

Cobblebank Employment and Mixed-Use UDF

Urban Design Framework

Prepared by Tract for Melton City Council

Final

22 November 2019



Quality Assurance.

Cobblebank Employment and Mixed-Use Area

Urban Design Framework

Project Number

317-0526-00-U-RP001

Revision

06

Contract Number **17/028**

Date of Issue

22 November 2019

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1 Introduction

1.1 Purpose of the Document

This document is the Urban Design Framework (UDF) for the Cobblebank Employment and Mixed-Use (CEMU) area as identified in the Toolern Precinct Structure Plan (PSP). The CEMU area encompasses approximately 490 hectares within the suburb of Cobblebank in the City of Melton. It is strategically located immediately south of the Western Freeway and north of the Cobblebank Metropolitan Activity Centre (Toolern Town Centre) (CMAC or the Centre) as shown in Fig.1. The CEMU area has been identified as a key component of Melbourne's Western Growth Corridor and will ultimately become a major jobs hub supporting the growing City of Melton and beyond.

The purpose of the UDF is to set out an integrated Vision for the CEMU area and guide its use and development to facilitate good quality design outcomes.

Given the anticipated 20-30 year build-out of the CEMU area, the document emphasises flexibility over time by guiding design outcomes without relying on a specific staging strategy. This will ensure that development opportunities are not missed in the short and long term.

1.2 How to Use the Document

This UDF is to be used in conjunction with the Toolern Precinct Structure Plan, Toolern Development Contributions Plan, Toolern Native Vegetation Precinct Plan and relevant Urban Growth Zone Schedule.

The CEMU UDF is arranged into four sections:

1. INTRODUCTION

Outlines the context for the development of the UDF.

2. URBAN DESIGN FRAMEWORK

Outlines the overall Vision and Strategic Principles providing key design criteria for the UDF area. It is organised into six broad themes which describe the future of the UDF area as follows:

- Urban Structure
- Land Use
- Movement and Access
- Public Realm and Landscape
- Built Form, Massing, Density and Interfaces
- Sustainability and Environment

The themes provide guidance and detail for development that is consistent with the overall Vision and Strategic Principles. Under each theme specific Requirements and Guidelines provide additional detail articulating development expectations within the UDF area.

3. IMPLEMENTATION AND STAGING

Outlines an indicative staging strategy, the key development drivers, and the major land and infrastructure contributions.

4. REVIEW

Provides a summary of the process of review recommended for the UDF and the potential changes over time which may trigger a review to the document.

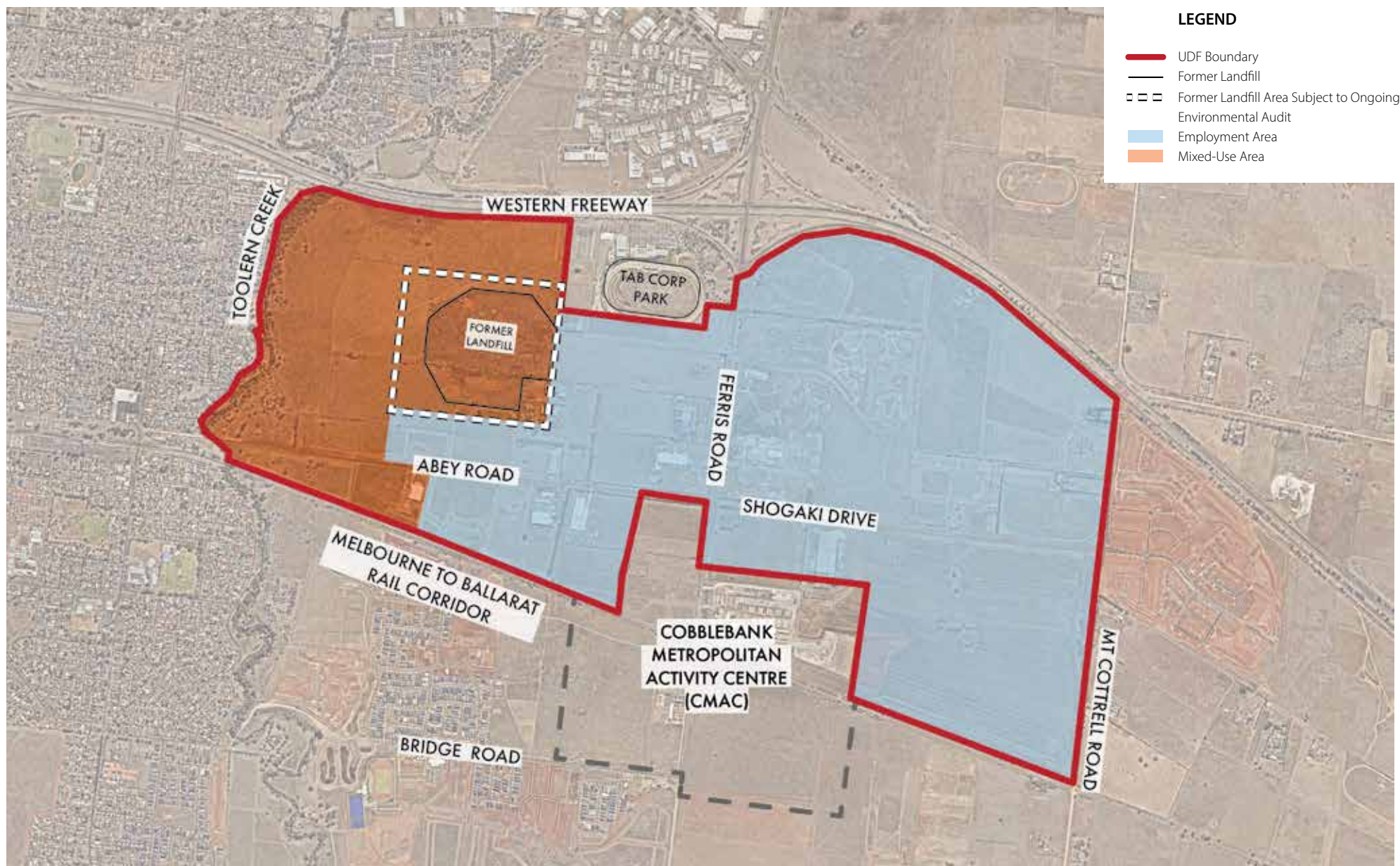


Figure 1. Cobblebank Employment and Mixed-Use Area Plan

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1.3 Context

The CEMU UDF is required under the Toolern Precinct Structure Plan (PSP) to provide further guidance to both the Employment area and the North-West Mixed-Use area. All land within the CEMU area is subject to both the Toolern PSP and the CEMU UDF. Other key guiding documents arising from the PSP are the Toolern Development Contributions Plan (DCP) and the Native Vegetation Precinct Plan (NVPP), both of which are referenced throughout this document.

The CEMU UDF was developed after the completion of a gap analysis, identifying where further technical work needed to be undertaken, and a Background Report which identified the specific issues, opportunities and constraints of the CEMU area.

Specialist economic, transport and industrial buffer assessments also provided input into the Background Report to guide the development of this CEMU UDF.

Strategic stakeholder consultation occurred throughout the process through community consultation sessions, stakeholder workshops and targeted meetings.

1.4 Cobblebank Metropolitan Activity Centre (Toolern Town Centre) (CMAC) UDF Area

Immediately south of the CEMU area is the CMAC, which is also included within the Toolern PSP. It is approximately 100 hectares in size and located in the suburb of Cobblebank. It straddles the Melbourne - Ballarat Rail Line and Ferris Road (a major north-south road running through the Centre). Within the Centre is Cobblebank Train Station and bus interchange, which will be imperative to the CEMU area and its future employees and residents.

Simultaneously, a separate UDF for the CMAC has been prepared. Given the immediate proximity of the two UDF areas and a number of shared considerations including appropriate connectivity and transitions to the surrounding areas, stakeholders must have regard to both UDFs.

1.5 Toolern Precinct Structure Plan (PSP)

The Toolern PSP is the guiding document for the growth area suburbs of Cobblebank, Strathulloh, Thornhill Park and Weir Views and, as mentioned, the Toolern PSP requires a UDF to be completed for the mixed-use and employment areas. It identifies the urban structure of the greater Toolern area, and the role and purpose of the CEMU area (Fig. 2). The PSP context is shown in Fig. 4.

The Employment area guidelines within the PSP are broad and organised into six categories, some of which must be met and some of which should be met.



Figure 2. Excerpt of the Toolern PSP
Future Urban Structure Plan



Figure 3. Excerpt of the Toolern PSP
Character Areas

The PSP requires the UDF to consider:

- Building types, lot size and land use,
- Frontages,
- Height and massing,
- Parking and service areas,
- Pedestrian and cyclist movement, and
- Landscaping.

Further, the PSP outlines a number of more detailed and mandatory requirements for both the Employment (Section 4.3.5 of the PSP) area and the Mixed-Use (Section 4.3.6 of the PSP) area as part of the Urban Design Framework requirements.

For the Employment area these include requirements around:

- Diversity of lot sizes and development typologies,
- Views and sight lines,
- Interfaces with different and sometimes adverse land uses (including industrial uses and arterial roads),
- Design guidelines for good development,
- Sustainability,
- Multi-modal options, and
- Showing how employment land relates positively to adjacent activity centre and residential land.

For the Mixed-Use area these include requirements around:

- Creating a mix of uses, densities and lot sizes,
- Interfaces and compatibility between land uses,
- Response to environmental constraints,
- Design guidelines for good development,
- An appropriate road network to accommodate the range of users from heavy trucks to cyclists,
- Access to Toolern Creek, and
- Landscaping.

Additionally, the PSP outlines requirements and guidelines for character areas and key interfaces, including the rail corridor, residential employment, linear open space, freeways, Ferris Road and Shogaki Drive, and gateway sites (Fig.3). These are addressed in Section 2.8.

The CEMU UDF addresses all the requirements as set out in the Toolern PSP, and provides additional detail where required.

A Statutory Assessment against the requirements of the Toolern PSP as they relate to the CEMU is provided as an Appendix to this UDF (Appendix 2).

1.6 Toolern Development Contributions Plan

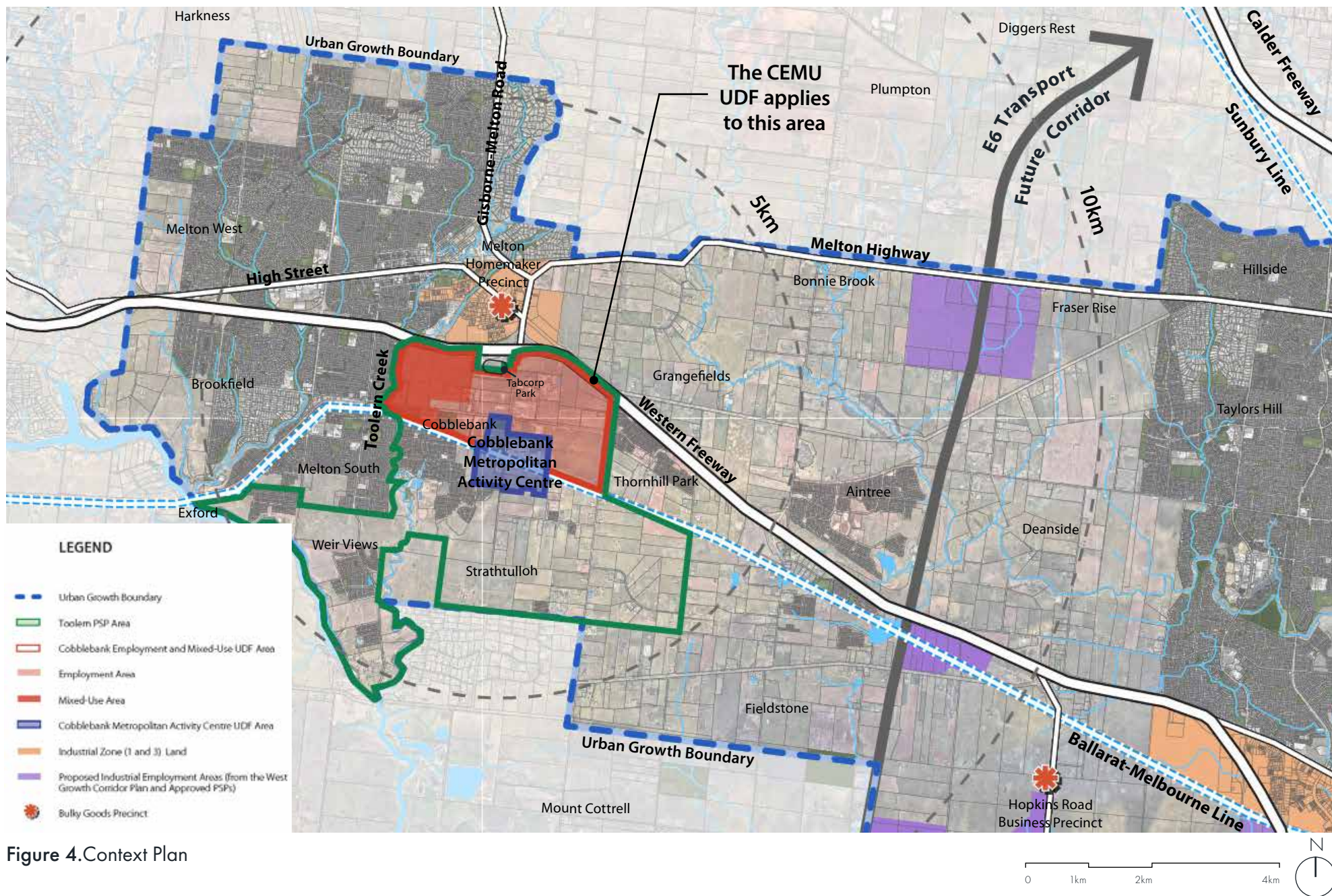
The Toolern Development Contributions Plan (DCP) was developed to support the provision of certain specified works, services and facilities within the Toolern PSP area.

1.7 Native Vegetation Precinct Plan

The Toolern Native Vegetation Precinct Plan (NVPP) manages native vegetation through clause 52.16 of the Melton Planning Scheme. It identifies:

- Native vegetation which may be removed without a planning permit,
- The offsets that must be provided to remove the native vegetation which can be removed, and
- Native vegetation which cannot be removed without a planning permit.

The Toolern NVPP is one of the planning tools used to facilitate development in accordance with the Toolern PSP.



2 Urban Design Framework

2.1 Urban Design Framework

The Urban Design Framework Plan responds to a number of existing site conditions, which play a role in shaping the CEMU area. These include:

- Existing Melbourne-Ballarat Rail Corridor,
- New Cobblebank Train Station (currently under construction),
- Existing businesses/industries,
- Existing vegetation and topographical elements,
- Former landfill site, which is currently undergoing an EPA audit,
- Western Freeway,
- Toolern Creek, and
- Surrounding development.

2.2 Vision

The CEMU area will provide a significant precinct of employment land for the City of Melton and beyond, for decades to come.

The area will capitalise on its premium location immediately adjacent to the Western Freeway, the Melbourne-Ballarat Rail Corridor and station and the Cobblebank Metropolitan Activity Centre (Toolern Town Centre) (CMAC) by providing convenient access and connectivity, and ensuring appropriate transitions to the surrounding area. The CEMU area will further capitalise on the neighbouring CMAC by providing a range of employment opportunities to residents living within the CMAC itself.

The CEMU area will strive to be a comprehensive jobs hub incorporating sustainability through design. It will emphasise light industrial uses such as manufacturing, factoryettes, supplies and showrooms, in addition to business uses such as offices. This area will also provide opportunities for other niche uses such as gyms, breweries and dance studios. The south-eastern precinct will provide opportunities for high-amenity business park uses, specialised research facilities, and large

government or public sector facilities or educational facilities which will be clustered together.

Whilst predominantly an employment area, a mixed-use area will provide a range of residential opportunities in locations of high amenity adjacent to the Toolern Creek, providing opportunities for people to live and work locally.

The streets of the CEMU area will not just accommodate motor vehicles, but rather, focus on sustainable modes of transport, fully accommodating cyclists and pedestrians. The Cobblebank Train Station will enhance this network with connections from Melbourne to Ballarat.

High quality architecture and streetscape design will ensure an exemplary arrival experience with a strong sense of place. A network of integrated open spaces, hinged around the Toolern Creek and Melbourne Water assets will be complimented by local parks and conservation areas, catering for a range of uses and users. Tree-lined streets will help create a cool and inviting public realm that encourages walking and provides habitat for biodiversity.

2.3 Urban Design Principles

The CEMU area is guided by the following set of urban design principles. These principles set the aspirations and tone for new development, streets and public open space.

1. Urban Structure

Support flexibility in the plan by allowing for a mix of lot sizes and densities that will in turn create opportunity for a diverse range of businesses and other initiatives. Flexibility will ensure that the needs of today can be met, while not ruling out the needs of the future.

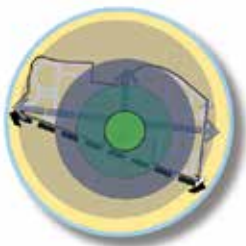
Support a range of living options to ensure a lively mix of residents and workers, which will add to the character and amenity of the area.



2. Land Use

Prioritise diverse employment uses. Complement light industry with restricted retail, business park and research uses.

Encourage residential uses that support local employment.



3. Movement and Access

Facilitate a high quality and efficient road network that is augmented by a fine-grain network of pedestrian paths, cycle paths and local bus network to ensure highly accessible and well connected precincts.



4. Public Realm and Landscape

Feature the Toolern Creek and the Melbourne Water Development Services Scheme as part of a wider open space network that connects conservation with local parks. Leverage their presence through appropriate interfaces and access.

Ensure the streets of the CEMU area add to the overall amenity, function and aesthetics of the area as a key part of the public realm. They will be the connections that tie together Toolern Creek, the Melbourne Water Development Services Scheme assets and other open spaces in the CEMU area.

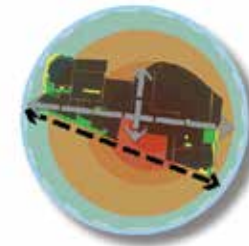


5. Built Form, Massing, Density and Interfaces

Define a high-quality built form for the CEMU area to set the tone for the CMAC and beyond.

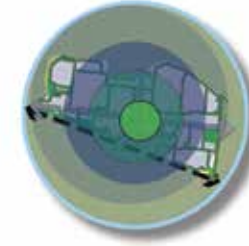
Accommodate high-quality built outcomes to appropriately address the street and public realm in terms of proportion, scale and character.

Ensure considered and appropriate interfaces and transitions between incompatible land uses or between major transport corridors to create an integrated and seamless built environment.



6. Sustainability and Environment

Encourage sustainability through energy efficient building design, water sensitive urban design strategies and an emphasis on sustainable modes of transportation throughout ongoing development of the CEMU area.



2.4 Urban Structure

The CEMU area is located immediately south of the Western Freeway, and immediately north of the Melbourne-Ballarat rail corridor. It is well-located to take advantage of both key transport corridors as well as the current populations in existing residential areas of Melton and the future populations of the CMAC.

The arrival to the CEMU area will be via two major boulevards - Ferris Road running north-south and Abey Road-Shogaki Drive running east-west. Ferris Road is the most direct link between the Western Freeway and the CMAC, and will be home to the majority of the restricted retail, showroom and bulky goods offer, with a small amount also located along Shogaki Drive.

Sited behind the restricted retail along the major boulevards will be large areas of land dedicated to light industrial / business uses, designed with maximum flexibility so as to allow for a diverse range of lot sizes and business types.

The mixed-use area in the west of the CEMU area will allow for live/work opportunities and encourage an active community. Retail and non retail uses will allow for work opportunities closer to home and assist in making this a vibrant precinct with its own character. Residential preferred areas are suggested along the Toolern Creek corridor and Melbourne Water Development Services Scheme assets capitalising on the desirable views and access to recreational amenity. Retail at ground level would also be suitable to activate these key pedestrian links. Integrated within the mixed-use area is a heritage overlay site, Parklea (148-200 Abey Road).

A portion of the mixed-use area sits atop the former Melton Landfill which is subject to an environmental audit and pending its outcome, may be used for future leisure and recreational uses. Surrounding the former Melton Landfill is a 500 metres EPA referral buffer as identified in the Toolern PSP and shown in Fig. 5 and Fig. 7.

To ensure appropriate interfaces between the light industrial/business area, the Mixed-Use area and the surrounding residential areas, industrial uses will be focused within the centre of the CEMU area. Less intrusive uses such as business and commercial are to be located proximate to areas suitable for dwellings.

In the south-eastern corner of the CEMU area, opportunity exists for a high amenity business park, research facility or educational facilities. In addition, medical uses and conference facilities will also be encouraged. This area is directly linked to the CMAC through both proximity and a proposed grade separation subject to future investigation via East Road. This connectivity and proximity supports the proposal of land uses that will augment the CMAC.

Also of note are the conservation areas along Toolern Creek and a number of Melbourne Water Development Services Scheme areas, which will service the site, provide public green space relief, and perform a vital water management and conservation role.

Given the variety of uses to be located within the CEMU area, appropriate interface treatments will be integral to ensure comfort and health. Key interfaces such as the Toolern Creek edge, adjoining residential communities and the key arterial roads, freeway and rail line will be sensitively designed to limit any potential conflicts. The long term Melton Recycling Facility will be surrounded by light industrial in order to allow for continued operations and to ensure suitable interfaces.

Refer Fig. 5.

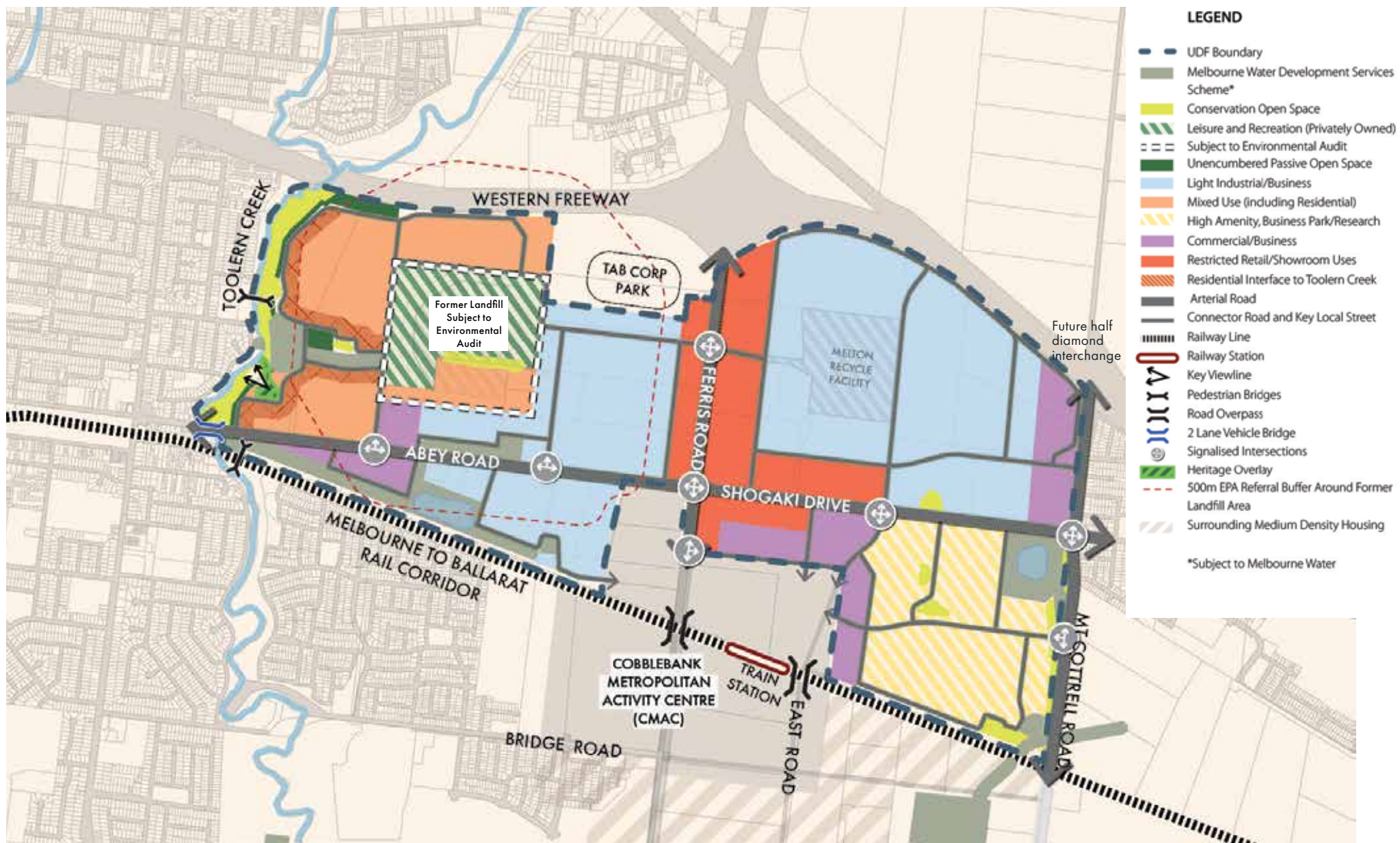


Figure 5. Urban Design Framework Plan

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2.5 Land Use

The CEMU area is zoned Urban Growth Zone Schedule 3 to Clause 37.07. It applies the Mixed Use Zone (MUZ) to the Mixed-Use area and the Commercial 2 Zone (C2Z) to the Employment area.

2.5.1 Buffer Assessment

A buffer assessment was prepared by GHD in 2018 that identified all existing industries within the CEMU and CMAC UDF areas and within a 1km radius which attracted a default buffer. It also assessed potential noise/vibration sources. The assessment was undertaken to consider if these default buffers and potential noise/vibration sources may affect future development within the CEMU and CMAC UDF areas. The buffer assessment is an appendix to the Background Report: Toolern Employment and Mixed-Use UDF and Revision of the Toolern Town Centre UDF, 22 February 2018.

These areas are undergoing long term transition from industrial uses to new commercial, retail and in some locations, residential land uses. The current impacts on development are depicted in Fig. 7. Any sensitive use proposed within the areas not affected by existing buffers must ensure adequate mitigation and attenuation measures for potential amenity impacts are provided for.

2.5.2 500 Metre Referral Buffer

An Environment Audit Overlay (EAO) currently exists over the former Melton Landfill site at 2-26 Ferris Road, and part of 80-90 Abey Road and the immediate surrounds. The EPA Publication 788 – Siting, Design, Operation and Rehabilitation of Landfills (October, 2001) recommends a buffer of 500 metres from a landfill to a dwelling. As per the PSP, the Urban Growth Zone Schedule 3 requires that an application for residential subdivision and development of land within 500 metres of the former 21.82 hectare, Melton Landfill site on Ferris Road, must be referred in accordance with section 55 of the Planning and Environment Act 1987 to the Environment Protection Authority.

An audit, when conducted may remove and/or reduce this 500 metres referral buffer.

2.5.3 Rail Noise Amenity Area

The Rail Noise Amenity Area refers to an area immediately around the railway line where applications for use or development must be accompanied by an acoustic assessment report prepared by a qualified acoustic engineer or other suitably skilled person to the satisfaction of the Responsible Authority and the Department of Transport. The Rail Noise Amenity Area has been informed by the Melton Rail Corridor, Potential Acoustic Impact Assessment, Arup, 15 March 2016 which was commissioned by the Metropolitan Planning Authority (now known as the Victorian Planning Authority) to inform the preparation of PSPs along the Melton Rail Corridor.

2.5.4 Precincts

The Toolern Employment and Mixed-Use area incorporates five distinct precincts as shown in Fig. 6.

1. Ferris Road Gateway Precinct

The Ferris Road Gateway Precinct will straddle Ferris Road and acts as the gateway to the CMAC from the Western Freeway. Given its prominent location and role as the arrival corridor and key restricted retail area, this precinct will feature show rooms and large footprint retail uses including automotive, marine, trade, and building supplies.

Restricted retail and showroom uses will extend further south and into the northern part of the CMAC UDF area. It is intended that these areas will operate as a single precinct and form the gateway into the CMAC. Restricted retail will not extend beyond the railway line.

2. North-eastern Light Industrial/Business Precinct

The aim for the larger of the two Light Industrial Precincts is to ensure that land is available for large floorplate industrial uses including trade and service industries, trade supplies and showrooms, warehouses and logistics, manufacturing and repairs, and construction support.

The interfaces with Mt Cottrell Road, the Western Freeway and the Ferris Road Gateway Precinct are

important aspects of this precinct. A smaller area of commercial is shown along Mount Cottrell Road in Fig. 5 to ensure an appropriate transition to the existing residential area to the east. Instead of industrial uses, this area will include uses such as offices to provide a suitable buffer between residential and industrial uses.

3. Western Light Industrial/Business Precinct

This precinct will provide the transition between the larger industrial uses to the east and the Mixed-Use Precinct to the west, with appropriate transition through separation and land use. While the desired land uses will be similar to those in the North-eastern Light Industrial/Business Precinct, the aim is to encourage smaller floorplate uses with less of an emphasis on manufacturing or those uses likely to attract an industrial buffer.

4. Toolern Creek Mixed-Use Precinct

This precinct will include a true mixed-use environment with residential, commercial and other uses which complement the mixed-use function of the locality encouraged in the precinct.

The former Melton Landfill site occupies a large portion of this precinct. Following the environmental audit, privately owned active leisure and recreation that complements the adjoining harness racing track could be a component of this precinct.

Careful consideration regarding interfaces with the Western Freeway and the adjacent Western Light Industrial Precinct are important aspects for proposed development in this area. Emphasis must also be on appropriate interfaces with the Toolern Creek corridor and the heritage site, Parklea (148-200 Abey Road). This site has been partially destroyed by fire but Council's vision is to incorporate the trees, driveway, tank, tank stand and ford into a passive open space area with interpretative signage that utilises its natural high point with views down to the Toolern Creek.

Preferred residential locations within this precinct are to be adjacent to Toolern Creek and the local park in order to capitalise on the amenity they provide.

5. Research and High Amenity Business Precinct

The proximity and accessibility of this Precinct to the CMAC will allow it to develop in a way that will ultimately support the CMAC. Research and high amenity business uses will support a major health precinct and tertiary facility located within the CMAC. Larger corporate offices, and smaller-scale strata-office development will also be a target market in this Precinct.

The significant scale of the Employment and Mixed-Use area provides opportunities for other large-footprint and hard-to-locate land uses to operate in proximity to a Metropolitan Activity Centre and a significant transportation hub.

Although demand for this type of development may not occur for some years and pressure for alternative uses may eventuate, it is important in a land use planning sense to safeguard these opportunities for these uses.

2.5.5 Job Creation

In accordance with the Toolern PSP, the PSP area will aim to create one job for every new household. This will achieve a minimum of 22,000 jobs for local residents.

As outlined and explained in the Background Report associated with this project, it is anticipated that the CEMU area will comprise the following employment land use mix:

Land Use	Area
Light Industrial/Business	200ha
Restricted Retail/Showroom	35ha
Commercial/Business	30ha
High Amenity/Business Park/Research	50ha
Total	315ha

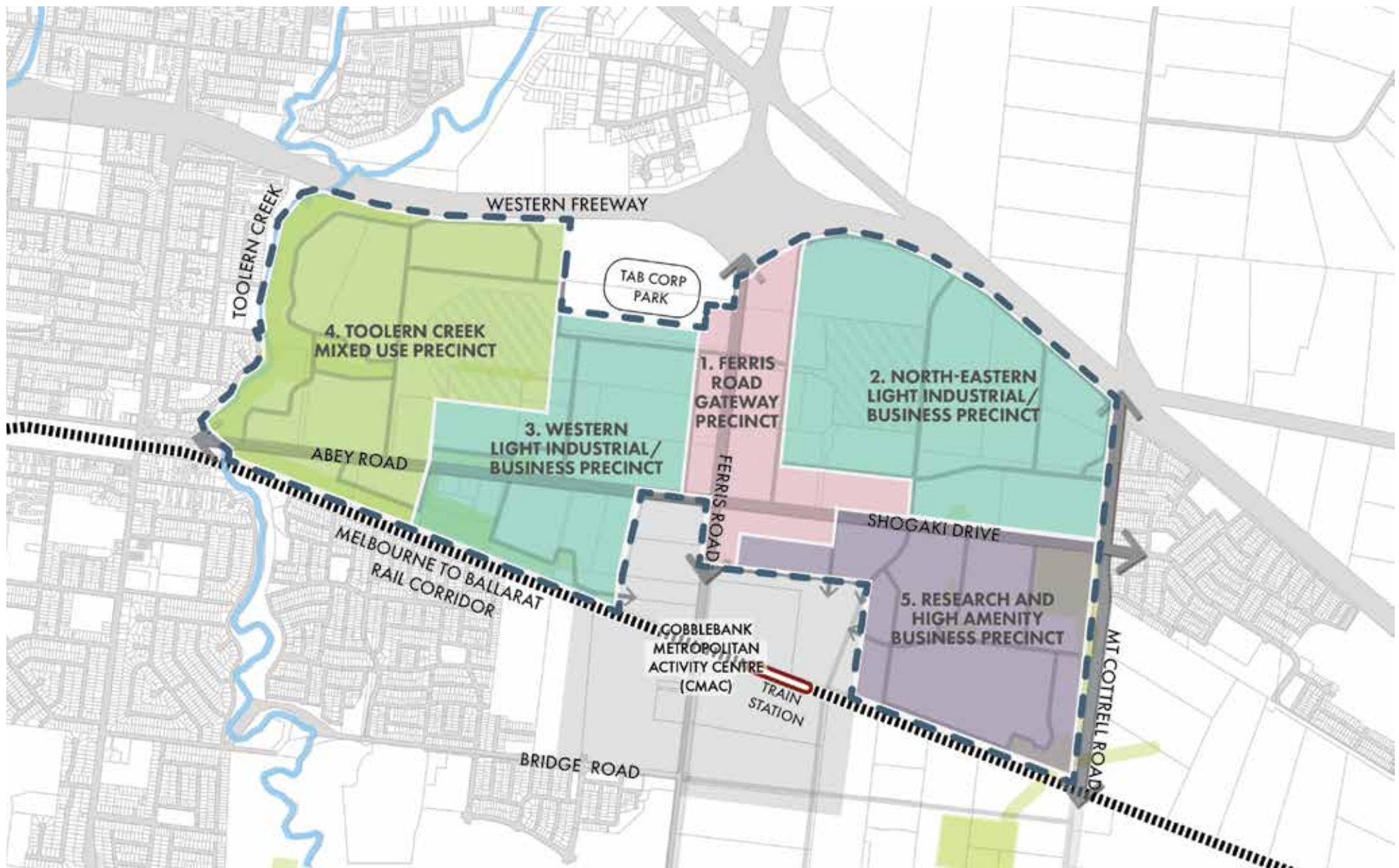


Figure 6. Precinct Plan

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2.5.6 Supported Land Uses

Each precinct area described in this section will support a range of land uses. Each of Council's preferred land uses are described in Table 1.

Ferris Road Gateway Precinct	North Eastern Light Industrial/ Business Precinct	Western Light Industrial/ Business Precinct	Research and High Amenity Business Precinct	Toolern Creek Mixed-Use Precinct
<p>Restricted Retail Premises</p> <p>Showrooms (including the sale of automotive, marine, trade and building supplies)</p>	<p>Service Industry</p> <p>Offices (particularly along Mount Cottrell Road as a transition to residential to the east)</p> <p>Warehouses and Logistics</p> <p>Trade Supplies</p> <p>Landscape Gardening Supplies</p> <p>Manufacturing and Repairs</p> <p>Construction Support</p> <p>Food and Drink Premises</p>	<p>Service Industry</p> <p>Offices</p> <p>Warehouses and Logistics</p> <p>Trade Supplies</p> <p>Landscape Gardening Supplies</p> <p>Manufacturing and Repairs</p> <p>Construction Support</p> <p>Food and Drink Premises</p>	<p>Research and Development Centres</p> <p>Major Specialised Government/Public Sector Infrastructure</p> <p>Offices</p> <p>Exhibition Centre</p> <p>Conference Centre</p>	<p>Food and Drink Premises</p> <p>Convenience Shops</p> <p>Health and Beauty Services</p> <p>Offices</p> <p>Child Care Centres</p> <p>Medical Services</p> <p>Home Based Business</p> <p>Dwellings</p> <p>Aged Care</p> <p>Retirement Villages</p>

Table 1. Council preferred land uses supported in the Cobblebank Employment and Mixed-Use UDF

2.5.7 Land Use Requirements

- R1. Land uses must be generally in accordance with the Urban Design Framework (Fig. 5), Table 1 and the relevant applied zones.
- R2. Sensitive uses (residential use, child care centre, education centre, hospital) must only be located outside the existing buffer areas identified in Fig.7 until such time that the existing industry transitions out of the UDF area and therefore renders its separation distance buffer redundant, subject to the approval of the Responsible Authority.
- R3. A referral from the EPA is required for an application for residential subdivision and development of land identified within the 500 metres referral buffer as shown on Fig. 7. Upon acceptance of a satisfactory environmental audit report/s by the Responsible Authority and Environmental Protection Authority this distance may be reduced.
- R4. Any new use and development that triggers a minimum threshold distance must comply with Clause 53.10 of the Melton Planning Scheme.

- R5. Any new use and development that triggers a minimum threshold distance under Clause 53.10 of the Melton Planning Scheme must ensure the minimum threshold distance, or the EPA approved variation to the separation distance, does not encroach on existing and planned sensitive uses identified in the Cobblebank Metropolitan Activity Centre (CMAC) UDF adjoining the CEMU area.
- R6. The CEMU area must include a mix of uses, such as those specified in Table 1.
- R7. Any sensitive use proposed must ensure adequate mitigation and attenuation measures are provided for potential amenity impacts with existing industrial uses.
- R8. Any subdivision and/or development of land on or adjoining the Parklea Heritage Overlay site HO74, must have regard to the heritage significance of the site, the remaining heritage fabric, exotic and native trees, and landscape elements and provide a sensitive interface to urban areas.
- R9. A diversity of lot sizes must be accommodated within the CEMU area to allow flexibility of land uses and business types into the future.
- R10. Any application for use or development within the 'railway noise amenity area' on Fig. 7 must carry out an acoustic assessment report prepared by a qualified acoustic

engineer or other suitably skilled person to the satisfaction of the Responsible Authority and the Department of Transport. The acoustic assessment report must:

- Take into account the existing and likely future noise levels associated with the ongoing operation of the Melbourne-Ballarat rail line,
- Include recommendations for noise attenuation measures designed to ensure internal bedroom noise levels will not exceed 65 dB LA_{max} and 40 Db LA_{eq}, 8h for the night period from 10pm to 6am,
- Include recommendations for limiting the impact of railway noise on future buildings within the proposed subdivision,
- Include recommendations for limiting the impact of railway noise on future buildings within the proposed subdivision, and
- Include a design response that addresses the recommendations of the acoustic assessment including all necessary architectural noise attenuation treatments.

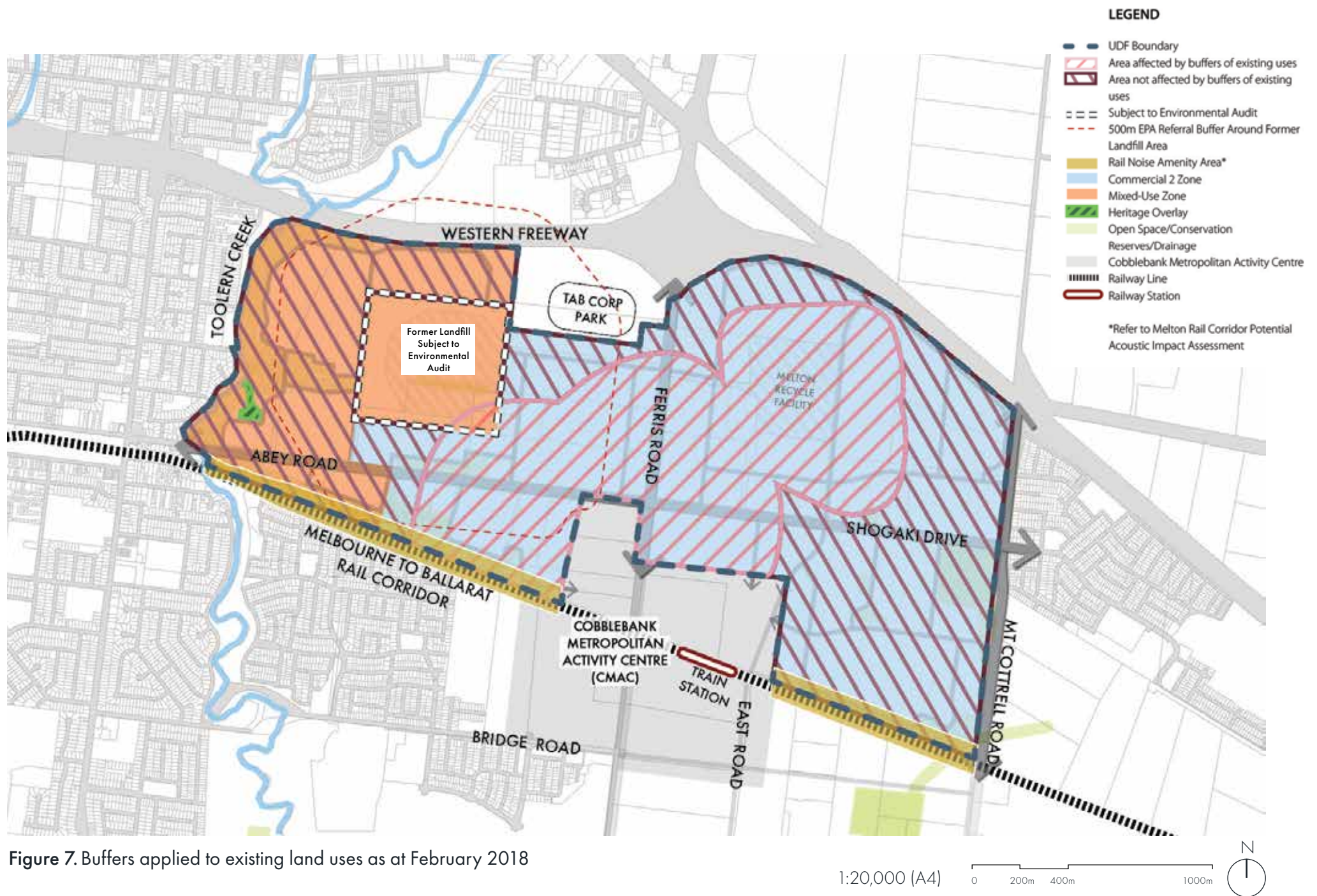


Figure 7. Buffers applied to existing land uses as at February 2018

2.5.8 Land use Guidelines

- G1. In the North-eastern and Western Industrial Precincts, smaller lots (e.g. 500 square metres - 4000 square metres) should be located away from arterial roads and prominent locations.
- G2. Small scale office developments (such as suites ranging from 50 square metres - 200 square metres) are encouraged within the CEMU area.
- G3. The siting of residential dwellings adjacent to the Toolern Creek interface is strongly encouraged. Residential uses should be provided within the areas identified as "Residential Interface to Toolern Creek" within Fig. 5. Refer Section 2.8.3 for densities.
- G4. Proponents undertaking development of land identified on the Victorian

Aboriginal Heritage Register, and/or with Aboriginal cultural heritage values, should liaise with the designated Registered Aboriginal Party (or Aboriginal Victoria and Traditional Owner Groups in its absence) to ascertain whether heritage interpretation is appropriate in these identified locations, and how the heritage site(s) should be incorporated into the design of the subdivision.

- G5. Development of land adjoining the Parklea Heritage Overlay site HO74 should ensure that the heritage place is recognised and well integrated within subdivision, transport and landscape designs, including maintaining views from the site to the creek and protection of landscape elements.

2.6 Movement and Access

The movement and access network for the CEMU area accommodates public transport, pedestrians, cyclists, motor vehicles and carparking. The major corridors of the CEMU area must provide access to the Employment area itself, while also providing direct access to the CMAC and residential surrounds to the south.

All proposed street sections are depicted in Appendix 1.

2.6.1 Public transport

The CEMU area will facilitate a bus network which will provide convenient access to and from the Cobblebank Train Station and bus interchange. Potential bus route extensions are proposed along Ferris Road and Abey Road, and it is expected that as the area develops, increased services will be created in accordance with Plan 16 of the Toolern PSP and Fig. 8 of this document.

While bus stops are not yet defined in the CEMU area, it is anticipated that high level bus service coverage throughout the PSP area is essential. The PSP target is that 95% of residents and jobs are within 400 metres of a bus route. This mode of transport must be encouraged through the timely delivery of appropriate infrastructure to align with 'Moving Melton: Integrated Transport Strategy'. In addition, all arterial and connector roads will be bus capable to encourage a good bus network.

Train services to the CEMU area will occur via the Cobblebank Train station, located within the CMAC. Currently serviced by V/Line, duplication of the line is underway. In 2019, the State government commenced the planning work for the Western Rail Plan (WRP) which sets out the future investment Victoria needs for a fast, high-capacity rail network servicing our growing suburbs and growing regional cities. The planning work will investigate upgraded infrastructure to enable metropolitan style services to operate, and segregation of the regional and metropolitan network.

2.6.2 Pedestrians

Pedestrian access is a priority throughout the CEMU area, specifically, ensuring good access from the CMAC and the train station to all parts of the CEMU area. This will be achieved through a network of shared use paths and pedestrian paths. Key routes are located along Toolern Creek, the rail corridor and major roads including Ferris Road, Abey Road, Shogaki Drive and Mt Cottrell Road.

Pedestrian paths and/or shared use paths must be included in all roads within the UDF as outlined in the following street sections (See Appendix 1).

2.6.3 Cyclists

The CEMU UDF promotes active transport modes, and emphasises the importance of cyclists. Given the employment character and use, the street network has been devised to balance the accommodation of heavy vehicles such as trucks with cyclists. Cycling is accommodated through off-street cycle paths, shared paths or via on-road bike lanes.

The network of cycling paths include off-road cycling paths along Ferris Road, Shogaki Drive, Mt Cottrell Road and key connector streets. On-road cycling paths are located along Abey Road and various shared use paths along Toolern Creek, adjacent to the Western Freeway and along the rail corridor. Where on-road cycling paths are proposed, an alternative shared-use path is also proposed to ensure safety and convenience for cyclists.

Access to the CMAC and station via safe and accessible bicycle facilities is essential to the success of the Employment and Mixed-Use area. All cycle facilities are set out on Fig. 8 and within Appendix 1.

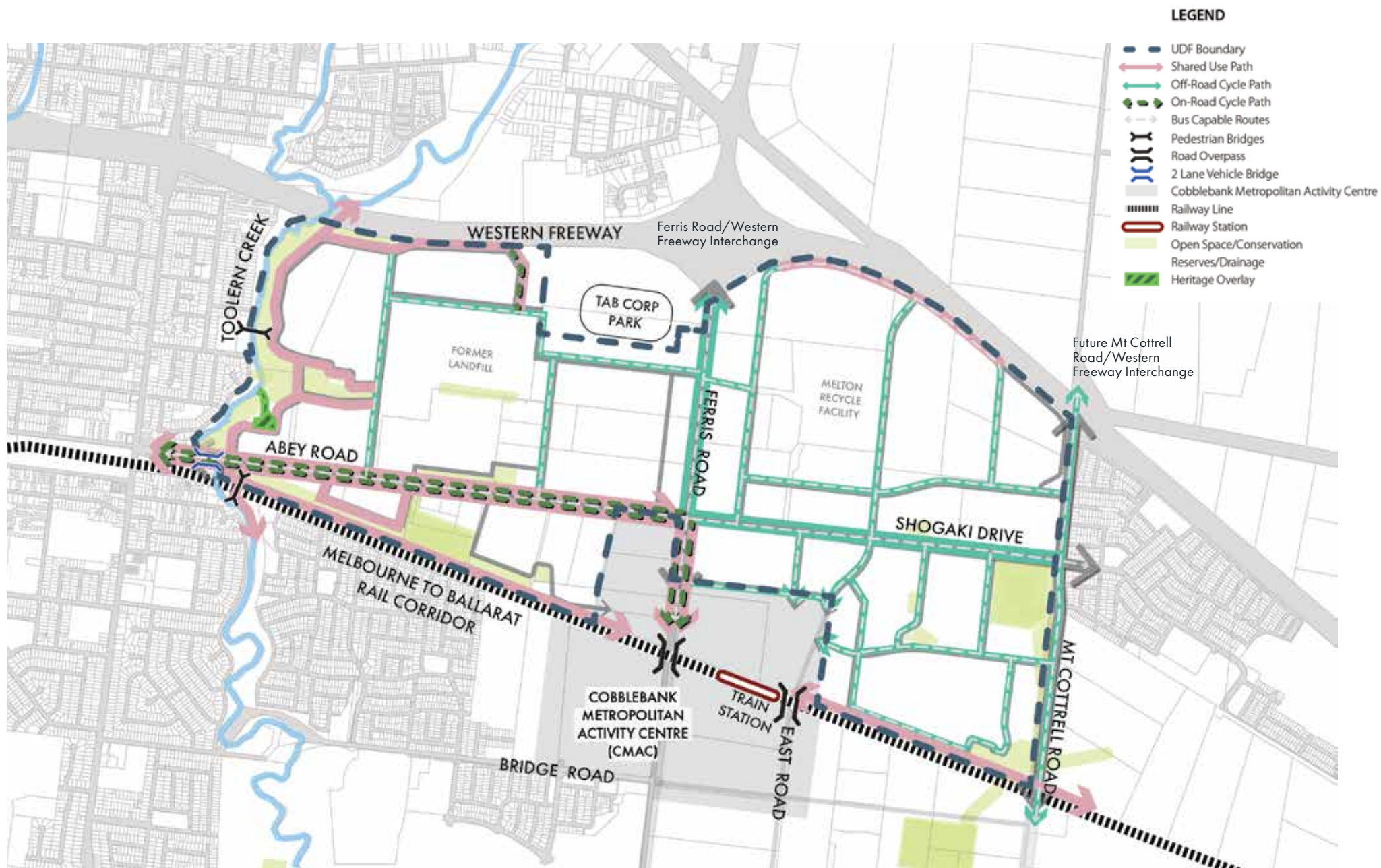


Figure 8. Movement and Access Network - Public Transport, Cyclists and Pedestrians

1:20,000 (A4)

0 200m 400m 1000m



2.6.4 Motor Vehicles

The CEMU area is both a destination and thoroughfare to the CMAC and residential areas beyond. The area will provide direct and efficient access from the Western Freeway and the greater City of Melton to CMAC.

Ferris Road will be the most direct conduit between the Western Freeway and the CMAC. A proposed half-diamond freeway interchange on Mount Cottrell Road for west bound traffic exiting the freeway and east bound traffic entering the freeway will provide an alternative connection to the Western Freeway. East-West travel within the CEMU area will be largely accommodated by Abey Road and Shogaki Drive, which will provide connections to Melton South and Thornhill Park.

Fig. 9 depicts the layout and hierarchy of streets within the CEMU area, including a combination of primary and secondary arterial roads, connector streets and local access streets. Most streets within the CEMU area (excluding the mixed use area), will be capable of carrying cars as well as trucks, due to the industrial nature of the area. Vehicles will have different levels of priority and access, and different conditions for pedestrians and cyclists.

There are a number of Development Contributions Plan (DCP) funded signalised intersections which are identified in Fig. 9 and are consistent with the Toolern DCP.

2.6.5 Car parking

On-street car parking is incorporated into several street typologies, although parking will largely be contained within individual sites and developments.

Where internal car parking does interact with the street, it will be predominately screened from view through sleeved built form and generous landscaping. Restricting the location of vehicle access to car parks away from the public realm reduces the chance of conflict between vehicles and pedestrians.

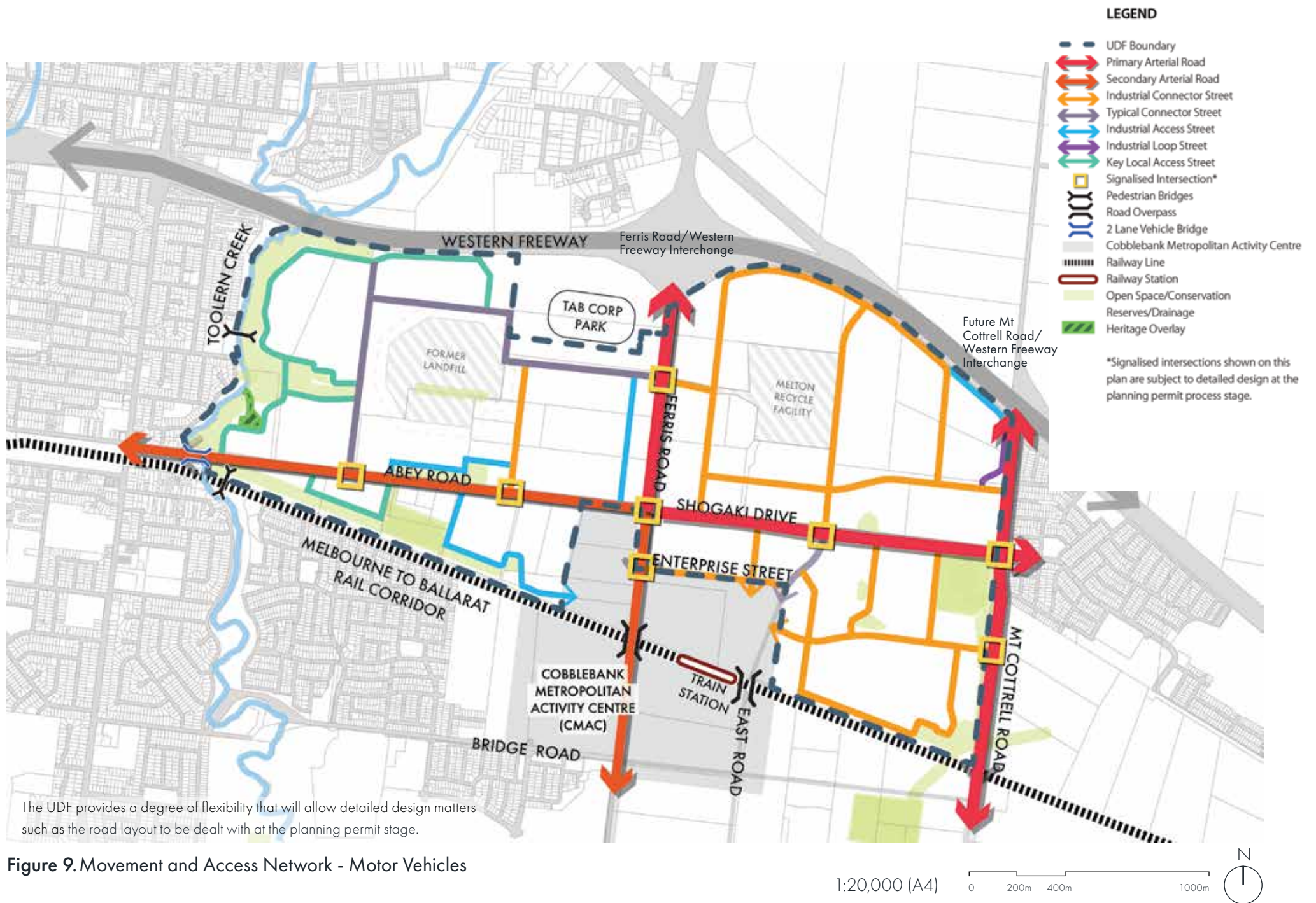
Multi-level car parks must be appropriately sleeved with active frontages, and high levels of architectural detail or landscaping elements. Vehicle entrances must also be located to avoid pedestrian / footpath conflicts.

2.6.6 Public Transport Requirements

- | | |
|------|---|
| R11. | Arterial roads and connector roads must be bus capable by complying with street sections. Refer Appendix 1. |
|------|---|

2.6.7 Pedestrian and Cycling Requirements

- | | |
|------|--|
| R12. | Pedestrian and bicycle access within the CEMU area and to and from the CMAC and station must be safe, convenient, and easily accessible. |
| R13. | A continuous pedestrian network between the CMAC and the CEMU area must exist on Ferris Road, East Road, through the station area, and the DCP funded rail crossings. |
| R14. | Design of all subdivisions, streets and arterial roads must give priority to the requirements of pedestrians and cyclists by providing: <ul style="list-style-type: none">• Footpaths of at least 1.5 metres in width on both sides of all streets, roads and bridges, unless otherwise specified in relevant cross-sections in Appendix 1,• Shared paths or bicycle paths of 3.0 metres in width where shown on the relevant cross sections illustrated in Appendix 1,• On road bicycle lanes where shown on the relevant cross sections illustrated in Appendix 1, |



- Safe and convenient crossing points of connector and local streets at all intersections and at key desire lines,
- Pedestrian and cyclist priority crossings on all slip lanes, and
- Safe and convenient transition between on and off-road bicycle networks.

All to the satisfaction of the coordinating road authority and the Responsible Authority.

2.6.8 Pedestrian and Cycling Guidelines

- G6. Vehicle intersections and cross-overs should be minimised in locations adjacent to off road cycle paths and shared paths to ensure pedestrian and cycling priority and safety.
- G7. Bicycle parking should be co-located and integrated with other street furniture.
- G8. All pedestrian routes should be designed as DDA compliant.

2.6.9 Motor Vehicle Requirements

- R15. The road network must be designed generally in accordance with Fig. 9 and applicable cross sections.
- R16. The road network must not encourage truck and heavy vehicle traffic through the Mixed-Use area.
- R17. Service areas and truck loading and deliveries must be located away from street frontages and key interfaces as defined in Section 2.8.
- R18. No vehicle crossovers may be located along Ferris Road, Abey Road, Shogaki Drive or Mount Cottrell Road with all access to proposed uses from side streets.
- R19. Mount Cottrell Road must be aligned to avoid native vegetation along the western side of the road reservation.

2.6.10 Car Parking Requirements

- R20. Off-street car parking must comply with the car park requirements as outlined in City of Melton's Industrial Design Guidelines, and City of Melton's Off Street Car Parking Guidelines.
- R21. Off-street car parking must be screened from view from roads and open space through built form or landscape elements.

- R22. Car parking areas must be appropriately landscaped to the satisfaction of the Responsible Authority in accordance with Council's Off Street Car Parking Guidelines.
- R23. Car parks must include water sensitive urban design elements to the satisfaction of the Responsible Authority.
- R24. Where multi-level car parks are proposed, appropriate sleeving with active frontages, high levels of architectural detail or landscaping elements must be included.
- R25. Multi-level car parks must locate vehicle entrances to avoid pedestrian/footpath conflicts.
- R26. Cars parked on the roof of multi-level car parks must be screened from view from the surrounding streets and public realm.

2.6.11 Car Parking Guidelines

- G9. Appropriate car park signage and smart parking technology should be provided.

2.7 Public Realm and Landscape

A network of open spaces will exist throughout the CEMU area. The primary public realm feature within the CEMU area will be Toolern Creek along the western edge of the area, while the Melbourne Water Development Services Scheme, subject to Melbourne Water, will be located throughout. Existing habitat zones and associated vegetation will be retained and incorporated into the local park, streetscapes and properties across the CEMU area.

There are four public realm typologies within the CEMU area:

- Unencumbered Passive Open Space which will include the linear reserve along Toolern Creek and one local park,
- Encumbered Open Space which will include several Melbourne Water Development Services Scheme assets,
- Conservation Open Space (including habitat/EVC zones), and
- Streets.

2.7.1 Unencumbered Passive Open Space

Creekside Linear Reserve

A 20 metres wide linear open space will be measured from the break of slope along Toolern Creek. This reserve will include a 3 metres wide shared path which will meander through the open space connecting to the broader network of open space.

The linear open space will also incorporate and protect existing trees and provide public amenities such as viewing places, wayfinding, benches, rubbish bins, picnic facilities or BBQ areas with shelters, and fitness stations. CPTED principles such as natural surveillance, controlled access, and good maintenance must be implemented.

Development of the linear open space will also include revegetation and restoration to be undertaken.

The linear open space will extend along the freeway edge along the northern boundary of the CEMU area. At this point the shared path will connect into the street network as shown in Fig. 10.

Local Park

There will be one local park within the Mixed-Use area. A 0.8 hectare local park will be located alongside the Melbourne Water Development Services Scheme which runs perpendicular to Toolern Creek.

Local parks are safe neighbourhood places for local children to play and kick the 'footy' and for friends to meet, relax and spend time together. Typically, local parks located within residential areas will provide seating and shelter, BBQ facilities, wayfinding, public art, lighting and play equipment to encourage these types of activities. CPTED principles must also be implemented.

2.7.2 Encumbered Open Space - Melbourne Water Development Services Scheme

The Melbourne Water Development Services Scheme is a catchment-based scheme outlining the functional designs of the relevant infrastructure required to service urban growth. Each development scheme consists of a strategy and conceptual designs for elements such as pipelines, overland flow paths, retarding basins, wetlands, and floodways. The proposed drainage reserves within the CEMU area are shown on Fig. 10. It is noted that the current locations are in draft form only and subject to Melbourne Water.

It is envisioned that public access in the form of shared paths will be incorporated into the Melbourne Water Development Services Scheme assets, to provide a recreational benefit for the local community in addition to the functional drainage and water management benefit.

2.7.3 Conservation Open Space (including habitat/EVC zones)

Conservation open space, as outlined in the PSP is depicted in Fig. 10. This classification includes Toolern Creek and areas of habitat value and high value vegetation. The CEMU area has been designed to avoid these assets and further efforts must be incorporated as the area develops beyond the level of detail shown in this UDF.

Toolern Creek plays an important role in the conservation of environmental and cultural heritage values whilst also being an important habitat corridor. It is an additional natural amenity for residents.

The creekside linear reserve as described in section 2.7.1 will run the length of Toolern Creek within the CEMU area providing both a buffer between a proposed road or development and Toolern Creek itself.

The conservation open spaces are required in order to protect key existing flora and fauna within the CEMU area. These spaces also include habitat and ecological vegetation class zones.

2.7.4 Streets

All streets within the CEMU area will provide a significant component of the landscape character in the area. As depicted in the street sections in Appendix 1, street trees and nature strips will be an integral part of all streets.

A 3 metres landscape setback is proposed throughout the CEMU area, while developments along Ferris Road and Mount Cottrell Road must include a 5 metres landscape setback. The goal of the landscape setbacks is to ensure a soft landscape foreground to the built form behind and a general 'greening' of the entire CEMU area.

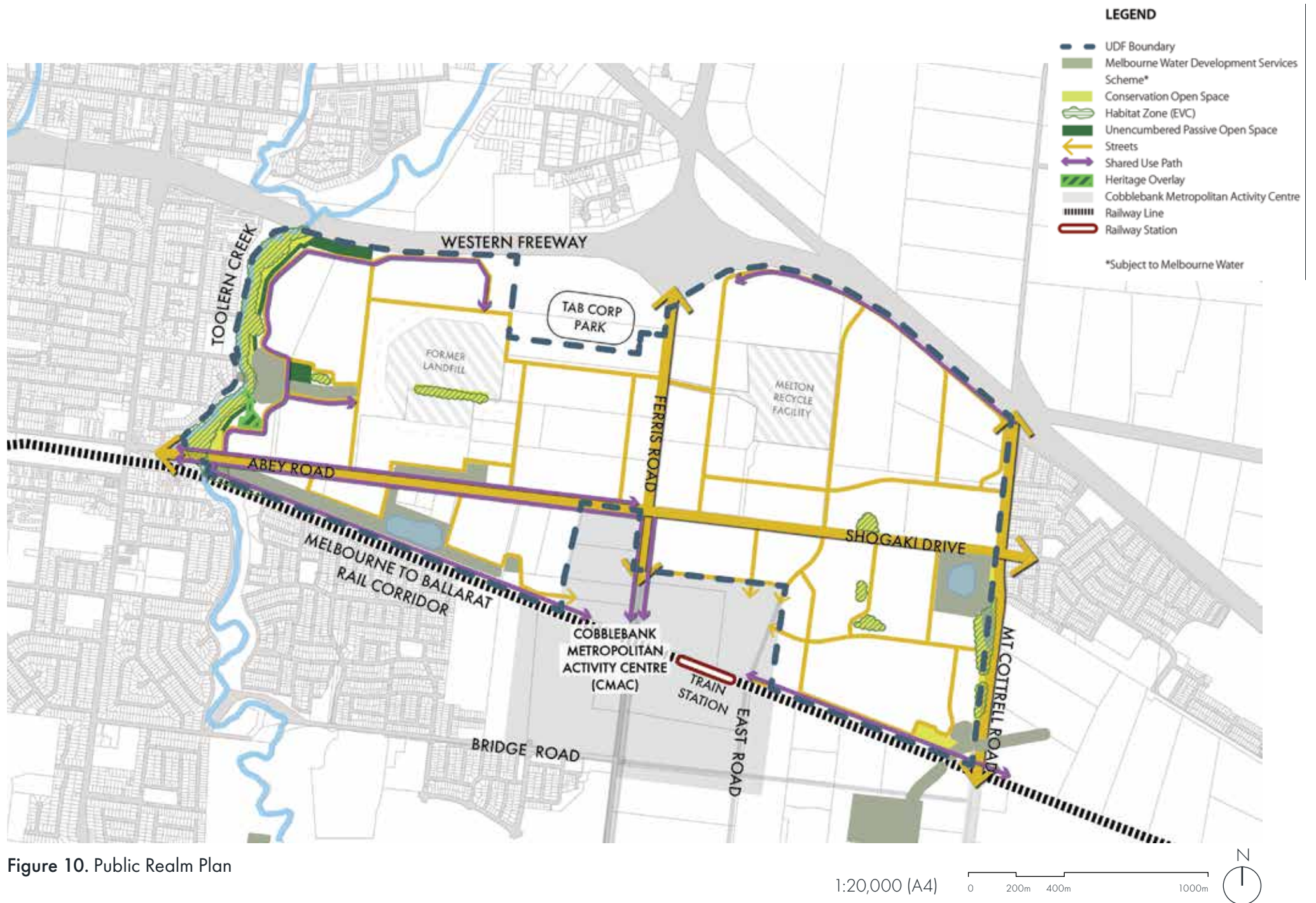


Figure 10. Public Realm Plan

2.7.5 Public Realm and Landscape Requirements

- R27. The design and construction of public realm areas must be in accordance with Council Policy, Guidelines and Standards.
- R28. Public spaces must be designed for a range of uses that support a variety of experiences that are expected to occur.
- R29. CPTED principles must be implemented in the design of all public realm areas.
- R30. Streetscapes and pathway networks must incorporate lighting that illuminates footpaths and pathways to ensure amenity and safety for users at night.
- R31. All streets and open space areas must include canopy trees and other forms of landscaping.
- R32. The public realm must be designed to appropriately respond to specific climate conditions (including sun, shade and wind) through appropriate plant and species selection.
- R33. Species selection must be in accordance with Council's Landscape Policy.

- R34. Street planting must accord with the requirements of Council's Tree Planting and Removal Policy.
- R35. Landscaping must be generally in accordance with the Melton City Council Landscape Guidelines and of a high quality.
- R36. The placement of street trees must take into account sight lines to ensure pedestrian, cyclists and motorist safety is not compromised.
- R37. Passive irrigation of all trees and landscape elements must be included unless otherwise agreed with the Responsible Authority.
- R38. Public Art must accord with Council's Public Art Policy.
- R39. A 5 metres landscape setback must be provided on Ferris Road and Mount Cottrell Road. A 3 metres landscape setback must be provided for all other roads, except within the Mixed-Use area, where setbacks are to be determined by Council.
- R40. Landscaping along the Western Freeway within the CEMU area must be low to allow views through to the CEMU area.

2.7.6 Public Realm and Landscape Guidelines

- G10. Landscaping should reinforce a sense of arrival at key gateways.
- G11. Landscaping should strengthen and frame key view lines.
- G12. Landscaping should reinforce the hierarchy of streets and pathway networks.
- G13. Public lighting design should meet the required lighting category with minimum overall wattage. This includes locating lights at maximum allowable spacings, and using luminaires with low wattage.
- G14. Interpretive signage should be integrated into the public realm to reference the Parklea Heritage Overlay site (HO74).

2.8 Built Form, Massing, Density and Interfaces

2.8.1 Built form and Massing

Built form and massing in the CEMU area should contribute to a high-quality urban environment, allowing for visual breaks and landscape elements throughout. Buildings should be orientated to address the street and the public realm, and the built form should denote a contemporary style. These influences should be represented through material selection and architectural detailing.

Ferris Road will be the main approach into the CMAC and therefore it is essential that it sets the tone and conforms with the quality expected of a Metropolitan Activity Centre (MAC). The restricted retail, bulky goods outlets and showrooms that will line Ferris Road north of the CMAC must display architectural quality appropriate to a MAC.

There are two key sites within the CEMU area (identified in Fig. 11) which are considered to be sites of importance and will feature higher quality built form. These buildings should have architectural merit to signify the important role they play in the Centre as visual wayfinding pieces and provide a positive contribution to the public realm.

The City of Melton Industrial Design Guidelines will apply to all areas identified for employment (Commercial 2) and, as such must be read in conjunction with this UDF.

Due to the diversity of land uses anticipated within the CEMU area, built form controls will vary distinctly across the area and are to be assessed accordingly. While there may be an unavoidably large scale associated with the primary employment designation, architectural measures should be employed to minimise perceptions of building bulk and mass.

The Ferris Road Gateway Precinct, the North-eastern Light Industrial Precinct and Western Light Industrial Precinct will comply with building design as outlined in the City of Melton Industrial Design Guidelines. The built form in these precincts will include substantial glazing, clear building entrances, and carefully integrated signage. The buildings will be free from blank facades, and provide a palette of colours and finishes. In these industrial areas the focus will be on lifting the appearance of these buildings with appropriate site design, landscaping and architectural detailing.

While the Research and High Amenity Business Precinct will also fall under the purview of the City of Melton Industrial Design Guidelines, other uses such as research and development or conference centres are desirable. The built form of these uses will be a high quality mix of buildings, heights and scales. While long term uses in this precinct are somewhat undefined at this stage, the principles of good design remain. Building massing will be considered along with building height to ensure a design response that considers the impact of development on the surrounding environment. In

this precinct it is important that facades create variety and interest while contributing to the continuity of the streetscape. Buildings situated on key intersections should turn corners and address both streets. Building materials will further contribute the character of the area.

The mix of uses throughout Toolern Creek Mixed-Use Precinct will also be tied together by high quality built form and architectural detailing, buildings that address the street and provide quality interfaces with the public realm. While the heights in this area may be low, density is strongly encouraged, and therefore the treatment of interfaces and transitions between different land uses is critical. The end result will be a relatively low-rise medium-density neighbourhood featuring a mix of building forms, all with an emphasis on creating good streets and supporting a vibrant public realm.

2.8.2 Interfaces

The careful and considered treatment of interfaces and transitions is integral to the viability of the CEMU area and surrounds, due to the variety of land uses and infrastructure both existing and proposed within the area.

There are a number of conditions within the CEMU area which require a specific design response such as an appropriate treatment to Toolern Creek, and a response to significant infrastructure such as the Western Freeway, the Melbourne-Ballarat Rail Corridor and major arterial roads on surrounding land uses.



Example of appropriate detailing and articulation for a gateway building



Example of restricted retail and bulky goods corridor with good landscaping , Springfield Queensland



Example of well detailed low rise office building



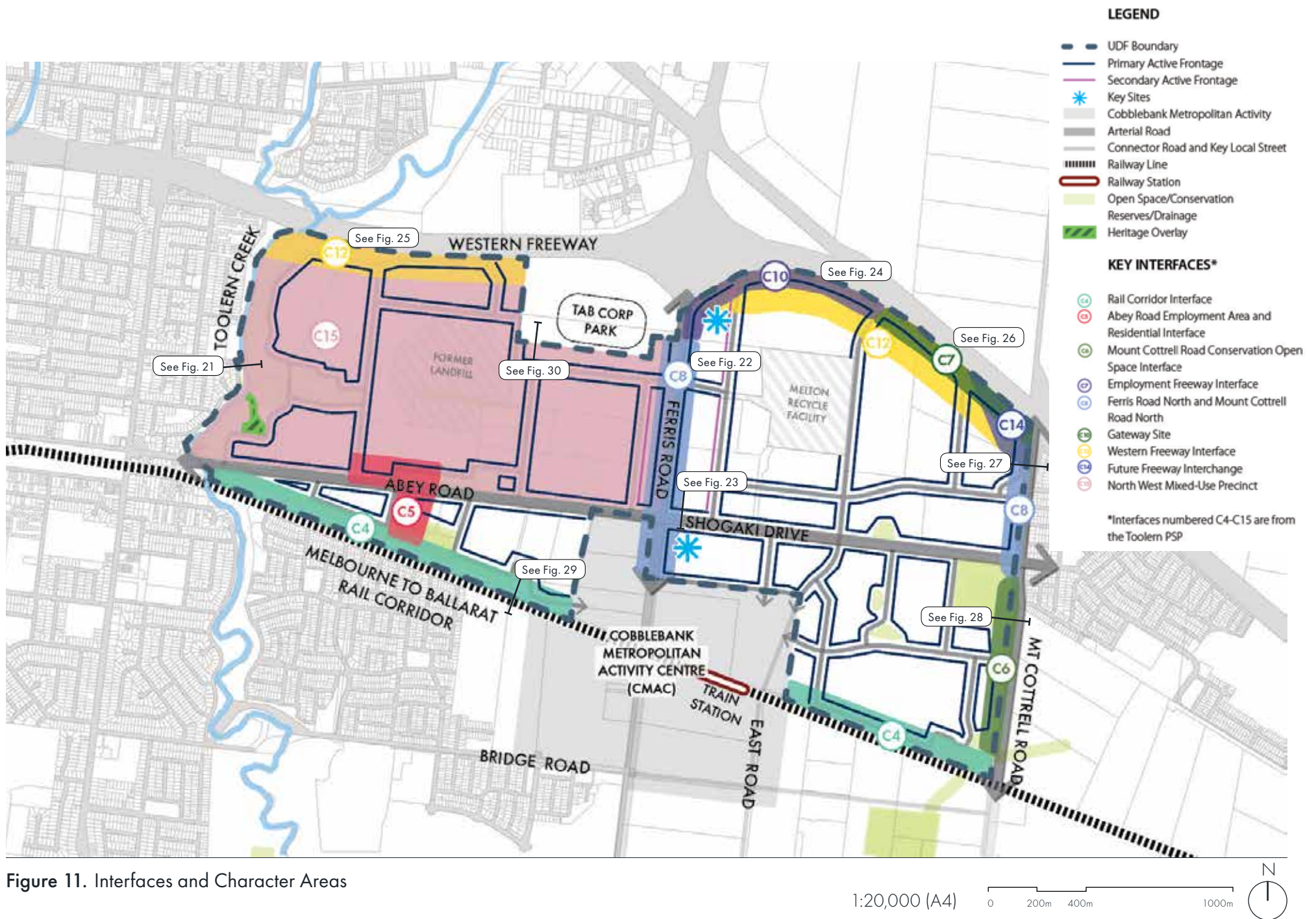
Example of a research precinct (Tonsley Main Assembly Building architectureau.com)



Example of appropriate medium density housing suitable for Mixed-Use Precinct



Example of small scale mixed-use building



The PSP highlights a number of character areas each with specific requirements, many of which centre around appropriate transitions and interfaces. As such, the PSP character areas are identified in Fig. 11 and referenced in associated cross sections in Appendix 1 and/or the requirements and guidelines.

The character areas from the PSP include:

- C4 Rail Corridor Interface
- C5 Abey Road Employment Area and Residential Interface
- C6 Mount Cottrell Road Conservation Open Space Interface
- C7 Employment Freeway Interface
- C8 Ferris Road North and Mount Cottrell Road North
- C10 Gateway Site
- C12 Western Freeway Interface
- C14 Future Freeway Interchange
- C15 North West Mixed-Use Precinct

The following interface conditions are further depicted in cross sections:

- Toolern Creek Edge Interface (Fig. 21)
- Ferris Road Interface (Fig. 22 and 23)
- Western Freeway Interface (Fig. 24, 25 and 26)

- Mount Cottrell Road Interface (Fig. 27 and 28)
- Rail corridor Interface (Fig. 29)
- Tabcorp Park Interface (Fig. 30)

Fig. 11 also depicts the locations within the CEMU area where buildings will be required to address and front the street to ensure a suitable streetscape outcome.

2.8.3 Residential Density

Residential density within the CEMU area will be located exclusively within the Toolern Creek Mixed-Use Precinct in the west of the site with residential preferred along the creek as per Fig. 5.

A mixture of housing typologies and densities is encouraged within the precinct, including townhouses, SOHO or live/work opportunities and integrated medium density developments.

The PSP requires an average minimum residential density of 15 dwellings per hectare for areas identified 'conventional density.' While there is no specific density for the Mixed-Use area, dwellings at higher densities are encouraged in accordance with the purpose of the Mixed-Use Zone.

2.8.4 Built Form and Massing Requirements

R41. The City of Melton Industrial Design Guidelines apply to any application within the Employment Area as identified in Fig. 1. If in the opinion of the Responsible Authority the Industrial Design Guidelines are not relevant to the application, the Responsible Authority may waive the requirement.

R42. Where the City of Melton Industrial Design Guidelines do not apply, the following design requirements must be addressed:

R42-1. Built form must be of a high quality, contemporary design with appropriate articulation,

R42-2. The primary entry and frontage of buildings must address open space and primary streets,

R42-3. Buildings and entrances must be sited to provide appropriate passive surveillance to adjoining streets and public realm,

R42-4. Buildings on corner sites must address and activate both primary and secondary frontages,

R42-5. A consistent built form approach should be provided with a mix of materials and finishes,

R42-6. Blank facades must be avoided by providing sufficient building articulation through the provision of window glazing and variation of material finishes and colours,

R42-7. All commercial uses must provide predominately clear glazing at ground level facing the street,

R42-8. Large buildings must be designed to reduce their visual bulk through the use of appropriate building articulation, massing variety and landscape treatment,

R42-9. Business identification signage must be incorporated in the building façade and shown within proposal plans for the new building,

R42-10. Vehicle access points to medium density residential development must be located away from primary street frontage to minimise disruption to the streetscape,

R42-11. Front fencing associated with dwellings must not exceed 1.2 metres in height,

R42-12. All front fencing for non-residential uses must be located behind the front landscape setback and must not exceed 1.5 metres,

R42-13. Any application for 10 residential lots or above must provide a set of design guidelines to Council's satisfaction,

R42 -14. Office components of industrial buildings must be located on the street frontage and must address the street,

R42-15. All fencing located adjacent to primary and secondary frontages must be permeable and complimentary to the buildings architectural form / style. Chain mesh or similar fencing is not permitted on street or public realm frontages.

R43. A minimum of 50% of any one development's front facade must be built to the required landscape setback to ensure a consistent street edge on Ferris Road, Shogaki Drive, Mount Cottrell Road and Abey Road.

R44. Buildings must be orientated to and address the street and public realm in accordance with Fig. 11.

R45. All facades along Ferris Road, Abey Road, Shogaki Drive and Mount Cottrell Road, as well as within the Research and High Amenity Business Precinct must be high quality and activated through clear glazing.

R46. The height and massing of buildings immediately adjacent to the CMAC in the CEMU area must generally be consistent with the height and massing of buildings within the CMAC.

R47. Sites identified as key built form sites must be well defined through architectural design and should have a street wall height of greater than two storeys given the prominence of the building location and display high architectural merit.

R48. Primary pedestrian entry points must be from the main street frontage along Ferris Road, Abey Road, Shogaki Drive and Mount Cottrell Road, with a secondary entrance from the car park (if applicable).

R49. Signage in the form of branding and colours must not cover the entire facade, refer to City of Melton 'Advertising Signage Design Guidelines', 2017.

- R50. Streets must be provided at 400 metre maximum intervals along Ferris Road, Abey Road, Shogaki Drive and Mount Cottrell Road to allow access given driveways off these arterial roads will not be accepted.
- R51. Buildings must provide an appropriate interface to Toolern Creek and the linear reserve to ensure passive surveillance opportunities and visual compatibility with the character of the area.
- R52. Prevention of graffiti must be considered when detailing materials for fencing, screening and sides/rears of buildings.

2.8.5 Interface Requirements

- R53. Where commercial and retail premises interface with residential uses, loading bays and service areas must be screened from view, either by landscaping elements, vertical screening or other built form to provide an appropriate visual transition.
- R54. Acoustic treatments must be constructed along the Western Freeway and Melbourne-Ballarat Rail Corridor where appropriate and subject to approval from relevant authorities.
- R55. Lighting must be provided along key interfaces shown on Fig. 11 to provide a sense of safety
- R56. Built form interfacing with TabCorp Park must be of a high quality and provide appropriate landscape design.
- R57. Uses interfacing with TabCorp Park must provide appropriate transition and respect the function of TabCorp Park.

2.8.6 Residential Density Requirements

- R58. A minimum density target of 15 dwellings per net developable hectare must be provided in the Mixed Use Precinct as specified in the Toolern PSP.

2.8.7 Residential Density Guidelines

- G15. A mixture of housing typologies is encouraged within the Mixed Use Precinct.
- G16. Higher density housing is encouraged within the Mixed Use Precinct.

2.9 Sustainability and Environment

The City of Melton is committed to creating a low carbon city well-adapted to climate change and has set a target to reduce greenhouse gas emissions by 20% on 2015/16 levels by 2020/2021, and for net-zero emissions by 2040. Council recognises the future impact of climate change and has adopted the City of Melton Environment Plan 2017-2027 to meet targets for reducing greenhouse gas emissions.

The Council and Wellbeing Plan, 2017-2021 outlines a whole-of-community commitment to protecting and enhancing the natural environment, and to the growth and development of the City in accessible, fair and responsible ways.

By incorporating these aspirations within the CEMU area, this UDF aims to foster development that values sustainability and the natural environment, and also seeks to acknowledge the key environmental risks identified in the Melton Planning Scheme such as climate change, greenhouse gas emissions and the increase in extreme weather events.

This section provides high-level guidance to better inform the design and ensure landowners and developers understand Council's values, and aspirations around a few key areas including water usage, site and building design, tree and vegetation coverage and walkability.

Water quality and availability is a critical issue across the CEMU area, as the City of Melton is located in an area of low rainfall, with increasing water demands from competing uses such as irrigation for agriculture and increasingly from urban areas. These pressures are likely to be exacerbated in coming years as the Employment area develops.

Better management can make use of this valuable resource and reduce the harm it can do to our waterways when it is poorly managed. Embracing water sensitive urban design (WSUD) interventions is key to any successful water management strategy.

The building industry has begun to fully embrace energy responsible site and building design as concern around the well-being of our planet increases, and as the popularity of initiatives such as the Green Star Certification program through the Green Building Council of Australia grows. While this document does not aim to give detailed building design guidelines, it does set out built form controls to consider when building in the CEMU area, including:

- Maximising solar access,
- Minimising impervious surfaces and consideration of micro-climate,
- Aspect,
- Water and energy efficiency,
- Reduction of waste and emissions, and
- Use of eco-friendly and local building materials.

An overarching goal of the UDF is to create an environment that is green, comfortable and is a suitable urban habitat for plants and animals. A consistent tree canopy is imperative, while the local park, conservation areas and Toolern Creek corridor will provide the much needed green respite and 'lungs' of the Employment and Mixed-Use area. An emphasis on a consistent street tree canopy to assist in reducing the urban heat island effect is essential.

Components such as walkable and bikeable streets, an efficient local bus network and access to the station, are all key parts of a sustainability strategy.

2.9.1 Environmental Overlays

Environmental overlays are in place to identify areas where the development of the land may be affected by environmental constraints and to ensure that development is compatible. A permit will be required for any construction work within these areas.

Schedule 1 (ES01) covers remnant woodlands, open forests and grasslands and refers specifically to land within the rail corridor reserve.

Schedule 2 (ES02) covers wetlands, waterways and riparian strips and refers to land specifically around Toolern Creek.

2.9.2 Sustainability and Environment Requirements

- R59. Buildings must be designed in accordance with any relevant Council sustainability design policies.
- R60. Dwellings must be sited and oriented to provide:
 - appropriate solar access,
 - adequate use of daylight, shading and prevailing breezes, and
 - minimised energy usage for heating in winter and cooling in summer.
- R61. Buildings must incorporate high quality, sustainable materials and methods to the satisfaction of the Responsible Authority.
- R62. Parks interfacing with Toolern Creek or other conservation areas must be designed to enhance the areas of conservation value.
- R63. Landscaping adjacent to habitat zones must use indigenous plants.
- R64. Any parks adjacent to Toolern Creek must be designed to minimise disturbance to habitat zones and Growling Grass Frog habitat.
- R65. Rainwater run-off from buildings must be harvested for re-use or recycling.

- R66. Water sensitive urban design principles must be included to manage stormwater and passively irrigate trees and other vegetation.
- R67. Road layout and lot design must minimise and aim to balance cut and fill and respond to the site's existing drainage patterns.
- R68. A continuous street tree canopy must be included as part of every new development to meet Council standards .

2.9.3 Sustainability and Environment Guidelines

- G17. Building materials used for streetscape elements should be of high quality and be durable.
- G18. Overland flow paths should be considered as part of street design to optimise efficient water use and long-term viability of vegetation.
- G19. Infrastructure should be designed with consideration of climate change risks and adaptation methods.
- G20. Installation of renewable energy systems should be considered as part of all new buildings.
- G21. The re-use of materials and utilisation of local materials should be considered.
- G22. Fixed or flexible external shading should be considered to protect building windows from unwanted heat gain in summer and allow for desired heat gain in winter.
- G23. Green roofs, walls or facades should be considered to cool a building, help reduce stormwater runoff, increase biodiversity and provide more greenery.
- G24. Reduction of impervious surfaces and inclusion of permeable pavement should be considered.

3 Implementation and Staging

3.1 Staging

Economic forecasts suggest that the Melton growth corridor has at least a 50 year supply of employment land. However, it is acknowledged that the staging and timing of development in the CEMU area will be driven by market conditions. As such, the UDF will be designed for flexibility to ensure that development is encouraged and must not be reliant on any one specific trigger development.

3.2 Development Contributions

The infrastructure items included with the Toolern Development Contributions Plan (DCP) related to the CEMU area are listed below;

- IT10 Mount Cottrell Road and Shogaki Drive: Intersection (interim layout). Construction of signalised 4-way intersection and slip lanes. Purchase of 0.301 hectares of additional required land.
- IT12 Shogaki Drive and Collector Street: Intersection (interim layout). Construction of signalised 4-way intersection and slip lanes.
- IT13 Ferris Road and Shogaki Drive: Intersection (interim layout). Construction of signalised 4-way intersection and slip lanes. Purchase of 0.47 hectares of additional required land.
- IT16 Abey Road and Industrial Connector Road: Intersection (interim layout). Construction of a signalised T-intersection and slip lanes.
- IT17 Abey Road and Bundy Drive: Intersection (interim layout). Construction of signalised T-intersection and slip lanes.
- IT18 Ferris Road and Shakamaker Drive: Intersection (ultimate layout). Construction of signalised 4-way intersection and slip lanes.
- IT19 Mount Cottrell Road and Murray Road: Intersection (interim layout). Construction of signalised T-intersection and slip lanes.
- RD12 Cross-section shows 41 metres for Mount Cottrell Road: Western Freeway to Melbourne Ballarat Rail Line. Upgrade of existing 2-lane unsealed road to provide 2-lane carriageway of primary arterial road (45 metre road reserve, length 1,680 metres) (interim layout). Purchase land (including native vegetation re-alignment) to increase reserve width from 20 metres to 45 metres for 1,680 metres (ultimate). (The cross section width has changed during the UDF process to 41m.)
- RD14 Shogaki Drive: Ferris Road to Mount Cottrell Road (Western Half). Upgrade existing 2-lane sealed road to provide 2-lane carriageway of primary arterial road (45 metre road reserve, length 800 metres) (interim layout). Purchase land to increase reserve width from 40 metres to 45 metres for 800 metres (ultimate).
- RD15 Ferris Road: Western Freeway to Shogaki Drive. Construction of additional lane in either direction to existing 4-lane divided road to provide ultimate 6-lane divided arterial road (45 metre road reserve, length 940 metres). Purchase land to increase reserve width from 34 metres to 45 metres for 940 metres (ultimate).
- RD18 Abey Road: Toolern Creek to Ferris Road. Upgrade of existing 2-lane sealed/unsealed road to provide 2-lane carriageway of divided secondary arterial road (38 metre road reserve, length 2,160 metres) (interim layout). Purchase land to increase reserve with from 19 metre to 38 metre for 270 metres east of Toolern Creek (ultimate).
- RD19 Shogaki Drive: Ferris Road to Mount Cottrell Road (Eastern Half). Construct new 2-lane carriageway of primary arterial road (45 metre road reserve, length 800 metres) (interim layout). Purchase land to increase reserve width from 0 metres to 45 metres for 800 metres (ultimate).
- BD01 Abey Road Bridge. 2-lane bridge over Toolern Creek, incorporating abutments and street lighting (12 metre wide concrete structure, deck length 61 metres).
- BD07 Pedestrian Underpass 1: Melbourne Ballarat Railway. Construction, including 3 metre wide, 50 metre long box culverts, endwalls, concrete path, drainage and lighting.

- BD14 Shared Use Pedestrian Bridge (No. 6). Bridge over Toolern Creek, incorporating abutments and lighting (3-metre wide timber structure, deck length 30 metres).
- New recommended DCP item – intersection on Ferris Road at the northern edge of the CMAC.

3.3 Key Development Drivers and Dependencies

As development occurs within the CEMU area, there are three drivers that will influence development in the UDF area. They are:

- The timing of infrastructure delivery as outlined in the Toolern DCP,
- The implications of existing industrial buffers and the implications of proposed development on existing adjacent sensitive uses, and
- The final outcome of environmental audits on the former Melton Landfill site.

3.3.1 Toolern Buffer Assessment

As mentioned previously in section 2.5, an industrial buffer assessment was completed in 2018 to determine the impact of existing industrial land buffers in regards to future sensitive uses within the Cobblebank Employment and Mixed-Use area the Metropolitan Activity Centre.

Implications to staging stem from a number of existing industrial uses that attract industrial buffers that will exclude any proposed sensitive use. While this assessment proved that a large portion of the northern part of the CMAC is currently affected by these buffers, the Mixed-Use land (within the Employment and Mixed-Use UDF area), is not affected.

3.3.2 Former Melton Landfill

The former Melton Landfill within the Mixed-Use and Employment areas of the UDF is subject to an Environmental Protection Authority (EPA) Pollution Abatement Notice (PAN 14 October 2002) as amended by the Notice of Amendment issued by the EPA on 22 June 2004 and any ongoing obligations under the Waste Discharge License No ES445. The land is privately owned, however the obligations of the PAN remain the responsibility of Melton City Council. Currently there is a 500 metre buffer (to a residential dwelling) around the site with 21.82 hectares declared as land affected by the PAN as reflected on plan of subdivision PS4415214K (Lot 1).

4 Review

The content of this document is subject to change as new and additional information is made available.

As such, a document like this should be reviewed every five years in order to ensure that the information provided is still relevant.

Some key changes which may impact the Cobblebank Employment and Mixed-Use area UDF in the future, and may trigger the need for a formal review include:

- Any major State government and local government policy changes,
- Major changes to land uses,
- Transition of existing industries out of the UDF Area resulting in changes to buffer areas,
- Completion of the Melton Hospital Business Case by the State government,
- Completion of the Western Rail Plan by Rail Projects Victoria,
- The introduction of local bus routes, or other major public transport changes, and
- Major departures of existing CEMU area businesses or substantial changes to existing businesses in the area.

Appendix 1 CEMU UDF Street and Interface Cross Sections

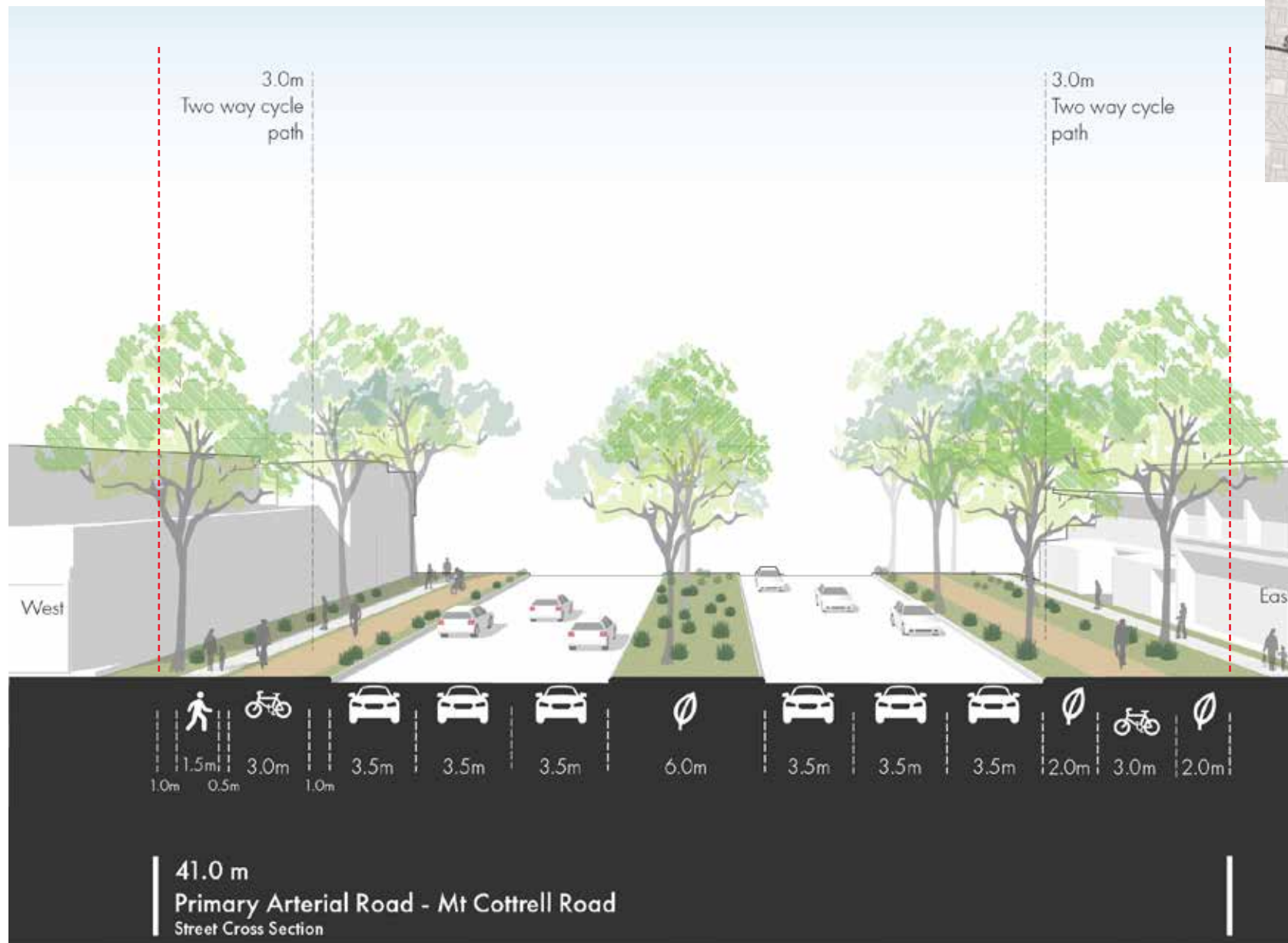


Figure 12. Primary Arterial Road - Mt Cottrell Road

See Mount Cottrell Road interface sections (Fig. 27 and 28) for specific conditions

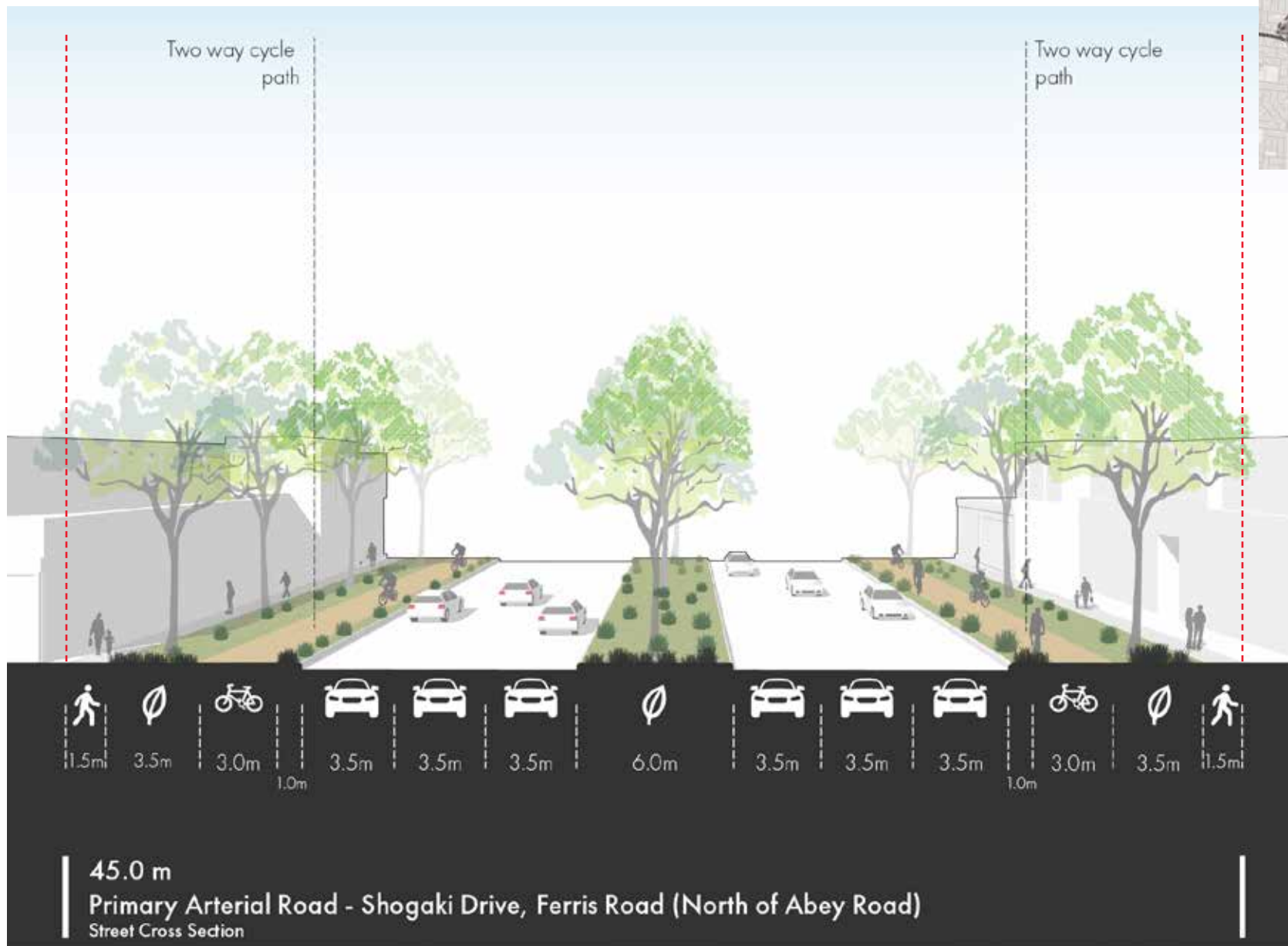


Figure 13. Primary Arterial Road - Ferris Road north of Abey Road and Shogaki Drive

See Ferris Road interface section and plan (Fig. 22 and 23) for specific conditions

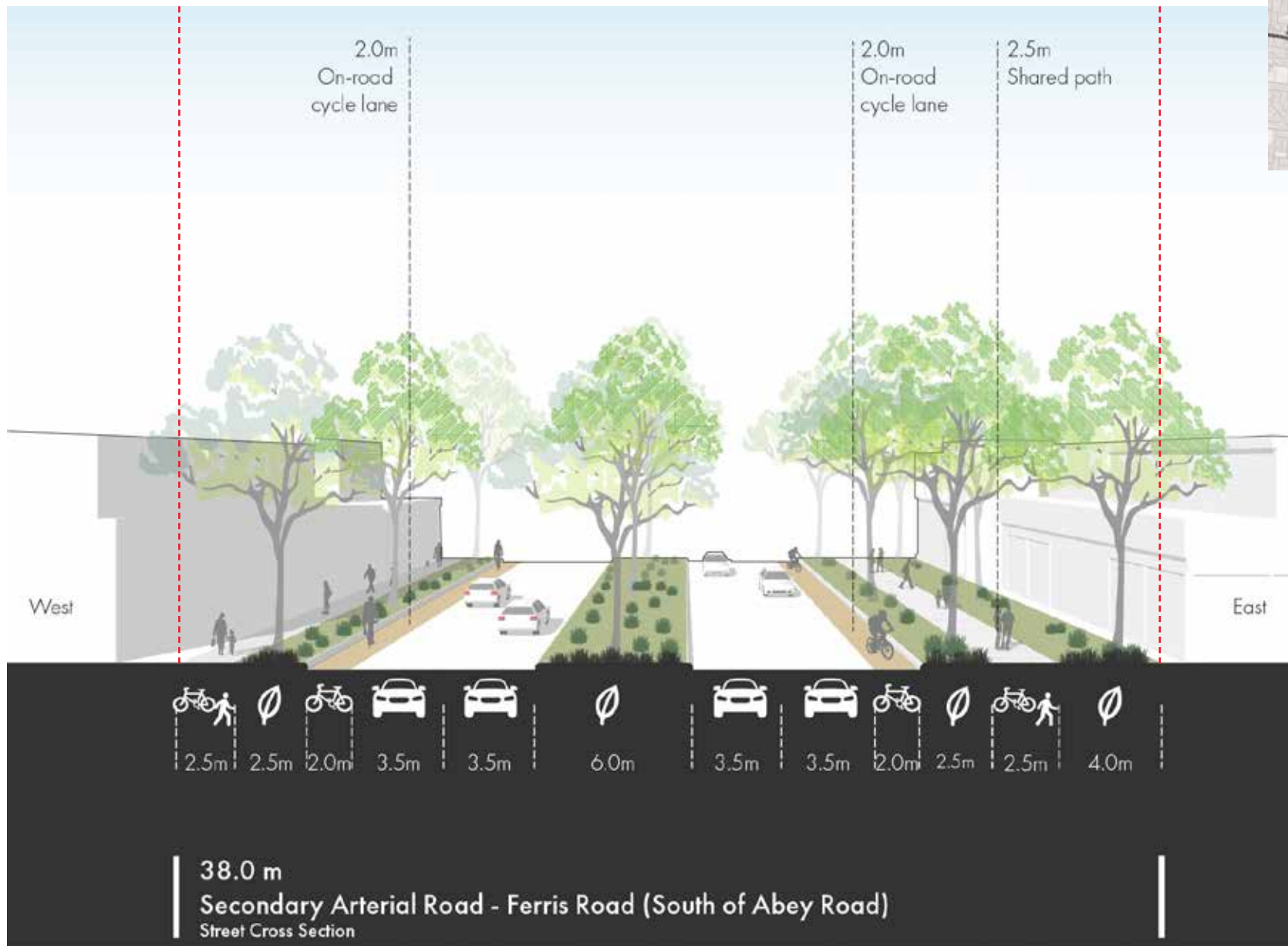


Figure 14. Secondary Arterial Road - Ferris Road south of Abey Road

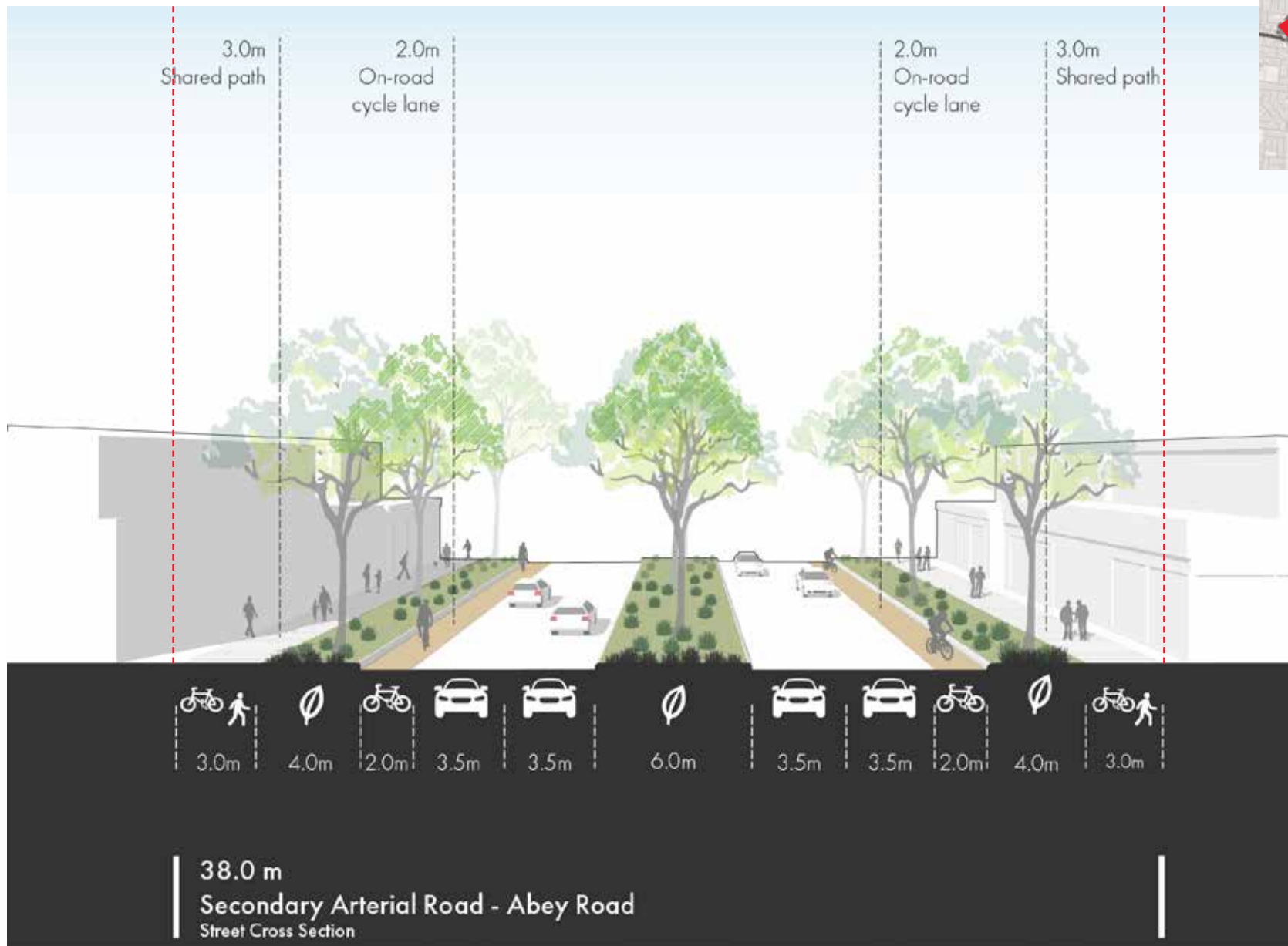


Figure 15. Secondary Arterial Road - Abey Road

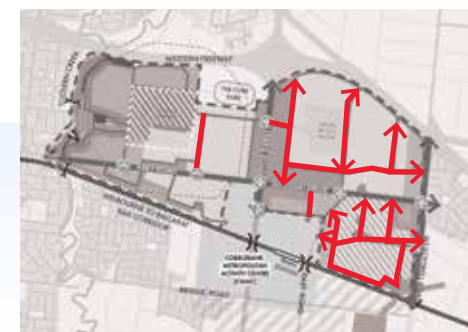
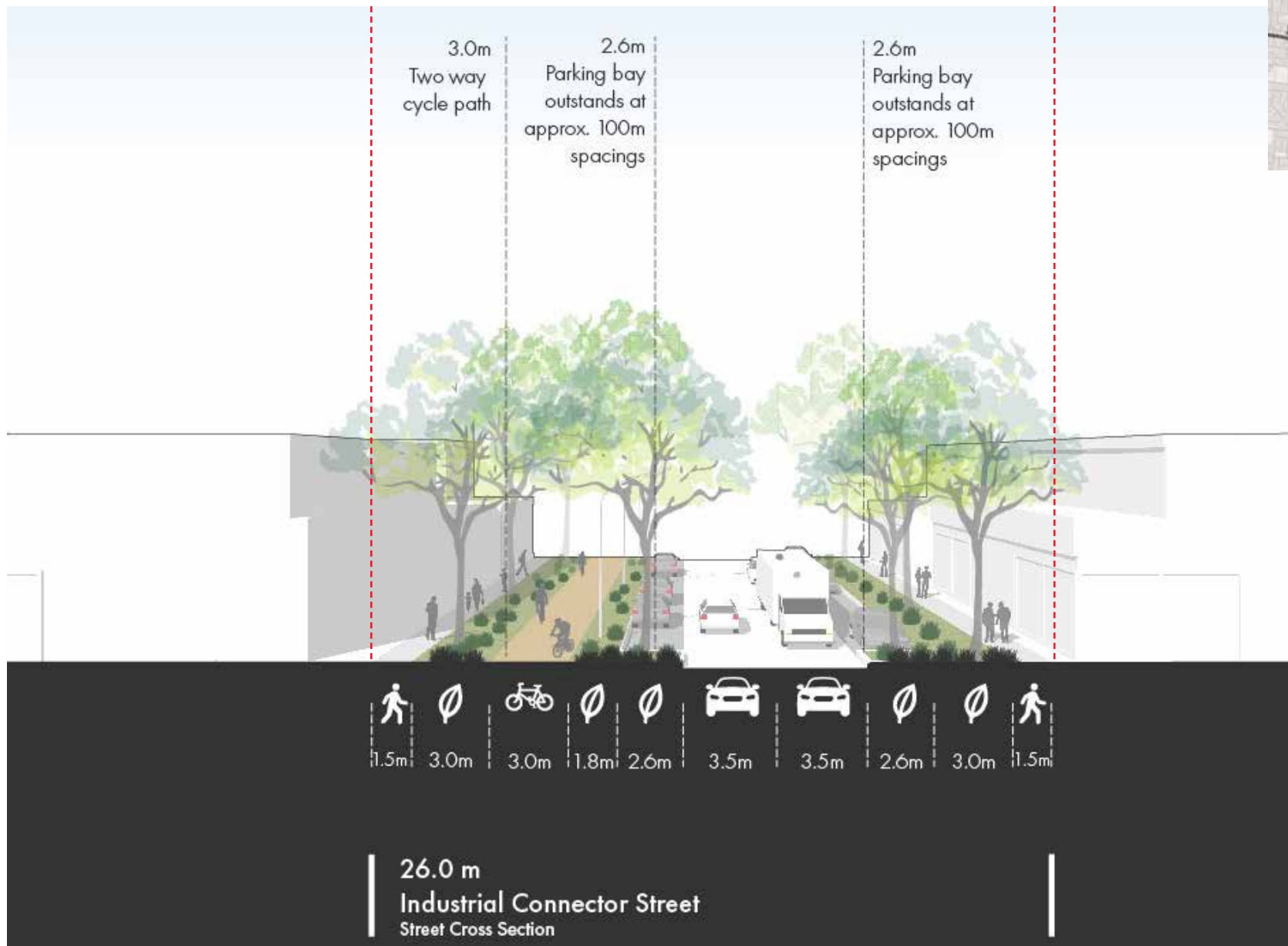


Figure 16. Industrial Connector Street

*Specific conditions apply to streets interfacing with the Western Freeway.
In these instances refer interface sections Fig. 24 and Fig. 26

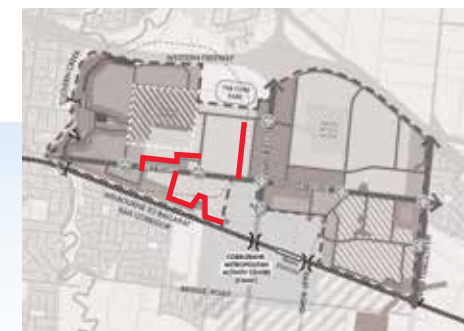
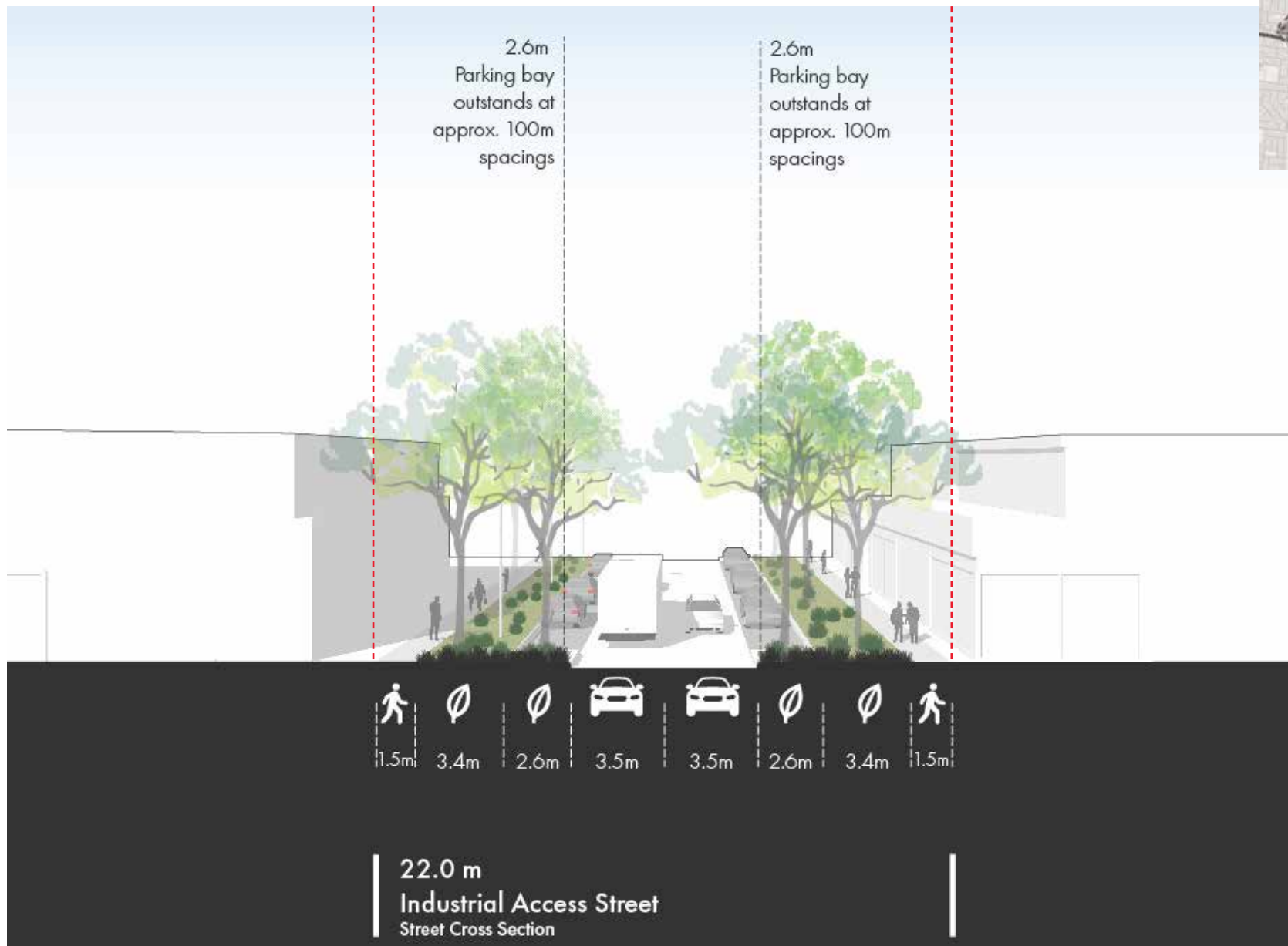


Figure 17. Industrial Access Street

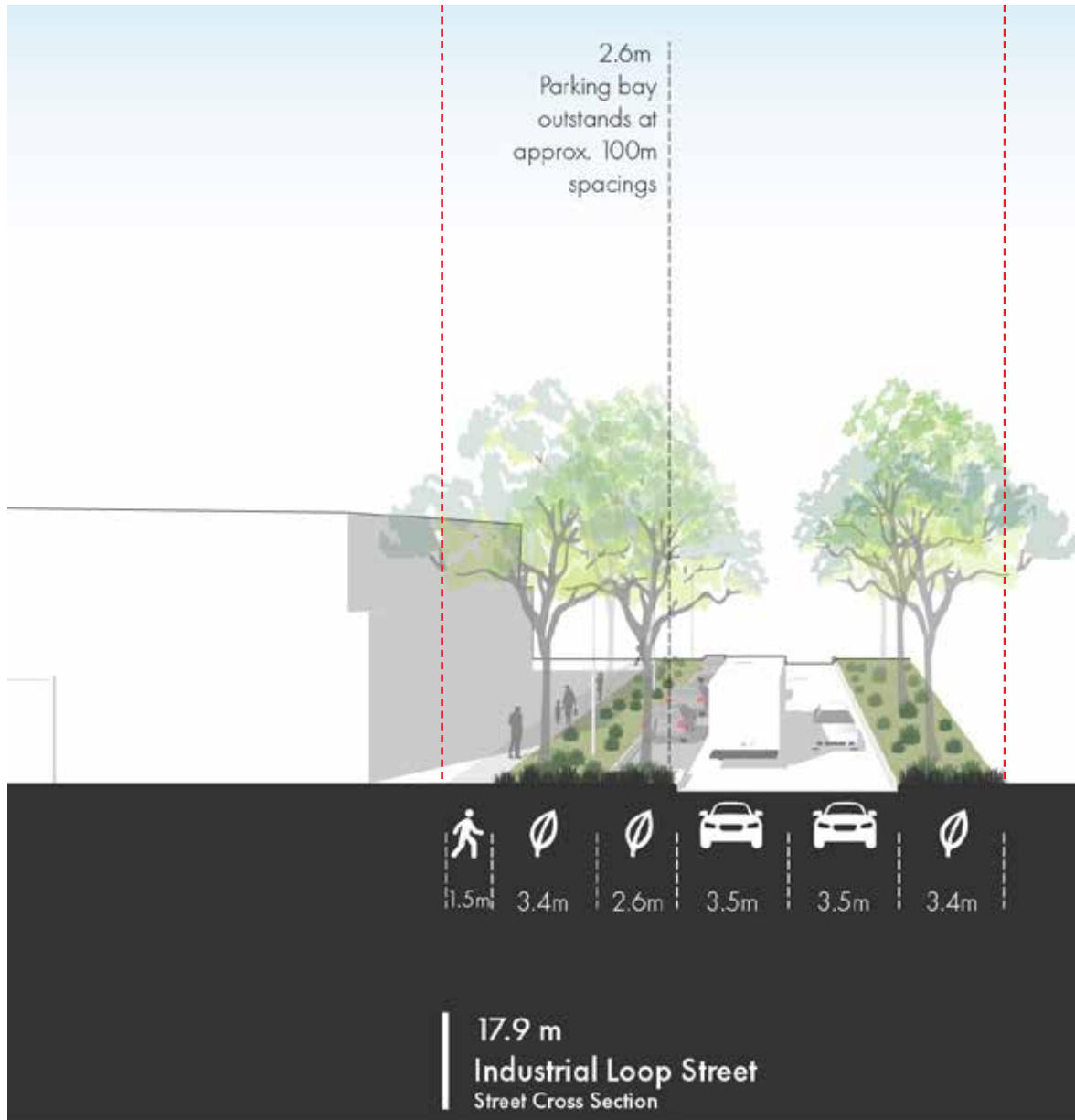


Figure 18. Industrial Loop Street



Figure 19. Connector Street (Typical)



Figure 20. Key Local Access Street (Typical)

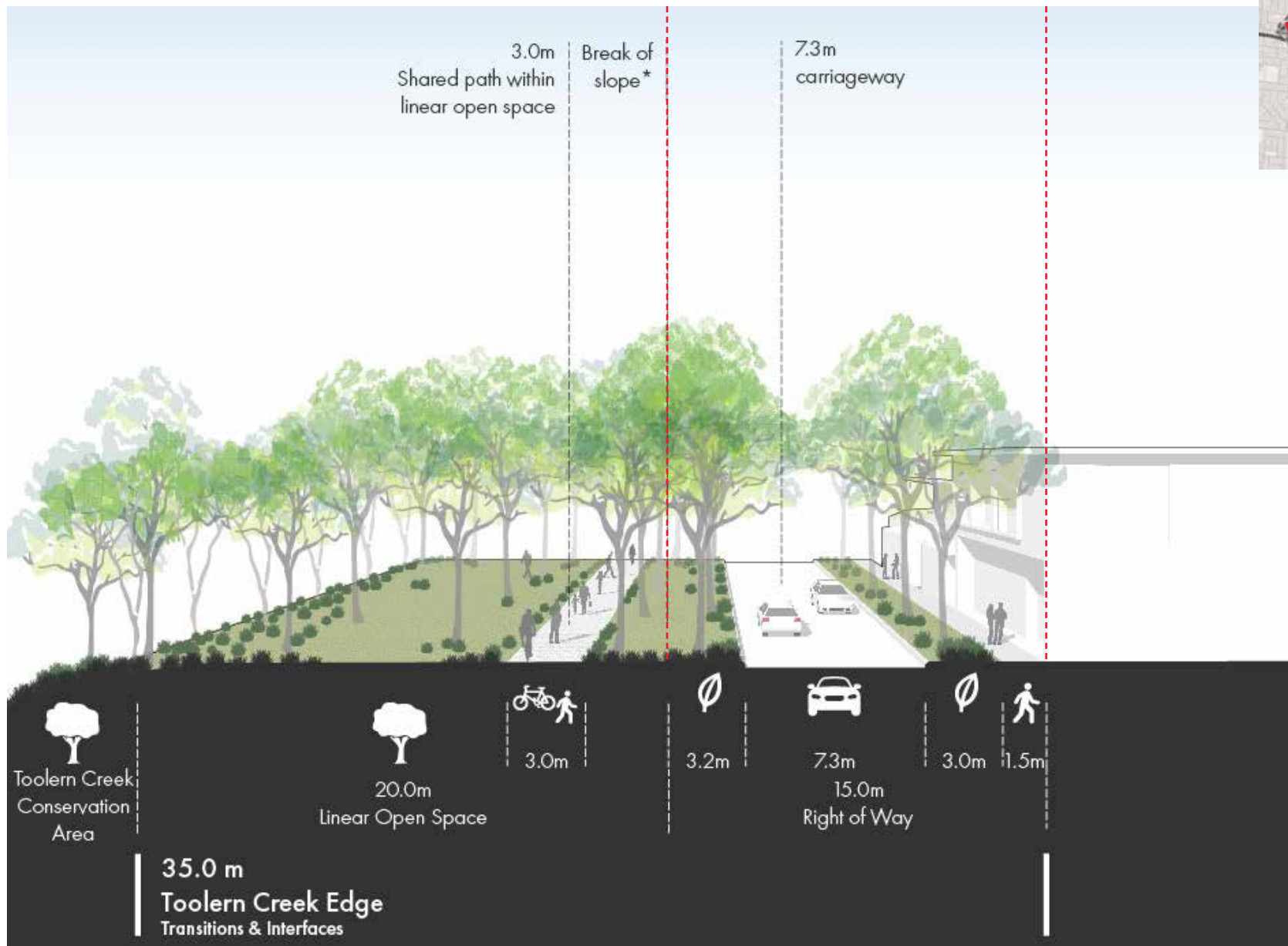


Figure 21. Toolern Creek Edge Interface

*Exact location of break of slope is subject to detailed survey

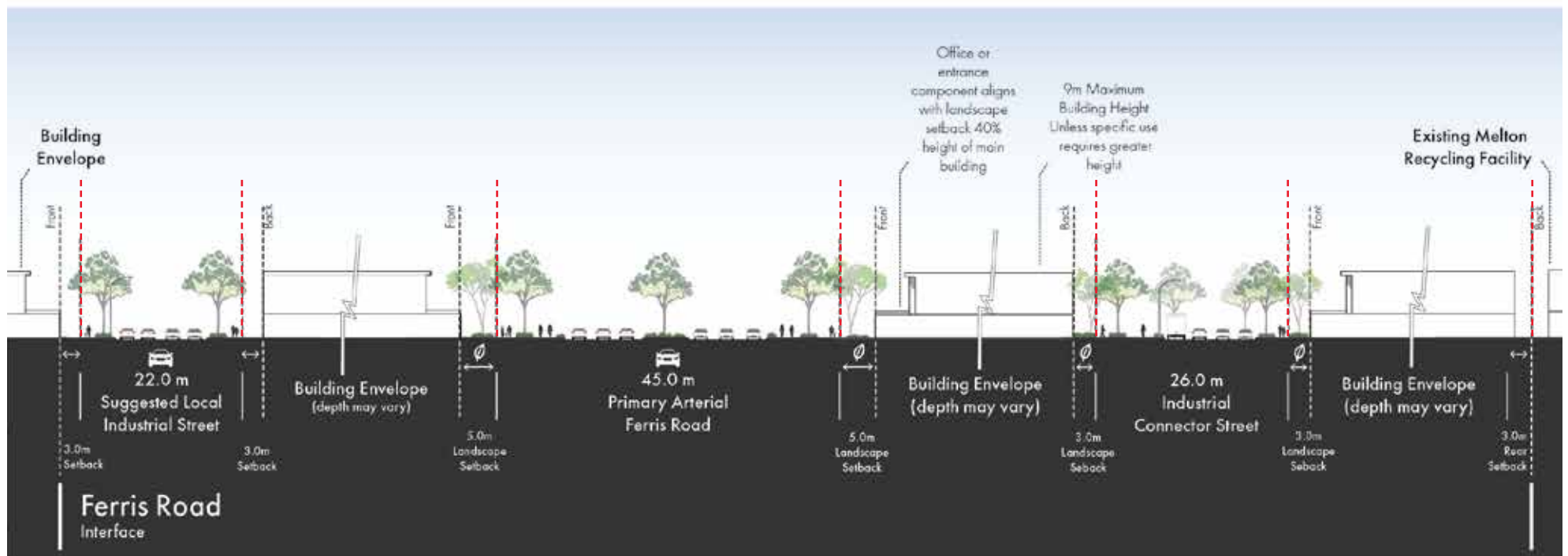


Figure 22. Ferris Road Interface - Section

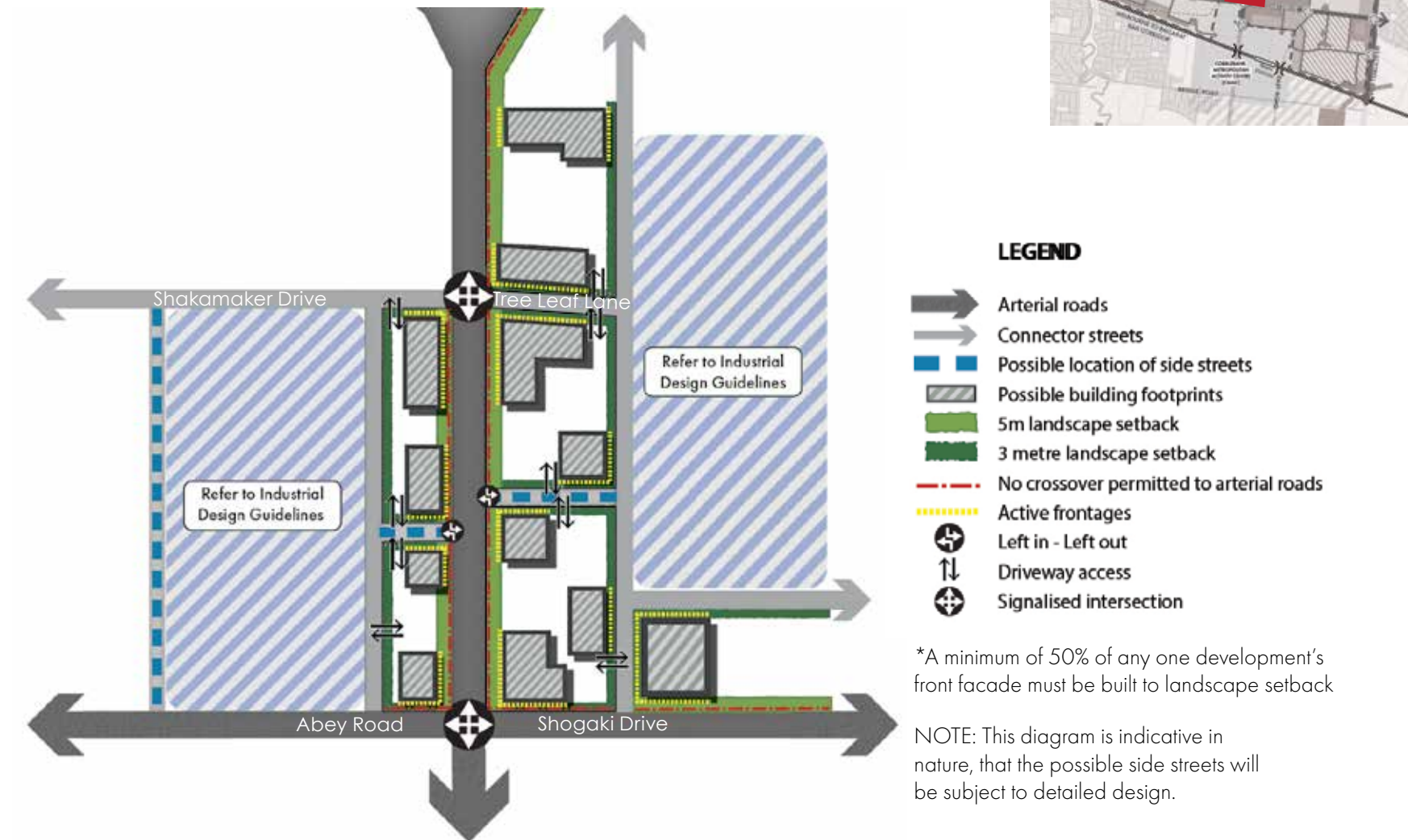


Figure 23. Ferris Road Interface - Plan

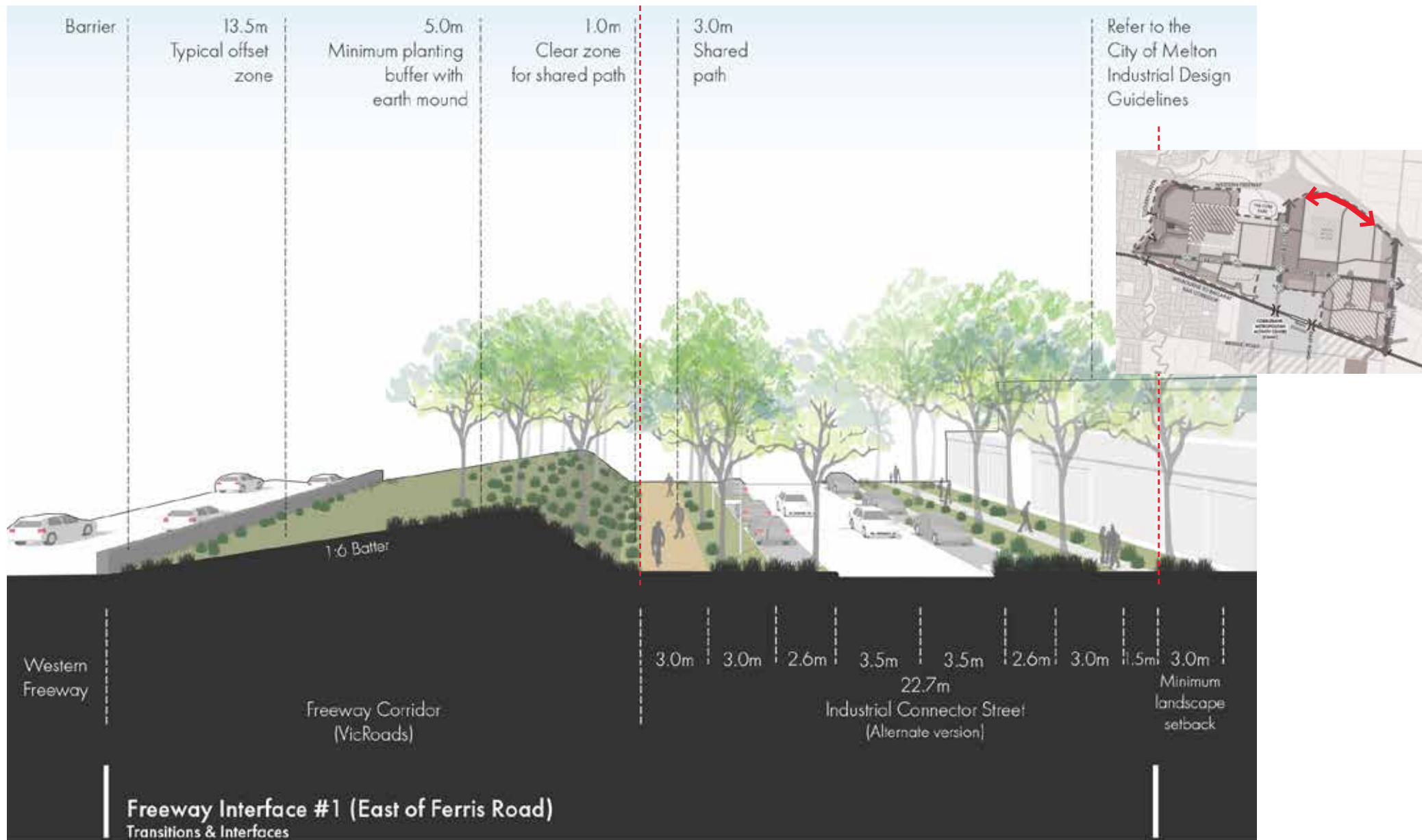


Figure 24. Freeway Interface #1 (without sound wall)

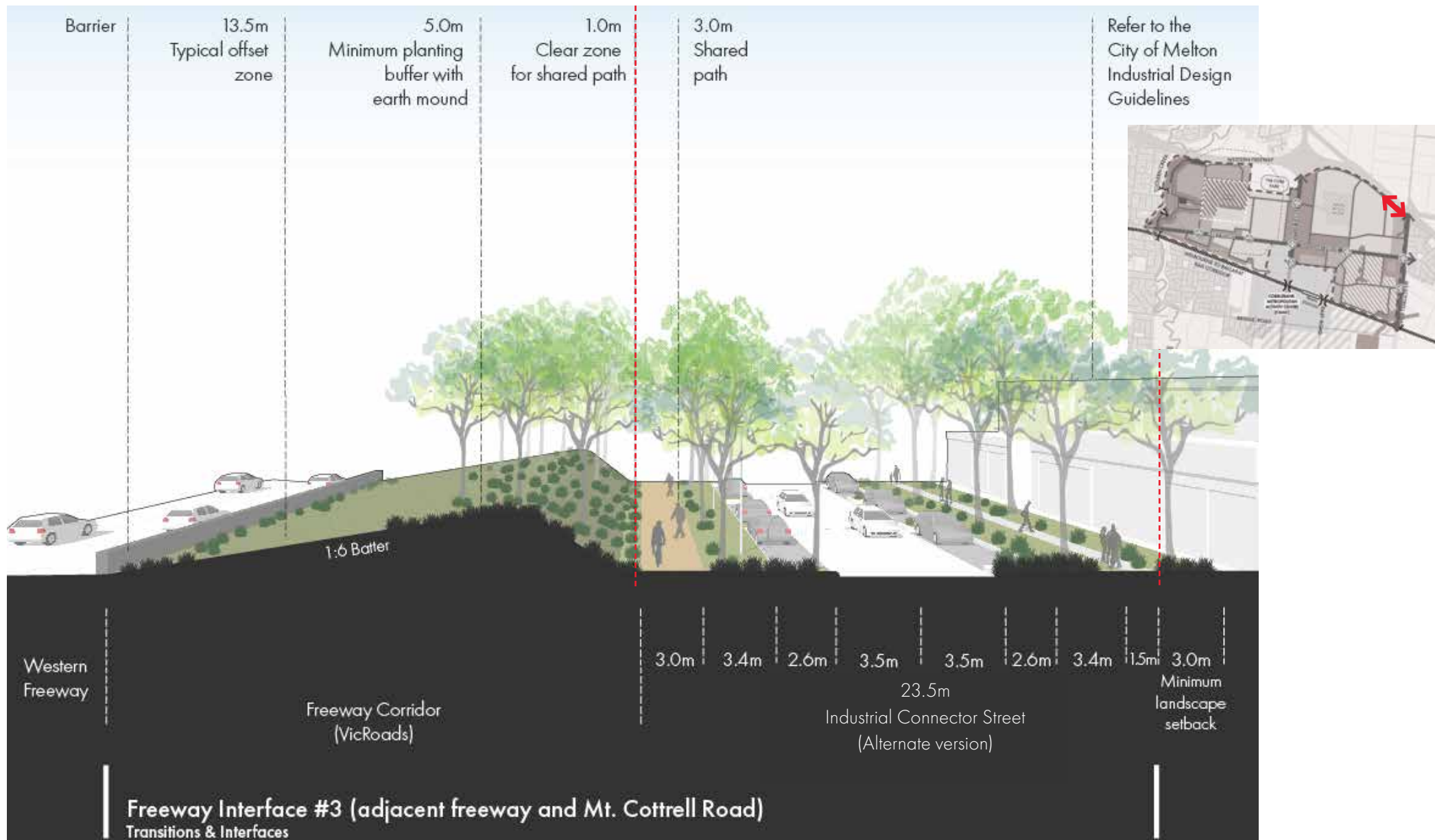


Figure 26. Freeway Interface #3 (without sound wall)

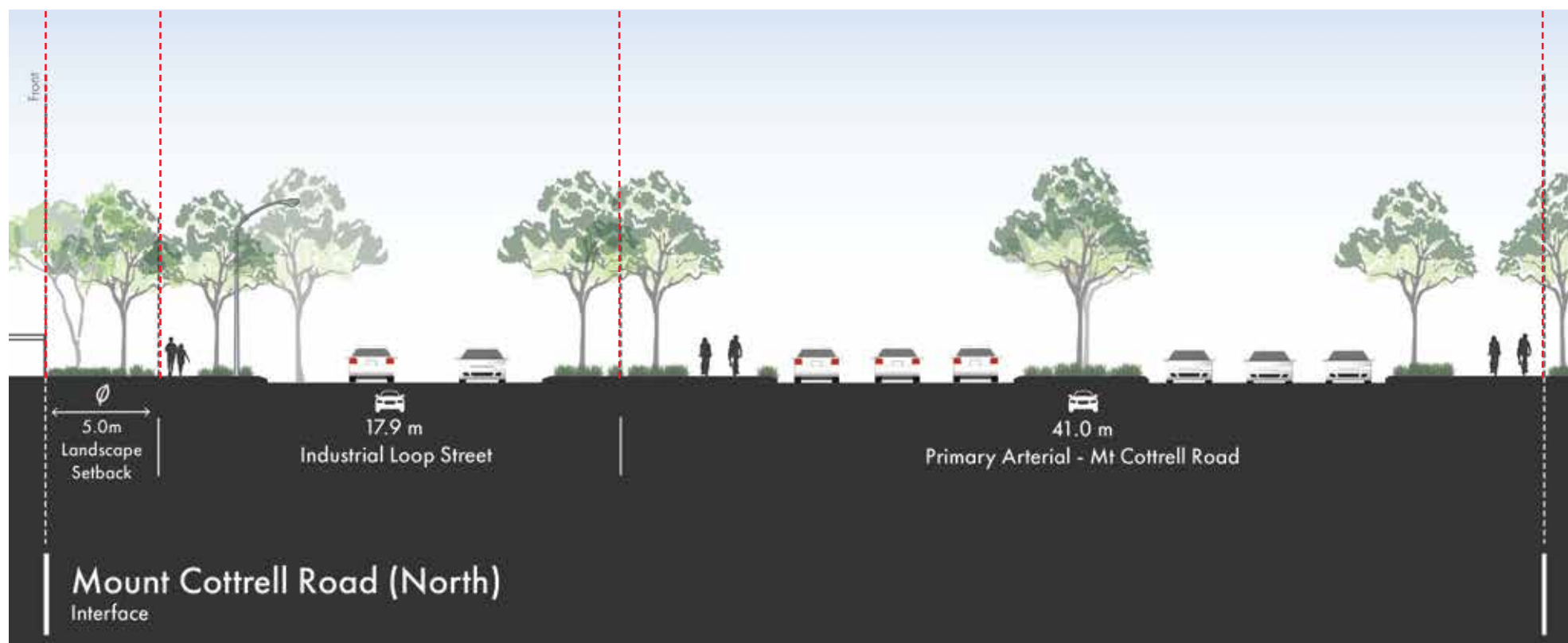


Figure 27. Mt Cottrell Road Interface (with frontage road)

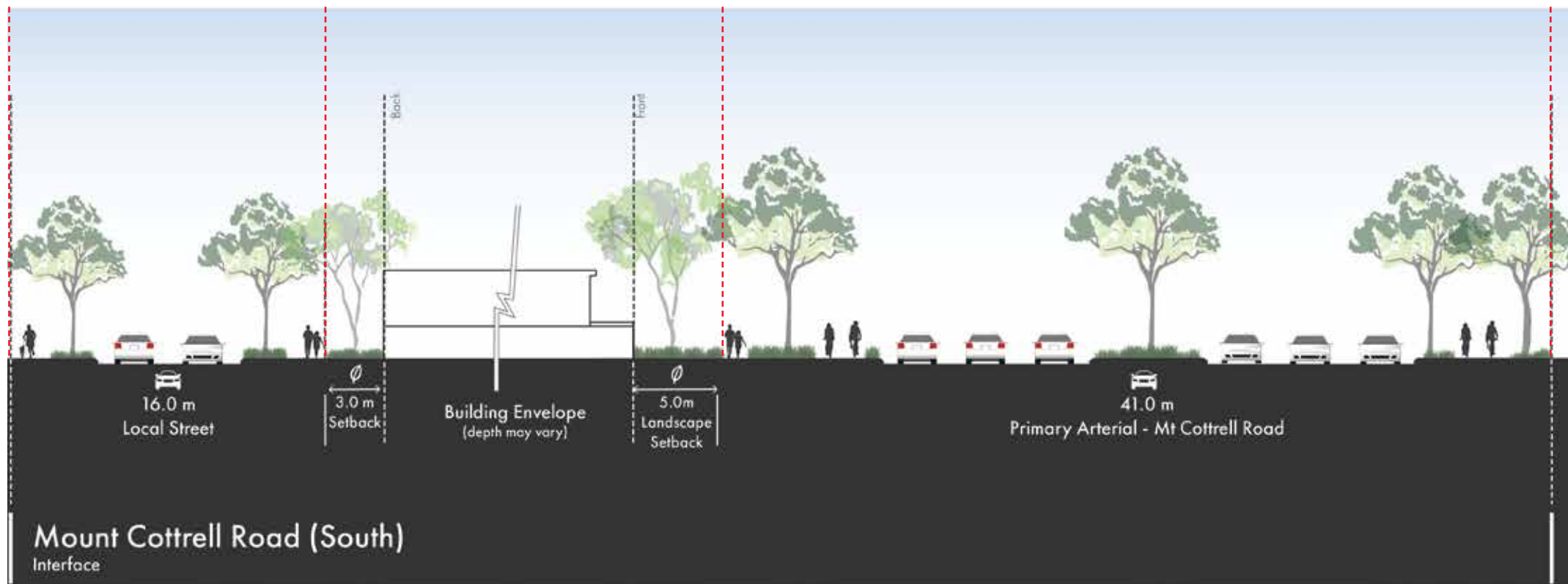


Figure 28. Mt Cottrell Road Interface (without frontage road)



Figure 29. Rail Corridor Interface

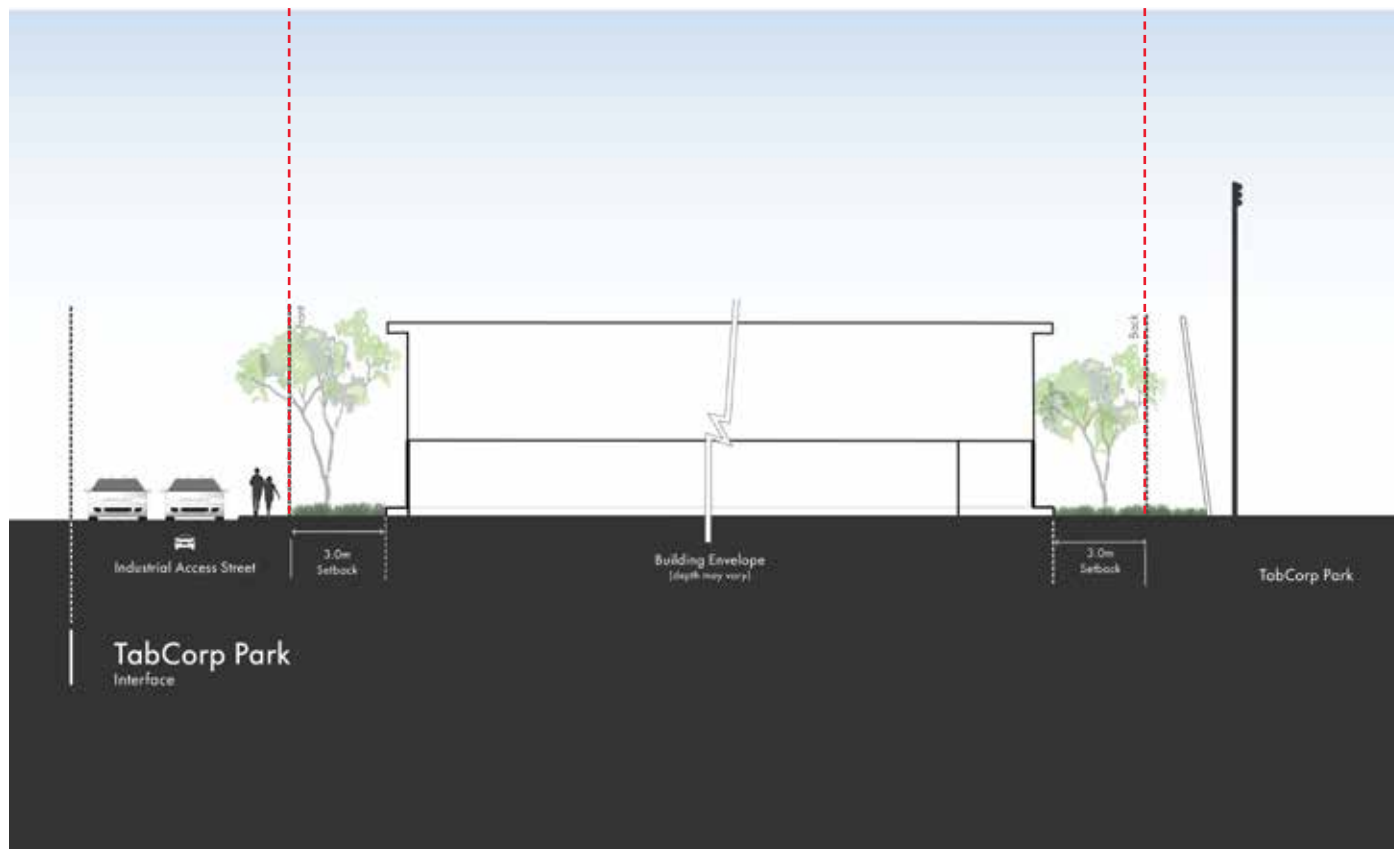


Figure 30. TabCorp Park Interface

Appendix 2 Statutory Assessment

The Toolern PSP includes statutory requirements that must be met in the preparation of this UDF. The table below outlines how the UDF has met each relevant requirement. This list of requirements has been met and detailed throughout Sections 2 and 3 of this report. However, the specific requirements have been itemised and a comment provided for each in the table below.

The requirements for the Employment Area and the North West Mixed-Use Precinct have been separated.

Requirements from 4.3.5 of Toolern PSP	Compliance	Comment
Demonstrate a diversity of lot sizes throughout the site to the satisfaction of the Responsible Authority.	Yes	A diversity of lot sizes is ensured within the UDF area through the urban layout outlined within the Framework Plan and various requirements and guidelines. In accordance with the PSP, larger lots are encouraged within the North-eastern Light Industrial and Business Precinct, while smaller lots are encouraged within the Western Light Industrial and Business Precinct to transition to the Mixed-use Precinct. Specifically, Requirement 9 requires a diversity of lot sizes to allow flexibility of land uses and business types.
Address key view lines and sight lines into and out of the area and incorporate within the overall design.	Yes	The key view line to the Toolern Creek Corridor as identified within the PSP has been protected through the the Heritage Overlay area. Further to this, Guideline 11 ensures that landscaping should strengthen and frame key view lines.
Locate manufacturing and industrial uses with adverse amenity potential at suitable distances from residential interfaces and incorporate management measures where required.	Yes	The Framework Plan has been designed to ensure uses with potential adverse amenity impacts are located away from existing or potential future residential uses through appropriate separation distances and transitional uses. Further to this, Requirements 3, 4 and 7 specify that new uses with adverse amenity impacts must comply with the minimum threshold distance referred to in Clause 53.10 of the Melton Planning Scheme from the CMAC and any part of the land in a residential zone, land used for a hospital or an education centre.
Show how the interface with the arterial road network will be managed: <ul style="list-style-type: none"> •to assist the creation of a high amenity, visually attractive environment conducive to the development of land uses with higher density employment (such as office and manufacturing employment); •to create gateways at appropriate locations; •to provide a high amenity and visually attractive environment on roads leading to residential areas. 	Yes	The arterial road network has been designed as a network of tree-lined boulevards which include ample landscaping opportunities and active frontages. The Framework Plan has designated active uses such as restricted retail, showrooms, business and commercial along key routes. Refer to relevant cross sections within Appendix 1 and Fig. 9. The key gateways have been controlled through requirements and guidelines to ensure appropriate entrances to areas such as the CMAC and residential areas.

Requirements from 4.3.5 of Toolern PSP	Compliance	Comment
Set out design guidelines for development on arterial roads and other roads which ensure high quality built form through architectural detailing including measures to avoid long blank walls and minimal visual interest, siting and orientation, provision of active frontages, internalised service areas, and landscaping treatments.	Yes	Requirement 42, which will apply to all non-industrial uses ensures that built form must be of a high quality, contemporary design with appropriate articulation, and that primary entrances must address open space and primary streets. The requirement also specifies that blank facades must be avoided by providing sufficient building articulation through the provision of window glazing and variation of material finishes and colours. This is further controlled through Requirements 45 and 48 which specifies that all facades along Ferris Road, Abey Road, Shogaki Drive and Mount Cottrell Road, as well as within the Research and High Amenity Business Precinct must be high quality and activated through clear glazing, and the primary pedestrian entry point should be from the main street frontage with a secondary entrance from the car park.
Identify sites in prominent locations particularly on corner intersections with arterial or connector roads for significant high amenity building or landmark structures.	Yes	Fig. 11 identifies key built form sites which will be subject to higher standards of architectural design. This is controlled through Requirement 47 which specifies that sites identified as key built form sites must be well defined through architectural design and should have a street wall height of greater than two storeys given the prominence of the building location.
Set out design guidelines which positively address environmentally sustainability including integrated water management and energy conservation.	Yes	Section 2.9.2 of the UDF specifies the Sustainability and Environment requirements and guidelines which will ensure buildings within the UDF area are constructed having regard to better design and building practices such as the incorporation of water sensitive urban design, re-use and recycling of building materials and the energy efficient design of buildings and subdivisions.
Set out guidelines for the provision of advertising signs which are integrated within the built form.	Yes	Requirement R 42-9 specifies that business identification signage must be incorporated in the building façade and shown within proposal plans for the new building.
Set out guidelines for the achievement of an overall landscape concept for the land.	Yes	Section 2.7 and 2.9 of the UDF specifies requirements and guidelines for public realm and landscape and sustainability and environment respectively, which will guide future development and the provision of acceptable landscape solutions. This is further controlled through Figs. 12 to 30 which specify landscape setbacks and buffers.
Indicate how public transport will be integrated within the employment land, which is developed in accordance with the requirements of the Department of Transport.	Yes	The road network has been designed to accommodate buses to encourage the use of public transport within the UDF area. This is further controlled through Requirement 11 which specifies that all arterial roads and connector roads must be bus capable.
Show how the employment land relates to and responds positively to the adjacent activity centre and residential land through high quality urban design treatments. Set out measures to avoid long blank walls with minimal visual interest.	Yes	As Ferris Road will be the main approach into the CMAC, the UDF controls development to ensure that it sets the tone and conforms with the quality expected of a Metropolitan Activity Centre. Requirement 45 will ensure the buildings that will line Ferris Road north of the CMAC will display architectural quality appropriate to a MAC.
Consider the views of and include any requirements of Vic Roads in relation to the future freeway interchange at Mt. Cottrell Road.	NA	At this point in time there is no new information in regards to this interchange.

Requirements from 4.3.6 of Toolern PSP	Compliance	Comment
Encourage a mix of uses which may include residential, office, business park, industrial and specialized employment uses.	Yes	The Framework Plan has been designed to encourage a range of uses within the Mixed-use Precinct, including preferred locations for residential, commercial, business and open space. This is further encouraged through Requirement 6 which specifies that the UDF area must include a mix of uses, such as those specified in Table 1.
Ensure the proposed uses and developments are compatible with the existing Harness Racing Victoria facility, which is a significant recreational asset.	Yes	Fig. 30 has been provided to ensure an appropriate interface with a 3 metre setback is provided to TabCorp Park. Furthermore, Requirements 56 and 57 will ensure that uses interfacing with TabCorp Park will provide appropriate transition and respect the function of TabCorp Park.
Ensure that the proposed uses and development respond appropriately to any environmental constraints posed by the former Melton landfill.	Yes	While the findings of the environmental audit have been noted as a key dependency for the CEMU UDF, the Urban Design Framework Plan has been designed considerate to the environmental constraints imposed by the former Melton landfill. The Framework Plan has identified the site for privately owned leisure and recreation subject to an environmental audit with a 500 metre buffer included in accordance with the UGZ Schedule 3 to ensure any application for residential subdivision or development of land within 500 metres of the former landfill will be referred to the EPA.
Create a range of lot sizes, catering to diverse industry needs to the satisfaction of the Responsible Authority.	Yes	A diversity of lot sizes is ensured within the UDF area through the urban layout and various requirements and guidelines. Specifically, Requirement 9 requires a diversity of lot sizes to allow flexibility of land uses and business types.
Address the sensitivities between residential and employment land uses by developing appropriate interface treatments which address visual, acoustic and other amenity requirements.	Yes	The Framework Plan has been designed to ensure uses with potential adverse amenity impacts are located away from existing or potential future residential uses through appropriate separation distances and transitional uses, such as business and commercial uses. Furthermore, Requirement 7 specifies that any sensitive use must ensure adequate mitigation and attenuation from existing industrial uses.
Ensure that development interfacing with the existing Harness Racing Facility has a strong emphasis on high quality building and landscape design.	Yes	Requirements 56 and 57 ensure that built form interfacing with TabCorp Park will be of a high quality and provide appropriate landscape design.
Ensure that development presents buildings with a high quality frontage to the Ferris Rd, Western Fwy and Abey Road, avoiding blank walls and exposed storages areas.	Yes	Requirement 45 specifies that all facades along Ferris Road, Abey Road, Shogaki Drive and Mount Cottrell Road must be high quality and activated through clear glazing. The interface to the western freeway will largely be controlled through the City of Melton Industrial Design Guidelines as specified in Requirement 41, which will ensure a high quality design response is provided.
Achieve a uniformity of landscaping through the preparation of specific landscape design guidelines.	Yes	Sections 2.7 and 2.9 of the UDF specify requirements and guidelines for public realm and landscape and sustainability and environment respectively, which will guide future development and the provision of acceptable landscape solutions. This is further controlled through Fig. 12 to 30 which specify landscape setbacks and buffers.

Requirements from 4.3.6 of Toolern PSP	Compliance	Comment
Provide service road frontage to the Western Hwy (without providing direct access) if smaller industrial lots are envisaged along this main gateway. If larger industrial lots are envisaged provide a landscape buffer between the rear of larger industrial lots and the Western Freeway.	Yes	A service road is proposed along the Western Highway which will not have direct access to the Highway, however will provide lots with convenient access.
Encourage a mixture of housing densities with residential development integrated within the wider precinct.	Yes	A mixture of housing typologies and densities is encouraged within the precinct, including townhouses, SOHO and integrated medium density developments. This is controlled through Guideline 15 and 16 which specify that a mixture of housing typologies and higher density is encouraged.
Design a road network design to enable planting and ensure the safe movement of heavy vehicles where the network services the employment areas.	Yes	The road network has been designed to accommodate the safe and convenient movement of heavy vehicles, while also providing tree-lined boulevards and roads.
Ensure the road network servicing the residential areas does not encourage truck and heavy vehicle traffic in these locations.	Yes	The road network has been designed to encourage large vehicles along the main arterial roads including Ferris Road (excluding within the MAC), Mt Cottrell Road and Abey Road/Shogaki Drive, to connect with the Western Freeway, the CMAC, Melton South, Thornhill Park and beyond.
Ensure the development makes provision for cycling and pedestrian movements.	Yes	Walking and cycling are key components of the movement and access network and are important alternative modes of transport within the CEMU and broader area. These alternate modes of transport have been catered for by providing a network of shared paths and will be encouraged through the timely delivery of appropriate infrastructure.
Provide linkages within the Mixed-Use and Employment area to the proposed residential development located to the west, to facilitate pedestrian and cycling access to the Toolern Creek linear open space corridor.	Yes	The pedestrian and cycling network has been designed to encourage movement across the CEMU area, including to the Toolern Creek corridor, with a shared use path running along the eastern side of the creek, a pedestrian bridge to link with the west and a second pedestrian bridge along the Abey Road Bridge.
Ensure preferred residential development adjacent the Toolern Creek is orientated facing the creek through frontage roads.	Yes	Guideline 3 encourages the siting of residential dwellings adjacent to the Toolern Creek interface. Requirement 51 will ensure that all buildings will be orientated toward Toolern Creek with an appropriate interface to ensure appropriate passive surveillance opportunities through preferred residential uses.
Show how the building height, massing, architecture and materials of residential development near the Toolern Creek will be visually compatible with the character of the creek.	Yes	Requirement 51 will ensure buildings provide an appropriate interface to Toolern Creek to ensure passive surveillance opportunities and visual compatibility with the character of the area.
Demonstrate how the development will contribute to the passive surveillance of the creek environs through road layout design, the siting of shared paths and the orientation of development to front roads and open space.	Yes	The creek interface has been designed to encourage passive surveillance opportunities, including through the provision of a shared use path, a local access street and Requirement 51 ensuring that buildings are orientated to face the creek.

Requirements from Table 3 Toolern PSP	Compliance	Comment
Create a series of contiguous neighbourhoods arranged around a hierarchy of appropriately scaled activity centres.	NA	No activity centres are within CEMU
Create compact, pedestrian friendly neighbourhoods with many of the activities of daily living occurring in activity centres located within walking distance of most houses.	Y	Guideline 16 specifies that higher density residential is encouraged within the Mixed-Use area. All street sections support pedestrian activity. The linear park along Toolern Creek will also support a pedestrian friendly environment.
Focus concentrations of commercial, civic and institutional activity into mixed-use activity centres.	NA	No activity centres are within CEMU
Provide a generous mix of housing types and price levels within neighbourhoods and activity centres.	Y	Guidelines 15 and 16 specify that a mixture of housing typologies and densities is encouraged within the Mixed-Use Precinct. This will subsequently create a diversity of housing pricing.
Locate land uses and higher than conventional housing within walking distance of public transport stops.	Y	The road network, shown in Fig. 9, has been designed to allow a network of bus capable roads which will ensure future higher density dwellings will have access to public transport.
Create a permeable street network with pedestrian priority that allows maximum freedom of movement and multiple transport options.	Y	The Movement and Access Network, shown in Fig. 8, has been designed as a permeable street network with a series of shared paths, off road cycling paths, on-road cycle paths and bus capable roads to ensure pedestrian priority and freedom of movement.
Respect, enhance and respond to local topography, geology and climate and connect to the natural environment.	Y	Sections 2.7 and 2.9 include various requirements and guidelines to ensure the natural environment is protected and enhanced.
Create a range of accessible urban parks and landscapes that provide recreation, encourage biodiversity and help support a balanced environment..	Y	The Framework Plan has been designed to include a network of public spaces, including along the Toolern River Corridor. Furthermore, Sections 2.7 and 2.9 include requirements and guidelines to encourage biodiversity and protect areas of conservation value.
Development oriented to front roads and open space, where appropriate.	Y	Requirement 42-2 specifies that the primary entry and frontage of buildings must address open space and primary streets.
C4 – Rail Corridor		
Front development or provide an appropriate frontage to the rail corridor.	Y	Refer Fig. 29 – Rail Corridor Interface which will ensure development appropriately responds to the rail corridor.
C6 – Mount Cottrell Road Linear Open Space		
Align Mt Cottrell Road to the east to protect the native vegetation along the western side of the road reservation.	Y	Refer Requirement 19 Mount Cottrell Road must be aligned to avoid native vegetation along the western side of the road reservation
Provide landscaping in residential areas that are local indigenous species and sympathetic to the native vegetation character of the conservation area.	NA	There are no residential areas in this part of the CEMU

Requirements from Table 3 Toolern PSP	Compliance	Comment
<p>C7 – Employment Freeway Interface</p> <p>Provide a road reservation adjacent and parallel to the Western Freeway.</p> <p>Address development to the Western Freeway</p>	Y	Refer Fig. 24 and 26 where road reserve and building frontages are depicted.
<p>C8 - Ferris Road North and Shogaki Drive</p> <p>Ensure an attractive streetscape is achieved through well-designed and high-quality buildings and landscaping along Ferris Road and Shogaki Drive.</p> <p>Provide a well-designed and high quality rail underpass.</p>	Y -	Fig. 13 identifies proposed street tree planting. Fig. 22 highlights a 5 metre wide landscape setback. Refer Requirements
<p>C10 – Toolern Gateway site</p> <p>Create landmark feature buildings of high quality at the Ferris Road and Western Freeway Interchange.</p>	Y	A landmark feature building is located at the Ferris Road/Western Freeway interchange on Fig. 11. Refer Requirement 47 which specifies that sites identified as key built form sites must be well defined through architectural design and should have a street wall height of greater than two storeys given the prominence of the building location and display high architectural merit
<p>Ensure buildings front the Western Freeway and Ferris Road.</p>	Y	Refer Fig. 22 - 26 where road reserve and building frontages are depicted
<p>C12 – Western Freeway Interface</p> <p>Ensure that development of land within 200 metres of the Western Freeway is undertaken with appropriate noise attenuation measures to minimise the impact of traffic noise on sensitive uses.</p>	Y	Fig.24, 25 and 26 depict measures minimise the impact of traffic noise on sensitive uses.
<p>C14 – Proposed Western Fwy /Mt Cottrell Rd interchange interface</p> <p>Any application to use or subdivide land, or construct a building and carry out works within the area shown as Character Area 14, must be referred to VicRoads for comment</p>	Y	Future applications will be referred to VicRoads in accordance with this guideline.
<p>C15 -North West Mixed-Use Precinct</p> <p>Except with the consent of the Responsible Authority, a permit must not be granted to use or subdivide land, or construct a building and carry out works until an Urban Design Framework has been approved by the Responsible Authority. (Refer Section 4.3.6)</p>	Y	This Urban Design Framework fulfills the requirement

Requirements from Table 4 Toolern PSP	Compliance	Comment
Building types, lot size and land use		
Provide a range of lot sizes that will accommodate a variety of floor plates and building types.	Y	A diversity of lot sizes is ensured within the UDF area through the urban layout outlined within the Framework Plan and various requirements and guidelines. In accordance with the PSP, larger lots are encouraged within the North-eastern Light Industrial and Business Precinct, while smaller lots are encouraged within the Western Light Industrial and Business Precinct to transition to the Mixed-use Precinct. Specifically, Requirement 9 requires a diversity of lot sizes to allow flexibility of land uses and business types.
Locate new uses which may impinge on amenity to the east of Ferris Road.	Y	
Position office components of industrial buildings to the street front.	Y	
		Refer to Requirements 4 and 5 for control regarding uses with possible amenity impacts.
		Refer Requirement 42-14 which specifies that office components of industrial buildings must be located on the street frontage.
Height and massing		
Ensure height, massing and disposition of buildings on the opposite side of roads surrounding the Major Activity Centre are generally consistent with the height, massing and disposition of buildings within the Major Activity Centre.	Y	Refer to Requirement 46 which specifies that the height and massing of buildings within the CEMU immediately adjacent to the CMAC must generally be consistent with the height and massing of buildings within the CMAC.
Reduce the visual bulk of large buildings through building and landscape design.	Y	Refer to Requirement 42-8 which specifies that large buildings must be designed to reduce their visual bulk through the use of appropriate building articulation, massing variety and landscape treatment.
Pedestrian and cyclist movement		
Plan for accessible and safe pedestrian and cycling links to, from and within the employment area, and linked to the broader walking and cycling network.	Y	Refer to Fig. 8 which shows the movement and access network within the CEMU. Further to this, Fig. 12-30 depict appropriate pedestrian and cycling amenities on all streets.
Provide a continuous pedestrian connection between the Major Activity Centre and Employment Area.	Y	
Landscaping		
Provide only low landscaping along the Western Freeway frontage.	Y	A continuous pedestrian connection is provided along Ferris Road. Refer to Fig. 8 which shows the movement and access network and Fig. 24, 25 and 26 which show the relevant cross sections.

Appendix 3 Glossary

Active frontage: Building frontage which contains uses that promote activity and interaction with the street. For example cafes.

Active transport: Transport requiring physical activity, typically walking and cycling.

Amenity: The pleasant or satisfactory aspects of a location which contribute to its overall character and the enjoyment of residents or visitors. May include access to services and well-designed public spaces.

Apartment: A dwelling located above the ceiling level or below the floor level of another dwelling and is part of a building containing two or more dwellings.

Arterial Road: A higher order road providing for moderate to high volumes at relatively higher speeds typically used for inter-suburban or inter-urban journeys, often linking to freeways. The Road Management Act 2004 includes a specific definition of arterial roads, being “a road which is declared to be an arterial road under section 14”. Declared arterial roads are managed by the State government.

Building height: The vertical distance from natural ground level to the roof or parapet at any point.

Built form: The combination of features of a building, including its style, façade treatments, height and site coverage.

Climate change: A long-term change of the earth’s temperature and weather patterns, generally attributed directly or indirectly to human activities such as fossil fuel combustion and vegetation clearing and burning.

Climate change adaptation: Actions that prevent or minimise the adverse impacts of climate change.

Climate change mitigation: Actions that prevent or reduce emissions of greenhouse gases that contribute to climate change.

Development Contributions Plan (DCP): A development contribution plan is the financial document which accompanies the Precinct Structure Plan. Developers within the PSP area are required to contribute financially to the DCP, according to the amount of land they are developing.

Fine-grain: An urban environment with human scale spaces, mixed-uses, relatively narrow street frontages and through block links, to foster diverse activities and walkability.

Framework Plan: High level coordinating plan which sets policy direction (vision) and spatial structure for a growth area, urban renewal precinct, cluster, or regional city. A Framework Plan:

- Sets out the future vision for a defined area,
- Guides sustainable growth development over the longer term,

- Identifies the steps needed to manage growth,
- Defines key projects and infrastructure required to support growth, and
- Provides a more certain environment for making both public and private investment decision.

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.

Future urban structure: Future urban structure refers to future intended disposition of land use, built form and infrastructure.

Housing density: The number of dwellings in an urban area divided by the area of the residential land they occupy, expressed as dwellings per hectare.

Human scale: The proportional relationship of the physical environment (such as buildings, trees, roads) to human dimensions. Maintaining a human scale means that structures are not perceived as overwhelming at ground level and urban environments are highly walkable.

Infrastructure: Basic facilities and networks (e.g. buildings, roads, and utilities) needed for the functioning of a local community or broader society. Infrastructure can be provided by the private sector (local roads, childcare, shopping centres), or by Government (Kindergartens, schools, railways).

Metropolitan Activity Centre (MAC): A strategically important Centre for a subregional catchment. They will provide the community with good access to a range of major retail, community, government, entertainment, cultural and transport services. These Centres are hubs for public transport enabling access from the surrounding suburbs.

Mixed-Use: This zone provides for a range of residential, commercial, industrial and other uses and is suitable for areas with a mixed-use character. A schedule to the zone may specify maximum building heights and local requirements for specified Clause 54 and Clause 55 dwelling standards.

Native Vegetation Precinct Plan (NVPP): A NVPP provides for the strategic management of native vegetation for a defined area or precinct. It is established via a planning scheme amendment to incorporate the NVPP and list it in the schedule to Clause 52.16. A NVPP identifies the native vegetation that can be removed and the vegetation to be protected, based on the conservation significance and land protection role of the vegetation, the identified values of vegetation within the planning scheme such as amenity and landscape, and the broader strategic planning objectives for the precinct.

Open space: Land that provides outdoor recreation, leisure and/or environmental benefits and/or visual amenity.

Precinct Structure Plan (PSP): Detailed master plans for future growth corridor developments, informed by growth corridor plans. The plans identify alignments of transport routes, town centres, open space networks, densities of residential areas, and areas for industry and employment.

Public realm: Incorporates all areas freely accessible to the public, including parks, plazas, streets and laneways.

Public transport interchange: Places where people can access or change between multiple public transport routes and modes. For example, between train and bus or a multi-route bus station at a major activity centre.

Responsible Authority (RA): The decision maker on planning permit applications – usually the relevant municipal Council.

Setback: The horizontal distance from a boundary or building.

SOHO (Small office, home office): A small business operating out of a place of residence, either an apartment or a detached dwelling, typically employing between 1-5 people.

Solar access: Ability of a property, street or open space to receive sunlight.

Sustainable transport: Transport by modes other than single-occupancy cars. Includes walking, cycling, bus, tram, train and carpooling.

Urban Design Framework (UDF): Urban Design Frameworks are strategic planning tools that set out an integrated design vision for the desired future development of urban places. They translate the broad aims of the planning scheme and / or Precinct Structure Plan to practical urban design action at the local level.

Walkability: The degree to which an environment supports walking as a transport mode, for instance by providing frequent, safe and attractive paths that connect common trip origins and destinations.

Water-Sensitive Urban Design (WSUD): Integrating the urban water cycle into urban design to minimise environmental damage and improve recreational and aesthetic outcomes.

Source: Glossary of terms sourced from the VPA Glossary of Commonly Used Planning Terms, which references, Plan Melbourne 2017-2050, Arden Glossary, Clause 72 of the Victorian Planning Provisions, PSP guidelines, Planning Victoria Glossary, Oxford Dictionary, and the Small lot housing code, with additional terms provided by Tract Consultants.

Appendix 4 Abbreviations

DCP	Development Contributions Plan
DDA	Disability Discrimination Act
MAC	Metropolitan Activity Centre
CMAC	Cobblebank Metropolitan Activity Centre
NVPP	Native Vegetation Precinct Plan
PSP	Precinct Structure Plan
RA	Responsible Authority
UDF	Urban Design Framework
WSUD	Water-Sensitive Urban Design
CEMU	Cobblebank Employment and Mixed-Use
CPTED	Crime Prevention Through Environmental Design

CEMU

Urban Design Framework

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22 November 2019



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