

PTG/03210

Kalamunda Local Bike Plan 2026
Technical Report

25 September 2026 | Revision E

Prepared for City of Kalamunda

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KALAMUNDA LOCAL BIKE PLAN 2026

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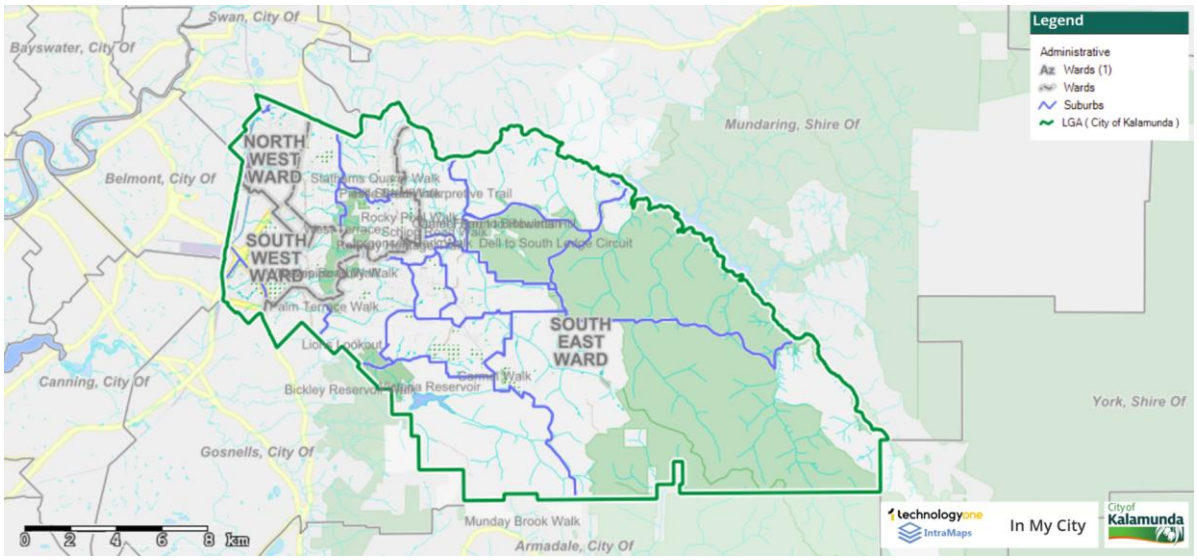
1 INTRODUCTION

1.1 Study Area

The City of Kalamunda Local Government Area (LGA) is located in the Perth Metropolitan Region in Western Australia, approximately 24 km east from the Central Business District (CBD) of Perth, as shown in **Figure 1.**

The LGA covers an area of approximately 324km² with the population concentrated in the north-western third of the City. The eastern and south-eastern portions of the City are largely undeveloped forest area. The City of Kalamunda borders City of Swan to the north-east, Shire of Mundaring to the north, Shire of York to the east, City of Armadale to the south, City of Gosnells to the southwest, and the Cities of Canning and Belmont to the west.

Figure 1 City of Kalamunda – Location



Source: City of Kalamunda

1.2 Demographics and Mode Share

The Estimated Residential Population (ERP) for the City in 2021 was 63,827 people according to 2021 Australian Bureau of Statistics (ABS) Census.

Over the past decade, the population of the City of Kalamunda has grown by approximately 14%, increasing from 56,200 people in 2011 to 63,827 people in 2021, based on the latest Census data. The population is predominantly made up of people aged 35–49 years (20.3%), reflecting a strong proportion of families and established households. Between 2016 and 2021, Kalamunda also experienced an increase in the number of older residents aged 70–74 years, while the proportion of residents aged 25–34 years (young workforce) was comparatively smaller..

In terms of cycling, this demography represents different opportunities; parents and homebuilders are in a position to raise awareness of cycling as a viable transport mode to younger generations while the seniors are likely to engage in cycling primarily as a form of light exercise to maintain overall wellbeing and mobility.

Cycling remains a relatively underutilised mode of transport within the City across all work commute distances, with only 0.2% of residents travelling to work by bicycle, as illustrated in **Figure 2.** This is notably lower than the Greater Perth average bicycle mode share of 0.6%. Bicycle commuting is consistently low across all distance categories, with marginally higher mode share observed for short

trips (<10 km), and no bike riders recorded for medium-distance journeys (30–250 km), as shown in **Figure 2** and **Figure 3**.

As shown in **Figure 4** and **Figure 5**, apart from minor increases to the proportion of trips undertaken as a car driver and via taxi/ride-share services, most other travel modes either experienced modest declines or remained relatively stable between 2016 and 2021. These trends are likely attributable to a combination of local service constraints within Kalamunda and broader behavioural changes associated with the COVID-19 pandemic.

This is lower than the average 0.6% bicycle mode share for Greater Perth Bicycle commuting remains very low across all distance categories, with mode share slightly higher for short trips (<10 km) and no bike riders reported for medium distances (30–250 km) as shown in **Figure 4** and **Figure 5.**

Figure 2 Method of Travel to Work (2021)

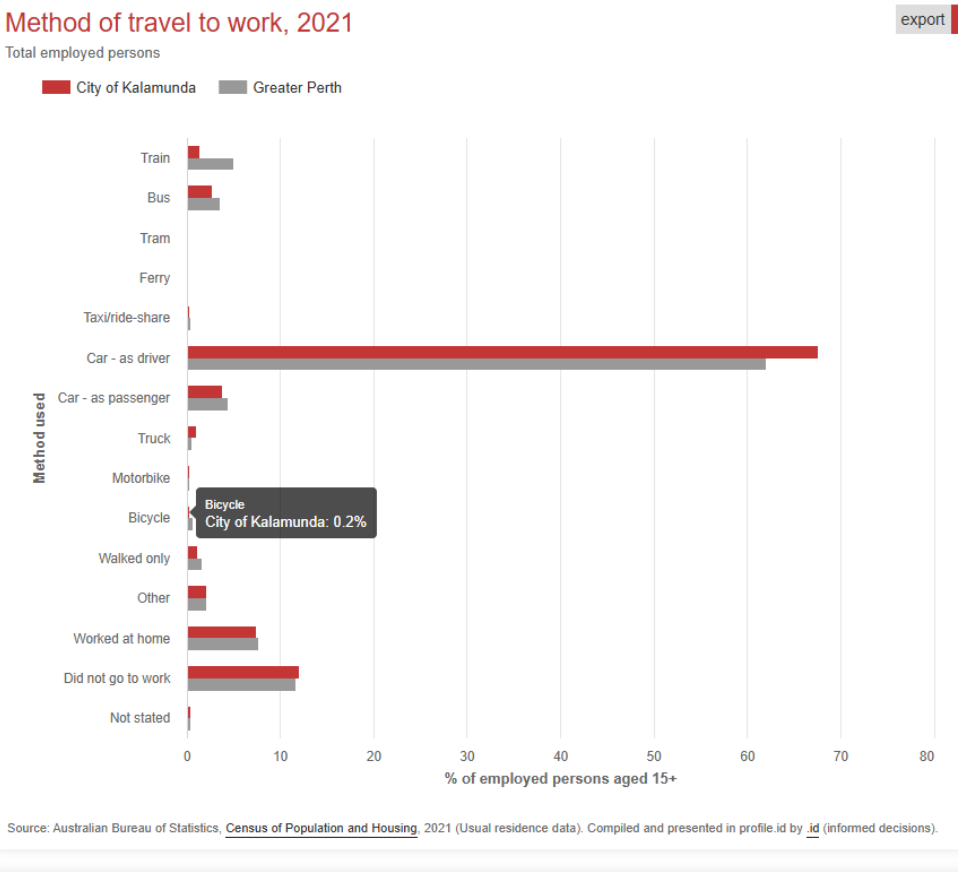


Figure 3 Change in Method of Travel to Work (2016 to 2021)

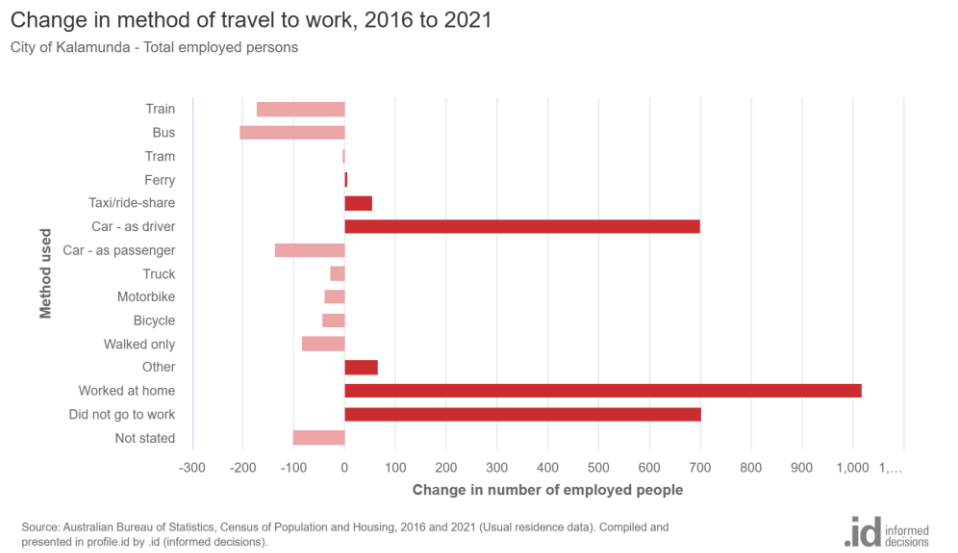


Figure 4 Method of Travel to Work vs Distance to Work (2016)

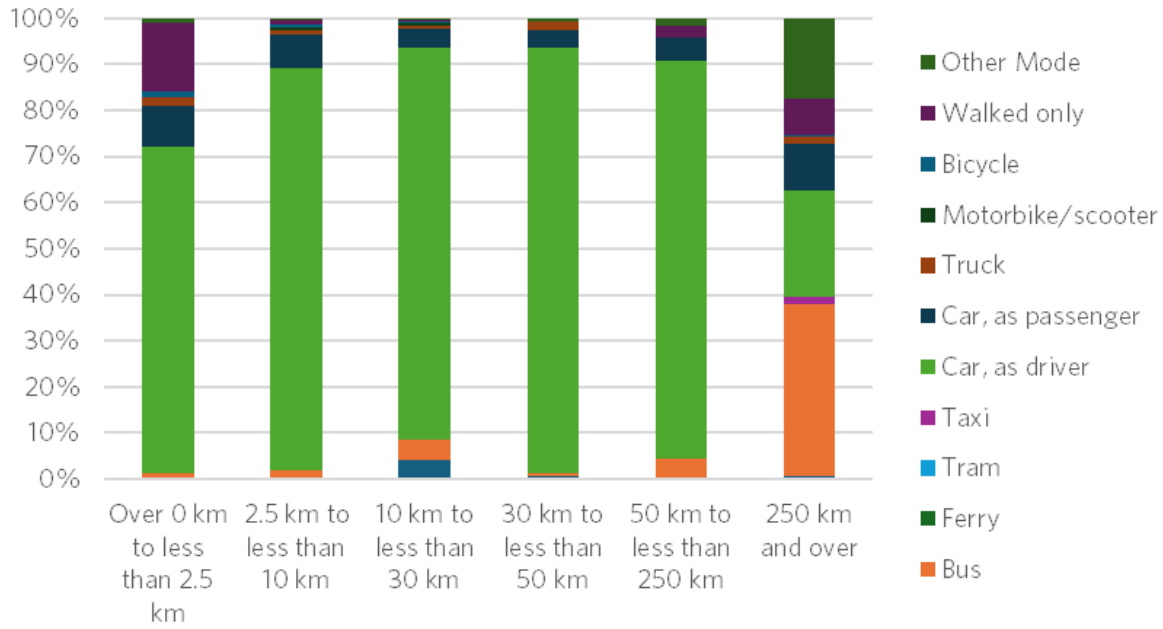
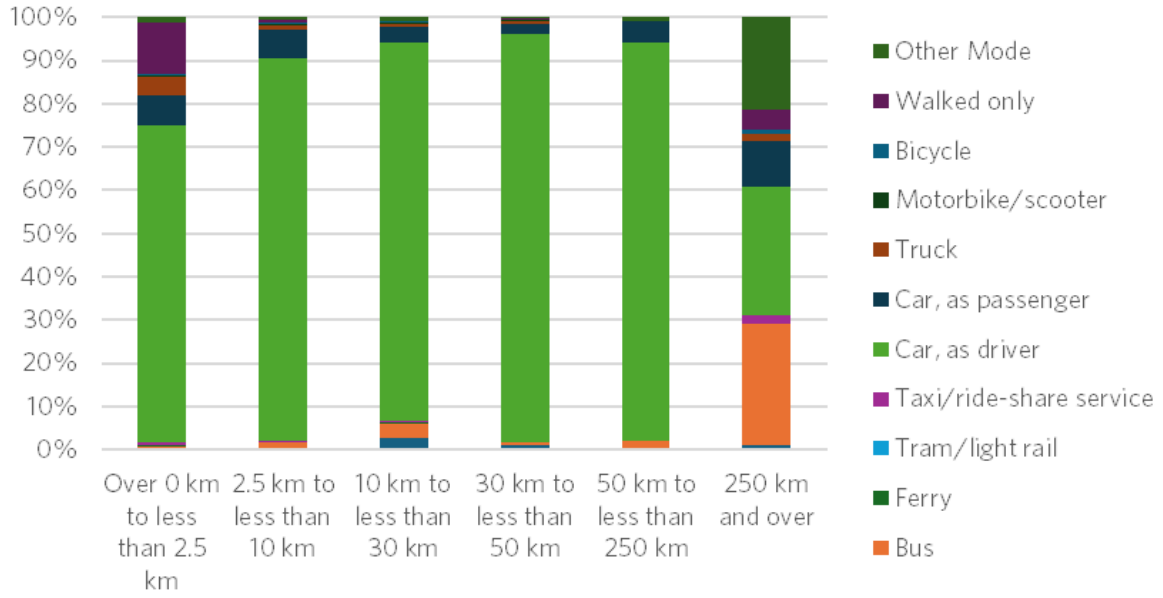


Figure 5 Method of Travel to Work vs Distance to Work (2021)



While there are currently no aspirational mode share targets for the City, it is stated in numerous policy documents that active modes such as cycling should be encouraged with the aim of increasing mode share (see **Section 1.5** and **Appendix A**).

There is therefore significant scope to build upon this level of cycling in the City, particularly in the foothills suburbs of Forrestfield, Wattle Grove, and High Wycombe, due to recent and future extensions of the Roe Highway Principal Shared Path (PSP) and the opportunity presented by the High Wycombe Train Station and Transit Oriented Development (TOD).

In the hills, there are opportunities for the City to capitalise on its status as the premium destination for road cycling riders and mountain bikers by improving safety and amenity for these types of riders and encouraging corresponding greater economic benefits to the City.

1.3 Vision

The City of Kalamunda vision is:

“Connected Communities, Valuing Nature and Creating our Future Together”

One of the key aspects of this vision is to ensure the City is *"easily accessible to and from Perth CBD, and around the City."* This Local Bike Plan supports that vision by providing a strategic framework to improve bike riding across the City through a safe, connected and accessible network that serves people of all ages and abilities.

1.4 Mission

The mission of this Local Bike Plan is to guide the planning, delivery and promotion of a safe, connected and accessible bike riding network that encourages more people to ride for everyday travel, recreation and tourism.

The Plan provides a strategic framework to inform future investment in infrastructure, programs and policies over the next 10–20 years, supporting the City's transport, health, environmental and economic objectives.

1.5 Objectives

This Bike Plan was developed to assist the City through the following objectives:

- **Improve safety** by delivering a bike riding network that reduces conflict with motor vehicles and other path users, informed by crash history, network analysis and community feedback.
- **Improve connectivity** by providing a comprehensive network of on-road and off-road facilities that connects residential areas with activity centres, schools, employment, public transport, recreational destinations, tourism attractions and neighbouring local government areas, supporting a wide range of trip purposes.
- **Support all ages and abilities** by planning and delivering a safe, comfortable and connected bike riding network that is accessible to people of different ages, abilities and confidence levels, in accordance with the All Ages and Abilities (AAA) approach.
- **Support recreation and tourism** by improving access to regional trails, recreational destinations and scenic routes, enhancing opportunities for leisure riding and strengthening the City's role as a bike riding destination.
- **Integrate bike riding with public transport** by improving connections to the High Wycombe Train Station and other public transport services, while supporting appropriate bicycle connections, parking, and end-of-trip facilities.
- **Encourage more people to ride** through education, encouragement, advocacy and behaviour change initiatives that promote bike riding as a safe, healthy and convenient travel option.
- **Support implementation and investment** by establishing a strategic framework to prioritise infrastructure improvements, guide future planning, inform Council's capital works program, and support applications for external funding.

1.6 Policy Context

As part of the Bike Plan, a review was undertaken of the existing local, state, and federal policies related to cycling in order to formulate a plan that is consistent with initiatives and directions set out by these policies. **Table 1** shows the relevant policies and planning documents that were reviewed. **Appendix A** provides detail on each of the policies with relation to cycling.

Table 1 Policies Relevant to the Bike Plan

Policy	Federal	State	Local
National Urban Policy (2024)	✓		
National Road Safety Strategy 2021–30	✓		
National Cycling Strategy Implementation Report (2016)	✓		
Western Australia Bicycle Network Plan 2014–2031		✓	
Regional Integrated Transport Strategy 2017–2021		✓	
North-East Sub-regional Planning Framework (2018)		✓	
Local Bike Planning Guidance (2024)		✓	
All Ages and Abilities Contextual Guidance: Selecting and Designing High-Comfort Bicycle Facilities (2023)		✓	
Long-Term Cycle Network (LTCN) Change Management Process: Interim Guidance		✓	
Prioritising Active Transport (Austroads, 2024)		✓	
Travel to School Guideline (Austroads, 2026)		✓	
Perth and Peel Mountain Bike Master Plan		✓	
City of Kalamunda Bike Plan (2017)			✓
Pathways Asset Management Plan 2025–2029 (2025)			✓
Kalamunda Advancing 2031: Strategic Community Plan (2024)			✓
Kalamunda Accountable: Long Term Financial Plan to 2036 (2021)			✓
Community Health and Wellbeing Plan 2018–2022			✓
City of Kalamunda Local Planning Scheme No.3			✓
City of Kalamunda Activity Centres Strategy (2021)			✓
Kalamunda Activity Centre Precinct Structure Plan (2024)			✓

The key messages contained within these policy documents highlight the need for:

- Safe and well-connected bicycle network
- Integrated land use and transport planning and renewal of existing centres
- Comprehensive and convenient cycle networks for all bike riders
- Sustainable infrastructure and high-quality facilities
- The promotion of cycling and associated benefits
- Supporting policy and funding opportunities
- A reduction in the reliance on private car trips

2 BENEFITS OF CYCLING

Cycling can be undertaken for a range of purposes, including commuting, recreation, sport, and everyday trips such as shopping and other errands. Given the wide-ranging benefits of cycling, there is significant potential to increase the uptake of cycling as a viable and convenient form of active transport.

Recreational cycling and cycling tourism also have strong potential for growth, especially considering the extent of local and regional trail networks and natural heritage areas. Cycling offers benefits not only to individuals but also to the wider community, which can be broadly categorised as:

- **Social Benefits**
    - Riding to work, school, college, or on short neighbourhood trips provides a convenient way to incorporate regular exercise into a busy day.
    - Safe cycling promotes a healthy lifestyle, improving aerobic fitness and reducing stress levels.
    - Bike Riders have multiple opportunities for social interaction during their trips.
    - Cycling enhances passive surveillance of streets, contributing to neighbourhood security.
    - Encourages more vibrant and liveable communities.
    - For people without a driver's licence or vehicle (such as children and seniors), cycling offers independent transport, which is crucial for maintaining social connectivity particularly where public transport is limited.
    - Higher cycling participation improves safety in numbers and encourages general slowing of traffic, enhancing overall road safety.
- **Personal Economic Benefits**
    - Cycling is a low-cost alternative to driving a car.
    - Access to a bicycle can reduce the need for a second family car, allowing household savings to be redirected elsewhere.
    - Financial returns from cycling are significant: people who cycle more spend less on travel, and the associated health and fitness benefits reduce healthcare costs.
- **Commercial Economic Benefits**
    - Cycling tourism provides a new demographic and increased business opportunities
    - Benefits to businesses of cycling, both as a utility and leisure mode, as well as the benefit of running a business in an area which is conducive to cycling
    - Businesses with staff who cycle are potentially more likely to have healthier, happier and more productive employees
    - Businesses are better able to attract and retain staff where on-site cycling facilities are of a high quality, and within easy access by bike
    - Bikes have a much lower impact on road surfaces due to wear and tear, and contribute to a longer lifecycle of road infrastructure
    - The demand for parking decreases and land can be redeveloped for more community-focused purposes, such as parks and public spaces which accommodate the needs of people rather than motor vehicles.

- **Environmental Benefits**
    - Cycling reduces petrol consumption and reliance on fossil fuels.
    - Fewer vehicles on the road lead to reduced congestion.
    - Reduced car trips and congestion lower greenhouse gas emissions.
    - Improved local air quality benefits public health.
    - Noise levels are decreased.
    - The “heat island” effect (where impermeable roads and surfaces contribute to a heating of the temperature in urban areas) may reduce if larger numbers of people choose active modes, as some surfaced areas are returned to a greener or vegetated state (e.g. tree planting as part of Safe Active Streets treatment).
    - Roads take up space and accelerate urban sprawl. Less driving results in less demand for roads. Cycling and walking both benefit from a more compact urban design, which also reduces urban sprawl and allows the City to retain more of its bushland into the future.

3 CONSULTATION

3.1 Methodology

Community and external stakeholder consultation was a major component of the Bike Plan, it allowed both members of the public and various cycling organisations to provide input. The feedback received helped identify a range of opportunities, whilst also understanding limitations and concerns within the existing network, which can then be considered in the design and implementation of the final plan.

3.1.1 Public Surveys

Public consultation was undertaken through the distribution of online surveys to gather information on cycling behaviour, travel patterns, and perceived barriers to riding within the City of Kalamunda.

The survey captured information on participants' access to and use of bicycles and e-rideable devices (e.g. standard bicycles, e-bikes, and e-scooters), the frequency of riding, and the typical distance travelled. Respondents were also asked to identify determinants and barriers influencing their decision to ride, as well as their perceived levels of confidence and safety when cycling.

To better understand spatial issues within the network, participants were asked to indicate locations where they experience barriers or discomfort, including the option to pin specific locations on a map.

The survey also included questions relating to participants' connection to Kalamunda (e.g. living, working, studying, or visiting), frequency of visiting local trails, and their place of origin.

Several open-ended questions were included to allow respondents to:

1. Identify locations where they experience issues or barriers when cycling;
2. Describe what they value most about cycling in Kalamunda
3. Suggest improvements that could encourage them to ride more often; and
4. Provide feedback on what changes would improve their experience when visiting or riding in the City.

3.1.2 Stakeholder Consultation

A number of key stakeholders were consulted as part of the preparation of the Bike Plan, including neighbouring local government authorities, state government agencies, and relevant non-government organisations.

A summary of the stakeholders consulted is provided in **Table 2** while the summary of issues and topics discussed with each stakeholder is further described in **Section 3.2**.

Table 2 List of External Stakeholders

Stakeholder Category	Organisation
Local Government Agencies	City of Gosnells Shire of Mundaring
State Government Agencies	Main Roads Western Australia Public Transport Authority Department of Transport and Major Infrastructure
Infrastructure / Land Authority	Perth Airport Pty Ltd
Non-Government Organisation	WestCycle

Consultation with neighbouring local governments was undertaken as the City shares boundaries with multiple local governments. Understanding neighbouring Councils' priorities and planned cycling initiatives was important to help establish a connected and coordinated strategic cycling network across local government boundaries.

Relevant state government agencies were also consulted to ensure that the proposed infrastructure and network recommendations within the Bike Plan are consistent with existing state transport infrastructure, planning frameworks, and operational requirements.

3.2 External Stakeholder Consultation

A summary of the issues and topics discussed are shown in **Table 3.**

Table 3 Summary of Issues/Topics discussed with External Stakeholders

Issue	Stakeholder /(s)	Key Points Discussed
State Road & Highway Coordination	▪ Main Roads Western Australia (MRWA)	▪ Updates on PSP extensions along Roe Hwy, Tonkin Hwy, Dundas Road, and other state-controlled roads. ▪ Timelines updated due to other project delays. ▪ Status of Welshpool Road East, Canning Road, and Tonkin Hwy PSP extension discussed.
Train Station Access & Shared Paths	▪ Public Transport Authority (PTA)	▪ Poor pedestrian/bike riders connections to High Wycombe Train Station. ▪ Dundas Road shared path project halted due to gas pipeline conflict and cost increase (~$6M). ▪ Existing footpaths end abruptly, swampy conditions in winter. ▪ E-charging facilities are not supported, although e-scooters are allowed to be parked in bike cages.
Bike Rider Safety & Community Feedback	▪ West Cycle	▪ Safety concerns on Mundaring Weir Road, Welshpool Road East, and Kalamunda Road due to narrow roads, truck traffic, and painted median strips. ▪ Approximately 60 bike riders indicated reduced safety along these routes.
Airport Access & Road Closures	▪ Perth Airport Authority (Perth Airport Pty Ltd)	▪ Grogan Road closure effective January 2026. ▪ Northern section of Kalamunda Road is mostly unchanged. ▪ Draft Perth Airport Master Plan 2026 referenced.
Regional / Inter-LGA Connectivity	▪ Shire of Mundaring	▪ Shared boundary routes: Zig Zag, river crossings, and Midland Road dual-use path connecting to Roe Hwy PSP. ▪ No short- to medium-term projects planned. ▪ Historical integrated transport plan provided for reference.
	▪ City of Gosnells	▪ Existing and proposed routes along Roe Hwy, Tonkin Hwy, Kelvin Road – Logistics Blvd. ▪ Short- to medium-term path projects within MKSEA were subsequently confirmed by the City.

3.3 Community Consultation

Community consultation was a critical component for developing this Bike Plan. The feedback received from the community helped the project team to understand the key issues riders face within the City and help guide the focus of the Plan to best meet the needs of existing bike riders and solutions that could encourage a greater uptake of cycling for all ages and abilities.

A public online survey questionnaire was undertaken during January and February 2026, which was available on the City's website. The survey was distributed by both the City's online platforms (website, newsletters, social media) and through other channels by external stakeholders.

A total of 145 responses were received with a majority of respondents (approximately 63%) being local residents of the City. The largest number of responses came from the suburbs of Kalamunda (24 responses), Lesmurdie (24 responses) and Gooseberry Hill (18 responses). Responses were also received from other nearby suburbs including High Wycombe, Maida Vale, Forrestfield, Walliston, and Bickley.

The following section summarises the responses received from the survey.

3.3.1 Demographics

A total of 63% of the respondents were local residents in the City of Kalamunda, 72% of whom are from the Perth Hills suburbs and 19% from the Foothills suburbs. The remaining 37% were visitors to Kalamunda but reside in other parts of Perth.

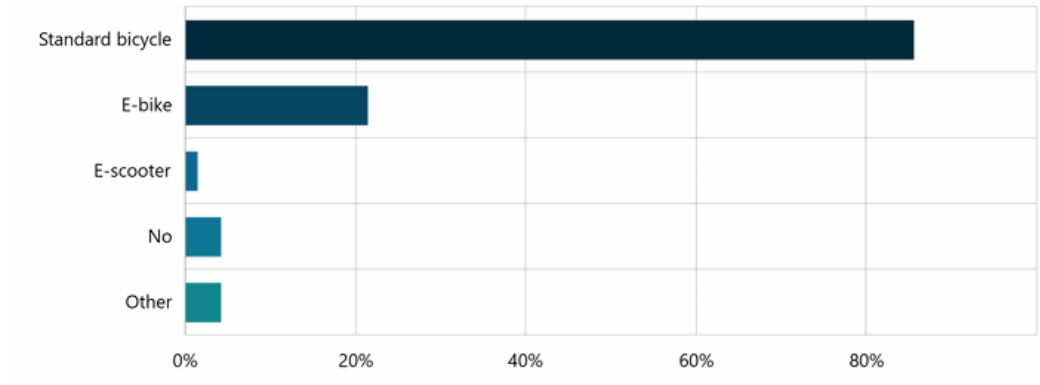
The majority of the respondents were male (66%), with most respondents aged from 46 to 55 (28%), followed by 56-65 (25%) and 36 to 45 (21%). Approximately 13% of respondents reported that they or someone they travel with have accessibility or mobility needs affecting their cycling choices, while the majority (86%) did not.

High response rates from the Perth Hills area indicates a strong interest for cycling in the area, given its popularity as a 'training ground' for recreational bike riders, as well as being the prime destination for mountain bike trails in the Perth metropolitan area.

3.3.2 Cycling Access and Usage

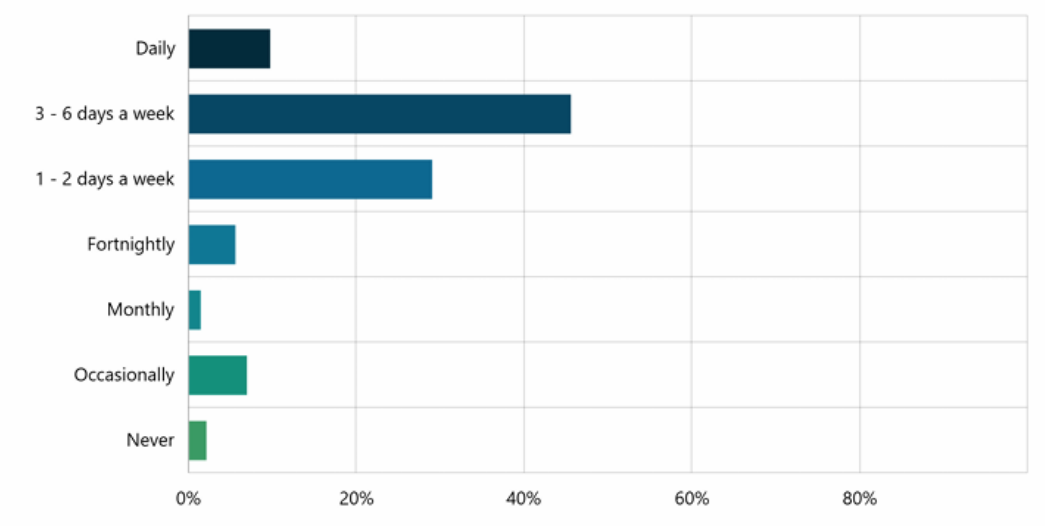
85% of respondents stated that they own a standard bicycle, of which 84% of these regular bicycle users exclusively own a standard bike only, 9% also owning an e-bike, 2% also owning an e-scooter, 2% also owning a mountain bike, and the remaining 3% also owning other types of micromobility devices as illustrated in **Figure 6**.

Figure 6 Bicycle and Other Micro-mobility Device Ownership



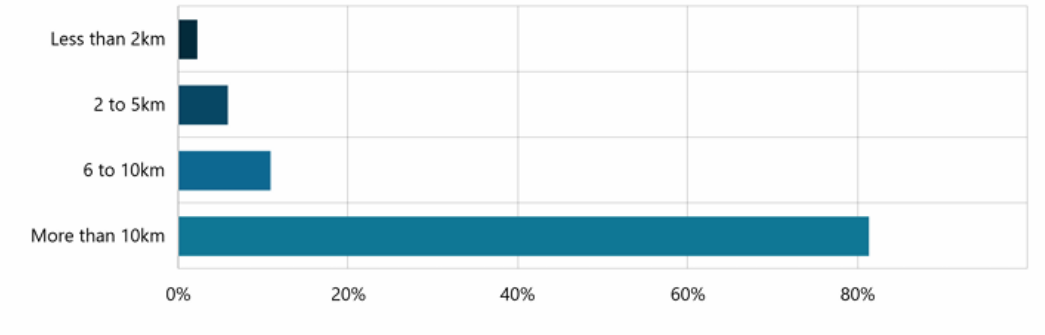
Among respondents who have access to bicycles, the survey shows that 11% ride a bike daily, 52% of them ride a bike 3-6 days a week, 27% of them ride 1-2 days a week, and the remaining 10% ride much less frequently than a week with the distribution as shown in **Figure 7.**

Figure 7 Cycling Use Frequency



The survey results show that respondents who exclusively own and regularly use a standard bike typically travel for more than 10km (83%), followed by 6-10km (10%), 2-5km (5%), and less than 2km (3%). The same trend is observed for those who have access to e-bikes which shows that 84% usually travel for more than 10km and in decreasing frequency for less than 10km.

Figure 8 Travel Distance



3.3.3 Perception of Safety and Confidence

Respondents were asked to rate their confidence and sense of safety when cycling in the City of Kalamunda on a scale from 1 to 5, where 1 indicates low confidence or safety and 5 indicates high confidence or safety. The results of the survey are as shown in **Figure 9** and **Figure 10**.

Figure 9 Perception of Confidence in Bicycle Use

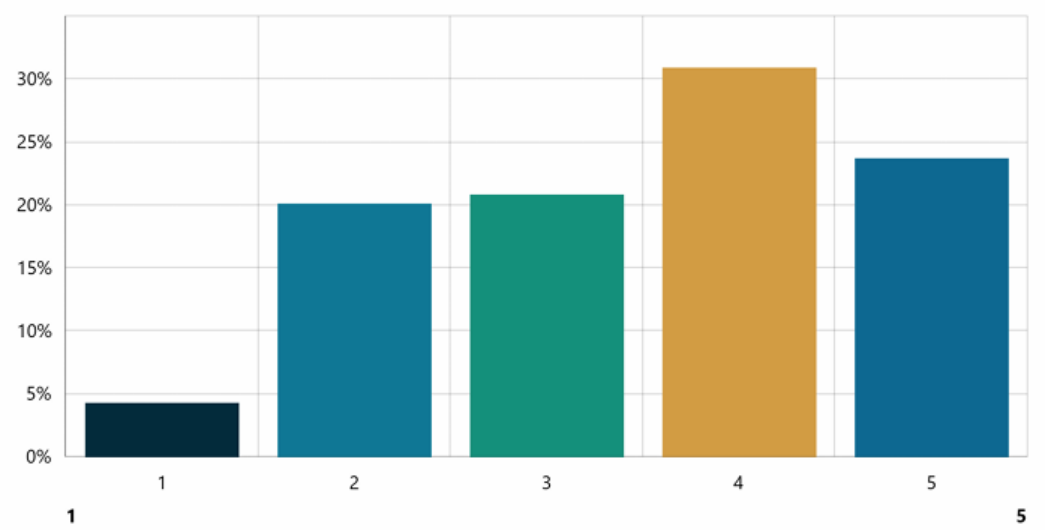
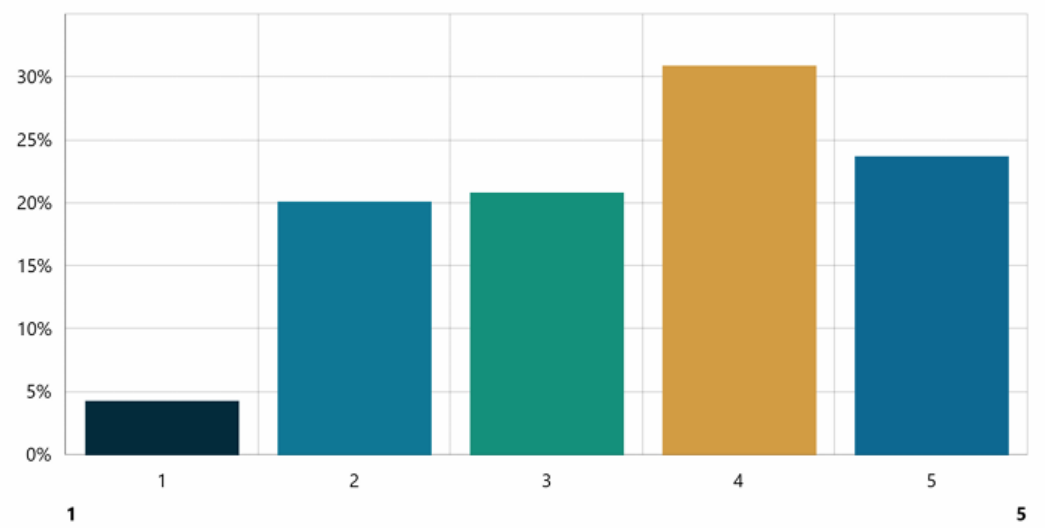


Figure 10 Perception of Safety in Bicycle Use

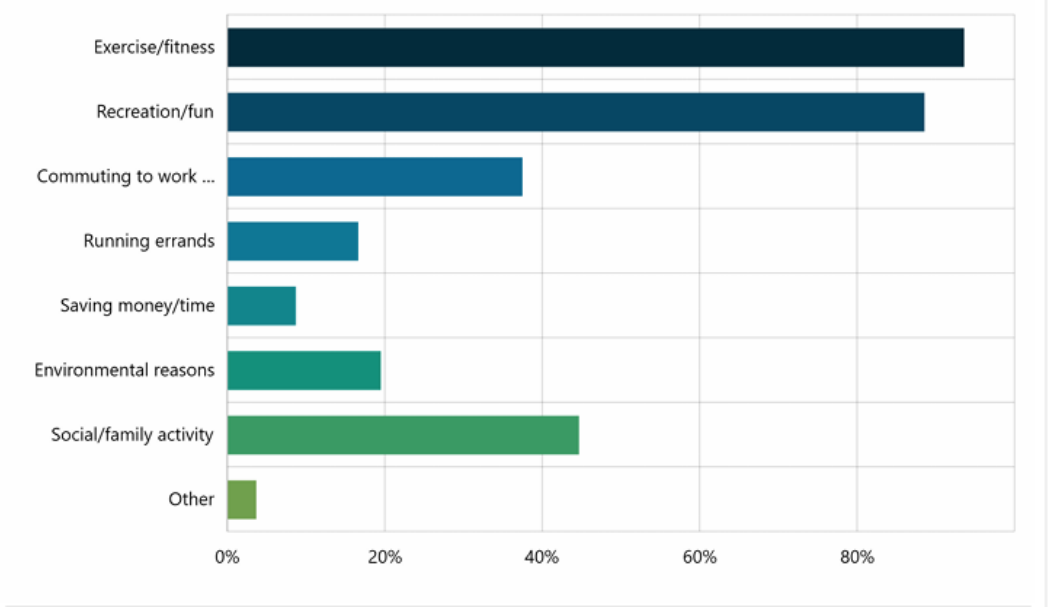


Most respondents reported generally positive perceptions of cycling in the City of Kalamunda, with around 70–80% rating their confidence and safety at moderate to high levels (ratings 3 to 5). The largest group was at rating 4, at about 31% for confidence and 28% for safety, indicating that many riders feel comfortable but not completely assured. However, fewer respondents selected the highest rating (5) vs the immediate rating (4), particularly for safety (17% vs 28%) and confidence (24% vs 31%), suggesting that while riders may feel confident, not all perceive the environment as fully safe.

3.3.4 Determinants of Bicycle Use

Respondents were asked to indicate their main reasons for riding, with multiple options allowed as shown in **Figure 11**. The most commonly cited reasons were exercise/fitness (90%) and recreation/fun (85%), highlighting the strong recreational and health-oriented use of the cycling network. Around 43% of respondents also rode for social or family activities, while commuting to work or study (36%) and running errands (17%) were less frequent. Fewer respondents reported cycling primarily to save money or time (8%) or for environmental reasons (19%).

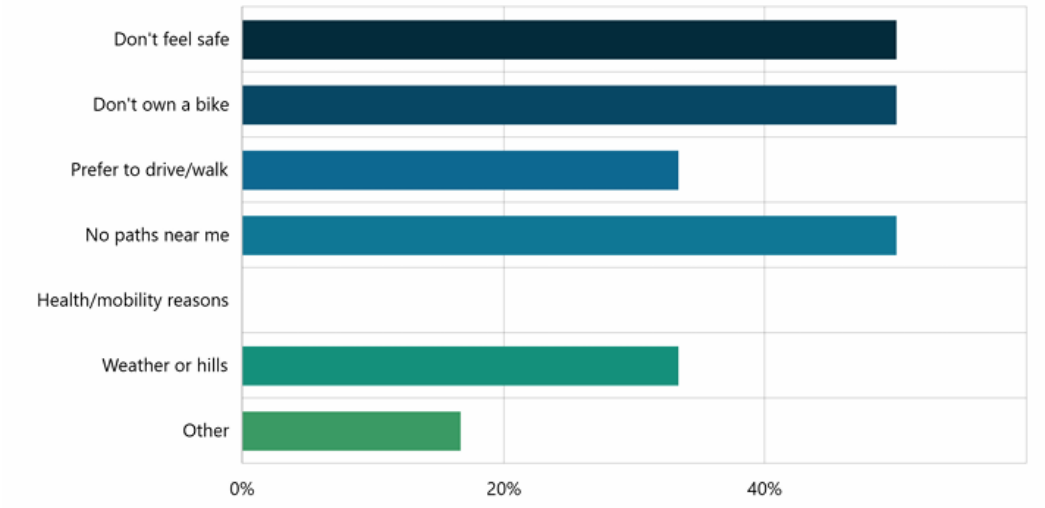
Figure 11 Determinants to Bicycle Use



3.3.5 Barriers to Cycling Use and Frequency

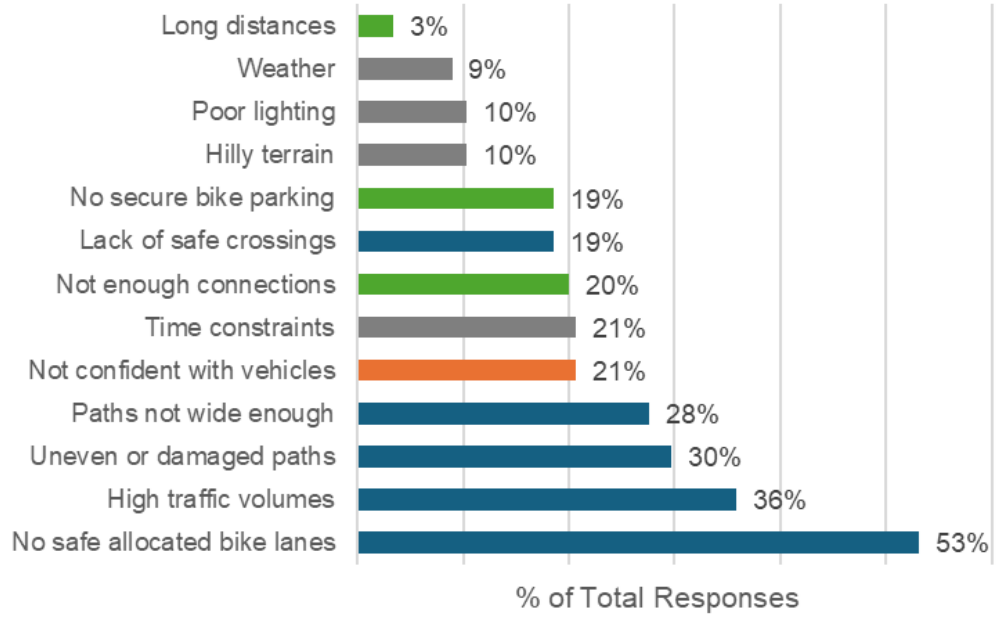
Respondents were asked to identify why they do not currently ride, with the results shown in **Figure 12**. The results highlight that safety and the lack of infrastructure are amount the main reasons they do not ride. This is reflective of the current infrastructure and land use, which is not conducive to commuter cycling but is very attractive for recreational riders, particularly more confident riders.

Figure 12 Barriers to Bicycle Use



Respondents were also asked about the barriers preventing them from cycling more frequently, and the results are shown in **Figure 13**. For clarity, responses have been grouped into thematic categories: Infrastructure and Road Conditions (blue), Network and Connectivity (green), Rider Perception and Confidence (orange), and Environmental Factors (grey).

Figure 13 Barriers to Frequent Bicycle Use



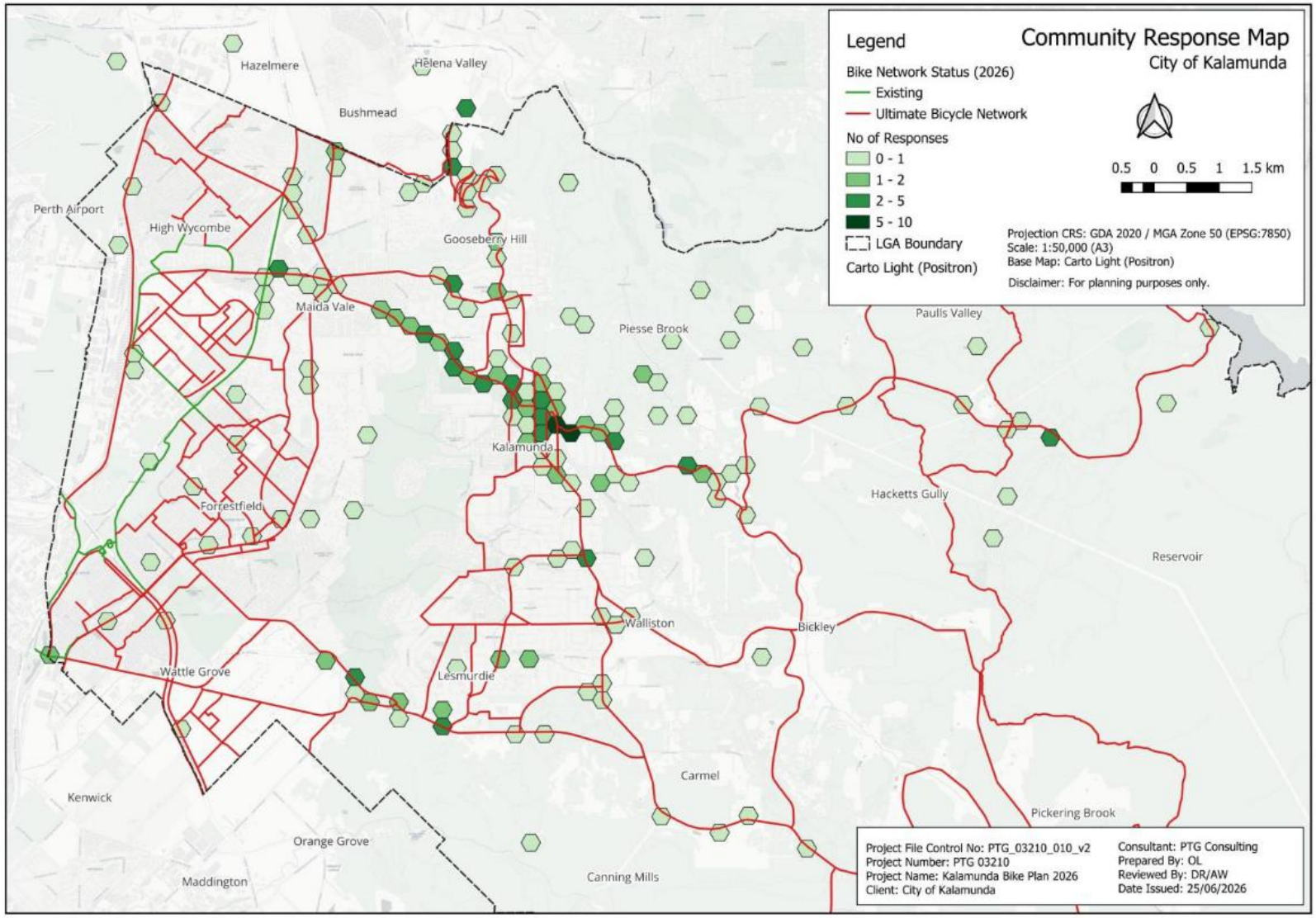
The survey results indicate that the most significant barriers to cycling in the City of Kalamunda are related to infrastructure and road conditions. Over half of respondents cited the lack of safe, allocated bike lanes (53%), high traffic volumes (36%), uneven or damaged paths (30%), and narrow paths (28%) were also frequently mentioned. This highlights that the existing cycling network is the primary constraint for riders.

Other factors, including network connectivity and safety perception, were also identified. Limited connections (20%) and lack of secure bike parking (19%) suggest that the cycling network is not fully integrated or a convenient choice. Concerns about riding with vehicles (21%) indicate that some riders lack confidence navigating traffic, especially heavy vehicles (trucks). Environmental and personal factors such as hilly terrain, poor lighting, weather, and time constraints were less commonly cited, implying that while they do influence cycling behaviour, addressing infrastructure and safety issues is likely to have the greatest impact on cycling uptake.

Respondents were also asked to identify specific locations where they experience issues or barriers to cycling as shown in **Figure 14**. The responses reveal hot spots of reported barriers along major roads, intersections, and shared paths, highlighting areas that require safety improvements, infrastructure upgrades or better connectivity.

It is important to note that some respondents provided their personal address rather than the location relevant to their comment, and individual respondents were able to pin multiple locations. Additionally, not all survey participants responded to this question. Despite these limitations, the mapped data provides useful insights into recurring problem areas and can help guide targeted interventions.

Figure 14 Location and Density of Cycling Concerns based on Community Responses



Source: Community Survey Responses

3.3.6 Opportunities and Suggestions

Respondents were asked to identify issues they encounter while cycling in the City of Kalamunda and to suggest improvements that would encourage them to ride more often. A summary of the responses is shown in **Table 4** while a full list of the responses is shown in **Appendix C**.

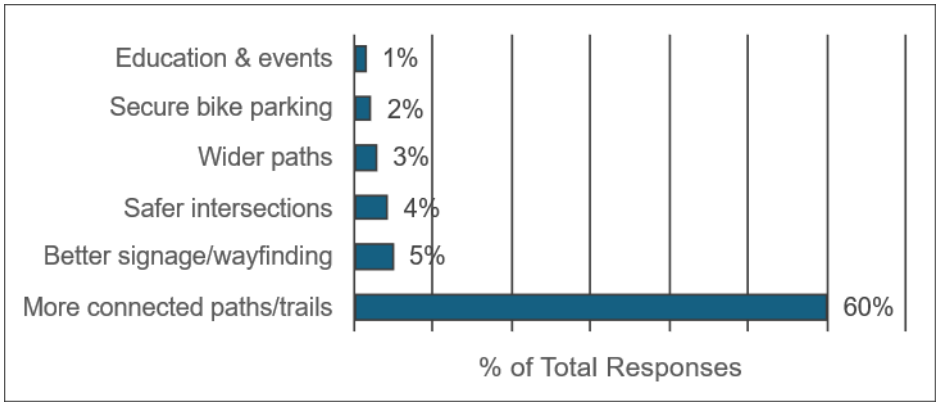
Table 4 Summary of Complaints/Issues and Suggestions Submitted by Survey Respondents

Category	Issues	Suggestions
Infrastructure	▪ Major roads such as Welshpool Road, Mundaring Weir Road, Canning Road, and Kalamunda Road lack dedicated bike lanes. ▪ Limited options for uphill/downhill commuting on Mundaring Weir Road and Gooseberry Hill Road. ▪ Many existing paths are narrow, uneven, or poorly maintained, particularly on Mundaring Weir Road and Kalamunda Road, limiting comfortable riding. ▪ End-of-trip facilities like secure parking, toilets, and water points are insufficient at key hubs, including Kalamunda Town Centre and mountain bike trailheads.	▪ Cycle lanes along Major roads around the Hills area. Mundaring Weir Road, Welshpool Road, Kalamunda Road, and Canning Road ▪ Restrict or manage vehicle access on key scenic or high-traffic roads like Zig-Zag Scenic Drive and Kalamunda Road. ▪ Expand shared-use paths (PSP) and off-road trails, including family-friendly and scenic routes. ▪ Provide end-of-trip facilities at Kalamunda town, trailheads, and shopping areas, such as secure bike parking, toilets, and water stations.
Safety	▪ Bike riders face close interactions with vehicles on busy roads such as Canning Road, Kalamunda Road, Roe Highway, and the Zig-Zag Scenic Drive, including aggressive drivers and high traffic volumes. ▪ Unsafe road crossings, low lighting, and hazards such as debris or fallen branches increase the risk, particularly on Gooseberry Hill Road and Mundaring Weir Road ▪ Shared paths and trails are sometimes obstructed, forcing riders into vehicle lanes, especially near Hale Road and Roe Highway connections	▪ Improve separation from traffic with dedicated lanes or wider shoulders and safer intersections at Welshpool Road, Canning Road, and Kalamunda Road. ▪ Install better lighting, signage, and regular debris removal along major commuter and MTB routes. ▪ Implement driver and bike riding awareness programs in areas such as Zig-Zag Scenic Drive and Midland Road
Connectivity	▪ The cycling network is fragmented, with poor links between the foothills (Forrestfield, Wattle Grove) and the Kalamunda Hills ▪ Many trails or PSP routes end abruptly, limiting continuous travel, particularly around Roe Highway PSP and Tonkin Highway PSP connections ▪ Access to mountain bike trails is difficult due to limited connections between Kalamunda town centre and surrounding parks	▪ Develop continuous routes linking foothills, Kalamunda town, and hills, including connections to Midland and Guildford ▪ Extend PSP and off-road paths to connect key destinations and MTB hubs such as Lesmurdie Falls, Mundy Regional Park, and Gooseberry Hill NP ▪ Improve trail network for scenic and circular routes accessible from Kalamunda town and Bickley Valley

Maintenance	▪ Shared-use paths may be obstructed by debris or sometimes unauthorized users, forcing unsafe interactions, e.g., PSP connections near Roe Highway and Kalamunda Road	▪ Implement regular maintenance programs to clear debris and repair paths on PSP routes ▪ Ensure all paths are smooth, safe, and well signposted, including PSP connectors
Amenities	▪ Scenic, challenging, and family-friendly trails are limited, reducing appeal for casual riders; respondents mentioned Bickley Valley, Kalamunda Mountain Trails, and Glenn Forrest connections ▪ Wayfinding and signage for trails and routes are inadequate, making navigation difficult near Kalamunda town and PSP linkages	▪ Create scenic, circular, and family-friendly trails in Bickley Valley, Kalamunda Hills, and Forrestfield connections ▪ Provide clear maps, signage, and route information for easier navigation along PSP and off-road paths

Respondents were also asked which single issue the City could improve to make cycling easier or more appealing, with the responses summarised in **Figure 15**. The responses suggest the most important issue was the provision of more connected bike paths/trails.

Figure 15 Respondents' Key Priorities to Improve Cycling



4 NETWORK PLANNING

This chapter outlines the planning framework and design principles that have informed the development of the City of Kalamunda's Local Bike Plan. The network has been developed in accordance with contemporary Western Australian guidance and best practice in active transport planning, applying the **All Ages and Abilities (AAA) philosophy** to provide a connected, safe and accessible network for people of varying ages, abilities and trip purposes. The planning framework provides a basis for selecting appropriate bike riding infrastructure according to the function of each route, surrounding land use, user needs and operating environment.

The Ultimate Cycling Network has been developed through an evidence-based planning process informed by the recommendations of the previous (2017) Local Bike Plan, strategic land use and transport planning documents, community and stakeholder consultation, existing network conditions, bicycle demand data, crash history, and the Department of Transport and Major Infrastructure (DTMI) Long-Term Cycle Network (LTCN). These inputs have been assessed to identify network gaps, improve connectivity between key destinations, and prioritise routes that support safe and attractive bike riding across the City.

The planning and design of bike riding infrastructure should be undertaken in accordance with the latest editions of relevant Western Australian and Austroads guidance. The following documents have informed the preparation of this Local Bike Plan; however, practitioners should also consider any additional policies, standards and guidance applicable to the specific project or design context.

- Department of Transport WA, Planning and Designing for Active Transport in Western Australia – All Ages and Abilities Contextual Guidance (2023);
- Department of Transport WA, Planning and Designing for Active Transport in Western Australia – Shared and Separate Paths (2021);
- Austroads Guide to Road Design Part 6A: Paths for Walking and Cycling (2026) and the corresponding Main Roads Western Australia Supplement (2023);
- Department of Transport WA, Safe Active Street Interim Design Guidance (2024);
- Main Roads Western Australia, Safe Active Streets Policy and Application Guidelines – Signs and Pavement Markings (2023); and
- Austroads Guide to Traffic Management Part 11: Parking Management Techniques (2020)

4.1 Route Hierarchy

The proposed cycling route hierarchy for the City of Kalamunda is shown in **Table 5** and is based on the **Western Australian Cycling Network Hierarchy** and the Department of DTMI's LTCN framework.

The Western Australian Cycling Network Hierarchy classifies routes according to their network function rather than a prescribed infrastructure treatment. Network function considers the strategic role of a route within the broader cycling network, including the types of trips it serves, the destinations it connects, and the level of existing and potential demand.

The most appropriate infrastructure treatment is then selected based on the characteristics of the surrounding environment, including available road reserve, land use, topography, traffic speeds and volumes, and the needs of different user groups.

The infrastructure examples provided in **Table 5** are indicative only and should not be interpreted as prescriptive treatments. The preferred infrastructure type for individual corridors will be determined through detailed planning and design, taking into consideration local site constraints, user requirements and stakeholder input.

Infrastructure on Primary, Secondary and Local Routes is designed in accordance with an AAA philosophy, providing a low-stress cycling environment suitable for a broad range of users, including less confident riders. Meanwhile, Road Cycling Routes and Transport Trails form part of a complementary network, supporting more specific user groups primarily for recreational, sport and/or tourism purposes and may require higher levels of cycling confidence or tolerance of traffic conditions.

Where this Bike Plan recommends modifications to routes currently identified in the LTCN, these changes will be subject to the LTCN Change Management Process. This process provides a framework for assessing and approving network amendments, including consideration of network connectivity, cross-boundary impacts, stakeholder agreement, and the strategic role of affected routes. Any endorsed changes arising from this Bike Plan will be progressed in consultation with the DTMI and incorporated into the LTCN through the established change management process.

Table 5 Route Hierarchy

Hierarchy	Colour Coding	Function	Built Form	Target User Group	Examples
Primary Routes	Red	Primary routes are high demand corridors that connect major destinations of regional importance. They form the spine of the cycle network and are often located adjacent to major roads, rail corridors, rivers and ocean foreshores. Primary routes are vital to all sorts of bike riding, including medium or long-distance commuting / utility, recreational, road cycling and tourism trips.	Primary routes are high demand corridors that connect to major destinations. They provide high quality, safe, convenient (and where possible uninterrupted) routes that form the spine of the cycle network. These routes are conducive to medium or long-distance commuting/utility, recreational, road cycling and tourism trips Principal Shared Paths (PSPs) are often built along primary routes. A PSP is a high-quality shared path built to MRWA PSP standard which generally means the path will be 4m wide, have adequate lighting and be grade separated at intersections (where possible).	All Ages and Abilities	

Secondary Routes	Blue	Secondary routes have a more moderate level of demand, providing connectivity between primary routes and major activity centres such as shopping precincts, industrial areas or major health, education, sporting and civic facilities. Secondary routes support a large proportion of commuting and utility type trips, but are used by all types of bike riders, including children and novice riders.	Secondary routes can take on a number of forms and are designed to suit the environment in which they are located. These forms include: • High quality shared paths • Protected bicycle lanes (uni or bi-directional, depending on the environment) • Safe Active Streets (Bicycle Boulevards)	All Ages and Abilities	
Local Routes	Green	Local routes experience a lower level of demand than primary and secondary routes, but provide critical access to higher order routes, local amenities and recreational spaces. Predominantly located in local residential areas, local routes often support the start or end of each trip, and as such need to cater for the needs of users of all ages and abilities.	Local routes can take on various forms depending on the environment in which they are located. These forms include: • Bicycle only, shared and/or separated paths • Protected bicycle lanes (uni or bi-directional, depending on the environment) • Safe Active Streets (Bicycle Boulevards) In some locations, quiet residential streets incorporating signage and	All Ages and Abilities	

			wayfinding may be appropriate for local routes.		
Road Cycling Routes	Yellow	Road cycling routes are designated routes for bike riders undertaking long distance rides in (predominantly) on-road environments, for road cycling, sports or recreational purposes.	Road cycling routes are predominantly located on lower order, rural, or semi-rural roads on the outskirts of cities and towns. Sections may follow busier roads, particularly as road cycling routes typically begin and end in built up areas and often follow scenic roads popular with other roads users. These routes support bike riders undertaking challenging longer distance rides by raising awareness and encouraging safe behaviour by all users. This is achieved through advisory signage, warning technology, and other road safety initiatives.	Highly Confident Bike Riders	

Transport Trail	Brown	Transport trails provide long-distance, off-road (predominantly unsealed) riding experiences through natural settings, away from motorised traffic. They often support recreational and tourism trips between towns and regions.	Transport trails are typically located within underutilised transport and service corridors in rural areas. Due to their relatively gentle gradients, former railways and certain utility corridors make excellent candidates for these trails. Transport trails should be constructed from materials appropriate to the environment and level of service required. Well drained, compacted gravel with supporting infrastructure such as wayfinding signage is a common form. In some instances transport trails will be sealed, such as where they intersect with busy roads or run through town sites. They will often change classification to a primary or secondary route when they pass through a town, reflecting the more holistic role they perform in the transport network in these situations.	All Ages and Abilities	

4.2 **Facility Types**

The DTMI WA's *Planning and Designing for Active Transport in Western Australia – All Ages and Abilities Contextual Guidance* identifies a range of cycling facility types that support different riding environments and user groups with each facility as illustrated in **Figure 5** and described in **Table 6**

Figure 16 All Ages and Abilities (AAA) Bicycle Facility Types

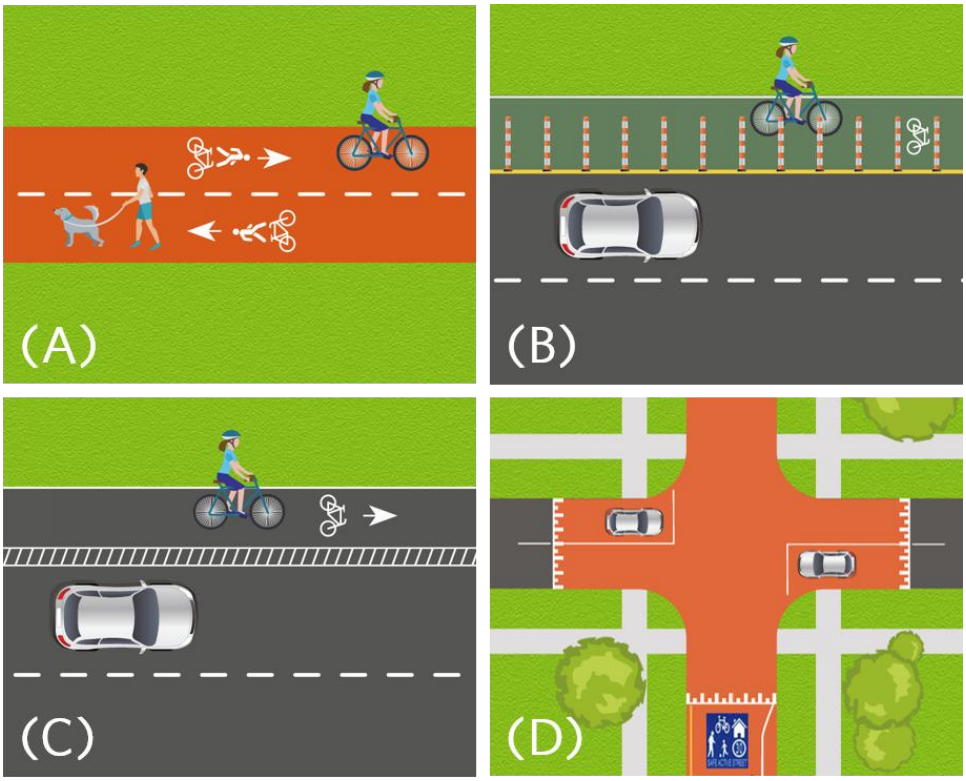


Table 6 AAA Bicycle Facility Types

Facility Type	Description
Off-road paths (A)	Shared or separated paths that provide space for people walking, wheeling and riding outside the carriageway. Shared paths accommodate multiple users, while separated paths provide dedicated space for cyclists and pedestrians.
Physically separated bicycle lanes (B)	On-road bicycle lanes protected from motor traffic by physical barriers such as raised kerbs, planter boxes, bollards, parking buffers or landscaping. Can be one-way or bi-directional and are also known as 'cycle tracks'
On-road bicycle lanes (C)	Painted or buffered bicycle lanes that provide designated space for cyclists within the carriageway. Buffered lanes include additional painted separation from adjacent traffic or parking lanes.
Mixed traffic facilities (D)	Facilities where cyclists share the carriageway with motor vehicles under conditions designed to minimise conflicts. These facilities differ from traffic calming measures, have regulatory speed limits and distinctive blue patches, and maintain priority for bike riders over all intersecting roads This includes: **Safe Active Streets** (30 km/h, ≤1,500 vehicles/day) and **Shared Zones** (10–20 km/h, pedestrian-priority environments).

4.3 Facility Selection

The selection of bicycle facilities within the City of Kalamunda should adopt a context-sensitive approach that delivers a safe, connected and comfortable cycling network consistent with the AAA philosophy. As provided in the Contextual Guidance, a structured framework for the initial selection of an appropriate bicycle facility in WA should be based on the road function, target motor vehicle speed and traffic volume, as illustrated in **Figure 17**.

Figure 17 AAA Bicycle Facility Selection Support Tool

			Indicative range for selection of all ages and abilities bicycle facility by road function					
Road function	**Target motor vehicle speed [T]**	**Target motor vehicle volume (per day)**	**Shared zone**	**Safe active street**	**Painted bicycle lane**	**Buffered bicycle lane**	**Physically separated bicycle lane**	**Off-road path**
Any road with complex or conflicting operational factors [P]	Any	Any						
Access function, e.g. local access streets (with or without parking)	Up to 30 km/h	≤1,500						
Access or collector function, e.g. local streets accessing residential properties or neighbourhood/town centres	Up to 40 km/h	≤3,000						
		≤6,000						
Through traffic function, e.g. arterial roads linking significant destinations	Greater than 41 km/h [Y]	Any						
Regional through traffic function, e.g. major arterials moving high capacity or commercial traffic (including freight)	Greater than 70 km/h	Any						

Notes:

T While posted or 85th percentile motor vehicle speed are commonly used design speed targets, 95th percentile speed captures high-end speeding, which causes greater stress to people riding and more frequent passing events. Setting target speed based on this threshold results in a higher level of riding comfort for the full range of bike riders.

Y 40 km/h has been set as the motor vehicle speed threshold for providing separated facilities. This is consistent with the road safety and 'vision zero' policies of many jurisdictions and with providing level of traffic stress level 1, which is considered all ages and abilities. Some jurisdictions use a 50 km/h posted speed as a threshold for separated facilities, consistent with providing level of traffic stress level 2 that can effectively reduce stress and accommodate more types of bike riders.

P Operational factors that can lead to bicycle facility conflicts are reasons to provide separated bicycle facilities regardless of motor vehicle speed and volume. These factors may include high kerbside activity, transit, traffic composition (e.g. high volumes of heavy vehicles), congestion, turning conflicts, high pedestrian volumes and so on.

- A mixed traffic facility may be appropriate on roads with a collector function if the speed is reduced and depending on motor vehicle volumes. Shared zones should only be considered where conditions meet the appropriate speed zone requirements (according to Main Roads WA Speed Zones) and where predicted demand for bike riding is low.
- The volume thresholds for on-road lanes are indicative only. Where volumes exceed these ranges or operational factors reduce safety (such as on-street parking creating door zone conflicts) then a higher level of protection should be used.

Source: Department of Transport and Major Infrastructure (2023)

Following the initial determination, the preferred facility should be refined through consideration of site-specific factors. These include peak traffic conditions, heavy vehicle and bus movements, the presence of vulnerable users, environmental and streetscape constraints, crossover and intersection frequency, parking turnover and kerbside activity, public transport integration, and other local operational requirements.

Where the preferred facility cannot be reasonably achieved due to physical or operational constraints, opportunities should first be explored to modify the road environment, such as reducing traffic speeds, reallocating road space or selecting an alternative alignment, before considering a lower level of cycling provision. This approach supports the delivery of the highest practicable level of service while responding to local constraints.

The City should seek to provide infrastructure that encourages cycling as a practical transport option for a broad range of users, including children, older adults and less confident riders. As a general principle, higher traffic speeds, greater traffic volumes and more complex operating environments require higher levels of separation between people cycling and motor vehicles to achieve a safe, comfortable and low-stress riding environment.

4.4 Safe Active Streets

As discussed in **Section 4.2**, Safe Active Streets (SAS) are active transport routes on quiet local streets where speeds have been reduced to 30 km/h to accommodate safe shared use by people walking, wheeling, riding and driving. With lower vehicle speeds, these streets are designed to be more comfortable for riders of all ages and abilities, while maintaining access for motor vehicles.

As part of the broader bike network, they connect people from where they live to higher order bike routes and local destinations, such as schools, railway stations, activity and neighbourhood centres, parks and other recreation spaces. Also known as neighbourhood greenways, bike boulevards, or quiet streets, these streets have been widely adopted globally and implemented in WA to better support local bike trips, and as a way to use the existing carriageway rather than impacting more green, natural or verge spaces.

They use a combination of traffic management, streetscape and wayfinding treatments to create low-speed, low-volume environments that prioritise walking and cycling while maintaining local access. Typical measures may include:

- Traffic calming and street design measures to achieve a target operating speed of 30 km/h and discourage through traffic.
- Measures to maintain low traffic volumes, generally at or below 1,500 vehicles per day.
- Wayfinding, pavement markings and route continuity treatments that improve access to local destinations and the broader cycling network.
- Intersection and crossing treatments that address barriers to active travel and improve connectivity across the route
- Streetscape enhancements and priority treatments that provide safe, comfortable and intuitive routes for people cycling.

Figure 18 Safe Active Streets



Source: Department of Transport and Major Infrastructure (2023)

The City of Kalamunda's established residential neighbourhoods and local street network provide opportunities for the implementation of Safe Active Streets to improve neighbourhood connectivity for people riding bicycles. Safe Active Streets are particularly suited to connecting residential areas with nearby schools, local centres, parks, public transport facilities, and other community destinations via streets with relatively low traffic volumes and speeds.

Safe Active Streets provide an opportunity to enhance these connections by creating low-speed, low-stress routes that complement off-road shared paths and other cycling infrastructure.

5 END OF TRIP FACILITIES

5.1 Background

End-of-trip (EoT) facilities are a critical, but often forgotten, component of the cycling network. The presence and/or quality of EoT facilities can often be the deciding factor for many cycling trips. Different trip purposes would have different needs when it comes to EoT facilities. For example:

- A commuter may want a secure place to park their bicycle inside their workplace, along with showers, lockers and ironing facilities to enable them to freshen up before commencing work for the day.
- A shopper may only want a secure short stay place to park their bicycle, conveniently located to their destination (e.g. close to the entrance of a shopping centre, or on the footpath in a 'main street' environment) which is ideally protected from wet weather.
- A recreational rider generally has EoT facilities at their own home but may require a secure place to park their bicycle at an intermediate destination, such as a cafe or a park.

Long stay EoT facilities for commuters should generally be provided by the employer. Council's involvement in the provision of end of trip facilities should be in the form of either:

- Requiring, through its Local Planning Scheme, new developments to provide a certain standard of end of trip facilities for both employees and visitors.
- Providing suitable EoT facilities for employees and visitors at its offices, depots, library etc.

Short stay EoT facilities should generally be in the form of simple u-rails or other design, which facilitates the secure parking of a bicycle. If not conveniently located, bike riders will ignore parking facilities and continue the disorderly practice of securing bicycles to nearby railings, posts, seats, parking meters, trees etc. In particular, short-term bicycle parking needs to be convenient if it is to be effective. Examples of end-of-trip facilities such as bicycle parking are show in **Figure 19**.

Figure 19 End of Trip Facilities



Source: Austroads (AP-R528-16)

5.2 Locations

The City is responsible for providing bicycle parking on public land such as road reserves, parks, recreational facilities and City buildings. U-rails, with capacity for a minimum of 10 bicycles, should be provided at all major recreational facilities and City buildings. EoT facilities, such as showers, lockers, secure parking and washing/drying/ironing facilities should also be provided at workplaces for use by staff. Public bicycle parking in the form of U-rails should also be progressively installed in front of shops, businesses, cafes etc. across the urban area.

Bicycle parking adjacent to land uses should consider both the type of destination and the adjacent cycling infrastructure. Where bike riders are encouraged to ride in mixed traffic or within cycle lanes, on-street bike parking is particularly important. This can be provided in attractive 'bike corrals' which provide a high volume of bike parking within a small space, often a single car parking bay. This type of bike parking is ideally suited to main street environments.

In general, they should be provided in small clusters within 100m of common commuting and recreational destinations of bicycle trips such as schools, shopping centres, railway stations, bus terminals or interchanges, workplaces, sportsgrounds etc. according to Austroads Guidelines (AGTM11-20).

It is recommended that the City add locations of EoT to cycling related maps and brochures as well as inform DTMI of any new additions to allow DTMI's Comprehensive Bike Maps to be updated.

5.3 Development Provisions

The City of Kalamunda Local Planning Scheme No. 3 and relevant Planning Policies do not currently include requirements for long-stay bicycle parking or provision of EoT facilities for new developments.

It is recommended that the City either update Local Planning Scheme No. 3 or create a new Planning Policy which provides the required parking provision rates for various land use classifications. It is recommended that the bicycle parking requirements include provisions for long and short stay parking to address varying needs.

Bicycle parking facilities can be classified according to security level and duration of use, as outlined in **Table 7**. Refer to **Table 8** for the recommended quantum of showers and lockers according to the number of long-stay bicycle spaces provided while an example of bicycle parking requirements for various land uses is shown in **Table 9.**

Table 7 Types of Bicycle Parking Facilities

Class	Security Level	Description	Duration of Parking	Main User Type
1	High	Fully enclosed individual locker	All day and night	Bike-and-ride commuters at railway and bus stations
2	Medium	Lockable enclosure, shelter or compound fitted with class 3 facilities where the bike rider is responsible for locking their bicycle within the communal enclosure	All day	Regular employees, students regular bike-and-ride commuters
3	Low	Bicycle rails or racks to which both the bicycle frame and wheels can be locked	Short term to medium term	Shoppers, visitors, employees of workplaces where security supervision of the facility is provided

Source: Table C9-1: Classification of bicycle parking facilities (AGTM11-20)

Table 8 End-of-Trip Facilities

No. of long-stay bicycles spaces provided	No. of lockers	No. of showers
1 to 2	1 to 2	0
3 to 5	3 to 5	1
6 to 10	6 to 10	2 (one male; one female)
11 to 20	11 to 20	4 (two male; two female)
More than 20	More than 20	4 (two male; two female) plus additional showers at the rate of 2 showers (one male; two female) for every 1 long stay parking spaces over 20 provided thereafter

To be of suitable volume and dimensions to allow storage of clothing, towels, cycling helmets and footwear; well ventilated, secure and lockable; and located close to shower and change room facilities (where provided). A ratio of one locker to one bicycle space is to be provided.

Change room facilities must also be provided and may either be a combined shower and change cubicle or communal change room for each gender directly accessible from the showers.

Source: Table 5.4: End-of-trip facilities (AGTM11-20)

Table 9 Example of Bicycle Parking Provision

Land use	Long Stay (e.g. employee/resident)	Class	Short Stay (Visitor/shopper)	Class
Amusement parlour	—	1 or 2	2 plus 1 per 50 m2 gfa	3
Apartment house	1 per 4 habitable rooms	1	1 per 16 habitable rooms	3
Art gallery	1 per 1500 m2 gfa	2	2 plus 1 per 1500 m2 gfa	3
Bank	1 per 200 m2 gfa	2	2	3
Café	1 per 25 m2 gfa	2	2	3
Community centre	1 per 1500 m2 gfa	2	2 plus 1 per 1500 m2 gfa	3
Consulting rooms	1 per 8 practitioners	2	1 per 4 practitioners	3
Drive-in shopping centre	1 per 300 m2 sales floor	1	1 per 500 m2 sales floor	3
Flat	1 per 3 flats	1	1 per 12 flats	3
General hospital	1 per 15 beds	1	1 per 30 beds	3
General industry	1 per 150 m2 gfa	1 or 2	—	3
Health centre	1 per 400 m2 gfa	1 or 2	1 per 200 m2 gfa	3
Hotel	1 per 25 m2 bar floor area 1 per 100 m2 lounge beer garden	1 1	1 per 25 m2 bar floor area 1 per 100 m2 lounge beer garden	3
Indoor recreation facility	1 per 4 employees	1 or 2	1 per 200 m2 gfa	3
Library	1 per 500 m2 gfa	1 or 2	4 plus 2 per 200 m2 gfa	3
Light industry	1 per 1000 m2 gfa	1 or 2	—	3
Major sports ground	1 per 1500 spectator places	1 or 2	1 per 250 spectator places	3
Market	—	2	1 per 10 stalls	3
Motel	1 per 40 rooms	1	—	3
Museum	1 per 1500 m2 gfa	1	2 plus 1 per 1500 m2 gfa	3
Nursing home	1 per 7 beds	1	1 per 60 beds	3
Office	1 per 200 m2 gfa	1 or 2	1 per 750 m2 over 1000 m2	3
Place of assembly	—	2	—	3
Public hall	—	1 or 2	—	3
Residential building	1 per 4 lodging rooms	2	1 per 16 lodging rooms	3
Restaurant	1 per 100 m2 public area	1 or 2	2	3
Retail show room	1 per 750 m2 sales floor	1	1 per 1000 m2 sales floor	3
School	1 per 5 pupils over year 4	2	—	3
Service industry	1 per 800 m2 gfa	1	—	3
Service premises	1 per 200 m2 gfa	1	—	3
Shop	1 per 300 m2 gfa	1	1 per 500 m2 over 1000 m2	3
Swimming pool	—	1 or 2	2 per 20 m2 of pool area	3
Take-away	1 per 100 m2 gfa	1	1 per 50 m2 gfa	3
University/Inst. of Tech	1 per 100p/t students 2 per 100f/t students	1 or 2	— —	3

		2		

It is sometimes appropriate to make available 50% of the level of provision recommended in the table at the initial installation stage, however, space should be set aside to allow 100% provision in the event that the full demand for bicycle parking is installed.

Source: Table C2-6: Bicycle parking provisions (AGTM11-20)

6 EMERGING MOBILITY TRENDS

Emerging forms of mobility present new opportunities to enhance the City's active transport network and broaden travel options for residents and visitors. The Planning and Designing for Active Transport in WA guidance suite, particularly the Contextual Guidance, recognises the importance of designing adaptable infrastructure that can safely accommodate evolving travel behaviours and a wider range of users as illustrated in **Figure 20.** Designing bicycle facilities to accommodate this range of users supports more inclusive travel choices and contributes to a safer, more connected and adaptable network.

Advances in electric propulsion, shared mobility and other forms of micromobility are changing how people travel for both transport and recreation. The increasing use of eBikes and eRideables provides convenient, efficient and accessible travel options, particularly for longer trips and for users who may otherwise be less likely to ride. These emerging modes reinforce the need for bicycle facilities that are safe, comfortable and adaptable, ensuring the City's active transport network remains suitable for current and future users.

Figure 20 Cycling for All Ages and Abilities



Source: Department of Transport and Major Infrastructure (2023)

6.1 Mobility Devices

A mobility device refers to any tool or equipment designed to help individuals move from one location to another, enhancing both functionality and independence for people with different levels of physical ability.

These devices encompass a wide range of everyday travel modes, from a parent pushing a pram for a walk, to an elderly person using a gopher to visit their local shop, or a parent taking children on a recreational ride, as illustrated in **Figure 21.**

The adoption of sustainable and active transport options in the City contributes to better passive surveillance, healthier communities, and positive environmental outcomes. The City is committed to fostering an active and healthy community, continually exploring ways to enhance the journey experience for residents and encourage greater use of sustainable transport modes.

Figure 21 Mobility Device –Tricycle



Source: West Cycle

6.2 E-Rideable Devices

There has been significant growth in the use of emerging transport technologies, particularly e-rideable devices. This category includes options such as e-scooters, e-skateboards, e-skates, and e-unicycles, which are generally powered by human motion and operate at relatively higher travel speeds.

E-rideables provide residents of Kalamunda with a more sustainable alternative to private vehicles, generating less noise and pollution. They also offer a cost-effective mode of travel, potentially reducing the need for car ownership. **Figure 22** presents a cost comparison between a cargo e-bike and a small vehicle.

The rise of e-rideable devices presents an exciting opportunity for the City to plan and manage its transport network with a focus on these modes. Because riders are typically considered vulnerable road users sharing space with motor vehicles, it is important to consider shared pathways with pedestrians and separated paths wherever feasible.

These technological developments not only make cycling more enjoyable but also improve safety and efficiency. They build rider confidence, encouraging more people to incorporate cycling into their daily commutes and recreational activities. As a result, the adoption of e-cycling for transport, leisure, or short trips to the next transport stop is expected to increase.

Figure 22 Cost Comparison between Cargo E-Bike and Small Car

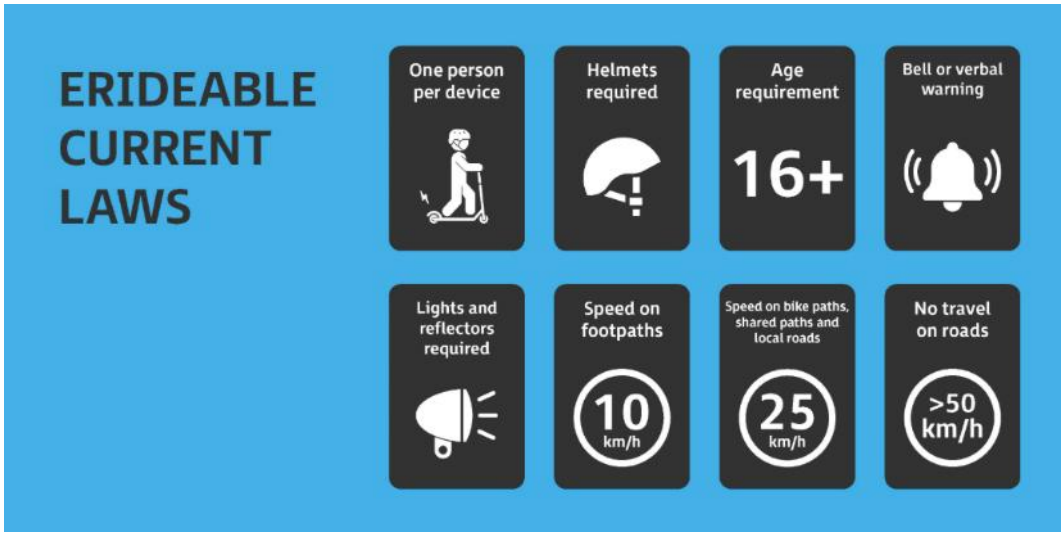


Source: West Cycle

While e-rideable devices offer many advantages, their use also comes with certain drawbacks. Issues include conflicts with pedestrians on footpaths, high travel speeds, and safety concerns arising from users who are unfamiliar with proper device operation, among others.

Due to the growing popularity of eRideables and the emergence of new forms of micromobility, the Road Safety Commission introduced new eRideable road rules in December 2021 to ensure the regulatory framework kept pace with evolving travel behaviours while supporting the safe use of these devices. **Figure 23** summarises the key aspects of the legislation.

Figure 23 E-Rideable Current Laws



Source: Road Safety Commission

Under current Western Australian road safety legislation, bicycle riders and eRiders are not required to dismount when using a pedestrian crossing. They may ride across the crossing provided they enter from the connected path rather than the road, travel at no more than 10 km/h, and give way to pedestrians. Road safety legislation and usage requirements are administered by the Road Safety Commission under the Road Safety Act and are enforced by the Western Australia Police Force (WA Police). This guidance has been provided by the Department of Transport and Main Roads (DTMI).

It should also be noted that a May 2025 review on e-Rideable Road Rules by the WA Road Safety Commission recommended several amendments to the Road Traffic Code 2000, including: removing the prohibition on e-rideables using 50 km/h roads with a dividing line or median strip; allowing alternatives to hand signals where signalling is unsafe; and improving clarity on the distinctions between footpaths and shared paths among Local Governments. Mobility devices categorised as e-rideables are shown in **Figure 24**. These recommendations have since been implemented in the Road Traffic Code.

Figure 24 E-Rideable Distinction



Source: Department of Transport and Major Infrastructure

7 EXISTING CONDITIONS

7.1 Land Use and Attractors

Land use attractors within the City of Kalamunda define the key destinations that generate cycling trips and shape travel patterns across the network. These attractors include activity centres, employment areas, transport nodes and recreational destinations, each contributing to different trip purposes such as commuting, education, access to services and recreation. Understanding their distribution is critical to identifying priority connections and structuring the bicycle network.

The main land use and attractors within the City are summarised in **Table 10** and illustrated in **Figure 25** Key land uses and attractors outside of the City are summarised in **Table 11.**

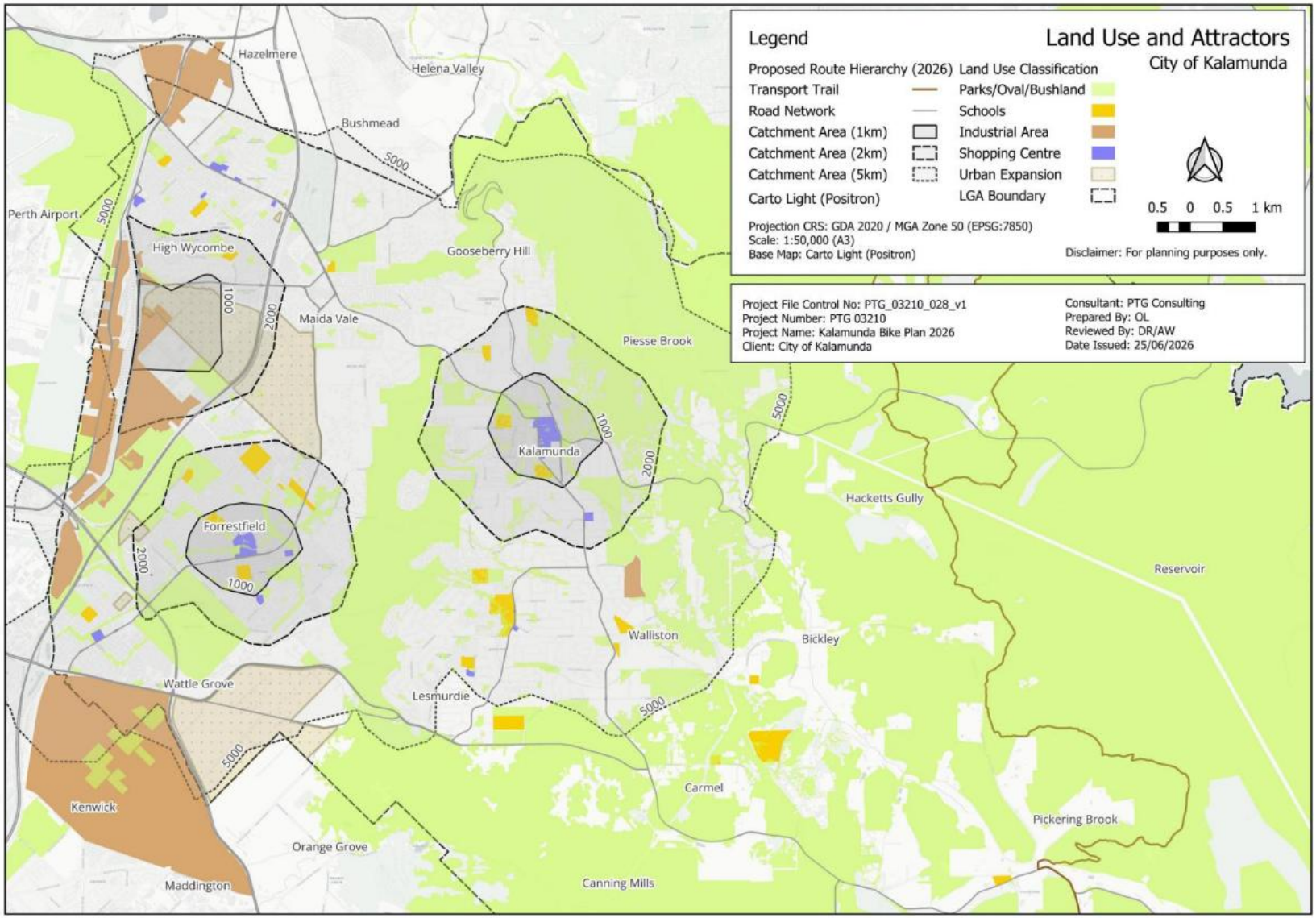
Table 10 Key Attractors within Kalamunda

Key Attractor	Type	Description
Kalamunda town centre	Activity Centre	Primary destination for retail, services and civic trips
Forrestfield	Activity Centre / Employment	District centre with industrial area (west of Roe Highway) and major high school.
Forrestfield – High Wycombe Station	Strategic Transport Node	Multi-modal hub and key bike-rail interchange linked to future TOD.
Kalamunda Mountain Bike Trails Hub	Recreation	Regional tourism located between Kalamunda and Mundaring. While most MTB riders would not ride all the way to trail hubs, opportunities to ride are available for local residents and potential cycle tourists/
Bickley Valley / Pickering Brook	Recreation	Semi-rural / rural type local roads with low traffic volumes and hills, which can attract road cycling riders.

Table 11 Key Attractors outside Kalamunda

Key Attractor	Type	Description
Midland	Strategic Centre	The closest major Activity Centre to the City. Includes major retail, employment, health and education facilities.
Kewdale / Welshpool	Employment	Major industrial employment destinations
Perth Airport	Employment	Significant logistics and employment hub
Perth CBD	Strategic Centre	Major office-based employment centre. Located beyond the 5-10km comfortable cycling distance, however cycling can be used as part of a trip-chain via High Wycombe Station.
Maddington / Kenwick	Future Employment	Emerging industrial area located adjacent to the City's southern boundary – potential significant employer within comfortable cycling distance from residents of Forrestfield and Wattle Grove

Figure 25 Land Use and Attractors for the City of Kalamunda



7.2 Existing Cycling Infrastructure

The existing walking and cycling infrastructure within the City are presented in **Figure 26** to **Figure 30**. These plans show all existing footpaths, shared paths and on-road facilities (typically sealed shoulders).

Comprehensive desktop was undertaken of the existing cycling infrastructure that confirmed that the existing level of provision is low when compared to best practice, as well as in comparison to other Local Government areas with similar urban environments.

Particular issues with the existing network include:

- Narrow footpaths and shared paths, typically located at the back-of-kerb with no separation from traffic.
- Paths have been constructed to follow the edge of the road kerb and kerb ramps are typically provided at the narrowest crossing point, which is often 10-12m back from the intersection (and from the desire lines). This type of path and crossing alignment is undesirable for bike riders as they must take their eyes off approaching traffic in order to navigate the tight bends in the path and often cannot clearly see approaching traffic due to the angle of approach to the crossing points. The constant tight bends also make riding along such paths very slow and hard to ride, discouraging less confident bike riders from taking up cycling.
- Minimal on-road dedicated space for bike riders, both on urban roads and rural-type roads. Many of the rural-type roads (e.g. Hawtin Road) lack sealed shoulders, which make them intimidating for less confident or solo bike riders.
- Traffic calming measures on many streets push drivers further to the edge of the carriageway where bike riders are riding and make it difficult to safely overtake bike riders.

Some sections of the existing cycling network are of a medium-to-high standard or offer significant opportunities for conversion into high quality routes by implementing best practice types of treatments. These include:

- Roe Highway and Tonkin Highway (existing and future PSPs).
- Zig Zag (opportunity for two-way cycling access to create a Secondary Route between Midland and Kalamunda)

Figure 26 City of Kalamunda Bike Plan – Existing Walking & Cycling Network – Overall Plan

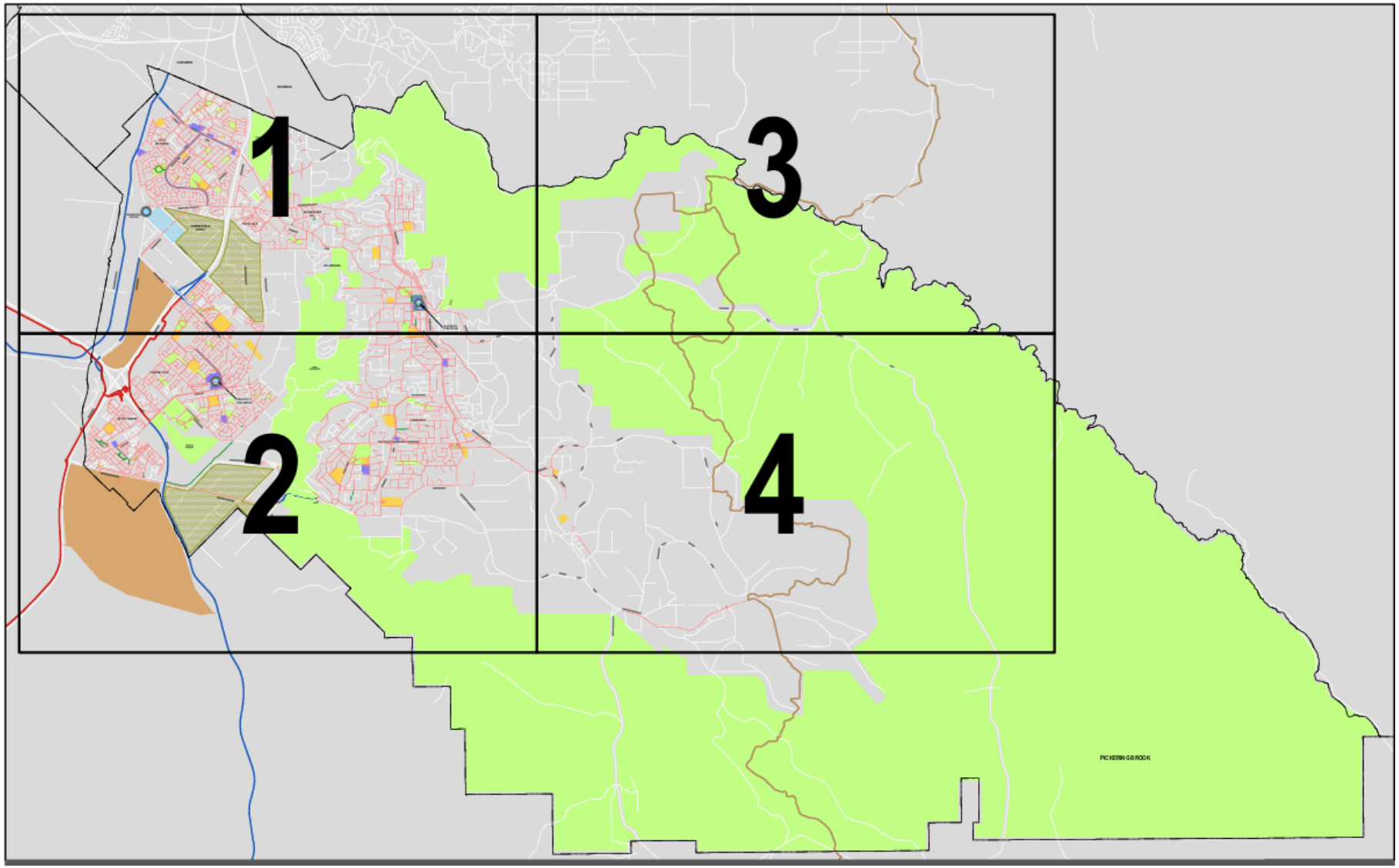


Figure 27 City of Kalamunda Bike Plan – Existing Walking & Cycling Network – Quadrant 1

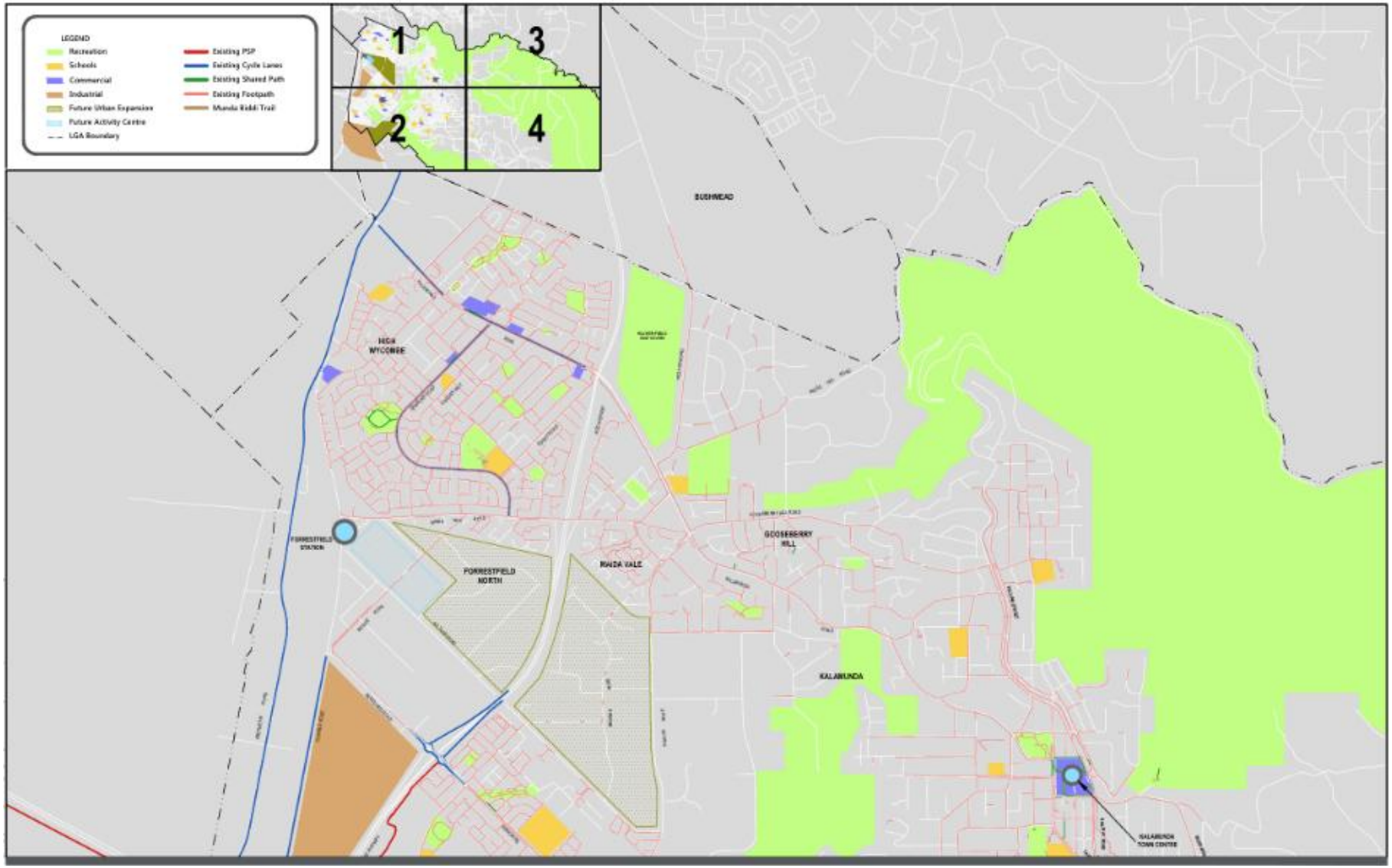


Figure 28 City of Kalamunda Bike Plan – Existing Walking & Cycling Network – Quadrant 2

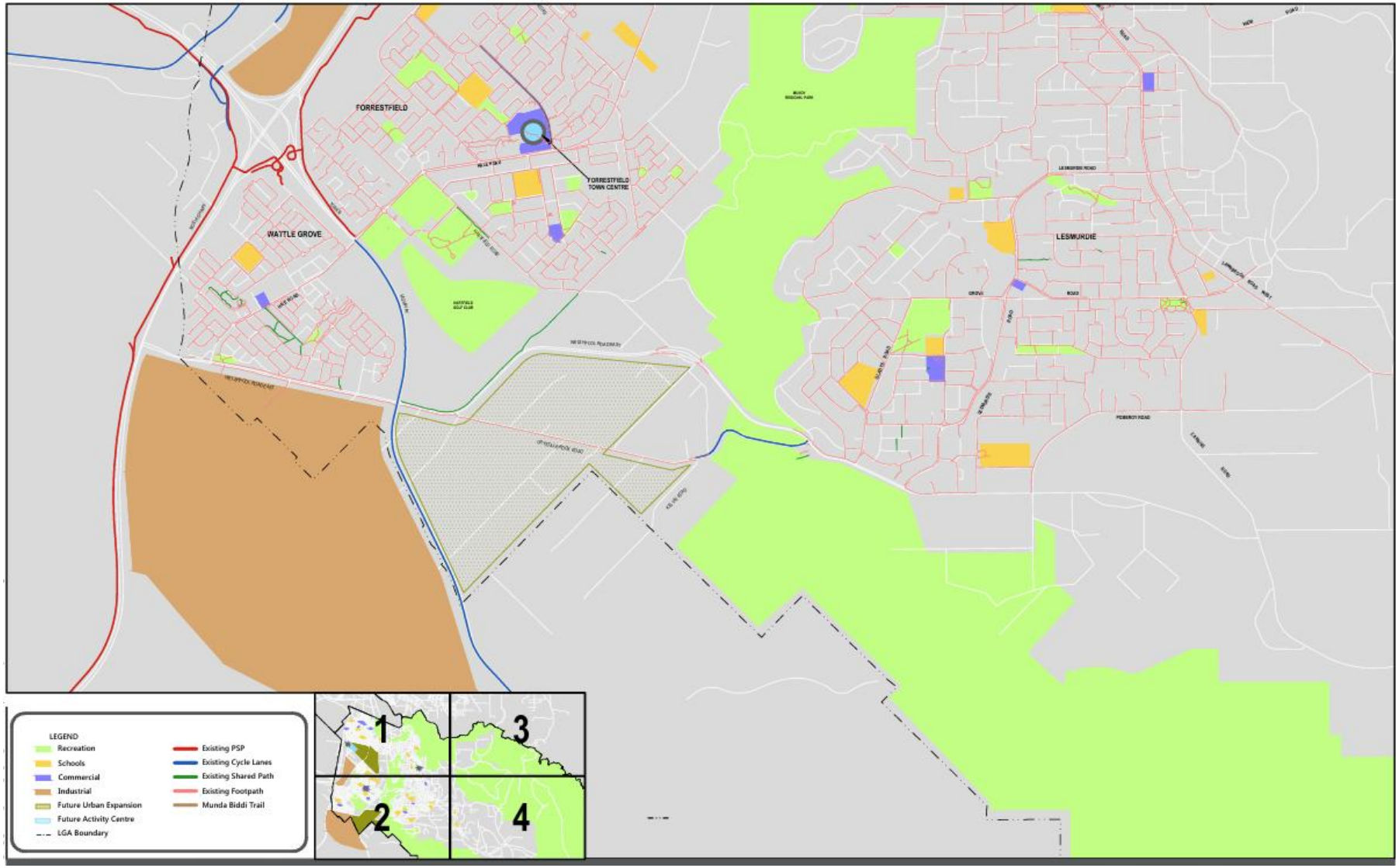


Figure 29 City of Kalamunda Bike Plan – Existing Walking & Cycling Network – Quadrant 3

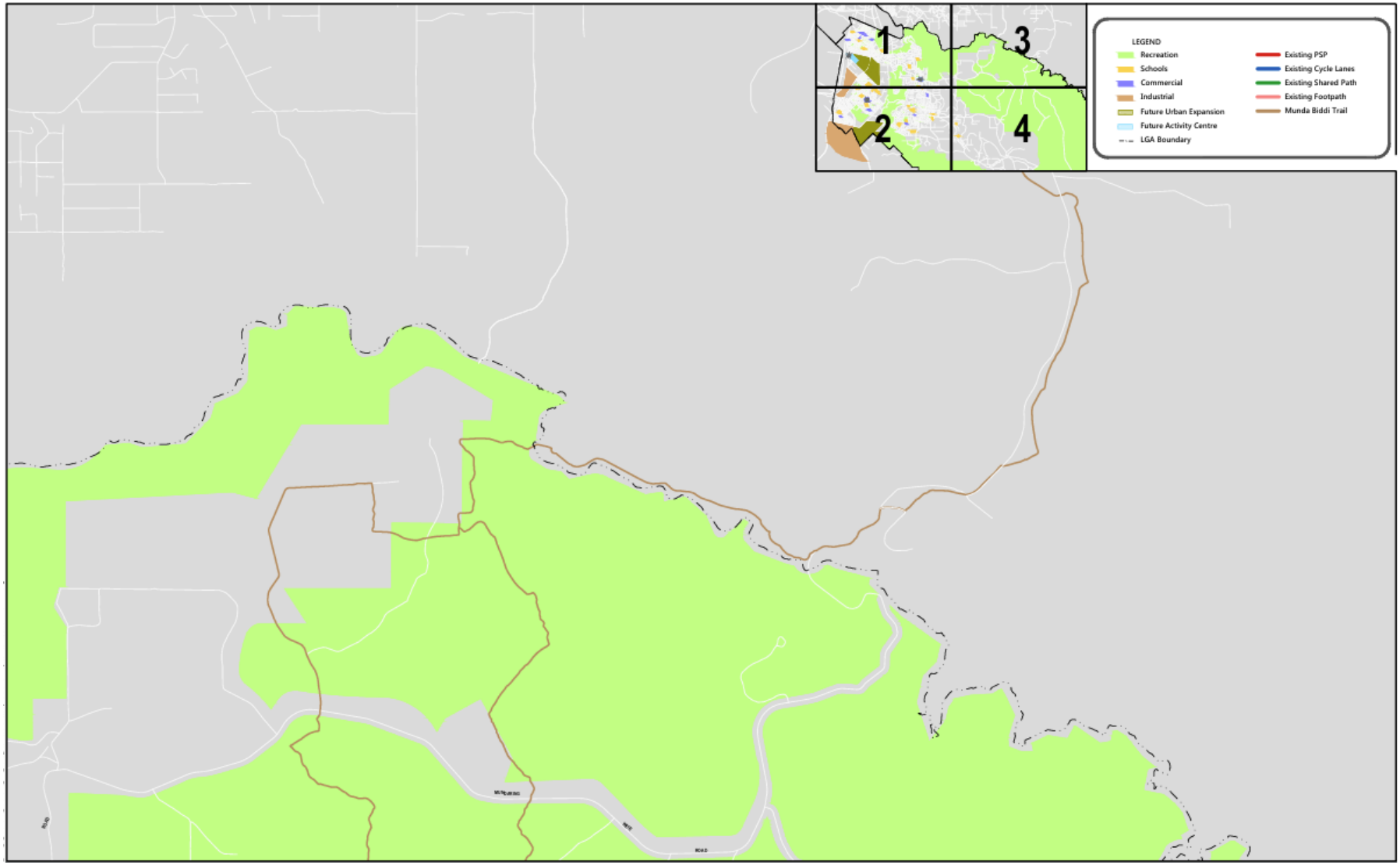
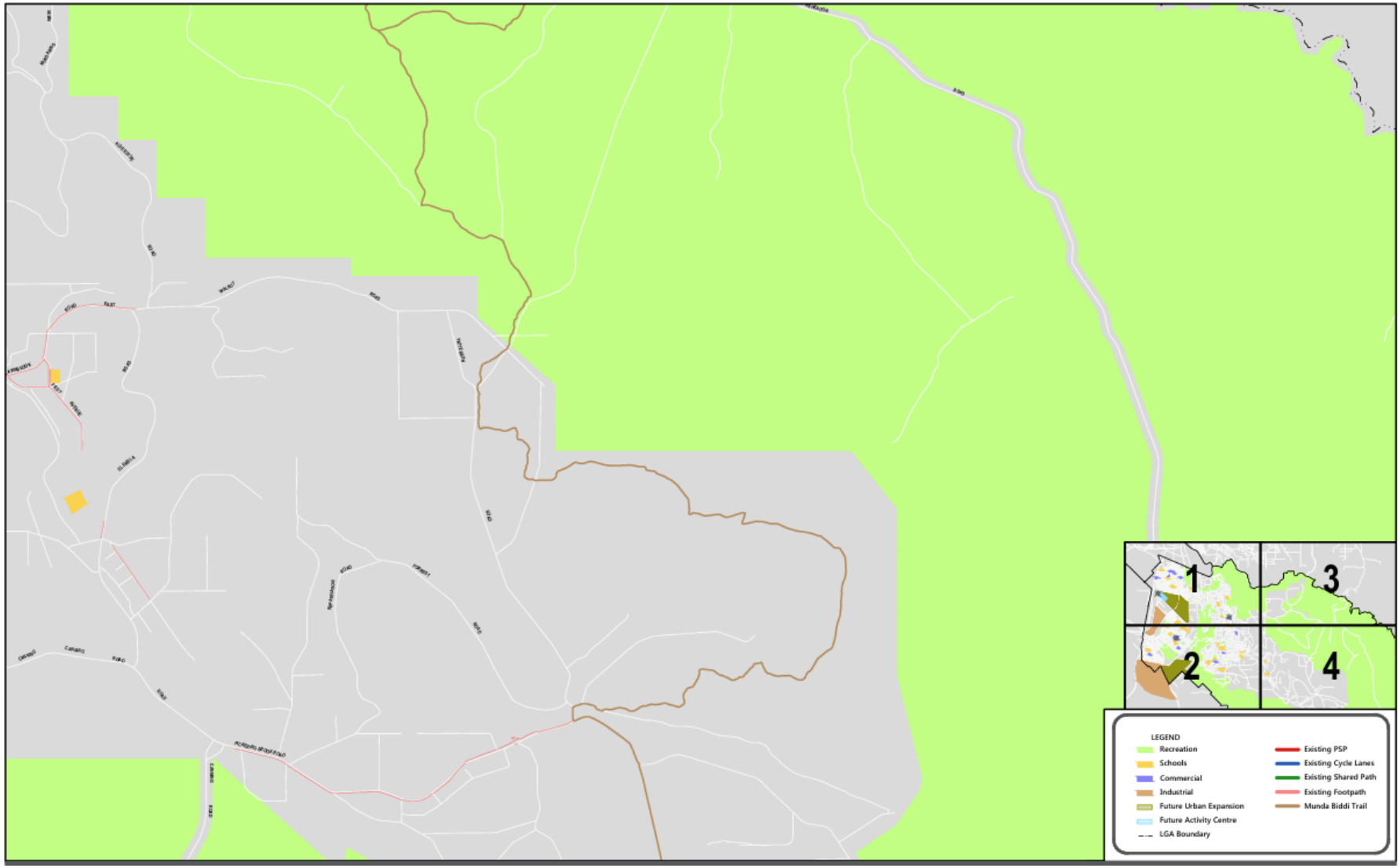


Figure 30 City of Kalamunda Bike Plan – Existing Walking & Cycling Network – Quadrant 4



7.3 Existing Bicycle Usage

Data regarding the existing cycling patterns and facilities within the City was obtained from a variety of sources and used to identify the baseline condition and inform the development of the Ultimate Network Plan, with the data sources outlined in the following sections.

7.3.1 Strava Data

The Strava 'Heat Map' is a tracking tool primarily used by experienced and confident bike riders and captures routes on roads with higher traffic volumes but will not fully represent all cycling activity. The dataset provides a spatial representation of relative activity, highlighting routes that are more frequently used by bike riders.

While Strava data represents only a subset of all bike riders and may be biased towards recreational and fitness users, it is a valuable tool for identifying patterns in route choice, areas of concentrated use, and potential gaps or barriers in the network. This is particularly relevant in semi-rural areas of the City, where limited or no bicycle count data is available.

To better understand different cycling behaviours, Strava data has been disaggregated into the following categories:

a. Regular (road/commuter) cycling
b. Mountain biking
c. E-bikes and e-mountain bikes (combined)

A Strava 'Heat Map' for each category within the City of Kalamunda and surrounds is presented from **Figure 31** to **Figure 33**.

Key cycling routes identified by Strava include Canning Road, Kalamunda Road, Railway Road and portions of Welshpool Road East. However, cycling data is relatively sparse on other local roads, indicating potential opportunities for infrastructure improvements and behavioural shifts to better support and encourage cycling across the entire network.

Figure 31 Strava Heatmap, Regular Cycling (2026)

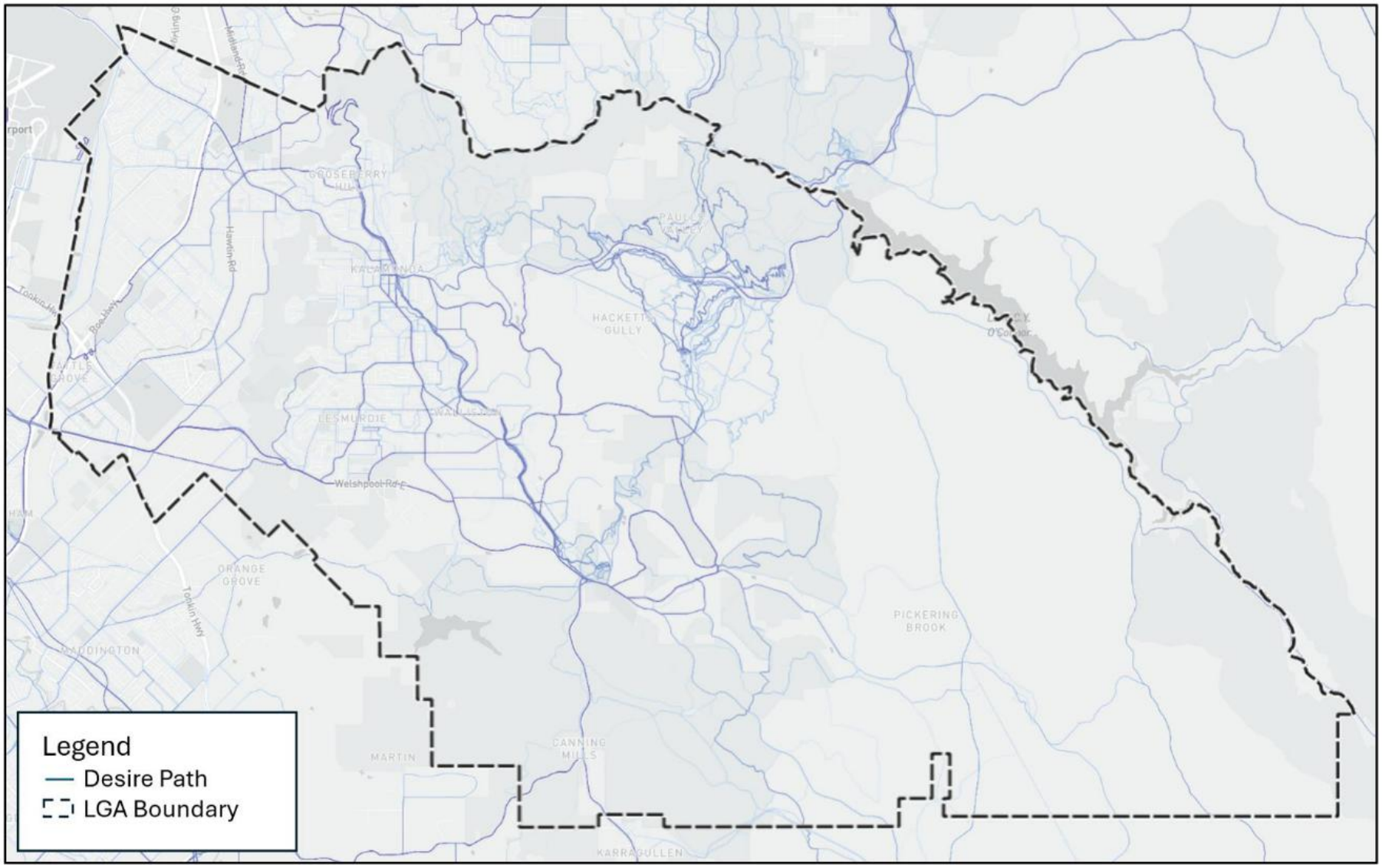


Figure 32 Strava Heatmap, Mountain Biking (2026)

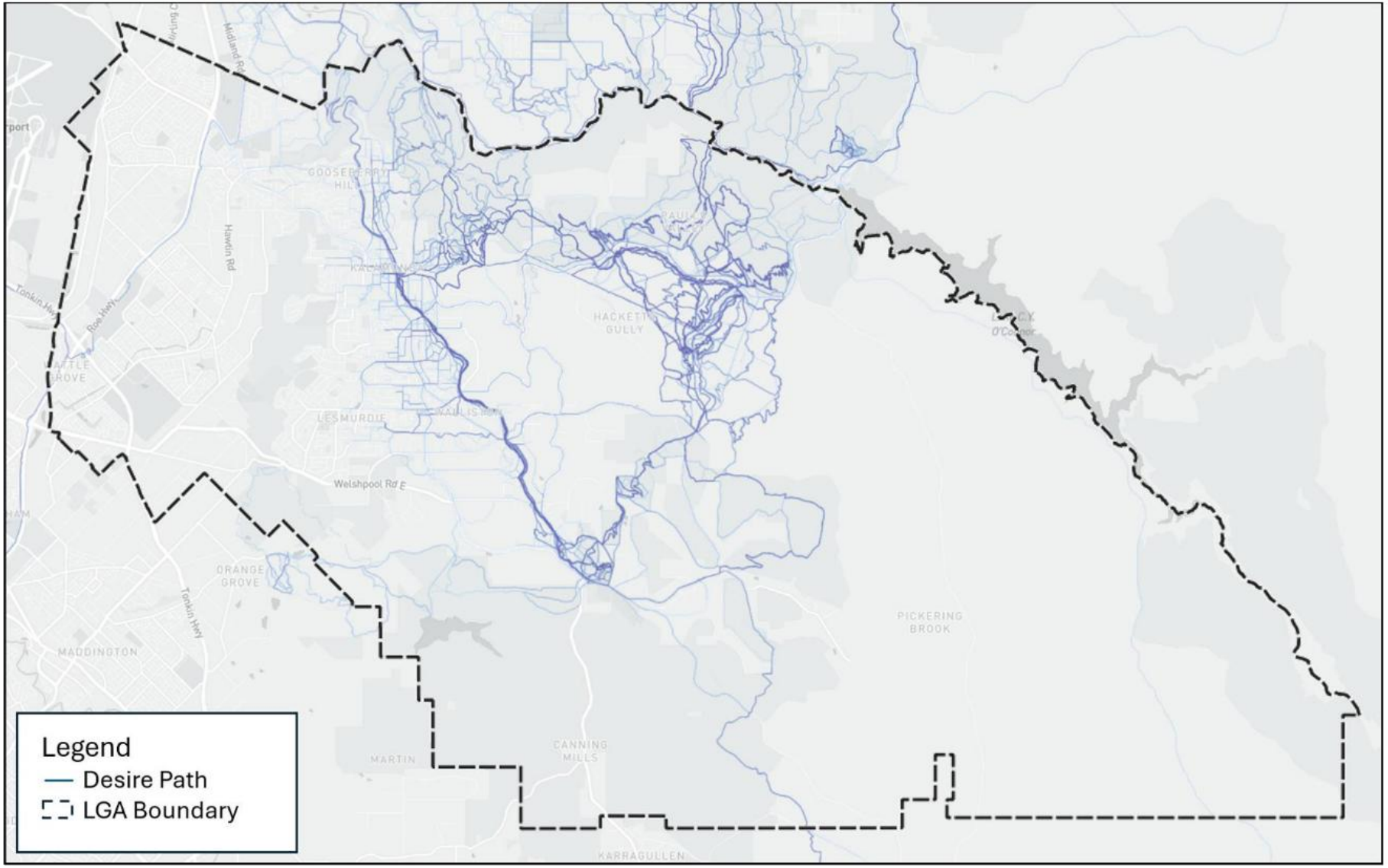
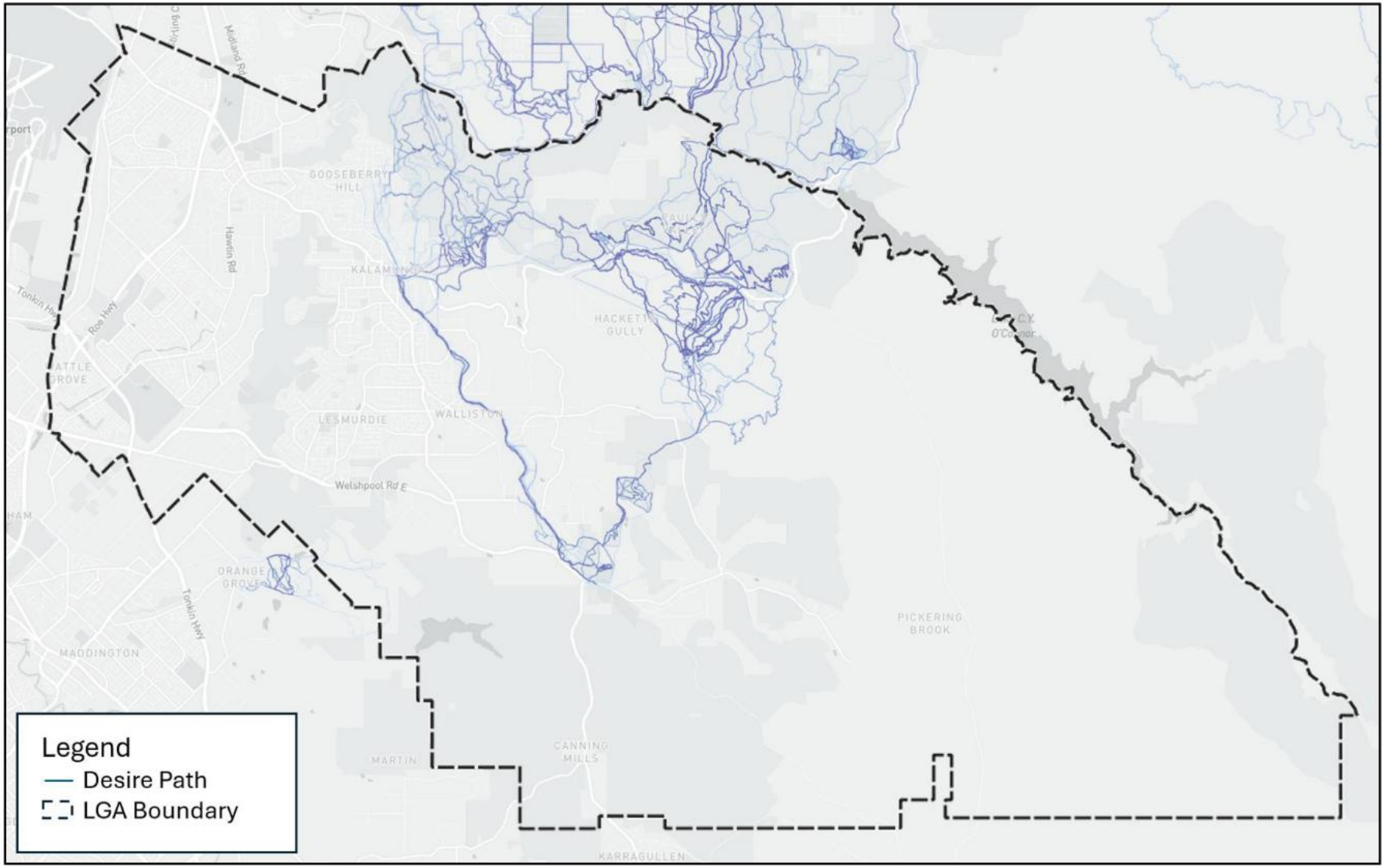


Figure 33 Strava Heatmap, E-Bike and E-Mountain Bikes (2026)



7.3.2 Saddle Surveys

Saddle Surveys were undertaken by the project team throughout the City over 2 days in October 2025. The team identified areas and opportunities for improvement, potential modifications to the LTCN, missing links in the network in order to inspect the existing cycling environment from a rider's perspective.

Examples and observations from the saddle survey include:

- **Lack of Local Wayfinding**. It was observed at multiple locations along local paths/routes that wayfinding wasn't provided at key intersections or decision points. An example of this is shown in **Figure 34**, where no directional signage or wayfinding is provided that describes the destinations, routes or attractions/features, which would assist in the decision-making process for a bike rider or pedestrian, on whether they should turn left or right.
- **Insufficient Regional Wayfinding**. It was observed that the signage and wayfinding along the PSP is very minimal. For example, if an unfamiliar bike rider was to encounter the sign shown in **Figure 35**, the only information conveyed on the sign relates to the distances to Midland (12km distance) and Armadale (20km distance); it contains no information about the numerous other turn-offs, routes or destinations for either of the directions.
- **Inadequate Maintenance of Paths**: it was observed along multiple paths that vegetation, debris and other maintenance was required. Examples of this are shown in **Figure 36** and **Figure 37**. Low maintenance of paths can be a potential safety issue.

Figure 34 Example of Lack of Local Wayfinding



Figure 35 Example of Insufficient Regional Wayfinding



Figure 36 Example of Path Requiring Vegetation Clearing



Figure 37 Example of Path Covered by Debris (note: no recent rain events prior to saddle survey)



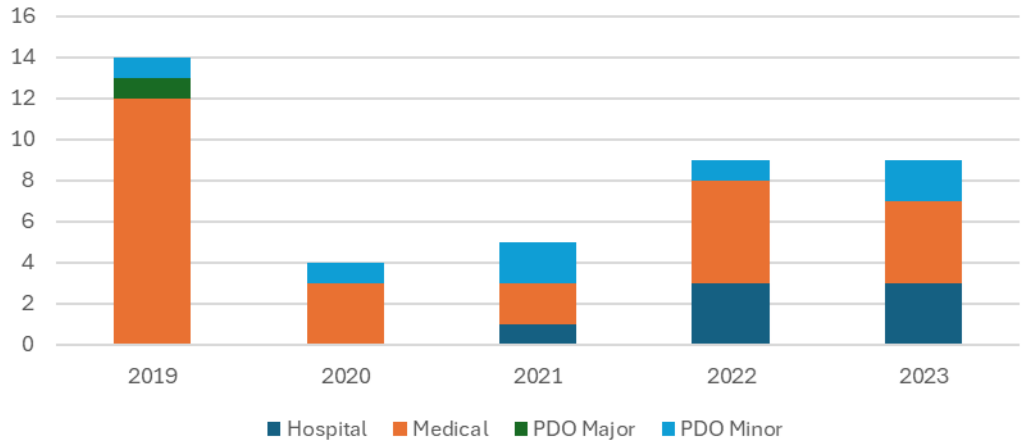
All of the gaps identified in the existing network were captured and assisted the project team with the development of the implementation plan.

7.4 Bicycle Crash Assessment

A review of reported bicycle crashes from the Main Roads crash database was undertaken to identify particular locations of concern for cycling safety. Over the past five-year period from 1 January 2019 to 31 December 2023, approximately 2,409 crashes have occurred within the City, with approximately 1.7% (41 crashes) involving bike riders. It is noted that 2024 crash data from the MRWA website was unavailable at the time of this report update.

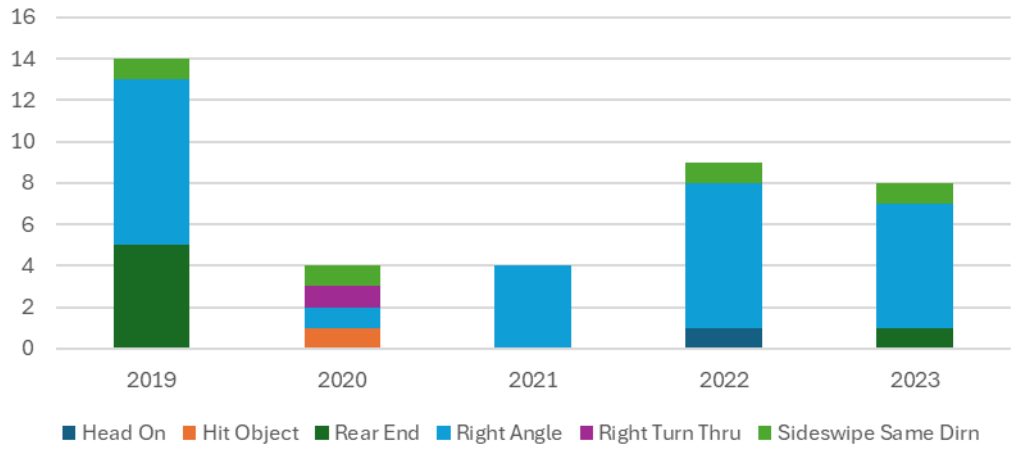
The number and severity of crashes as well as their corresponding nature involving bike riders per year is shown as follows in **Figure 38** and **Figure 39**.

Figure 38 Number and Severity of Crashes involving Bicycles



**PDO – Property Damage Only*

Figure 39 Number and Nature of Crashes involving Bicycles



The number of bike crashes were observed to reduce drastically in 2020, likely due to pandemic restrictions but gradually increased in the following years. It is noted that no crashes prior to 2020 required hospitalisation.

Of the 41 recorded crashes, 80% involved injuries requiring medical or hospital treatment, with no fatalities reported. With the exception of 2020, the majority of the crashes were right-angle in nature.

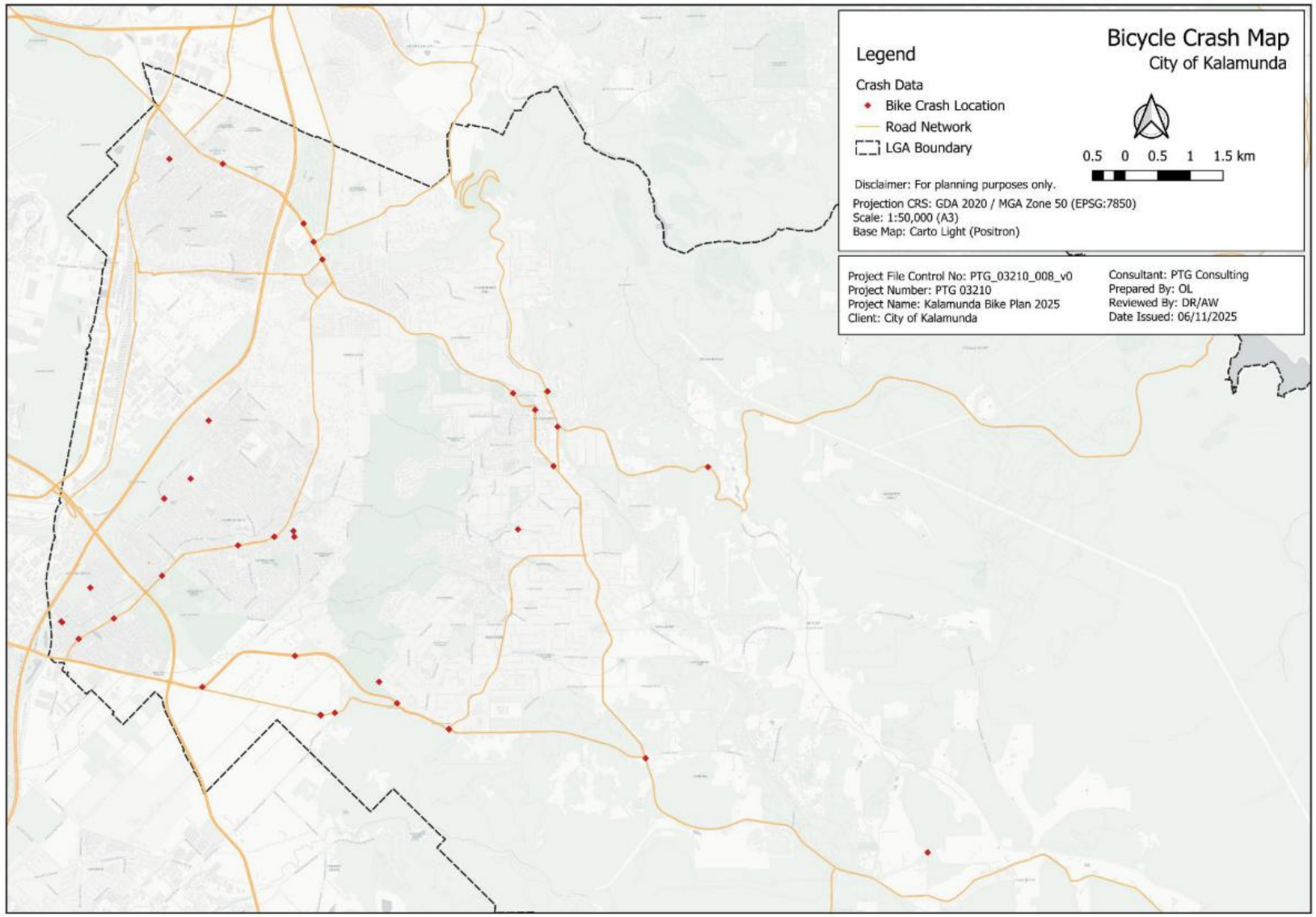
The number of reported crashes included 6 single-vehicle (i.e. bicycle-only) crashes, 1 involving a motorcycle, 2 involving pedestrians, while 32 involved collisions with motor vehicles. It is likely that

other single-vehicle or pedestrian crashes were not reported, particularly if hospitalisation was not required.

The locations of reported bicycle crashes are plotted in **Figure 40**. The recorded bike crashes are mostly scattered throughout the City with small clusters observed at the following locations:

Sheffield Road between Chervil Bend and Lenihan Corner, Crystal Brook Road between Valcan Road and Kelvin Road, Welshpool Road East and Lesmurdie Road Intersection and Railway Road between Stirk Street and Elizabeth Street.

Figure 40 Bicycle Crash Locations (2019 – 2023)



8 STRATEGIC OPPORTUNITIES

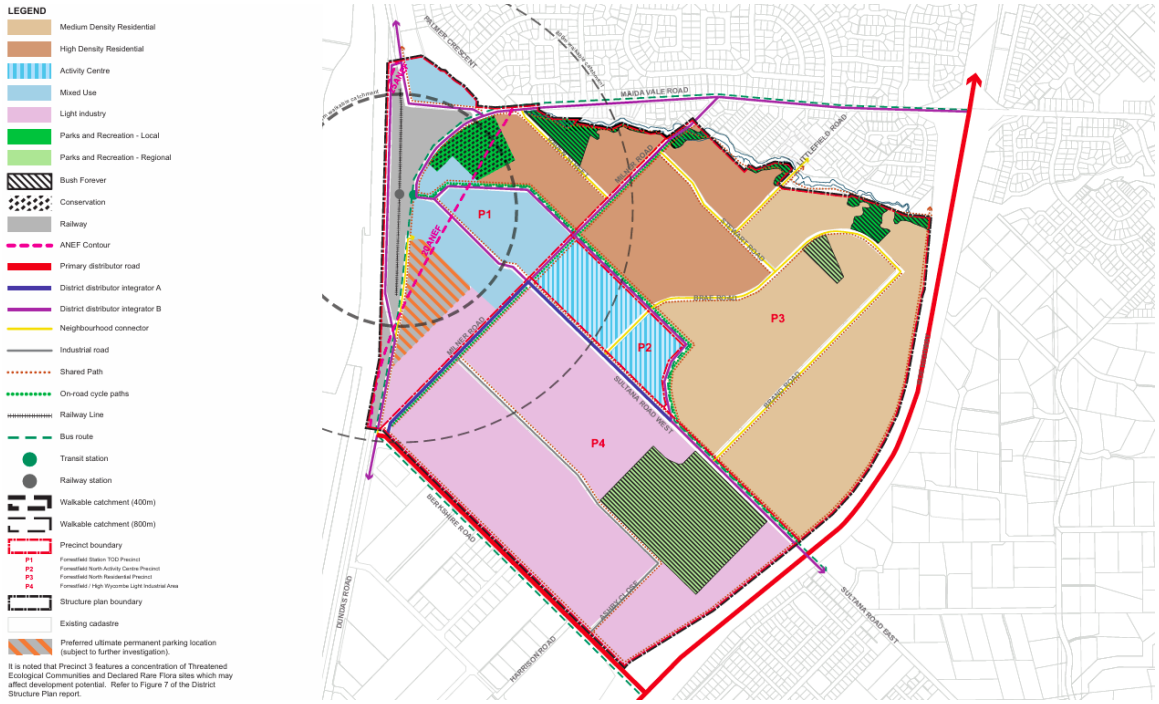
There are a number of major infrastructure projects being developed which present strategic opportunities for significantly increasing the accessibility, attractiveness and uptake of cycling within the City of Kalamunda.

8.1 High Wycombe South

The High Wycombe South area, previously covered by the Forrestfield North District Structure Plan (DSP) approved in September 2016 by the Western Australian Planning Commission (WAPC), encompasses the area between Roe Highway in the East, Dundas Road in the West, Berkshire Road in the South, and Poison Gully Creek to the North as shown in **Figure 41**.

The focus of the area resulted in planning for the delivery of medium and high-density residential land use, an activity centre and a commercially focused precinct based around the then planned train station as noted in the prior 2017 Local Bike Plan.

Figure 41 Forrestfield North District Structure Plan



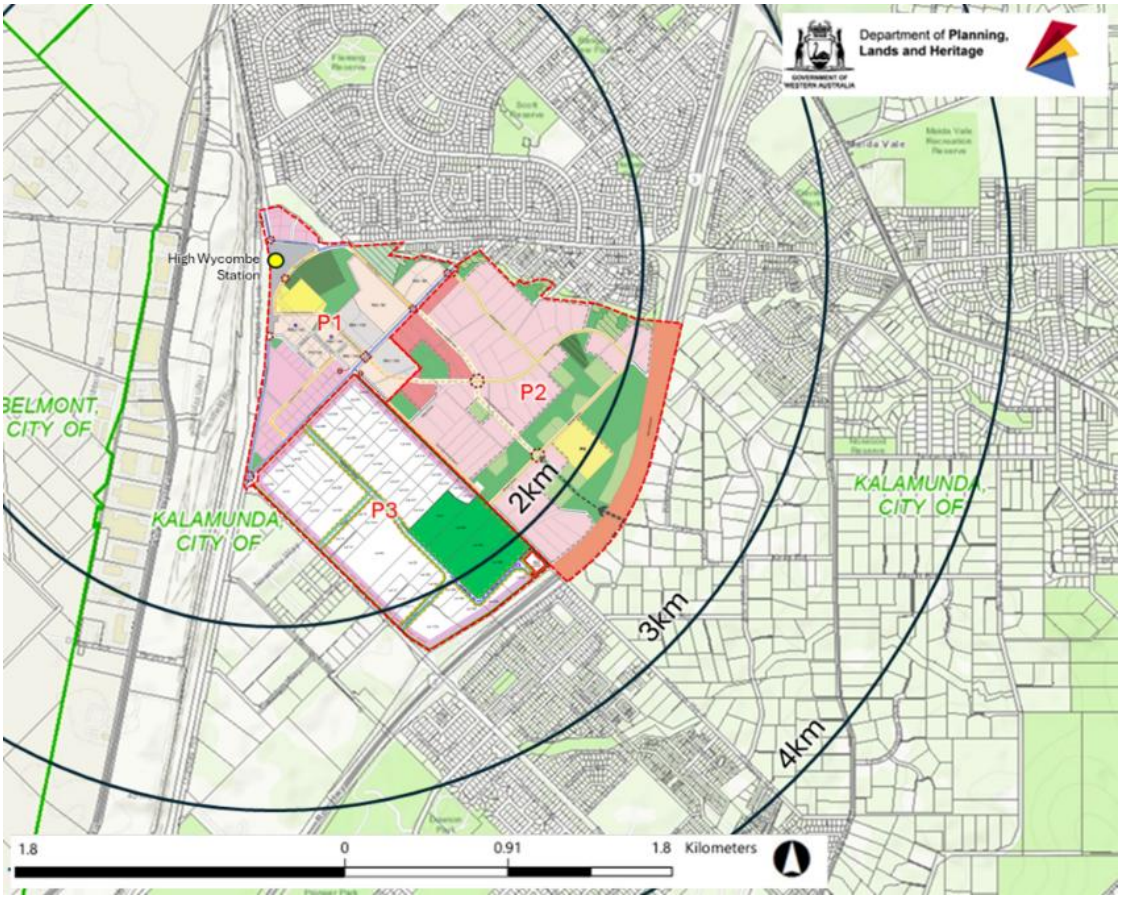
Source: Forrestfield North District Structure Plan, Drawing No. 714-504 ST-12A, dated 24 August 2016

Following approval of the DSP, a number of Local Structure Plans (LPSs) within the DSP have been developed and approved by the Western Australian Planning Commission (WAPC):

- METRONET East High Wycombe Structure Plan, approved 7 April 2025
- High Wycombe South Residential Precinct Local Structure Plan, Amendment No.1, approved 24 August 2023
- Forrestfield/High Wycombe Industrial Area Local Structure Plan, Amendment No.1, approved 24 February 2020

The scope and location of each LSP within the overall area surrounding the High Wycombe Station is shown in **Figure 42** as overlaid on the Metropolitan Regional Scheme (MRS) within the City of Kalamunda. The copy of each LSP Map is included in **Appendix B**.

Figure 42 Local Structure Plans within High Wycombe South



Source: Extract from PlanWA as provided by Department of Planning, Lands and Heritage (DPLH)

Continuing on the key elements of the original Forrestfield North District Structure Plan (DSP), each of the three LSPs for each precinct incorporate the following:

- **Mixed Use Transit Oriented Development Precinct (Precinct 1)**

A highly accessible precinct located adjacent to High Wycombe Train Station. Land uses provide opportunities for active and recreational requirements as well as retail, entertainment and food and beverage needs of residents. A proposed TOD Connector will provide direct access to the station, enhancing connectivity across all transport modes and establishing a focal node for community facilities to serve a growing population.

- **High and Medium Density Residential Precinct (Precinct 2)**

A new permeable street and pedestrian/cycle network will provide convenient access to the train station and activity centre for all modes of transport. These precincts will be located generally between Maida Vale Road and Sultana Road West and will bring a significant number of new residents within easy cycling distance of the High Wycombe Train Station, as well as local shops, cafes and employment.

- **Light Industrial Precinct (Precinct 3)**

This area will include large industrial and commercial buildings. Design guidelines will support access to business by all modes and connect to the new train station. New buildings will be expected to provide quality end of trip facilities for active commuters. This area will generally be located south of Sultana Road.

> **New Road Connections**

This includes cycle lanes and shared paths, e.g., Milner Road, Raven Street and TOD Connector Boulevard with the significant new and upgraded roads required to support the new land uses, there is a strategic opportunity to provide high-quality cycling facilities from the start to encourage active transport before commuting patterns become habitual.

8.2 Wattle Grove South

Wattle Grove South, located within the City of Kalamunda in the suburb of Wattle Grove, comprises approximately 340 hectares and represents a key urban growth area in the Perth north-eastern sub-region. It was identified under the Western Australian Planning Commission's Perth and Peel @3.5 Million Sub-Regional Planning Framework (2018) as predominantly Urban Expansion, with a portion designated for Urban Investigation, and is similarly recognised as an Investigation Area under the City of Kalamunda's Local Planning Strategy (2010), reinforcing its long-term transition to predominantly residential urban development.

An LSP for a 126-hectare portion of Wattle Grove South, located south of Welshpool Road East and Crystal Brook Road, was lodged in October 2025 as shown in **Figure 43** . The purpose of the LSP was to guide subdivision and development outcomes that integrate natural features, deliver connected open space networks, and promote walkable access and equitable distribution of public open space across the site. As such, Wattle Grove South presents a significant strategic opportunity to embed an integrated and legible active transport network from the outset.

Figure 43 Wattle Grove South Local Structure Plan Proposal



Source: Proposed Wattle Grove South Local Structure Plan, dated 3 October 2025

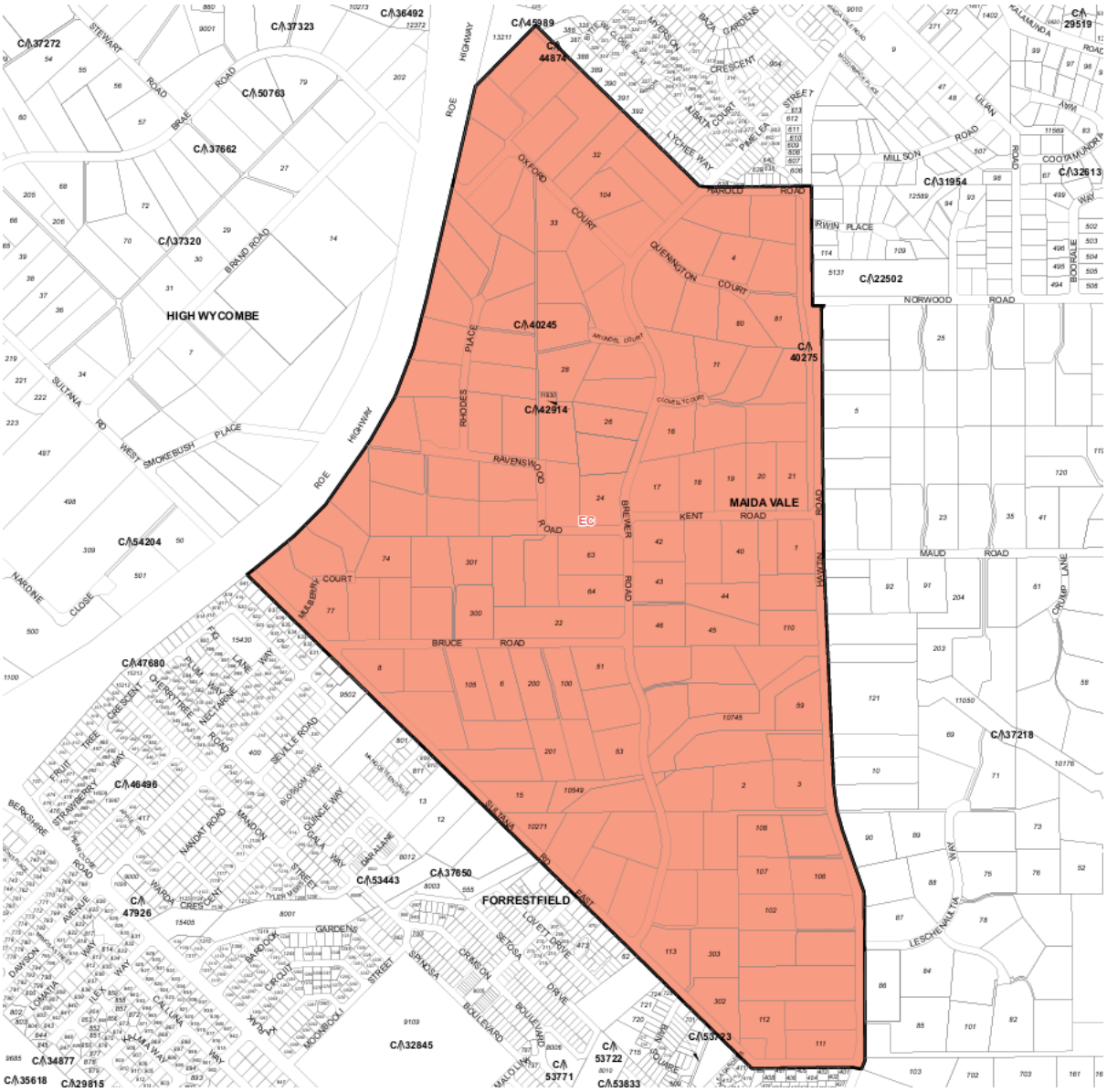
The proposed pedestrian and cycling network are designed to connect internally via a series of linked open space corridors, enabling continuous, circuit-style movement between residential precincts, schools, and recreational nodes in a safe, shaded, and attractive environment. Higher-order roads, including Brentwood Road, the new east–west Neighbourhood Connector, and Victoria Road, are intended to accommodate shared paths, while connections to surrounding networks are

prioritised, particularly to the planned Principal Shared Path along Tonkin Highway as part of the Main Roads Western Australia Tonkin Highway Corridor Project.

8.3 Maida Vale South

The Maida Vale South area is shown in **Figure 44** and is bounded by Roe Highway, Sultana Road East, Hawtin Road, and the Maida Vale Cell 6 development area. Maida Vale South represents a key urban growth area following the completion of Metropolitan Region Scheme (MRS) Amendment 1344/57 initiated in 2018 and approved by the WAPC on 9 September 2025. The amendment changes the land use zoning for approximately 177.5 hectares of land from Rural to Urban, with a concurrent rezoning to Urban Development under the City's Local Planning Scheme (LPS).

Figure 44 Maida Vale South MRS Amendment Area



Source: Metropolitan Region Scheme Amendment No. 1344/57 As modified by WAPC, dated 30 April 2025

This precinct is therefore well positioned to embed a high-quality, connected cycling network as part of its transport network, to support an uptake of active transport as the area is developed. Future LSPs can integrate safe and legible bicycle infrastructure, including off-road shared paths, on-road

facilities, and key crossings along boundary roads, to connect residents to surrounding areas and strategic cycling routes.

Ensuring a permeable street network, strong links to activity centres and open spaces, and provision of end-of-trip facilities will be critical to supporting active transport and establishing Maida Vale South as a cycle-friendly, well-connected community.

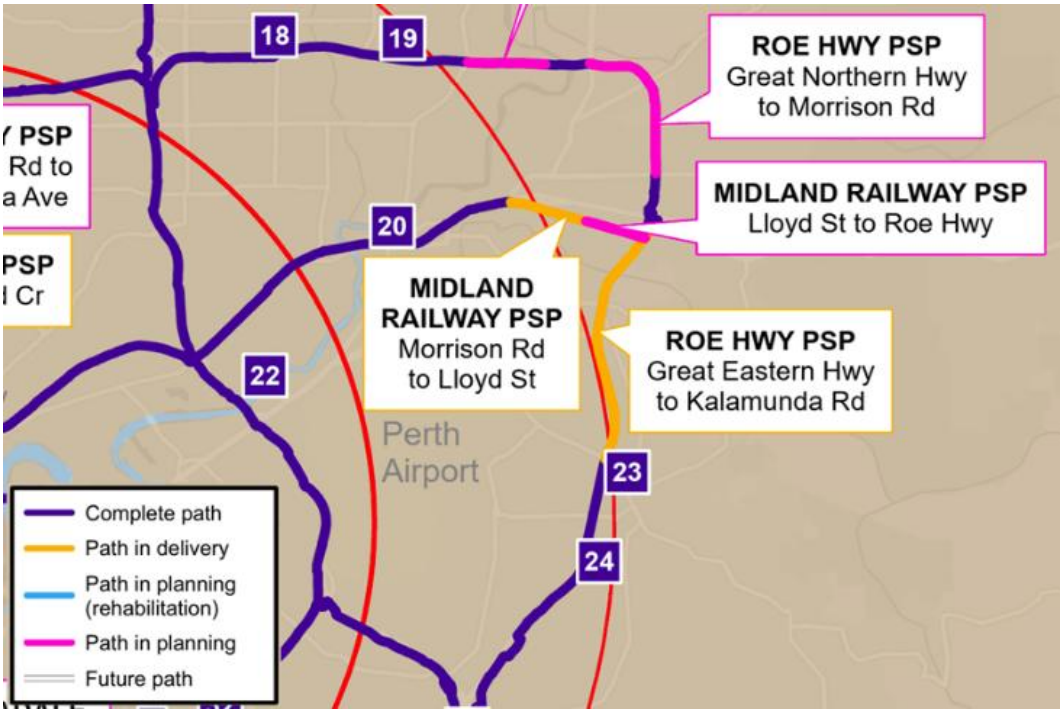
8.4 Roe Highway PSP Extension

As part of the Main Roads WA (MRWA) Roe Highway and Kalamunda Road Interchange Upgrade, the Principal Shared Path (PSP) around the Roe Highway and Kalamunda Road interchange was extended to Kalamunda Road around September 2021, providing greater connections and convenience for people walking and riding. The completed section also includes a few hundred metres of extension past of Kalamunda Road, which will be extended further north as part of other projects.

Main Roads, as part of the Greater Connect Alliance, is also constructing the further extension of Roe Hwy Principal Shared Path (PSP) as part of the Roe Highway and Great Eastern Highway Bypass Interchange Project, as shown in **Figure 45**. This project will complete the "missing link" in the 30km PSP along Roe Highway, between Great Eastern Highway in Midland and Kwinana Freeway in Jandakot.

Along with the Roe Highway PSP, a new PSP will also be built along the northern side of the Great Eastern Highway Bypass, extending from Roe Highway to just west of the existing railway bridge. This will enable future connections to the proposed primary route through Dundas Road and connect further to the High Wycombe Station.

Figure 45 Roe Highway Principal Shared Path Status



Source: Excerpt from Completed and Current PSP Projects Map by the Department of Transport and Major Infrastructure, dated 4 December 2024

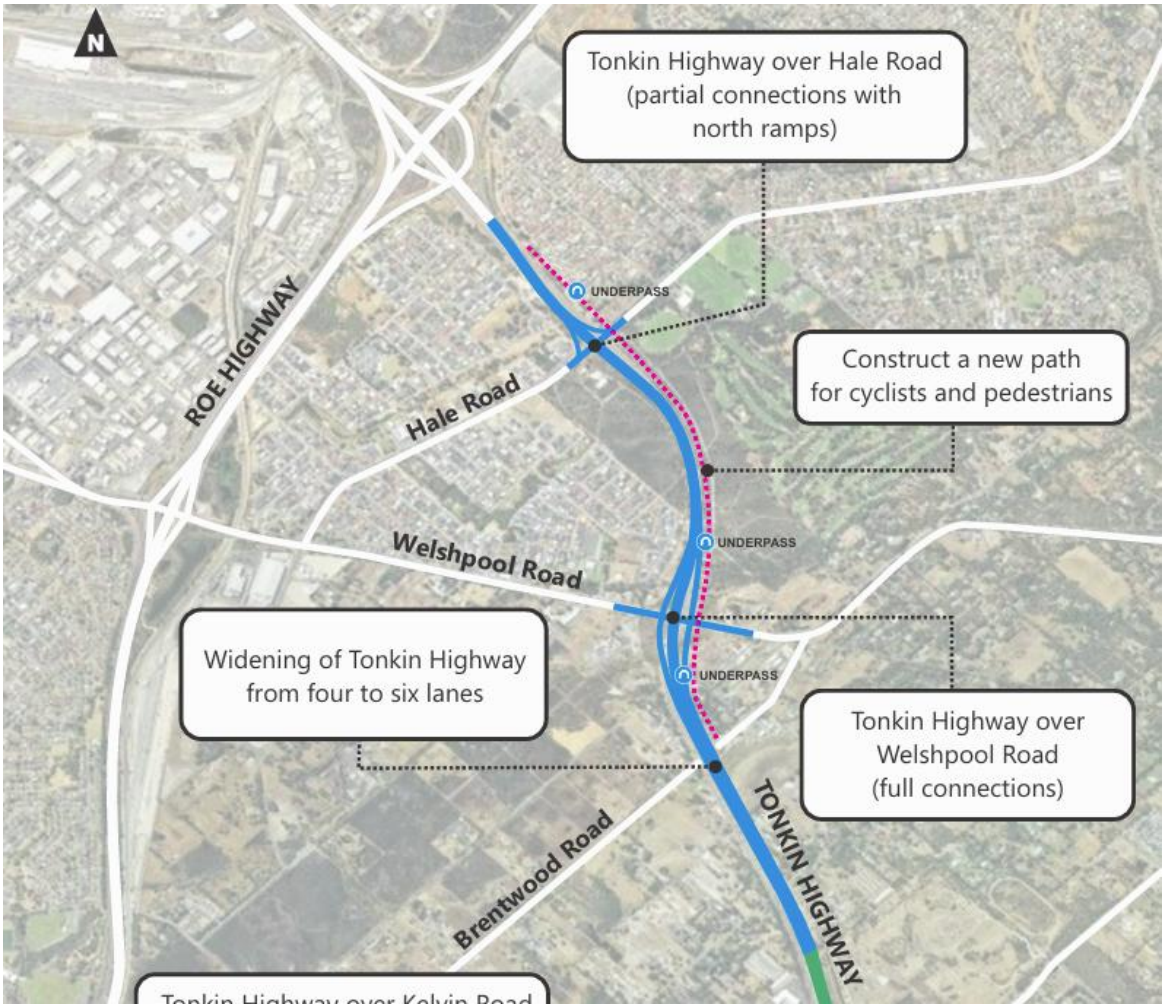
8.5 Tonkin Highway PSP

MRWA is planning to upgrade Tonkin Highway between Hale Road and Welshpool Road East to freeway standard, with Tonkin Highway passing over Hale Road and a grade-separated interchange at Welshpool Road East. This project will significantly improve convenience and safety for

pedestrians and bike riders crossing Tonkin Highway at both these intersections, completing missing links in the path network.

As part of the planned upgrade, a PSP is also proposed to be constructed on the east side of Tonkin Highway, as shown in **Figure 46,** to provide further pedestrian and bike riders connectivity from Forrestfield South to the Wattle Grove South, providing access directly to the foothills without any interaction with motorised traffic as the plan would including underpasses at ramps at the new intersections. This is also critical in providing further connection to the future urban expansion along Wattle Grove South.

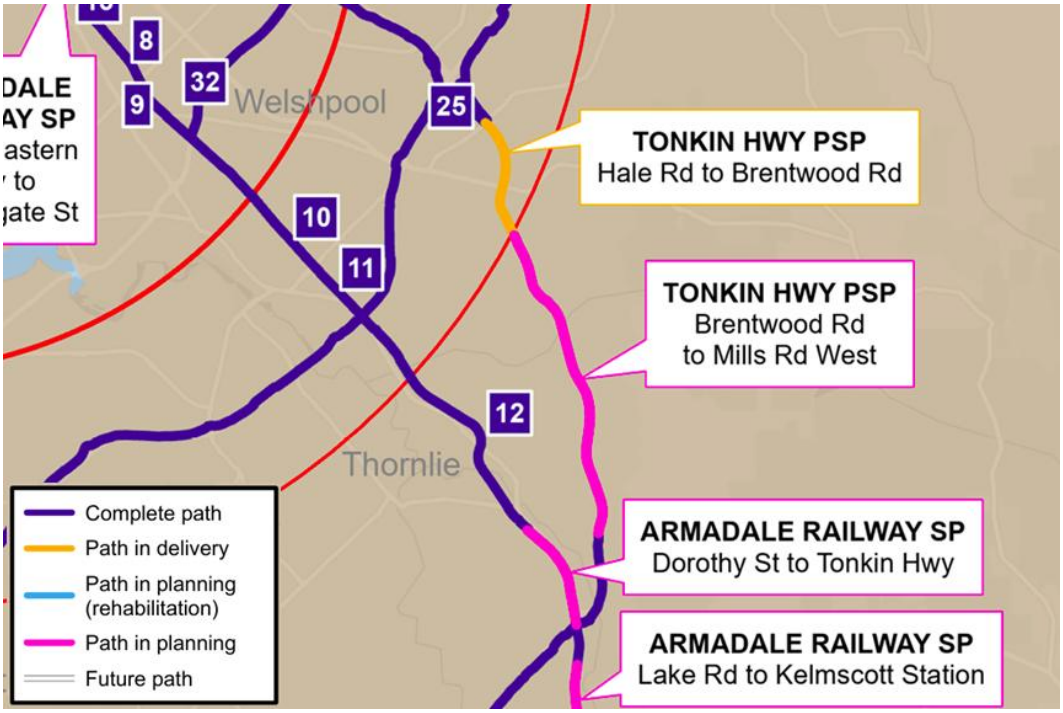
Figure 46 Indicative Tonkin Highway PSP Corridor



Source: Excerpt from Tonkin Highway Corridor by Main Roads WA, dated July 2024

Beyond Brentwood Road, further upgrades to Tonkin Highway will also include a PSP, which will facilitate connections from the foothills to employment centres at Maddington-Kenwick, Gosnells and Forestdale. Completing such a long section of PSP will also increase the accessibility of Kalamunda for recreational / road cycling riders from areas further south.

Figure 47 Tonkin Highway Principal Shared Path Status



Source: Excerpt from Completed and Current PSP Projects Map by the Department of Transport and Major Infrastructure, dated 4 December 2024

8.6 Cycle Tourism

Cycling Tourism presents a significant a significant opportunity for the City of Kalamunda to strengthen its visitor economy and support local businesses. Research undertaken by Tourism Research Australia (TRA, IVS and NVS. 2024) indicate that those on trips that involve riding a bike are much more likely to spend on accommodation and food and drinks than the average tourists, generating greater economic benefits for local destinations.

From a cycle tourism perspective, the City of Kalamunda already provides a number of unique opportunities for riders of all ability types, some of which already attract visitors from all over the state and country. With its established recreational bicycle facilities, scenic landscapes and extensive trail network, the City is well positioned to further develop its cycling tourism offering.

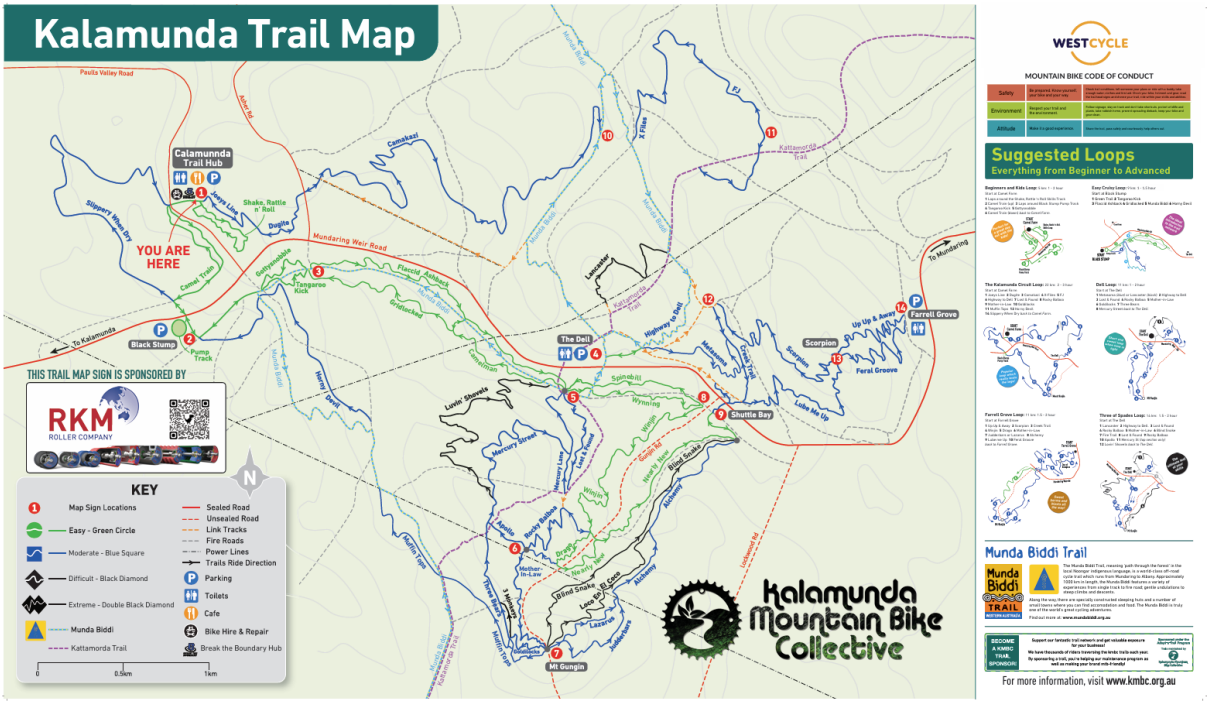
Popular cycle routes include:

- Kalamunda Mountain Bike network: spans over 50km of fully signed single tracks. A trail map of the most popular routes within the City of Kalamunda as shown in **Figure 48**.
- Zig Zag Scenic Route: operates as a shared one-way route for bike riders and winds down the Darling Scarp with a view
- The Munda Biddi Trail: the long-distance touring route from Mundaring to Albany, passes through the City offering long-distance opportunities
- Railway Heritage Trail: is considered an easy/medium trail that follows historic railway alignments and great for a family ride

Community consultation identified several barriers to further growing cycling tourism within the City, including concerns relating to road safety, conflicts between bike riders and pedestrians in some locations, and gaps in the bicycle network connecting key destinations. As such, this Local Bike Plan presents the opportunity to maximise the existing cycling routes and tourism attractions within

the City, and provide recommendations to strengthen Kalamunda's recreational riding network while supporting an AAA philosophy for residents and visitors.

Figure 48 – Kalamunda Trail Map



Source: Kalamunda Mountain Bike Collective

8.7 Safe Active Streets

The Safe Active Streets concept was initially delivered through a State pilot program and is now implemented through the WA Bike Network (WABN) Grants Program, with complementary lower-speed street initiatives also supported by Main Roads WA through the Low-Cost Urban Road Safety Program (LCURSP). Together, these initiatives encourage slower vehicle operating speeds and create safer environments for vulnerable road users, including people walking and bike riders.

The City of Kalamunda has identified two proposed Safe Active Streets projects currently being progressed through the WABN Grants Program:

1. Sussex Road Safe Active Street – from Hartfield Road to Hale Road, passing Forrestfield Primary School, and including Hanover Street
2. Kiandra Way and Western Avenue Safe Active Street – from Norling Road to Newburn Road, passing High Wycombe Primary School.

These projects are expected to strengthen the City's bicycle network by improving connectivity and providing safer local street environments that encourage more people of all ages and abilities to walk, wheel and ride.

9 ULTIMATE NETWORK PLAN

The Ultimate Network Plan for the City of Kalamunda is set out as shown in **Appendix D**. The following sections outline the recommended development for each segment of the Ultimate Network.

9.1 Primary Routes

Primary Routes within the City of Kalamunda are present in the form of PSPs, which are also the backbone of the cycling network in Perth Metropolitan Area. These paths generally follow major controlled-access roads and railway corridors, providing high-quality direct cycling connections completely separated from road traffic.

PSPs are the construction and maintenance responsibility of MRWA, however the City has a key role in contributing to the design process to ensure optimum integration to the local cycling network. The City also has an important advocacy role in persuading the State Government to invest in extensions and upgrades.

9.1.1 Roe Highway

The Roe Highway PSP currently extends 25km from the Kwinana Freeway to Kalamunda Road, with grade- separation at all intersecting roads.

As discussed in **Section 8.4**, the Roe Highway PSP was extended to Kalamunda Road in 2021 as part of Main Roads WA Roe Highway and Kalamunda Road Interchange Upgrade. The completed section also includes a few hundred metres of extension past of Kalamunda Road which will be extended further north as part of other projects.

Completing the Roe Highway PSP from Kalamunda Road to Midland would be a game-changer for cycling transport in the foothills area, providing a safe cycling connection to the nearest Activity Centre, as well as further loop for longer distance riders travelling through the City.

If these sections were completed, they would open up a significant north-south spine through the foothills, enabling easy access to the Tonkin Highway PSP and significant employment centres in the Welshpool/Kewdale/Airport area. If these sections are not included as part of the Roe Highway / Kalamunda Road interchange project, separated State Government funding would need to be obtained.

The priority of the remaining sections would be as follows:

1. Bushmead Road to Midland section – in the City of Swan but forms part of the Secondary Route from Midland to Kalamunda
2. Kalamunda Road to Bushmead Road section – in the City of Swan but would complete the link from Maida Vale to Midland.

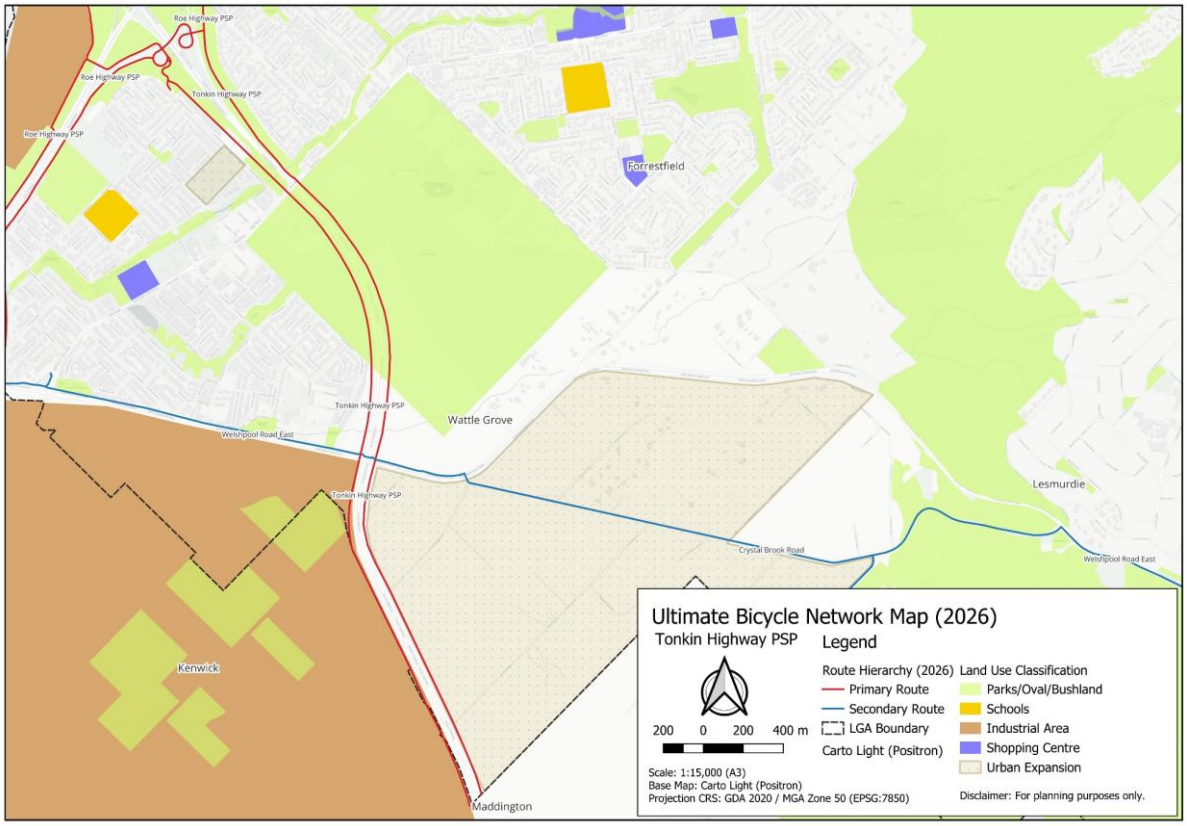
9.1.2 Tonkin Highway

Tonkin Highway PSP will be a significant connection for the southern edge of the City, connecting Wattle Grove with the wider network and the significant employment areas in Maddington and Gosnells. The priorities for extension are as follows:

1. Extension of PSP along the northern/eastern side of Tonkin Highway connecting across Hartfield Park and Yule Brook to Welshpool Road East
2. Connection across Tonkin Highway between Coyong Road/Maamba Road and Hartfield Park
3. Extension of PSP from Welshpool Road East to Kelvin Road and beyond

While the 2017 bike plan noted that the PSP would be provided along the southern side of Tonkin Highway, consistent with the DTMI LTCN, information from Main Roads WA as part of the external stakeholder consultation (discussed in **Section 8.5**) suggests that further extension is planned along the northern/eastern side of the Tonkin Highway. Notwithstanding this planned extension, DTMI has advised that the PSP alignment along the southern side is recommended to also be retained in this bike plan, as it is DTMIs preferred long-term arrangement is to duplicate the PSP on both sides of the corridor, subject to future consideration. As such, the proposed alignment of the Tonkin Highway PSP between Roe Highway and Welshpool Road East is therefore shown in **Figure 49**.

Figure 49 Tonkin Highway PSP – Recommended Arrangement



9.1.3 Dundas Road / Abernethy Road

The main freight railway runs north-south along the western edge of the City, parallel to Abernethy and Dundas Roads and passing the High Wycombe Station. Both Abernethy and Dundas Roads are used by highly confident bike riders; however the lack of protected infrastructure and the heavy volumes of trucks make it a very intimidating riding environment for somewhat confident bike riders – an example of this riding environment is shown in **Figure 50**. This is particularly the case during weekdays when most of the industrial business are operating.

Figure 50 Example of Lack of Protected Infrastructure along Dundas Road



With the completion of High Wycombe Station, a substantial increase in residential population is anticipated in the vicinity of Dundas Road. Accordingly, the provision of a safe and convenient cycling connection to the Tonkin Highway PSP, as well as to the major employment centres of Welshpool, Kewdale, and Perth Airport, will be critical.

During external stakeholder consultation, the Dundas Road PSP project was identified as a priority by the majority of stakeholders. It was noted that the project had progressed through extensive detailed design, with input from the City and other key stakeholder organisations. However, the project did not proceed, as the preferred design required relocation of a high-pressure gas pipeline, resulting in an estimated cost increase of approximately $6 million.

Further discussion during the external stakeholder consultation indicated that the design had primarily focused on a path alignment on the eastern side of Dundas Road, coinciding with the location of the gas pipeline. Based on feedback from the Public Transport Authority (PTA), it is recommended that an alternative alignment on the western side of Dundas Road, parallel to the rail line, be investigated. The PTA advised that, where such an alignment requires access to land under its control, it would likely be supportive, subject to a formal lease agreement consistent with arrangements implemented for similar projects in other local government areas.

9.2 Secondary Routes

Four Secondary Routes have been nominated as the key corridors for cycling to and through the City. These routes connect the key destinations within the City with the wider cycling network and nearby Activity Centres.

9.2.1 Hills Spine (Midland – Kalamunda – Lesmurdie)

The key component of the cycling network for the hills portion of the City is a north-south spine linking Midland, Kalamunda and Lesmurdie. This spine was selected as the preferred route for many reasons, including:

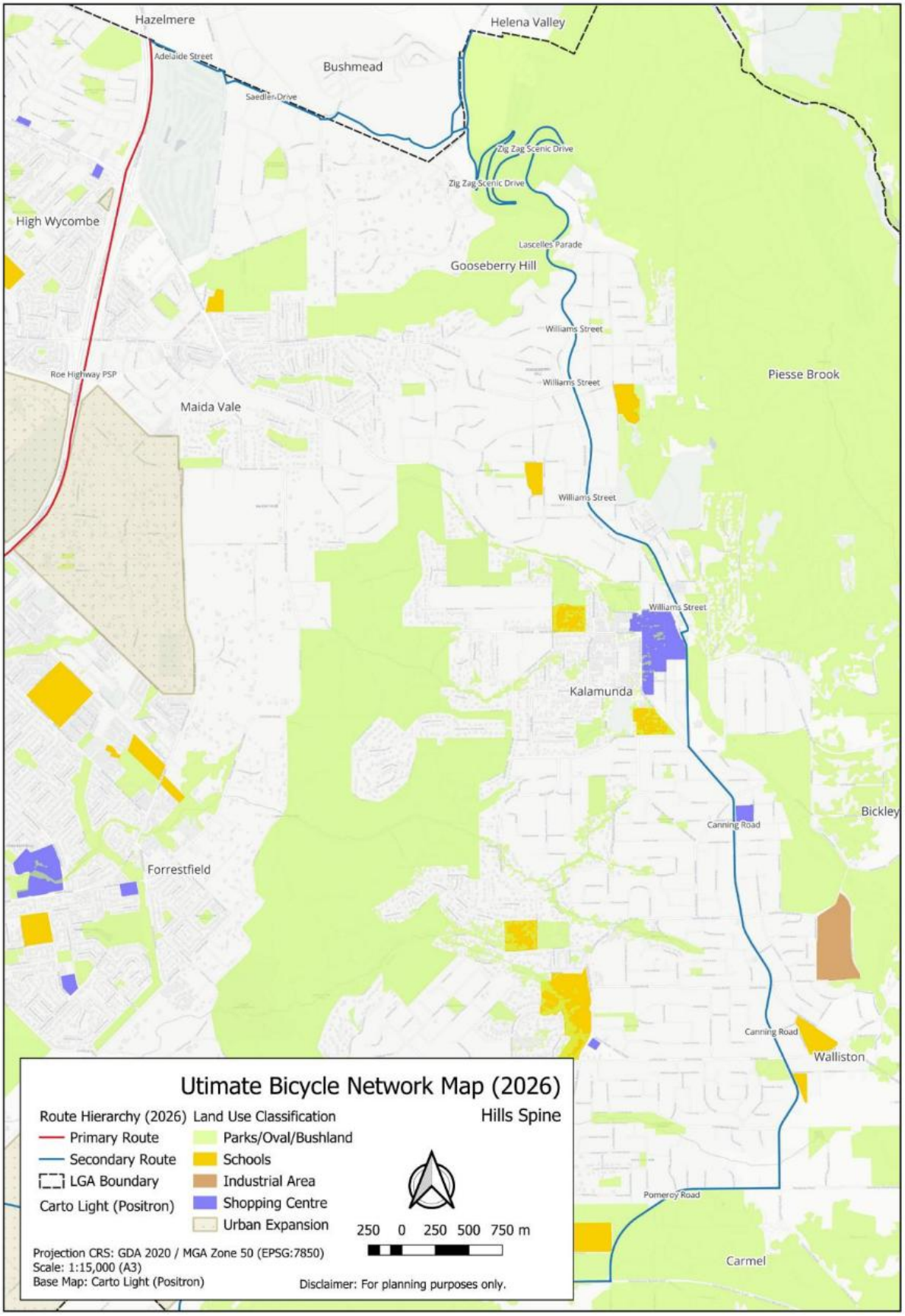
- Midland is the closest major Activity Centre to the hills portion of the City, located just 11km north of Kalamunda. Midland provides employment, education and shopping facilities for City residents, as well as access to inner-Perth suburbs via the Perth-Midland PSP.
- The Zig Zag is the only available crossing of the escarpment with reasonable grades for bike riders. The grades on alternative routes such as Gooseberry Hill Road, Kalamunda Road and Welshpool Road East are steep and would deter most casual and potential commuter bike riders.
- The scenic views at the Zig Zag would be a significant drawcard for recreational, road biking and tourist bike riding, and the ability to ride up the Zig Zag would encourage additional tourism spending within the town centre.
- Canning Road runs north-south along the main ridgeline and could generally be widened to provide buffered bike lanes at a feasible cost. The Canning Road corridor also serves Kalamunda State High School, Kalamunda Christian School and Lesmurdie State High School (via Pomeroy Road).
- It would allow mountain-bikers a convenient, safe route to access the mountain bike trails without having to mixing with heavy traffic on Kalamunda Road.

The recommended concept for the Hills Spine is shown in **Figure 51** and includes the following key elements within the City:

- Two-way bicycle access via Zig Zag Scenic Drive;
- Safe Active Street treatment between the top of Zig Zag and Haynes Street along Williams Street
- Multiple options for the link through Kalamunda Town Centre between Elizabeth Street and the southern end of Railway Road;
- Protected cycle lanes along Railway Road from Mead Street to Canning Road;
- Buffered cycle lanes along Canning Road from Railway Road to Pomeroy Road;
- Existing shared path on Pomeroy Road to connect to Lesmurdie State High School.

Each of the above elements are discussed in further detail in the following sections.

Figure 51 City of Kalamunda – Hills Spine Secondary Route (Midland – Kalamunda – Lesmurdie)



9.2.1.1 Midland to Zig Zag

This portion of the route is located outside the City of Kalamunda and would require collaboration with the City of Swan, the DTMI and Major Infrastructure, and Main Roads Western Australia (for the PSP component) to progress. The proposed alignment, including its connection to the broader network, is yet to be confirmed with the City of Swan. Nevertheless, this section is considered important for improving regional connectivity of the route.

Commencing from Midland Train Station, the indicative route follows the proposed PSP extension along the railway line to Roe Highway, then following the proposed Roe Highway south to Adelaide Street, where a new connection is proposed to the Roe Highway PSP.

From this point, the path would run along Adelaide Street and cross Midland Road, where it would connect with the shared path that was constructed in 2021 by the City of Swan. A new path would be required along the southern side of Sadler Drive and part of Broadmeadows Drive, to connect it to the existing trail in Bushmead South that recently has been sealed. It is recommended that this connection be provided as a sealed shared path to ensure suitability for a wide range of users. The specific pavement treatment, surface specification and detailed design requirements should be determined during the detailed engineering design phase of the project.

A new connection between the trail and Ridge Hill Road would be required, preferably near the start of the Zig Zag. The exact location of the connection would be subject to further detailed engineering and planning studies.

9.2.1.2 Zig Zag

Zig Zag Scenic Drive follows the alignment of the former Zig Zag railway formation and provides one of the most direct and gently graded connections between the foothills and Kalamunda Town Centre. Owing to its relatively low gradient, the route has significant potential to cater for bike riding for all ages and abilities and forms a key component of the Hills Spine Route.

9.2.1.3 Zig Zag to Kalamunda Town Centre

The section between Zig Zag Scenic Drive and Kalamunda Town Centre presents several potential alignments for the Hills Spine Route. The closure of Zig Zag Scenic Drive to general motor traffic has improved conditions for on-road cycling along Lascelles Parade, while the adjacent railway corridor remains identified as part of DTMI LTCN Secondary Route.

During stakeholder consultation, the City of Kalamunda Leisure Planning Team suggested that on-road cycling facilities along William Street be considered, noting that the existing Railway Heritage Trail is not well suited to road bikers due to its predominantly unsealed surface and recreational, mixed-use function. The trail currently caters to a range of recreational users, including pedestrians, dog walkers and mountain bike riders, which can reduce its suitability as a strategic cycling commuter connection.

Taking these considerations into account, the route options summarised in **Table 12** have been assessed for this section of the Hills Spine Route.

Table 12 Comparison of Route Options – Zig Zag to Kalamunda Town Centre

Option	Description	Advantages	Disadvantages
A - Railway Heritage Trail	• Upgrade and seal the existing Railway Heritage Trail to provide the Hills Spine Secondary Route.	• Off-road facility consistent with LTCN alignment • Potential to deliver a high-quality shared path. • Minimises interaction with road traffic.	• Significant capital cost • Require widening, environmental approvals, and upgrades to crossing • May alter the recreational character of the existing Heritage Trail
B – Lascelle Parade / William Street	• Deliver a Safe Active Street along Lascelles Parade • Improve facilities along William Street (e.g. from footpath to shared path or additional on-road facilities).	• Builds on the Zig Zag closure • Existing path facility along Williams Street can be upgraded • Retains the Heritage Trail's recreational function.	• May require revision of the current LTCN alignment • Bike riders remain adjacent to general traffic on William Street • Future road upgrades may be required

At this stage, Option B represents the most practical and deliverable approach to completing the Hills Spine Route. The closure of Zig Zag Scenic Drive to general motor traffic provides an opportunity to implement a Safe Active Street along Lascelles Parade, while future upgrades to the existing path facilities available along William Street can strengthen the connection to Kalamunda Town Centre. The railway corridor should continue to be considered as a longer-term opportunity, subject to further investigation of its feasibility, funding and ability to deliver the intended function of the LTCN Secondary Route.

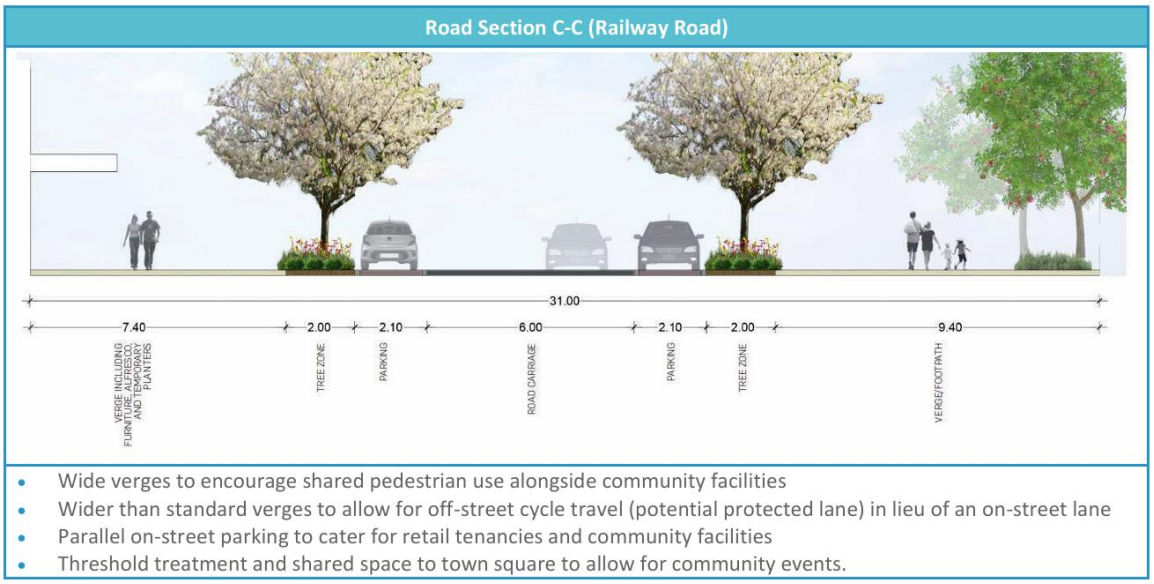
9.2.1.4 Kalamunda Town Centre (Elizabeth Street to Canning Road)

South of Elizabeth Street the railway reserve has been built over; therefore an alternative route through the town centre is required. Given the verge constraints and volume of pedestrians in the Kalamunda town centre, an on-road cycling environment is preferred over a shared path; however the on-road facility will need to cater for a wide range of ages, abilities and confidence levels.

Multiple options for the route through the Kalamunda town centre have been developed, as follows:

> **Option A: Railway Road** – This route would provide access to the top of Haynes Street, the start of the Zig Zag Cultural Centre and the start of the Mundaring Weir Road cycling route. An indicative cross section for Railway Road is shown in **Figure 52.** The protected bicycle lanes could potentially be located along the wide verges as noted in the same figure, subject to further detailed design investigations.

Figure 52 Indicative Cross Section – Railway Road

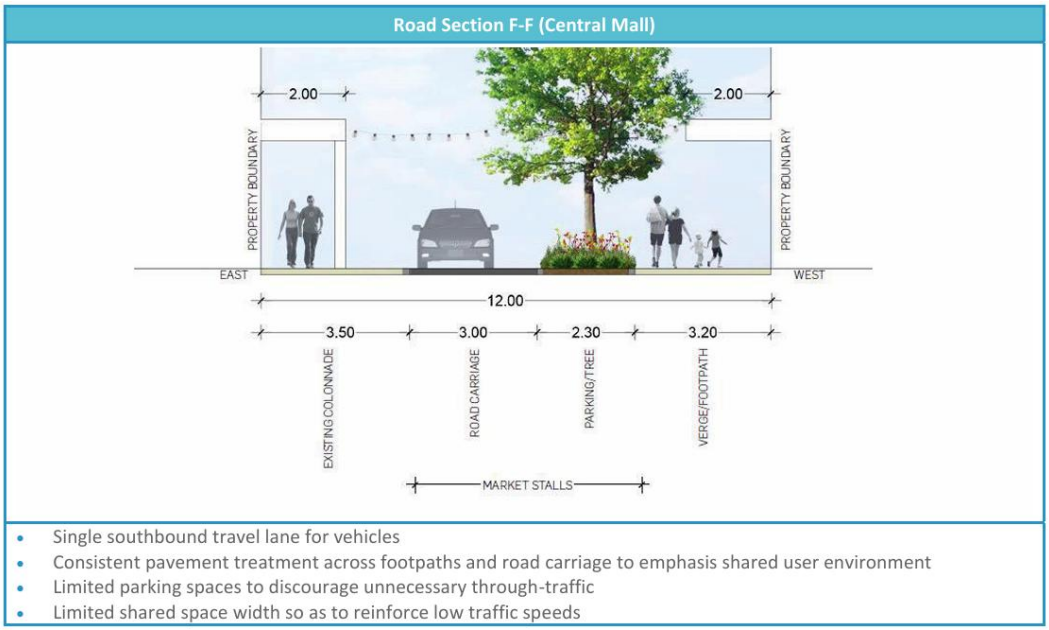


Source: Kalamunda Activity Centre Plan Transport Assessment, version 1.1, dated March 2019

> **Option B: Headingly Street** – a Safe Active Street treatment along Headingly Street connecting to the proposed buffered bicycle lanes along Canning Road. This option results in an overall lower cost network for the town centre, avoiding duplicated routes on Canning and Railway Roads, however it does not provide convenient access to the start of Mundaring Weir Road. The route also places bike riders at the bottom of Haynes Street.

> **Option C: Central Road / Central Mall** – a Safe Active Street treatment along Central Road and a low- speed cycling route through Central Mall. This route would be attractive to somewhat confident bike riders; with highly confident bike riders likely to continue using Canning or Railway Roads. An indicative cross section for the Central Mall section is shown in **Figure 53**, consistent with the *Kalamunda Activity Centre Plan Transport Assessment* (version 1.1, dated March 2019).

Figure 53 Indicative Cross Section – Central Mall



Source: Kalamunda Activity Centre Plan Transport Assessment, version 1.1, dated March 2019

Further investigations will be required to determine which of the above options is preferred for the town centre, including preferred treatments for the Mead Street / Railway Street roundabout.

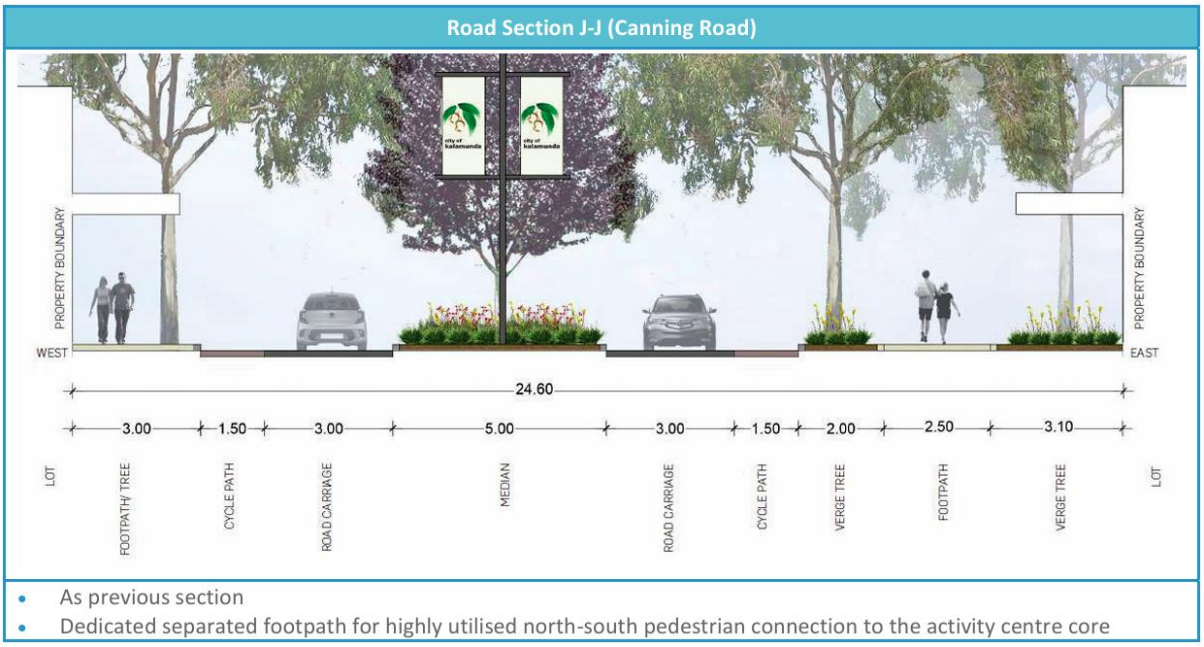
9.2.1.5 Canning Road

Buffered bicycle lanes in each direction are proposed for Canning Road between Railway Road and Pomeroy Road. Painted separation rather than physical separation between the bicycle lanes and general traffic lanes is recommended given that this route is heavily used by riding groups who prefer to travel 2- abreast and/or overtake.

Between Railway Road and Lesmurdie Road, Canning Road is typically 10.0m wide and consequently narrows for a bit to 9.5m up to the Lawnbrook Road West. South of Lawnbrook Road West, the carriageway narrows to between 7.2 and 7.5m in width. It is also noted that a concrete footpath is available on each side of the road having a width ranging from 1.5m to 1.8m between Railway Road and Halleendale Road. Further south of Halleendale Road to Pomeroy Road is one 2m wide concrete footpath on the western side of the road.

As indicative cross section for the Central Mall section is shown in **Figure 54** consistent with the Kalamunda Activity Centre Plan Transport Assessment (version 1.1, dated March 2019).

Figure 54 Indicative Cross Section – Canning Road

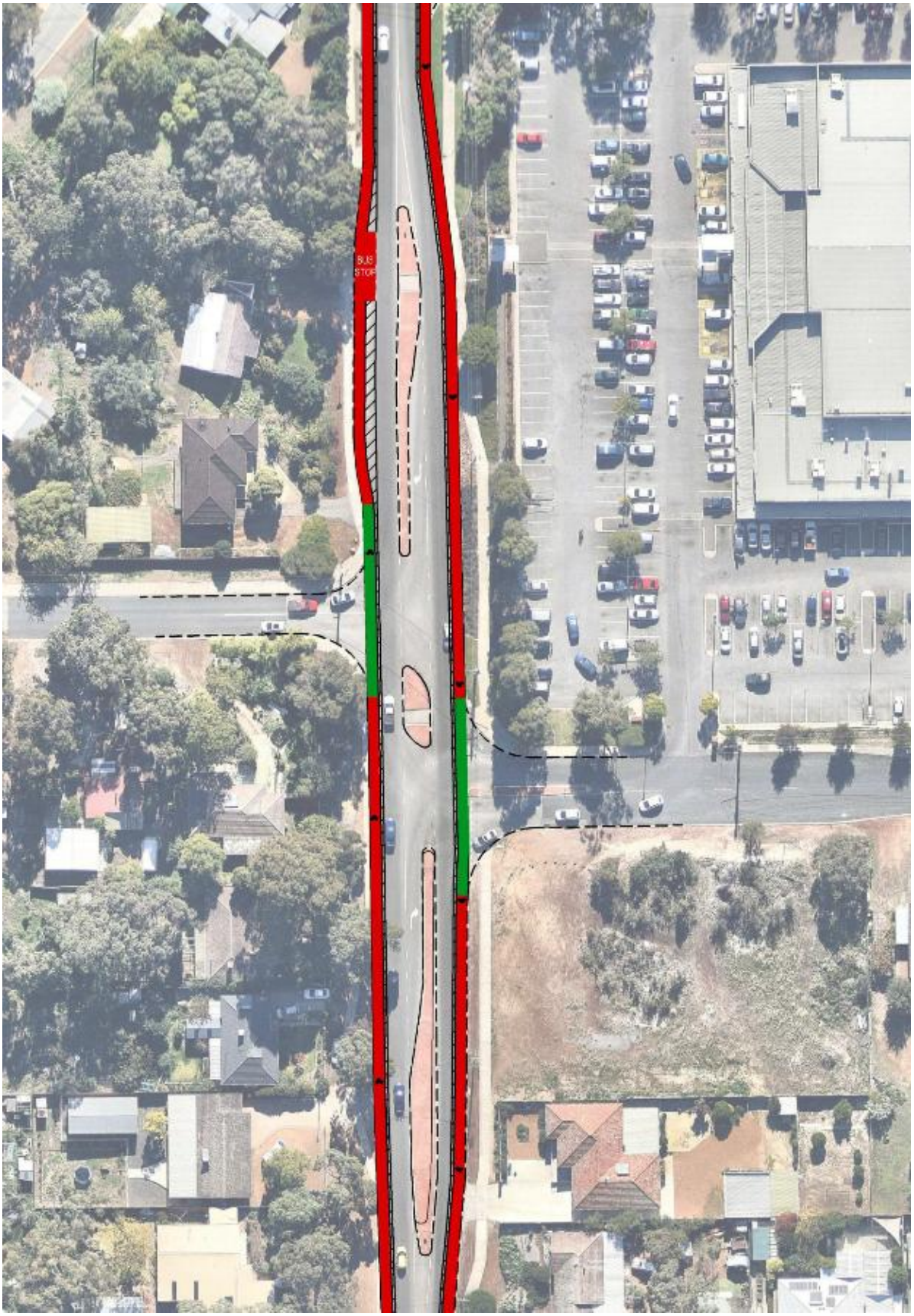


Source: Kalamunda Activity Centre Plan Transport Assessment, version 1.1, dated March 2019

Widening would be required over the full length to achieve an ultimate form of 2.0m wide cycle lane and 0.5m wide painted buffer (refer to typical section in **Figure 55**), however 1.5m wide sealed shoulders with no buffer could be implemented in the short term (refer to indicative cross section in **Figure 54**) with minimal widening required north of Lawnbrook Road

South of Lawnbrook Road, widening will be required to achieve even the minimum standard of sealed shoulders. It should be noted that DTMI's minimum standard for on-road bicycle lanes includes a 300mm painted buffer which cannot be achieved without widening of the carriageway

Figure 55 Canning Road Cycle Lanes – Typical Arrangement

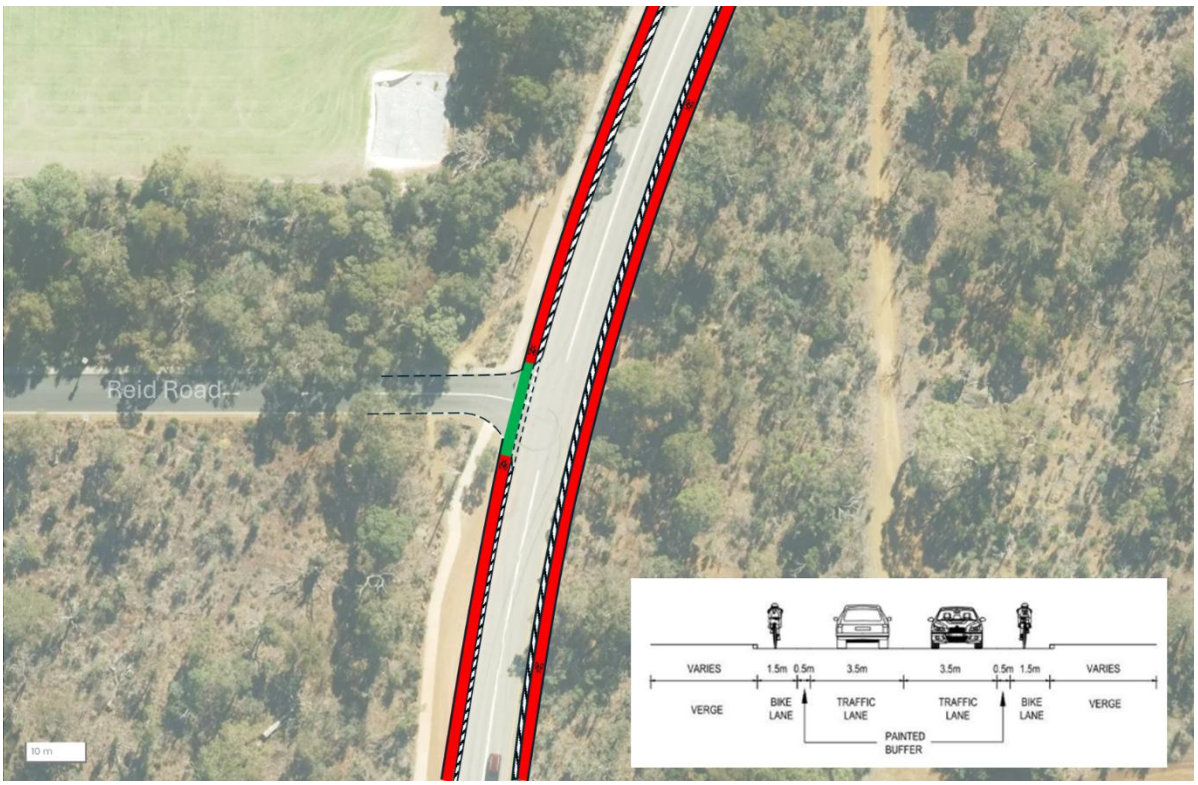


9.2.1.6 Pomeroy Road

There is an existing 2m wide concrete path along Pomeroy Road, which allows high school students to connect from the Canning Road corridor to Lesmurdie State High School. During the community consultation, some respondents have identified the absence of cycle lanes and the high volume of vehicular traffic along Pomeroy Road as a safety issue/concern

In the long term, Pomeroy Road should be widened to provide 1.5-2.0m wide sealed shoulders with painted buffer to provide additional separation from traffic, thus improving safety for High School students as well as providing space for sport bike riders to be able to ride 2 abreast. And typical layout and plan for Pomeroy Road is shown in **Figure 56**.

Figure 56 Pomeroy Road Cycle Lanes – Typical Arrangement



9.2.2 High Wycombe Station Connections

The High Wycombe Station presents a significant opportunity to encourage greater uptake of cycling in the life of this Bike Plan and therefore the links to and through the station are critical to the Plan's success. While the Station includes good quality cycling and walking facilities in the immediate vicinity of the Station, connections from the wider area to these walking and cycling facilities remain limited.

With the anticipated growth in population in High Wycombe South / Forrestfield North area (as described in **Section 8.1**) and corresponding changes to the surrounding transport network, there is significant opportunity to provide high-quality cycling facilities from the beginning, encouraging new residents to establish sustainable travel behaviours from the day they move in rather than trying to change established behaviours at a later date.

As proposed under the Ultimate Network Plan, High Wycombe Station is served by several Secondary Routes within the existing local routes along the High Wycombe residential area in the North and the future High Wycombe South / Forrestfield North area as connected by the following routes:

- **Maida Vale Road Secondary Route** – the primary connection from the areas east of Roe Highway to the train station, and the strategic connection to Kalamunda and the hills part of the City.

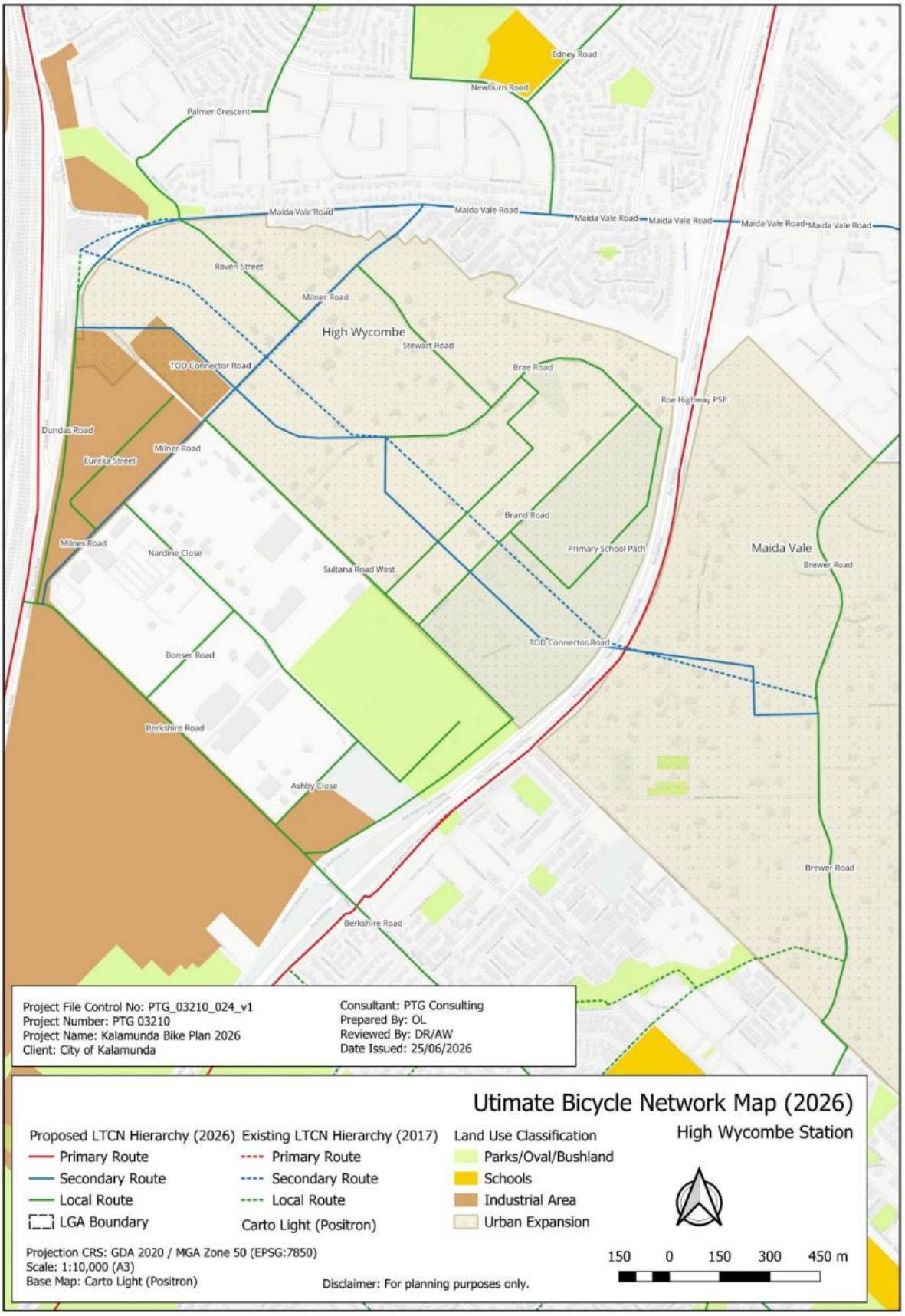
- **New TOD Connector Road Secondary Route** – Connecting High Wycombe Station through High Wycombe South / Forrestfield North area and over Roe Highway to Maida Vale

- **Milner Road Secondary Route** – connection providing access from the existing residential area to **Forrestfield North Light Industrial Precinct.**

- **High Wycombe Local Route** – connection to the nearest existing residential area to the station.

The proposed infrastructure types of these routes are shown on the map at **Figure 57** and outlined in the following sections.

Figure 57 High Wycombe Station Connections

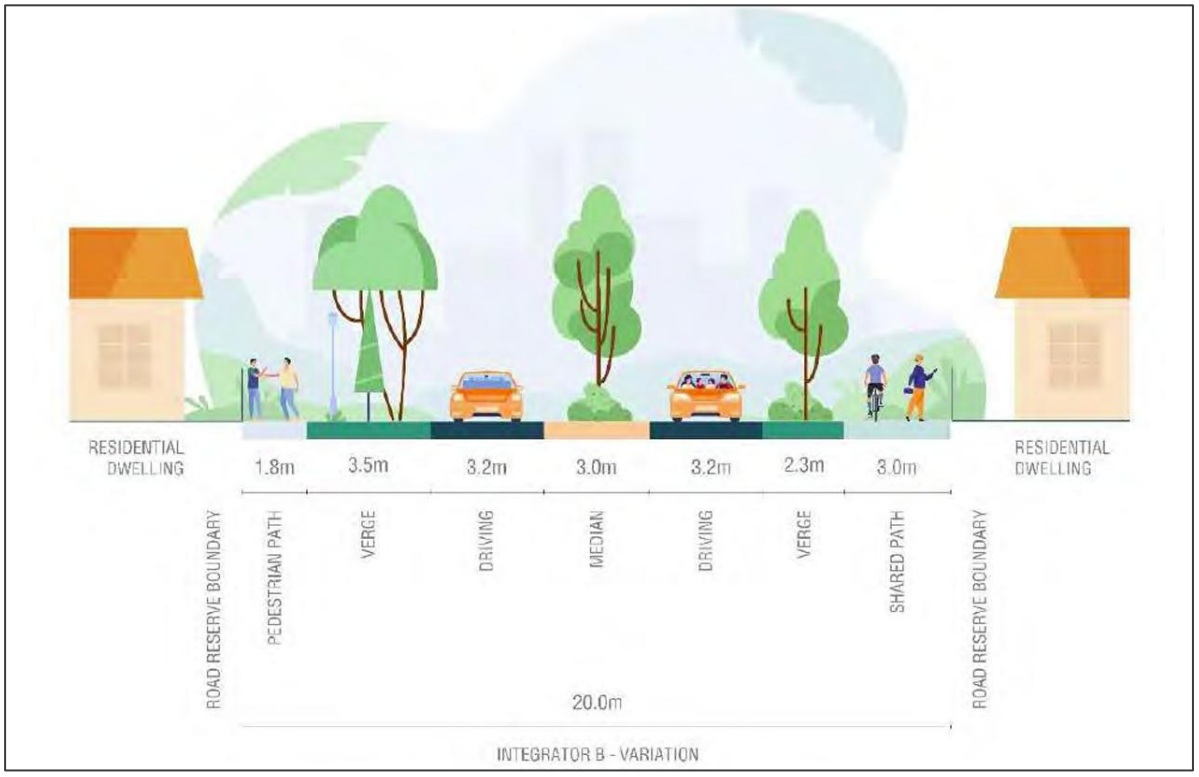


9.2.2.1 Maida Vale Road

Maida Vale Road provides a vital connection between High Wycombe Station and the surrounding residential catchment. Bike Riders currently rely primarily on the existing 1.5 m path along the northern verge of Maida Vale Road, which continues along the southern verge beyond Priory Road and connects to Old Maida Vale Road. While this provides a continuous route, Maida Vale Road currently has no dedicated on-road cycling facilities and carries relatively high traffic speeds, with frequent crossovers and intersections.

An indicative cross section for Maida Vale Road adjacent to the High Wycombe Station is provided shown in **Figure 58** based on the *METRONET East High Wycombe Structure Plan Transport Impact Assessment* (Rev B, dated October 2024), utilising the existing road reserve width of 20m and reflects the proposed station precinct arrangement. However, this only constitutes the section of Maida Vale Road adjacent to the station and does not represent the entirety of road corridor.

Figure 58 Indicative Cross Section – Maida Vale Road



Source: METRONET East High Wycombe Structure Plan Transport Impact Assessment Rev B, dated October 2024

Taking into consideration the available road reserve width, the existing and likely future traffic volumes, and the frequent crossovers, it is recommended that protected bicycle lanes be provided between High Wycombe Station. and Priory Road. Low-speed mixed traffic cycling is considered suitable along Old Maida Vale Road, with appropriate connections to Kalamunda Road at the Hawtin Road/Gooseberry Hill Road intersection.

As this Secondary Route is critical to the connectivity of the High Wycombe Train Station and the High Wycombe South /Forrestfield North Area as a whole, it is recommended that the City seek funding support from the State Government for the upgrade of Maida Vale Road.

9.2.2.2 TOD Connector Road

The TOD Connector Road is nominated as a Secondary Route connection between High Wycombe Station and the Roe Highway PSP and includes several highlights/advantages:

- It is the shortest link between the High Wycombe Train Station and the Roe Highway PSP.
- It will bisect the METRONET East High Wycombe TOD precinct and the and serve the adjacent High Wycombe South Residential area.
- It does not connect directly to Roe Highway and therefore will only carry local motorised traffic rather than through traffic (which will use Berkshire Road).

With construction of a bridge over Roe Highway (See **Figure 57)**, the route will enable continuous connection for both bike riders and pedestrians across the highway. This will allow the route to link directly into the extension of the Foothills Spine Local Route, which is proposed run along Brewer Road Transmission Line easement into Forrestfield town centre, almost free from traffic.

It will also link to Darling Range Sports College, the likely local high school for High Wycombe South residents, and a proposed primary school within the precinct. As a Secondary Route, the recommended infrastructure type for TOD Connector Road is protected bicycle lanes. Indicative cross sections for TOD Connector Road are shown in **Figure 59** and **Figure 60**, corresponding to the sections east and west of Milner Road according to the *METRONET East High Wycombe Structure Plan Transport Impact Assessment* (Rev B, dated October 2024).

The TOD Connector Road connection across (but not to) Roe Highway will be critical to the success of this Secondary Route and critical to encouraging residents of Forrestfield to cycle to High Wycombe Station. By incorporating a grade-separated crossing with direct connections to the Roe Highway PSP, the route will significantly improve network permeability and reduce detour distances between widely spaced interchanges. It is recommended that further engineering feasibility studies be undertaken to confirm whether connections can be provided between the bridge structure and the Roe Highway PSP.

Figure 59 Indicative Cross Section – TOD Connector Road (23.0m Reserve, W of Milner Rd)



Source: METRONET East High Wycombe Structure Plan Transport Impact Assessment Rev B, dated October 2024

Figure 60 Indicative Cross Section – TOD Connector Road (24.4m Reserve, E of Milner Rd)



Source: METRONET East High Wycombe Structure Plan Transport Impact Assessment Rev B, dated October 2024

9.2.2.3 Milner Road

Milner Road does not connect directly to the High Wycombe Train Station but serves as a connection between the Maida Vale Road, Sultana Road and Berkshire Road corridors, serving the heart of the METRONET East High Wycombe TOD Precinct. Due to the importance of this road as the only connection between Forrestfield North and Maida Vale Road, protected bicycle lanes should be provided as part of any future upgrade of Milner Road.

An indicative cross section for Milner Road is shown in **Figure 61**, based on the road reserve widths nominated in the *METRONET East High Wycombe Structure Plan Transport Impact Assessment* (Rev B dated October 2024).

Figure 61 Indicative Cross Section – Milner Road



Source: METRONET East High Wycombe Structure Plan Transport Impact Assessment Rev B, dated October 2024

9.2.3 Kalamunda Road

Kalamunda Road is the primary traffic route to the hills and one of only two two-way traffic routes ascending the escarpment. It is marked for a single lane of traffic in each direction on the escarpment section with a carriageway width of between 10.5 and 12.0m. It carries regular bus services but does not allow Restricted Access Vehicles (RAVs), as they are required to use Welshpool Road East.

Kalamunda Road is regularly used by road cycling groups generally travelling from South Guildford right through to the hills. Use of the road by other road biker types is very low given the steep grades on the escarpment, high traffic volumes and lack of cycle lanes. There are discontinuous sections of sealed shoulders through High Wycombe however these do not present connect to other cycling facilities and are therefore of limited use.

The High Wycombe Station presents a significant opportunity for encouraging commuter cycling in the hills. Kalamunda town centre is located only 6.5km east of the High Wycombe Station via Maida Vale and Kalamunda Roads – this is close to comfortable cycling distance, and significantly shorter than the distance between Midland Station and Kalamunda Town Centre (11km). Kalamunda Road is also the only direct link between the hills and the foothills, serving internal commuter and recreational trips within the City.

Kalamunda Road, along with Maida Vale Road, form a Secondary Route between the Kalamunda town centre and the High Wycombe Station. The section of Kalamunda Road from Maida Vale through High Wycombe towards South Guildford is also a Secondary Route but of lesser importance. This section of the Secondary Route will mainly serve road bike riders, as well as a smaller catchment of commuters in High Wycombe.

The recommended strategy for the Kalamunda Road Secondary Route is shown in **Figure 62** and described below:

- Implement 2.0m wide buffered bicycle lanes from Canning Road to Hawtin Road generally using the existing carriageway with minor widening where required. A typical plan and section are shown in **Figure 63**.
- Maintain the existing sealed shoulders between Roe Highway and Fernan Road and include 1.5m wide sealed shoulders between Fernan Road and Abernethy Road.
- Provide a continuous 2.5m wide shared path between Hawtin Road and Abernethy Road.
- Work with the City of Swan and Main Roads to implement sealed shoulders over the railway bridge immediately west of Abernethy Road.

Buffered bicycle lanes – with a painted buffer rather than a raised island – are recommended so that the large groups can make use of these lanes while riding two-abreast and/or overtaking.

Figure 62 Kalamunda Road Secondary Route

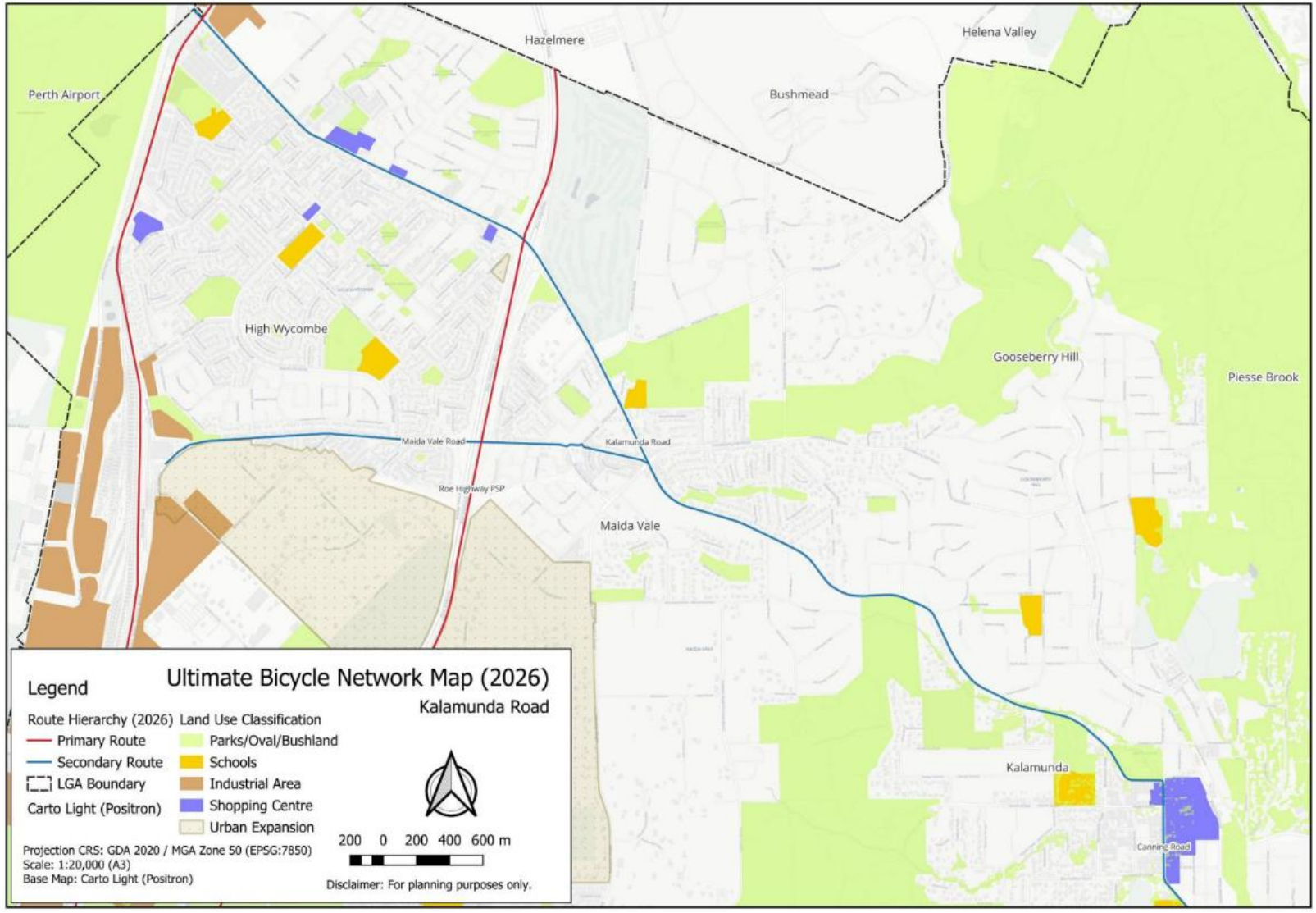
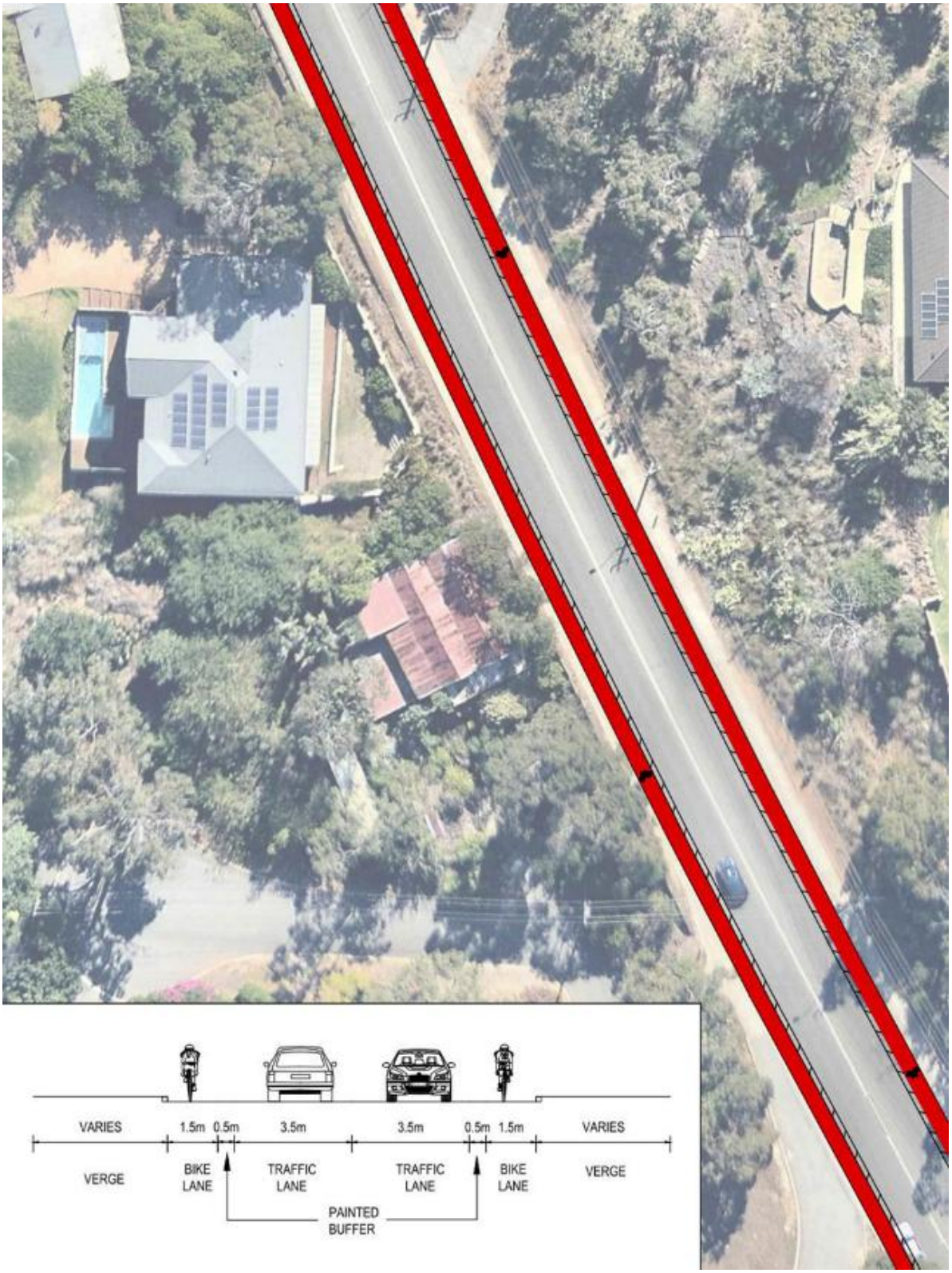


Figure 63 Kalamunda Road – Typical Plan and Section

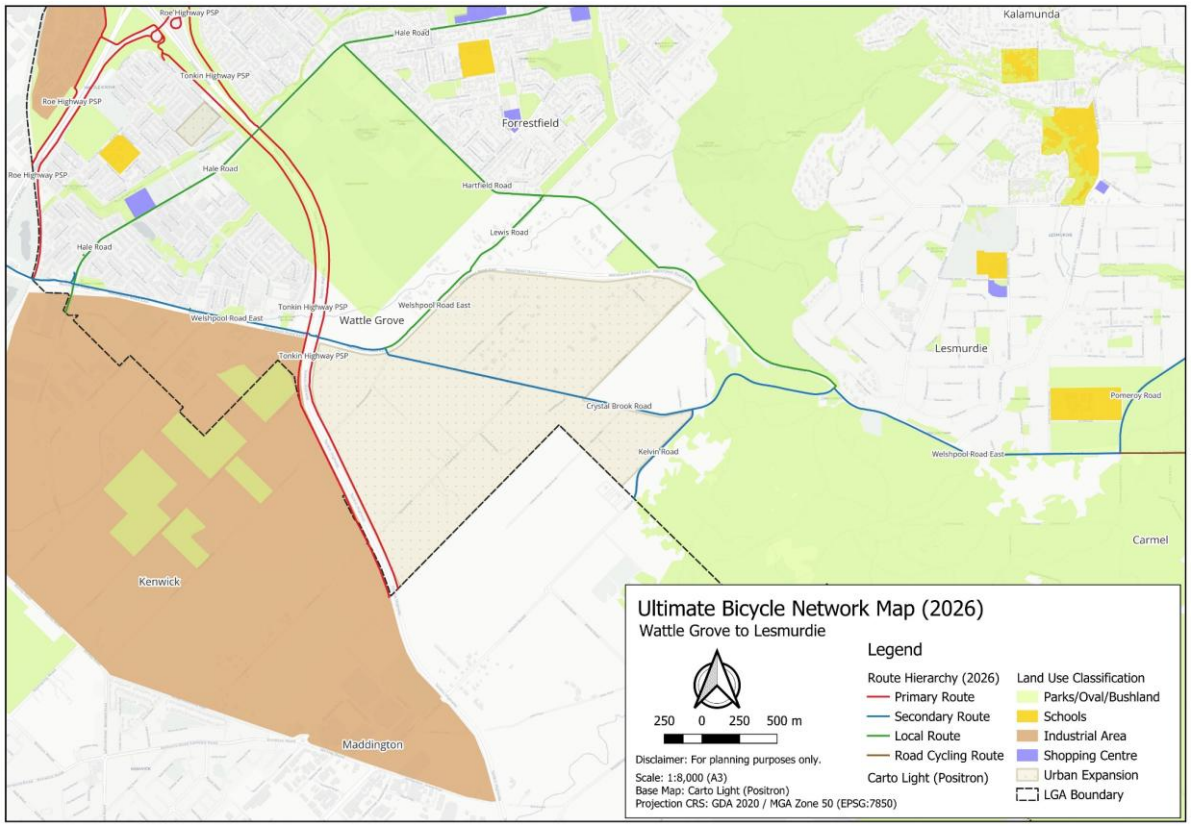


9.2.4 Wattle Grove to Lesmurdie

The Secondary Route connecting the Foothill Spine in Wattle Grove to the Hills Spine starting at Lesmurdie along the southern boundary of the City of Kalamunda consists of Welshpool Road East and Crystal Brook Road as shown in **Figure 64**.

Welshpool Road East provides a direct connection for road bikers travelling to and from the hills. However, it is also part of the Restricted Access Vehicle (RAV) network between Brookton Highway, a major grain haulage corridor, the CBH Metro Grain Centre in Forrestfield and the export terminals in ports in Kwinana. To reduce potential conflicts between local traffic, bike riders, and RAVs, the route diverts via Crystal Brook Road in accordance with the LTCN alignment.

Figure 64 Wattle Grove to Lesmurdie

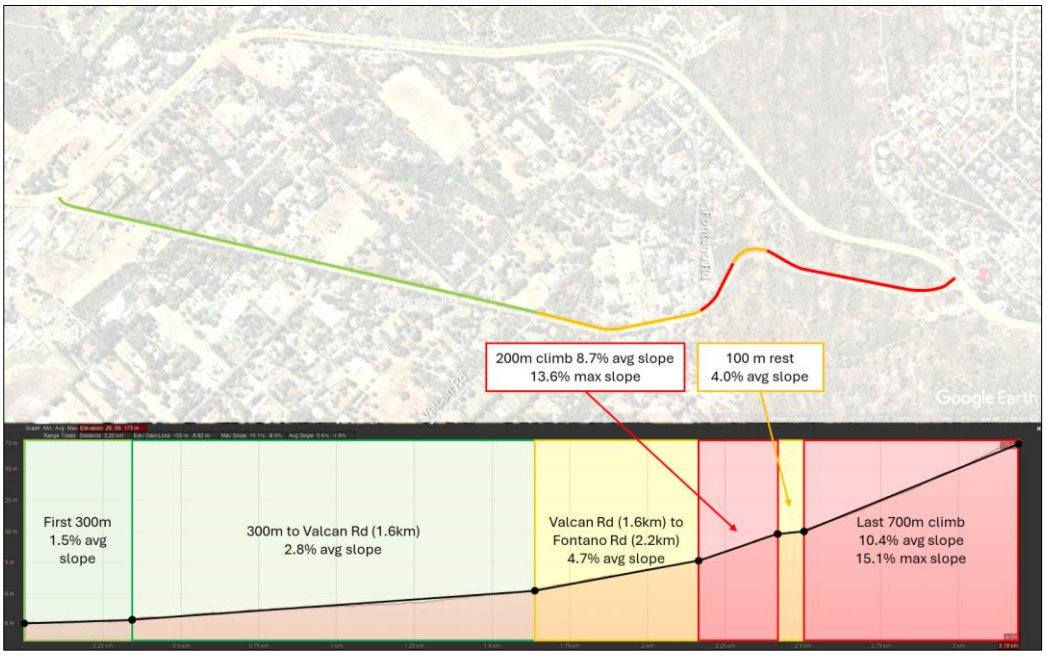


- From Roe Highway to Hale Road – the route follows the Welshpool Road East Route Link, which crosses the railway corridor via the dedicated cycling connection and passes through Puddy Lane.
- From Hale Road to Crystal Brook Road – the route generally consists of paths on both sides of Welshpool Road East. The exception is the section between the Yule Brook Estate frontage and Tonkin Highway, where a path is only provided on the southern side. The existing signalised intersection would facilitate crossing Tonkin Highway passing to the path along the south side of the roadway. However, this intersection is planned to be replaced by a grade-separated interchange in the near term, which will alter the crossing arrangement and may present opportunities to improve cycling connectivity.
- Along Crystal Brook Road, the route consists currently of a 2m-wide footpath located along the southern side of Crystal Brook up to Fontano Road, which will enable connection to the future urban expansion along Wattle Grove South. Past Fontano Road, the route transitions to a 1-metre wide on-street cycle lane along the northern edge of the roadway before joining Welshpool Road East.

- Past Crystal Brook Road, the route rejoins Welshpool Road East by crossing the intersection towards the footpath on the northern side of Welshpool Road East. However, portions of the path are currently unsealed, creating gaps in the continuity and consistency of the route.

Crystal Brook Road has been preliminarily assessed in terms of elevation to assess feasibility. Estimated gradients from both Welshpool Road East approaches, derived from Google Earth Pro digital elevation data, are shown in **Figure 65**. Further engineering and environmental investigations are recommended to confirm this route feasibility.

Figure 65 Crystal Brook Road Elevation and Slope (indicative)



Source: Imagery and Terrain Data from Google Earth (2026)

In the short to medium term, a Road Safety Audit is recommended to identify high-risk locations and inform potential treatments. As discussed in **Section 6.3**, both Welshpool Road East and Crystal Brook Road have been identified as bicycle crash hotspots.

In the long term, the following potential treatments are recommended, subject to further assessment and consideration:

- At the eastern end of Crystal Brook Road and Welshpool Road East near Melaleuca Road, the on-street cycle lane terminates around 40 metres before the intersection. While crossing facilities are provided, the abrupt termination limits seamless connectivity to the path across Welshpool Road East.
- Complete the missing sections of path along the northern side of Welshpool Road East, particularly between Gladys Road (SLK 4.47) and Lesmurdie Road (SLK 4.82), and between Albert Road (SLK 5.58) and Pomeroy Road (SLK 6.03).

9.2.5 Lesmurdie to Maddington

In the future (beyond the life of this Bike Plan), the Hills Spine Secondary Route should be further developed to connect to Maddington, via Kelvin Road as shown in **Figure 65** This would provide an entry to the hills area from the southern part of the metropolitan area and facilitate commuting to the growing employment centres in the Maddington Kenwick Strategic Employment Area (MKSEA)

south of the City of Kalamunda. In the meantime, any upgrades to these roads should provide for the future Secondary Route, such as provision of sealed shoulders on Kelvin Road.

9.3 Local Routes

9.3.1 Foothills Spine (Wattle Grove – Forrestfield – High Wycombe)

This route was developed as a spine linking the Roe Highway PSP at Orrong Road with Wattle Grove and Forrestfield and extending to both the Roe Highway PSP and High Wycombe South / Forrestfield North via Berkshire Road/TOD Connector Road. It is intended to serve local demand within Wattle Grove and Forrestfield, as well as commuters accessing the wider cycling network. A future extension through the Maida Vale South urban expansion area is also proposed to provide a continuous link to Maida Vale and the Kalamunda Road Secondary Route.

A shared path known as the Welshpool Road East Route Link has been constructed along the northern verge of Welshpool Road East, funded by the DTMI's WABN program in partnership with the City of Canning. The path crosses the rail bridge and passes under Roe Highway, extending the shared path from Roe Highway Interchange to Hale Road. In addition, the City of Kalamunda has completed the shared path sections along Hale Road, extending connections from Welshpool Road East to Hardey East Road and linking further north to the Tonkin Highway PSP.

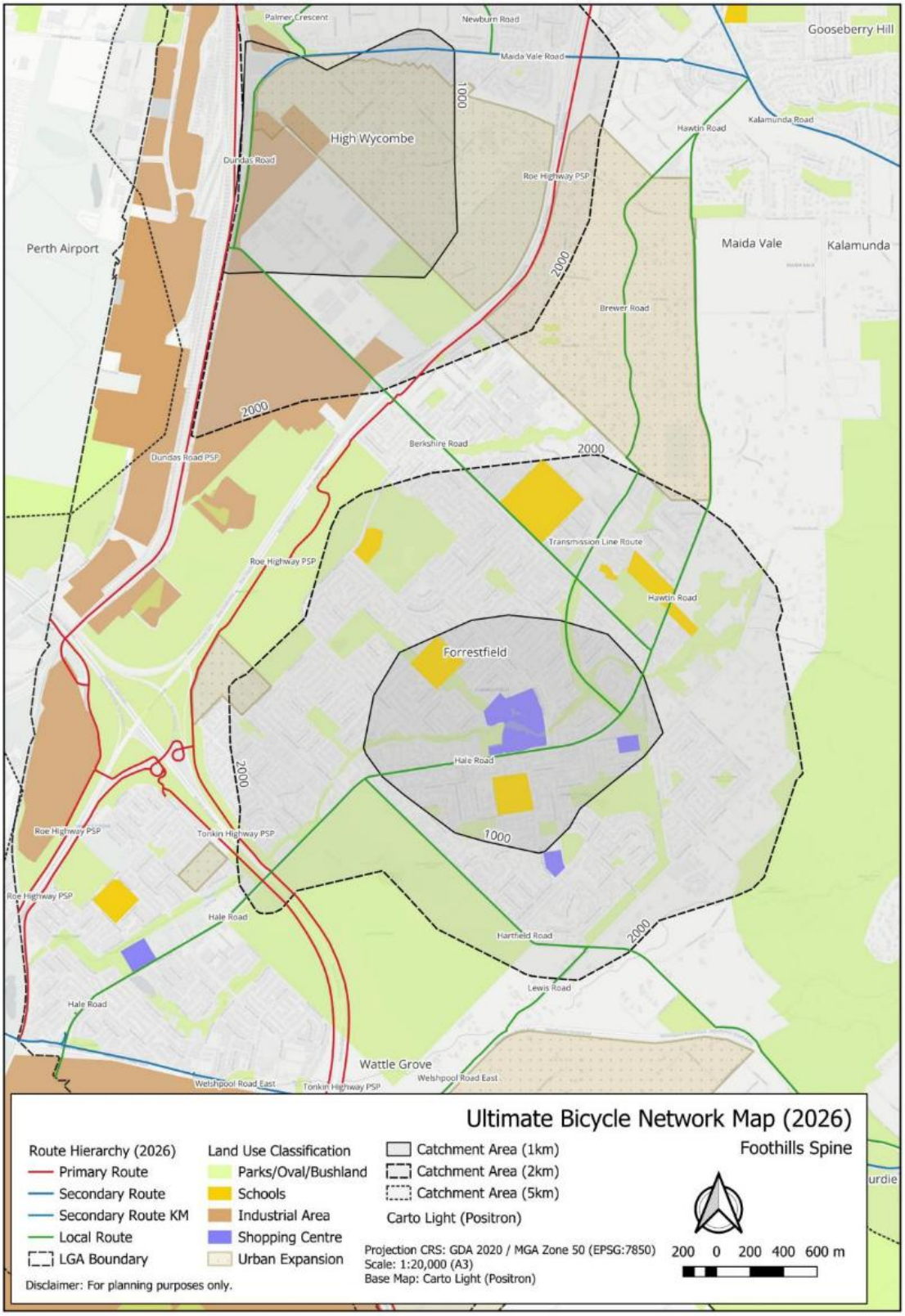
The overall route concept is shown in **Figure 66** and comprises the type of infrastructure that is suited to an all ages and abilities group– i.e. school students, parents, casual bike riders in order to maximise the potential uptake in cycling generated. The key elements of the route are as follows:

- Through Wattle Grove, the route splits into three: a western route along The Promenade serving Wattle Grove Primary School before rejoining Hale Road at Tonkin Highway; a central route continuing along Hale Road; and an eastern route following public open space parallel to Kalari Drive and Coyong Road, then crossing Tonkin Highway into Hartfield Park. The western and central routes combine at Hale Road and Hardy East Road, with all routes merging along Hartfield Road.
- In Forrestfield, Sussex Road is the preferred route as it serves Forrestfield Primary School and avoids heavy traffic. Hale Road remains an alternative but is lower priority due to constrained road reserve. A Safe Active Street treatment is proposed, with community consultation required to balance motorised access and a safe cycling environment for school-aged users.
- From Sussex Road to the Transmission Line Easement, there are two route options. First option is to continue east along Sussex Road, Coburg Street and Holmes Road to near Mallow Way, where the route would transition into a shared path and cross Hale Road into the transmission line easement. The other option is to use Hanover Road (Safe Active Street) then run along an upgraded shared path on the southern side of Hale Road to Strelitzia Avenue.
- At Strelitzia Avenue, the existing signalised intersection would facilitate crossing Hale Road, and the route would run as a shared path along Strelitzia Avenue up to Mallee Way which connects further to Berkshire Road through Akebia Way and its reserve path. As there is already an available footpath in both sides along Strelitzia Avenue, only minor upgrades to the existing paths in this section will be required, particularly along Mallee Way and Akebia Way.
- The first route then follows the Transmission Line Easement to Berkshire Road and end at Sultana Road East. Shared path branch connections would be provided to each of the local streets adjacent to the corridor. The route is envisaged to continue through Brewer Road and join with Hawtin Road to Maida Vale with the alternate route along Hawtin Road also listed for highly confident road bikers who may prefer a direct route.
- Two connections to High Wycombe South / Forrestfield North area were listed: one along Berkshire Road which connects to the Light Industrial precinct while the other branches from Brewer Road at Ravenswood Road which connects the TOD Connector Road along High

Wycombe South Residential Precinct. The Maida Vale branch would be refined as part of the Structure Planning for this urban expansion area with a view to providing either a high-quality shared path through public open space or protected bicycle lanes.

Completion of the Foothills Spine would create a continuous, mostly traffic-free cycling route through Wattle Grove and Forrestfield, linking to both High Wycombe Station and Maida Vale. The Foothills Spine would serve as the main cycling route students attending Darling Range Sports College as well as Wattle Grove and Forrestfield Primary Schools, and commuters and shoppers accessing the Forrestfield town centre.

Figure 66 Foothills Spine (Wattle Grove to High Wycombe via Forrestfield)



9.3.2 Forrestfield Local Routes

The Forrestfield Local Routes have been developed to link the Foothills Spine to its residential catchment area along Forrestfield as well as serve the three primary schools located in the suburb – Dawson Park, Woodlupine, and Forrestfield as well as to the Forrestfield Shopping Centre. With the

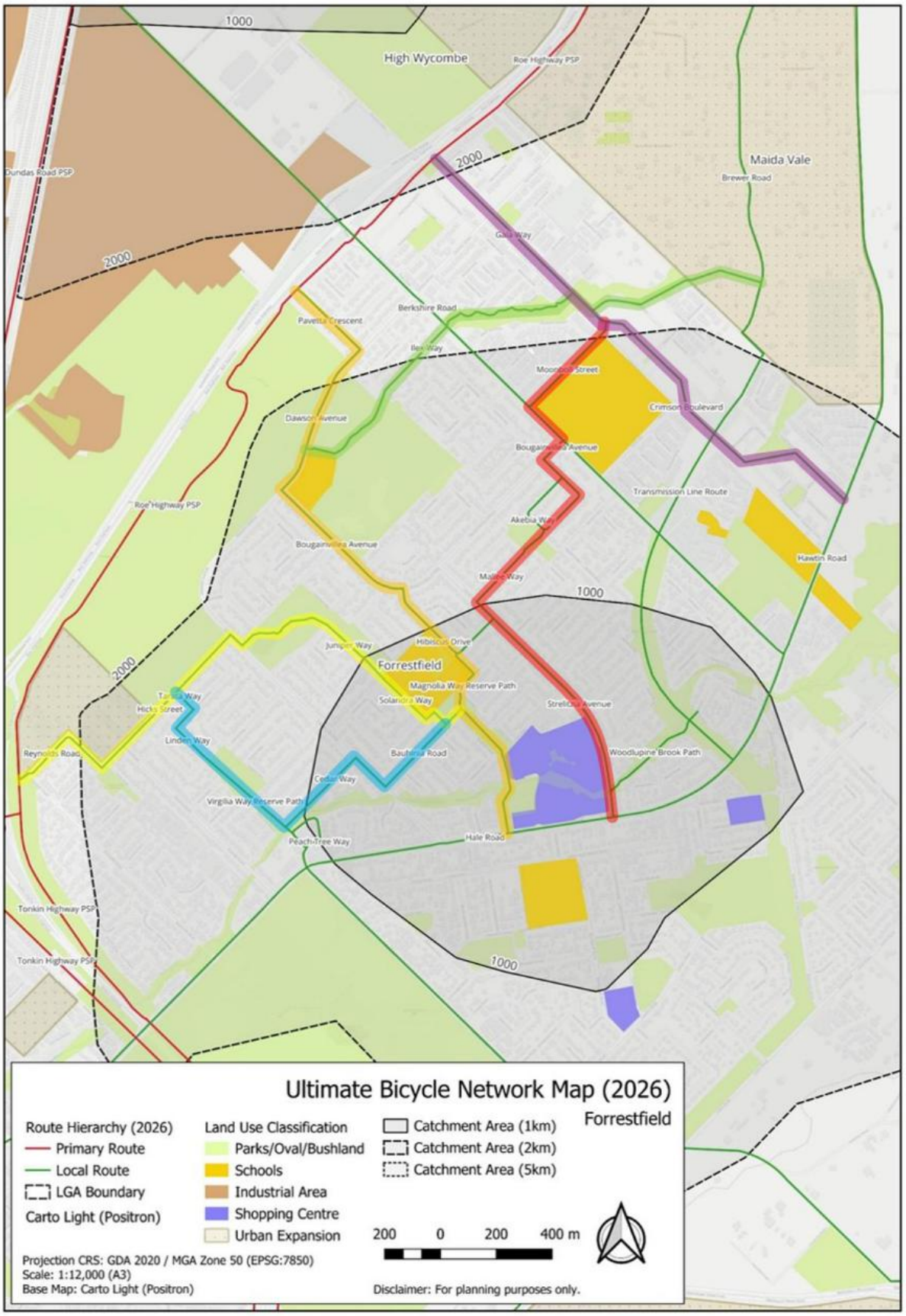
focus on school students and local commuters travelling short distances to the train station, the selected infrastructure types reflect low-speed mixed traffic cycling environments and/or path-based links. As shown in **Figure 67**, the local routes comprise the surrounding cycling network radiating outwards from the Forrestfield District Activity Centre.

- The **first route** (highlighted in red) commences at the Hale Road / Strelitzia Avenue intersection and follows Strelitzia Avenue in the northbound direction. The route turns at Mallee Way to Akebia Way via the Akebia Way Reserve before joining Berkshire Road through Bougainvillea Avenue.
- The **second route** (highlighted in orange) runs through public open space west of Woolworths Drive, continuing north to Magnolia Way Reserve and Woodlupine Primary School. It proceeds via Hibiscus Drive and Bougainvillea Avenue through Dawson Park Primary School. It follows Dawson Avenue and Pavetta Crescent before connecting to the Roe Highway PSP. This route connects to the first route via Hibiscus Drive near Woodlupine Primary School
- The **third route** (highlighted in yellow) deviates from the Woodlupine Primary School in the westbound direction passing Solandra Way, Juniper Way and Juniper Way Reserve. It connects further to Hicks Street and Reynolds Road before connecting to the Roe Highway PSP.
- The **fourth route** (highlighted in blue) serves as an alternate route to the third route. Instead of passing Bauhinia Road and Cedar Way, it extends along the Virgilia Way Reserve, Linden Way, and Tarata Way before connecting back at Hicks Street. This is also connected to Hale Road through Peach Tree Way, connecting further to Hartfield Road
- The **fifth route** (highlighted in green) connects Dawson Park eastward to Darling Range Sports College, passing through Dawson Park, Ilex Way, and Crumpet Creek Reserve. This route can be further expanded to Maida Vale but the specific alignment will be subject to further development in the area.
- The **sixth route** (highlighted in violet) includes the prior Gala Way connection from the Roe Highway PSP to Hawtin Road. However, recent development within the area as noted in *The Hales Local Structure Plan –Residential Lots 14, 15, 515, Hawtin Road 3000 on Deposited plan 400892 and 9502 Pearce Avenue Forrestfield* show that this route will go via Crimson Boulevard starting at the connection with the fifth route towards Hawtin Road.

There are some local routes such as the path along Woodlupine Brook which connect from the Forrestfield District Activity Centre eastwards to the Transmission Line Easement.

The highest priority section of this route is the corridor from Forrestfield Shopping Centre to Dawson Park Primary School as this would serve as the main residential catchment. Given its importance to the accessibility of the shopping centre, the City should seek State Government funding support for this corridor.

Figure 67 Forrestfield Local Routes



9.3.3 High Wycombe Local Routes

The High Wycombe Local Routes has been developed to link High Wycombe Station with its closest residential catchment, as well as serve the three primary schools located in the suburb – Edney, Matthew Gibney and High Wycombe. With the focus on school students and local commuters travelling short distances to the train station, the selected infrastructure types reflect low-speed mixed traffic cycling environments and/or path- based links. Highly confident bike riders may elect to use the existing sealed shoulders on Newburn Road in preference to the Safe Active Streets.

As shown in **Figure 68**, the spine of the route follows Everitt Place, Palmer Crescent and Butcher Road to Newburn Road. North of Newburn Road, it is proposed to upgrade two Public Access Ways (PAWs) and a path through a small park to reach Kiandra Way. Kiandra Way would then be developed as a Safe Active Street to High Wycombe Primary School. From the end of Kiandra Way, the route follows Hamilton Road and Fernan Road, both of which would be developed as Safe Active Streets.

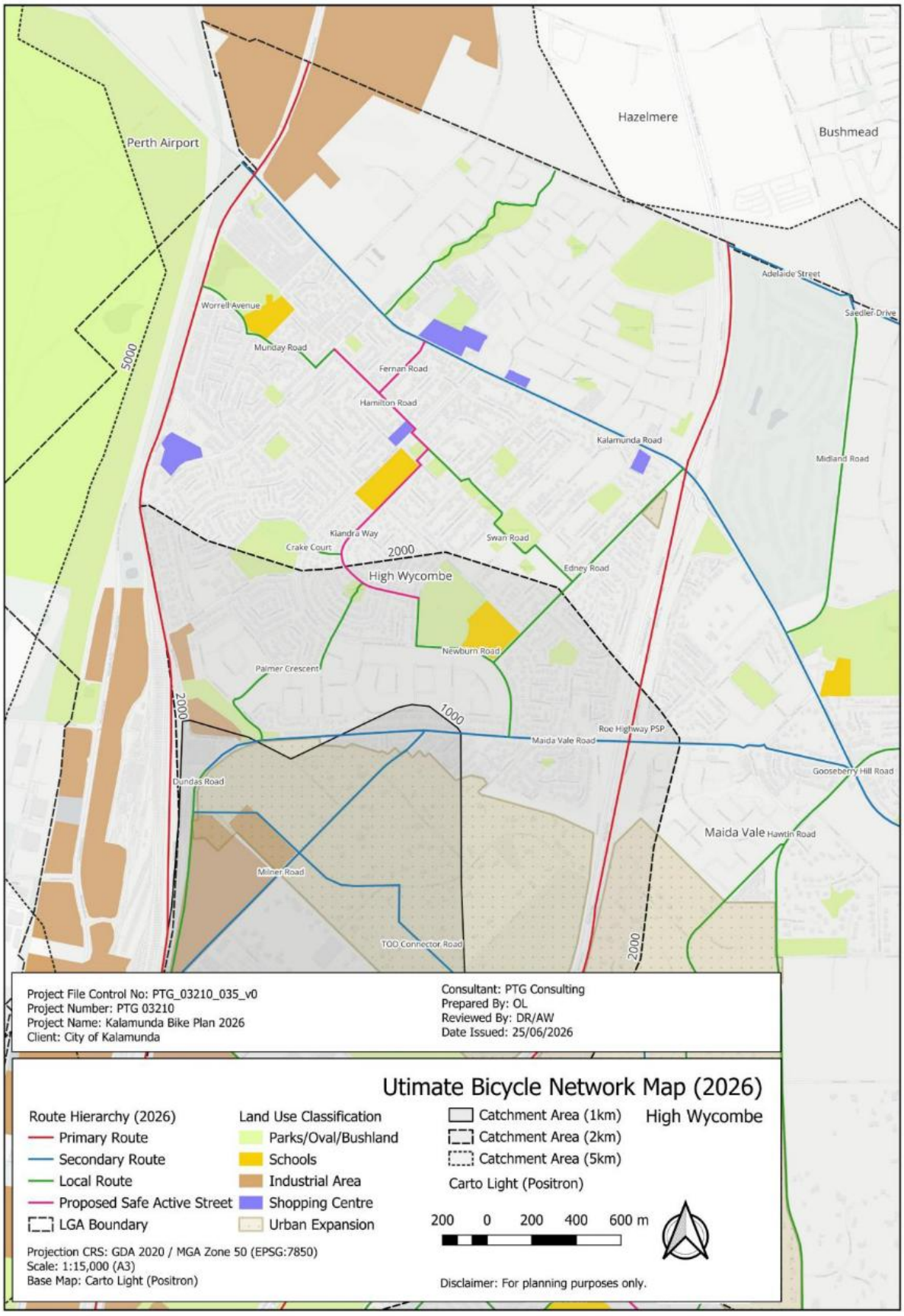
Three spurs along this route are proposed in order to serve the primary schools:

- Matthew Gibney Catholic Primary School – a continuation of the Hamilton Road Safe Active Street then an upgraded shared path connection to the school. Beyond the school, the path should connect to the future Freight Railway PSP to provide connectivity to the wider network.
- High Wycombe Primary School – an upgraded shared path link along Swan Road, connecting to the Edney Road shared path.
- Edney Primary School – a new shared path link via Norling and Newburn Roads, connecting to Maida Vale Road.

While most of the local routes in the High Wycombe area have been completed, there are a number of missing links in this route, including:

- Worrell Avenue, Munday Road to Abernathy Road – narrow footpath and missing link
- Fernan Road, Hamilton Road to Kalamunda Road – narrow footpath
- Swan Road, Range View Park to Edney Road – narrow footpath

Figure 68 High Wycombe Local Routes



9.3.4 Wattle Grove South Local Routes

The Wattle Grove South Local Routes have been developed based on the *Wattle Grove South Local Structure Plan Transport Impact Assessment* dated 18 August 2025, as discussed earlier in **Section 8.2**. These routes mostly serve the proposed residential catchment area and primary school and connects to the proposed Tonkin Hwy PSP extension and are as illustrated in **Figure 69.**

Roads within the structure plan that are classified Neighbourhood Connectors mostly consists of 2.5m to 3m dual-use shared paths which include Brentwood Road, Victoria Road, and the proposed road bisecting both roads. Meanwhile, the proposed Access Road Path as well as the Primary School Path are suggested to include a 2m shared path but may be considered for other treatments subject to detailed design stages.

While the proposed structure plan is still at lodgement phase and are still indicative with existing land uses within the locality still mostly undeveloped, the developed routes present a significant strategic opportunity to embed an integrated and legible active transport network from the outset.

9.3.5 Berkshire and Dundas Roads

Berkshire Road connects the residential and industrial segments of Forrestfield, providing the only crossing of Roe Highway south of Maida Vale Road. MRWA provided sealed shoulders and shared paths through the Roe Highway interchange as part of upgrade works, and there is a footpath along most of its length on the northern verge. At the western end, Berkshire Road intersects with Dundas Road, which is links into the High Wycombe Station.

Until the TOD Connector Road bridge can be constructed, indicatively within the next 20 years, and the Dundas Road PSP is built, Berkshire Road will be the only cycling connection between High Wycombe Station and the Forrestfield residential areas.

Once the TOD Connector Road bridge has been completed, Berkshire Road will revert to being a community route for local connections to the proposed Dundas Road and Roe Highway PSP and to Darling Range Sports College.

9.3.6 Hale / Hawtin Roads

Hale Road and Hawtin Road form a continuous connection between Wattle Grove, Forrestfield and Maida Vale. As there are limited available routes in this area, there is likely to be demand for using these roads by highly confident bike riders who find the alternatives too slow and/or indirect. Accordingly, a minimum of 1.5m wide sealed shoulders should be provided continuously along this route as any upgrade works are undertaken. The use of roundabouts should also be minimised along this route to maximise safety for bike riders.

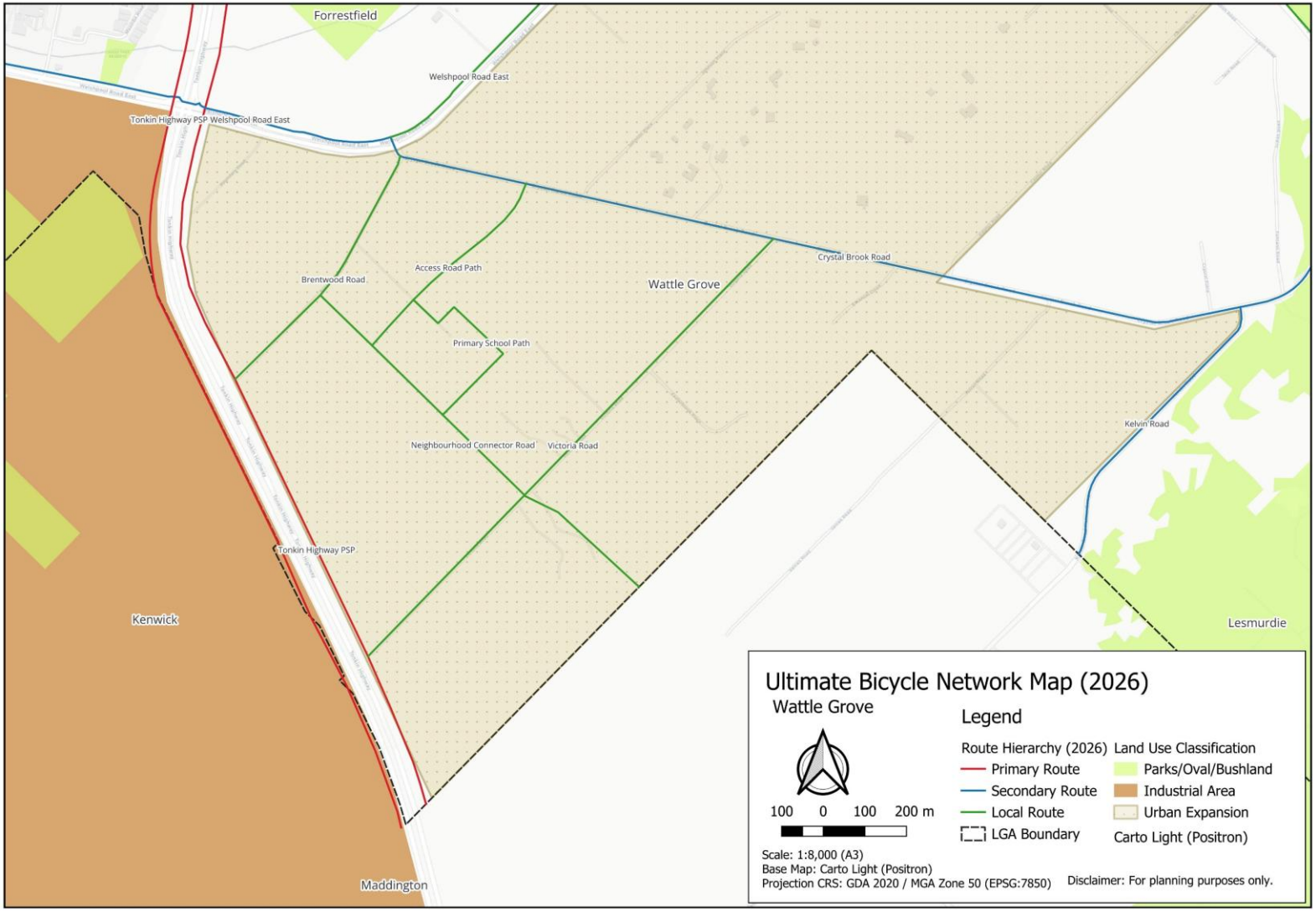
A continuous shared path along one side of this route should also be provided to cater for local cycling traffic – e.g. children riding to school.

9.3.7 Midland Road

Midland Road connects Maida Vale with Midland and Bushmead in the City of Swan. The Roe Highway PSP will serve as the main connection between Maida Vale and Midland, however Midland Road will still attract some cycling demand from existing and future residential land uses in the area.

As per the Hale / Hawtin Road corridor, 1.5m wide sealed shoulders should be provided on the section within the City of Kalamunda. The City should also encourage the City of Swan to provide a similar level of infrastructure on their section of the road. A continuous shared path along one side of this route should also be provided to cater for local cycling traffic – e.g. children riding to school.

Figure 69 Wattle Grove South Local Routes



9.3.8 Gooseberry Hill Local Routes

The steep terrain and winding road network within Gooseberry Hill present challenges in identifying and delivering high-quality cycling connections. Despite these constraints, the area's proximity to local schools, recreational destinations, and activity centres supports the provision of cycling infrastructure to encourage short local trips and improve access for students and residents. The Local Routes proposed within the suburb are as listed:

Gooseberry Hill Road – is a local route linking the east-west direction from Maida Vale Road to Kalamunda Road for bike riders intending to go directly to the Zig Zag. This would allow continuous access from Maida Vale up the hill without a detour via the Kalamunda Town Centre. There is a 2m footpath available that alternates between the northern and southern side throughout of Gooseberry Hill Road. It is available on the north side at the sections of Kalamunda Road to Watsonia Road and the frontages of House Lots 68 to 40 Gooseberry Hill Road. For the remaining sections, the footpath is located on the south side of the road.

Lenori Road – Davies Crescent – This route follows the local path from Williams Street to Kalamunda Road which passes through Mary's Mount Primary School, connecting the surrounding residential suburbs of Gooseberry Hill with the schools and village centre. There is a footpath on the southern side of Lenori Road and a footpath on the western side of Davies Crescent adjacent to the primary school.

Ledger Road – This route extends the local cycling network within Gooseberry Hill to enable direct connection to Gooseberry Hill Primary School. There is an existing 1.5m-2m wide footpath along the southern verge of Ledger Road, extending up to Gooseberry Hill Hall.

9.3.9 Lesmurdie Local Routes

The hilly terrain and irregular road network in the Lesmurdie area makes it difficult to identify and develop high-quality cycling links. The number of schools in this area justify the provision of shared paths to facilitate students riding to school and the more important of these links have been identified as Local Routes as shown in **Figure 70**.

Lesmurdie Road – is the main north-south spine through Lesmurdie, serving Lesmurdie Senior High School, St Brigid's College and Falls Roads Primary School. There is a continuous shared path from Canning Road to Rootes Road but only narrow footpaths continuing to Welshpool Road East. In the medium to long term at least one of these paths will need widening to shared path standard to provide a function connection to Welshpool Road East.

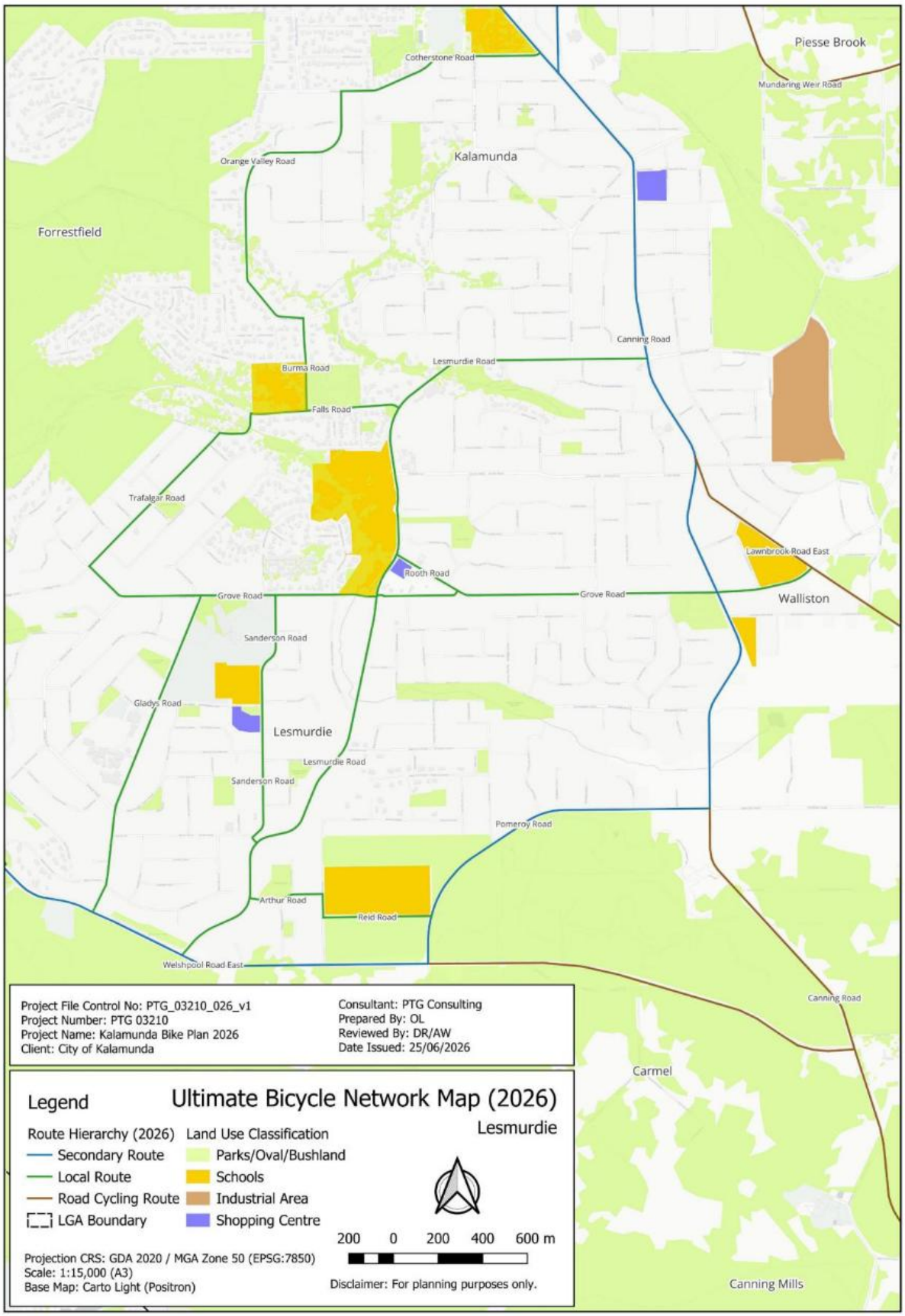
Kalamunda – Falls Road – Lesmurdie – This route follows Cotherstone Road, Betti Road, Orange Valley Road, Burma Road, Trafalgar Road, part of Grove Road, and Gladys Road, connecting the western residential areas of Kalamunda and Lesmurdie with schools and shops.

There are several missing links in this route, including:

- Burma Road, Orange Valley Road to Connor Road – narrow footpath
- Trafalgar Road and Kimbarlee Way, Waterloo Crescent to Falls Road– narrow footpath
- Grove Road, George Road to Gladys Road – missing section of shared path on north verge
- Gladys Road – narrow footpath

Grove Road – this east-west link connects the Gladys Road, Lesmurdie Road and Canning Road routes as well as serving three schools.

Figure 70 Lesmurdie Local Routes



9.3.10 Forrestfield to Lesmurdie

Following an extensive review of route options up and down the escarpment, a future Local Route has been nominated from Forrestfield to Lesmurdie via Hartfield Road and Welshpool Road East. This route is intended to provide a local commuter and utility bike riding connection between the hills and the foothills, as well as connecting to the wider cycling network via the Tonkin Highway PSP. Indicatively, the route would consist of:

- A high-quality shared path along the southern verge of Hartfield Road from Morrison Road (junction with Foothills Spine Local Route) to Lewis Road. This alignment is preferred due to reduced conflict with frequent driveways and intersections along the northern verge, with the Hartfield Park frontage providing a more consistent interface and improved pedestrian and bike riding outcomes. Where sections of the southern verge are identified for parking to support the sporting use of the park, the route may require some of these sections to be provided on-road.
- Improvements to the on-road environment along Hartfield Road from Lewis Road to Welshpool Road East to encourage low-speed mixed traffic cycling, with the potential for a shared path in the long term; and
- Construction of a shared path along the northern side of Welshpool Road East, from Hartfield Road to Lesmurdie Road.

The latter section will be an expensive, long-term project involving extensive cutting into rock and treatment of the cuttings to prevent loose rocks from falling onto the pathway. As an alternate alignment, it is recommended that the City consult with the Parks and Wildlife Service (DPAW) to understand their attitude towards providing a shared path type facility through the park. If DPAW is favourable to the idea, more detailed investigations of grades and potential alignments should be undertaken with a view to identifying one or more feasible route options to compare against the cost and feasibility of constructing a shared path along Welshpool Road East.

9.4 Safe Active Streets

There are several locations in the City that may be suitable for Safe Active Street development, either as part of a continuous local route or as a safe route to school. Some of these locations are outlined in the following sections.

9.4.1 Forrestfield

The locations of proposed Safe Active Streets in Forrestfield are shown in **Figure 71** and described below:

- **Hibiscus Drive and Pavetta Crescent** form part of a connection from Forrestfield town centre to the Roe Highway PSP near Berkshire Road, utilising existing Public Open Space corridors and an existing shared path on Dawson Avenue. This route serves Woodlupine and Dawson Park Primary Schools, as well as connecting residents to the PSP.

- **Peach Tree Way, Cedar Way and Bauhinia Road** form a connection from Hartfield Park and Cypress Road through to Woodlupine Primary School. This link would be a combination of Safe Active Streets and shared path links through Public Open Space. A safer crossing of Hale Road to access Hartfield Park would be required to complete the route.

- **Hibiscus Drive, Mallee Way and Akebia Way** form a connection between Woodlupine Primary School and Berkshire Road, utilising the existing school crossing on Strelitzia

Avenue. This route would also serve local students riding to Darling Range Sports College.

- **Ilex Way** as part of continuous route between Dawson Park Primary School and Brewer Road. The Safe Active Street would link to shared paths through Public Open Space at each end of Ilex Way.

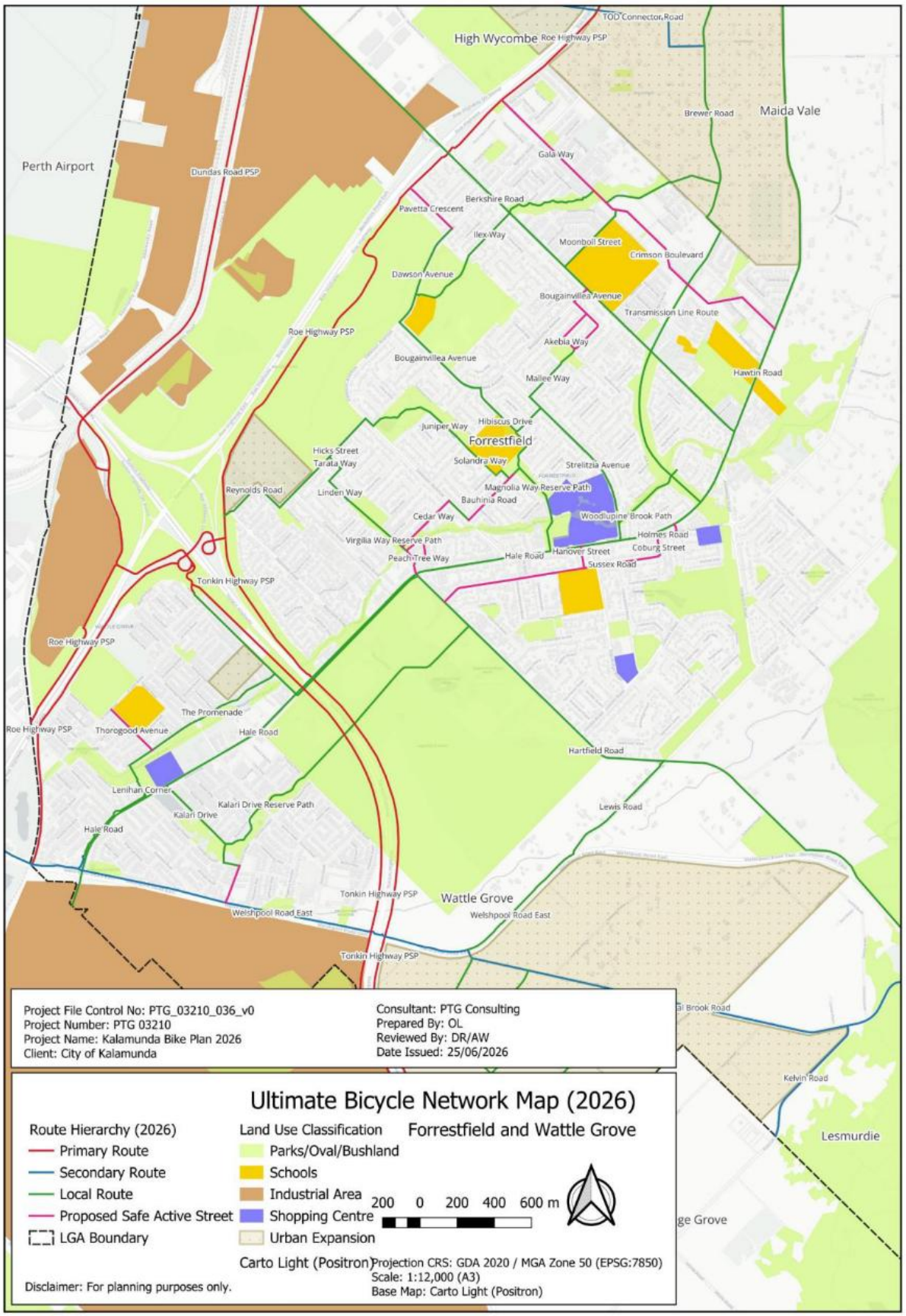
- **Gala Way and Crimson Boulevard** form a continuous link for the residential area between Sultana and Berkshire Roads that stretch from Roe Highway to Hawtin Road. The Safe Active Street can link into the transmission line as well as the future Roe Highway PSP extension. This Safe Active Street is proposed to be constructed along with the residential area (known as the Hales Estate) and to be funded under the Developer Contribution Plan.

9.4.2 High Wycombe

The locations of the proposed Safe Active Streets in High Wycombe are as discussed in **Section 9.3.3** are described below:

- **Kiandra Way** forms a connection from Norling Road, adjacent to Scott Reserve, to High Wycombe Primary School. It will be forming the spine of the local High Wycombe cycling network and will connect to the spurs at Newburn Road, Crake Court, and routes across Mclarty Way, Walker Crescent, and Newburn Road to Butcher Road.
- **Hamilton Road** form a connection from High Wycombe Primary School to Wittenoom Road, forming the corridor to Matthew Gibney Primary School. This route would also serve local students riding to both schools.
- **Fernan Road** form a connection between the Safe Active Street proposed along Hamilton Road to further connect north to Kalamunda Road and the High Wycombe North Neighbourhood Activity Centre

Figure 71 Safe Active Streets – Forrestfield and Wattle Grove



9.4.4 Wattle Grove

Two potential Safe Active Streets in Wattle Grove are shown in **Figure 71**:

- **Thorogood Avenue** would form a key active transport corridor accessing Wattle Grove Primary School, linking into the extensive existing and proposed shared path networks through the open space corridors. Combined with these shared paths, parents would be able to ride with their children to the school from most parts of Wattle Grove with minimal interaction with traffic.

- **Lancelot Green** would form a link between the main Public Open Space corridor and the future signalised intersection of Welshpool Road East / Coldwell Road. This would provide access to the Maddington-Kenwick Strategic Industrial Area as well as the main shared path along Welshpool Road East

9.4.5 Kalamunda Town Centre

Opportunities for Safe Active Streets in the hills are limited due to the hilly terrain and impermeable road network. Potential Safe Active Streets locations are shown in **Figure 72:**

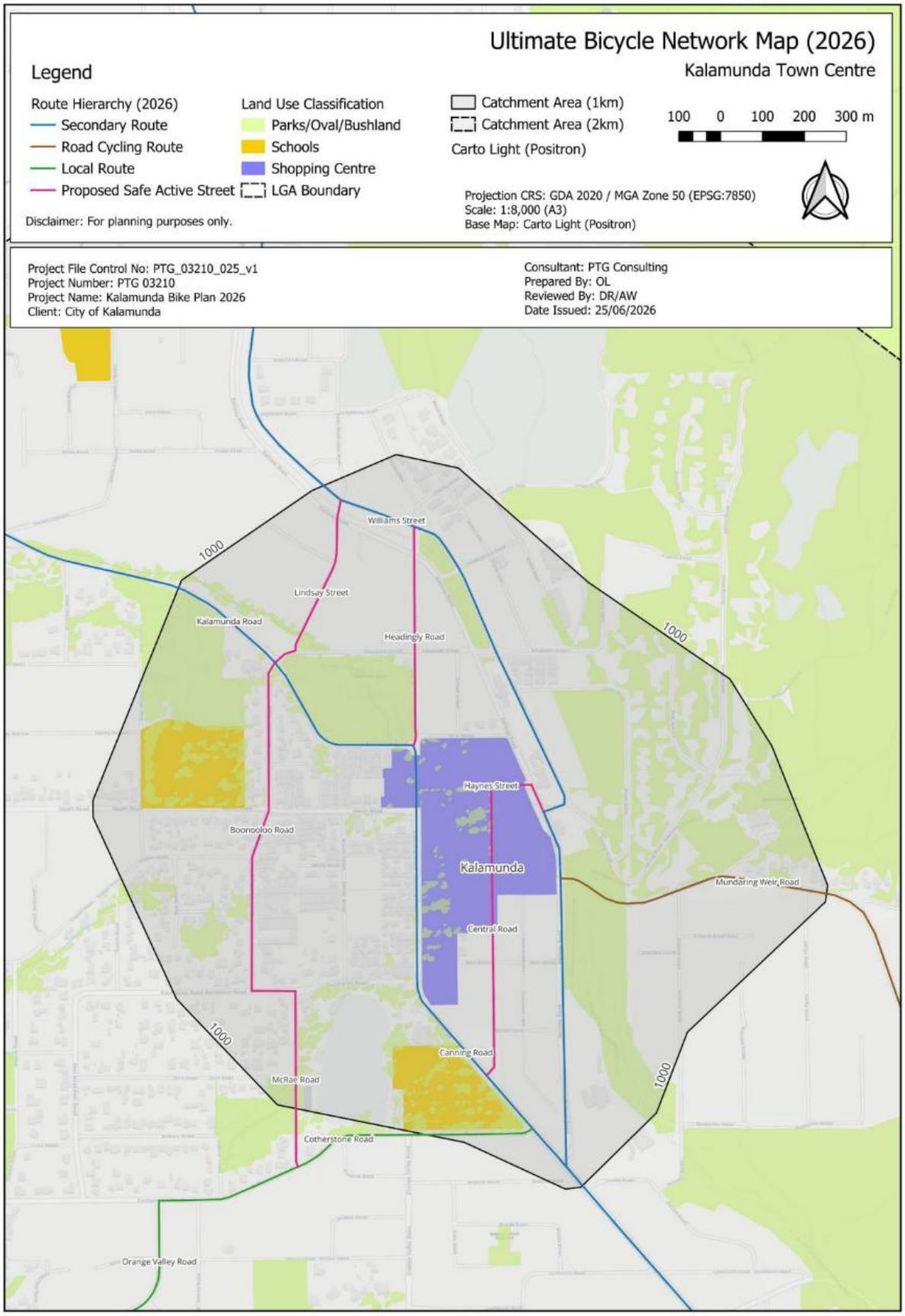
- **Williams Street / Lascelles Parade** – this section from Hill Street to the top of Zig Zag forms part of the Midland – Kalamunda – Lesmurdie Secondary Route. Due to the terrain, a Safe Active Street type treatment is preferred.

- **Headingly Street** – a potential route option for the Midland – Kalamunda – Lesmurdie Secondary Route, connecting the Railway Heritage Trail to the proposed Canning Road protected bicycle lanes.

- **Central Road / Central Mall** – a potential route option for the Midland – Kalamunda – Lesmurdie Secondary Route, providing a link between the Railway Heritage Trail, Kalamunda State High School, and Canning Road corridor. Careful design would be required for the section through the mall.

- **Lindsay Street / Boonooloo Road / McRae Road** – this north-south link would connect the Midland – Kalamunda – Lesmurdie Secondary Route with Kalamunda Primary School and Kalamunda State High School, linking to the residential catchment west of the town centre. A preliminary review of this route indicates that the grades may be prohibitive, however further investigation is warranted.

Figure 72 Safe Active Streets – Kalamunda



9.5 Other Shared Paths

In addition to the nominated Secondary Routes, Local Routes and Safe Active Streets outlined in the preceding sections of this report there are many other missing links in the City's shared path network. While these missing links may not form part of major continuous road biking routes they can be the difference between encouraging a parent to ride to school with their child or take up cycling as part of a more active lifestyle.

A review of missing links within the City has been undertaken and the sections listed in **Table 13** have been identified for future shared path funding. These links are considered to be a lower priority than the links to High Wycombe Station and the Safe Active Streets program.

Table 13 Shared Path Expansion Program

Suburb	Street	From	To	Comments
Bickley	First Ave	Nairn Rd	Lawnbrook Rd E	Serves Carmel Adventist College (Primary), replacing narrow footpath.
Gooseberry Hill	Ledger Rd	Huntley St	Aboyne Rd	Serves Gooseberry Hill Primary School, replacing narrow footpath in front of school.
Kalamunda	Burma Rd	Connor Rd	Orange Valley Rd	Serves Falls Road Primary School, replacing narrow footpath.
Lesmurdie	Albert Rd	Reid Rd	Arthur Rd	Serves Lesmurdie Senior High School, replacing narrow footpath.
Lesmurdie	Gladys Rd	Welshpool Rd E	Grove Rd	Serves Mazenod College and Lesmurdie Primary School, replacing narrow footpaths.
Lesmurdie	Grove Rd	George Rd	Chislehurst Rd	Missing link in a continuous shared path route.
Lesmurdie	Lesmurdie Rd	Welshpool Rd E	Rootes Rd	Missing link in a continuous shared path route, replacing a narrow footpath.
Lesmurdie	Reid Rd	Albert Rd	Pomeroy Rd	Serves Lesmurdie Senior High School, replacing narrow footpath.
Lesmurdie	Sanderson Rd	Wiloughby Rd	Gilroy Rd	Serves Lesmurdie Primary School, replacing narrow footpath in front of school.
Lesmurdie	Trafalgar Road - Kimbarlee Way	Waterloo Cres	Falls Road	Serves Falls Road Primary School, replacing narrow footpath.

9.6 Road Cycling Routes

9.6.1 Background

The City of Kalamunda is a premium destination for recreational / road bike riders; both for single and group / club rides. These types of riders are attracted to relatively low traffic volumes, uncongested riding environments, scenery, which suit the desired road cycling patterns.

These riders generally do not require dedicated or protected infrastructure and are satisfied to ride in low levels of mixed traffic; most of the perception of safety or congested comes from frustrated motorists who are not able to easily and safely overtake bike riders on many sections of the rural and semi-rural road network.

Accordingly, the recommended strategy for the road cycling routes is to manage the conflicts between bike riders and motorised traffic, mainly through signage and other behavioural strategies, while also implementing certain minor infrastructure improvements where warranted and feasible. The nominated projects provide benefits to both bike riders and other road users – drivers will be able to more easily overtake in a safe manner, reducing delays and frustrations and correspondingly improving safety for riders.

The following sections outline the recommended actions for the key road cycling routes.

9.6.2 Welshpool Road East (east of Pomeroy Road)

Welshpool Road East (east of Pomeroy Road) is a primary access point for road cycling riders going up the hills; however, it is also the Restricted Access Vehicle (RAV) route to/from the Brookton Highway, which is major grain haulage corridor to the CBH Metro Grain Centre at Forrestfield and the ports at Kwinana. As a result, there is a potential mix of local commuter traffic, bike riders and road trains using the route – this increases the risk of conflicts at certain sections.

- From Lesmurdie to Canning Road the route is a single lane in each direction with several short, steep sections in a rural-type cross-section. Many bike riders turn off the route onto Pomeroy Road, while others continue to Canning Road and on to Pickering Brook. On this section the main issue is the speed differential between slow-moving uphill bike riders and light vehicles travelling at 70km/h+, with very few opportunities for safe passing. Downhill bike riders are less of a perceived issue, as travel speeds are generally higher.

In the long term it is recommended that Welshpool Road East (east of Pomeroy Road) be widened to provide 2.0m wide sealed shoulders – or an additional traffic lane – in each direction. This would have significant benefits for road users on this route, allowing easy overtaking of slow-moving biek riders, heavy vehicles and other traffic.

In the short-to-medium term, it is recommended that widening of targeted sections be undertaken, in order to reduce the conflicts between slow moving and fast moving traffic and create a ‘release valve’ where drivers can safely overtake. On Welshpool Road East, the recommended sections are:

- Eastbound – Lesmurdie Road (SLK 4.96) to Albert Road (SLK 5.62) – length 600m
- Eastbound – SLK 6.52 to SLK 6.79 – length 270m
- Eastbound – Tanner Road (SLK 7.11) to SLK 7.50 – length 400m

The recommended width of shoulders on these sections is 2.0m, which is sufficient for a group riding 2- abreast to ride completely out of the general traffic lane and maximise the safe overtaking opportunities. In some locations, it may be prohibitively expensive to achieve full width shoulders and therefore a reduced width of at least 1.5m could be considered. Shoulder widths below 1.5m are not likely to be effective and may have a negative road safety outcome by encouraging drivers to overtake when not safe to do so.

9.6.3 Canning Road (south of Pomeroy Road)

Canning Road, south of Pomeroy Road, is a two-lane typical rural type road. It is constructed to older design standards with no sealed shoulders and with many crests and curves which makes the safe overtaking of bike riders difficult in many locations. Power poles are located close to the road along most of the length of this road which makes sealing of shoulders and widening of the carriageway difficult in many locations.

Canning Road is heavily used by sports bike riders along its full length. The section between Welshpool Road East and Pickering Brook Road provides access to the road cycling routes in the Pickering Brook area. The section south of Pickering Brook Road provides access to other popular road cycling routes such as Canning Mills Road and the Canning Dam area. Sections of Canning Road have been identified by the public as high- risk areas as a result of the combination of steep grades, restricted visibility, vehicle speeds and heavy haulage.

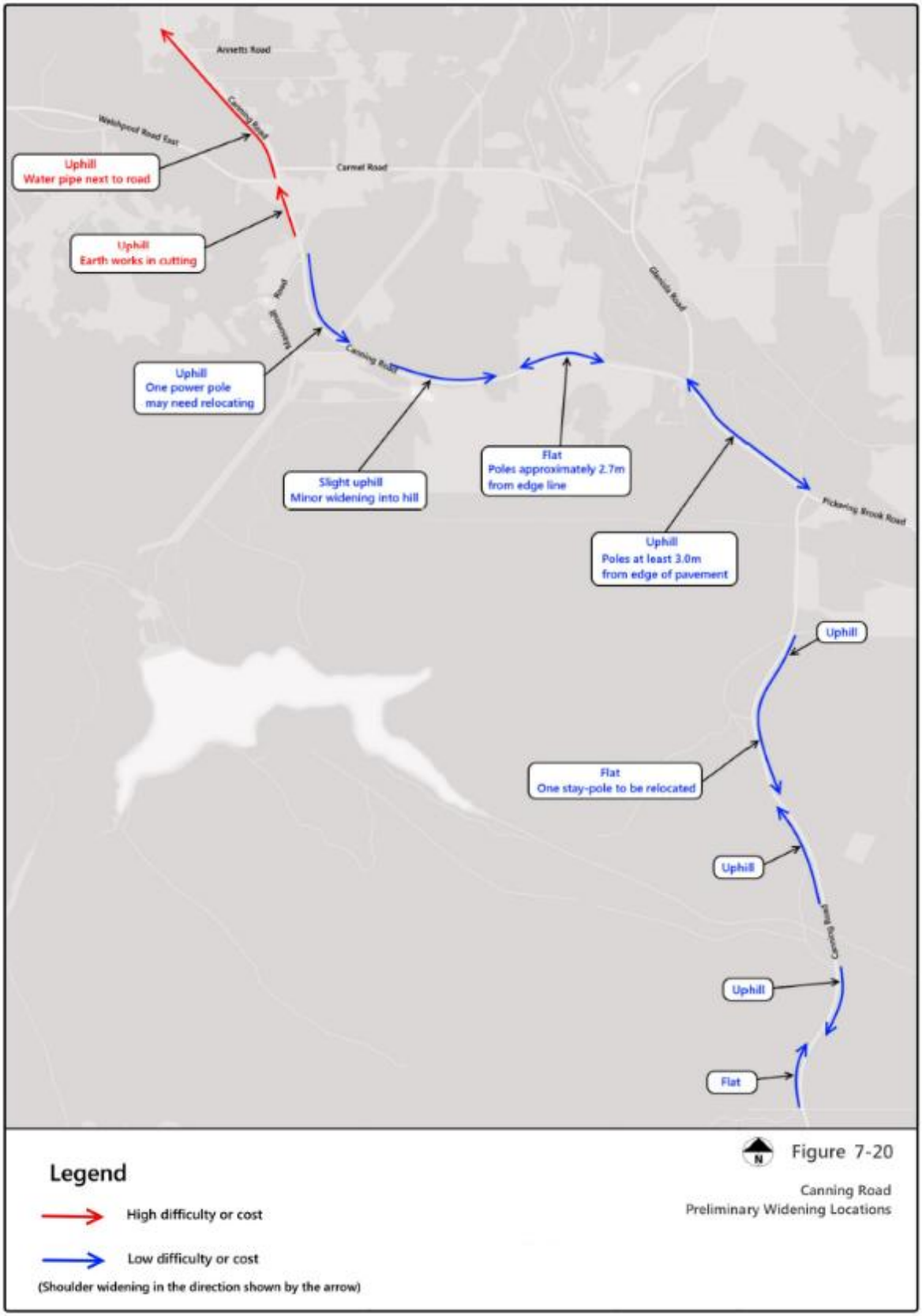
As noted from the *Pickering Brook and Surrounds Sustainability and Tourism Strategy Part 2*, The community generally favoured the encouragement of boutique-type operations that do not result in traffic efficiency and safety issues relating to congestion and parking or have significant implications for general amenity.

The State Government has also provided the City of Kalamunda with Black-Spot funding in 2021/22 to undertake targeted widening of Canning Road, between Welshpool Road East and Glenisla Road to address road safety concerns. This consisted of sealing the road shoulders, removal of roadside hazards, upgrade of lighting equipment and installation of pavement markings. In addition, the preliminary designs for improvements to this section have been prepared by the City, with a design Road Safety Audit undertaken in April 2024.

In the short-to-medium term, it is recommended that widening of targeted section be undertaken in order to reduce the conflicts between slow moving and fast-moving traffic and create a ‘release valve’ where drivers can safely overtake. A high-level review of Canning Road identified that widening was desirable, and could be undertaken at relatively low cost, at the locations shown in **Figure 73**. More detailed investigations would need to be undertaken to determine the feasibility and priority of widening at these locations.

Also shown on **Figure 73** is the long uphill climb from Welshpool Road East northbound towards Kalamunda. This section has a large water supply pipeline located very close to the edge of the road on the western side and a narrow road reserve; detailed investigations of this section should also be carried out to determine the feasibility of future widening.

Figure 73 Canning Road – Preliminary Widening Locations



9.6.4 Mundaring Weir Road

Mundaring Weir Road is a popular road cycling route as part of a loop through Greenmount, Darlington, Mundaring and Kalamunda. It is also a very popular route for recreational driving and motorcycle riding and there has been some public frustration expressed at the conflicts between the various user groups in recent years. During the community consultation, the following key issues for Mundaring Weir Road were most frequently raised as part of the consultation process:

- Near misses with drivers overtaking on uphill sections
- Edge of seal in poor condition so bike riders ride further to the centre of the lane than desirable
- A desire for additional warning and behavioural signage such as 'Shared the Road' messages.

Mundaring Weir Road does not serve any significant commuter function, nor does it carry any appreciable volume of heavy vehicle traffic – it is essentially a tourist and local access route as well as access to many Mountain Bike Trails Hub in the hills. Therefore, targeted widening of the route to the same standards recommended for Welshpool Road East and Canning Road cannot be justified based on the volume and type of traffic currently using the route, however there is still a need for some targeted improvements to be undertaken to address higher risk sections of the road.

There are a number of steep and winding sections which are popular with riders, including the climb from Aldersyde Road to Kalamunda and from Aldersyde Road eastbound towards Mundaring. Both of these sections are located in sideling country and would be very expensive to widen to provide significant additional pavement width. The current 60km/h speed limit is appropriate for the winding alignment and slow- moving traffic.

Based on the above, the following recommendations are put forward for Mundaring Weir Road:

- Undertake a Road Safety Audit to identify high risk areas and to inform the scope of any potential widening.

- Identify flat and straight sections of the road where widening of the seal could be achieved, to increase the safety of overtaking manoeuvres.

- Develop a comprehensive warning and behaviour signage program, targeting the narrow, steep and winding sections of the road where drivers should expect to encounter slow-moving bike riders. The signs could include messages to expect slow-moving bike riders (including activated warning signs) or information as to how far away the next safe passing opportunity is.

9.6.5 Signage and Behavioural Strategies

Behavioural strategies will be critical to the ongoing management of competing road user groups in the hills. The focus should be on informing road users to expect to see bike riders, particularly on the popular road biking routes, and encourage safe and courteous behaviour from all road users.

The recommended strategy contains a number of elements, including:

- 'Entry Statement' or 'Welcome' signage at key entrance points to the road cycling routes, clearly informing road users that they are entering a road network which is shared between multiple user groups, each with the right to use the road safely. Such signage could incorporate either 'City of Kalamunda' or 'Perth Hills' tourism branding, to clearly link the road safety message with the other information given to tourists. An example of such a sign is shown on **Figure 74** based on similar signage entering the Ferguson Valley in the Shire of Dardanup or **Figure 75** for an example of a 'Welcome' sign at a local level.

- Local 'Gateway' warning signage at locations where road users enter a designated road cycling route, such as the example shown in **Figure 76**. This type of signage is a reminder to road users to anticipate road cycling riders on the road ahead. It should be used on the more lightly trafficked road cycling routes such as in the Bickley Valley and Pickering Brook areas.

- 'Behavioural' signage located at regular intervals along the busier road cycling routes – i.e. Welshpool Road East, Canning Road and Mundaring Weir Road. Some examples of behavioural signage is shown in **Figure 77** and **Figure 78**. The purpose of these signs is to encourage safe overtaking manoeuvres, and these could be accompanied by supplementary plates that indicate the distance to the next safe passing place.

- Warning signs, including activated (via sensors that are triggered by a passing bike riders) warning signs, placed on targeted locations where significant speed differentials can be expected, or there are sight distance restrictions, and insufficient room for drivers to safely overtake in typical conditions. Some examples of these signs are shown in **Figure 79**, **Figure 80**, and **Figure 81**.

Indicative locations for the above sign types, is presented in **Figure 82**. This should form the basis of discussions with Main Roads as the approval authority for signs and lines.

Figure 74 Possible 'Entry Statement' signage style



Figure 75 Example of a Locality Sign

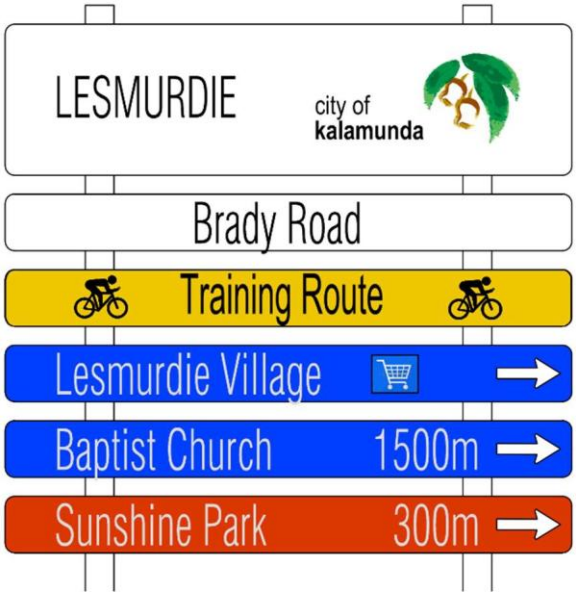


Figure 76 Example of Informative Warning Signage – Queensland



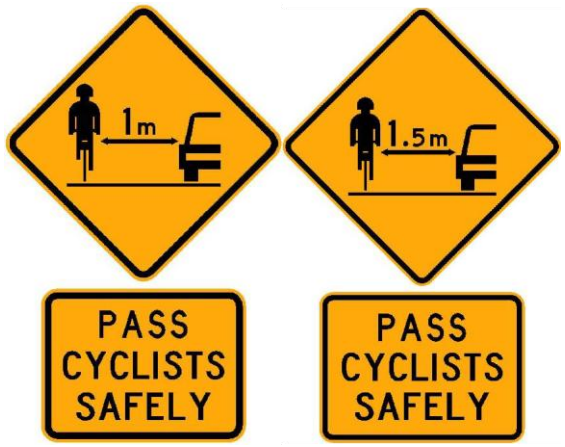
Source: www.glasshouse-mountains.com

Figure 77 Example of a behavioural signage – Kansas, USA



Source: Kansas Cyclist

Figure 78 Example of a behavioural signage – Tasmania



Source: Department of State Growth | Transport

Figure 79 Examples of activated warning signs



Source: TMR Technical Note 137 Bicycle Activated Warning Signs, March 2015

Figure 80 Examples of activated warning sign – Victoria



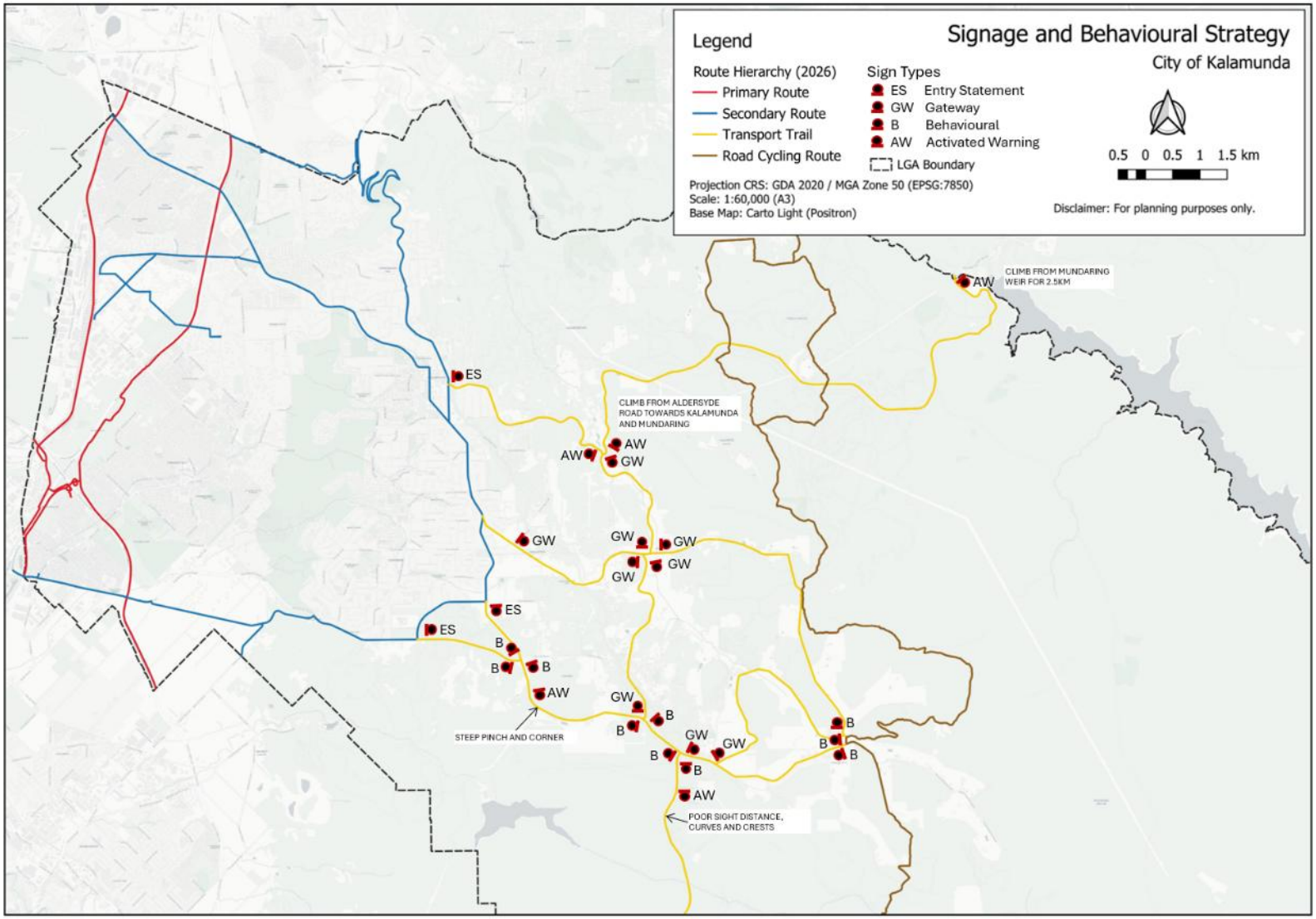
Source: Amy Gillett Foundation

Figure 81 Examples of activated warning sign – Cootamundra NSW



Source: Cootamundra Herald

Figure 82 Road Cycling Route Signage and Behavioural Strategy Map



9.7 Schools Analysis

Schools are significant generators of local bicycle trips and therefore represent an important consideration in the development of the proposed cycling network. School-aged children also form a large proportion of the 'Interested but Concerned' cycling demographic and a key target market for any Bike Plan. Research has consistently shown that children who develop active travel habits at an early age are more likely to continue cycling into adulthood.

Consistent with the *Austroads Travel to School Guideline* (2026), the network planning process has considered the differing characteristics of school catchments. Local intake primary schools generally provide the greatest opportunity to increase cycling participation, as many students live within practical riding distance. In contrast, secondary schools and independent schools typically serve broader catchments, with many students travelling from multiple suburbs or beyond the City. Consequently, the proposed network seeks to provide safe and connected routes for students living within the surrounding neighbourhoods, while recognising that public transport and private vehicles will continue to play an important role for longer-distance journeys.

To ensure the Bike Plan targets this demographic, the schools within the City have been analysed to identify gaps in the existing path network that may be barriers to children cycling to school. In addition, schools have been identified as key traffic generators for the Local Routes developed in the foothills portion of the City. A distinction has been made in the network planning process between local intake schools whose students generally live within easy cycling distance and semi-rural communities and specialist schools where a much higher proportion of students travel long distances to school. High schools have also been prioritised over primary schools as students of high school age is more likely to be travelling to school alone and their parents are generally more comfortable letting them ride to school if the infrastructure is suitable.

Table 14 presents a summary of the issues identified for each school and the components of the network plan that serve each school. It should be noted that very few responses to the surveys were received from the schools and/or school students. The City should consider a targeted consultation strategy in the future to encourage a greater interest in the Bike Plan from these important stakeholders.

Table 14 Schools Analysis – Summary

Suburb	Schools	Issues	Proposals
Bickley	Carmel Adventist College (Primary)	Independent specialised school with a wide student catchment.	Widen existing footpath on First Avenue to shared path standards.
Carmel	Carmel Adventist College (Secondary)	Independent specialised school with a wide student catchment.	Maintain existing path links.
Forrestfield	Darling Range Sports College	Lack of safe and convenient cycling routes through Forrestfield, connecting to the school. No cycling infrastructure connecting school to Maida Vale and High Wycombe residential areas.	Foothills Spine Local Route, with future extension through Maida Vale South urban expansion area. Sultana Road Secondary Route to connect residents of Forrestfield North with the school.
	Dawson Park Primary School	Low quality footpaths and shared paths	Forrestfield Safe Active Streets
	Forrestfield Primary School	Low quality footpaths and shared paths	Forrestfield Safe Active Streets
	Hill Side Christian College	Independent specialised school with a wide student catchment.	Foothills Spine Local Route, with future extension through Maida Vale South urban expansion area. Sultana Road Secondary Route
	Woodlupine Primary School	Low quality footpaths and shared paths	Forrestfield Safe Active Streets with path connections through public open space.
Gooseberry Hill	Gooseberry Hill Primary School	Low quality footpaths and shared paths.	New shared path along Ledger Road to replace existing narrow footpath in front of school.
	Mary's Mount Primary School	Low quality footpaths and shared paths.	Maintain and improve existing path links.
High Wycombe	Edney Primary School	Low quality footpaths and shared paths.	Safe Active Street along Kiandra Way and path connection to school as part of High Wycombe Local Route.
	High Wycombe Primary School	Low quality footpaths and shared paths.	Safe Active Street along Kiandra Way and Hamilton Road, plus improved path link along Swan Road as part of High Wycombe Local Route.
	Mathew Gibney Primary School	Low quality footpaths and shared paths.	Safe Active Street along Hamilton Road with improved shared path link along Munday Road as part of High Wycombe Local Route.
Kalamunda	Kalamunda Primary School	Low quality footpaths and shared paths.	Safe Active Street along Boonooloo Road.
	Kalamunda Senior High School	Low quality footpaths and shared paths.	Canning Road buffered cycle lanes as part of the Hills Spine Secondary Route. Central Road/Central Mall Safe Active Street

Lesmurdie	Falls Road Primary School	Low quality footpaths and shared paths. Missing link in continuous shared path route along Trafalgar Road. Some quiet streets missing footpaths	Construct missing link in shared path on Trafalgar Road. Construct missing link in shared path on Burma Road.
	Lesmurdie Primary School	Low quality footpaths and shared paths.	Replace narrow footpath in front of school with a shared path. Construct shared path along Gladys Road to replace narrow footpaths.
	Lesmurdie Senior High School	Low quality footpaths and shared paths.	Canning Road buffered bicycle lanes. Reid Road shared path to replace narrow footpath.
	Mazenod College	Independent specialised school with a wide student catchment.	Construct shared path along Gladys Road to replace narrow footpaths.
	St Brigid's College	Independent specialised school with a wide student catchment.	Maintain existing path links.
Maida Vale	Maida Vale Primary School	Low quality footpaths and shared paths.	Maintain existing path links.
Pickering Brook	Pickering Brook Primary School	Semi-rural school with a wide catchment and low population density.	Maintain and improve existing path links
Walliston	Kalamunda Christian School	Independent specialised school with a wide student catchment.	Canning Road buffered cycle lanes as part of the Hills Spine Secondary Route.
	Walliston Primary School	Low quality footpaths and shared paths.	Maintain and improve existing path links.
Wattle Grove	Wattle Grove Primary School	Low quality footpaths and shared paths Disconnected path network due to development of suburb not yet being completed	Thorogood Avenue Safe Active Street Connected path network as part of Foothills Spine Local Route

10 INFRASTRUCTURE UPGRADE IMPLEMENTATION PLAN

10.1 Network Plan

The recommended Infrastructure Updates, as summarised in the Schedule of Works, are illustrated alongside the existing cycling infrastructure on the Ultimate bike plan network, included in **Appendix D**.

10.2 Schedule of Works

A schedule of works has been prepared for the short-term (nominally estimated within the next 10 years subject to funding availability) and medium-to-long term (nominally estimated beyond 10 years subject to funding availability). The schedule of works for the medium to long term projects are summarised in **Table 15** whilst **Table 16** summarises the aspirational medium to long term projects which are subject to funding, and the new projects with unspecified time horizons are summarised in **Table 17**.

The majority of the projects included in the short-term schedule primarily consist of lower-cost project (less than $500,000 of funding from the City). As the high-cost projects (i.e. projects that require a higher degree of funding from the City) are generally more complex, these are proposed to be delivered over the medium-to-long term as they likely require further feasibility studies before detailed designs can be prepared and will take longer time to deliver/construct.

It should be noted that these estimates are preliminary in nature and will need to be verified after all the required works have been identified following the detailed design phase.

Table 15 Proposed Schedule of Works (0 – 10 years) with City of Kalamunda Contribution (< $250,000 per year - 'Aspirational' and subject to funding availability)

Item	Route	Primary Route	Start	End	City Funded	Potential External Funded	Total Project Cost Estimate	Comment
80b	Roe Highway	Roe Highway PSP Completion	Kalamunda Road	Brinsmead Road (Northern City Boundary)		$1,056,000	$1,056,000	State Government Funded
81b	**Tonkin Highway**	PSP Completion	Welshpool Road East	Kelvin Road/Mills Road		$2,096,000	$2,096,000	State Government Funded
81a	**Tonkin Highway**	PSP Extension on the Northern Side (including link to Hartfield Park)	Roe Highway	Welshpool Road East		$2,288,000	$2,288,000	State Government Funded
82a	**Freight Railway / Dundas Road**	Dundas Road PSP	Tonkin Highway	High Wycombe Train Station		$4,128,000	$4,128,000	State Government Funded
82b	**Freight Railway / Dundas Road**	Dundas Road PSP	High Wycombe Train Station	Wittenoom Road		$1,168,000	$1,168,000	State Government Funded
1a	**Hills Spine**	Zig Zag Option A	Ridge Hill Road	Ocean View Parade	$56,000		$56,000	
1c	**Hills Spine**	Kalamunda Railway Heritage Trail Sealed Path	Hill Street	Elizabeth Street	$240,000	$240,000	$480,000	Potential WABN Grant Funding
1d	**Hills Spine**	Kalamunda Town Centre Section Options Study	Canning Road	Elizabeth Street	$40,000	$40,000	$80,000	Potential WABN Grant Funding
3a	**High Wycombe Train Station Connection**	Maida Vale Road Protected Cycle Lanes Stage 1	High Wycombe Train Station	Priory Road		$1,744,000	$1,744,000	
3b	**High Wycombe Train Station Connection**	High Wycombe Train station TOD Connector Road Protected Cycle Lanes Stage 1	High Wycombe Train Station	Roe Highway		$2,336,000	$2,336,000	Include as part of the High Wycombe South District Structure Plan
3d	**High Wycombe Train Station Connection**	Milner Road Protected Cycle Lanes	Maida Vale Road	Dundas Road		$992,000	$992,000	To be funded and constructed as part of the High Wycombe South District Structure Plan
20g	**Foothills Spine**	Hartfield Road Shared Path	Hale Road or Morrison Road	Sussex Road	$136,000		$136,000	
21i	**High Wycombe Local Route Spurs**	Norling Road & Newburn Road Shared Path	Kiandra Way/Norling Road	Maida Vale Road	$512,000		$512,000	
21j	**High Wycombe Local Route**	Crake Court Public Access Way Upgrade	Kiandra Way	Newburn Road	$40,000		$40,000	Potential external funding (non WABN)
25b	**Lesmurdie Local Routes**	Burma Road Shared Path Extension	Orange Valley Road	Connor Road	$112,000		$112,000	
25c	**Lesmurdie Local Routes**	Trafalgar Road - Kimbarlee Way Path Upgrade	Waterloo Crescent	Falls Road	$176,000		$176,000	
25d	**Lesmurdie Local Routes**	Grove Road Shared Path Missing Link 1	George Road	Gladys Road	$176,000		$176,000	
25e	**Lesmurdie Local Routes**	Grove Road Shared Path Missing Link 2	Lesmurdie Road	Rooth Road	$192,000		$192,000	
44	**Forrestfield (Gala Way)**	Gala Way Safe Active Street	Fruit Tree Crescent	Hawtin Road	$80,000		$80,000	Allowance to supplement existing traffic calming
61b	**Canning Road**	Targeted Shoulder Widening Stage 1	Pickering Brook Road	City Boundary	$360,000	$360,000	$720,000	Black Spot Funding
61c	**Canning Road**	Targeted Shoulder Widening Stage 2	Pomeroy Road	Pickering Brook Road	$400,000	$400,000	$800,000	Black Spot Funding
64b	**Mundaring Weir Road**	Targeted Shoulder Widening Stage 1	Railway Road	City Boundary	$360,000	$360,000	$720,000	Black Spot Funding
64c	**Mundaring Weir Road**	Targeted Shoulder Widening Stage 2	Railway Road	City Boundary	$400,000	$400,000	$800,000	Black Spot Funding
TOTAL COST ESTIMATE (0-10 Years)							**$20,888,000**	
CITY FUNDED							**$3,280,000**	

Table 16 Proposed Schedule of Works (0-10 years 'Aspirational' and subject to funding availability)

Project No.	Routes	Description	Start	End	City Funded	Potential External Funded	Total Project Cost Estimate	Comment
1b	Hills Spine	Lascelles Parade / William Street Safe Active Street	Zig Zag Scenic Drive	Hill Street	$512,000	$512,000	$1,024,000	Potential WABN Grant Funding
1e	Hills Spine	Canning Road Buffered Bike Lanes Stage 1	Kalamunda Road	Railway Road	$608,000	$608,000	$1,216,000	Potential WABN Grant Funding
1f	Hills Spine	Canning Road Buffered Bike Lanes Stage 2	Railway Road	Lesmurdie Road	$960,000	$960,000	$1,920,000	Potential WABN Grant Funding
2c	Kalamunda Road	Sealed Shoulder	Fernan Road	Abernethy Road	$896,000		$896,000	
21a	High Wycombe Local Route	Fernan Road Safe Active Street	Kalamunda Road	Hamilton Road	$128,000	$192,000	$320,000	60% funding from SAS Program
21b	High Wycombe Local Route	Hamilton Street Safe Active Street	Wittenoom Road	Kiandra Way	$300,800	$451,200	$752,000	SAS Program Funding
21c	High Wycombe Local Route	Kiandra Way Safe Active Street	Western Avenue	Norling Road		$1,056,000	$1,056,000	SAS Program Funding
21g	High Wycombe Local Route Spurs	Munday Road Shared Path	Wittenoom Road/Hamilton Street	Dundas Road	$432,000		$432,000	
22b	Berkshire & Dundas Road	Berkshire Road (East of Roe Highway) Shared Path Upgrade	Apricot Street	Hawtin Road	$1,424,000		$1,424,000	
25f	Lesmurdie Local Routes	Gladys Road Shared Path Section 1	Grove Road	George Road	$592,000		$592,000	
40a	Forrestfield (Bauhinia Road)	Bauhinia Road SAS	Dawson Avenue	Magnolia Way		$384,000	$384,000	SAS Program Funding
40b	Forrestfield (Bauhinia Road)	Dawson Ave Shared Path	Cedar Way	Bauhinia Road	$104,000		$104,000	
40c	Forrestfield (Bauhinia Road)	Cedar Way SAS	Cedar Way	Dawson Avenue		$384,000	$384,000	SAS Program Funding
40d	Forrestfield (Bauhinia Road)	Shared Path Upgrade - Bridge Over Woodlupine Brook	Cedar Way	Peach Tree Way	$432,000		$432,000	
40e	Forrestfield (Bauhinia Road)	Peach Tree Way SAS	-	-		$416,000	$416,000	SAS Program Funding
41a	Forrestfield (Hibiscus Drive)	Hale Road Shared Path	Hannover Street	Hibiscus Drive	$688,000		$688,000	
41b	Forrestfield (Hibiscus Drive)	Hibiscus Drive SAS	Bougainvillea Avenue	Strelitzia Avenue		$528,000	$528,000	SAS Program Funding
41c	Forrestfield (Hibiscus Drive)	Bougainvillea Avenue Shared Path	Hibiscus Drive	Dawson Avenue	$384,000		$384,000	
41d	Forrestfield (Hibiscus Drive)	Dawson Avenue Shared Path Upgrade	Bougainvillea Avenue	Pavetta Crescent	$416,000		$416,000	
41e	Forrestfield (Hibiscus Drive)	Pavetta Crescent SAS	Dawson Avenue	Roe Highway		$320,000	$320,000	SAS Program Funding
47b	Kalamunda Township	Central Road / Central Mall Option	Canning Road	Railway Road	$816,000		$816,000	SAS Program Funding
TOTAL COST ESTIMATE (Aspirational)							$14,504,000	
CITY FUNDED							$8,692,800	

Table 17 Proposed Schedule of Works (New Projects)

Project No.	Routes	Description	Start	End	Total Project Cost Estimate
HWS1	**Maida Vale Road**	METRONET East High Wycombe Structure Plan	Dundas Rd	Butcher Rd	$626,500
HWS2	**Ibis Place**	METRONET East High Wycombe Structure Plan	Maida Vale Rd	TOD Connector Rd	$183,500
HWS3	**Milner Road**	METRONET East High Wycombe Structure Plan	Berkshire Rd	Stewart Rd	$1,260,000
HWS4	**Eureka Street**	METRONET East High Wycombe Structure Plan	Milner Rd	Sultana Road W	$513,000
HWS5	**TOD Connector Blvd (N of Milner Rd)**	METRONET East High Wycombe Structure Plan	High Wycombe Stn	Milner Rd	$495,000
HWS6	**Raven Street**	METRONET East High Wycombe Structure Plan	Maida Vale Rd	Milner Rd	$396,000
HWS7	**TOD Connector Blvd (S of Milner Rd)**	METRONET East High Wycombe Structure Plan	Milner Rd	LSP Boundary	$157,500
HWS8	**Milner Road**	High Wycombe South Local Structure Plan	Sultana Road W	LSP Boundary	$1,011,000
HWS9	**Sultana Road West**	High Wycombe South Local Structure Plan	Milner Road	LSP Boundary	$1,685,000
HWS10	**TOD Connector Blvd (W of Brae Rd)**	High Wycombe South Local Structure Plan	LSP Boundary	Brae Rd	$376,000
HWS11	**TOD Connector Blvd (S of Brae Rd)**	High Wycombe South Local Structure Plan	Brae Rd	Brand Rd	$505,500
HWS12	**Brae Road**	High Wycombe South Local Structure Plan	TOD Connector	Brand Rd	$1,153,500
HWS13	**Stewart Road**	High Wycombe South Local Structure Plan	Milner Road	Brae Rd	$764,500
HWS14	**Brand Road (N of TOD Connector)**	High Wycombe South Local Structure Plan	Brae Rd	TOD Connector	$1,555,000
HWS15	**Brand Road (S of TOD Connector)**	High Wycombe South Local Structure Plan	TOD Connector	Sultana Rd W	$360,000
HWS16	**Berkshire Road (S of Harrison Rd)**	Forrestfield High Wycombe Industrial Area Local Structure Plan	Harrison Rd	Berkshire Rd / Roe Hwy Interchange	$225,000
HWS17	**Sultana Road West**	Forrestfield High Wycombe Industrial Area Local Structure Plan	Milner Road	LSP Boundary	$842,500
HWS18	**Milner Road (S of Sultana Rd W)**	Forrestfield High Wycombe Industrial Area Local Structure Plan	Berkshire Rd	Sultana Rd W	$657,000
WG1	**Brentwood Road (N of Neighbourhood Connector Rd)**	Proposed Wattle Grove South LSP	Crystal Brook Rd	Neighbourhood Connector Rd	$421,000
WG2	**Brentwood Road (S of Neighbourhood Connector Rd)**	Proposed Wattle Grove South LSP	Neighbourhood Connector Rd	Tonkin Hwy PSP	$261,000
WG3	**Victoria Road**	Proposed Wattle Grove South LSP	Crystal Brook Rd	Tonkin Hwy PSP	$1,260,000
WG4	**Neighbourhood Connector Rd (Brentwood Rd to Victoria Rd)**	Proposed Wattle Grove South LSP	Brentwood Rd	Victoria Rd	$745,000
WG5	**Neighbourhood Connector Rd (S of Victoria Rd)**	Proposed Wattle Grove South LSP	Victoria Rd	LSP Boundary	$315,000
WG6	**Primary School Cell Path**	Proposed Wattle Grove South LSP	Access Rd	Neighbourhood Connector Rd	$459,000
WG7	**Access Rd Path**	Proposed Wattle Grove South LSP	Crystal Brook Rd	Neighbourhood Connector Rd	$389,000
HS1	**Sadler Drive**	Hills Spine Missing Link	Midland Road PSP	Broadmeadows Dr	$675,000
HS2	**Broadmeadows Drive**	Hills Spine Missing Link	Sadler Dr	Path	$135,000
HS3	**Path (Broadmeadows Dr to Ridge Hill Rd)**	Hills Spine Missing Link	Broadmeadows Drive W	Broadmeadows Drive E	$1,440,000
HS4	**Adelaide Street**	Hills Spine Missing Link	Roe Hwy PSP	Midland Road PSP	$540,000
TOTAL COST ESTIMATE (New Projects)					**$19,406,500**

10.3 **Maintenance**

Regular maintenance is required to keep cycling facilities in a reasonable condition. Bike riders are particularly vulnerable to punctures and crashes caused by broken glass, loose gravel and vegetation. Regular maintenance activities should include the following:

- Regular sweeping of paths to remove gravel, sand/earth, broken glass and vegetation;
- Targeted sweeping of known problem areas – e.g. paths through parks after a Saturday night;
- Prompt clean up from storms, fires and other one-off events which cause damage to paths;
- Regular pruning of vegetation to ensure the full path width is available; and
- A regular, documented system of visual path inspections to identify surface or structural defects. An allocation should be made in each financial year for preventative or remedial maintenance to address this type of issue.

The City of Kalamunda's Pathways Asset Management Plan 2025–2029 provides the framework for managing approximately 432 km of pathways and 41 pedestrian bridges, including shared paths that form part of the City's cycling network. The Plan includes an ongoing maintenance program, with forecast maintenance expenditure increasing from approximately $737,000 in 2025 to $848,000 by 2033. The continued implementation of this program will be important to ensure cycling facilities remain safe, attractive and fit for purpose.

It is recommended that the City continue to maintain cycling facilities through the existing Pathways Asset Management Plan and ensure that newly constructed cycling infrastructure is incorporated into the City's asset register and inspection, maintenance and renewal programs. Particular attention should be given to facilities on Primary and Secondary Cycling Routes, where maintenance defects can have a greater impact on rider safety and network performance.

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11 FUNDING OPPORTUNITIES

There are a number of funding opportunities available for implementing cycling facilities within Western Australia. **Table 18** shows funding streams that are relevant to the City of Kalamunda.

Table 18 Funding Opportunities

Funding Opportunities	Description
WA Bicycle Network (WABN) Grants Program	> State funding initiative to assist local governments in Western Australia. > Funding for the design and implementation of bicycle network infrastructure and programs in accordance with the State's priorities set out in the WABN Plan. > Funding is available funds up to 50% of eligible project cost; accepts project types from feasibility/design through to construct. > Metropolitan stream priorities (e.g., proximity to METRONET) > Multi-year eligibility available as per recent DTMI guidelines
WABN — Local Bike Planning (sub-grant)	> Lump-sum grants to update or prepare local bike plans > Options for "basic" or "enhanced" support depending on plan age and scope.
Connecting Schools Grant (Your Move partnership)	> Grants for schools to improve active travel access, bike/walk infrastructure and behaviour programs. > 2025–26 rounds have packages from small (~$1,200) up to ~$25,000 (total round allocation published). > Ideal for safe-routes-to-school elements in the Bike Plan. (Your Move)
Your Move school grants / programs	> Your Move supports behaviour change, school accreditation and small infrastructure/end-of-trip items. > Useful for education, bike skills, and small end-of-trip facilities. (Your Move)
WA Bike Month Grants (DTMI / WestCycle)	> Annual grants for events and activation during WA Bike Month (October) for councils, schools, workplaces and community groups. > Small to medium grants to run community rides, education and activation programs.
Community Trail Planning Grants (Trail Development)	> State funding available through the Department of Creative Industries, Tourism and Sport (CITS) > Grants for planning/design of trails (up to A$50,000); follows the Trail Development Process (8-stage) with available funds up to 50% of eligible project cost. > Suitable for shared-use trails or multi-use corridor planning.
Lotterywest (Community Investment Framework)	> Major community grants for programs aligned to Lotterywest priorities (Active/Healthy People, Community Connection, Environment). > Good fit for community activation, health/promotion components, or partnership packages > Less suitable for major capital works on Crown land unless lease/security conditions are met.

Healthway (Healthy Communities / Healthy Partnerships / Healthy Spaces)	> Small-to-medium grants to promote healthy behaviours (e.g., up to $5,000 Healthy Communities; larger Healthy Partnerships). > Ideal for behaviour change, school/workplace active-travel projects and community health promotion tied to cycling.
Outdoor Active Recreation Participation Program	> State funding available through the Department of Creative Industries, Tourism and Sport (CITS) > Grants from ~$5,000 to $50,000 to deliver sustained outdoor active recreation programs (aligned with "More People More Active Outdoors") > Use for cycling participation programs, trail activation, training/community capacity initiatives.
Road Safety Commission — Community Initiative Grants (RTTA)	> Event grants (up to ~$5,000) and project grants (up to ~$25,000) funded from the Road Trauma Trust Account. > Fit for road-safety education, bike riding safety campaigns, and community projects that promote safe cycling and reduce road trauma.
Black Spot Program — State (Main Roads WA) & Federal	> Both Main Roads WA (state program administration) and the Australian Government Black Spot Program run funding rounds. > Targets high-risk crash locations; funds safety improvements (signals, crossings, shoulder works, shared path links where relevant).
National Active Transport Fund (Federal Active Transport Fund)	> $100M+ national fund supporting construction of bicycle and walking paths and active-transport infrastructure; guidelines published (intake timelines 2025+). > Best for larger corridor or cross-jurisdiction projects in the Bike Plan seeking Commonwealth co-funding.
PTA Bus Stop Accessibility Works Program (BSAWP) & Bus Shelter Subsidy Program (BSSP)	> PTA upgrades bus stop infrastructure (accessible boarding areas, tactile indicators, paths) and runs a shelter subsidy (PTA contributes ~50% up to shelter cap). > Relevant to bike network links to public transport interchanges or when combined footpath/access upgrades are required near stops.
EV / Clean-energy grants (relevant for multimodal precincts)	> ChargeUp WA / WA EV Charge Up Grants: subsidies for EV charger installs (often 50% up to funding caps) > Useful for mobility hubs with EV charging.
Main Roads WA - Low-Cost Urban Road Safety Program (LCURSP)	> The LCURSP delivers treatments to local roads, with the aim of reducing crash risks and creating safer speed environments for drivers and vulnerable road users, such as pedestrians and cyclists.
Australian Government – Active Transport Fund (ATP)	> The ATP sets out to improve road safety outcomes for vulnerable road users (pedestrian/cyclists) and assists in reducing the transport emissions.

12 ADVOCACY

While the development of cycling infrastructure is critical to enabling cycling within the City, its success is influenced by how effectively cycling is positioned, understood, and supported within the community. Advocacy plays a key role in shaping perceptions of cycling, establishing it as a legitimate and practical mode of transport, and guiding how different user groups can be engaged.

The following section outlines the behavioural factors that influence cycling participation and identifies key target groups within the community. It establishes a strategic framework to inform advocacy and engagement efforts, ensuring that cycling is promoted in a way that aligns with the needs, perceptions, and readiness of potential and existing users.

12.1 Recommended Behaviour Change Approach

There are many models for using promotion to encourage behaviour change. The COM-B model is adopted as the primary framework to guide the City's approach to cycling promotion as shown in **Table 19**. The model is considered appropriate as it provides a clear framework for identifying the underlying behaviour in order to increase the uptake of cycling for transport purposes

Table 19 Behaviour Change Approach

Component	Definition	Planning Implication
Capability	Individual's physical and psychological capacity to cycle Skills, confidence, route knowledge.	Support user capability through education, skills development, and wayfinding.
Opportunity	External environmental and social conditions enabling cycling Infrastructure, facilities, policy.	Improve infrastructure, facilities, and broader environmental conditions to support cycling.
Motivation	Internal drivers of behaviour Attitudes, habits, perceived norms, risk perceptions.	Influence attitudes and behaviour through communication, promotion, and behavioural initiatives.

Source: Makahleh et al. (2025). Promoting Sustainable Transport: A Systematic Review of Walking and Cycling Adoption Using the COM-B Model. Future Transportation, 5(3), 79.

12.1.1 Capability

Capability refers to the individual's physical ability and psychological capacity to cycle.

From a physical perspective, this includes the ability to ride a bicycle safely and confidently, particularly in mixed traffic environments or on challenging terrain. From a psychological perspective, it includes knowledge of safe cycling practices, route awareness, and confidence in navigating the network. Within the City context, key capability barriers typically include:

- Lack of cycling experience or confidence
- Limited knowledge of safe or suitable routes
- Perceived difficulty in managing gradients, distances, or traffic conditions

12.1.2 Opportunity

Opportunity refers to external factors that enable or constrain cycling behaviour, including both physical infrastructure and the broader social environment.

Physical opportunity is primarily influenced by the presence, quality, and connectivity of cycling infrastructure, as well as supporting facilities such as secure bicycle parking and end-of-trip amenities. Social opportunity relates to cultural norms, workplace policies, and community attitudes toward cycling. In the City context, key opportunity barriers include:

- Gaps in the cycling network and limited connectivity
- Perceived or actual safety concerns due to traffic conditions
- Lack of end-of-trip facilities at key destinations
- Limited workplace or institutional support for cycling

12.1.3 Motivation

Motivation encompasses the internal processes that influence decision-making, including attitudes, beliefs, habits, and social norms.

Cycling uptake is strongly influenced by perceived safety, convenience, and practicality, as well as ingrained travel habits and the relative attractiveness of alternative modes. Social perceptions also play a role, particularly in shaping whether cycling is seen as a normal or viable transport option. In the City context, key motivational barriers include:

- Preference for private vehicle use due to perceived convenience
- Safety concerns, both real and perceived
- Habitual reliance on existing travel modes
- Limited visibility of cycling as a mainstream transport option

12.2 Cycling Segmentation

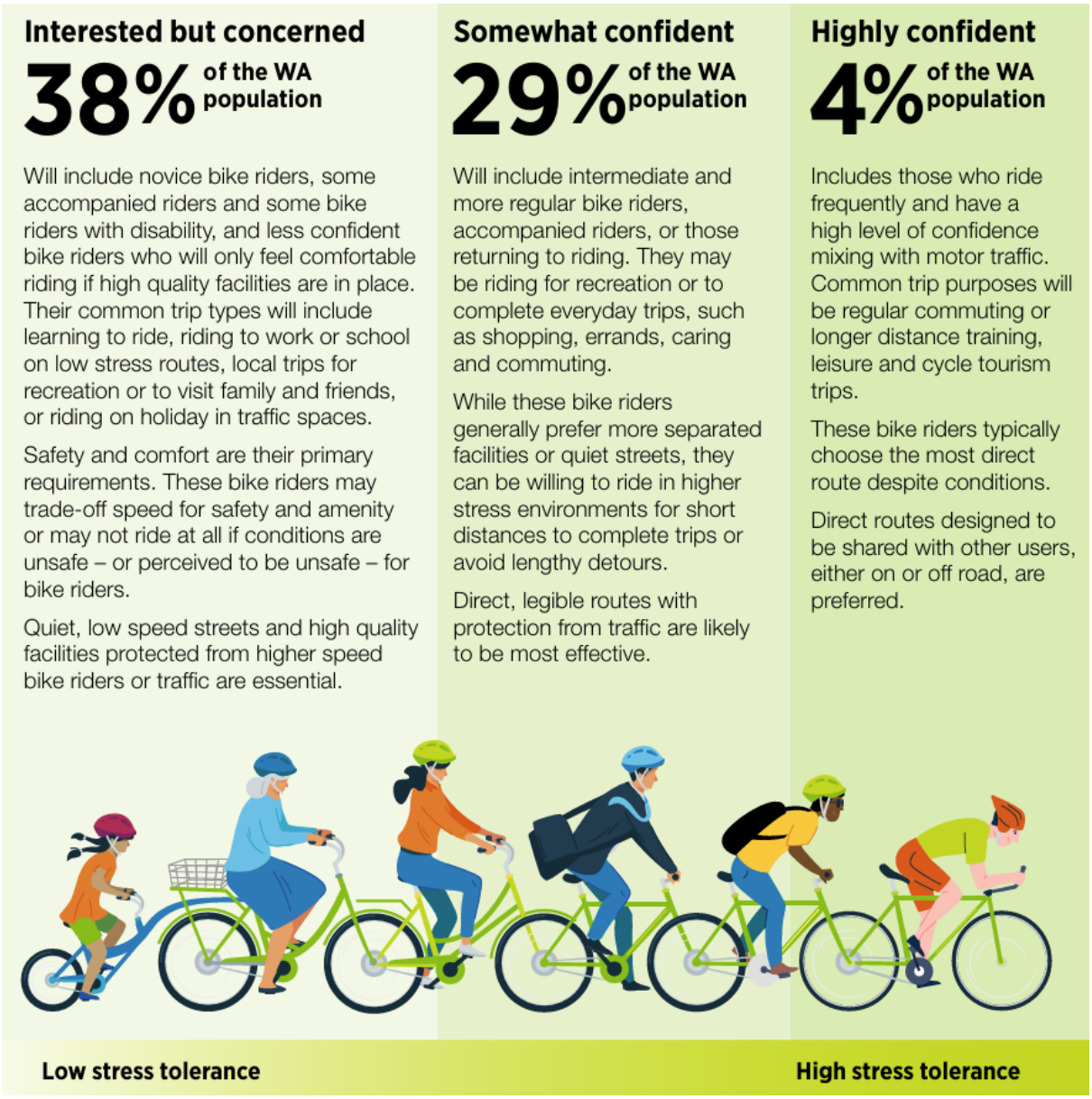
While the COM-B model provides a structured understanding of the factors influencing cycling behaviour, it does not distinguish between different population groups. To effectively target interventions, segments of the population should be identified that may be more likely to cycle, cycle more often or to take up cycling for specific trips (to work, school or for recreation) to achieve the City's strategic target to increase cycling activity within the LGA. When reviewing information regarding the City of Kalamunda's mode choices by residents and visitors, consideration should be made of those:

- travelling distances or journeys that could be made by bike;
- that own a bicycle (or have access to one); and
- that have a willingness to cycle.

Understanding the different types of bike riders is important for both infrastructure planning and behaviour change initiatives. People differ in their experience, confidence, trip purpose and willingness to ride, and these characteristics influence the type of cycling infrastructure they are comfortable using. Rider preferences may also vary depending on factors such as traffic conditions, route directness, the presence of accompanying riders and the quality of cycling facilities.

DTMI's *Planning and Designing for Active Transport in WA: All Ages and Abilities Contextual Guidance* provide three broad bike riders of existing and potential bike riders based on confident levels as shown as illustrated in **Figure 83.**

Figure 83 Cycling Segmentation



Source: Department of Transport and Major Infrastructure

The remaining 29% of adults surveyed reported that they were unwilling or unable to ride a bicycle. However, the guidance notes that willingness to cycle may increase as low-stress cycling networks become more comprehensive and awareness of the network improves.

Consistent with the Guidance, the target design profile for the City's cycling network should be the "Interested but Concerned" rider. Designing facilities that are safe and comfortable for this group results in a network that is suitable for people of all ages and abilities, while continuing to accommodate more confident riders. This approach supports the City's objective of increasing cycling participation by creating a low-stress network that is attractive for everyday trips to schools, activity centres, public transport, parks and other destinations.

This segment will require the implementation of cycling infrastructure to start cycling but holds the most potential for increasing cycling mode share. The purpose of behaviour change activities for this group is therefore to encourage the development of an appreciation of the benefits, provision of the tools and culture of support for cycling while the network develops.

13 BEHAVIOURAL CHANGE INITIATIVES AND EDUCATION PROGRAMS

13.1 Travel Behaviour Impacts

Understanding travel behaviour change involves exploring why people choose certain modes of transport and what motivates them to shift those choices. Factors such as convenience, cost, travel time, comfort, and habit all play a role in shaping daily travel decisions. To encourage change, it's important to recognize that travel habits are often deeply ingrained and require more than just providing alternatives; they require addressing perceptions and routines.

Effective strategies for understanding and promoting travel behaviour change often combine data analysis with behavioural insights some of which are discussed in the following sections.

13.2 Recommended Behaviour Change Initiatives and Activities

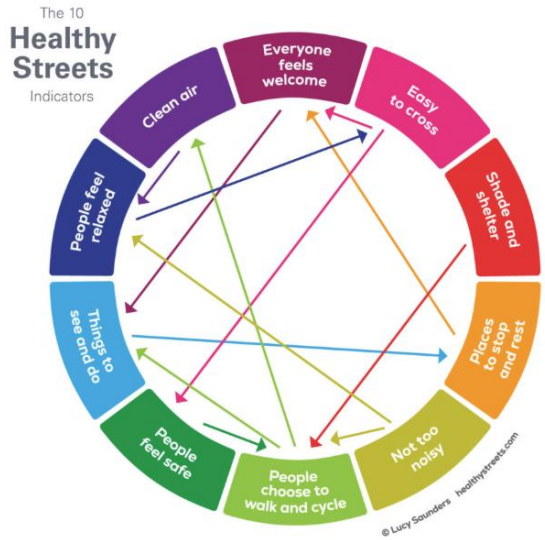
13.2.1 Healthy Streets

The Healthy Streets program has been rolled out in NSW and WA since 2019. It provides universal design principles aimed at creating better streets by highlighting key aspects of human experience/elements often overlooked in the Australian context but essential for encouraging people of all ages and backgrounds to walk, cycle, and use public spaces.

The framework consists of ten indicators that guide socially, economically, and environmentally sustainable street design and management. These indicators serve as measures of how "healthy" a street is, as shown in **Figure 84**.

Rather than targeting a single, final outcome, the program emphasises building on current conditions and making ongoing improvements. The best streets to implement healthy street initiatives are those currently dominated by motor vehicles that have nigh potential to become active, social places, including local shopping streets, residential streets surrounding schools and route between residential areas and public transport nodes. The goal of the initiative is to move away from car dominated streets to streets that support walking and cycling.

Figure 84 Healthy Streets Indicators



Source: Healthy Streets

Recommendation:

Healthy Streets indicators could be explored along some of the following streets within the City:

- Kalamunda Town Centre: Railway Road, Canning Road, Burt Street and Stirk Street
- Residential Streets: Sussex Street and Kiandra Way
- Connecting Streets: Elizabeth Street and Railway Road

13.2.2 Pop Up Bicycle Lanes Program

In 2020, the Department of Transport and Planning in Melbourne introduced a pop-up bicycle lane program designed to encourage more residents to cycle. The initiative used temporary infrastructure that could be adjusted in response to community feedback and ongoing evaluations. These trial routes were intended to remain in place for 12 to 18 months, after which they could either be removed or, if successful, converted into permanent cycling infrastructure.

The selected routes were chosen to address key "missing links" in the existing cycling network, with community input playing an important role during the consultation phase. Overall, the program was considered successful, as it led to an increase in bicycle use among local residents, encouraged more vehicle speed compliance and walking to and from local schools. **Figure 85** provides an example of a temporary pop-up bicycle lane.

Feedback from the community consultation indicated strong support for separated bicycle lanes, as they help riders feel safer when sharing the road. This type of program could be applied to roads already popular with bike riders, identified through sources such as STRAVA data or LTCN maps, to enhance both safety and network connectivity within the city.

Figure 85 Melbourne Pop-up Cycle Lane



Source: Departments of Transport and Planning Melbourne

Recommendation:

Temporary bicycle lanes could be trialled along portions of the following roads:

- Railway Road – Mead Street – Canning Road
- Railway Road – Pomeroy Road

13.2.3 Think of the Impact Car Dooring Campaign

"Car dooring" occurs when a driver or passenger opens a vehicle door into the path of an oncoming bike rider, which can result in serious injury. To address this safety concern, the Think of the Impact campaign was launched by the City of Sydney in partnership with NRMA, with the goal of raising awareness and reducing the frequency of these incidents.

The campaign targeted both motorists and bike riders, urging drivers to check for approaching riders before opening their doors. Its advertising strategy included messages displayed on the backs of buses and taxis, roadside billboards, and stickers placed on car doors and bicycles, all encouraging people to stay alert and look out for one another. An example of this initiative is shown in **Figure 86**. The campaign has proven effective, with more than 20,000 stickers requested by both bike riders and drivers.

Figure 86 Think of the Impact Advertising



Source: Bicycling Australia

Recommendation:

Whilst existing bike-related crashes are not able to determine if they were a result of car doors opening onto bike riders, the City should explore options in low-speed cycle environments, such as the Kalamunda town centre (for example: along Railway Road), surrounding local shopping centres/schools/community centres to place stickers in visible locations. These locations are high traffic, high turnover locations where bike riders and vehicles interact often.

13.2.4 Share the Path

With cycling on the rise, promoting respectful interactions between pedestrians and bike riders on shared paths has become increasingly important. The Share the Path program in Sydney is a face-to-face educational initiative delivered four times a week, where local government staff speak directly with both walkers and riders about considerate behaviour. Key messages include giving priority to pedestrians, reducing speed, overtaking at a safe distance, and using a bell in advance when passing as a courtesy.

In addition, bike mechanics attend twice weekly to offer free tune-ups, creating opportunities for more in-depth engagement with bike rider. During these sessions, participants receive bells, maps, and information about upcoming events, projects, and cycling courses. **Figure 87** illustrates an example of this initiative. Overall, the program has been effective in encouraging both new and experienced bike riders to participate and take advantage of the free services available.

Figure 87 Share the Path Program



Source: NSW Cycling Strategy

Recommendation:

To encourage safe cycling within the City, a minimum of two (2) share the path programs should be run annually. Programs can be held in various locations or during popular events such as October Bike Month. This program should also be run by local schools, especially those that record a high level of students that ride to and from school.

13.3 School Programs

School children are a critically important component of the cycling community; they are the next generation of bike riders. The early exposure of children to cycling as an enjoyable way to spend their leisure time and to get to/from school has been proven to contribute significantly to children continuing to cycle into adulthood.

Consistent with the *Austroads Travel to School Guideline* (2026), increasing cycling to school requires an integrated approach that combines safe and connected infrastructure with education, encouragement, travel planning and collaboration between local government, schools, parents and the broader community. While the infrastructure recommendations presented in **Chapter 9** provide the foundation for safe cycling access, complementary behaviour change initiatives are essential to maximise the use of the proposed network and achieve long-term cycling participation.

The major opportunities for encouraging school children to ride bicycles include:

- Cycling to and from school – the majority of children live within 5 km of their school, a comfortable cycling distance for many students.
- School-based cycling education – providing children with the skills and confidence to ride safely and understand road rules.
- Organised cycling activities – including recreational rides, mountain biking and competitive cycling through schools and community organisations.
- The DTMI 's Your Move Schools program – supporting schools to promote walking, riding and other sustainable travel through travel planning, education, behaviour change initiatives and infrastructure incentives.

The City, in partnership with the DTMI, local schools and community organisations, should continue to support initiatives that encourage students to travel by bicycle. Programs should target different age groups, with a particular focus on children aged 10–14 years, when students are increasingly able to travel independently to school. Early intervention should also be encouraged through initiatives targeting kindergarten and primary school students to establish positive travel behaviours that can continue throughout life.

Currently, within the City, Walliston Primary School signed up to the Your Move program in 2020 earning numbers points and reaching a bronze status setting a great example for other local schools to participate in encouraging school children to choose to cycle to and from school.

Expanding participation in the Your Move Schools program would complement infrastructure improvements and help foster a culture of active transport among students and their families. Within Kalamunda, Walliston Primary School, Lesmurdie Primary School, Kalamunda Senior High School and High Wycombe Primary School have participated in the program or associated active travel initiatives in recent years. Building on these partnerships while encouraging additional schools across the LGA to participate would extend the reach of active travel education, school travel planning and behaviour change initiatives.

14 ACTION PLAN

The Action Plan shown below in **Table 20** the recommended capital and non-capital actions identified throughout this Local Bike Plan. Each action has been assigned an implementation priority and corresponding performance measures (KPIs) to support ongoing monitoring, evaluation and reporting of the Plan's implementation.

The assigned priorities have been informed by the City's strategic objectives, implementation considerations and the Austroads *Prioritising Active Transport* Research Report (AP-R711-24). Accordingly, actions with the greatest potential to increase active transport participation, such as cycling infrastructure, end-of-trip facilities, travel behaviour change and school-based programs, have generally been assigned higher priority.

Table 20 Action Plan

Category	No	Action	Performance Measure (KPI)	Priority
Infrastructure	1	Upgrade and expand cycling network as per the Schedule of Works (refer to Section 10.2)	Percentage of Schedule of Works projects completed or underway each year.	High
Maintenance	2	Regularly maintain roads and paths to ensure facilities are in good condition.	Routine inspections completed and reported defects rectified within the City's maintenance program.	High
	3	Regularly prune vegetation to ensure that facilities are accessible	Reported vegetation hazards addressed within the City's maintenance response time.	High
Advocacy	4	Advocate the State Government agencies or elected members for funding of major projects (e.g. Forrestfield Airport Link, PSPs)	Number of funding submissions or advocacy initiatives undertaken annually.	High
	5	Participate in the planning and design process of major projects (e.g. Roe Highway PSP) and ensure connections to local neighbourhoods are included within the scope	Participation in relevant project meetings and incorporation of local cycling connections where feasible.	High
	6	Assign resource time to implement advocacy actions	Staff resources allocated to advocacy activities each financial year.	Medium
Behaviour Change and Awareness	7	Raise awareness of cycling by including information regarding cycling related activities on the City's website, newsletter, and social media	Number of cycling-related communications or campaigns delivered annually.	High
	8	Make cycling related information such as route maps, road rules, safety, and cycling etiquette easily accessible, either electronically or in print form.	Cycling information maintained and updated on the City's website and publications.	Medium
	9	Communicate new cycling infrastructure concepts (e.g. Safe Active Street) to residents through easily accessible means.	Community engagement activities undertaken for new infrastructure projects	Medium
	10	Promote the completion of new cycling infrastructure or routes through related community or cycling events.	Number of community events or promotional activities associated with new infrastructure.	High

	11	Provide cycling education courses and lead rides to encourage inexperience riders to ride more often	Number of education sessions and participant attendance each year.	Medium
	12	Participate in Super Tuesday annual bike count event and Bike Week to promote cycling and provide positive reinforcement to existing bike riders.	Annual participation in Super Tuesday and Bike Week activities.	High
	13	Investigate the feasibility of a bicycle library scheme, potentially in libraries at Kalamunda, Forrestfield, and High Wycombe.	Feasibility study completion within 5 years and number of recommendations presented to the City.	Low
	14	Provide drivers education for City staff to encourage better road use behaviour, including sharing the road with bike riders.	Number of LGA staff participating in driver awareness training annually.	Low
	15	Collaborate with WestCycle to lobby MRWA and the Road Safety Commission to implement a Targeted Driver Education Program.	Joint advocacy initiatives or meetings undertaken annually.	Low
	16	Assign resource time (e.g. TravelSmart officer) to implement the Behaviour Change and Awareness actions.	Staff position or equivalent resources allocated to deliver behaviour change initiatives.	High
School Programs	17	Conduct programs, such as cycling lessons and sport events, at schools within the City to encourage cycling uptake	Number of schools participating and programs delivered annually.	High
	18	Encourage schools to participate in Your Move program.	Number (or proportion) of City schools participating in the Your Move program.	High
Cycling Tourism	19	Commission a detailed investigation into the opportunities and benefits of promoting cycling tourism in the City and develop an Action Plan	Completion of Investigation and Cycling Tourism Action Plan within next 5 years	Low
	20	Establish a funding stream to assist businesses in becoming 'Bicycle Friendly Businesses' – e.g. by part-funding additional bicycle parking	Funding program established and number of businesses supported within the next 5 years	Low
End-of-trip (EoT) facilities	21	Conduct an audit of existing EoT facilities to identify and create/update an inventory and map of EoT facilities within the City. Provide updated inventory to DTMI for inclusion in the Comprehensive Bike Maps.	Audit completed, inventory maintained and submitted to DTMI for mapping updates within the next 5 years	Medium
	22	Provide suitable EoT facilities at public lands (parks, library) that are managed by the City	Number of new or upgraded public EoT facilities installed annually.	High
	23	Update the Local Planning Scheme to include requirements for EoT facilities for new developments or create a new bicycle parking policy	Adoption of a Local Planning Scheme amendment or bicycle parking policy within the next 5 years	High



Appendix A

POLICY REVIEW





APPENDIX A POLICY REVIEW



Appendix B

HIGH WYCOMBE SOUTH / FORRESTFIELD NORTH STRUCTURE PLANS





APPENDIX B HIGH WYCOMBE SOUTH/FORRESTFIELD NORTH STRUCTURE PLANS

5.



Appendix C

Community Engagement Report
February 2026





APPENDIX C COMMUNITY ENGAGEMENT REPORT



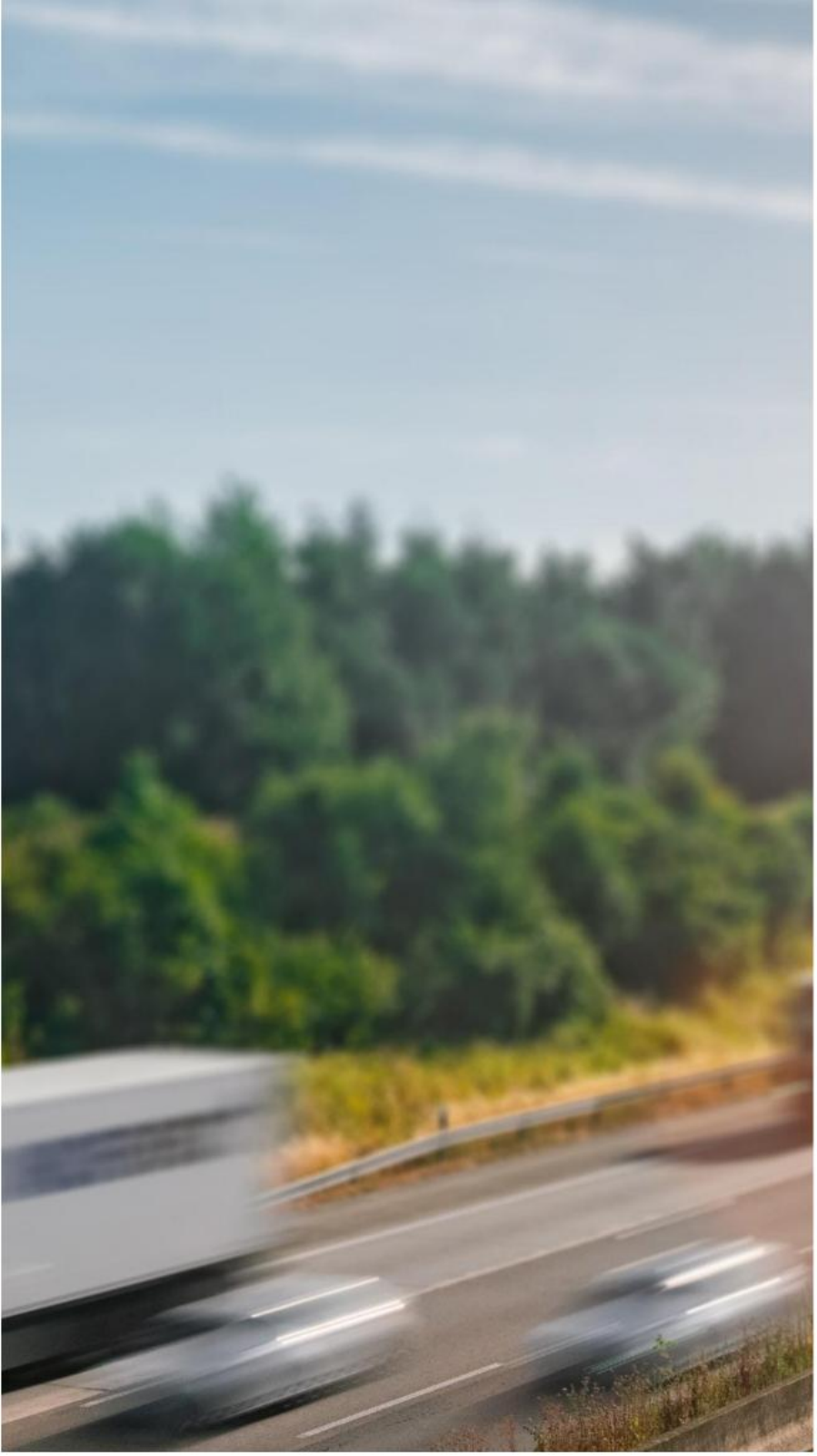
Appendix D

Ultimate Bicycle Network Plan 2026





APPENDIX D ULTIMATE BICYCLE NETWORK PLAN 2026





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