11	122	0.00	0	6.11	20	122
Property 135	2000321	2.25	1.94	0.00	0.00	0.00	1.94	1.94	39	0.00	0	1.94	20	39
Property 136	2000321	2.20	1.93	0.00	0.00	0.00	1.93	1.93	39	0.00	0	1.93	20	39
Property 137	2000321	7.10	7.10	0.00	0.00	0.00	7.10	7.10	142	0.00	0	7.10	20	142
Property 138	2049676	22.46	11.83	0.00	0.00	0.00	11.83	11.83	237	0.00	0	11.83	20	237
Property 139 & 140 & 141	2026429	1.98	1.98	0.00	0.00	0.00	1.98	1.98	33	0.00	0	1.98	17	33
Property 142 & 143		0.70	0.70	0.00	0.00	0.00	0.70	0.70	14	0.00	0	0.70	20	14
Property 144	2026428	1.54	1.54	0.00	0.00	0.00	1.54	1.54	31	0.00	0	1.54	20	31
Property 145	2000330	0.41	0.41	0.00	0.00	0.00	0.41	0.41	8	0.00	0	0.41	20	8
Property 146	2000328	0.36	0.36	0.00	0.00	0.00	0.36	0.36	7	0.00	0	0.36	20	7
Property 147	2000328	0.06	0.06	0.00	0.00	0.00	0.06	0.06	1	0.00	0	0.06	20	1
Property 148	2000327	0.06	0.06	0.00	0.00	0.00	0.06	0.06	1	0.00	0	0.06	20	1
Property 149	2000326	0.06	0.06	0.00	0.00	0.00	0.06	0.06	1	0.00	0	0.06	20	1
Property 150	2000325	0.18	0.18	0.00	0.00	0.00	0.18	0.18	4	0.00	0	0.18	20	4
Property 151	2000324	0.38	0.38	0.00	0.00	0.00	0.38	0.38	8	0.00	0	0.38	20	8
Property 152	2000322	0.20	0.20	0.00	0.00	0.00	0.20	0.20	4	0.00	0	0.20	20	4
Property 153	2000323	10.69	5.28	0.00	0.00	0.00	5.28	5.28	105	0.00	0	5.28	20	105
Property 154	2000321	19.51	15.50	0.00	0.00	0.00	15.50	15.50	105	0.00	0	15.50	7	105
Property 155	2012306	32.90	27.69	0.00	0.00	0.00	27.69	27.09	429	0.60	15	27.69	16	444
Properties 156 to 157	2012998	65.44	36.24	3.26	0.00	0.00	32.98	28.67	483	4.31	108	32.98	18	591
Property 158 & 159 & 160 & 161	2012289	82.32	67.07	0.00	0.00	1.37	65.70	64.90	952	0.80	28	65.70	15	980
Property 162	2012289	1.64	1.64	0.00	0.00	0.00	1.64	1.64	33	0.00	0	1.64	20	33
Property 163	2039201	1.09	1.09	0.00	0.00	0.00	1.09	1.09	22	0.00	0	1.09	20	22
Property 164	2039199	0.68	0.68	0.00	0.00	0.00	0.68	0.68	14	0.00	0	0.68	20	14
Property 165	2039200	1.09	1.09	0.00	0.00	0.00	1.09	1.09	22	0.00	0	1.09	20	22
Property 166	2013004	0.73	0.73	0.00	0.00	0.00	0.73	0.73	15	0.00	0	0.73	20	15
Property 167	2010410	1.89	1.89	0.00	0.00	0.00	1.89	1.89	38	0.00	0	1.89	20	38
Property 168	2040644	1.30	1.30	0.00	0.00	0.00	1.30	1.30	26	0.00	0	1.30	20	26
Property 169	2040447	1.44	1.44	0.00	0.00	0.00	1.44	1.44	29	0.00	0	1.44	20	29
Property 170	2010408	5.46	5.46	0.00	0.00	0.00	5.46	5.46	109	0.00	0	5.46	20	109
Property 171	2040200	1.26	1.25	0.00	0.00	0.00	1.25	1.25	25	0.00	0	1.25	20	25
Property 172	2012288	2.33	2.33	0.00	0.00	0.00	2.33	2.33	47	0.00	0	2.33	20	47
Property 173	2010411	3.46	3.46	0.00	0.00	0.00	3.46	3.46	69	0.00	0	3.46	20	69
Property 174	2040444	2.47	2.47	0.00	0.00	0.00	2.47	2.47	49	0.00	0	2.47	20	49
Property 175	2012287	0.81	0.81	0.00	0.00	0.00	0.81	0.81	16	0.00	0	0.81	20	16



Property Number					OTHER LAND USES			CONVENTIONAL DENSITY (15 Dwellings/NRHa)			MEDIUM DENSITY (25 Dwellings/NRHa)		TOTAL COMBINED		
		Total Area (Hectares)	Total net Developable Area (Hectares)		Activity Centre (Retail / Office / Mixed Use)	Bulky Goods	Industrial / Commercial	Total Net Residential Area (Hectares)	NRHa	Indicative Dwellings	NRHa	Indicative Dwellings	NRHa	Indicative Dwellings / NRHa	Indicative Dwellings
Property 176	2012286	0.99	0.99		0.00	0.00	0.00	0.99	0.99	20	0.00	0	0.99	20	20
Property 177	2042211	0.60	0.60		0.00	0.00	0.00	0.60	0.60	12	0.00	0	0.60	20	12
Property 178	2022615	0.56	0.56		0.00	0.00	0.00	0.56	0.56	11	0.00	0	0.56	20	11
Property 179	2022633	1.05	1.05		0.00	0.00	0.00	1.05	1.05	21	0.00	0	1.05	20	21
Property 180	2012285	0.79	0.79		0.00	0.00	0.00	0.79	0.79	16	0.00	0	0.79	20	16
Property 181	2022616	1.03	1.03		0.00	0.00	0.00	1.03	1.03	21	0.00	0	1.03	20	21
Property 182	2012284	0.78	0.78		0.00	0.00	0.00	0.78	0.78	16	0.00	0	0.78	20	16
Property 183	2012283	0.89	0.89		0.00	0.00	0.00	0.89	0.89	18	0.00	0	0.89	20	18
Property 184	2012307	0.95	0.95		0.00	0.00	0.00	0.95	0.95	19	0.00	0	0.95	20	19
Property 185	2046230	2.01	2.01		0.00	0.00	0.00	2.01	2.01	40	0.00	0	2.01	20	40
Property 186	2046231	2.01	2.01		0.00	0.00	0.00	2.01	2.01	40	0.00	0	2.01	20	40
Property 187	2022619	3.87	3.87		0.00	0.00	0.00	3.87	3.87	77	0.00	0	3.87	20	77
Property 188	2022620	0.88	0.88		0.00	0.00	0.00	0.88	0.88	18	0.00	0	0.88	20	18
Property 189	2022621	2.07	2.07		0.00	0.00	0.00	2.07	2.07	41	0.00	0	2.07	20	41
Property 190	2022622	0.90	0.90		0.00	0.00	0.00	0.90	0.90	18	0.00	0	0.90	20	18
Property 191	2022623	0.80	0.80		0.00	0.00	0.00	0.80	0.80	16	0.00	0	0.80	20	16
Property 192	2022624	0.80	0.80		0.00	0.00	0.00	0.80	0.80	16	0.00	0	0.80	20	16
Property 193	2022625	0.80	0.80		0.00	0.00	0.00	0.80	0.80	16	0.00	0	0.80	20	16
Property 194	2022626	1.60	1.60		0.00	0.00	0.00	1.60	1.60	32	0.00	0	1.60	20	32
Property 195	2022627	1.72	1.72		0.00	0.00	0.00	1.72	1.72	34	0.00	0	1.72	20	34
Property 196	2022628	0.86	0.86		0.00	0.00	0.00	0.86	0.86	17	0.00	0	0.86	20	17
Property 197	2022629	0.85	0.85		0.00	0.00	0.00	0.85	0.85	17	0.00	0	0.85	20	17
Property 198	2022630	0.83	0.83		0.00	0.00	0.00	0.83	0.83	17	0.00	0	0.83	20	17
Property 199	2022631	0.83	0.83		0.00	0.00	0.00	0.83	0.83	17	0.00	0	0.83	20	17
Property 200	2022632	0.83	0.83		0.00	0.00	0.00	0.83	0.83	17	0.00	0	0.83	20	17
Property 201	2010409	0.81	0.81		0.00	0.00	0.00	0.81	0.81	16	0.00	0	0.81	20	16
Property 202	2022614	0.94	0.94		0.00	0.00	0.00	0.94	0.94	19	0.00	0	0.94	20	19
Property 203	2010407	3.60	3.35		0.00	0.00	0.00	3.35	3.35	67	0.00	0	3.35	20	67
Property 204	2013003	1.24	1.24		0.00	0.00	0.00	1.24	1.24	25	0.00	0	1.24	20	25
Property 205	2047864	0.27	0.27		0.00	0.00	0.00	0.27	0.27	5	0.00	0	0.27	20	5
Property 206	2045820	0.83	0.83		0.00	0.00	0.00	0.83	0.83	17	0.00	0	0.83	20	17
Property 207	2045819	1.00	0.93		0.00	0.00	0.34	0.59	0.59	12	0.00	0	0.59	20	12
Property 208 & 209	2012306	43.92	34.80		0.00	0.00	0.00	34.80	34.31	550	0.49	12	34.80	16	562
Property 210	2036739	0.40	0.40		0.00	0.00	0.10	0.30	0.30	5	0.00	0	0.30	17	5
Property 211	2036738	21.77	18.31		0.00	0.00	0.00	18.31	18.31	265	0.00	0	18.31	14	265
Property 212 & 213	2036752	65.40	51.23		0.00	0.00	0.00	51.23	51.23	608	0.00	0	51.23	12	608
Property 214	2001989	32.03	30.29		3.12	0.00	3.54	23.63	23.63	345	0.00	0	23.63	15	345



Property Number			OTHER LAND USES			Total Net Residential Area (Hectares)	CONVENTIONAL DENSITY (15 Dwellings/NRHa)		MEDIUM DENSITY (25 Dwellings/NRHa)		TOTAL COMBINED		
	Total Area (Hectares)	Total net Developable Area (Hectares)	Activity Centre (Retail / Office / Mixed Use)	Bulky Goods	Industrial / Commercial		NRHa	Indicative Dwellings	NRHa	Indicative Dwellings	NRHa	Indicative Dwellings / NRHa	Indicative Dwellings
Properties 215 to 216	33.23	28.75	3.99	0.00	0.00	24.76	23.63	356	1.13	47	24.76	16	403
Property 217	2001991	0.09	0.09	0.00	0.00	0.09	0.09	1	0.00	0	0.09	16	1
Property 218	2001992	16.39	13.37	0.00	0.00	13.07	11.82	180	1.25	31	13.07	16	211
Property 219	2001993	15.83	15.83	0.00	0.00	15.83	15.83	229	0.00	0	15.83	14	229
Property 220	2001994	32.73	26.44	0.00	0.00	26.44	26.44	350	0.00	0	26.44	13	350
Property 221	2036749	4.05	3.74	0.00	0.00	3.74	3.74	65	0.00	0	3.74	17	65
Property 222	2036748	2.14	1.83	0.00	0.00	1.25	1.25	18	0.00	0	1.25	14	18
Property 223	2042384	1.89	1.89	0.00	0.00	1.55	1.55	31	0.00	0	1.55	20	31
Property 224	2036747	3.42	3.42	0.00	0.00	3.42	3.42	69	0.00	0	3.42	20	69
Property 225	2036746	4.34	4.34	0.00	0.00	4.34	4.34	85	0.00	0	4.34	20	85
Property 226 & 227	2036744	8.30	8.30	0.00	0.00	8.30	8.30	117	0.00	0	8.30	14	117
Property 228 & 229	2036750	20.28	19.16	0.00	0.00	19.16	19.16	277	0.00	0	19.16	14	277
Property 230	2036751	19.74	12.79	0.00	0.00	12.79	12.79	194	0.00	0	12.79	15	194
Sub-Total	1223.01	970.60	26.80	4.86	9.12	929.82	911.27	14853	18.55	634	929.82	17	15486
Existing Road Reserves	63.76	1.44	0.00	0.00	0.00	1.44	0.86	17	0.58	15	1.44	22	32
Total	1286.77	972.04	26.80	4.86	9.12	931.26	912.13	14870	19.13	648	931.26	16.66	15518

