SUBURBAN RAIL LOOP EAST

SRL East Draft Structure Plan | Glen Waverley

Transport Technical Report

More Homes For Victorians

VICTORIA State Government

Suburban Rail Loop

PREPARED FOR SUBURBAN RAIL LOOP AUTHORITY

SRL EAST DRAFT STRUCTURE PLAN – TRANSPORT TECHNICAL REPORT – GLEN WAVERLEY

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This document should be read in full and no excerpts are to be taken as representative of the findings.

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Abbreviations and glossary

TERM	DEFINITION
AADT	Annual Average Daily Traffic
ABS	Australian Bureau of Statistics
AJM JV	Aurecon, Jacobs, Mott MacDonald Joint Venture – Technical Advisor to the SRLA
AM peak	The 2-hour peak period between 7am to 9am on a typical weekday
BESS	Built Environment Sustainable Scorecard
BIC	Business and Investment Case
Car free / Car light	Option for a lifestyle that does not require a car to travel in most circumstances
CBD	Central Business District of Greater Melbourne
CASBE	Council of Sustainability in the Built Environment
CoMo UK	Collaborative Mobility UK, A UK charity organisation promoting and advocating for the public benefit of shared transport options
DDA	*Disability Discrimination Act 1992* (Cth)
DTP / DoT	Department of Transport and Planning / Department of Transport (formerly)
EES	Environment Effects Statement for SRL East Rail Project
End-of-trip facilities	Facilities available for people to shower, change clothes or otherwise transition from active transport to work or other activities.
EPR	Environmental Performance Requirements
EV	Electric vehicles
Greater Melbourne	Covers the entirety of suburban Melbourne including as yet unreleased growth areas in outer suburbs, including 31 local government areas.
GWAC	Glen Waverley Activity Centre
GTP	Green Travel Plans
IAC	Inquiry and Advisory Committee
LGA	Local government area
LMFP	Last Mile Freight Plan
LUTI	Land Use and Transport Interaction
M&P	Movement and Place – a cross-disciplinary, place-based approach to the planning, design, delivery and operation of transport networks
Micromobility	Transport provided by very light vehicles including bicycles, scooters and skateboards. Often shared and/or electric.
NEIC	Monash National Employment and Innovation Cluster
Off-peak	The off-peak period between 6pm to 7am, and the inter-period between the morning and afternoon peaks between 9am to 3pm on a typical weekday
PFN	Principal Freight Network
Planning Area	The Planning Area declared within Glen Waverley by the SRL Minister under the *Suburban Rail Loop Act 2021* (Vic) on 4 December 2023.
PM peak	The 3-hour peak period between 3 pm to 6 pm on a typical weekday
PPTN	Principal Public Transport Network
PSA	Planning Scheme Amendment
PTV	Public Transport Victoria
PUDO	Pick up / Drop off parking spaces
SA2	Statistical Area Level 2
SCC	Strategic cycling corridor

TERM	DEFINITION
SCO14	Specific Controls Overlay Schedule 14
SRL	Suburban Rail Loop is a new orbital rail line from Cheltenham to Werribee and associated development together with planning for the increased intensification and activation of precincts in areas connected to and around the rail line.
SRLA	Suburban Rail Loop Authority
SRL East	The south-east section of SRL from Cheltenham to Box Hill, together with a series of integrated initiatives to create value and improve the precincts around the new stations
SRL East Planning Areas	The SRL East Planning Areas are Cheltenham (CTM), Clayton (CLA), Monash (MSH), Glen Waverley (GWY), Burwood (BUW) and Box Hill (BOX)
SRL East Rail project	Construction and operation of the SRL East rail connection, including tunnels from Cheltenham to Box Hill, six stations and the Southern Stabling and Maintenance Yard
Structure Plan Area	The extent of land within the Planning Area to which the Glen Waverley Structure Plan applies.
TAFE	Technical and Further Education
TGSI	Tactile ground surface indicators
V/C	Volume over capacity ratio
VISTA	Victorian Integrated Survey of Travel and Activity
VITM	Victorian Integrated Transport Model

Executive summary

As part of the Suburban Rail Loop (SRL) East project, Draft Structure Plans (Structure Plans) are being prepared for the neighbourhoods surrounding the new underground stations at Box Hill, Burwood, Glen Waverley, Monash, Clayton and Cheltenham.

The Structure Plans will set how the Vision will be delivered in the SRL East Structure Plan Areas to guide growth and transformational change, while protecting the character and features that people love about those areas. As the Glen Waverley Structure Plan Area develops it will be important to protect and enhance access to, from and within Glen Waverley.

Building on the existing high quality arterial road links, such as Springvale Road, and the Glen Waverley rail line to the central city with connections to 11 bus routes at Glen Waverley, SRL East will provide high capacity and fast connections to nearby state and regional significant activity centres that are currently difficult to reach by public transport. More active and sustainable transport choices will help improve the amenity and liveability of the Structure Plan Area, and the health and wellbeing of individuals. This will help reduce traffic congestion and adverse environmental impacts and provide for more efficient use of land (instead of over-providing car parking).

This report sets out transport recommendations to inform the development of the Glen Waverley Structure Plan. The recommendations consider future land use and associated population and employment growth, with the aim to support and encourage sustainable and active and public transport choices in Glen Waverley in response to that growth, and to manage car parking, kerbside activities and freight deliveries.

The Glen Waverley Structure Plan will identify how the five key themes of Boosting the Economy, Enriching Community, Better Connections, Enhancing Place and Empowering Sustainability will be delivered in the Structure Plan Area, and to set objectives, strategies and actions to achieve the Vision for the area.

The population, job and traffic growth demands associated with the land use changes and Structure Plan will require proactive management to realise the full potential of SRL East. The transport ambition and goals provide the foundations for managing the growth in transport in Glen Waverley. These ambitions and goals are summarised in the Figure and Table below.

Transport Ambition for Glen Waverley

Managing the growing number of trips through more people choosing to walk, cycle and catch public transport as Glen Waverley develops.

GOAL	EXPLANATION
 A safe and connected walking and cycling environment	Walking and cycling[1] will serve as the most convenient, safe and enjoyable means of travel in the neighbourhoods around each SRL station.

[1] *Walking and cycling represent the action of moving as a pedestrian or cyclists, whether or not someone is walking or cycling unaided or using any kind of wheeled mobility aid, including cycles, scooters, wheelchairs, mobility scooters, walking frames, prams or buggies.*

GOAL	EXPLANATION
A revitalised bus experience	In line with Victoria's Bus Plan, help change people's perception of buses. Provide a passenger-focused bus service, making road-based public transport a competitive, attractive and convenient choice.
An all-inclusive transport network	Ensure transport is accessible to people of all ages, abilities and genders.
Anchoring sustainable travel services and shared mobility to SRL East	SRL East stations are seamless integrated hubs, allowing quality interchanges between sustainable travel modes.
Prioritising safe and healthy movement	In line with Victoria's Road Safety Strategy 2021-2030, the transport network becomes safer for all, particularly vulnerable users. Uptake in walking and cycling contributes to an increase in daily physical activity.
Smart and efficient use of parking	Parking management needs for all users, with a strong emphasis on providing for the needs of bike and micromobility users. Car parking spaces will be managed and used to maximise their effectiveness while considering impacts on the urban realm.
Enable new and emerging innovative mobility	Neighbourhoods around each SRL station will enable emerging and innovative mobility to provide more and convenient choice, especially for shorter to medium distance trips.

This report is informed by assessing the existing transport conditions in Glen Waverley and the SRL East Rail Environment Effect Statement (EES) (2021). It sets out recommendations to support and encourage sustainable and active transport choices, and to manage parking, kerbside activities and freight deliveries.

A Precinct Parking Plan for Glen Waverley is attached as Appendix A to this report. The SRL East Structure Plan – Transport Technical Report – Appendix A Precinct Parking Plan – Glen Waverley supports the justification of implementing Parking Overlays in Glen Waverley.

The main transport challenges in Glen Waverley are:

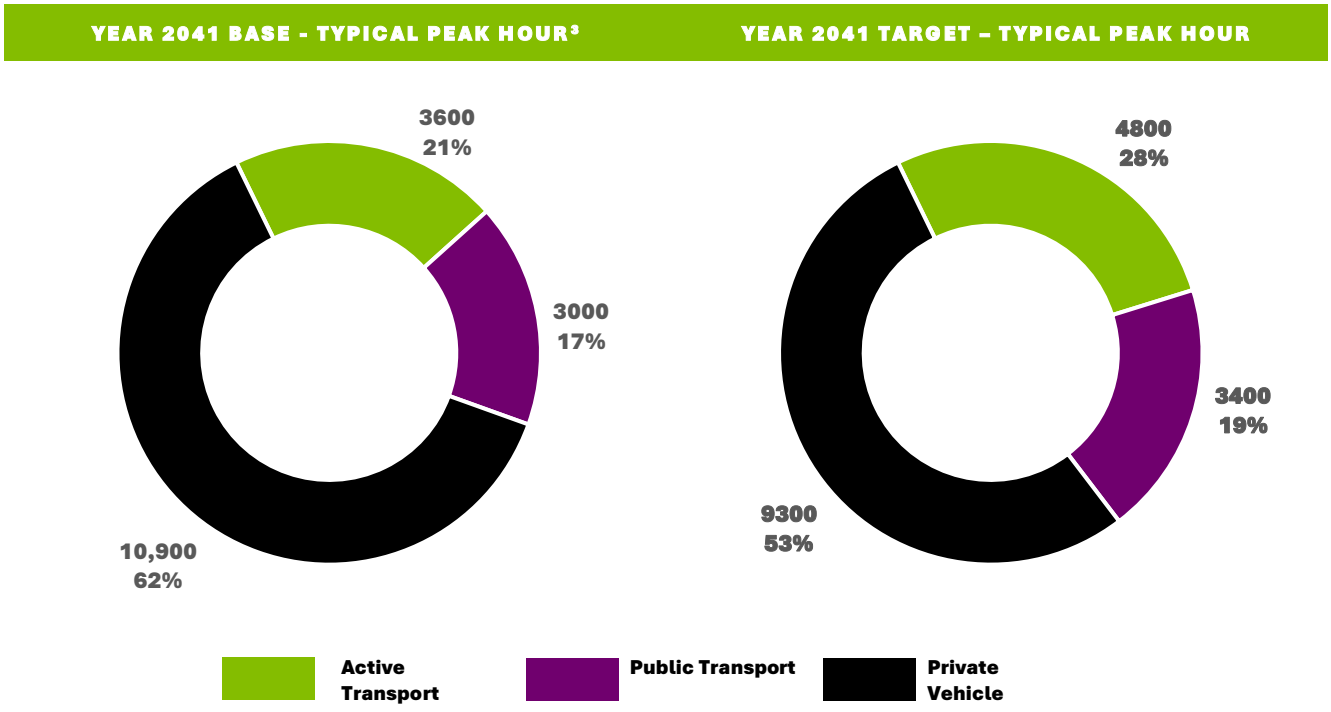
- Limited and poor crossing facilities on key roads for pedestrians and cyclists
- There is limited cycling infrastructure, with very few separated cycling routes serving Glen Waverley. Outside of Monash University, parking for cycling and other emerging modes is limited.
- While Glen Waverley generally has good public transport coverage, the bus interchange infrastructure is low quality and provides poor amenity. There is limited bus priority
- There is an abundance of car parks, but limited parking for cycling and for micromobility devices
- The abundance of on and off-street car parking within the Structure Plan Area supports private vehicle travel rather than more sustainable modes. In many instances the location of parking encourages drivers to pass through high pedestrian activity areas
- While the current private vehicle mode share is generally within the capacity of the road network other than some peak hour congestion points, maintaining a similar private vehicle mode share into the future will not be sustainable and will be detrimental to the liveability within the Structure Plan Area.

An assessment of how travel patterns within the Structure Plan Area will evolve and change was undertaken, which included setting a mode share target that reflects the broader set of transport choices. The assessment

identified that, in the future (with SRL East), about 70 per cent of Glen Waverley trips start and/or finish within 5 kilometres of Glen Waverley or are along a corridor will be served by a direct rail service to Glen Waverley.

The primary focus of the sustainable transport mode share increase is the growth in active transport trips supported by the future mixed land uses and the potential for improved infrastructure and facilities to support short distance trips.

The Figure below shows the future Baseline Scenario (including SRL East) and target mode shares for a typical peak hour for Glen Waverley.[2] The target shows an increase in active transport mode share by 33 per cent (an increase of 1200 trips during a typical peak hour) compared to the baseline from 21 per cent to 28 per cent, with public transport mode share increasing by 13 per cent (an increase of 400 trips during a typical peak hour).



Recommendations

Recommendations to improve transport and movement in Glen Waverley are divided into infrastructure recommendations, and non-infrastructure recommendations:

- **Infrastructure recommendations** focus on improving **strategic** and local corridors, with a focus on optimising sustainable active and public transport networks to promote walking, cycling and public transport modes

- **Non-infrastructure recommendations** focus on policies, strategies, guidelines and plans to manage parking in the Structure Plan Area to promote sustainable transport choice and manage kerbside activities and freight delivery. Some recommendations are categorised as 'other opportunities' to be considered through other pathways and partnerships.

[2] *Analysis is based on the primary mode for trips to, from and within Glen Waverley (through trips are not included).*

[3] *Due to limitations in VITM actual active transport mode share may be higher than the baseline (see Section 3.4) forecast due to mixed-used higher density land uses naturally favouring active transport and active transport initiatives from State Government and Local Councils which may occur from now until commencement of SRL East services.*

The Table below summarises the types of recommendations and their alignment with the transport goals. The infrastructure and non-infrastructure recommendations will deliver a more connected network and increased travel choice by building upon existing arterial road and rail access and contributing to a shift towards sustainable travel choices across the Glen Waverley Structure Plan Area.

TRANSPORT RECOMMENDATIONS	TRANSPORT GOALS						
	A safe and connected walking and cycling environment	A revitalised bus experience	An all-inclusive transport network	Anchoring sustainable travel services and shared mobility to SRL East	Prioritising safe and healthy movement	Smart and efficient use of parking	Enable new and emerging innovative mobility
Infrastructure types							
New and Upgraded Strategic Corridors that enable the Structure Plan with a particular focus on active and public transport upgrades	✓	✓	✓		✓		
Upgraded local Green Streets, with a particular focus on active transport upgrades and support for innovative modes	✓		✓			✓	
New Key Links, focusing on creating active transport permeability and connecting transport corridors	✓		✓	✓			
New and upgraded crossings of busy roads	✓		✓		✓		
Upgrades to public transport interchanges to enhance the services, facilities, and customer experience		✓		✓			
New bicycle hubs to encourage active transport to the SRL station, existing railway station and bus interchange	✓	✓		✓			
Maintaining strategic traffic and freight corridors		✓				✓	
Designating low traffic neighbourhoods	✓		✓		✓		
Non-Infrastructure types							
Development of SRL East Structure Plan Area appropriate parking rates					✓	✓	
Partnering with Council to plan and manage streets through local freight delivery and kerbside management plans						✓	
Supporting travel choices including Green Travel Plans and encourage use of mobility hubs					✓		✓

1 Introduction

This section provides the background to the Suburban Rail Loop (SRL) East project. It sets out the scope and objectives of structure planning, and the purpose and structure of this report. The methodology for the transport technical assessment is explained. Stakeholder consultations undertaken to inform the recommendations in this report are discussed.

1.1 Background

Suburban Rail Loop (SRL) is a transformational project that will help shape Melbourne's growth in the decades ahead. It will better connect Victorians to jobs, retail, education, health services and each other – and help Melbourne evolve into a 'city of centres'.

SRL will deliver a 90-kilometre rail line linking every major train service from the Frankston Line to the Werribee Line via Melbourne Airport.

SRL East from Cheltenham to Box Hill will connect major employment, health, education and retail destinations in Melbourne's east and south east. Twin 26-kilometre tunnels will link priority growth suburbs in the municipalities of Bayside, Kingston, Monash and Whitehorse. The Minister for Planning approved the SRL East rail project in 2022.

SRL East Draft Structure Plan (Structure Plan) Areas will surround the six new underground stations at Cheltenham, Clayton, Monash, Glen Waverley, Burwood and Box Hill.

Construction of the SRL East underground stations is underway at Cheltenham, Clayton, Monash, Glen Waverley, Burwood and Box Hill. SRL East provides an opportunity to enhance the surrounding neighbourhoods.

SRL East will support thriving and sustainable neighbourhoods and communities that offer diverse and affordable housing options, with easy access to jobs, transport networks, open space, and community facilities and services.

A Vision for the Glen Waverley SRL East neighbourhoods has been developed in consultation with the community and stakeholders that sets out the long-term aspirations for the SRL East Structure Plan Areas.

Figure 1.1 shows SRL East in the context of the entire SRL project and Melbourne's rail network.

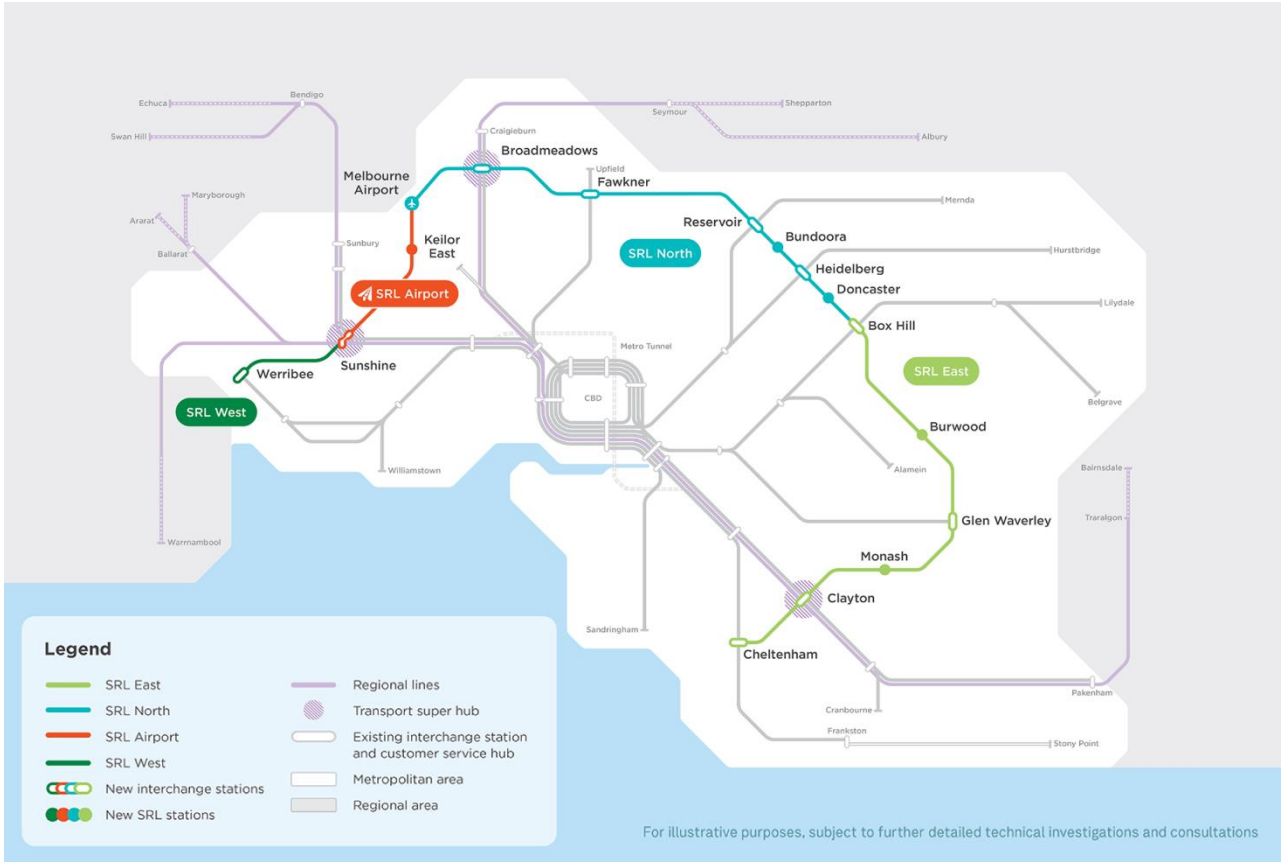


FIGURE 1.1 SRL EAST CONTEXT IN MELBOURNE'S RAIL NETWORK

1.2 Structure planning

Structure Plans are being prepared for defined areas surrounding the SRL East stations to help deliver the vision for each neighbourhood.

The Structure Plans cover defined SRL East Structure Plan Areas. These are the areas immediately surrounding the SRL stations, where the most growth and change will occur These areas cover a walkable catchment that extends from the SRL station entrances. Additional places are included within the Structure Plan Area as required to make planning guidance more robust and effective, and to align with each community's aspirations and current and future needs.

A Structure Plan is a blueprint to guide how an area develops and changes over time. Structure Plans describe how future growth within the area will be managed in an appropriate and sustainable way to achieve social, economic and environmental objectives. Matters covered in a Structure Plan include transport connections and car parking, housing and commercial development, community infrastructure, urban design, open space, water and energy management, climate resilience and sustainability.

By tailoring planning decisions to reflect the needs of a defined area, Structure Plans give effect to the policies and objectives set for these areas and cater for changing community needs. They also provide certainty for residents, businesses and developers by identifying the preferred locations and timing of future land uses, development and infrastructure provision.

Structure Plans take a flexible and responsive approach that enables places to evolve over time.

Planning scheme amendments will be required to implement the Structure Plans into the planning schemes of the cities of Bayside, Kingston, Monash and Whitehorse across the SRL East Structure Plan Areas.

SRL East is the first stage of the wider SRL project, which is an integrated transport and land use project that will extend over 30 years. By integrating and staging transport, planning and infrastructure initiatives, SRL will support urban centres across Melbourne that offer high quality lifestyles, housing and jobs close to public transport, services and other amenities.

This Structure Plan recognises that key planning approvals for SRL East were informed by the Minister's Assessment of the SRL East Environmental Effects Statement (EES) (2021), which was supported by relevant technical documents such the Traffic and Transport Impact Assessment. These approvals, now in place for delivering the rail infrastructure for SRL East, form the foundation for structure planning and this report.

The Structure Plan is the next step towards achieving SRL's integrated transport and land use outcomes and maximising the project's benefits.

1.2.1 PLANNING AREA AND STRUCTURE PLAN AREA

This report also refers to the Planning Area. The Planning Area is a wider area that includes the Structure Plan Area. The Planning Area for Glen Waverley was declared by the Minister for the SRL under the *Suburban Rail Loop Act 2021* (Vic) in December 2023. The declaration makes the Suburban Rail Loop Authority (SRLA) a planning authority under the *Planning and Environment Act 1987* (Vic) for the land in Glen Waverley to which the Planning Area applies and has effect.

As transport links connect beyond the Structure Plan Area and people move through it to access activities within the wider Planning Area, this report deliberately discusses transport networks, challenges and trips in the context of the wider Planning Area before focusing in on impacts and actions within the Structure Plan Area.

The Planning Area and the Structure Plan Area for Glen Waverley are shown in Figure 1.2.

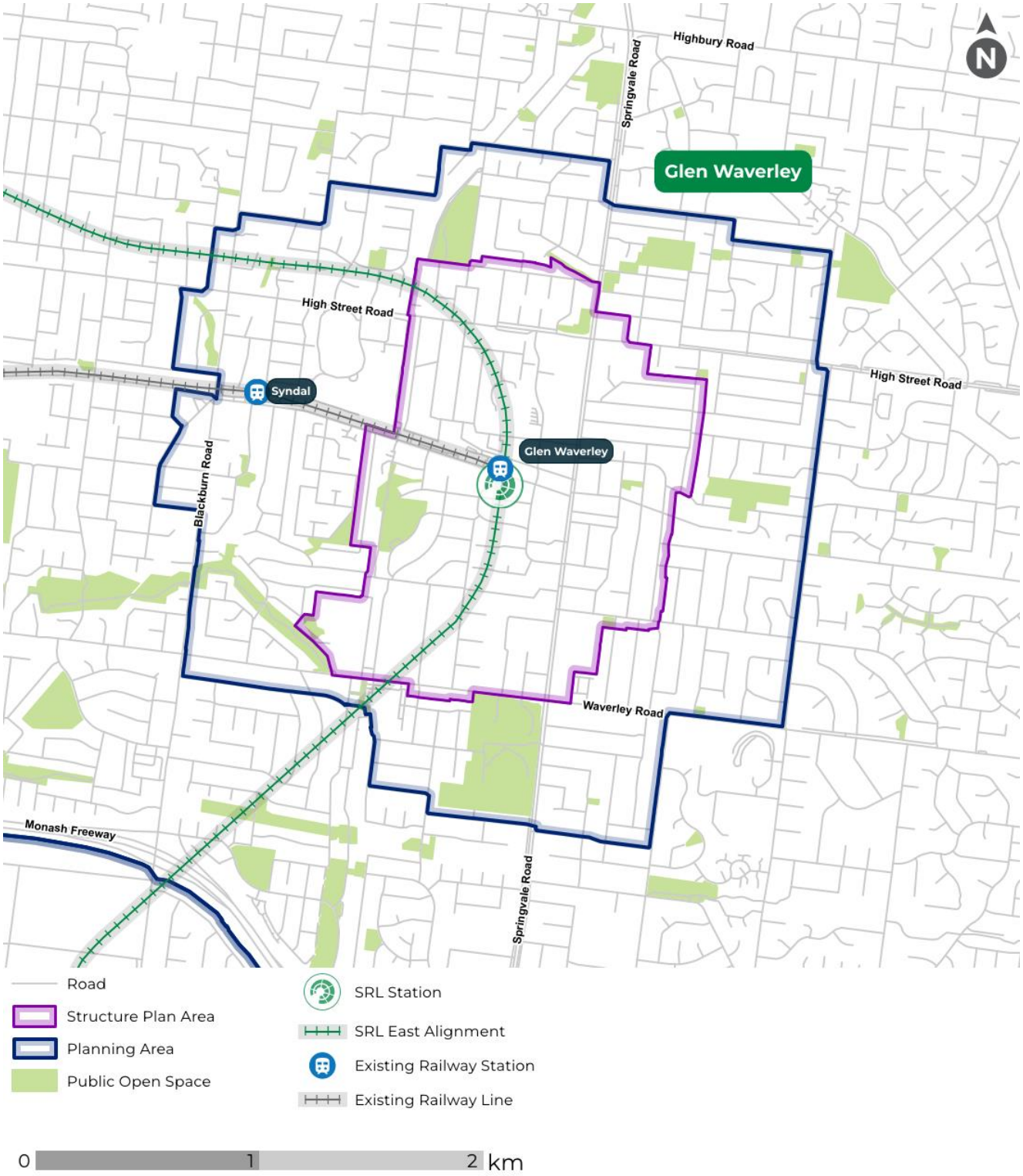


FIGURE 1.2 THE GLEN WAVERLEY PLANNING AREA AND STRUCTURE PLAN AREA

1.3 Purpose and structure of this report

This report sets out transport recommendations to inform the development of the Structure Plan for Glen Waverley.

As the Glen Waverley Structure Plan Area develops it will be important to support and promote more sustainable modes of transport to, from and within Glen Waverley. This will help reduce traffic congestion and adverse environmental impacts and provide for more efficient use of land (instead of over-providing car parking). More active and sustainable transport choices will help improve the amenity and liveability of the Structure Plan Area, and the health and wellbeing of individuals.

The recommendations aim to support and encourage sustainable and active transport choices in Glen Waverley, and manage parking, kerbside activities and freight deliveries.

The structure of this report is:

- **Section 1: Introduction** – provides the background and context of the technical assessment
- **Section 2: Existing conditions** – describes the existing transport conditions, gaps and challenges in Glen Waverley
- **Section 3: The SRL project** – provides an overview of the project and its expected benefits, and sets out relevant aspects of the Traffic and Transport Impact Assessment delivered for the SRL East Environment Effects Statement (EES) (2021) that informed the Planning Approval
- **Section 4: Transport ambition for Glen Waverley** – sets out the transport ambition for Glen Waverley and anticipated land use and the implications for transport
- **Section 5: Future transport demands** – discusses travel patterns, including the trips generated and the distribution of where they are going to and from, and presents the target mode shares given the transport ambition
- **Section 6: Infrastructure recommendations** – sets out the aspirational network for each transport mode recommendations to improve transport infrastructure and encourage sustainable travel in the Structure Plan Area
- **Section 7: Non-infrastructure recommendations** – sets out the non-infrastructure recommendations to manage parking, promote active and sustainable transport choices, and manage kerbside activities and local freight deliveries
- **Section 8: Conclusion** – including the considering of the alignment between transport goals and types of recommendations.

The **SRL East Structure Plan – Transport Technical Report – Appendix A Precinct Parking Plan – Glen Waverley** attached to Appendix A of this report summarises the context of parking in Glen Waverley and outlines parking management tools recommended for the Glen Waverley Structure Plan.

1.4 Methodology

This report demonstrates how transport recommendations will cater for the growth in trips as a result of the land use changes and associated transport demand anticipated from the Glen Waverley Structure Plan Area.

The Minister's Assessment (discussed further in Section 3.5) supported the finding of the Inquiry and Advisory Committee (IAC) convened to review the environment effects of SRL East; that the transport modelling completed for the Transport and Traffic Impact Assessment for the SRL East Environment Effects Statement (EES) 2021) was adequate for this phase of the project. This transport modelling underpinned the assessment of operational transport effects and considered land use changes and future travel patterns associated with the operation of the SRL East rail infrastructure and has formed the basis for the preparation of this Transport Technical Report.

A 'vision and validate' approach was applied to respond to the growing transport task to 2041 expected from the land use changes in the Glen Waverley Structure Plan Area. The 'vision and validate' approach focuses on defining the desired transport network ('vision') to inform and support the Structure Plan and identifies how the transport recommendations will work towards achieving the desired 'outcome for the transport network ('validate').

The transport recommendations respond to the transport ambition and seek to encourage more sustainable transport demand and reduce car reliance and impacts, while more broadly informing the vision for the Glen Waverley Structure Plan Area.

The steps to plan, develop and validate the transport recommendations were:

- **Step 1: Review existing conditions** involved considering the current transport conditions and identifying strengths, challenges, gaps and opportunities
- **Step 2: Review the baseline** involved understanding the future set in the SRL East EES, including the land use development uplift and the changes to the network
- **Step 3: Setting the transport ambition and goals** were determined to inform the Glen Waverley Vision and the Structure Plan. This forms part of the 'vision' process of the 'vision and validate' approach. The development of the transport goals considered the transport challenges, gaps and opportunities in the Structure Plan Area. Future travel demand was assessed and a mode share target for Glen Waverley was set and reviewed against the existing mode shares for other Melbourne suburbs
- **Step 4: Determine the initial movement network and opportunities** to inform the structure planning process. Given the transport ambition for the Structure Plan Area, how these could be achieved beyond what was outlined in the SRL East EES to achieve the ambitions was considered
    - » The aspirational strategic and local movement network for all modes in the Structure Plan Area was developed by SRLA in consultation with the Department of Transport and Planning (DTP) and the City of Monash. The network was developed using DTP's Movement and Place (M&P) Framework and applied SRLA's modal principles in response to land use changes proposed in the Structure Plan
    - » The strategic M&P assessment identified gaps between the current and aspirational performance. Initial transport infrastructure recommendations were developed to address these gaps for consideration during development of the Structure Plan and stakeholder engagement
    - » Initial non-infrastructure recommendations were developed in response to the transport ambition, including to encourage effective parking management and support sustainable travel choices.
- **Step 5: Iterate the development of the Structure Plan with transport.** Transport networks and recommendations were iteratively developed

- **Step 6: Validate recommendations** involved checking recommendations against the transport challenges and ambition to cater for the projected changes in land use and associated transport demand in the Structure Plan Area.

Implementation of the recommendations contributes to a shift towards sustainable travel choices beyond that forecast in the SRL East EES.

1.4.1 PEER REVIEW

This technical report has been independently peer reviewed by Tim De Young of Eukai. The peer review report is attached as Appendix B of this report, which sets out the peer reviewer's opinion on the SRL East Draft Structure Plan –Transport Technical Report – Glen Waverley.

1.5 Stakeholder consultation

SRLA has developed a comprehensive engagement plan for the overall structure planning program. The engagement plan is shown in Figure 1.3 and includes early engagement to inform the draft Structure Plans through to statutory steps such as exhibition and advisory committee processes. The engagement plan considers community and stakeholder engagement.

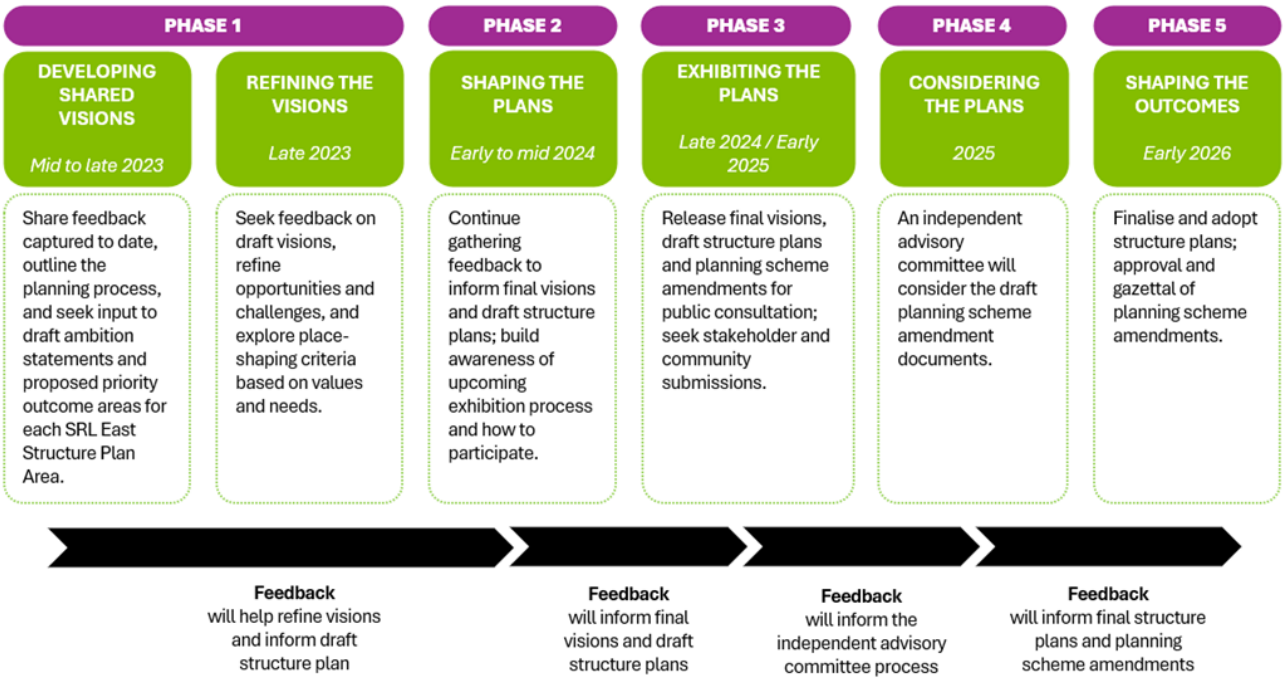


FIGURE 1.3 SRL EAST STRUCTURE PLANNING ENGAGEMENT PLAN

SRLA engaged with the Department of Transport and Planning (DTP) and the City of Monash to inform the development of the transport recommendations.

This included working collaboratively with DTP to gain endorsement of the M&P network for the Glen Waverley structure planning.

Workshops with City of Monash officers were held. A Better Connections workshop discussed emerging key directions relating to transport connections. A M&P and parking workshop discussed the M&P transport network (walking, cycling and general traffic classifications) and the parking provision approach. SRLA noted that the proposed closure of Coleman Parade is subject to separate discussions as a part of SRL East works.

Feedback from the workshops included:

- Better Connections workshop:
  - » The City of Monash suggested the investigation of an additional pedestrian crossing on Springvale Road between Coleman Parade and Kingsway. This report recommends upgrades to Springvale Road in line with the M&P classifications. SRLA will work with the City of Monash and DTP at project development stage to determine the appropriate transport solution.
  - » An east-west bike connection between Scotchmans Creek Trail and Glen Waverley centre via local streets was suggested. The connection identified by the City of Monash is included as a local cycling route in this report.

- M&P and parking workshop:
  - » Aligned on the walking hierarchy and strategic cycling corridors
  - » Aligned on limiting through traffic on Kingsway
  - » City of Monash officers queried whether it is appropriate to include M&P classifications that imply higher level of service requirements on streets with limited existing walking and cycling transport infrastructure
  - » They also suggested Strategic Cycling Corridors which currently lack appropriate infrastructure should be upgraded.

Separate to these workshops, ongoing engagement with SRLA and City of Monash officers discussed other relevant matters related to the design of the SRL East rail works. Key discussions to date have included:

- At Monash City Council's request, SRLA undertook a full and detailed modelling investigation into the council's previous proposal to provide a ring road over the existing rail line
- At the Council's request, SRLA undertook an extensive and detailed investigation into the potential to lower the existing Glen Waverley Station, including the associated bus interchange, bridges, stabling yard and staging works
- SRLA presented traffic modelling works considering numerous road network scenarios through and around Glen Waverley related to whether Coleman Parade should be closed or remain open for traffic at Myrtle Street, including scenarios suggested and requested by the Council
- SRLA presented various impact assessments and findings relating to the new multi-deck commuter car park near the existing Glen Waverley Station. Feedback was incorporated into the approved design.

More information is provided in the SRL Structure Planning Engagement Reports on the SRL website at https://bigbuild.vic.gov.au/library/suburban-rail-loop/reports/engagement-reports/structure-planning-engagement-report.

Consultation undertaken to date is summarised in Table 1.1 and Table 1.2.

TABLE 1.1 STAKEHOLDER TRANSPORT CONSULTATIONS AND CONSULTATION TOPICS

STAKEHOLDER	CONSULTATION TOPIC	TRANSPORT CONSULTATIONS
City of Monash	Structure planning program	• Workshop conducted in May 2024 • Workshop conducted in August 2024.
	SRL rail-related works	Ongoing engagement to comply with rail project environmental approvals

TABLE 1.2 CITY OF MONASH CONSULTATION DISCUSSION POINTS AND RESPONSE

CONSULTATION TOPIC	KEY ISSUES DISCUSSED	STRUCTURE PLAN RESPONSE
Structure planning program	• Precinct key directions • Transport 'Better Connection' themes • M&P classification for the Structure Plan Area (walking, cycling and general traffic classifications) • Development parking provision (suggested zones and rates).	• SRLA has developed infrastructure recommendations to reflect the workshopped 'Better Connection' themes and M&P network classifications • SRLA will continue to work with the City of Monash at project planning and delivery stages to deliver the infrastructure recommendations that reflect the M&P classifications • SRLA has considered the comments received and reviewed and refined the development parking provision, including the Parking Overlay areas and the car parking provision.
SRL rail-related works	In addition to the rail project design issues noted above, key issues discussed included: • Interim locations and arrangements for the Melbourne Metropolitan train network (MMTN) replacement bus stops servicing the existing Glen Waverley Station during construction • Interim locations and arrangements for the pick-up / drop-off parking spaces servicing the existing Glen Waverley Station during construction • Findings of an origin and destination study, undertaken in partnership between SRLA and the City of Monash to understand human movement patterns to, from and through the Glen Waverley Activity Centre • The form, function and accessibility characteristics of the new Myrtle Street realignment design, including public transport services and DDA (disability) considerations • Meetings to ensure an understanding of Monash City Council plans and vision for the Glen Waverley Activity Centre as part of its Kingsway Rejuvenation Project • The proposal to construct a multi-level car park on the northern side of Railway Parade North to service rail commuters and visitors to the Activity Centre, including the traffic and transport implications of the new development • Various design options for the section of Coleman Parade between Myrtle Street and Kingsway, including the SRL station forecourt, the pedestrian connectivity between the SRL station and the existing commuter facilities, and east-west cyclist connectivity • Feasibility of lowering the existing Glen Waverley Station and constructing a new ring road between Myrtle Street and Railway Parade North, including presentation of extensive traffic modelling and analysis works • Projected interim traffic conditions in the Glen Waverley Activity Centre during construction of SRL East, including presentation of extensive traffic modelling and analysis works.	Rail project design subject to its own planning approval process, including the closure of Coleman Parade for traffic at Mrytle Street.

2 Existing conditions

This section discusses current transport conditions and challenges in Glen Waverley, including the context, active transport, public transport, general traffic and freight, road safety and parking. It outlines the key national, state and local transport policies and strategies relevant to Glen Waverley.

2.1 Context

2.1.1 KEY DESTINATIONS

The Glen Waverley Planning Area is located about 26 kilometres east of the Melbourne Central Business District (CBD). It includes the Glen Waverley Major Activity Centre that serves as a major retail, hospitality and community hub attracting trips from across the Monash municipality and beyond for services, employment, and social interaction. It is also recognised as a regional public transport interchange, located at the terminus of the Glen Waverley Line. Bus and road networks support access to the existing Glen Waverley Station from across Glen Waverley and outer suburbs in the eastern metropolitan region.

The Monash municipality is also home to the Monash National Employment and Innovation Cluster (NEIC) and Clayton Health and Education Research Precinct – both around 4 kilometres to the south of Glen Waverley – which are a focus for employment, health and education services and generate trips from across the regional catchment including trips from and through Glen Waverley.

The Glen Waverley Structure Plan Area currently supports around 7800 jobs.[4] The commercial area of the Glen Waverley comprises retail, hospitality, office and civic uses, with educational uses located on the periphery.

The entertainment precinct, defined by Village Cinemas, Century City Plaza and Kingsway, generates activity throughout the day and evening. Glen Waverley is also home to neighbourhood centres, educational uses, community and recreation facilities (such as Holmesglen Institute, Monash Aquatic and Recreation Centre, and Central Reserve) and some industrial uses along the main arterial roads as shown in Figure 2.1. These form key destinations and trip generators in Glen Waverley Planning Area.

[4] *AJM JV, 2025, Economic Profile – Glen Waverley*

FIGURE 2.1 KEY DESTINATIONS IN GLEN WAVERLEY (SOURCE: SRLA, 2024)

2.1.2 PUBLIC TRANSPORT AND WALKING ACCESSIBILITY

Figure 2.2 shows the average Transit Score against the average Walk Score for the Glen Waverley Structure Plan Area and several areas across metropolitan Melbourne. The data included for the Glen Waverley Structure Plan area include individual location scores (noted within the shaded area), which make up the aggregate score for the Structure Plan Area.

The Transit Score[5] is a 0 to 100 rating tool that measures how well a specific location is serviced by public transport, with 0 being poor public transport access and 100 being great access to public transport. Increased access to public transport service routes and service types result in higher scores.

The Walk Score[6] is a 0 to 100 rating that measures how walkable a specific location is and how accessible it is to nearby amenities. Increased density and diversity of nearby amenities and pedestrian friendliness result in higher scores.

The Glen Waverley Structure Plan Area has moderate to high Walk Scores with an average of 83 which is higher than most included activity centre comparison points. The Structure Plan Area has a moderate Transit Score average of 57, which is similar to Cheltenham, Clayton, Monash and Burwood SRL East Structure Plan Areas.

In the future, increased land use density and diversity is expected to increase Glen Waverley's already high Walk Score, and SRL East and other future public transport upgrades are expected to increase its Transit Score (that shift it toward the 'top right' of Figure 2.2).

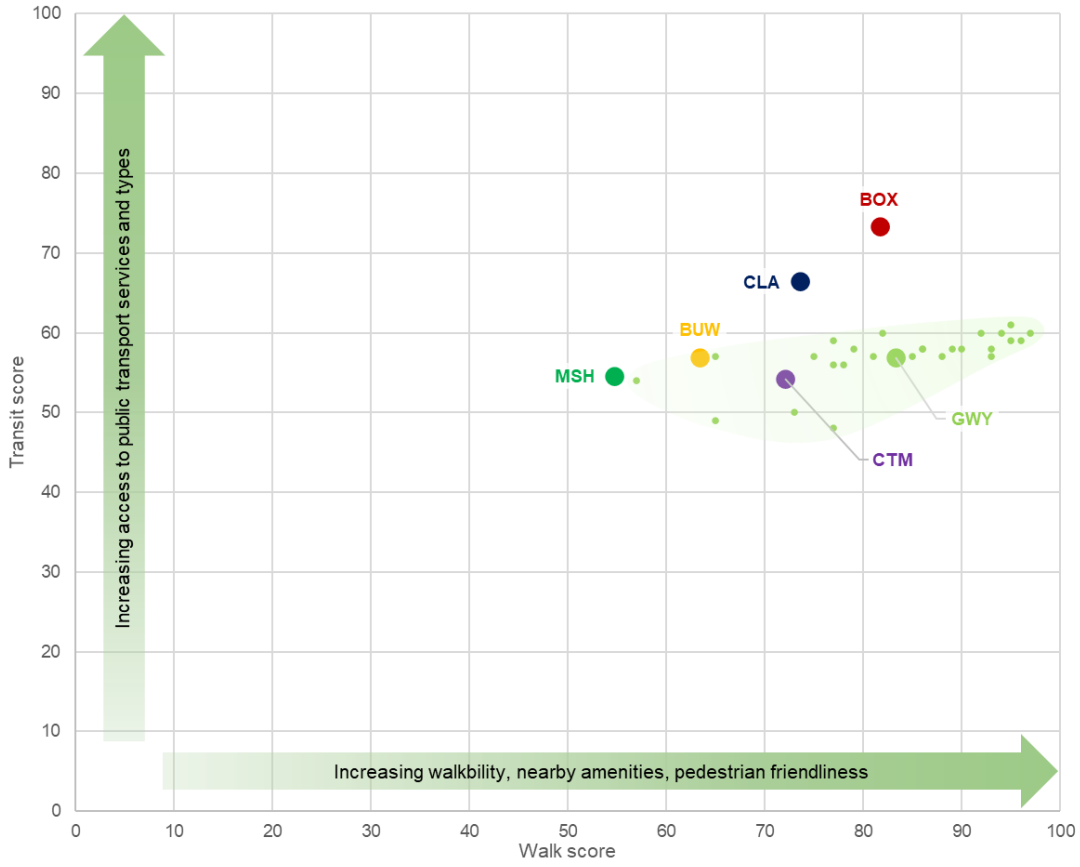


FIGURE 2.2 TRANSIT VS. WALK SCORE FOR THE GLEN WAVERLEY STRUCTURE PLAN AREA

[5] *Walk Score, 2024, Transit Score® Methodology, <https://www.walkscore.com/transit-score-methodology.shtml>*

[6] *Walk Score, 2024, Walk Score Methodology, < https://www.walkscore.com/methodology.shtml>*

2.1.3 MODE SHARE AND TRAVEL PATTERNS

In 2018, the majority of trips in the Glen Waverley Structure Plan Area were by private car (70 per cent) followed by active transport (21 per cent) and public transport (9 per cent), as shown in Figure 2.3. Trips are those travelling to, from and within Glen Waverley, trips passing through Glen Waverley are excluded.

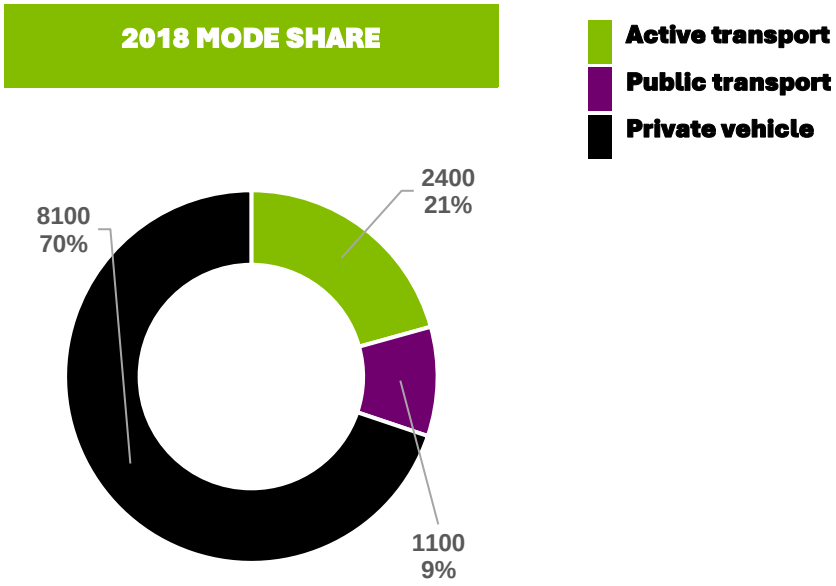


FIGURE 2.3 GLEN WAVERLEY 2018 PRIMARY MODE SHARE – WEEKDAY TYPICAL PEAK HOUR (SOURCE: DTP VITM, 2018)

As indicated by household travel information from the Victorian Integrated Survey of Travel and Activity (VISTA) data, mode share varies by trip purpose.[7] The mode share is influenced by factors including the availability of effective public transport options, access to private vehicles and travel distance.

Based the ABS Statistical Area 2 (SA2) level VISTA data, the main journey purposes for trips to, from and within Glen Waverley include:[8]

- Work (20 per cent)
- Picking up or dropping off someone (16 per cent)
- Shopping (13 per cent)
- Education (13 per cent)
- Social (13 per cent).

The remaining trips are distributed across other journey purposes such as for recreation, personal business, accompanying someone, picking-up or delivering something and other purposes.

The most common outflows are shown in Figure 2.4.[9]

[7] *Includes the Glen Waverley SA2 boundaries which extend slightly beyond the Planning Area.*

[8] *The VISTA data includes data captured all day on a weekday. The data used is from 2012 – 2020.*

[9] *The VISTA data (2012 – 2020) includes data captured all day on a weekday.*

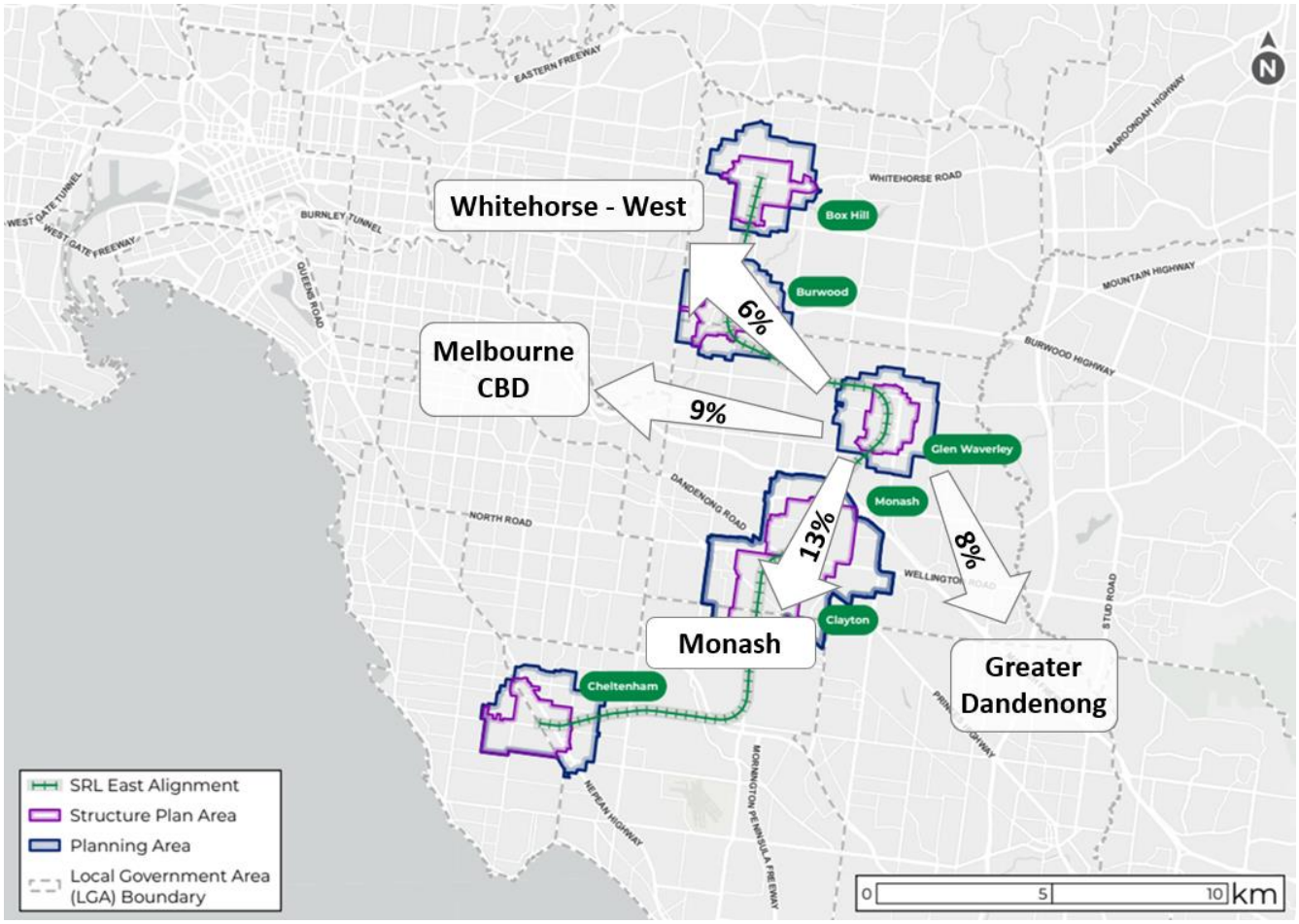


FIGURE 2.4 COMMON WORK DESTINATIONS FROM GLEN WAVERLEY[10]

Commuter travel from Glen Waverley is primarily by private vehicle with strong north south connections such as Springvale Road and Blackburn Road providing links to the major employment centres outside Melbourne CBD.

The primary destination for non-private car commuter trips is Melbourne CBD. It is primarily accessed via stations on the Glen Waverley Line at Syndal Station located near the Glen Waverley Planning Area's western boundary and the existing Glen Waverley Station at the centre of the Planning Area.

Shopping destinations in Glen Waverley attracts trips from across the eastern suburbs, with the main origins being from across Monash and Knox SA2 locations. Shopping-related trips were predominantly (98 per cent) by car (77 per cent vehicle driver, 21 per cent vehicle passenger of shopping trips).

Education based trips are predominantly by vehicle drop-offs (40 per cent), public transport (12 per cent)[11] or on foot (32 per cent).

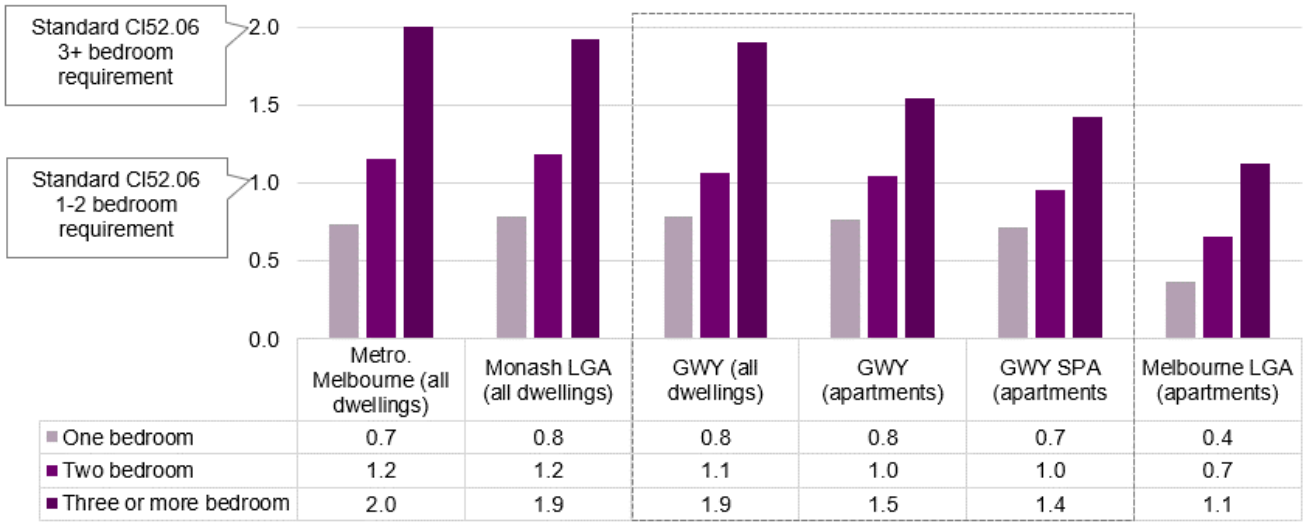
2.1.4 RESIDENTIAL CAR OWNERSHIP

Car ownership levels by household type in the area surrounding the SRL station at Glen Waverley are shown in Figure 2.5. Comparisons with Metropolitan Melbourne, the Monash LGA and the Melbourne LGA are shown. Car ownership rates for apartments in Glen Waverley (identified as GWY in Figure 2.5) and all dwelling types are also shown.

[10] *Base map source: SRLA, 2024. Data source: VISTA (2012 – 2020) for the Glen Waverley ABS SA2 boundaries which extend slightly beyond the Planning Area. Common work destinations from Glen Waverley in the figure are SA2 locations.*

[11] *Includes public bus, school bus and train trips.*

Across Glen Waverley this varies by dwelling type and size, with slightly lower rates for those living in flats or apartments. Car ownership is notably higher than inner city areas such as the Melbourne local government area (LGA), which has significantly higher levels of public transport services and mode share, near significant employment, retail and other land uses. For all dwellings, Glen Waverley is seen to have similar car ownership levels compared to all dwellings in Metropolitan Melbourne and the Monash LGA.



	Metro. Melbourne (all dwellings)	Monash LGA (all dwellings)	GWY (all dwellings)	GWY (apartments)	GWY SPA (apartments	Melbourne LGA (apartments)
One bedroom	0.7	0.8	0.8	0.8	0.7	0.4
Two bedroom	1.2	1.2	1.1	1.0	1.0	0.7
Three or more bedroom	2.0	1.9	1.9	1.5	1.4	1.1

FIGURE 2.5 GLEN WAVERLEY AVERAGE CAR OWNERSHIP COMPARISON BY HOUSEHOLD TYPE (SOURCE: ABS 2021)

The zero car ownership levels by household type in Glen Waverley are shown in Figure 2.6. The number of households with no private car is generally lower in Glen Waverley than Metropolitan Melbourne and Melbourne LGA. Compared to the Monash LGA, the number of households with no private car in Glen Waverley is lower for one-bedroom dwellings and similar for two bedrooms or more type dwellings.

	Metro. Melbourne (all dwellings)	Monash LGA (all dwellings)	GWY (all dwellings)	GWY (apartments)	GWY SPA (apartments)	Melbourne LGA (apartments)
One bedroom	40%	37%	29%	28%	30%	67%
Two bedroom	17%	14%	15%	15%	19%	46%
Three or more bedroom	4%	4%	4%	3%	0%	25%
All dwellings	9%	7%	7%	12%	20%	51%

FIGURE 2.6 GLEN WAVERLEY – ZERO CAR OWNERSHIP COMPARISON BY HOUSEHOLD TYPE (SOURCE: ABS 2021)

2.1.5 RESIDENTIAL BICYCLE OWNERSHIP

VISTA includes bicycle ownership data for different household types and sizes.[12] While the sample size is small, the VISTA data provides an indication of bicycle ownership in the Glen Waverley Planning Area which is summarised in Figure 2.7 and Figure 2.8.

The VISTA data indicates the Glen Waverley Planning Area has relatively low bicycle ownership, particularly for smaller households. As household size grows, bicycle ownership increases with two or more people households on average exceeding the bicycle parking requirements suggested by the current Clause 52.34 Planning Scheme rates.

Glen Waverley's relatively low VISTA bicycle ownership levels align with the relatively low level of cycling movements recorded in Glen Waverley. Cycling activity surveyed in Glen Waverley during the weekday peak period recorded up to three cycle movements at key locations surrounding the existing Glen Waverley Station. Activity along Coleman Parade and Glen Road (connecting to the Waverley Rail Trail) increase on the weekend, with approximately 20 cyclist per hour in the morning peak[13].

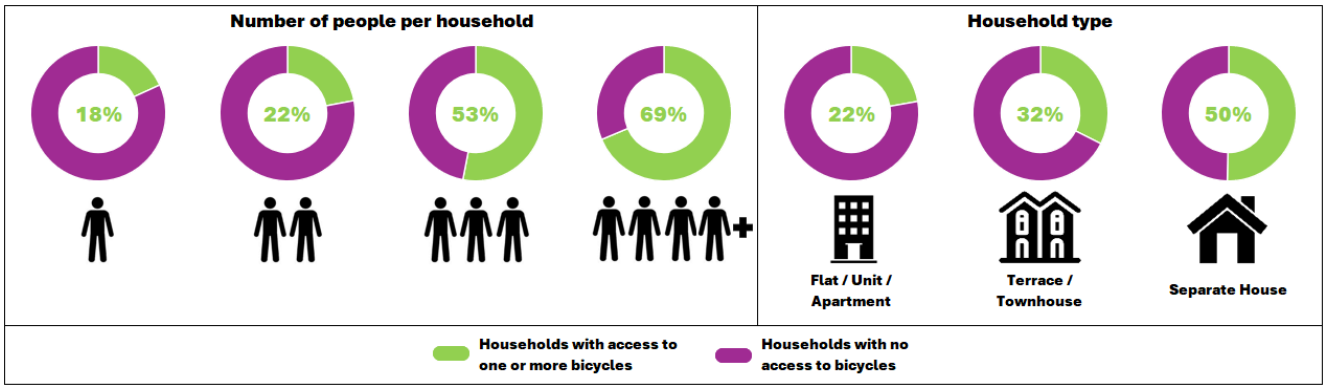


FIGURE 2.7 CURRENT HOUSEHOLDS IN GLEN WAVERLEY PLANNING AREA WITH ACCESS TO AT LEAST ONE BICYCLE (SOURCE: VISTA 2012-2020 AND 2022)

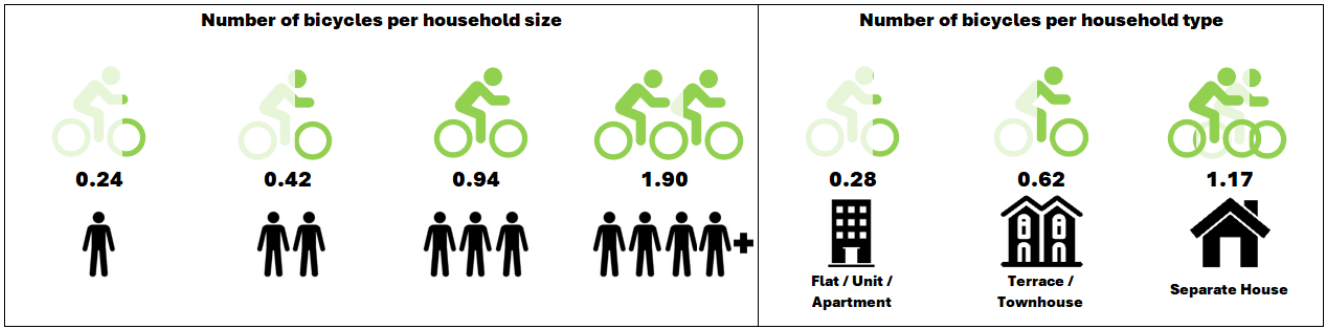


FIGURE 2.8 CURRENT BICYCLE OWNERSHIP PER HOUSEHOLD SIZE AND TYPE IN GLEN WAVERLEY PLANNING AREA (SOURCE: VISTA 2012-2020 AND 2022)

[12] *The VISTA data used is from 2012 – 2020 and 2022. Note relatively small sample data available for some SRL East Planning Areas and metrics.*

[13] *Source: SRLA, 2023. Recorded weekday peak period between 2pm – 3pm and weekend peak period between 10am – 11am.*

2.2 Transport network

2.2.1 WALKING

The pedestrian network of Glen Waverley is shown in Figure 2.9, where the walkable network shown includes footpaths, shared use paths and trails. Many trips in different parts of the Glen Waverley are made by walking. Most streets in Glen Waverley have footpaths on both sides of the road and provide access between the residential areas and key destinations.

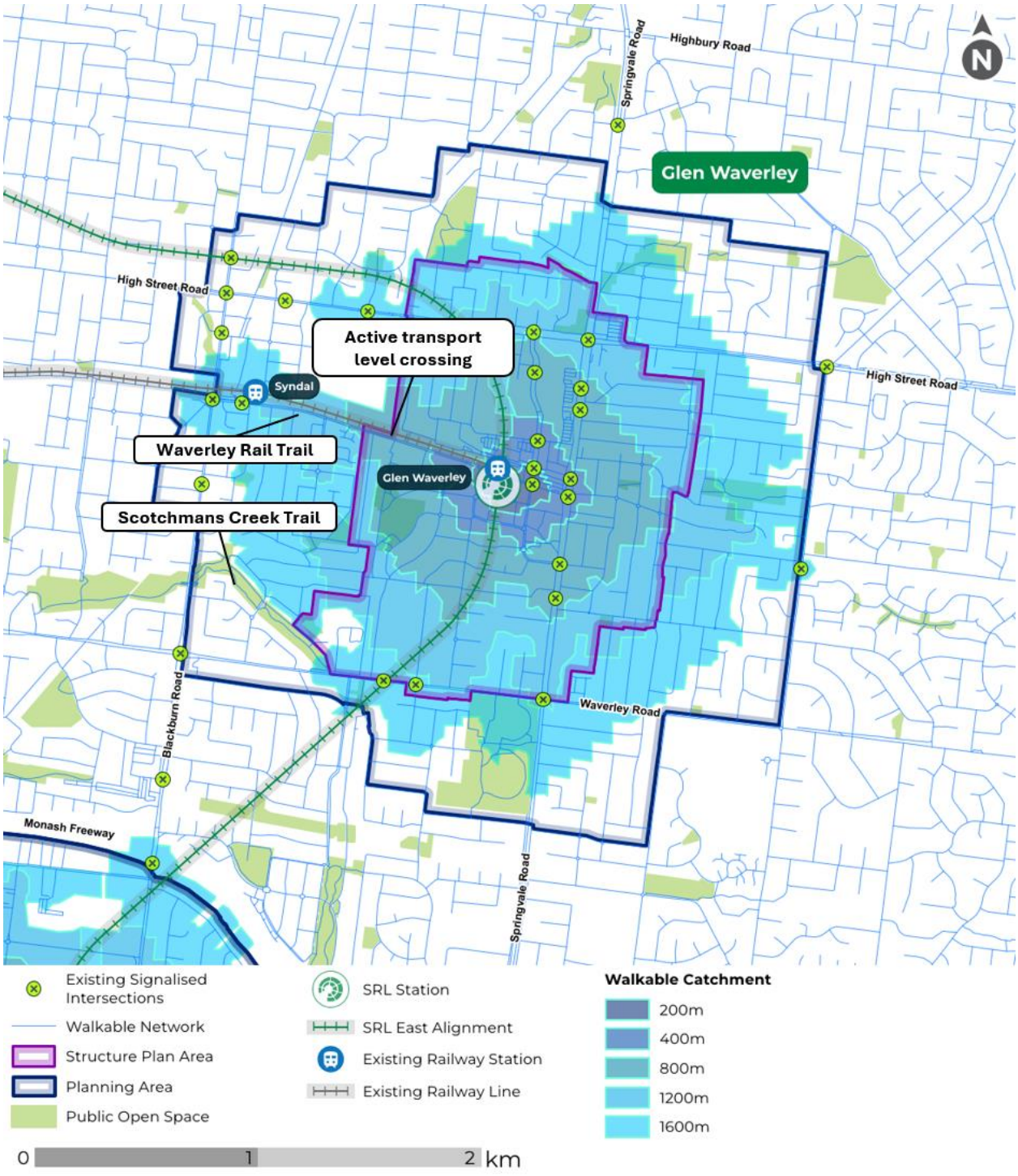


FIGURE 2.9 WALKING CATCHMENT AROUND THE SRL STATION AT GLEN WAVERLEY (SOURCE: SRLA, 2024)

The 800-metre walkable catchment from the SRL station at Glen Waverley shown in Figure 2.9 indicates the station is within a 10-minute walk to the key activity generators in Glen Waverley including The Glen Shopping Centre, Glen Waverley Secondary Collage, Bogong Reserve and the entertainment precinct along Kingsway.

The 1600-metre walkable (20-minute walk) catchment from the SRL station at Glen Waverley covers the entire Structure Plan Area except in the south-west corner where the Holmesglen Institute of TAFE is located, likely due to its relatively large block size. Wesley College just outside of the Structure Plan Area to the north-west also has a relatively large block size, reducing permeability to the north-west of the Planning Area.

Kingsway has the largest area of high-quality pedestrian space in Glen Waverley, supporting high pedestrian movements through the entertainment precinct, with wide footpaths and zebra crossings. Pedestrian amenity will be further improved with the Monash City Council-proposed Kingsway Streetscape Renewal works,[14] which will remove on-street parking and provide opportunities for more on-street activity and a more attractive streetscape.

Comfortable and safe walking journeys are catered for in areas by shared zones (on O'Sullivan Road by The Glen Shopping Centre and the vicinity of Glen Waverley Library, Monash City Council office and Civic Centre) and along shared trails such as Waverley Rail Trail. The trails provide access to Glen Waverley, the existing Glen Waverley Station and bus interchange, and the existing Syndal Station. An active transport level crossing for the existing Glen Waverley Line is located to the west of the Structure Plan Area, in line with Rose Avenue to the north and the pedestrian link to Bogong Reserve (via Grace Street) to the south. High pedestrian amenity examples are shown in Figure 2.10. These areas see high volumes of pedestrian activity.

Pedestrian activity increases in Glen Waverley around educational and recreational destinations, as well as retail and commercial areas, the existing Glen Waverley Station, bus interchange, car parks and pick up and drop off areas.

Streets with pedestrian activity that are high compared to the rest of the Glen Waverley include O'Sullivan Road, Coleman Parade, Railway Parade North, Kingsway, Snedden Drive, Myrtle Street, Montclair Avenue and Springvale Road.

Kingsway between O'Sullivan Road and Bogong Avenue typically sees the highest levels of pedestrian activity in Glen Waverley, particularly during the evenings and weekends, with The Glen Shopping Centre, the existing Glen Waverley Station, and restaurants lining Kingsway key pedestrian attractors.

Pedestrian movement volumes along key roads at midblock locations in 2023 are listed in Table 2.1.

TABLE 2.1 EXISTING PEDESTRIAN MOVEMENT VOLUMES ALONG KEY ROADS IN GLEN WAVERLEY (SRLA, 2023)

STREET	WEEKDAY PEAK 18:00 – 19:00	WEEKEND PEAK 13:00 – 14:00
Kingsway	570	1430
Railway Parade North	470	410
Coleman Parade (between Kingsway and Springvale Road)	250	300
Springvale Road (between Charlotte Street and Clifford Street)	40	60

[14] *City of Monash, 14 April 2020, Glen Waverley Activity Centre key projects update, <https://www.monash.vic.gov.au/About-Us/News/Glen-Waverley-Activity-Centre-key-projects-update>*

FIGURE 2.10 AREAS OF HIGH PEDESTRIAN AMENITY IN GLEN WAVERLEY

WALKING CHALLENGES

The walking challenges in the Glen Waverley Structure Plan Area are summarised and shown in Figure 2.11.

Location-specific walking challenges:

1. The pedestrian catchment is interrupted by barriers such as the existing rail line and large urban blocks that extend walking trips, including The Glen Shopping Centre, Glen Waverley Secondary College, and the existing Glen Waverley Station.

2. The walking network is fragmented and unsafe due to limited crossing facilities on busy roads like Springvale Road, Waverley Road and High Street Road. For example, crossing points on Springvale Road between Kingsway and High Street Road are spaced roughly every 200 metres but not provided at every signalised intersection or at all approaches. This may require pedestrians to cross the road up to three times.

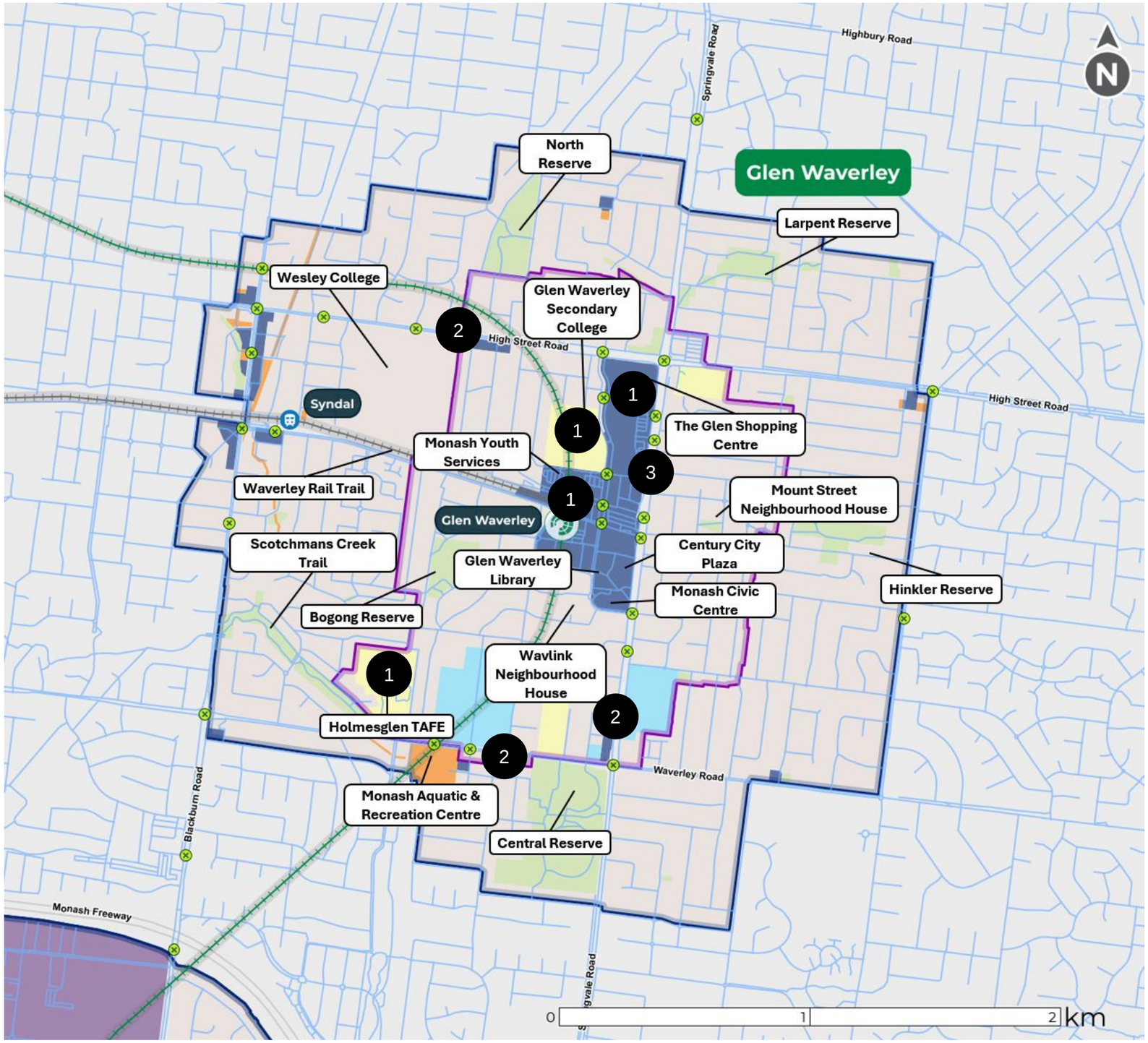
3. Springvale Road has a speed limit of 70 km/h which can impact and reduce pedestrian comfort and perceived safety, especially where there is high pedestrian activity along the corridor.

Structure Plan Area walking challenges:

- The precinct core, where pedestrian and economic activity should be prioritised is dominated by at-grade car parking and associated vehicle movements creating conflict points with high volumes of pedestrians.

- Pedestrian amenity is generally poor on routes to car parking in Glen Waverley. Amenity detriments include high vehicle volumes, limited crossing opportunities or significant delay when there are high levels of on and off-street parking, and a lack of tree coverage and shade.

- Pedestrian movements reduce significantly out of the precinct core, particularly where active frontages and amenity reduce.



Existing Signalised Intersections
SRL Station
Existing Railway Station
Walkable Network
Freeway
Structure Plan Area
Planning Area
SRL East Alignment
Existing Railway Line

Existing Land Use

Residential
Educational
Industrial/ Mixed Use
Commercial
Open Space
Public Use
Other

FIGURE 2.11 WALKING CHALLENGES IN THE GLEN WAVERLEY STRUCTURE PLAN AREA

2.2.2 CYCLING, INCLUDING MICROMOBILITY

Cycling in this section refers to bicycles, scooters and skateboards, including shared and/or electric modes. These modes are also referred to as micromobility. E-bikes and e-scooters (share schemes and private ownership) are also captured in this mode as they are currently limited to a maximum speed of 25km/h and legally allowed on public low-speed roads, shared use paths, bike paths and on-road cycle lanes in Victoria.

Figure 2.12 shows the existing cycling infrastructure and Strategic Cycling Corridors (SCCs) in Glen Waverley. SCCs form part of the DTP aspirational cycling network that aims to support commuter trips and link to destinations that have metropolitan and regional significance such as employment and activity centres. These corridors can be on and off road, on municipal and state roads and should be designed to provide a safe, lower-stress cycling for transport experience. However, not all SCCs currently have adequate cycling infrastructure to support a safe and low-stress cycling environment.

FIGURE 2.12 GLEN WAVERLEY CYCLING NETWORK (SOURCE: SRLA, 2024)

Despite the SCC network shown in Figure 2.12, there are a few separated cycle routes serving Glen Waverley.

The Waverley Rail Trail is a designated east-west active transport route that follows the Glen Waverley Line between the existing Glen Waverley and Holmesglen stations. It is also part of the SCC that connects to Glen Road and beyond to the east.

The trail is a mixture of off-road shared use path for pedestrians and cyclists and on-road bicycle route. Within the Planning Area, the trail begins on the corner of Coleman Parade and Carramar Avenue and is an off-road shared use path between the existing Glen Waverley Station commuter car park to the east and the existing

Syndal Station commuter car park to the west. This path also connects to an active transport level crossing of the rail line, aligning with Rose Avenue to the north and Bogong Reserve (via Grace Street) to the south.

There is currently no separated cycle path west of the existing Syndal Station commuter car park, requiring cyclists to share the road with vehicles to connect to the off-road shared use path west of Blackburn Road.

Sections of shared use paths are also present on Glen Road on the approach to Springvale Road (refer to Figure 2.13) and Montague Street on the eastern boundary of Holmesglen Institute. The connectivity, quality and width of these paths are key issues. Cyclists crossing Springvale Road from Glen Road, for example, must dismount, wait, and cross on foot to reach Coleman Parade before continuing their journey west, and vice versa.

The Scotchmans Creek Trail is a 13-kilometre on and off-road trail connecting to the Gardeners Creek Trail adjacent to East Malvern Station through to Dandenong Creek Trail at the south end of Jells Park Lake. The trail also passes through the Monash municipality near residential areas, reserves, railway stations, schools and shopping centres. A small section of the off-road trail passes through the south-west boundary of the Structure Plan Area, connecting to the Holmesglen Institute. The trail continues to the east of the Holmesglen Institute through a mixture of off-road shared use paths and local road links towards Jells Park. There are plans to widen the trail at key pinch points, including Blackburn Road to Waverley Road, to separate pedestrians and cyclists (design only – construction is subject to future funding).

FIGURE 2.13 GLEN ROAD SHARED USER PATH

The remainder of the road network in Glen Waverley has no or limited cycling infrastructure.

CYCLING AND MICROMOBILITY CHALLENGES

Given the limited cycling infrastructure in Glen Waverley, there is opportunity to enhance the cycling and micromobility network for improved safety and better access to key destinations in the Glen Waverley Structure Plan Area. The cycling and micromobility challenges in the Structure Plan Area are summarised and shown in Figure 2.14.

Location-specific cycling and micromobility challenges:

1. The lack of dedicated cycle infrastructure and its fragmented nature reduces the safety of cycling, particularly along SCCs, and significantly discourages and lowers the use of bicycles for transport.
2. The rail line and heavily trafficked arterial roads such as Springvale Road and High Street Road discourage north-south and east-west movements, with few crossing points and long crossing wait times.
3. The Structure Plan Area is dominated by vehicle movements, including around major destinations such as the existing Glen Waverley Station, The Glen Shopping Centre, and Glen Waverley Secondary College where cyclists and micromobility users should have better priority.
4. The steep topography of the Structure Plan Area and surrounds, particularly from the east, makes it challenging for cyclists.

Structure Plan Area cycling and micromobility challenges:

- Wayfinding for cyclists and micromobility users is limited to basic measures and lacks intuitive customer focused messaging, including directions to parking.
- Secure bicycle storage facilities are limited. End-of trip facilities including secure parking, showers and lockers are provided only in newer developments and are not typically accessible to the public. This does not support the continued uptake of micromobility as an emerging transport mode.
- Informal parking by food delivery services is increasing with limited space allocated to e-bikes commonly used by these services.
- Use of default 50 km/h speed limits is not consistent with ‘quiet street’ cycle facilities on local roads.

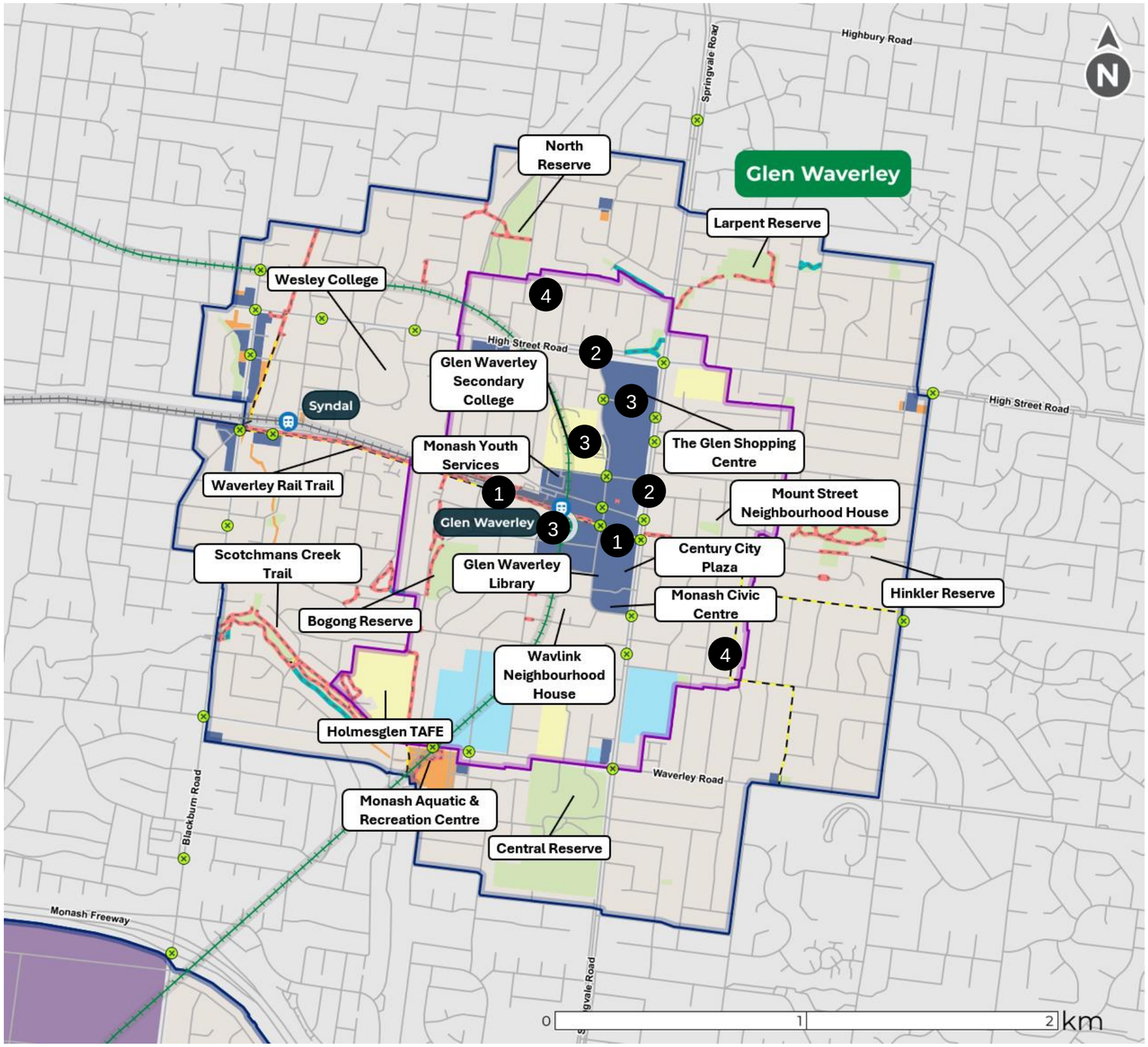


FIGURE 2.14 CYCLING AND MICROMOBILITY CHALLENGES IN THE GLEN WAVERLEY STRUCTURE PLAN AREA

2.2.3 PUBLIC TRANSPORT

Glen Waverley is currently served by rail and bus public transport services. The Glen Waverley Line, which passes through the existing Syndal Station in the west of the Planning Area and terminates at the existing Glen Waverley Station, provides access to the eastern suburbs between Glen Waverley and Melbourne CBD. Buses support public transport connectivity across the remainder of Glen Waverley and from outer suburbs in the eastern metropolitan region.

Figure 2.15 shows the extent of the current Principal Public Transport Network (PPTN) coverage in Glen Waverley. This network identifies high-quality public transport service routes and the land within a 400-metre radius of the route or railway station. It covers around 60 per cent of the Structure Plan Area, mainly limited to and adjacent to the existing Glen Waverley Station, Springvale Road and Blackburn Road. It should be noted that the PPTN coverage as currently outlined in the planning scheme was updated in 2018. The PPTN coverage as currently outlined in the planning scheme was updated in 2018 and therefore does not include SRL East.

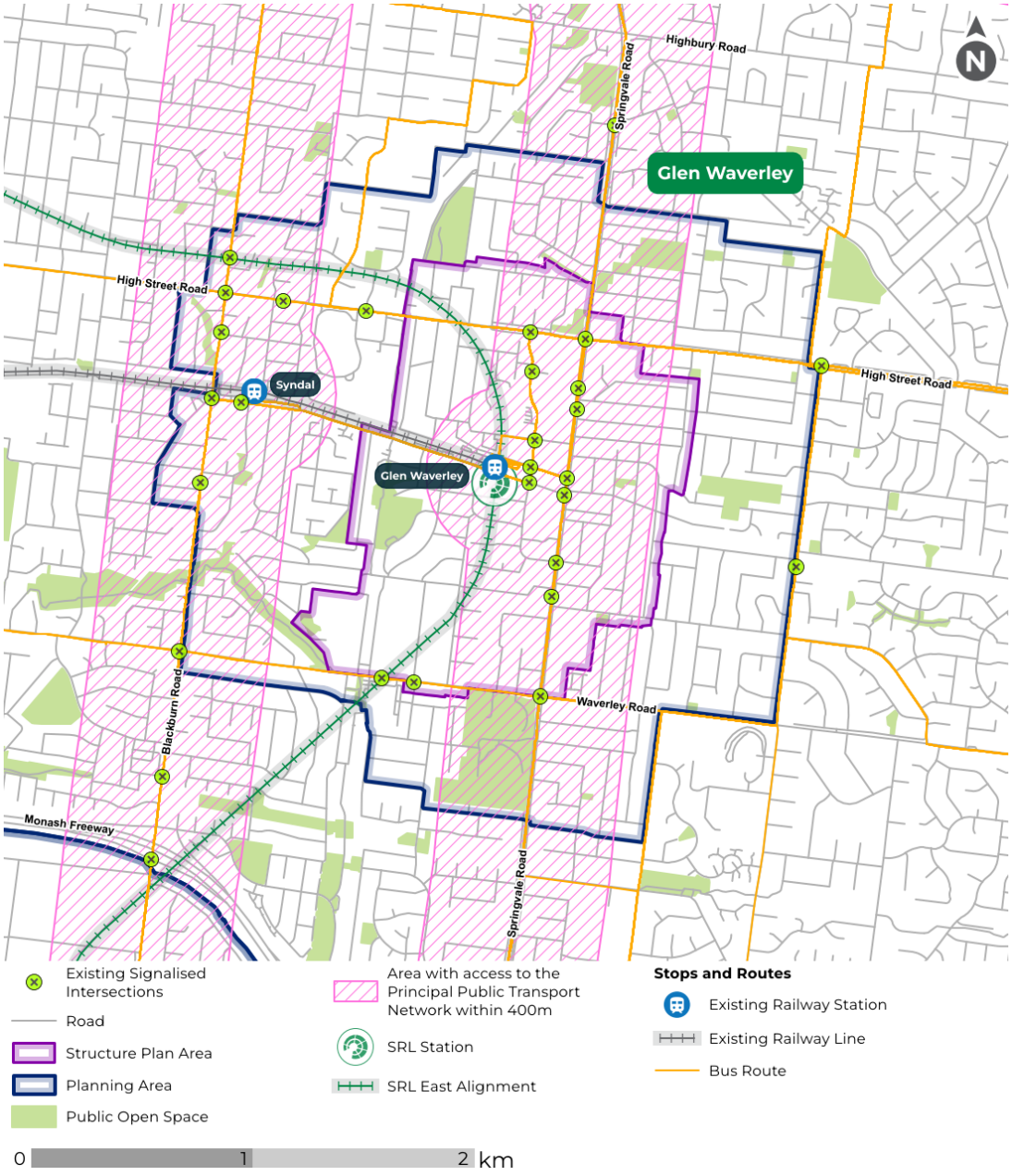


FIGURE 2.15 PUBLIC TRANSPORT NETWORK AND PRINCIPAL PUBLIC TRANSPORT NETWORK COVERAGE (SOURCE: SRLA, 2024)

RAIL NETWORK

The Glen Waverley Line terminates at the existing Glen Waverley Station. The existing Syndal Station is located on the western edge of the Glen Waverley Planning Area, around 1.3 kilometres from the existing Glen Waverley Station.

As an end of line station, Glen Waverley plays a strategic role in supporting feeder bus services from outer suburbs in the eastern metropolitan region.

The Glen Waverley Line has train services every 15 minutes on weekdays and every 20 minutes on weekends. During the morning peak, there are trains every 8 to 9 minutes to and from the city with a journey time of 34 to 40 minutes. There are no express train services to the CBD on the Glen Waverley Line.

Average peak period station entries are presented in Figure 2.16. The existing Glen Waverley Station currently caters for around 1750 boardings in the AM peak and the existing Syndal Station around 1250. Patronage has not returned to pre-Covid levels, however, has been increasing year on year since 2020-21.

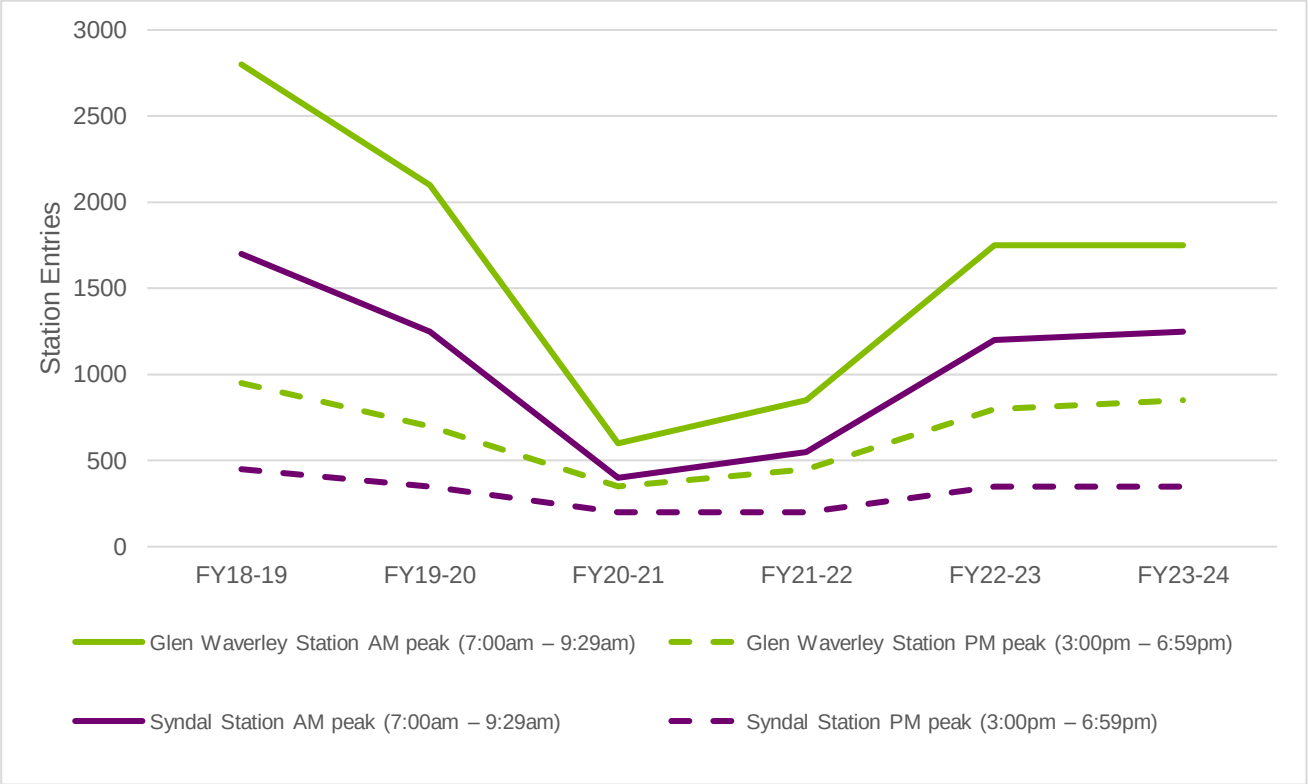


FIGURE 2.16 PEAK PERIOD STATION ENTRIES (SOURCE: DATA VIC)

Modelled peak period boardings and alightings by access mode are summarised in Table 2.2. Most passengers arrive and depart Glen Waverley Station on foot or by car. Across the AM peak, 41 per cent of those boarding a train walk all the way to the station, 32 per cent drive and 27 per cent arrive by bus. Of the alightings in the PM peak, 35 per cent depart the station by foot, 42 per cent drive and 23 per cent take the bus.

Most passengers also arrive and depart Syndal Station on foot or by car. Across the AM peak, 67 per cent arrive by car, 20 per cent walk all the way to the station and 13 per cent arrive by bus. Of the alightings in the PM peak, 45 per cent depart the station by foot, 37 per cent drive and 18 per cent take the bus.

TABLE 2.2 PEAK HOUR BOARDINGS AND ALIGHTINGS (AND ACCESS MODES), 2018 (SOURCE: VITM)

STATION		AM PEAK (7 – 9 AM)					PM PEAK (3 – 6 PM)				
		WALK	DRIVE	V/LINE	BUS	TOTAL	WALK	DRIVE	V/LINE	BUS	TOTAL
Glen Waverley	Boardings	900	700	0	600	**2200**	400	100	0	400	**900**
	Alightings	200	0	0	300	**500**	1100	1300	0	700	**3100**
Syndal	Boardings	300	1000	0	200	**1500**	100	0	0	100	**200**
	Alightings	100	100	0	200	**400**	500	400	0	200	**1100**

The existing Glen Waverley Station has entrances from Coleman Parade, Kingsway and Railway Parade. The station area includes a bus interchange and at-grade car parking on Railway Parade North and Coleman Parade.

There is a Parkiteer with 26 bicycle spaces at the existing Glen Waverley Station. However, there is no dedicated cycling infrastructure to access the Parkiteer. The shared use path on Coleman Parade ends to the west of the existing station commuter car park, requiring cyclist to share the road with other vehicles to access the Parkiteer.

BUS NETWORK

Buses support public transport connectivity across Glen Waverley and from outer suburbs in the eastern metropolitan region. A network of 11 bus routes currently serves Glen Waverley (refer to Figure 2.17), providing access between residential areas, rail stations, activity centres and educational establishments. It is noted there are aspirations to modify bus routes in future. The Victoria's Bus Plan prepared by DTP sets reform objectives to improve bus services in future.

The main routes primarily follow the grid of arterial roads, with several more circuitous neighbourhood routes, and are centred on the existing Glen Waverley Station. Most routes terminate at the Glen Waverley bus interchange (located on Railway Parade North, proximate to the existing Glen Waverley Station), with some east-west movements through Glen Waverley required to interchange. Springvale Road, Railway Parade North and Snedden Drive form key bus access routes to the interchange and The Glen / Snedden Drive bus stops, which also serve six of the routes.

Most bus routes serving Glen Waverley operate every 20 minutes or less during peak periods, with the SmartBus route 902 around every 15 minutes. During the interpeak period and weekends, the number of services operating in Glen Waverley is generally less frequent.

The bus network provides a reasonably comprehensive coverage of the Structure Plan Area and is important for connecting households to the east of Glen Waverley where there is no train line. Route 754 includes express services in peak periods to connect Rowville to the existing Glen Waverley Station.

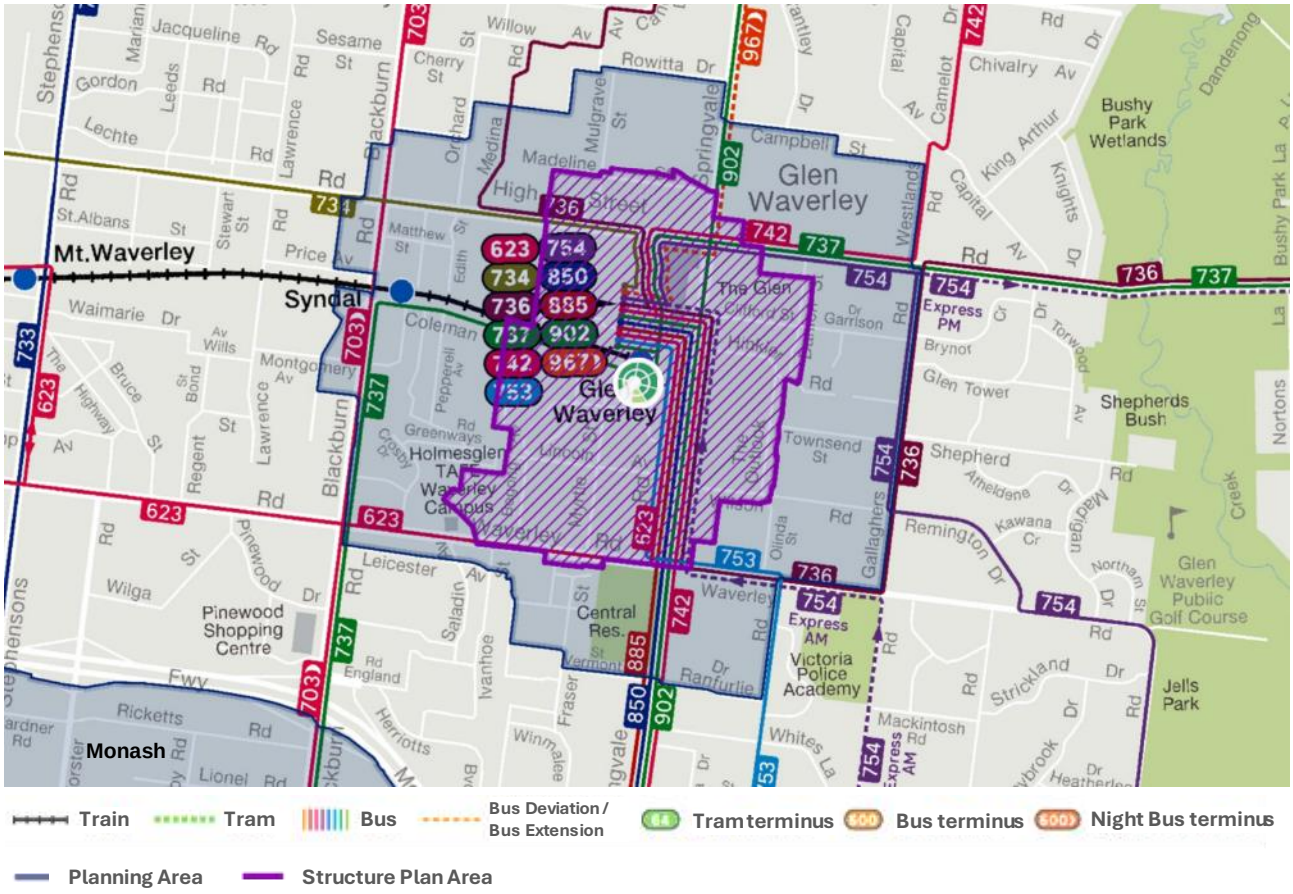


FIGURE 2.17 BUS NETWORK IN GLEN WAVERLEY (BASE MAP SOURCE: PTV 2023)

The busiest bus stops in the Structure Plan Area as shown in Table 2.3, include the Glen Waverley Station bus interchange and Snedden Drive, with patronage notably dropping beyond these locations.

TABLE 2.3 BUS STOP PATRONAGE STATISTICS (TABLEAU PUBLIC - 2018-19 BUS STOP PATRONAGE MELBOURNE)

BUS STOP LOCATION	DAILY AVERAGE BOARDINGS
Glen Waverley Station/ Railway Parade North	2235
The Glen Shopping Centre/ Snedden Drive	530
The Glen Shopping Centre/ Springvale Road	100
Ingram Avenue/ Springvale Road	160
Springvale Road/ Waverley Road	35
The Glen Shopping Centre/ High Street Road	20

PUBLIC TRANSPORT CHALLENGES

While there is relatively comprehensive public transport coverage in the Glen Waverley Structure Plan Area, there is opportunity in enhance access to/from the existing Glen Waverley Station, bus interchange and existing bus stops to improve safety and efficient interchange. There is also opportunity to improve bus routes and bus scheduling to reduce journey times and commuter experience.

The public transport challenges in the Structure Plan Area are summarised and shown in Figure 2.18.

Location-specific public transport challenges:

1. The walkable catchments of the existing station, bus interchanges and bus stops are interrupted by barriers including large urban blocks and infrequent protected crossing points along arterial roads such as Springvale Road, High Street Road and Waverley Road. For example, if a resident took a bus to Officeworks located along Springvale Road south of Wilson Road, the closest bus stop (southbound bus stop) to the store on Springvale Road is around 160 metres away, while the return bus stop (northbound bus stop) is around 400 metres away (including the walking distance to cross Springvale Road at the Waverley Road intersection).

2. There is no dedicated cycling infrastructure to access the existing Glen Waverley Station Parkiteer, with the shared use path diverted onto Coleman Parade short of the station entrance and Parkiteer.

3. High conflict points between buses, vehicle traffic, pedestrians, and cyclists at the existing Glen Waverley Station with queuing of buses and vehicles at the existing bus interchange (Figure 2.21).

4. Poor interchange experience for pedestrians and cyclists, with limited accessibility, safety, amenity, and wayfinding between the bus interchange and the existing Glen Waverley Station. For example, site observations at the bus interchange indicated narrow waiting areas, unclear pedestrian crossing line marking, damaged or a lack of tactile ground surface indicators (TGSIs) and other facilities that do not comply with the DDA (Figure 2.19 to Figure 2.20).

Structure Plan Area public transport challenges:

- All bus routes divert through or terminate at the Glen Waverley bus interchange which can create indirect journeys in Glen Waverley to destinations outside of the interchange and its adjacent land uses.
- Many bus service frequencies are low reducing public transport accessibility and increasing overall journey times.
- Bus service reliability and performance are hampered by a lack of on-road bus priority measures such as bus lanes and priority signals at intersections.
- The quality of bus stops and waiting area infrastructure is inconsistent across Glen Waverley.

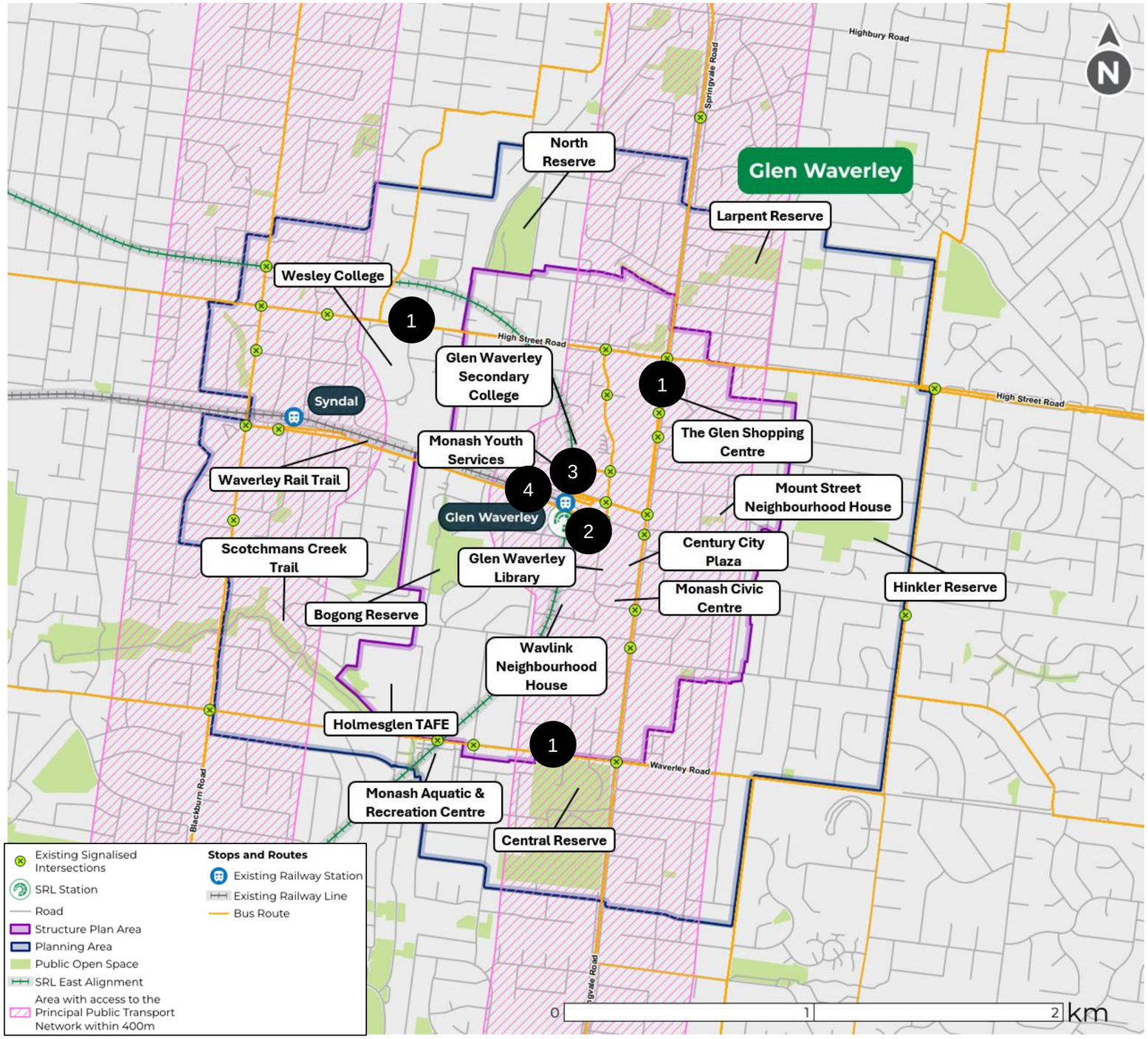


FIGURE 2.18 PUBLIC TRANSPORT CHALLENGES IN THE GLEN WAVERLEY STRUCTURE PLAN AREA

FIGURE 2.19 GLEN WAVERLEY BUS INTERCHANGE – NARROW WAITING AREAS

FIGURE 2.20 GLEN WAVERLEY BUS INTERCHANGE – PEDESTRIAN CROSSING FROM STATION

FIGURE 2.21 GLEN WAVERLEY BUS INTERCHANGE – QUEUING BUSES AND VEHICLE TRAFFIC ON RAILWAY PARADE NORTH

2.2.4 PRIVATE VEHICLES

ROAD NETWORK CHARACTERISTICS

Vehicle access throughout Glen Waverley is provided by multi-lane arterial roads and an extensive network of connector and local streets. The road network hierarchy and existing signalised intersections in Glen Waverley is shown in Figure 2.22.

Springvale Road and Blackburn Road are the main north-south arterial routes. Waverley Road and High Street Road are the main east-west routes. These arterial roads provide direct access from surrounding suburbs to the Structure Plan Area, and particularly the Glen Shopping Centre. Access into the Kingsway precinct, train station and bus interchange require use of local connector roads such as Kingsway, Coleman Parade and Railway Parade North.

A high level of priority has been provided to private vehicles, with Springvale Road and High Street Road both up to eight lanes wide across both directions at intersections and signal timings set to maximise vehicle throughput in line with their designation as an arterial road. Abundant car parking is available on and off-street, providing convenient vehicle access.

Monash Freeway is south of the Glen Waverley Planning Area and the primary freight route in the area. Eastlink, to the east of the Planning Area is the north south alternative to Springvale Road and Blackburn Road. No Principal Freight Network (PFN) routes pass through the Planning Area. However, the arterial roads form part of the B-Double Heavy Vehicle network catering for freight vehicles.

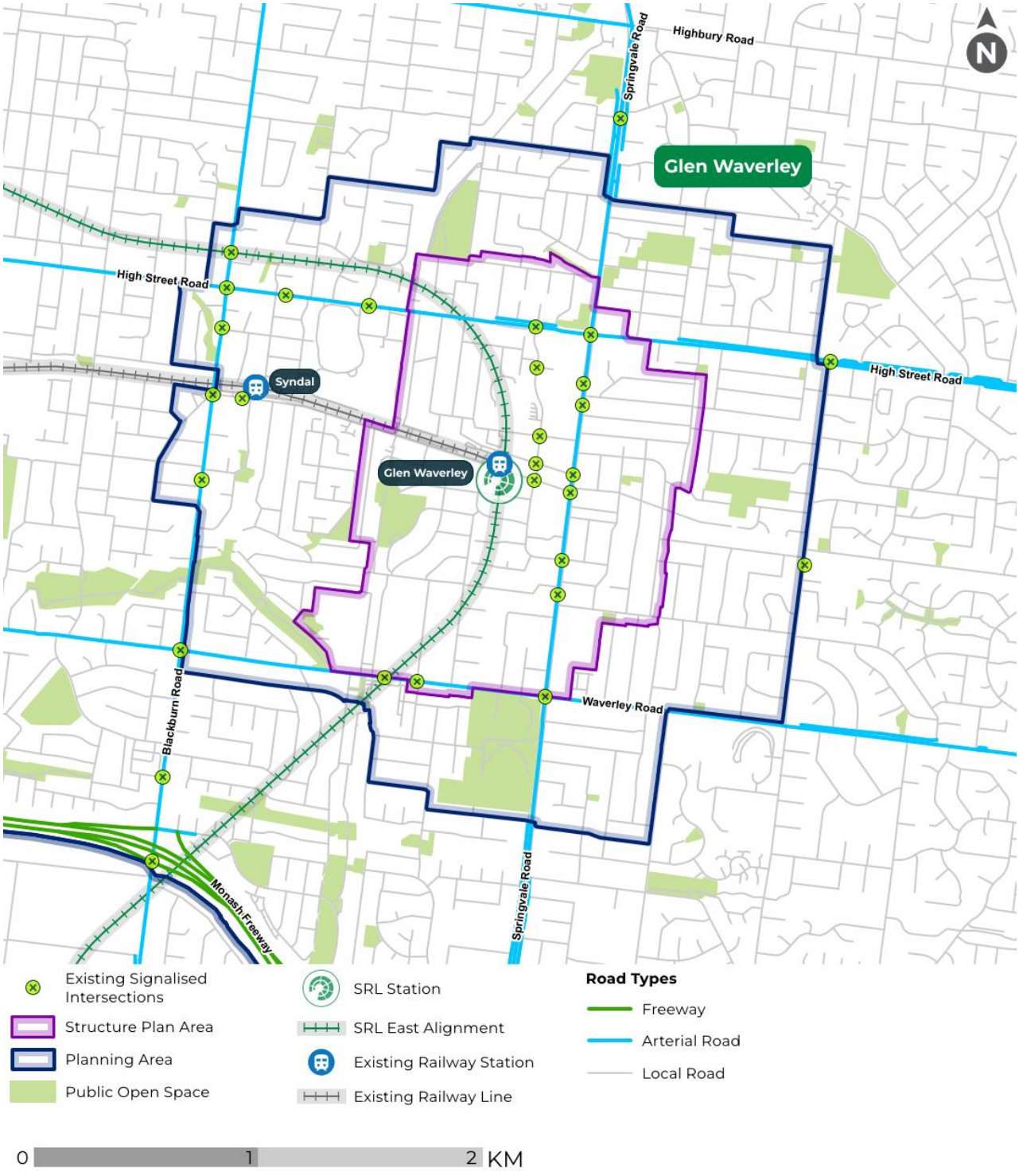


FIGURE 2.22 ROAD NETWORK (SOURCE: SRLA 2024)

ROAD NETWORK CONDITIONS

The traffic volumes for key routes in Glen Waverley are outlined in Table 2.4.

In Glen Waverley, freight traffic is relatively low with heavy vehicle volumes are between 2 to 6 per cent of the total traffic along the key arterial roads. The loading dock area for The Glen Shopping Centre is accessed off Sneddon Drive. It is managed with kerbside loading operations restricted to off peak periods.

TABLE 2.4 TRAFFIC VOLUMES (SOURCE: DTP OPEN DATA, RETRIEVED NOVEMBER 2023)

ROAD	CLASSIFICATIONS	SPEED LIMIT	DIRECTION	LANES	AM PEAK 2023 [VEH/H]	PM PEAK 2023 [VEH/H]	AADT	% AADT HV
Springvale Road	Arterial Highway	70 km/h	Southbound	3	2200	1800	27,000	5%
			Northbound	3	1300	2200	23,000	5%
High Street Road	Arterial Other	60 km/h	Eastbound	2	500	900	7500	6%
			Westbound	2	1200	700	11,000	6%
Blackburn Road	Arterial Other	60 km/h	Southbound	2	1600	1000	15,000	6%
			Northbound	2	900	1300	14,000	6%
Waverley Road	Arterial Other	60 km/h	Eastbound	2	N/A	N/A	10,000	2%
			Westbound	2	900	550	10,000	3%

Notes:

- AM Peak, PM Peak and AADT: A range of traffic volumes have been provided where traffic volumes vary across the road/corridor (where available). Data was last updated on DTP Open Data website on 4/5/2023 at the time of data retrieval but some data may be historic and include traffic conditions during COVID-19 lockdowns
- 'N/A' – no data available at time of extraction
- Municipal Roads are council owned, supporting slower speeds and lower traffic volumes compared to arterial roads, freeways and highways
- Arterial Highways and Arterials (other) have similar functions as both are designed for moderate to high traffic volumes. Arterial roads and highways are typically used for inter-suburban or inter-urban journeys, often linking to freeways. Arterial Highways often support more volumes of traffic with more lanes and higher speeds compared to Arterials (other)
- Freeways are designed to move large numbers of vehicles and freight at higher speeds than arterial roads and are strategic corridors connecting state significant regions.

Figure 2.23 and Figure 2.24 show the typical road network conditions in the AM and PM peaks at a strategic level. VITM modelling of Glen Waverley indicates that much of the local road network operates at an acceptable level of service, being either at or below a volume over capacity ratio (V/C) of 0.8. Major arterial and collector roads, including Springvale Road, Blackburn Road and High Street Road indicate there are sections which have higher V/C ratios. A higher V/C ratio indicates there is more congestion on these roads, and they are nearing capacity.

Note that VITM is coarse and strategic in nature and the signalisation or any detailed operational parameters of intersections that would ordinarily serve to manage traffic flows are not explicitly coded in the model. As such, actual delays experienced along some roads may differ to what is shown. The focus of the strategic model is to provide network context.

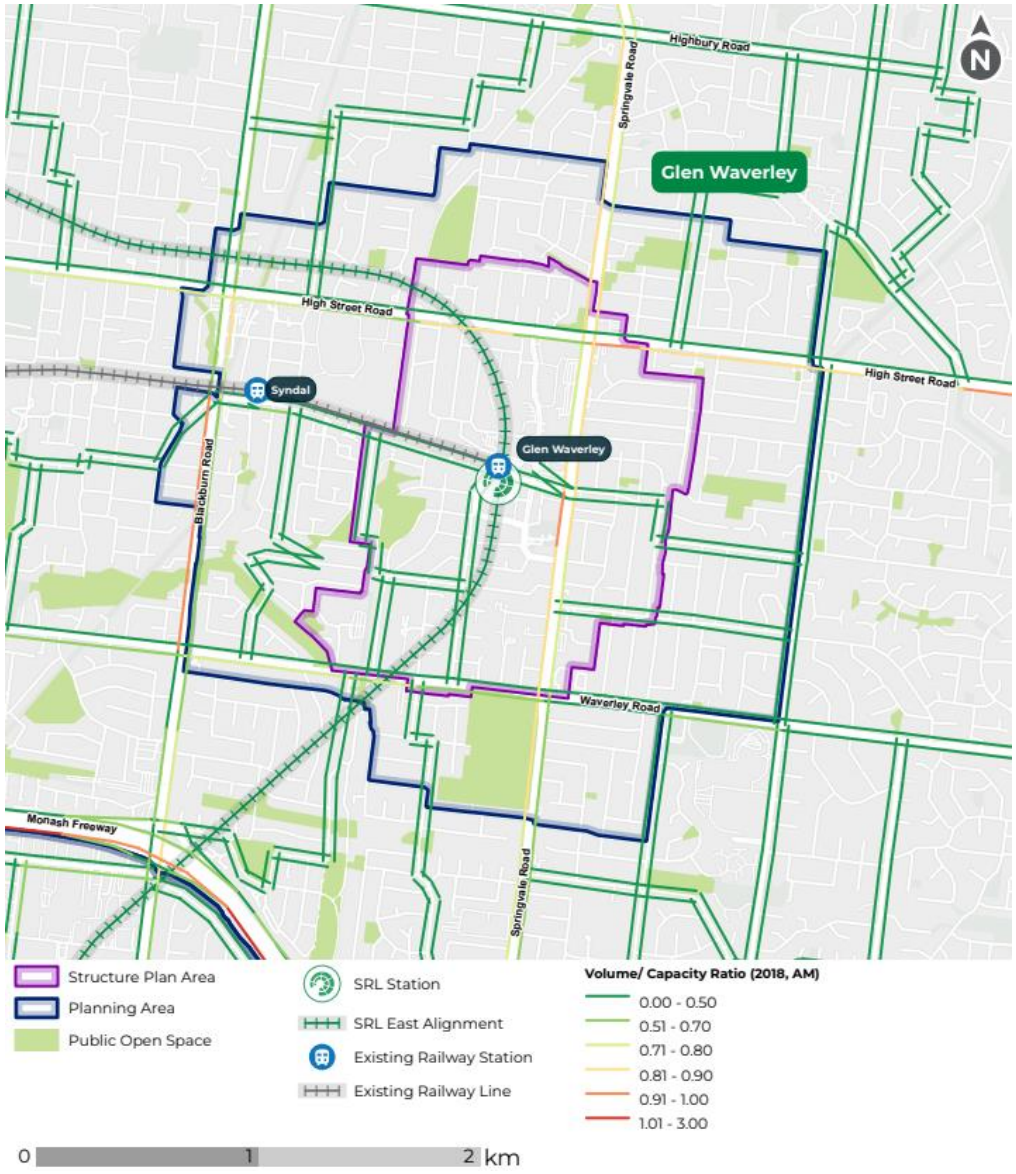


FIGURE 2.23 2018 AM PEAK VOLUME CAPACITY RATIO (7–9 AM) (SOURCE: VITM)

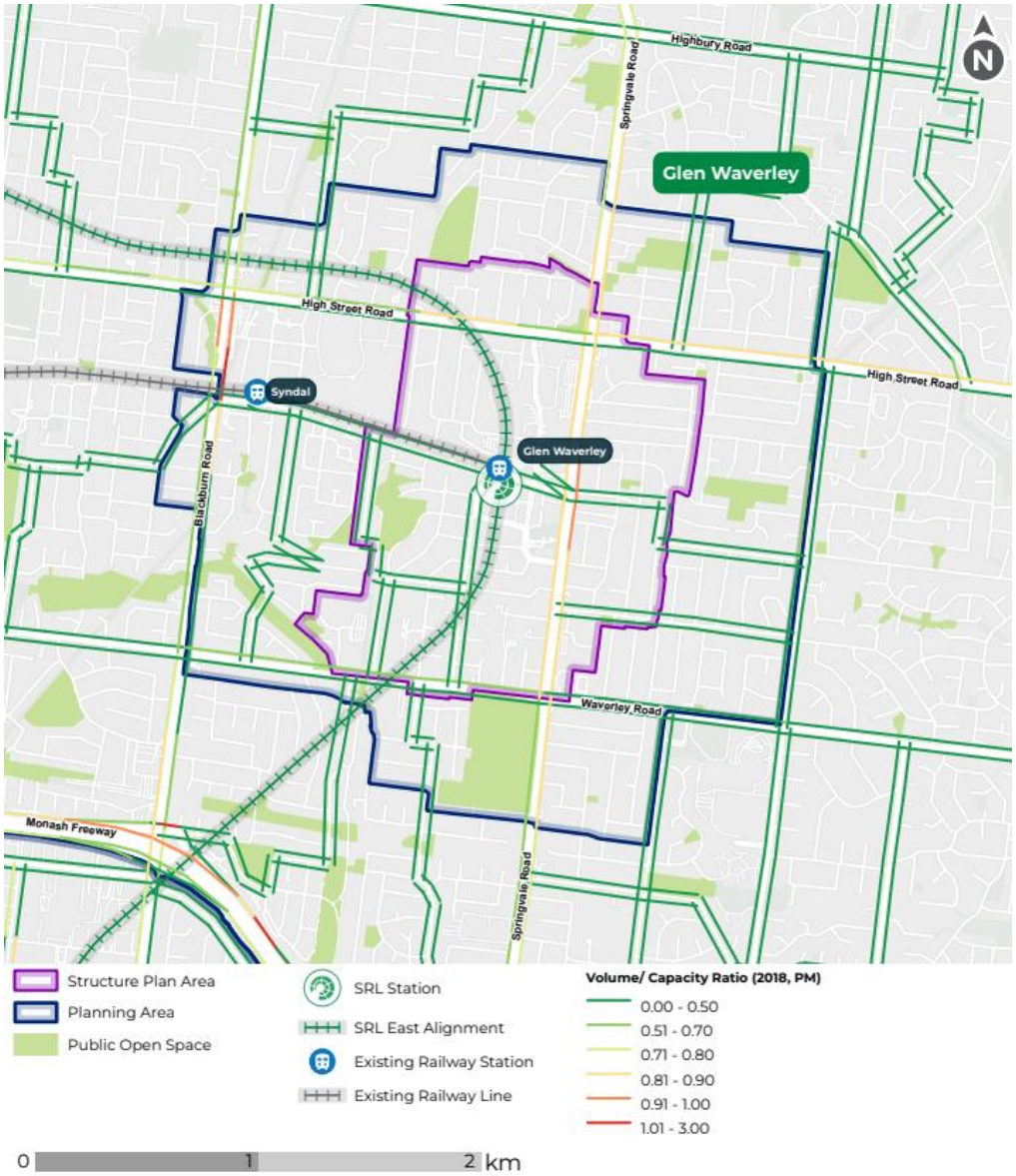


FIGURE 2.24 2018 PM PEAK VOLUME CAPACITY RATIO (3–6 PM) (SOURCE: VITM)

ROAD SAFETY

From January 2019 to January 2024 there were 110 crashes in the Glen Waverley Structure Plan Area. Around 25 per cent of the crashes resulted in severe injuries to road users, with the remaining classified as 'other injury' crashes. There were no recorded fatal crashes in the Structure Plan Area.

Figure 2.25 illustrates the crash locations across the Structure Plan Area. Locations with a high crash density experienced more than 14 crashes, and low crash density locations are where five or less crashes have occurred.

Pedestrians were involved in around 16 per cent of crashes and motorcycles were involved in around 10 per cent of crashes. Rear end vehicles (vehicles in the same lane) and right through collisions were the most common incidents, causing around 36 per cent and 9 per cent of the crashes respectively. Pedestrians being hit by a vehicle from the right was also common, causing around 7 per cent of crashes.

Around 45 per cent of crashes occurred at intersections and 67 per cent of crashes occurred during the day. Intersections and road segments identified as accident hotspots are highlighted in Figure 2.25. The crash hot spots in Glen Waverley with the highest number of crashes and associated injury severity are listed in Table 2.5.

TABLE 2.5 CRASH HOT SPOT STATISTICS BETWEEN JANUARY 2019 TO JANUARY 2024 (SOURCE: DATA VIC)

INTERSECTION / LOCATION	OTHER INJURY	SERIOUS INJURY	FATAL	TOTAL
High Street Road / Springvale Road	14	4	0	18
Waverley Road / Frank Street / Springvale Road	12	2	0	14

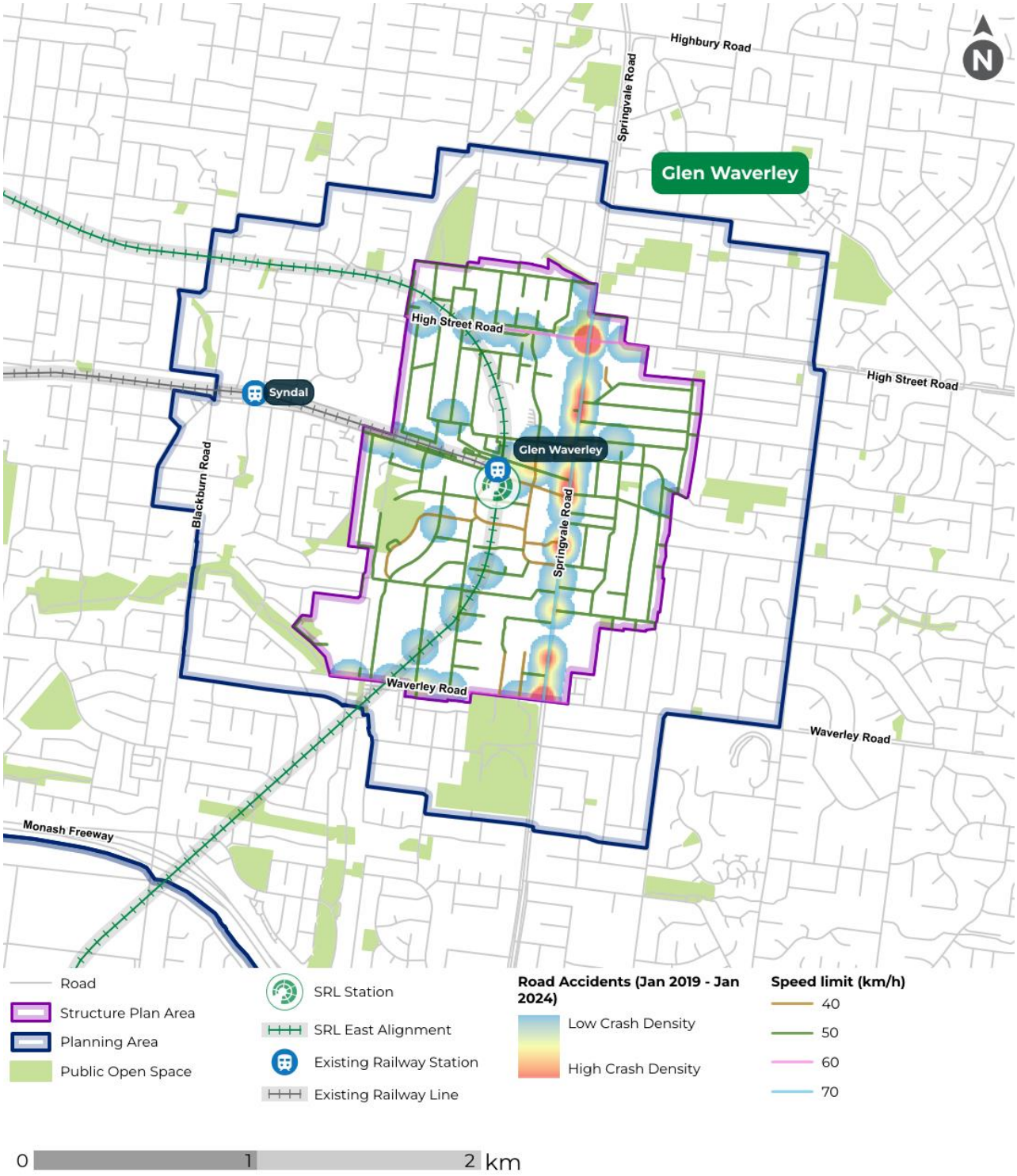


FIGURE 2.25 GLEN WAVERLEY CRASH LOCATIONS AND CLUSTERS JANUARY 2019 – JANUARY 2024 (SOURCE: DATA VIC)

GENERAL TRAFFIC AND FREIGHT CHALLENGES

The general traffic and freight challenges in the Structure Plan Area are summarised and shown in Figure 2.26.

Location-specific general traffic and freight challenges:

1. The abundance of on and off-street car parking within the Structure Plan Area supports private vehicle travel rather than more sustainable modes. In many instances the location of parking encourages drivers to pass through high pedestrian activity areas.

Structure Plan Area general traffic and freight challenges:

- While the current mode share is generally within the capacity of the road network other than some peak hour congestion points, maintaining a similar private vehicle mode share into the future will not be sustainable and will affect the liveability within the Structure Plan Area.
- Glen Waverley caters for relatively high through traffic volumes, which can contribute to congestion and impact on trips within Glen Waverley.
- The road network has some peak hour congestion points which can increase journey times for general traffic and freight. Delays to freight movements can reduce the efficiently of deliveries to services and residents in Glen Waverley.
- There are many public car parks scattered across Glen Waverley, generating significant vehicle movements in the core of the Structure Plan Area. Site observations indicate that many short-term parking spaces located in the core generate significant vehicle circulation movements within Glen Waverley.
- While most off and on-street parking spaces are managed with some form of restriction (time restricted parking, permit zone, loading zones), they are mostly free (no paid ticketed parking). There is potential opportunity to implement paid parking in areas of high demand, especially as Glen Waverley develops over time.
- A large number of on-street car parking spaces in residential areas are short-term restricted spaces (2P or less) which implies a high level of parking demand intrusion from non-residential land uses into residential areas.
- Given the Glen Waverley Major Activity Centre's significant commercial, restaurant, and entertainment uses, there is a high amount of loading and freight movements which require considerable on-street and on-site management.
- Informal parking by food delivery services is increasing with limited space allocated to e-bikes commonly used by these services.

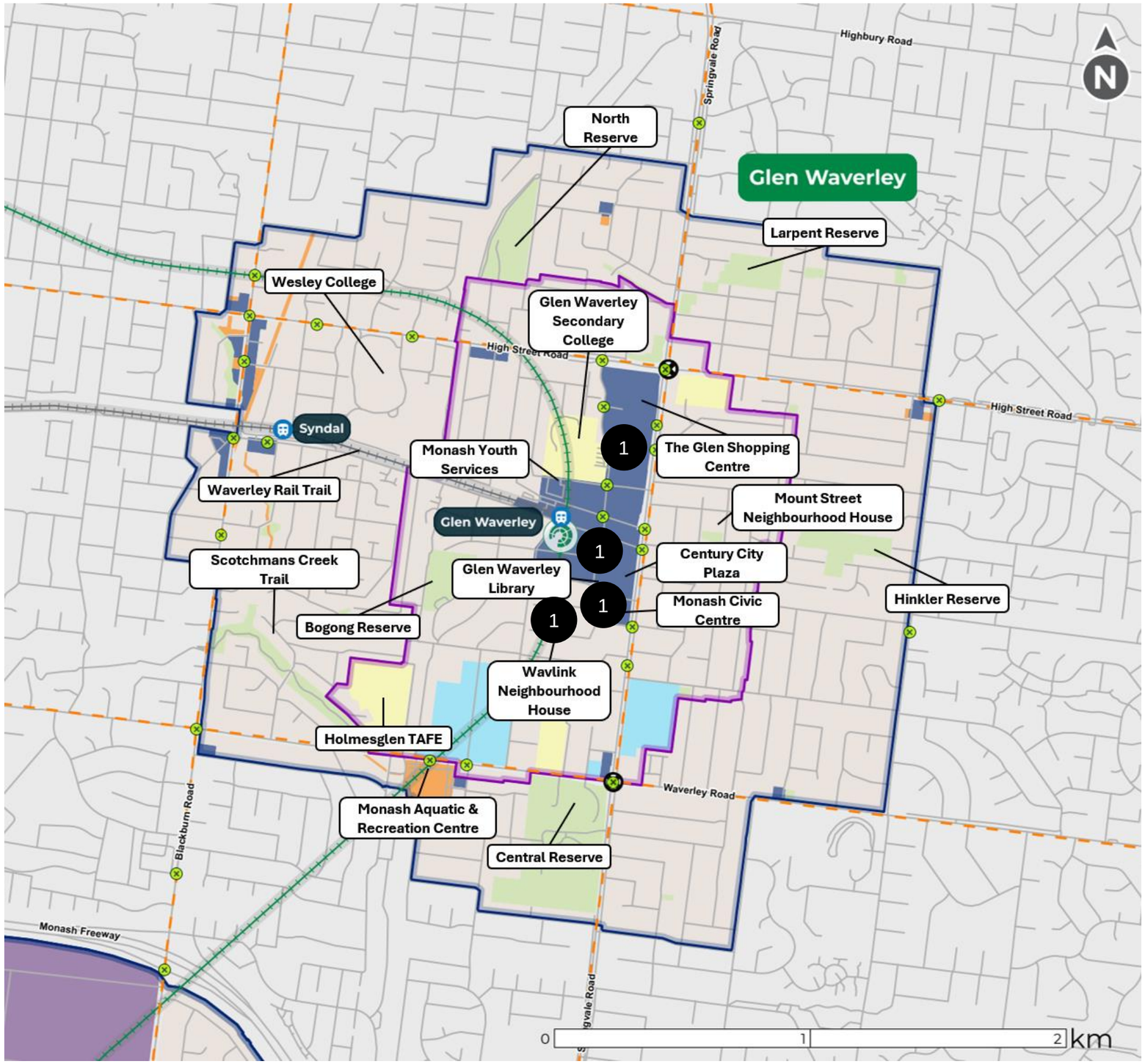


FIGURE 2.26 GENERAL TRAFFIC AND FREIGHT CHALLENGES IN THE GLEN WAVERLEY STRUCTURE PLAN AREA

2.2.5 INTEGRATED PARKING

There is abundant car parking provided on and off-street in the Glen Waverley Structure Plan Area. Parking is generally controlled by some form of parking restriction, such as time-limited parking, permit zone, or disabled parking. Parking restrictions are generally for short term and a mix of paid and free parking for long-term parking.

OFF-STREET PARKING

There are more than 7500 publicly accessible off-street car parking spaces in the Glen Waverley Structure Plan Area, distributed across a mixture of at-grade and multi-level car parks. These parking locations are shown in Figure 2.27 and includes publicly available and significant off-street parking areas only.

There are more than 2200 off-street public car parking spaces, with an additional 3500 at The Glen Shopping Centre (fee applies after the first 3 hours), providing access to the station, local retail, commercial and civic land uses. Parking surveys completed for the Glen Waverley Activity Centre Structure Plan indicate peak parking demand occurs from 12:30 pm to 1:00 pm with a peak occupancy of 82 per cent, and a secondary evening peak from 8:00 pm to 8:30 pm at 77 per cent. The analysis revealed that certain car parking areas are nearing capacity at peak times (particularly at the station, O'Sullivan Road, and the Glendale Street car parks) while the multi-level options (such as Euneva Avenue) are relatively under-used.

Electric vehicle charging stations are currently provided at The Glen Shopping Centre (four stations), Euneva multi-level (one station) and Glen Waverley Library Car Park (one station). No car share scheme spaces are provided in Glen Waverley.

Across the wider Planning Area, a further 2200 off-street parking spaces are available at key destinations including the existing Syndal Station, sports and recreation centres, educational institutions and strip shopping centres. Ticketed and paid car parking is provided in Glen Waverley such as at Holmesglen Institute and The Glen Shopping Centre and apply for stays greater than after 3 hours.

More information about off-street car parking supply and demand is provided in Section 2.2.2 of SRL East Structure Plan – Transport Technical Report – Appendix A Precinct Parking Plan – Glen Waverley.

Off-Street Parking	Count	Restriction Type	Paid Parking?
Civic	**90**		
Civic Centre Carparking	90	1P-4P	No
Education Institution	**501**		
Glen Waverley United Church Carpark	29	Restricted - Church use only	No
Holmesglen Institute of TAFE Glen Waverley campus	472	Unrestricted	No
Not specified	**1701**		
Bogong Avenue Carpark	540	>4P	No
Euneva Car Park and Monashlink	315	>4P	No
Glen Waverley Central Parking Area	260	1P-4P	No
Glendale S East Parking Area	96	1P-4P	No
Glendale St West Carpark	170	1P-4P	No
O'Sullivan Road Parking Area	120	1P-4P	No
Railway Parade North car park	200	>4P	No
Shopping centre	**3643**		
Kingsway Mall Parking Area	143	1P-4P	No
The Glen Parking	3500	>4P	Yes
Train Station	**268**		
Glen Waverley Station Parking	268	Unrestricted	No

FIGURE 2.27 GLEN WAVERLEY OFF-STREET CAR PARKING (SOURCE: AJM PARKING INVENTORY OCT/NOV 2023)

ON-STREET PARKING

A parking inventory of the on-street parking was completed for the Glen Waverley Structure Plan Area, highlighting the prevalence of on-street parking currently available within the vicinity of the SRL station at Glen Waverley. Figure 2.28 shows the on-street parking locations and corresponding parking restrictions within the Structure Plan Area.

There are 'No Stopping' restrictions in the immediate vicinity of the SRL station, The Glen Shopping Centre and Glen Waverley Secondary College, and clearway zones on Springvale Road. However, there is a reasonable supply of on-street parking in the remaining area, with majority of these spaces imposing short-term parking restrictions to manage parking demand in the Glen Waverley Structure Plan Area.

Commuter and long-term parking are available on Coleman Parade and on other residential streets, where there is unrestricted parking. Euneva Avenue also allows for unrestricted all-day parking, as there is no parking restriction signage installed.

A taxi zone, 2-minute drop off zone and loading bay are located on Coleman Parade, next to the existing Glen Waverley Station and two on-street loading zones are located on Montclair Avenue. Additionally, there is a clearway along Springvale Road.

There are currently around 1300 unrestricted on-street parking spaces within the Structure Plan Area of the SRL station at Glen Waverley.

More information about on-street car parking supply and demand is provided in Section 2.2.2 of SRL East Structure Plan – Transport Technical Report – Appendix A Precinct Parking Plan – Glen Waverley.

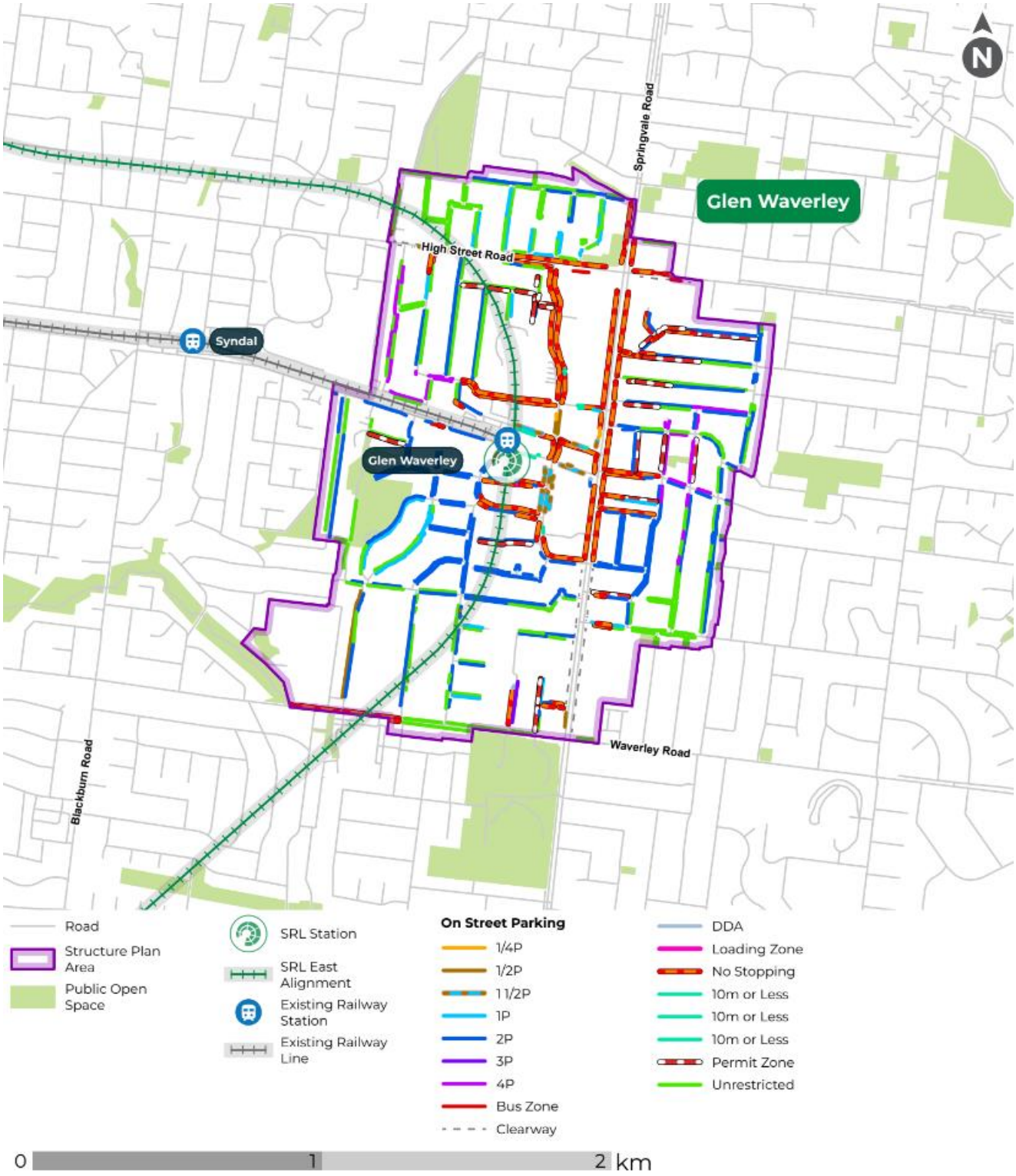


FIGURE 2.28 ON-STREET PARKING RESTRICTIONS – GLEN WAVERLEY (SOURCE: AJM PARKING INVENTORY)

BICYCLE AND MICROMOBILITY PARKING

An inventory of public bicycle parking suggests there are approximately 100 bicycle parks in the public realm of the Glen Waverley Structure Plan Area (excluding Parkiteers).

The existing Glen Waverley Station Parkiteer accommodates the highest number of bicycle parking spaces (26) within the Structure Plan Area.[15] The Glen Shopping Centre provides 20 bicycle parking spaces along Snedden Drive and 11 bicycle parking spaces along O'Sullivan Road.[16] A few bicycle parking hoops have been removed along Kingsway to facilitate outdoor eating areas, following an initiative during- and post-COVID-19.

More information on bicycle parking space locations is provided in Section 2.3 of SRL East Structure Plan – Transport Technical Report – Appendix A Precinct Parking Plan – Glen Waverley.

End-of-trip facilities in Glen Waverley, including secure parking, showers and lockers, are provided only in newer developments which are not typically accessible to the public. There are currently no dedicated parking facilities for micromobility devices.

INTEGRATED PARKING CHALLENGES

The parking challenges in Glen Waverley are summarised and shown in Figure 2.29.

[15] https://parkiteer.com.au/locations/

[16] AJM parking inventory

Location-specific integrated parking challenges:

1. Significant at-grade parking areas reduce opportunities in central Glen Waverley for other uses that could provide increased economic and social benefits.

2. Access to The Glen Shopping Centre car park off Springvale Road can experience queueing which backs up onto Springvale Road causing congestion to and from the shopping centre.

3. The car parks at the existing Glen Waverley Station and Syndal Station generally become full in the early morning, with commuter overspill demands accommodated in local side streets.

Structure Plan Area integrated parking challenges:

- There is an underuse of car parks in areas outside the precinct core due to an overabundance of more centrally located car parking.
- There are many public car parks scattered across Glen Waverley, generating significant vehicle movements in the core of the Structure Plan Area. Site observations indicate that many short-term parking spaces located in the core generate significant vehicle circulation movements within Glen Waverley.
- The significant provision of car parking in Glen Waverley encourages private vehicle use.
- Outside peak retail and dining periods (Thursdays to Sundays), parking facilities in key multi-storey car parking areas appear to be under-used.
- Limited *Disability Discrimination Act* 1992 (Cth) (DDA Act)-compliant on-street car parking is provided.
- The current provision of cycling and micromobility storage and end-of-trip facilities does not support and encourage active and sustainable transport trips.
- Public bicycle parking outside the existing Glen Waverley Station and Syndal Station Parkiteers is generally limited and 'low quality' with varying levels of perceived security / safety.
- End-of-trip facilities including secure parking, showers and lockers are provided only in newer developments and are not typically accessible to the public.
- While most off and on-street parking spaces are managed with some form of restriction (time restricted parking, permit zone, loading zones), they are mostly free (no paid ticketed parking). There is potential opportunity to implement paid parking in areas of high demand, especially as Glen Waverley develops over time.
- A large number of on-street car parking spaces in residential areas are short-term restricted spaces (2P or less) which implies a high level of parking demand intrusion from non-residential land uses into residential areas.
- Given the Glen Waverley Major Activity Centre's significant commercial, restaurant, and entertainment uses, there is a high amount of loading and freight movements which require considerable on-street and on-site management.
- Informal parking by food delivery services is increasing with limited space allocated to e-bikes commonly used by these services (as mentioned in Section 2.2.2).

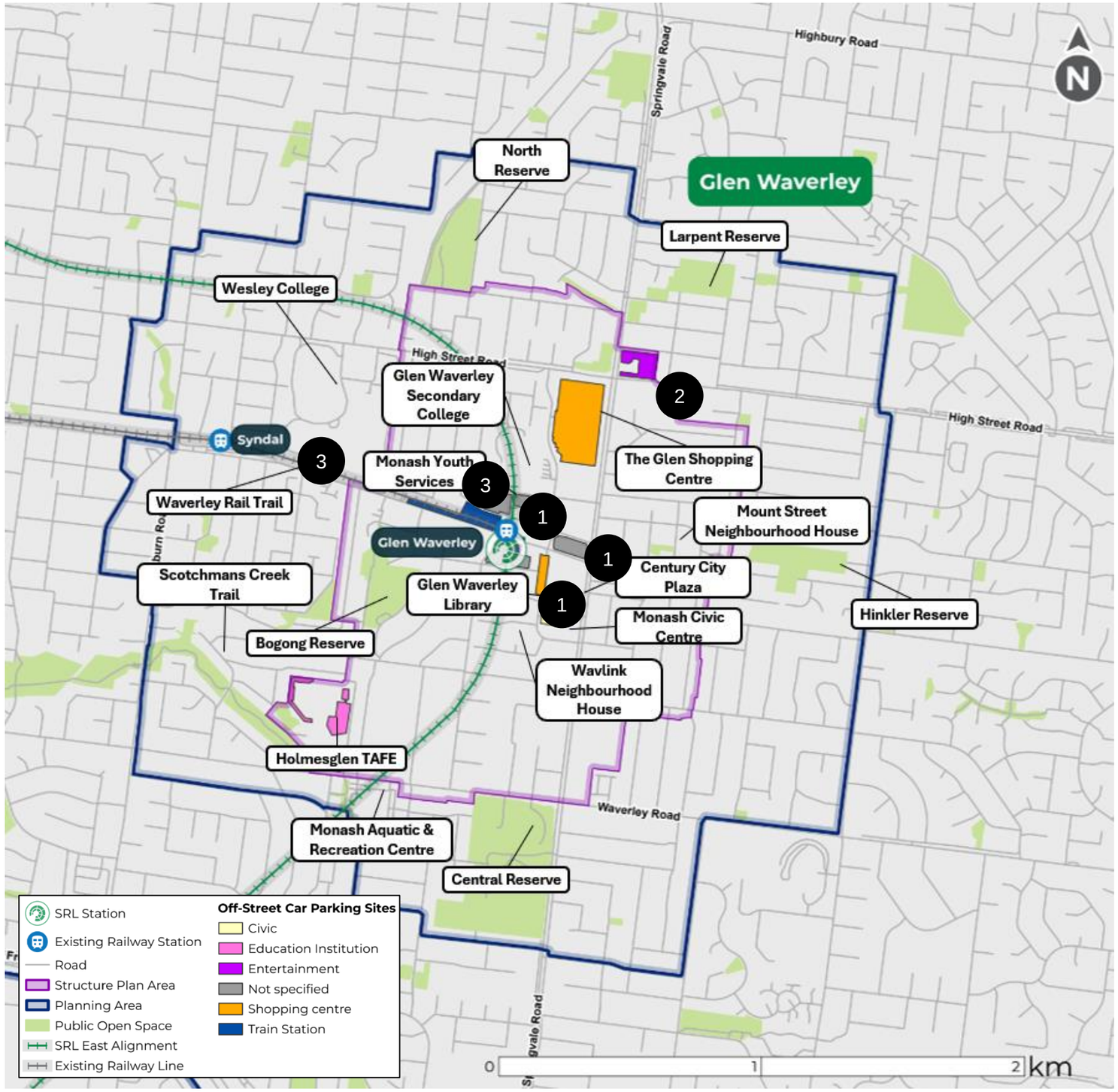


FIGURE 2.29 INTEGRATED PARKING CHALLENGES IN THE GLEN WAVERLEY STRUCTURE PLAN AREA

2.3 Relevant policies and strategies

2.3.1 OVERVIEW

Victoria's legislative and policy framework sets a vision for an integrated transport system that is accessible, inclusive and safe for all Victorians.

A primary aim of the framework is to promote economic, environmental and social prosperity with integrated land use and transport networks. These networks should provide efficient and effective movement of people and goods and minimise transport costs with greater use of active and public transport modes.

2.3.2 LEGISLATION

The legislation that provides the framework for the development of the Glen Waverley and other SRL East Structure Plan Areas is summarised in Table 2.6.

TABLE 2.6 TRANSPORT LEGISLATION

LEGISLATION	DESCRIPTION
Planning and Environment Act 1987 (Vic)	This Act establishes Victoria's framework for land use planning, development, and protection in the present and future interests of all Victorians. Planning schemes are subordinate instruments under the Act that apply to local government areas and set out how land may be used and developed.
Transport Integration Act 2010 (Vic)	This Act recognises that land use and transport planning are integrated and sets a vision for an integrated and sustainable transport system that contributes to an inclusive, prosperous, and environmentally responsible Victoria. The Act obligates transport planners and strategic land-use planners to have regard to the land-use impacts of decisions. This includes objectives that relate to social and economic inclusion; economic prosperity; environmental sustainability; efficiency co-ordination; and reliability and safety, health and wellbeing.
Road Safety Act 1986 (Vic)	This Act provides for safe, efficient and equitable road use.
Road Management Act 2004 (Vic)	This Act establishes a statutory framework for the management of the road network which facilitates the coordination of the various uses of road reserves for roadways, pathways, infrastructure and similar purposes.
Local Government Act 2020 (Vic)	This Act gives legislative force to local government powers, including in respect or roads.
Suburban Rail Loop Act 2021 (Vic)	This Act recognises the scale and complexity of planning and delivering a project that encompasses multiple municipalities. The Act establishes the SRLA and provides it with the power to plan, deliver and manage the operation of SRL and development associated with SRL.

2.3.3 POLICIES, STRATEGIES AND PLANS

The evolution of Melbourne from a mono-centric to a poly-centric city has been at the heart of the Victorian Government policy for many years. Strategies such as Plan Melbourne and DTP's strategic plans have been pursuing the need to consider development growth and supporting infrastructure more efficiently.

More recently, recognition of climate change and the harm of private car travel to the environment and health of our communities has led to plans and policies such as the National Electric Vehicle Strategy and Victoria's Road Map to Zero Emissions.

Policies, strategies and plans that informed the transport ambition for Glen Waverley are summarised in Table 2.7.

TABLE 2.7 NATIONAL AND STATE POLICIES THAT INFORM TRANSPORT AMBITION FOR GLEN WAVERLEY

PLANS AND POLICIES	DESCRIPTION
Plan Melbourne 2017–2050 and Plan Melbourne addendum 2019 (DTP, 2017 and 2019)	Sets out a long-term strategic vision for land-use and development in Victoria. Its policies include Melbourne becoming a polycentric city which is sustainable and resilient and which supports vibrant and healthy neighbourhoods where people can meet most daily needs within a 20-minute active or public transport trip from home.
Victoria Infrastructure Strategy 2021—2051 (Infrastructure Victoria, 2021) and Victorian Infrastructure Plan 2021 (Victorian State Government, 2021)	Victoria's Infrastructure Strategy 2021–2051 provides recommendations to the Victorian Government for planned infrastructure in Victoria. The 30-year strategy seeks to address existing infrastructure pressures, demand on existing infrastructure, and assist in planning the timing and location of required and necessary new infrastructure. The Infrastructure Strategy includes strategic opportunities to improve the Victorian rail network, including SRL as an intended rail project. The Victorian Government has responded to the Strategy with the Victorian Infrastructure Plan 2021 that provides government's response to the Strategy.
Public Transport Guidelines for Land Use Development (DTP, 2008)	The Public Transport Guidelines for Land Use and Development aim to assist decision-making on statutory and strategic planning proposals for land use developments that affect public transport planning and delivery. It is intended the Guidelines will assist with site design to facilitate the delivery and use of public transport services. Good design for public transport helps ensure the provision of a sustainable transport network now and for future. The Guidelines assist in addressing the public transport aspects of structure plans and other strategic planning documents for SRL East.
Strategic Plan 2024–28 Thriving Places and Connected Communities (DTP, 2023)	The Strategic Plan sets out the visions for integrating transport and land use to create thriving places and connected communities. Key focus areas of the Strategic Plan relevant to transport and SRL include: • Improving integration across transport, land and planning systems • Setting and implementing a strategy for support jobs, housing, and transport while building on Melbourne's distinctiveness, liveability, and sustainability • Enhancing environmental sustainability through initiatives that create healthy and liveable communities and places • Support access to lower emission modes of transport • Improving social outcomes and liveability for all Victorians • Giving Victorians more transport options and improve access to essential services.
Future Directions (DTP, Nov 2023)	Sets out the six strategic directions that will establish long-term objectives for movement. Directions considered key to SRL East structure planning include: • Enable new travel patterns – planning transport to facilitate new travel patterns that connect more people to more jobs through local movements, public and active transport and increasing vehicle occupancy • Promote transition to environmentally sustainable transport – supports pledges and targets set out Victoria's Climate Change Strategy • Maximise opportunities created by new and evolving technologies – micromobility and new forms of managing travel • Support the many different journeys people take every day and meet a diverse range of needs.
Movement and Place in Victoria (DTP, February 2019)	The Movement and Place (M&P) Framework brings to life the strategic objectives of transport and land use planning in Victoria in the context of road safety and environmental outcomes. The Framework provides a tool to translate the broad transport outcomes the *Transport Integration Act 2010* (Vic) aims to achieve into priority changes to improve link and place performance for communities. The M&P Framework supports how DTP plans the road and transport network, while acknowledging that each street and road will have different roles in supporting place and movement. It translates the broader transport network into a series of aspirations for individual roads, streets and interchanges based on their desired functions in the network as well as balancing the needs of people and communities.
National Electric Vehicle Strategy (Department of Climate Change, Energy, the Environment and Water, 2023	The Electric Vehicle Strategy sets out national aims to increase electric vehicle (EV) demand through affordability and increasing infrastructure.
Victoria's Climate Change Strategy (Department of Climate Change, Energy, the Environment and Water, 2021)	The Climate Change Strategy recognises that transport is the state's second-biggest contributor to greenhouse gas and minimising this will be key to meeting emission targets. The Strategy recognises the role of SRL in increasing 'clean' public transport. It commits to 100% of all Victoria's new buses to be zero emission from 2025; a 25% active transport mode share by 2030; and 50% of all light vehicle sales to be zero emission by 2030.

PLANS AND POLICIES	DESCRIPTION
Victoria's Zero Emissions Vehicle Road Map (Department of Environment, Land, Water and Planning, 2021)	The Zero Emissions Vehicle Road Map signals an intent for the state to transition to net zero emission in road transport by 2050, noting that it will take around 25 years to manage the transition, with a target for half of all new vehicle sales to be zero emissions by 2030.

SRL East will be crucial to achieving the objectives of these plans and strategies. It will address the imbalance between travel choices for suburb to central city trips and getting from one suburban hub to another, providing true modal choice for middle to outer Melbourne orbital movements. SRL East structure planning will adopt a 'live locally' approach based on the *Plan Melbourne* 20-minute neighbourhood principle, where every day needs can be met within a short walk, cycle, or local public transport trip from home. Residents should be able to access local facilities, learning institutions, green spaces, housing, transport interchanges, and job opportunities through a 20-minute journey. This aims to facilitate people living and working with less need to travel by private car. It is expected that appropriate structure planning and the delivery of SRL East will:

- Provide a more efficient public transport network as passengers would not need to travel into the city and then out to their ultimate destination
- Encourage local trips to be made by active and public transport, reducing reliance on private car trips
- Improve the viability of living in the outer and middle suburbs and drive growth and community around the new infrastructure
- Reduce middle to outer Melbourne orbital movements made by private car
- Enable more people to live in the SRL East Structure Plan Areas closer to jobs and activity reducing personal time spent travelling.

2.3.4 LOCAL PLANS AND POLICIES

The Glen Waverley Planning Area and Structure Plan Area are located in the City of Monash. The statutory framework for the Planning Area will be covered in the Monash Planning Scheme.

The recommendations for the Glen Waverley Structure Plan Area are influenced by and will support Monash City Council transport policies and will seek to maintain effective transport networks in Glen Waverley and the municipality. The key transport themes of Monash City Council policies include:

- The need to move away from private car travel to more sustainable modes of transport, with a road user hierarchy that reflects this shift
- Walking and cycling as the preferred transport choice, particularly for short local trips
- Potential for reducing car parking rates in major activity centres.

Local policies and strategies that informed this report are summarised in Table 2.8. The directions and actions that informed specific Glen Waverley recommendations for the Structure Plan Area are identified in the relevant areas of this report.

TABLE 2.8 LOCAL PLANS AND POLICIES CONSIDERED FOR GLEN WAVERLEY

DOCUMENT	DESCRIPTION	RELEVANT INSIGHTS
Monash Planning Scheme (last updated Jan 2024)	Establishes the statutory framework for land use and development in City of Monash. Includes Clause 18 to cover transport. No local policies are included under Clause 18. SRL is recognised in transport and settlement clauses of the planning scheme. Clause 11.01-1R recognises SRL as a key strategy in facilitating substantial growth and change in major employment, health, education and activity centre precincts. *Was SRL considered? Yes*	• Planning to ensure a safe, integrated and sustainable transport system • Creating mixed use neighbourhoods while delivering better access to services and facilities • Planning a network of activity centres linked by transport • Support SRL to facilitate growth and change in major employment, health, activity centres and education beyond the central city.
Monash Integrated Transport Strategy 2017 	Provides strategic direction to facilitate travel that is sustainable, convenient, accessible and safe. *Was SRL considered? No*	• A safer network – recognising issues with shared paths and public transport use • A more accessible Monash – reducing the need to travel and increase the viability of transport choice • Promote sustainable transport – improving pedestrian and bicycle network • Support productivity – minimising the impact of freight on safety, amenity and the environment, supporting freight efficiency • Manage car parking – improving the efficiency of kerb space, balancing car parking with safe and accessible street network for pedestrians and cyclists.
Monash Walking and Cycling Strategy 2023 	Aims to establish Monash as a city that is walking and bicycle friendly. Identifies the key issues of unsafe and fragmented pedestrian and cycling network and how it impacts users' likelihood of traveling via active transport modes. *Was SRL considered? No*	• Ensure walking and cycling networks consider the needs of all people • Eliminate barriers and unsafe cycling infrastructure within the greater network • Promote cycling uptake as a recreational activity and transportation mode.
Monash Road Management Plan 2021 	Outlines the road infrastructure managed by Council and the shared responsibilities with other road authorities. *Was SRL considered? No*	• Highlights Council's role in implementing the vision for Glen Waverley, especially around road space allocation and management.
Glen Waverley Activity Centre (GWAC) Structure Plan 2016 	The Structure Plan provides a clear framework for managing the future growth and change of Glen Waverley. It has helped to guide public and private investment while ensuring the centre has and continues to develop in an orderly and sustainable way. *Was SRL considered? No*	• Desire to move from car dominated to a 'connected Glen Waverley where pedestrians and cyclists have priority on key streets' • Integrated network across all modes but walking and cycling is the preferred mode of transport for residents, visitors and workers • Focus on how highly connected public transport services and active transport linkages support growth • Desire to reduce through traffic on key high activity streets in Glen Waverley to facilitate a high-pedestrian Major Activity Centre • Desire to develop a network of green pedestrian priority streets and central public open spaces.
Glen Waverley Activity Centre (GWAC)	Sets out key elements to achieve more sustainable travel to, from and in the GWAC. The plan	• Focus on better integration between all transport modes

DOCUMENT	DESCRIPTION	RELEVANT INSIGHTS
Sustainable Transport Plan 2014 	identifies key transport sustainability issues and potential actions. *Was SRL considered? No*	• Identifies that improvements must be made to pedestrian and cycle networks to increase safety • Desire to close strategic streets to through vehicular traffic, such as Coleman Parade and Railway Parade North, east of Kingsway • Desire to introduce a shared zone on Kingsway between Coleman Parade and Railway Parade North • Desire to develop a new model of parking provision.
Glen Waverley Activity Centre (GWAC) Masterplan 2013 	Detailed analysis of the Glen Waverley Activity Centre to prepare a visionary masterplan for the Centre. It was used to inform the GWAC structure plan and sustainable transport plan, considering benefits to financial feasibility and economic, social / community, environmental sustainability, accessibility, parking and traffic and optimal governance arrangements. *Was SRL considered? No*	• Used to help develop the GWAC structure plan and sustainable transport plan.

2.4 Summary

Table 2.9 summarises the key findings of the existing conditions assessment.

The review of key national, state and local transport policies and strategies relevant to Glen Waverley informs the development of recommendations for the Glen Waverley Structure Plan Area. The recommendations will support key transport policies and strategies and seek to maintain effective transport networks in Glen Waverley and the municipality.

TABLE 2.9 EXISTING CONDITIONS SUMMARY BY MODE

MODE	SUMMARY
Active transport	• Most streets in Glen Waverley have footpaths on both sides of the road and provide access between the residential areas and key destinations • Comfortable and safe walking journeys are catered for in areas by shared zones (on O'Sullivan Road by The Glen and the vicinity of Glen Waverley Library, Monash City Council office and Civic Centre) and along shared trails such as Waverley Rail Trail • There are a few separated cycle routes serving Glen Waverley, specifically along Coleman Parade (south of the existing Glen Waverley Station), Waverley Rail Trail, Scotchmans Creek Trail and along Glen Road. The remainder of the road network in Glen Waverley has no or limited cycling infrastructure • The rail line and heavily trafficked arterial roads such as Springvale Road and High Street Road discourage north-south and east-west movements, with few crossing points and long crossing wait times. Large urban blocks are also barriers for pedestrians and cyclists.
Public transport	• Glen Waverley is currently serviced by the Glen Waverley Line, terminating at the existing Glen Waverley Station, providing access to the eastern suburbs between Glen Waverley and Melbourne CBD • A network of 11 bus routes is provided in Glen Waverley. The network is important for access between residential areas, rail stations, activity centres and educational establishments, particularly to the east of Glen Waverley where there is no train line • The main bus routes primarily follow the grid of arterial roads, with several more circuitous neighbourhood routes, and are centred on the existing Glen Waverley Station where there is a bus interchange • While Glen Waverley generally has good public transport coverage, the bus interchange infrastructure is low quality and provides poor amenity. There is also limited bus priority along busy roads and low frequency services, increasing journey times • The quality of bus stops and waiting area infrastructure is inconsistent across Glen Waverley.
Private vehicles	• Vehicle access throughout Glen Waverley is provided by multi-lane arterial roads and an extensive network of connector and local streets. • No Principal Freight Network (PFN) routes pass through the Planning Area. However, the arterial roads (such as Springvale Road, High Street Road, Waverley Road and Blackburn Road) form part of the B-Double Heavy Vehicle network catering for freight vehicles • Significant provision of on-street, at-grade and multi-level car parking encourages private vehicle use • While the current private vehicle mode share is generally within the capacity of the road network other than some peak hour congestion points, maintaining a similar private vehicle mode share into the future will not be sustainable and will be detrimental to the liveability within the Structure Plan Area • Glen Waverley caters for relatively high through traffic volumes, which can contribute to congestion and impact on trips within Glen Waverley.
Integrated parking	• There are more than 7500 publicly accessible off-street car parking spaces in the Glen Waverley Structure Plan Area, distributed across a mixture of at-grade and multi-level car parks • There are currently around 1300 unrestricted on-street car parking spaces within the Structure Plan Area with varying parking restrictions • Public bicycle parking is limited with majority of public bicycle parking provided in the existing Glen Waverley Station Parkiteer, Snedden Drive and O'Sullivan Road. End-of-trip facilities in Glen Waverley, including secure parking, showers and lockers, are provided only in newer developments which are not typically accessible to the public • The current provision of cycling and micromobility storage and end-of-trip facilities does not support and encourage active and sustainable transport trips • There is an underuse of car parks in areas outside the precinct core due to an overabundance of more centrally located car parking • The abundance of on and off-street car parking within the Structure Plan Area supports private vehicle travel rather than more sustainable modes. In many instances the location of parking encourages drivers to pass through high pedestrian activity areas.

3 The SRL project

3.1 Overview

The Glen Waverley Planning Area is one of six precincts that form part of SRL East – the first stage of the 90-kilometre orbital loop linking every major rail line between Cheltenham, Melbourne Airport and SRL West (to Werribee) as shown in Figure 3.1. The six stations include **Cheltenham** (located near Southland, between Cheltenham and Highett), **Clayton**, **Monash** (located in Notting Hill, between Clayton and Glen Waverley), **Glen Waverley**, **Burwood** (located between Box Hill South and Ashwood), and **Box Hill**.

SRL will connect major employment, health and education centres in the city's middle suburbs and provide highly accessible nodes that can be used to support Melbourne's growing housing and employment needs in a sustainable manner. To do this, more than just the SRL stations are required. The SRL Precincts will need to foster a new approach to travel and living in these areas.

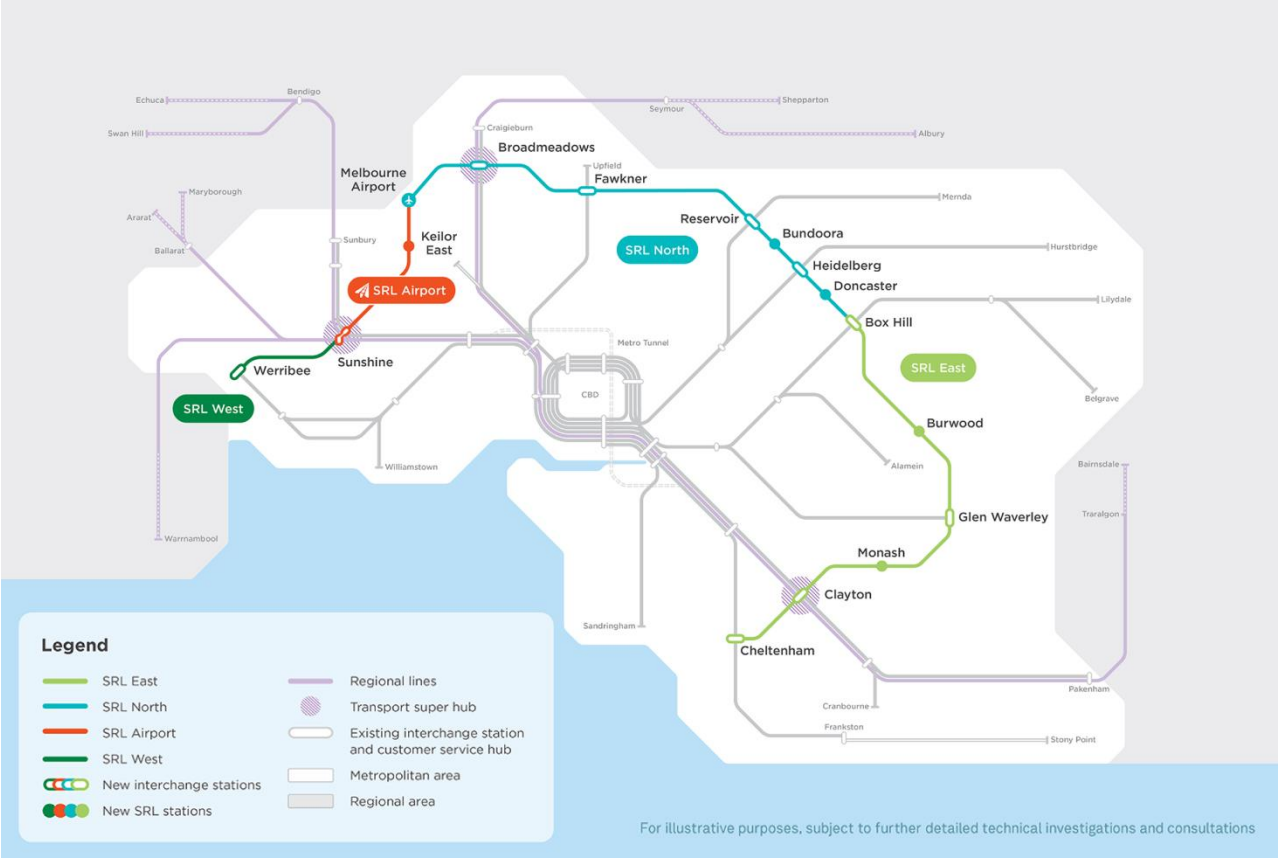


FIGURE 3.1 SRL EAST IN THE CONTEXT OF THE WIDER SRL PROJECT

High population growth on Greater Melbourne's expanding urban fringe has been driving many households further from employment centres, leading to longer commutes, increased congestion and more crowded public transport. This pattern of growth risks entrenching disadvantage, with inequitable access to good jobs, services, affordable housing, amenities and recreational opportunities. There is already significant demand for orbital travel around Melbourne, with many people travelling to work and other destinations by car because there isn't a fast rail option.

SRL addresses these challenges by delivering important cross-suburb travel connections between major employment centres, hospitals, universities and retail, shortening commutes and improving cross-suburb connectivity. While growth in SRL Precincts will give more Victorians access to employment opportunities, affordable housing and services – all within a short walk from a station.

Construction of SRL East from Cheltenham to Box Hill began in June 2022, and SRL East is expected to start operating by 2036.

3.2 SRL East Project Environment Effects Statement and planning approvals

The SRL East Project's Environment Effects Statement (EES) was released in 2021. The EES identified the benefits and potential impacts of the SRL East Project on people and places during its construction and operation and proposed ways to avoid, minimise, offset or manage any effects.

Planning approvals for the SRL East Project were informed by the EES and were granted following the Minister's Assessment in late 2022. These approvals included Planning Scheme Amendment (PSA) GC197 that introduced an Incorporated Document under Specific Controls Overlay Schedule 14 (SCO14) to facilitate delivery of the SRL East Project. Amendment GC197 came into force on 30 September 2022.

A key condition of the Incorporated Document is an Environmental Management Framework containing Environmental Performance Requirements (EPRs) managing the project's design, construction and operation impacts. These included EPRs specifically managing traffic and transport impacts associated with the SRL East Project, some of which refer to impacts on the wider precincts. The Environmental Management Framework was approved by the Minister for Planning on 17 October 2022.

The EES nominated Environmental Performance Requirements (EPR's) were contained within the SRL East Project Environmental Management Framework as approval requirements for the project. There are eight transport EPR's, EPR's T1-T5 relate to detailed project construction and delivery issues (traffic management and coordination, road reinstatement etc) and are not the focus of this section or the TTR. Rather Table 3.1 below highlights sections of EPR's T6-T8 which in addition to actions delivered by the SRL East Project could benefit from relevant commentary and actions within the TTR. The Minister's Assessment of the EES also identified some issues for further assessment which are discussed in Section 3.5 of this report.

TABLE 3.1 EPRS RELEVANT TO THIS REPORT[17]

TRANSPORT BASED EPR	TRANSPORT TECHNICAL REPORT CONSIDERATION
T6. Road transport design and operation	
T6-2. Develop and implement street network designs for each affected street within the Project Land in consultation with the relevant road management authorities that includes:	
a) The design of the road network should reflect the aspirational Movement and Place outcomes for each precinct as well as changed demands as a result of the Project	Movement and Place classification reviews and existing level of service gap assessments, and Recommendation to safeguard the M&P modal priorities
b) Maintaining safe operations through the precincts.	Pedestrian and cyclist safety considered in network upgrade recommendations including strategic corridors, green streets and new and upgraded signal crossings
T6-3. Develop and implement a plan for each precinct to manage reinstated parking within the Project Land, in consultation with relevant road management authorities, that:	
a) Minimises the permanent loss of parking where possible and determine the optimal parking provision in the area, including prioritising meeting specialised parking needs within the precinct such as emergency services, loading and DDA compliant parking.	The Parking Precinct Plan provides recommendations with respect to parking that may be relevant in responding to this EPR requirement, however the focus of the EPR is reinstatement of parking impacted by the SRL project and will be addressed as a project not structure planning issue.
b) Reduces the risk of overflow parking in local streets	
c) Provides alternative locations for station commuter parking impacted during construction identified in consultation with relevant stakeholders. If needed this may be provided outside the Project Land.	
d) Includes recommended Pick Up / Drop Off (PuDo) locations following further assessment during the design phase.	
T6-5 Collaborate with DoT and Councils to manage the operation of the road network in the vicinity of SRL precincts for all road users. This would encourage appropriate mode of access to the station precincts and to discourage through traffic. This should include reviewing the performance of the wider network so that opportunities to re-distribute through traffic away from station precincts can be pursued and sensitivity testing of different precinct development scenarios.	The TTR seeks to address transport movements to, from and within the Structure Plan Area with Section 5.4 explaining the target mode share for the precinct and actions to achieve that mode share explained in Section 6 and 7.
T7. Public transport design and operation	
T7-1. Design the SRL stations and new bus interchanges to ensure integration with existing and planned future uses so they provide connections to key destinations and existing railway stations and bus interchanges and be in accordance with the Urban Design Strategy (UDS). The design should also provide adequate wayfinding to facilitate passenger transfers.	Infrastructure recommendation supporting the planning for new or upgraded bus interchanges
T7-2. Implement measures to address pedestrian congestion at and around station entrances where they interface with the precincts, to the extent practicable, in consultation with relevant road management authorities.	Considered in upgraded strategic corridors providing access to station entrances, to be addressed in design scope beyond the precinct Transport Technical Reports
T8. Active transport design and operation	
T8-3. Provide wayfinding information to enhance connectivity for pedestrians, cyclists and public transport users to move to, from, through and within the interchanges and precincts.	Considered in the SRL East Structure Plan - Urban Design Report - Cheltenham

The remaining transport EPRs are considered to relate specifically to the construction of SRL East and contractors are responsible for the implementation of the measures to address these.

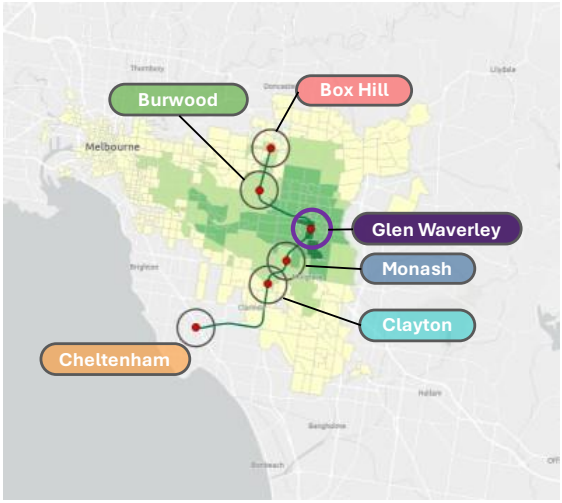
[17] bigbuild.vic.gov.au/__data/assets/pdf_file/0003/717645/SRL-East-Environmental-Management-Framework.pdf

3.3 SRL Glen Waverley rail and infrastructure works

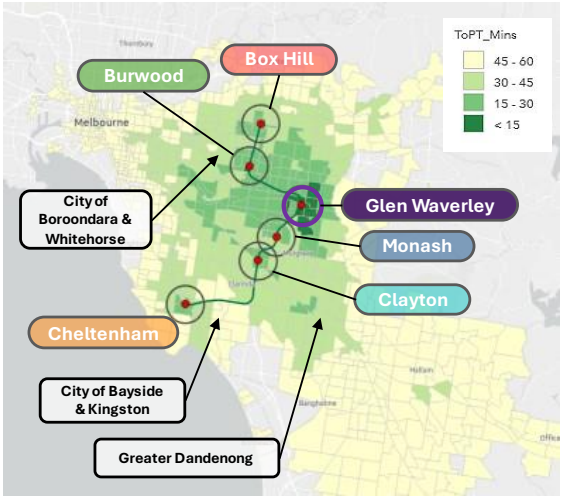
This section summarises the SRL East Project's scope being delivered under the SCO14 Incorporated Document and outlined in the Surface and Tunnel Plans approved by the Minister for Planning on 18 October 2022.

The SRL station at Glen Waverley will provide an additional railway station within the Glen Waverley Structure Plan Area. The SRL station is expected to cater for around 8300 passenger boardings from Glen Waverley per weekday by 2041[18] and will significantly increase accessibility to the area by public transport.

The increased public transport accessibility of Glen Waverley is shown in Figure 3.2. Glen Waverley residents will be able to access education, work and services near all SRL East stations within 30-minutes. Travel times between Glen Waverley and many suburbs in the municipalities of Whitehorse, Boroondara, Bayside, Greater Dandenong and Kingston will reduce by 15 to 30 minutes.



2041 Base Case without SRL - AM Peak PT Travel Time to Glen Waverley



2041 Project Case with SRL - AM Peak PT Travel Time to Glen Waverley

FIGURE 3.2 INCREASED PUBLIC TRANSPORT ACCESSIBILITY OF GLEN WAVERLEY WITH THE SRL EAST PROJECT[19]

Travelling from the Glen Waverley Planning Area to Monash Planning Area on public transport in the morning peak will take 3 minutes on SRL East compared to 23 minutes.

Improvements to walking and cycling, public transport and road connections and infrastructure around the SRL station will provide an accessible, safe and integrated network for travel through and within Glen Waverley.

The SRL East Project scope is generally in accordance with the project's reference design, which will be subject to minor changes during the detailed design phase.

The SRL East station at Glen Waverley and associated surface transport infrastructure works are summarised and shown in Figure 3.3.

[18] *SRL East – Traffic and Transport Impact Assessment. TA R.2 Transport IA Revision 01, October 2021 (Table 5.4)*

[19] *SRL East – Traffic and Transport Impact Assessment. TA R.2 Transport IA Revision 01, October 2021 (Section 7.3.3)*

1. SRL station at Glen Waverley located south of Coleman Parade.
2. The closure of Coleman Parade allowing passengers and other pedestrians to easily access train services, other surface transport options or to the broader Glen Waverley area, without interacting with cars.
3. Myrtle Street will be realigned making it easier to move around the area.
4. New bi-directional, off-road cycle paths on Coleman Parade and Bogong Avenue will connect the SRL station to Kingsway and the existing Glen Waverley Station.
5. New raised, separated pedestrian and cyclist crossings on Bogong Avenue and Myrtle Street to improve connectivity.
6. *Disability Discrimination Act 1992* (Cth) (DDA)-compliant 'Accessible' pick-up / drop-off areas and taxi bays adjacent to the station entrance, and a cycle hub with 530 cycle parking spaces integrated with the SRL station and an additional 120 spaces in the public realm.
7. Euneva Street multi-level commuter and short-term carpark with 500 spaces, along with accessible spaces and bicycle parking.

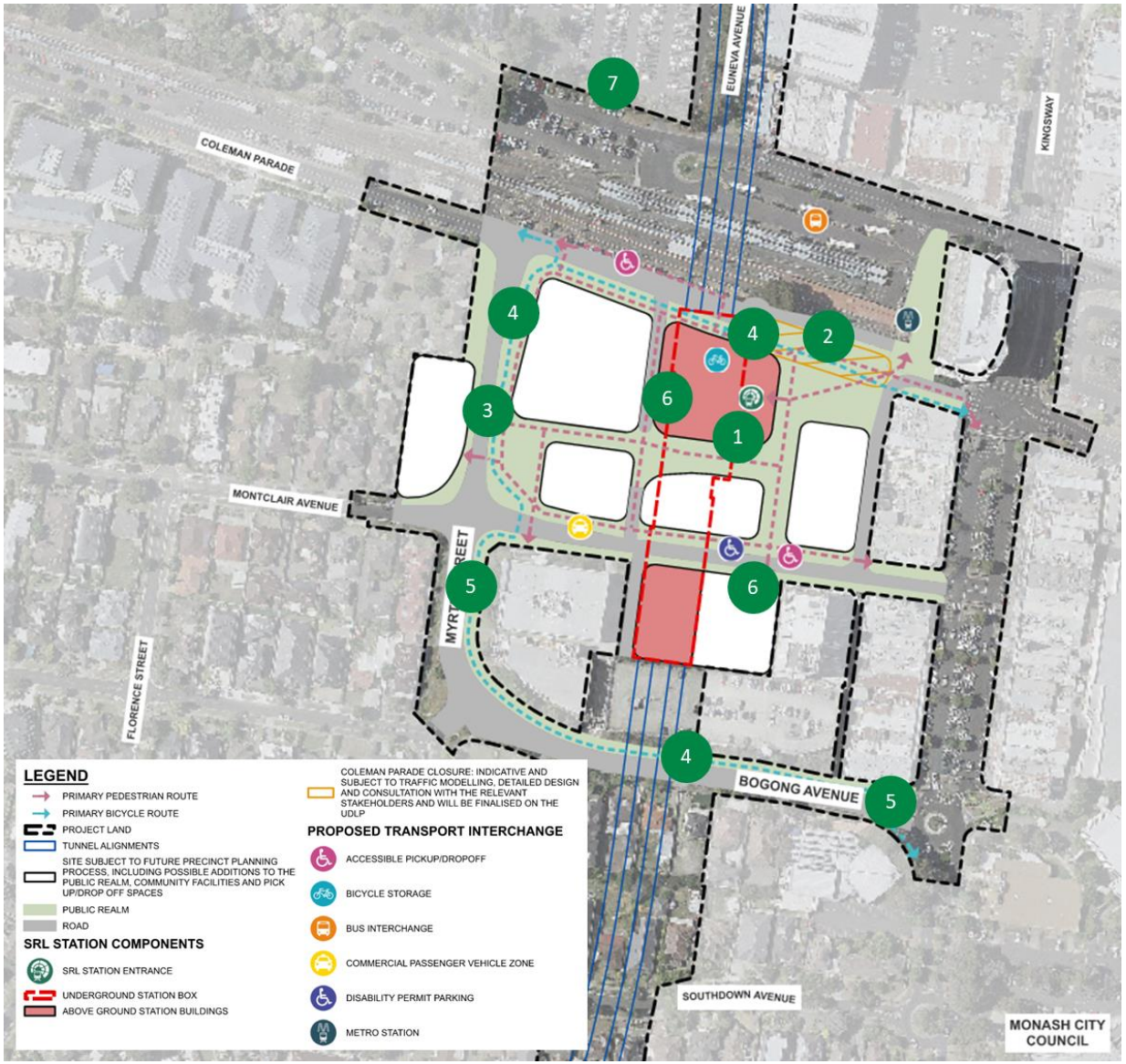


FIGURE 3.3 SRL EAST RAIL PROJECT AND ASSOCIATED SURFACE TRANSPORT INFRASTRUCTURE IN GLEN WAVERLEY (BACKGROUND MAP SOURCE: SURFACE AND TUNNEL PLANS ENDORSED APRIL 2024)

3.4 EES traffic and transport assessment

A Traffic and Transport Impact Assessment was prepared for the SRL East Environment Effects Statement (EES) (2021). The impact assessment outlined the proposed infrastructure to be provided as part of the SRL East station works and evaluated the associated traffic impacts and benefits on the transport network for stakeholders and the broader community.

In Glen Waverley, the impact assessment focused on the impacts associated with construction and operation of the SRL station at Glen Waverley. While the physical impacts were localised within the 'SRL East project land' affected by the project works (see Figure 3.4), the transport assessment considered the wider implications on the transport network from the localised works. Figure 3.5 shows an extract of the broader traffic network assessed as part of the EES Traffic and Transport Impact Assessment, which includes the Glen Waverley Structure Plan Area.

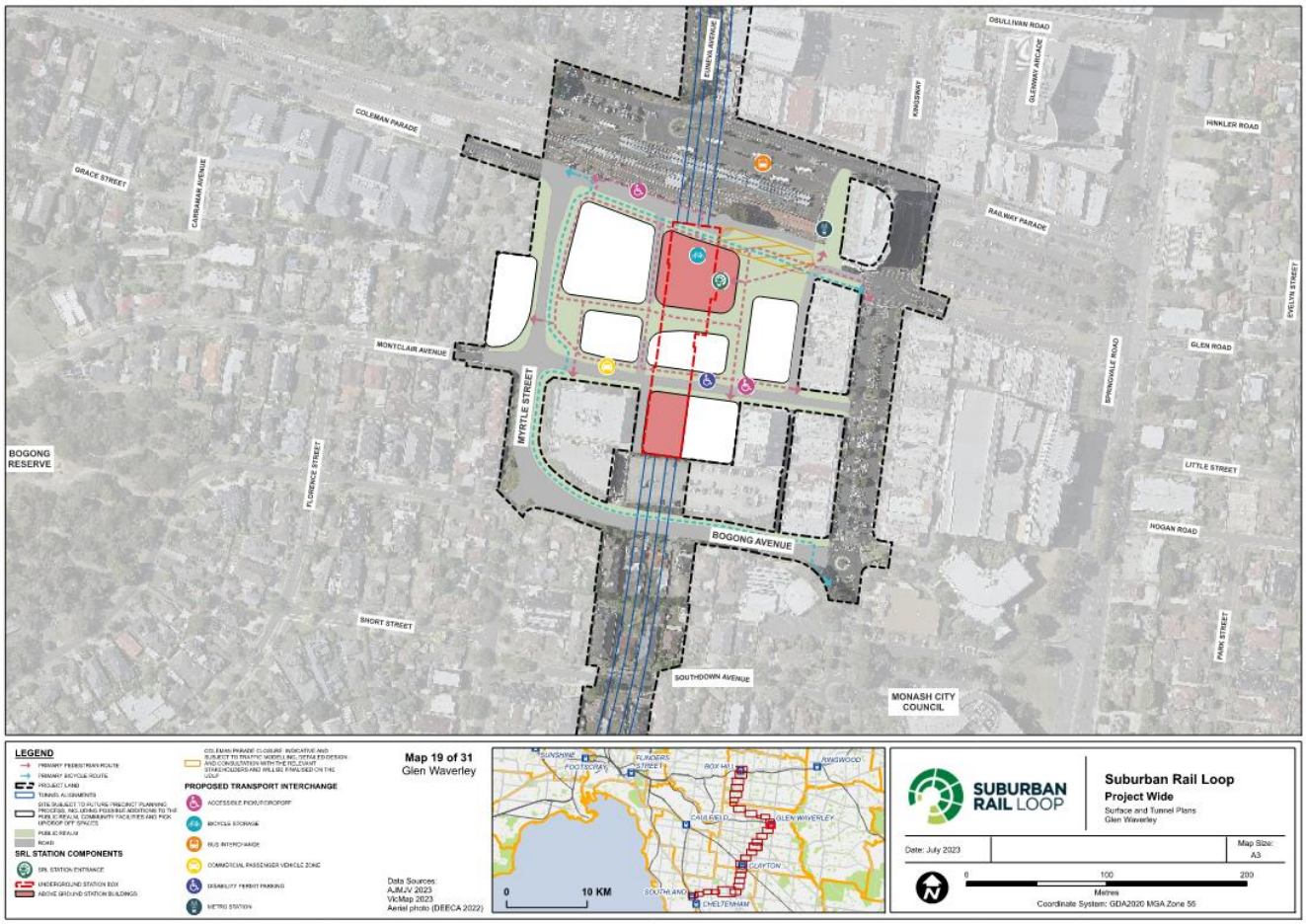


FIGURE 3.4 PROJECT LAND AREA IN GLEN WAVERLEY

FIGURE 3.5 WIDER TRANSPORT NETWORK MODEL (BASE MAP) ASSESSED BY THE SRL EAST PROJECT'S EES AND GLEN WAVERLEY STRUCTURE PLAN AREA

The operational assessment within the EES Traffic and Transport Impact Assessment was undertaken by comparing the future state in 2041 without SRL East (known in that report as the 'Future No Project Case') against the future state with the SRL East Project (known in that report as the 'Project Case').

Each transport mode was assessed considering growth in population, employment and enrolments and the associated change in travel demands in the vicinity of the SRL East Project. The *Future No Project Case* used an existing land use forecast which did not take the SRL East Project into account. The growth in population, employment and enrolments for the *Project Case* was developed specifically for the SRL East Project using CityPlan, a Land Use and Transport Interaction (LUTI) model for Victoria which estimates the land use impacts and shift in demographics as a result of major transport projects like SRL East.

In simplest terms, CityPlan used the existing forecast of land use growth in Victoria developed without the SRL East Project and redistributed land use development (and associated population and employment) across Melbourne including into the SRL East Project' precincts in response to the increased transport accessibility and

development capacity proposed through the SRL East Project. The CityPlan model was peer reviewed during the development of the SRL Business and Investment Case (2021) and its use was subsequently tested through the SRL East EES Independent Advisory Committee process.

The transport modelling of the *Project Case* was subject to extensive review through the EES Traffic and Transport Impact Assessment, and the Minister's Assessment ultimately concluded that ***'I support the Independent Advisory Committee's finding that the transport modelling undertaken to underpin the assessment of operational transport effects is adequate for this phase of the project'*** (notwithstanding some areas of further assessment required, as discussed in the following section).[20] Given the outcome of that assessment, the EES Project Case has been adopted as the foundation or 'Baseline Scenario' for this report's assessment, and including its recommendations which inform the Glen Waverley Structure Plan. Further discussion of the previous EES Traffic and Transport Impact Assessment, including future growth forecasts, in comparison to as well as their relative suitability for use as part of precinct planning is provided in Section 4.3.

3.5 EES further assessment requirements

In addition to the EPR's outlined in Section 3.2, the Minister's Assessment for the EES[21] included additional specific matters for further assessment as part of the planning for the SRL East Project. These matters include those related to the SRL East Project and some related to wider precinct matters.

The key transport planning-related matters for further assessment are summarised in Table 3.2 which identifies how these are being addressed by SRL East. Note this report is focused on the wider precinct matters that relate to Glen Waverley as part of structure planning, not matters related to the SRL East project scope.

TABLE 3.2 MINISTER'S REQUIREMENTS FOR FURTHER ASSESSMENT - GLEN WAVERLEY

MATTERS FOR FUTHER ASSESSMENT	SRL EAST PROJECT SCOPE	WIDER PRECINCT PLANNING (THIS REPORT)
Paid connections – Glen Waverley: • Future proofing for a paid connection between the existing Glen Waverley Station and the SRL station at Glen Waverley with connection to be provided 'in due course, subject to funding'.	✓	
Parking – Glen Waverley: • No commuter car parking • EES pick up and drop off location and provision to be reviewed • Further analysis is required to determine best location for replacement car parking. • Consult with relevant road management authorities on reinstating parking impacted as a result of the project works.	✓	
Station-specific issues – Glen Waverley: • Review of the necessity and impact of any proposed permanent closure of Coleman Parade and whether alternate means of facilitating pedestrian crossing can be achieved.	✓	
Station-specific Issues – Glen Waverley: • Precinct planning to consider the whole of the activity centre to manage traffic and ensure safe and accessible environment for pedestrians.	✓	

Section 1.5 provides further details of the consultation and assessments completed to address the identified areas of further assessment by the Minister, required as part of future precinct planning following the EES.

[20] *Minister for Environment and Climate Action, SRL East Minister's Assessment under Environment Effects Act 1978 (2022) p. 29*

[21] *https://www.planning.vic.gov.au/__data/assets/pdf_file/0026/651905/SRL-East-Ministers-assessment.pdf*

4 Transport ambition for Glen Waverley

4.1 Overview

This section sets out the transport ambition for Glen Waverley and the strategic objectives which have informed the infrastructure and non-infrastructure recommendations. These recommendations will deliver the on-going improvements needed for the transport and street network to realise the transport ambition and goals.

To support Glen Waverley's future role as an attractive place to live, work and/or establish businesses, the structure planning for Glen Waverley needs to:

- Support the delivery of housing, jobs, services, and amenities in the right locations for new and existing residents, workers and visitors
- Enable infrastructure investment across transport, education, health, open space and other amenities.

A set of transport ambitions and goals common to all SRL East Structure Plan Areas were developed to help the Vision for each Structure Plan Area and surrounds, and to inform the Structure Plans.

The SRL East Structure Plans will identify how the five key themes of Boosting the Economy, Enriching Community, Better Connections, Enhancing Place and Empowering Sustainability will be delivered in the Structure Plan Area and set objectives, strategies and actions to realise the Vision for the area.

The areas surrounding the new SRL stations will attract significant investment, creating new local employment and housing opportunities, driving population and employment growth and land use changes.

This section also compares the baseline with the Glen Waverley Structure Plan's land use.

4.2 Transport ambition and goals

The population, job and traffic growth demands will require proactive management in order to realise the full potential of SRL East. The transport ambition provides a foundation for managing the growth in Glen Waverley, as stated below in Figure 4.1.

FIGURE 4.1 TRANSPORT AMBITION FOR GLEN WAVERLEY

From the transport ambition, a set of transport goals and modal principles were developed to support the Vision for Glen Waverley. The development of these goals and modal principles considered the existing transport challenges, gaps and opportunities.

The transport ambition and goals should be considered with the Vision and themes outlined in the Glen Waverley Structure Plan, which address requirements such as those in the *Transport Integration Act 2010* (Vic). The development of the Structure Plan and this report has collectively informed the infrastructure and non-infrastructure recommendations to achieve the transport ambition and providing better transport choices.

The transport goals are listed and explained in Table 4.1.

TABLE 4.1 TRANSPORT GOALS

GOAL	EXPLANATION
A safe and connected walking and cycling environment	Walking and cycling[22] will serve as the most convenient, safe and enjoyable means of travel in the neighbourhoods around each SRL station.
A revitalised bus experience	In line with Victoria's Bus Plan, help change people's perception of buses. Provide a passenger-focused bus service, making road-based public transport a competitive, attractive and convenient choice.
An all-inclusive transport network	Ensure transport is accessible to people of all ages, abilities and genders.
Anchoring sustainable travel services and shared mobility to SRL East	SRL East stations are seamless integrated hubs, allowing quality interchanges between sustainable travel modes.
Prioritising safe and healthy movement	In line with Victoria's Road Safety Strategy 2021-2030, the transport network becomes safer for all, particularly vulnerable users. Uptake in walking and cycling contributes to an increase in daily physical activity.
Smart and efficient use of parking	Parking management needs for all users, with a strong emphasis on providing for the needs of bike and micromobility users. Car parking spaces will be managed and used to maximise their effectiveness while considering impacts on the urban realm.
Enable new and emerging innovative mobility	Neighbourhoods around each SRL station will enable emerging and innovative mobility to provide more and convenient choice, especially for shorter to medium distance trips.

4.3 Future population and employment growth

The population and employment forecasts for the Glen Waverley Structure Plan Area are shown in Figure 4.2. The resident population is forecast to increase from 7100 in 2021 to 11,700 residents by 2041. The worker population is forecast to increase from 7800 to 13,800[23] over the same period. With more people living and working in Glen Waverley, the SRL station will become a focus point for movement.

[22] *Walking and cycling represent the action of moving as a pedestrian or cyclists, whether or not someone is walking or cycling unaided or using any kind of wheeled mobility aid, including cycles, scooters, wheelchairs, mobility scooters, walking frames, prams or buggies.*

[23] *AJM (2025), Economic Profile – Glen Waverley*

FIGURE 4.2 POPULATION AND EMPLOYMENT GROWTH WITHIN THE STRUCTURE PLAN AREA

While the development projections within the transport model for the Baseline Scenario[24] are consistent with the Structure Plan overall, the Structure Plan has redistributed growth within Glen Waverley compared to the model input:

- Significant residential growth particularly in areas near the SRL station and along key transport corridors
- Continued growth in mixed land uses anchored by The Glen Shopping Centre and Kingsway retail hubs including residential, entertainment, retail and commercial uses
- Maintenance of retail uses along High Street Road and Springvale Road as local activity centres for access to services and jobs
- Increased employment along Aristoc Road to become a secondary node to Central Glen Waverley
- Maintenance of community infrastructure with existing education facilities and a new library and civic and community spaces.

The consistency of the input scenarios for the EES and structure planning reaffirms the adoption of the Project Case in the EES Traffic and Transport Impact Assessment as the Baseline Scenario' is appropriate.

4.4 Summary and implications

The transport ambition for a growing Glen Waverley is to encourage as many of the additional trips expected to be undertaken by active transport or public transport. This includes providing a local transport network to facilitate 20-minute neighbourhoods, and the transport goals have been set towards achieving this ambition.

Glen Waverley will need to evolve so that while its people and employment intensity increases, growth is managed through sustainable and active transport, while maintaining car access via the existing arterial road network. The transport network will need to evolve so that residents, workers, and visitors have better travel options and experiences on active and public transport to manage increased movements to, from and within Glen Waverley.

This vision has set the basis for the development of the transport recommendations as part of the 'vision and validate' approach. A comparison of the Structure Plan's land use forecasts with those in the Baseline Scenario has found it is an appropriate basis to apply the vision and validate approach. This approach allows the transport ambition and goals for Glen Waverley to be at the centre of the recommendations in this report, enhancing connectivity and considering benefits to the economy, community, place, and sustainability.

[24] *Baseline Scenario is based on the EES Traffic and Transport Impact Assessment (2021). See Section 3.4 for more information.*

5 Future transport demands

5.1 Overview

Given the transport ambition to manage the growing number of transport trips by encouraging the use of sustainable transport modes, this section presents the approach to set an appropriate mode share target. It considers the potential for transport choices to better meet the Structure Plan and transport ambition by:

- Determining the number of trips generated given the land use
- Understanding, at a broad level, where these trips started and ended (trip distribution)
- Developing a mode share target by considering which trips could change from one mode to another given land use and travel patterns.

This mode share target was then justified through benchmarking with comparator suburbs. Using the Baseline Scenario as a starting point (see Section 3.4 for more details), this was undertaken by assessing how travel choices and the mode share may further change with improvements to sustainable modes of transport (active and public transport) that address the challenges and gaps.

Analysis is based on the primary mode[25] for trips to, from and within Glen Waverley (through-trips are not included).

5.2 Trip generation

The number of trips to and from Glen Waverley is primarily influenced by the land use plans and population and employment forecasts. A resident population of 11,700 and a worker population of 13,800 people by 2041 is forecast in the Glen Waverley Structure Plan Area. As shown in Figure 5.1 this results in about 15,000 trips in the morning peak hour and 19,400 trips in the evening peak beginning, ending or being entirely within Glen Waverley.

There is a greater proportion of trips into Glen Waverley (attraction) during the AM peak hour, which is primarily driven by employment land uses. Trips from Glen Waverley (production) are slightly lower and driven by residential land uses (see Figure 5.1). Meanwhile, in the PM peak hour, the trip production is higher than attraction, with the main source of trips being people returning home from work. The overall number of trips in the PM peak hour is higher than the AM peak hour due to increased levels of retail and leisure trips in the PM peak hour.

[25] *Refers to the main mode of travel used by an individual traveling to/from Glen Waverley. For example, a trip comprising of walking to/from a public transport facility and using public transport would be classed as a public transport trip.*

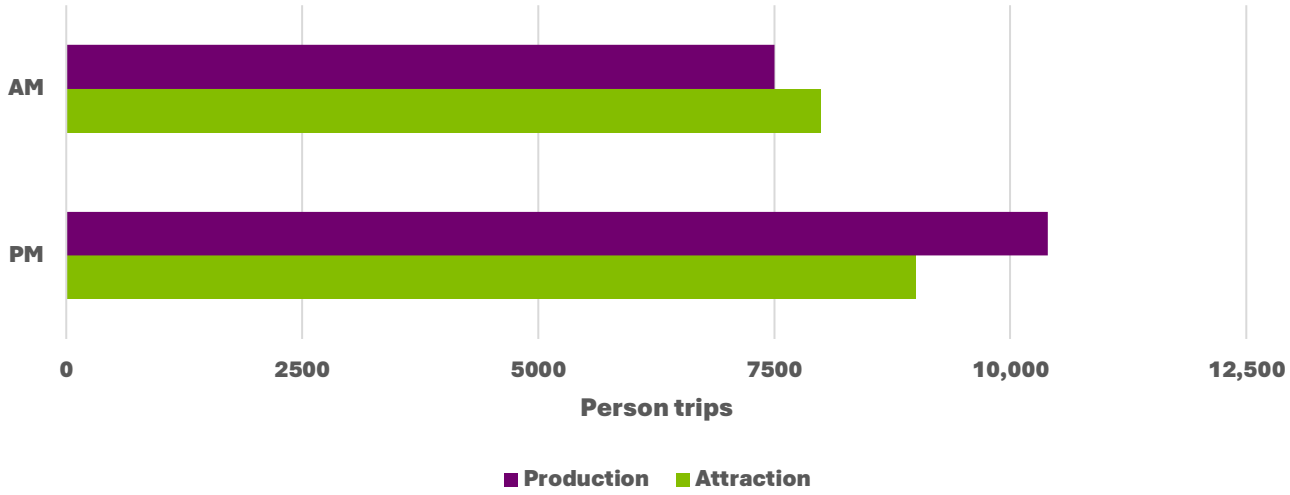


FIGURE 5.1 GLEN WAVERLEY TRIP PRODUCTION AND ATTRACTION (AM AND PM PEAK HOUR 2041) (SOURCE: VITM)

5.3 Trip distribution patterns

Trip distribution patterns have been provided based on the AM peak. The general trends for the AM peak are also representative of the PM peak.

The distribution of trips shows the majority of trips to and from Glen Waverley are located within the local area or surrounding suburbs (approximately 5 kilometres[26]) amidst a broad catchment that spans the inner and eastern Melbourne Metropolitan area (Figure 5.2).

Surrounding areas which generate and attract notable trips include Monash University, Vermont South, the area containing Highvale Secondary College, and the area containing Brentwood Secondary College. However, these represent a relatively small proportion of trips compared to internal trips within Glen Waverley. Outside Glen Waverley and surrounding areas, no individual area appears to generate or attract a substantial share of overall travel demand.

[26] *Qualitative assessment of Figure 5.2 shows the majority of areas with high levels of trips occur within approximately 5 km radius of Glen Waverley).*

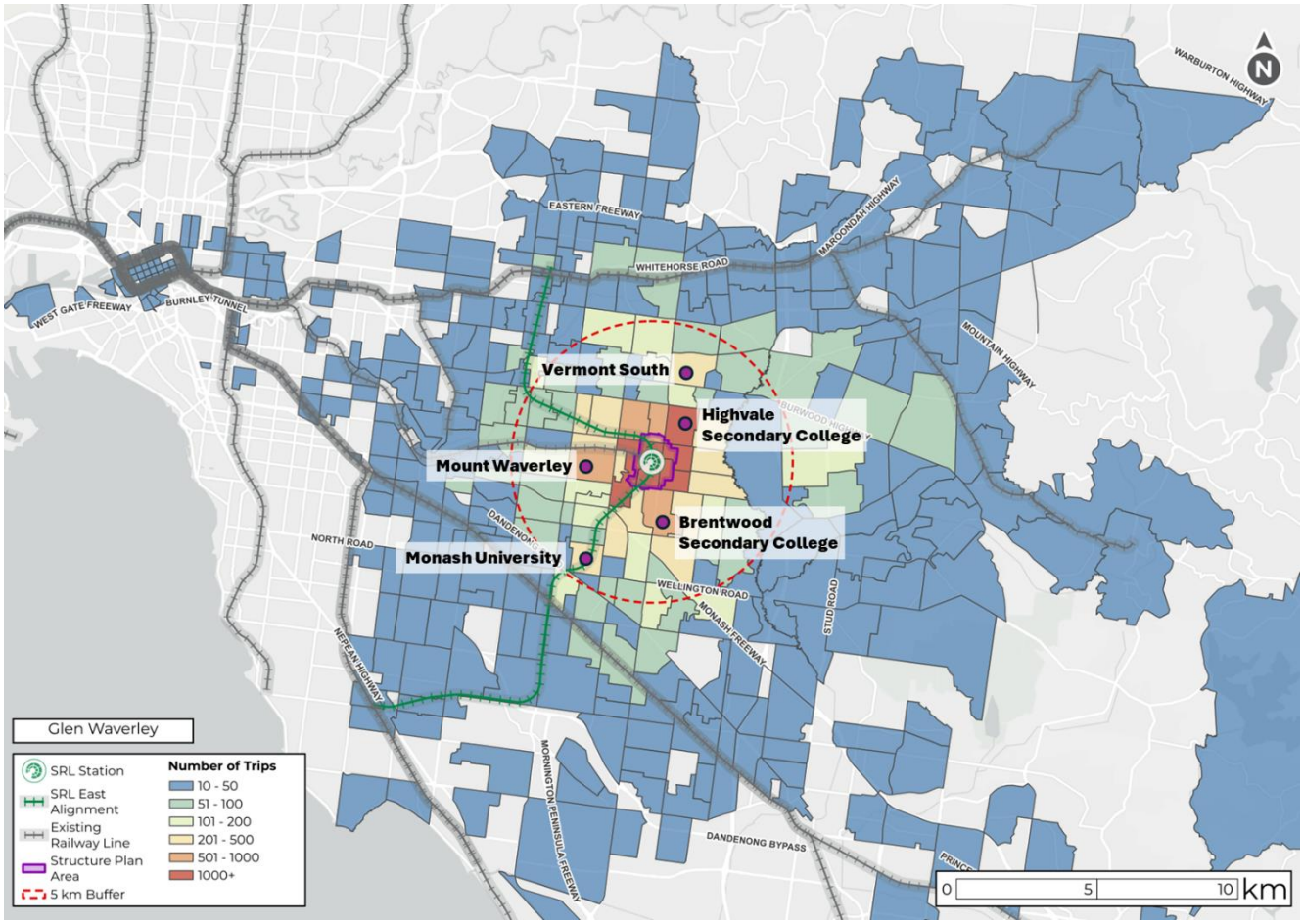


FIGURE 5.2 TRIP DISTRIBUTION – ORIGIN AND DESTINATION OF TRIPS TO AND FROM GLEN WAVERLEY (AM PEAK 2041)

Based on the data in Figure 5.2, a summary of key areas and corridors (Figure 5.3) shows that approximately 60 per cent of trips to and from Glen Waverley are from within Glen Waverley itself and surrounding suburbs. Trips outside Glen Waverley and surrounding suburbs which potentially could be undertaken by a single seat trip on the Glen Waverley and SRL East rail corridors account for a further 10 per cent of trips.[27] The remaining 30 per cent of trips are from elsewhere across Metropolitan Melbourne. The assessment focuses on the 70 per cent of trips in the Structure Plan Area, surrounding suburbs, or along rail corridors as having potential to use public and active transport.

[27] *Based on trips which are potentially within an 800 m walk of a train station. The Glen Waverley Line includes over 15 stations which offer a single seat trip, while SRL East includes six stations.*

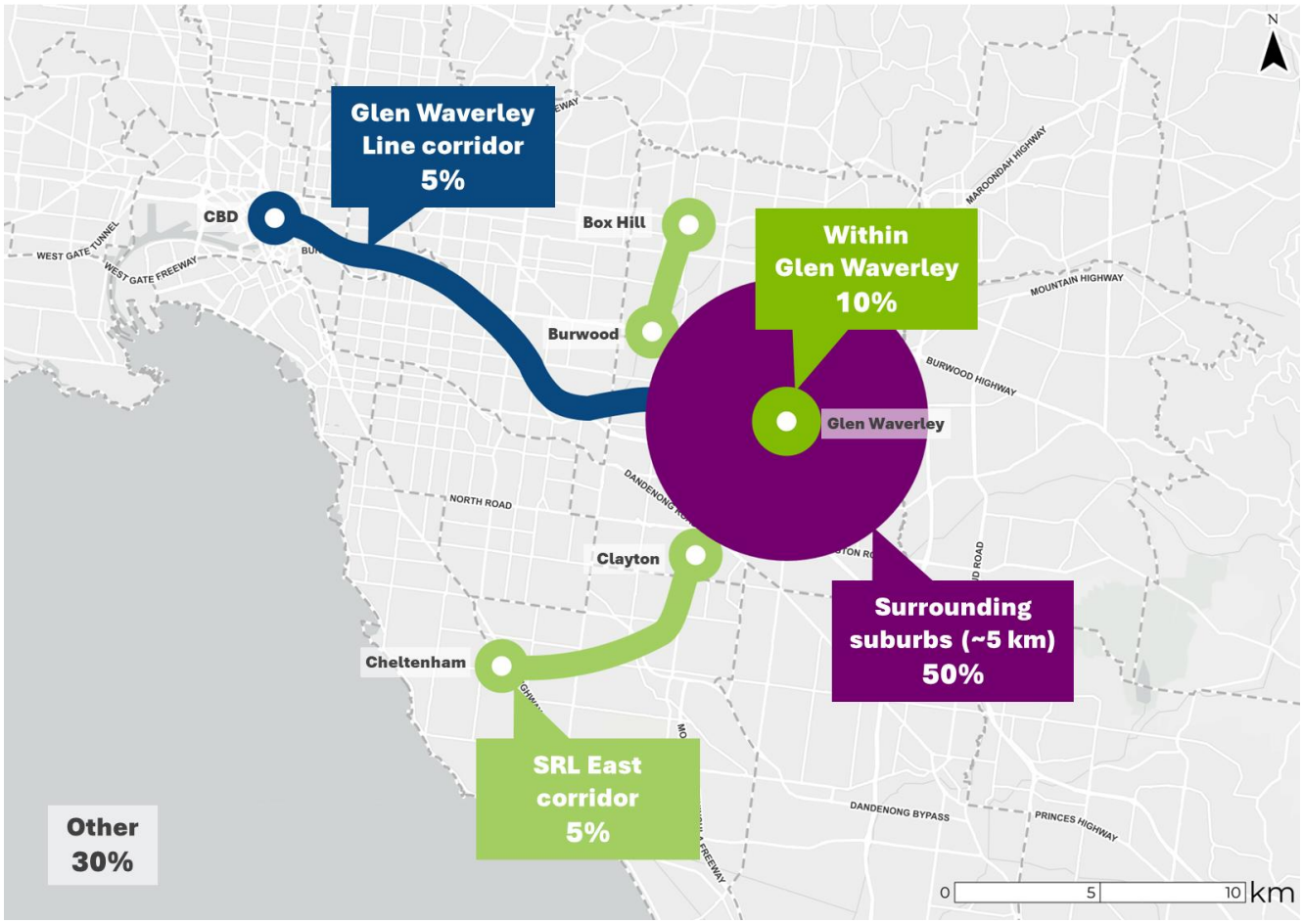


FIGURE 5.3 TRIP DISTRIBUTION – KEY AREAS AND CORRIDORS FOR TRIPS TO AND FROM GLEN WAVERLEY (AM PEAK 2041)[28]

The ability to switch trips to sustainable modes will depend on improvements made to those modes, in addition to the shift achieved through increased land use density and road network congestion. For example, for public transport to be used for a wider variety of trips, such as weekend shopping trips, the frequency of services would need to be made sufficiently attractive. For cycling to be a viable option for carrying cargo, bicycle lanes and parking would need to be designed to support larger bicycles. The other 30 per cent of trips may benefit from the recommendations of this report, but have not been assumed given they are likely more reliant on broader public transport changes that are beyond the scope of the SRL East PSP project

Assessment of the Baseline Scenario mode share by distance (Figure 5.4) shows the opportunity to increase sustainable transport mode share through the shift of short distance private vehicle trips.

28 For the purpose of understanding strategic trips all percentages have been rounded to the nearest 5 per cent. Where overlap occurs between the 5 km area and rail corridors, trips have been allocated to the 5 km area. Trips along the rail corridors do not account for trips interchanging from other lines (i.e. only direct (single seat) trips have been included).

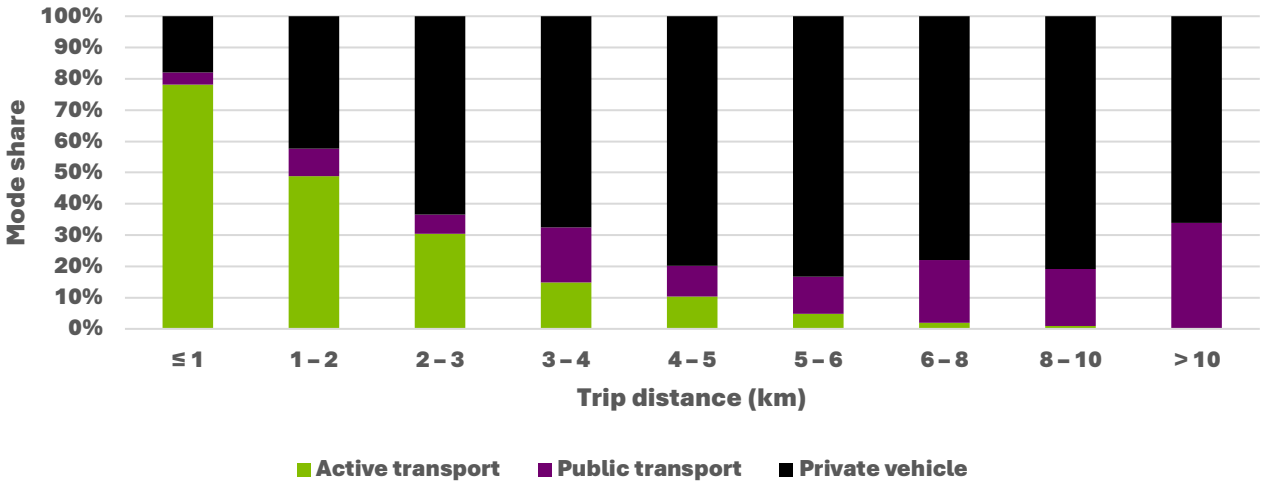


FIGURE 5.4 MODE SHARE BY DISTANCE TO GLEN WAVERLEY (BASELINE AM PEAK 2041)

In particular, for trips of 1 to 2 km in distance, over 40 per cent are forecast to be undertaken by private vehicle, which could readily be undertaken by active or public transport to the Structure Plan Area. There is also a significant proportion of trips to and from surrounding suburbs (less than 5 kilometres) that could switch to public and active transport.

5.4 Target mode share

Mode shares are a frequently used transport planning metric to provide a broad sense of how people choose to travel in an area. They are typically presented as the share of person trips by private car, public transport and active transport.

Mode shares provide an indication of the relative attractiveness of the transport modes available in the area. When an area with mixed land uses is served by convenient and frequent public transport and provided with safe, direct and comfortable walking and cycling infrastructure, private vehicle usage tends to be lower as people have the choice to travel in other ways.

Setting a mode share target is useful as it:

- Communicates the future vision for the way that people travel, including the level of change expected from today, and compared to the Baseline Scenario and other areas
- Informs the transport recommendations to achieve this level of change
- Can be measured and monitored through existing processes, such as the ABS census
- Suggests how well the transport system meets the travel needs of the community.

Setting a target for increased sustainable transport mode share in Glen Waverley reflects the future higher-density, mixed use, transit-oriented development close to high-quality public transport services. In turn, this means there is greater opportunity for active and public transport compared to suburbs with more limited transport alternatives. In addition, mode share targets also consider that private vehicle trips will increase in volume over the life of the Structure Plan. Targeting increased active and public transport mode share for trips to, from, or within Glen Waverley will help maintain strategic road corridors for broader traffic functions across Melbourne.

The trip distribution patterns and trip lengths (Section 5.3) suggest there is potential to achieve a greater mode share shift to sustainable modes in Glen Waverley than was estimated in the Baseline Scenario. This is possible due to the shifting of short distance trips to more sustainable modes which is supported by the proposed mix of land uses.

A comparison of the land use and transport characteristics of the six precincts has been undertaken to estimate an appropriate modal split target for each precinct. Glen Waverley has similar characteristics to both Clayton and Cheltenham having an existing railway station and adjacent bus interchange near existing activity centres with a similar walk score for all three precincts. While Box Hill has the highest transit score and is served by bus, rail and tram services centred around an activity centre that has undergone the largest scale of development uplift in the last 20 years. In contrast, both Burwood and Monash have the lowest walk scores with no access to existing railway stations and have little recent land use change.

Based on the above groupings the following targets for have been set to increase sustainable transport compared to the baseline scenario:

- Clayton, Cheltenham, and Glen Waverley have been set the highest increase of 25 per cent in sustainable transport mode share because they have a more immediate potential for change. Of this 25%, 75% of those changing modes is allocated to active transport and 25% to public transport

- Box Hill has been set the lowest increase of 15% in sustainable transport as some mode shift has already occurred with development in recent years. Of this 15%, 75% of those changing modes is allocated to active transport and 25% to public transport

- Burwood and Monash have been set an increase of 20% in sustainable transport reflecting the significant potential for change which is expected to occur closer to the opening of the SRL Station. Of this 20%, 75% of those changing modes is allocated to active transport and 25% to public transport.

The primary focus of the sustainable transport mode share increase is the growth in active transport trips supported by the future land uses and short distance trips.

Figure 5.5 shows the future Baseline Scenario (including SRL East) and target mode shares for a typical peak hour[29] for Glen Waverley. The target shows a 25 per cent increase in sustainable transport made up of a 33 per cent increase in active transport and a 13 per cent increase in public transport. This illustrates the ability of Glen Waverley to manage the growing number of transport trips through more people choosing to walk, cycle and catch public transport as Glen Waverley develops.

[29] *Typical peak hour represents the average of the AM peak hour and PM peak hour.*

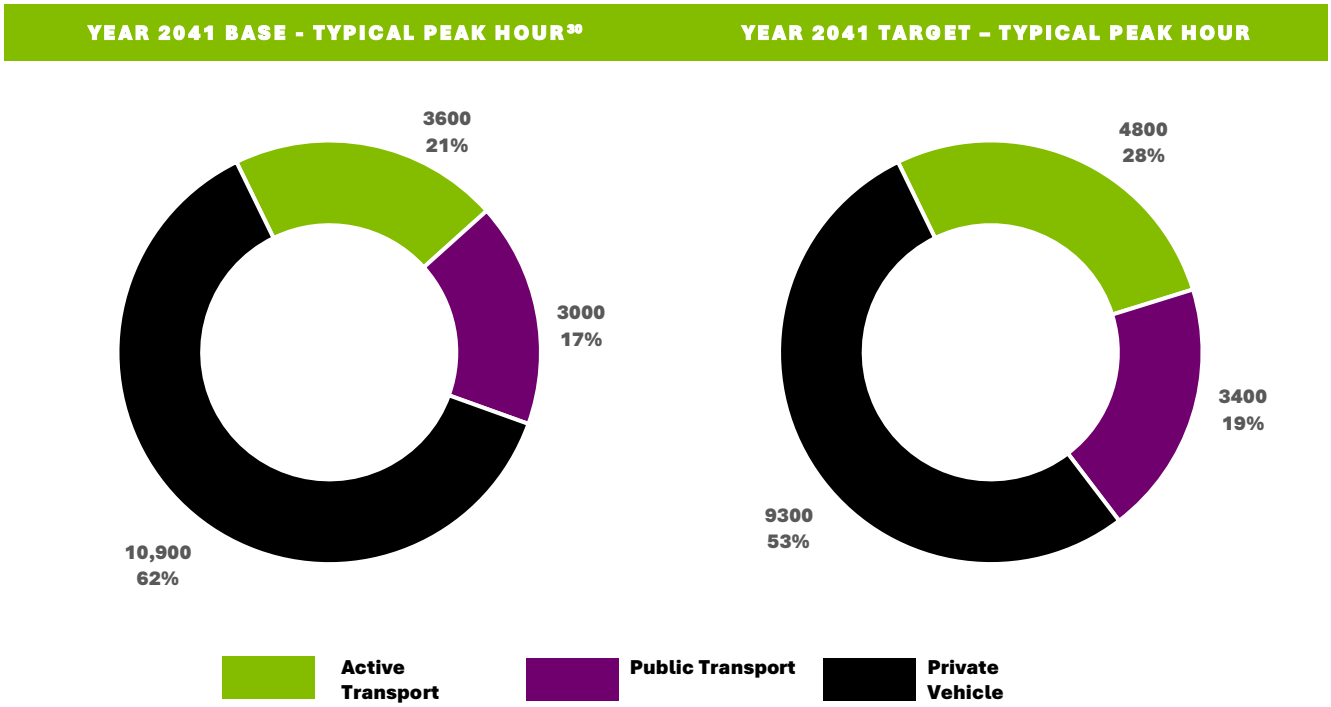


FIGURE 5.5 GLEN WAVERLEY MODE SHARES

5.5 Mode share target rationale

To assess the rationale of the mode share target for Glen Waverley, the target has been compared to comparator suburbs in Melbourne.

Assessment of ABS 2016 census data[31] for Greater Melbourne highlights the trend that areas with high population densities (Figure 5.6) typically have lower private vehicle mode shares, driven by factors including the spatial proximity of residential, employment and leisure land uses, as well as assumed or inferred higher degrees of access to public transport services that enable a shift to sustainable travel choices.

Plotting the 2041 Baseline Scenario and target mode share for Glen Waverley shows the baseline and target private vehicle mode shares are within the upper and lower bounds of the general trends observed for existing areas with similar residential densities (Figure 5.6).

The mode shares for Glen Waverley are shown in Figure 5.6:

- Baseline – upper end of the green bar
- Target – lower end of the green bar
- Purple area indicates the trendline plus the 95 per cent prediction interval.

[30] *Due to limitations in VITM actual active transport mode share may be higher than the baseline forecast due to mixed-used higher density land uses naturally favouring active transport and active transport initiatives from State Government and Local Councils which may occur from now until commencement of SRL East services.*

[31] *2016 ABS Census data considered appropriate for mode share analysis as it is pre-COVID and 2021 is pre-COVID 'normal'. 2021 ABS Census data considered appropriate for car ownership data as on balance 2016 and 2021 data is similar.*

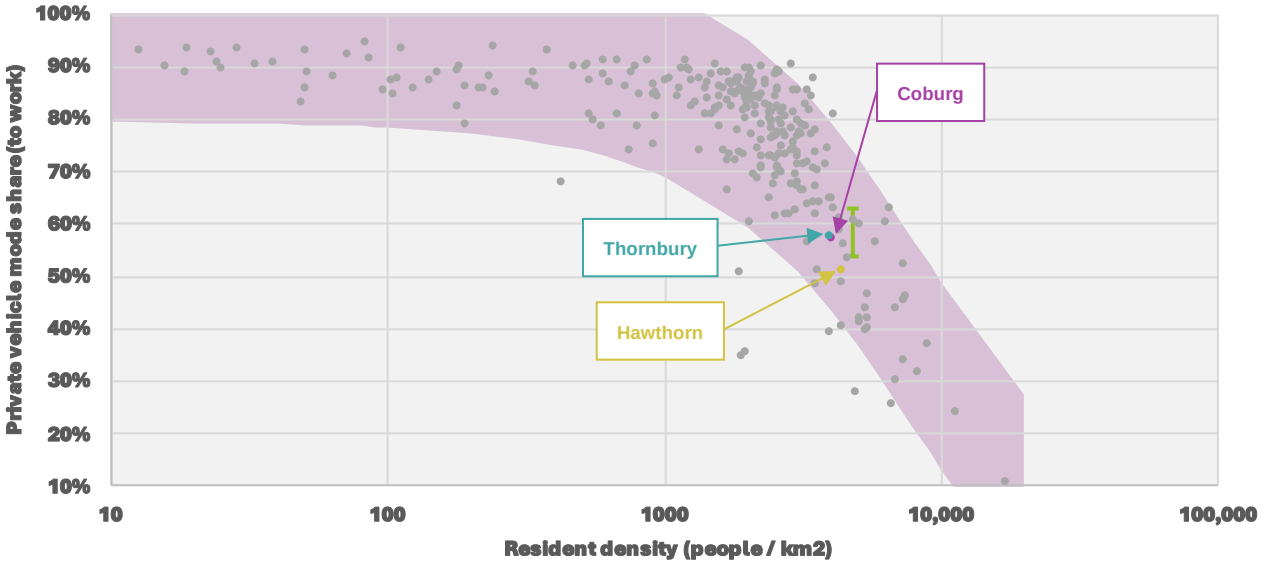


FIGURE 5.6 DISTRIBUTION OF MELBOURNE'S POPULATION DENSITY AND PRIVATE VEHICLE MODE SHARE BY SA2 LEVEL WITH GLEN WAVERLEY 2041 MODE SHARE RANGES (SOURCE: ABS CENSUS 2016, JOURNEY TO WORK, PLACE OF USUAL RESIDENCE)

In addition, the future mode shares for Glen Waverley have been reviewed against the existing mode shares for various Melbourne suburbs to understand how they compare against current travel patterns. Suburbs were selected based on their areas were selected based on their similar resident density to the Glen Waverley of the future identifying potential target mode share. As shown in Figure 5.7, the private vehicle mode share target for Glen Waverley resembles existing mode shares exhibited for suburbs in Melbourne. These suburbs reflect an appropriate target given the mix of higher density land uses, range of public transport services available, and quality of the active transport network. It must be noted that the Glen Waverley mode target is for 2041 compared to the other suburbs mode shares surveyed in 2016. It is expected that the comparable suburbs' mode shares will improve by increasing the sustainable transport mode share and therefore decreasing the private car travel in the future.

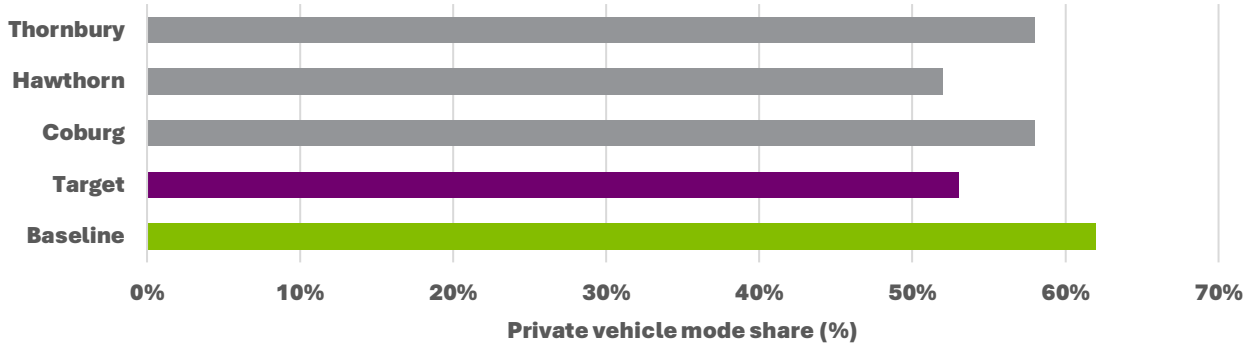


FIGURE 5.7 HIGH-LEVEL BENCHMARKING OF 2041 PRIVATE VEHICLE MODE SHARE TARGETS FOR GLEN WAVERLEY (EXISTING SUBURBS SOURCE: ABS YEAR 2016 JOURNEY TO WORK, PLACE OF USUAL RESIDENCE)

6 Infrastructure recommendations

This section provides a summary of the modal ambitions, including the modal principles developed for SRL East Structure Plan Areas, and the corresponding strategic and local modal networks for the Glen Waverley Planning Area.

It provides the transport infrastructure recommendations for the Glen Waverley Structure Plan Area for each mode, and details how they address the identified challenges in Section 2, and how they adhere to the modal principles.

6.1 Modal principles and movement networks

6.1.1 OVERVIEW

The modal principles and transport networks that provide the strategic justification to support the future of the Structure Plan Area through the identified infrastructure recommendations are outlined in this section.

GUIDING PRINCIPLES

A set of guiding principles were established for each mode to inform the development of the recommendations which will influence the movement experience throughout Glen Waverley. The principles were consolidated from a broader set of network-wide transport principles, which were developed using the DTP-adopted Movement & Place (M&P) classifications. These classifications, which have been specifically applied in the context of the SRL East structure planning, are designed to encourage the use of active and public transport while balancing the competing demands of movement and access in a rapidly evolving urban landscape.

These guiding principles align with the overarching transport ambition and goals set for the Glen Waverley Structure Plan Area. They provided a framework throughout the identification of the proposed infrastructure recommendations, ensuring the planned developments contribute to a more connected and accessible Glen Waverley. By adhering to these principles, the recommendations will help achieve the desired outcomes for mobility, while supporting broader urban planning objectives for Glen Waverley. The following sections detail how these principles are applied to achieve an integrated and forward-thinking transport network.

The guiding principles for the Glen Waverley Structure Plan Area for each mode are provided in the following sections.

MOVEMENT NETWORKS

The DTP-adopted M&P classifications for SRL East structure planning also informed the identification of aspirational future strategic and local corridors for each mode.

Strategic corridors connect to destinations with metropolitan and regional significance such as employment and designated activity centres. Strategic modal corridors will provide high-quality connections that prioritise the movement of a particular mode, while still considering the function of other modes along that corridor.

More local links will provide an attractive corridor for moving within Glen Waverley and to the precinct core and other local destinations within and around Glen Waverley.

The strategic and local walking, cycling, public transport and general traffic / freight corridors across Glen Waverley generally align with the M&P classifications in Table 6.1.

TABLE 6.1 STRATEGIC AND LOCAL CORRIDORS AND ASSOCIATED M&P CLASSIFICATIONS

MODE	STRATEGIC	LOCAL
Walking	W1-W2	W3*
Cycling	C1- C2	C3*
Public transport	B1 – B2	B3
Traffic routes	GT1 – GT3 & F1 – F3	GT4*
* Referred to as municipal links or routes in the DTP Movement & Place Technical Appendix (September 2020)		

The strategic and local corridors within the Glen Waverley Planning Area for each mode are provided in the following sections.

6.1.2 WALKING

Provide for a vibrant community where walking is the preferred way to get to wherever you need to go locally.

FIGURE 6.1 WALKING USER TYPES AND INFRASTRUCTURE

References to walking in this report include moving as a pedestrian unaided, or using any kind of wheeled mobility aid, such as wheelchairs, mobility scooters, walking frames, prams or buggies as shown in Figure 6.1.

Sections of the Glen Waverley Structure Plan Area are relatively well serviced by pedestrian infrastructure and amenity compared to some parts of Greater Melbourne. Residential streets in the Glen Waverley Structure Plan Area provide access to key destinations. Most streets in Glen Waverley have footpaths on both sides of the road and provide access between the residential areas and key destinations. There are also some shared zones and shared use paths in the Structure Plan Area that support comfortable and safe walking journeys. However, the significant supply of car parking leads to safety concerns for pedestrians sharing space with vehicles.

Delivering a desirable pedestrian environment is critical to supporting the sustainability, functionality and liveability of the Structure Plan Area, and offers significant health benefits.

Infrastructure recommendations for corridors that improve priority for walking are provided in Section 6.2.

WALKING PRINCIPLES

As outlined in Section 6.1.1, a set of guiding principles were established to inform the development of the recommendations that will influence the walking experience in Glen Waverley. These walking principles are provided in Figure 6.2. These walking principles align with the transport ambition and goals and provided a framework throughout the development of the infrastructure recommendations to ensure walking formed part of the integrated transport network.

FIGURE 6.2 WALKING PRINCIPLES

WALKING CORRIDORS

Strategic walking corridors connecting destinations with metropolitan and regional significance and local walking corridors moving people around Glen Waverley as defined in Section 6.1.1 for the Glen Waverley Planning Area are shown in Figure 6.3.

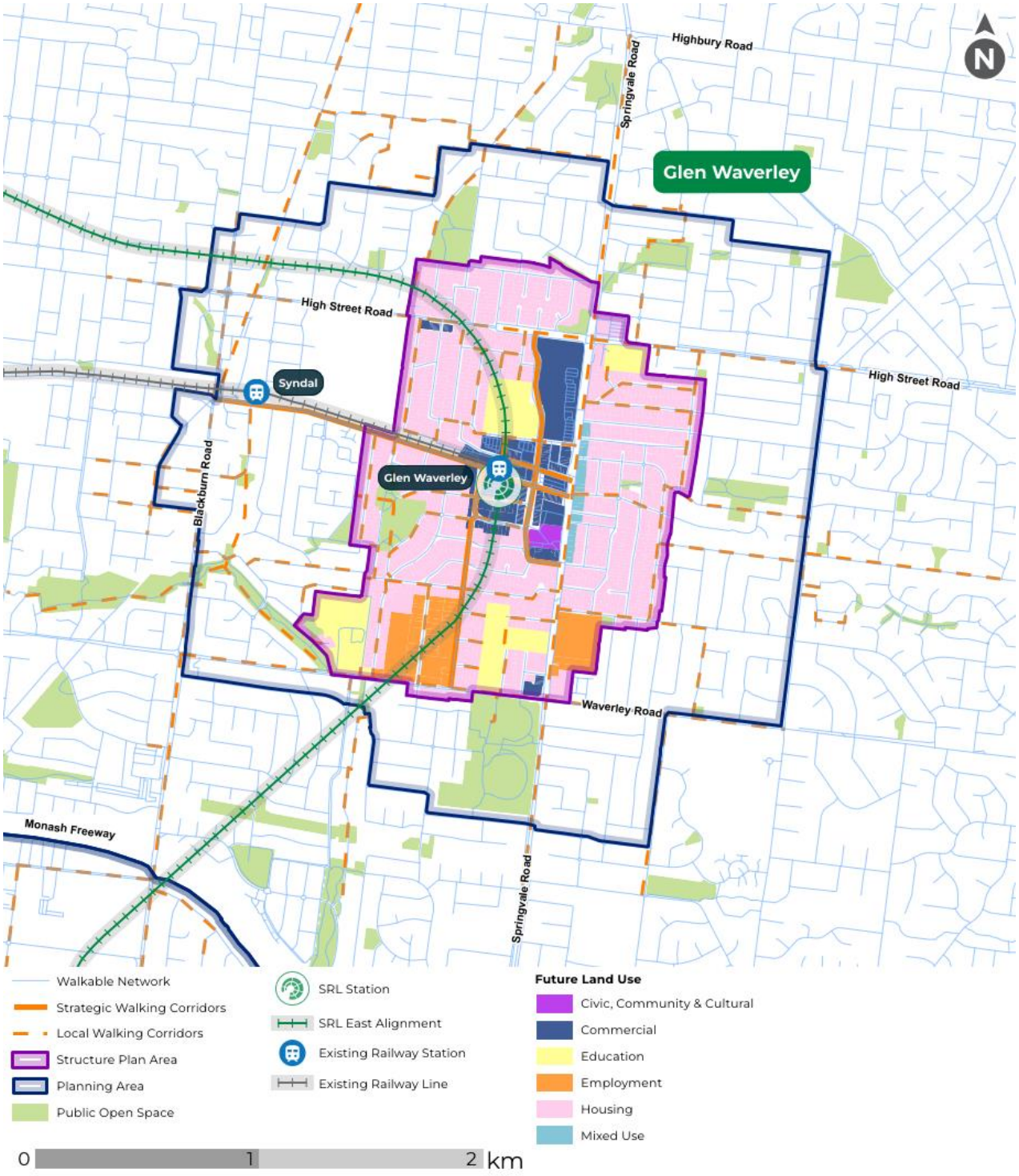


FIGURE 6.3 WALKING CORRIDORS IN THE GLEN WAVERLEY PLANNING AREA

6.1.3 CYCLING AND MICROMOBILITY

The SRL East Structure Plan Areas provide world class active transport options. Bikes and other micromobility devices are some of the most attractive options for people to access local shops, schools, workplaces, and public transport facilities for longer journeys.

FIGURE 6.4 CYCLING AND MICROMOBILITY DEVICES

References to cycling in this report include personal mobility devices such as bicycles, scooters and cargo bikes, including electric powered devices.

Glen Waverley has limited designated cycle routes. An off-road shared path parallel to Coleman Parade on the south side of the rail line provides for east-west movements, despite some gaps on the path. Scotchmans Creek Trail is a high-quality cycling link, passing through the south of the Planning Area.

Recommendations for cycling and micromobility aim to support the use of mobility devices of all kinds, allowing everyone to navigate the community safely and sustainably, with the associated health benefits of active transport.

Cycling in the Structure Plan Area will be more available and safer for people of any gender, age or ability with well-planned and designed on and off-road infrastructure which may separate cyclists from other traffic, or support cycling on streets with reduced speeds and lower traffic volumes. Cycling will support an alternative to driving for trips that may be too long for walking and facilitating end-to-end cycling trips via low-stress routes for key movement corridors.

Micromobility devices such as e-scooters and e-bikes can also be offered as a shared service where anyone can unlock and use a device from a public fleet for a fee. Shared micromobility offers the flexibility and convenience of e-bikes and e-scooters without the need to pay upfront costs or securely store a private device at home or at a destination.

The shared e-scooter trials in the Melbourne, Yarra and Port Phillip municipalities (launched in 2022) have generated significant benefits for the community. The average number of trips per day per e-scooter is 4.3 to 5.5[32] across each quarter of 2023, which is among the highest e-scooter use in the world. For the same 2023 period the average length of e-scooter trips in the trial area ranged from 1.66 to 1.78 kilometres, showing the potential of the mode to assist with modal shift in the 1 to 2-kilometre trip distance bracket identified in Figure 5.4.[32] User surveys have found that around 28 per cent of e-scooter trips in the trial areas replaced a vehicle trip,[33] helping to reduce congestion and contribute to car light living. Despite the City of Melbourne's decision to end the trial in its municipality, other councils are considering working with the hire scheme operators in the future and private scooter uptake continues to increase in Melbourne. In October 2024, the Victorian

[32] https://public.ridereport.com/regions/australia *(Data range captured for each quarter of 2023)*

[33] *Williams, G. (2024, April 4). Making E-scooters Safer [Press release]. https://www.premier.vic.gov.au/sites/default/files/2024-04/240404-Making-E-Scooters-Safer.pdf*

Government announced that share hire e-scooters will be permanently legalised across Victoria, subject to agreement with councils.[34]

Infrastructure recommendations to improve cycling and micromobility transport in the Structure Plan Area are provided in Section 6.2.

CYCLING PRINCIPLES

As outlined in Section 6.1.1, a set of guiding principles were established to inform the development of the recommendations that will influence the cycling experience in Glen Waverley. These cycling principles are provided in Figure 6.5. These cycling principles align with the transport ambition and goals and provided a framework throughout the development of the infrastructure recommendations to ensure walking formed part of the integrated transport network.

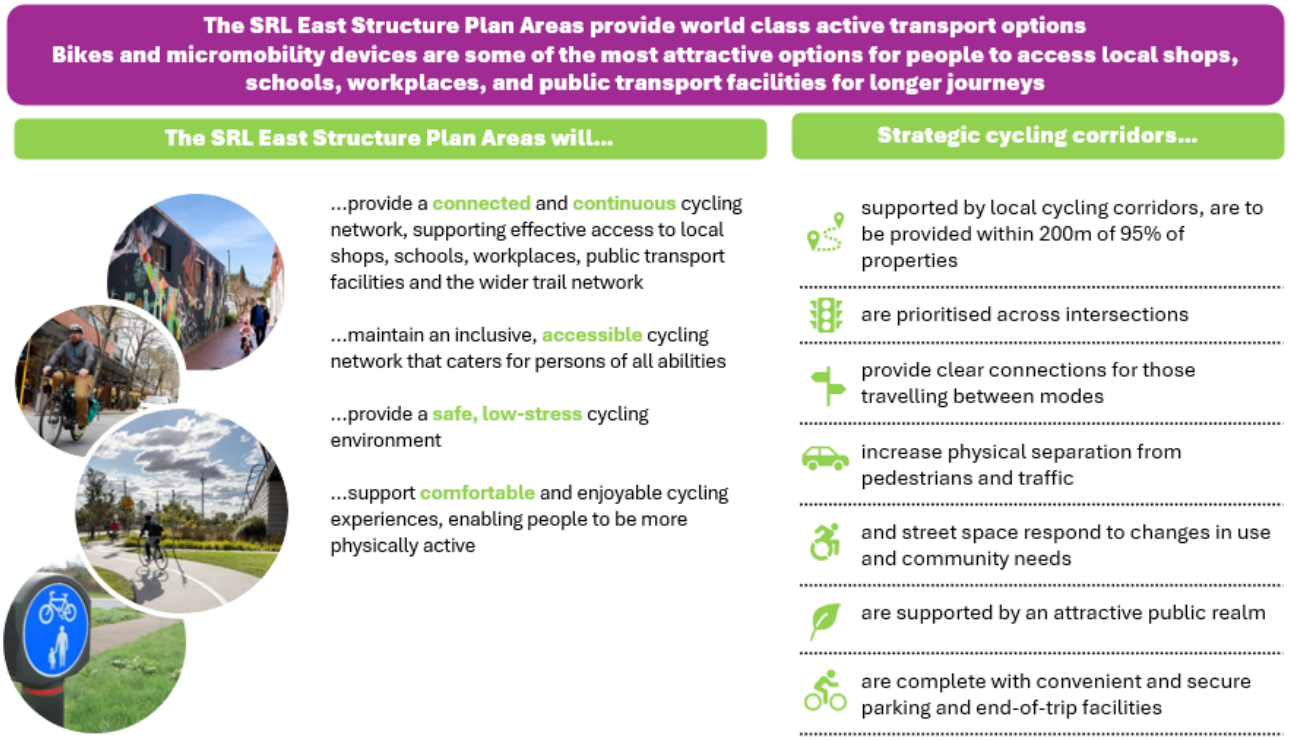


FIGURE 6.5 CYCLING PRINCIPLES

CYCLING CORRIDORS

Strategic cycling corridors connecting destinations with metropolitan and regional significance and local cycling corridors moving people around Glen Waverley as defined in Section 6.1.1 for the Glen Waverley Planning Area are shown in Figure 6.6.

[34] *Victorian Government (2024). Permanent E-Scooter Rules in Place Across the State. https://www.premier.vic.gov.au/permanent-e-scooter-rules-place-across-state*

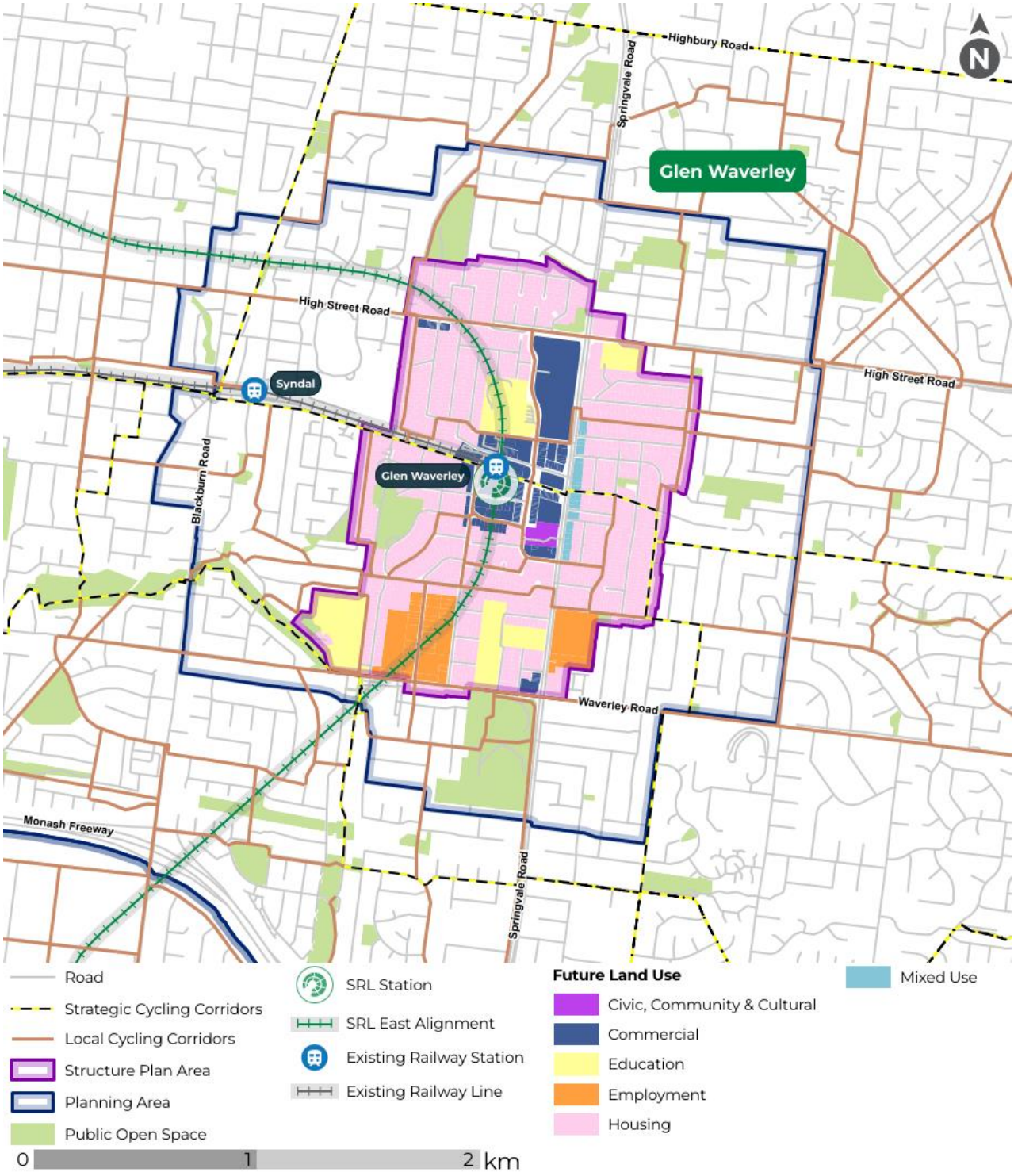


FIGURE 6.6 CYCLING CORRIDORS IN THE GLEN WAVERLEY PLANNING AREA

6.1.4 PUBLIC TRANSPORT

Anchored around the new SRL interchanges, public transport is the most attractive option for people to travel distances that are too long to walk, cycle or use other micromobility devices.

FIGURE 6.7 PUBLIC TRANSPORT MODES AT GLEN WAVERLEY

Glen Waverley is currently serviced by the Glen Waverley Line, which provides direct access to the Melbourne CBD. Buses support public transport connectivity across the Planning Area and from outer suburbs in the eastern metropolitan region. The routes primarily follow the grid of arterial roads, with the addition of several more circuitous neighbourhood routes. The majority of routes terminate at the existing Glen Waverley bus interchange located on Railway Parade North, adjacent to the existing Glen Waverley Station. The Glen Waverley Structure Plan Area is well serviced by nearby public transport compared to much of greater Melbourne.

Public transport will be a comfortable and reliable option for travelling when it is not within a comfortable walking distance, is too far to cycle or use micromobility devices, and is an attractive alternative to private vehicle use. In addition to the well-known environmental benefits, public transport is also a good way to increase health benefits through incidental exercise compared to private vehicles, by walking or cycling to stations and stops.

The precinct core will play a vital role for connecting people to all transport services and modes, including the SRL station. The network of quality public transport corridors will connect across the greater Melbourne metropolitan area.

Infrastructure recommendations to improve public transport corridors are provided in Section 6.2.

PUBLIC TRANSPORT PRINCIPLES

As outlined in Section 6.1.1, a set of guiding principles were established to inform the development of the recommendations that will influence the public transport experience in Glen Waverley. These public transport principles are provided in Figure 6.8. These public transport principles align with the transport ambition and goals and provided a framework throughout the development of the infrastructure recommendations to ensure walking formed part of the integrated transport network.

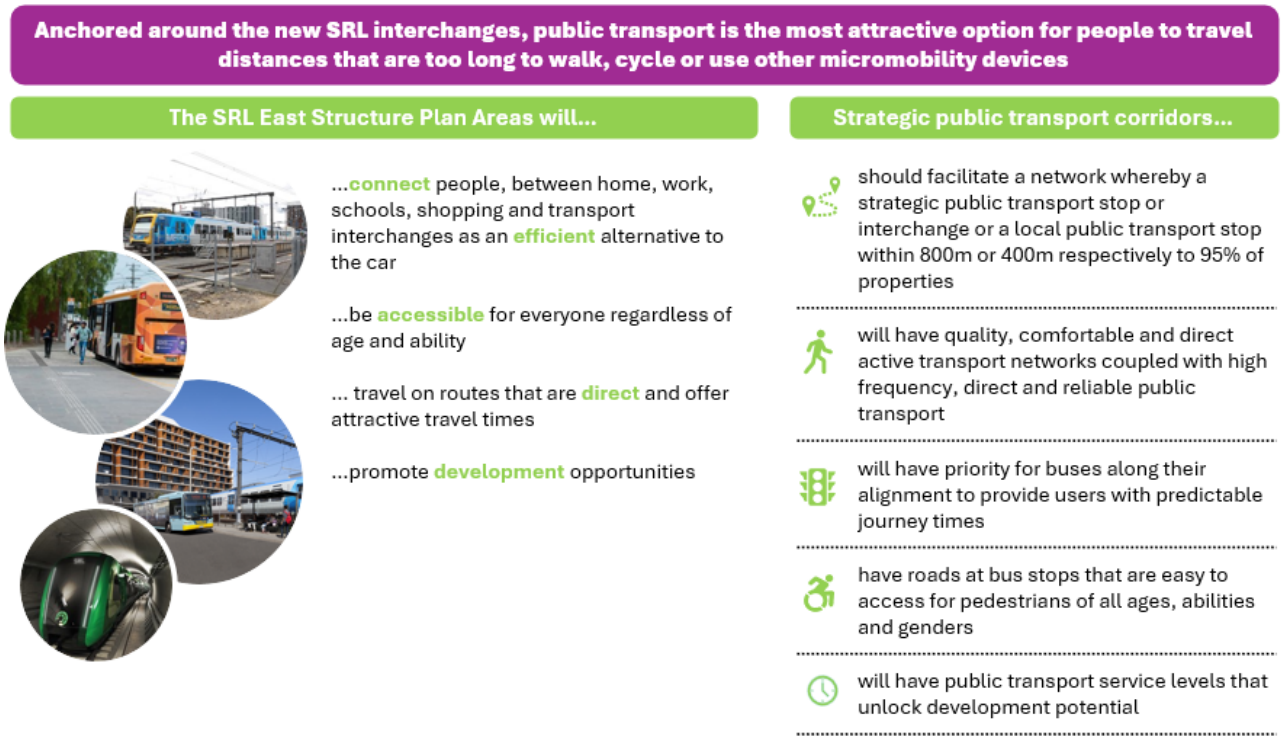


FIGURE 6.8 PUBLIC TRANSPORT PRINCIPLES

PUBLIC TRANSPORT CORRIDORS

Strategic public transport corridors connecting destinations with metropolitan and regional significance and local public transport corridors moving people around Glen Waverley are defined in Section 6.1.1 for the Glen Waverley Planning Area. SRLA and DTP have worked together to identify these strategic and local bus corridors taking into consideration existing bus routes and the introduction of the new SRL East Stations. While it is too early to detail specific route changes with the SRL stations expected to be delivered by 2035.

Figure 6.9 shows the most likely strategic and local corridors identified through this collaboration with DTP.

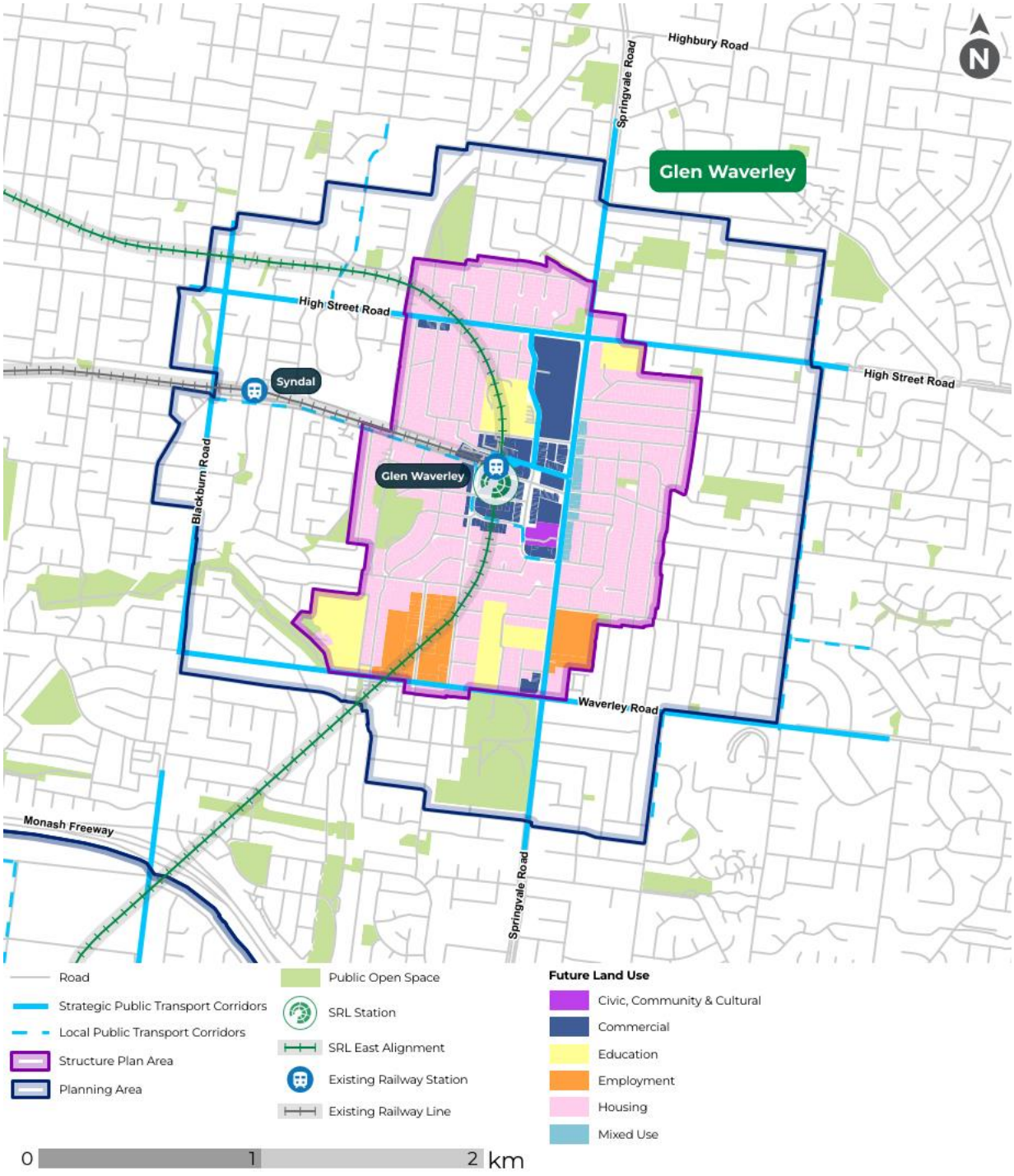


FIGURE 6.9 PUBLIC TRANSPORT CORRIDORS IN THE GLEN WAVERLEY PLANNING AREA

6.1.5 GENERAL TRAFFIC AND FREIGHT

A vision of healthy, safe and sustainable communities will be delivered by well-planned strategic access and local neighbourhoods, anchored by the opportunity for people to live car free or car light.

FIGURE 6.10 EXAMPLES OF GENERAL TRAFFIC AND FREIGHT VEHICLES

Glen Waverley benefits from access to strategic road routes including Springvale Road High Street Road, Blackburn Road and Waverley Road. Protecting arterial road access while increasing priority for other modes particularly in the precinct core will support liveability in Glen Waverley for residents, workers and visitors. The option of car light living will be achievable in the Structure Plan Area as access to other modes increases and denser mixed land use develops and help to manage congestion on existing road network.

The diversity of the existing Central Glen Waverley Neighbourhood, with consolidated retail (The Glen Shopping Centre with local and regional significance) and high activity generating streets featuring hospitality, entertainment and community hubs, creates relatively complex, freight, servicing, and emergency access needs in the Structure Plan Area. There is the opportunity to 'rethink' how these essential services will be managed for existing land uses and new developments.

Freight (including smaller parcels), service and emergency vehicles will need to be appropriately accommodated to support the future growth of Glen Waverley. This includes maintaining important freight and emergency access to major land uses such as The Glen Shopping Centre and Holmesglen TAFE.

Introducing new freight management practices for the Structure Plan Area through 'last mile' policies will impact how new freight tasks are undertaken and influence existing freight tasks for the betterment of businesses and the community.

Providing mobility hubs and implementing Last Mile Freight Plans (discussed in Section 7.2 and Section 7.3) and built form controls will provide measures for managing freight in the Structure Plan Area. Freight management policies prepared in consultation with the City of Monash and partners will introduce new freight management practices and assets to Glen Waverley, such as parcel lockers, cargo bikes and small electric vehicle delivery vans to reduce the freight burden on the network and environment.

Infrastructure recommendations to improve freight management in Glen Waverley are provided in Section 6.2.

GENERAL TRAFFIC AND FREIGHT PRINCIPLES

As outlined in Section 6.1.1, a set of guiding principles were established to inform the development of the recommendations that will influence the general traffic and freight experience in Glen Waverley. These principles are provided in Figure 6.11. These general traffic and freight principles align with the transport ambition and goals and provided a framework throughout the development of the infrastructure recommendations to ensure walking formed part of the integrated transport network.

FIGURE 6.11 GENERAL TRAFFIC AND FREIGHT PRINCIPLES

STRATEGIC AND LOCAL TRAFFIC CORRIDORS

Strategic general traffic and freight corridors connecting destinations with metropolitan and regional significance and local general traffic corridors moving people around Glen Waverley as defined in Section 6.1.1 for the Glen Waverley Planning Area are shown in Figure 6.12.

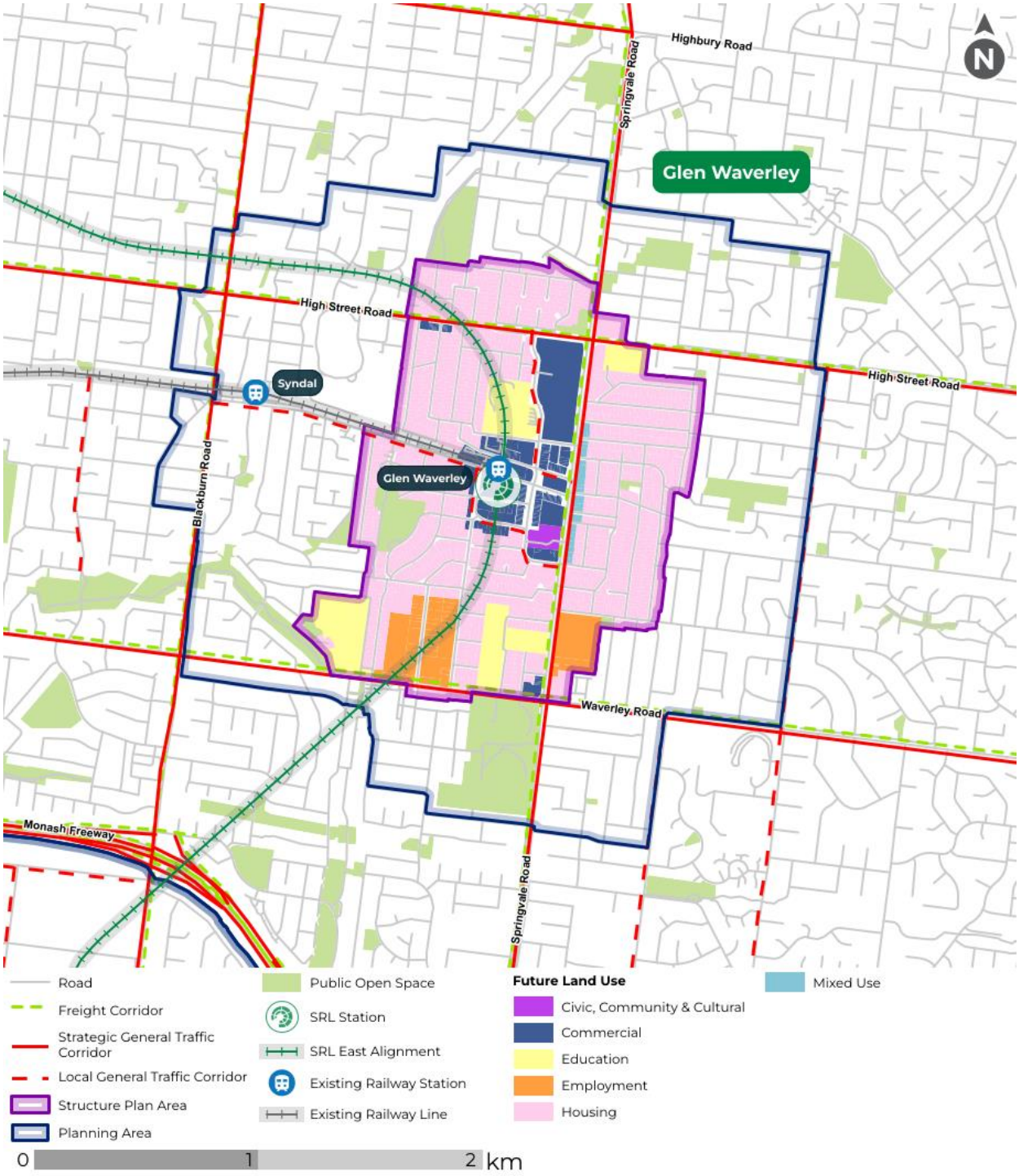


FIGURE 6.12 STRATEGIC TRAFFIC AND LOCAL ACCESS CORRIDORS IN THE GLEN WAVERLEY PLANNING AREA

6.2 Infrastructure recommendations

6.2.1 OVERVIEW

Infrastructure recommendations have been developed to inform the Structure Plan and to help achieve the Glen Waverley transport ambition. The sequencing of implementing the recommendations is based on the phases outlined in Figure 6.13 to reflect the anticipated development of the Glen Waverley Structure Plan Area.

More details on the timeframes of the delivery of the recommendations are provided in the Glen Waverley Structure Plan.

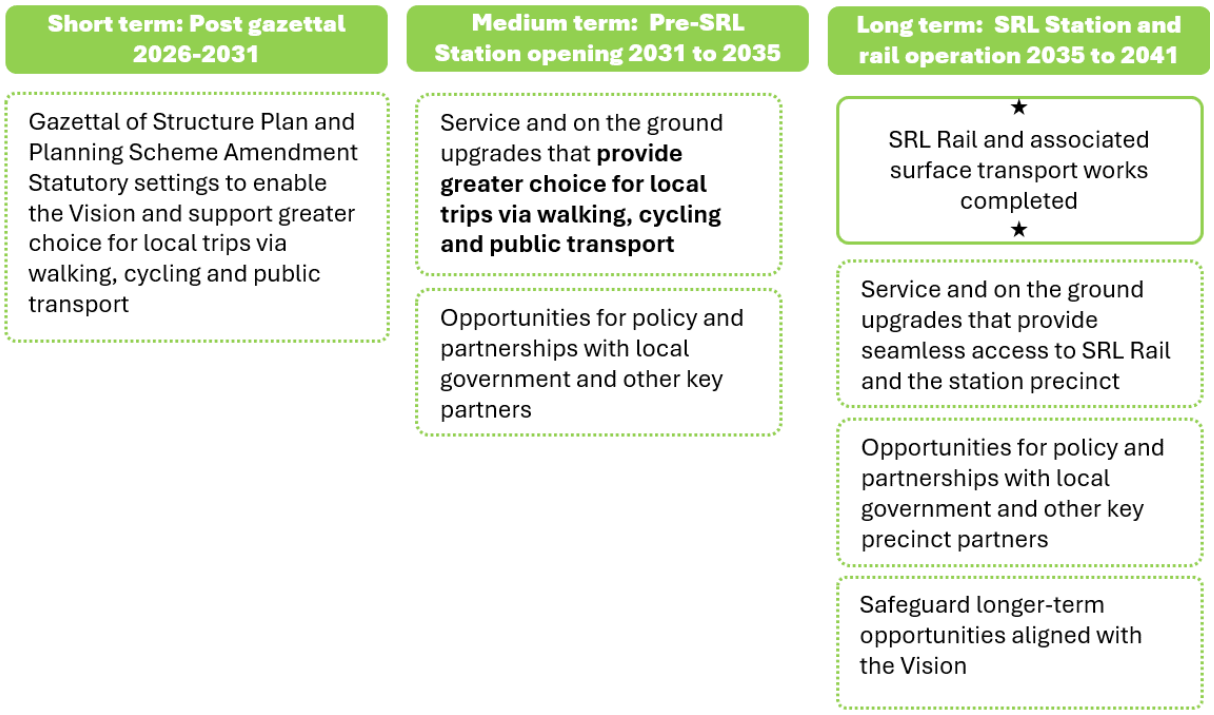


FIGURE 6.13 PHASES OF DEVELOPMENT AND TRANSPORT PLANNING

The infrastructure recommendations focus on upgrades to strategic and local movement corridors that provide the greatest opportunity to provide improvements to facilitate sustainable transport including walking, cycling, public transport and place-making, while maintaining the strategic function of general traffic and freight corridors. These recommendations can be broadly categorised into four groups with recommendation types, as summarised in Table 6.2.

TABLE 6.2 INFRASTRUCTURE RECOMMENDATION TYPES

RECOMMENDATION GROUP	INFRASTRUCTURE RECOMMENDATION TYPES
Setting the priority network	• **New and Upgraded Strategic Corridors** that help achieve the Glen Waverley Vision with a particular focus on active and public transport upgrades • Upgraded local **Green Streets**, with a particular focus on general active transport upgrades and support for innovative modes.
Unlocking the priority network	• **New Key Links**, focusing on creating active transport permeability and connecting transport corridors • **Existing streets that require upgrades outside existing road reserves** • **New and upgraded crossings** of busy roads.
Hubs and interchanges integrated with the network	• Upgrades to **public transport interchanges** to enhance the services, facilities, and customer experience • New **bicycle hubs** to encourage active transport to the station.
Enabling the priority network	• Maintaining **strategic traffic and freight corridors** • Designating **low traffic neighbourhoods** • Managing **integrated parking** for all modes.

Figure 6.14 below identifies examples of potential treatments that could be considered when recommendations are progressed into project design and delivery by a delivery agency. Some treatments are particularly relevant to low traffic neighbourhoods (LTN).

FIGURE 6.14 EXAMPLES OF POTENTIAL TREATMENTS

The infrastructure recommendations for Glen Waverley have been developed to address the various modal challenges identified across the Structure Plan Area while adhering to the modal principles proposed in this report so the movement network continues to cater for the precinct demand as it evolves. While responding to some mode-specific challenges, the recommendations intend to facilitate an integrated approach to encouraging a mode shift towards public and active transport while maintaining capacity and efficiency for general traffic, particularly on the main roads through Glen Waverley.

The infrastructure recommendations for the Glen Waverley Structure Plan Area are provided in the following sections.

6.2.2 SETTING THE PRIORITY NETWORK

In setting the priority movement network, identifying specific Upgraded Strategic Corridors and Green Streets is important to providing a network of appropriate and integrated connections through and within Glen Waverley to support the transport ambition. The general nature of Upgraded Strategic Corridors and Green Streets are described in Table 6.3.

TABLE 6.3 UPGRADED STRATEGIC CORRIDORS AND GREEN STREET RECOMMENDATION DESCRIPTIONS (SOURCE: SRLA 2024)

RECOMMENDATION TYPE	RECOMMENDATION TYPE DESCRIPTION
Upgraded Strategic Corridors	Upgraded Strategic Corridors are street corridors that require improvements to achieve the transport goals. Changes could include an upgraded active transport corridor and streetscaping, or an upgraded public transport corridor with enhanced priority. Each Upgraded Strategic Corridor is described by an associated infrastructure recommendation that outlines the significant changes to the street cross-section and/or the adjacent land uses.
Green Streets	Green Streets are a collective network of street corridors that are proposed for upgraded pedestrian and cycling connectivity, improved access to important local destinations, and an enhanced tree canopy. The recommended upgrades to Green Streets are high-level, focussing on street typologies rather than unique cross-sections. As such, one infrastructure recommendation covers the upgraded network of Green Streets across Glen Waverley.

The identified recommendations for Glen Waverley intended to set the priority movement network are detailed in Table 6.4, with the identified corridors and streets in Glen Waverley shown in Figure 6.15.

TABLE 6.4 INFRASTRUCTURE RECOMMENDATIONS – SETTING THE PRIORITY NETWORK

REF	SRL EAST RAIL PROJECT APPROVED SCOPE	
1	**Deliver a high-quality station interchange** Deliver a new high quality, integrated station interchange that prioritises walking, bike and public transport connectivity. Link the SRL station entrance with Kingsway, the bus interchange and the exiting Glen Waverley Station via a new plaza and pedestrian connection while diverting traffic away from the pedestrian core. *Connected with recommendations 3, 11, 12 and 13*	
REF	**RECOMMENDATION**	**STRATEGIC JUSTIFICATION**
2	**Enable a people-focused precinct core** Enable a people-focused precinct core prioritising pedestrian and cycling movements and expanding the laneway network. Note, upgrades to precinct core in the south-west are to be delivered by SRL East Rail Project approved scope.	The core of Glen Waverley is crossed by multiple strategic walking and cycling corridors and contains key destinations for the region. Enabling a people focused pedestrian core will help to address existing challenges by: • Prioritising pedestrian and cycling movements and reducing conflict with vehicular traffic on all streets in the core area including at Glen Waverley Station and bus interchange • Increase access, priority and amenity for pedestrians, cyclists and micromobility users to key destinations including by expanding the laneway network in the core and provision of end of trip facilities • Maintain access to parking via alternative routes around the pedestrian core. This recommendation also responds to identified walking and cycling principles including: • To reduce conflict between pedestrians and cyclists and other micromobility • allow street space to respond to changes in use and community needs • walking corridors be supported by an inviting public realm, seating, lighting, and trees • cycling corridors be complete with convenient and secure parking and end-of-trip facilities.
3	**Enable upgrades to Coleman Parade** Enable upgrades to Coleman Parade as the primary east-west pedestrian and cyclist spine, linking the core to Syndal and to the east. *Connected to recommendation 1*	Coleman Parade and Glen Road provides an important east west strategic walking and cycling corridor. Enabling upgrades along Coleman Parade will address existing challenges by: • Providing a safer and more accessible active transport corridor through the precinct core • Improving pedestrian and cyclist connectivity to Syndal Station and the public transport interchange in the precinct core This recommendation also responds to identified act principles including: • To provide access to primary walking destinations • To reduce conflict between pedestrians and cyclists and other micromobility • Walking corridors be supported by an inviting public realm, seating, lighting, and trees • Public transport corridors will have quality, comfortable and direct active transport networks coupled with high frequency, direct and reliable public transport • To reduce conflict between vehicles and people walking and cycling.

REF	RECOMMENDATION	STRATEGIC JUSTIFICATION
4	**Enable an active transport spine along Kingsway and Snedden Drive** Enable upgrades to Kingsway and Snedden Drive as the primary north-south pedestrian and cyclist spine within the Structure Plan Area. In addition to public realm improvements, footpath upgrades and bike lanes along Kingsway will help enable a people-focused precinct core. Snedden Drive will act as a northern extension of the Kingsway active transport axis, delivering walking, cycling and public realm upgrades, simplifying access to The Glen Shopping Centre, and maintaining its important role for buses.	Kingsway and Snedden Drive form a key north south strategic walking corridor, with Snedden Drive also part of the strategic bus network. Providing active transport and urban realm upgrades will address existing challenges by: • Discouraging private vehicle movements from using Kingsway, allowing a higher number of pedestrians to enjoy a much-improved urban realm, encouraging increased economic activity • Providing a safer environment for all road users, whereby cyclists may be separated from other modes and last mile and fast food delivery vehicles are more efficiently managed • Ensuring Snedden Drive bus service performance and reliability is maintained with the benefit of improved bus stop infrastructure and amenity. This recommendation also responds to identified modal principles including to: • provide access to primary walking destinations • reduce conflict and increse physical separation between pedestrians and cyclists and other micromobility • allow street space to respond to changes in use and community needs • allow walking corridors to be supported by an inviting public realm, seating, lighting, and trees • provide convenient and secure parking and end-of-trip facilities, including provision for micromobility • limit the impact of cars and service vehicles on high-activity and high-value places • maximise productivity of space through flexibility of use and appropriate parking controls.
5	**Enable upgrades to Springvale Road** Enable upgrades to Springvale Road focused on place, amenity and safety enhancements while maintaining bus and traffic functionality. Provide an improved streetscape and pedestrian environment between Kingsway and O'Sullivan Road, to provide enhanced amenity and pedestrian experience at the edge of the precinct core.	Springvale Road forms an important part of the strategic bus network and is a strategic general traffic and freight corridor. Whilst functionality for these modes must be maintained, proposed walking and public realm improvements will address existing challenges by: • Providing a higher level of safety for pedestrian and other vulnerable street users • Improving the amenity for pedestrians along the corridor and maintaining the connection to the precinct core and public transport hub • Ensuring bus service reliability and performance is maintained. Upgrades along Springvale Road will respond to identified modal principles including to: • allow walking corridors to be supported by an inviting public realm, seating, lighting, and trees • provide quality, comfortable and direct active transport networks coupled with high frequency, direct and reliable public transport • provide priority for buses along their alignment to provide users with predictable journey times • provide roads at all bus stops that are easy to access for pedestrians of all ages, abilities and genders • reduce conflict between vehicles and people walking and cycling.

REF	RECOMMENDATION	STRATEGIC JUSTIFICATION
6	**<u>Enable a network of local Green Streets</u>** A broad classification for a collective network of local streets that should be prioritised for improvement due to their significance for sustainable travel and their ability to support pedestrian experience to key destinations (such as recreational facilities, public transport stops and stations and key employment areas), environmental outcomes, and bike and public transport routes.	A network of Green Streets consistent with recommendations in the SRL East Structure Plan - Urban Design Report – Glen Waverley will facilitate a low traffic environment with a higher ability to cater for sustainable transport modes. The provision of Green Streets will address existing challenges by: • Improving public amenity to encourage people to walk and cycle the shorter distance trips including to the strategic corridors within Glen Waverley • Discouraging general traffic along these streets, contributing to the low traffic neighbourhoods within Glen Waverley. • Improving local bus stop amenity to be consistent throughout Glen Waverley. A network of Green Streets will respond to identified active and public transport modal principles including to: • Reduce conflict between vehicles and people walking and cycling • Allow walking corridors to be supported by an inviting public realm, seating, lighting, and trees • Allow street space to respond to changes in use and community needs • Facilitate the provision of local cycling corridors within 200 m of 95% of properties • Facilitate the provision of a local public transport stop within 400 m or strategic public transport stop or interchange within 800 m of 95% of properties.
7	Safeguard aspirational modal priorities as per the Movement and Place classifications	Movement and Place classifications have informed the development of the modal strategic corridors, Green Streets and Strategic Corridors informing a range of the Recommendations in this report. The classifications will also inform future transport assessments and design options as the precinct develops.

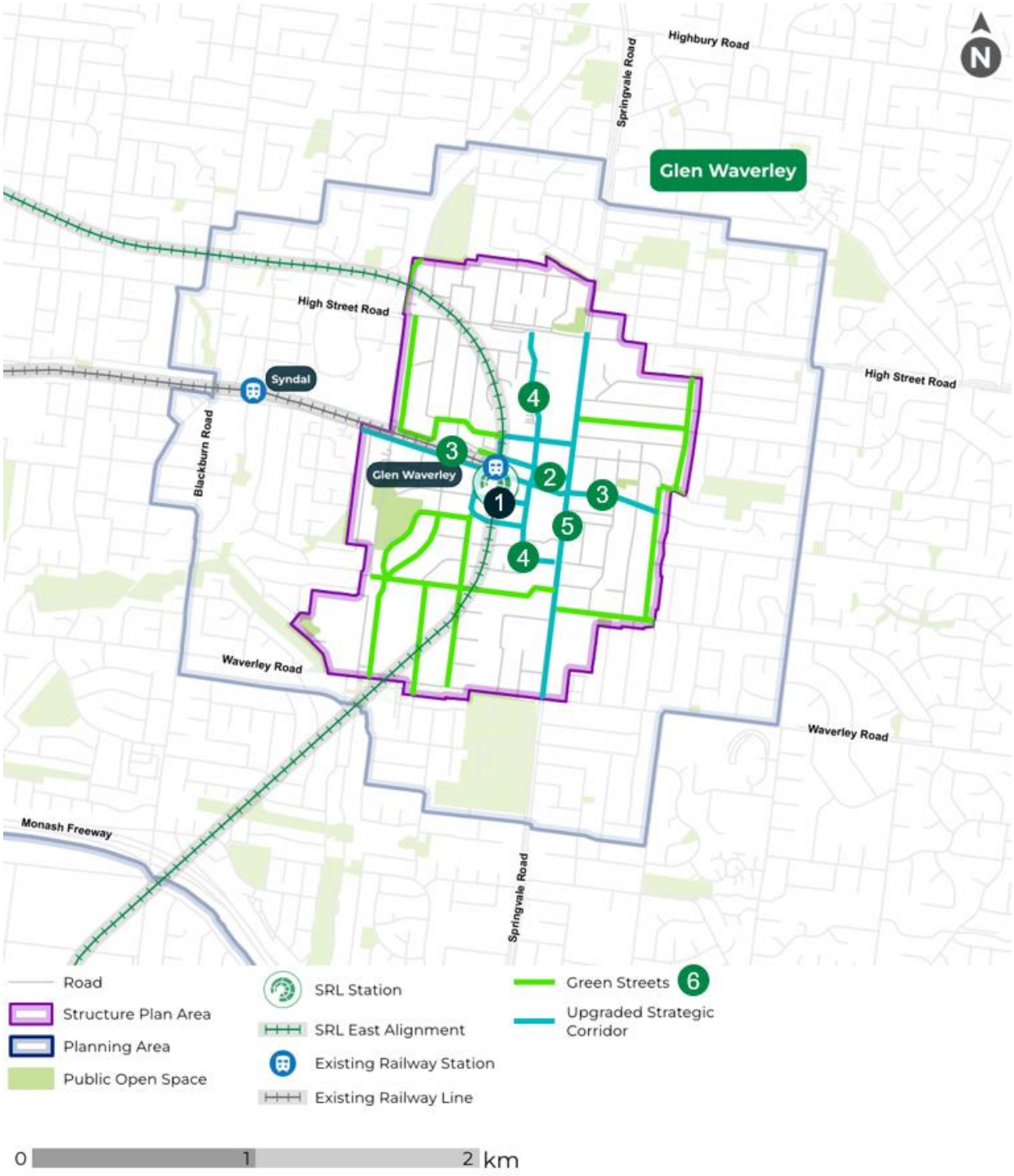


FIGURE 6.15 INFRASTRUCTURE RECOMMENDATIONS – SETTING THE PRIORITY NETWORK

6.2.3 UNLOCKING THE PRIORITY NETWORK

Connectivity through and within Glen Waverley is generally hindered by large urban blocks, the Glen Waverley Line and major arterial roads. The type of recommendations that aim to address these challenges include the provision of Key Links, upgrading existing roads beyond the existing road reserve, and provision of new and upgraded crossings to enhance active transport connectivity.

KEY LINKS

The increased permeability enabled by Key Links helps to improve the attractiveness of walking by reducing travel times and creating low-stress active transport routes. They also improve the place and amenity value of existing routes. Key Links can be implemented in multiple ways including:

- Fixed Key Link – specific alignment across identified parcels of land requiring access to be created during land development
- Flexible Key Link – the specific location of the Key Link is flexible and multiple parallel options may be considered. A wider area highlighting the need for increased permeability has been identified.

There are three types of Key Links varied by their importance (critical, important and local). There are only Important and Local Key Links identified in Glen Waverley, which can be summarised as:

- **Important Key Links** provide connection to or between strategic transport corridors
- **Local Key Links** aim to improve local active transport connections / permeability and place activation**.**

NEW AND UPGRADED PEDESTRIAN AND CYCLE CROSSINGS

Improvements to walking and cycling crossings including new and upgraded intersections and crossings across major arterial roads such as Springvale Road, High Street Road and Waverley Road improve priority for active transport users in line with demand, reducing crossing delay. It can also help reduce the frequency of cyclists needing to dismount to cross the road.

Where there is a strong active transport desire line but no crossings across a major road, new crossings in the form of pedestrian-operated signals, cyclist-operated signals, non-signalised crossings, or signalised intersections have been identified.

Similarly, some existing intersections and/or crossings require upgrades to improve active transport connectivity where there is a strong desire line. The upgrades may include minor relocations, public transport integration, improved safety through painted markings or raised wombat crossings, or provision of bicycle lanterns.

UNLOCKING THE PRIOIRTY NETWORK RECOMMENDATIONS

The identified recommendations for Glen Waverley intended to unlock the priority movement network are detailed in Table 6.5, with the identified links and intersections in Glen Waverley shown in Figure 6.16.

TABLE 6.5 INFRASTRUCTURE RECOMMENDATIONS – UNLOCKING THE PRIORITY NETWORK

REF	RECOMMENDATION	STRATEGIC JUSTIFICATION
8	**Important – Key Links:** Deliver the tools for the responsible authority to facilitate landholder-delivery of Important links. Refer to Figure 6.16 for Important links (new links and enhanced corridors).	The provision of key links at appropriate locations are primarily intended to increase permeability throughout Glen Waverley for pedestrians and cyclists. Providing these **Important key links** will help to address existing challenges by: • Providing more direct access between key destinations or transport corridors for pedestrians and cyclists through larger urban blocks where there is a **higher pedestrian or cycling modal priority** • Contributing to a better amenity for pedestrians and cyclists • Widening the walkable catchments to public transport nodes and hubs. The provision of **Important key links** will respond to identified modal principles including to: • Improve access to primary walking destinations • Allow walking corridors to be supported by an inviting public realm, seating, lighting, and trees • Reduce conflict between vehicles and people walking and cycling • Facilitate the provision of local cycling corridors within 200 m of 95% of properties • Facilitate the provision of a local public transport stop within 400 m or strategic public transport stop or interchange within 800 m of 95% of properties.
9	**Local – Key Links:** Deliver the tools for the responsible authority to investigate landholder-delivery of Local Links. Refer to Figure 6.16 for Local Links (new links and enhanced corridors).	**Local key links** provide a similar function and benefit to the Important key links outlined above albeit at a local level. They may not have the strategic modal priority or demand, however they will address local gaps through the larger urban blocks and facilitate local urban realm improvements and linking open spaces throughout Glen Waverley. The provision of **Local key links** will respond to the same identified modal principle as the Important key links above.
10	Facilitate new and improved walking and cycling crossings of Springvale Road, Waverley Road, High Street Road and Snedden Drive. Refer Figure 6.16 for new and upgraded crossings.	There are three arterial roads through the Glen Waverley Structure Plan Area that provide a high level of strategic access to, from and through Glen Waverley. Providing new or improved crossing facilities at intersections on these corridors will help address existing challenges by: • Reducing dwell times at crossing points on the arterial roads and hence journey times along pedestrian and cycling corridors • Providing safer pedestrian and cycle access across the busy arterial roads with improved crossing infrastructure including cycle lanterns • Increasing the walkable and cycle catchments to public transport with more direct and faster access along key active transport corridors. New and improved crossing infrastructure will respond to identified modal principles including to: • Provide safe and convenient crossing locations at intersections and key destinations • Improve access to primary walking destinations • Prioritise cyclists at intersections and increased physical separation from pedestrians and traffic • Reduce conflict between vehicles and people walking and cycling • Provide roads at all bus stops that are easy to access for pedestrians of all ages, abilities and genders.

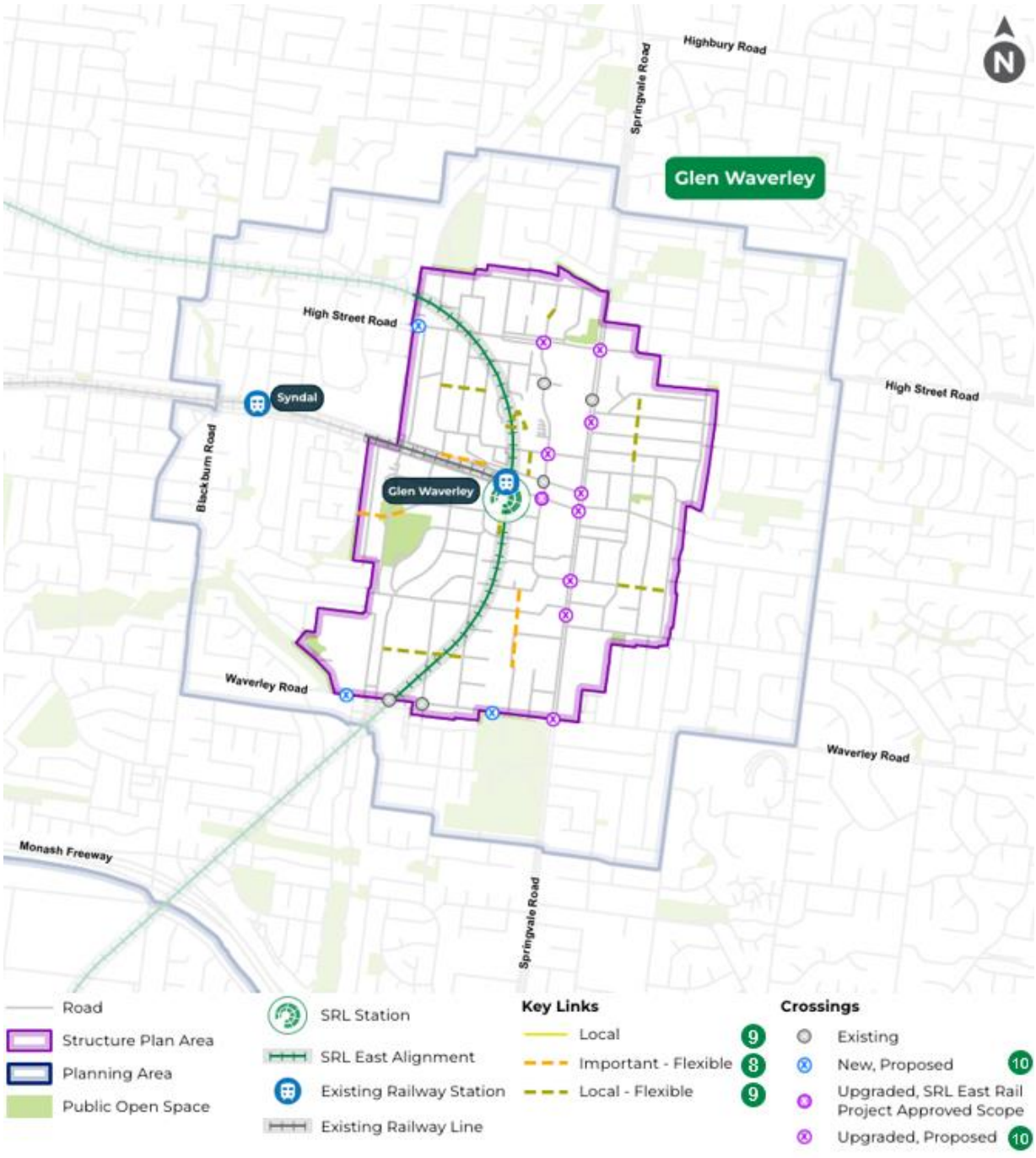


FIGURE 6.16 INFRASTRUCTURE RECOMMENDATIONS – UNLOCKING THE PRIORITY NETWORK

Note: the triangle symbolises that links through significant land holding to be discussed with the land owner.

6.2.4 INTEGRATED INTERCHANGES AND PUBLIC TRANSPORT

Improvements to public transport interchanges provide better accessibility to the public transport network.

In Glen Waverley, public transport interchange improvements are the responsibility of the Victoria Government rather than precinct planning include:

- Investigating upgrades to the existing Glen Waverley Station
- Planning for improvements to the Glen Waverley bus interchange and bus stop infrastructure
- Investigating additional bus priority corridors to support future demand.

Further recommendations that fall under the responsibility of SRL East or the precinct planning include:

- New bicycle hubs are designed to provide users with sustainable transport mode choices for various journey types throughout Glen Waverley.

The identified recommendations for Glen Waverley intended to integrate hubs and interchanges into the movement network are detailed in Table 6.6, with the identified locations in Glen Waverley shown in Figure 6.17.

TABLE 6.6 INFRASTRUCTURE RECOMMENDATIONS – INTEGRATED INTERCHANGES AND PUBLIC TRANSPORT

REF	SRL EAST RAIL PROJECT APPROVED SCOPE	
11	**Deliver a high-capacity bicycle parking hub at the SRL station** Provide secure parking for 530 bicycles incorporated into the station building to provide convenient interchange with SRL, metro, bus and tram services. Future proof for the bike hub to double in capacity when the demand arises. *Connected to recommendation 1*	
REF	**RECOMMENDATION (OTHER STATE GOVERNMENT AGENCY)**	**STRATEGIC JUSTIFICATION**
12	**Investigate upgrades for train station interchange** Investigate upgrades to the existing Glen Waverley Station including upgrades to platforms and providing a direct interchange with the SRL station at Glen Waverley.	The very close proximity of the existing Glen Waverley Station to the SRL station provides a good opportunity to provide an upgraded train interchange. Upgrades to provide a train station interchange will help to address existing challenges by: • Prioritising pedestrian safety, amenity, wayfinding, and DDA compliance at and within the immediate vicinity of the existing Glen Waverley Station • Facilitating efficient pedestrian access between the Glen Waverley station and the new SRL station. This recommendation also responds to identified modal principles including to: • Provide clear connections for pedestrians travelling between modes • Reduce conflict between pedestrians and cyclists and other micromobility.
13	**Plan for Glen Waverley bus interchange upgrade** Plan for upgrades to the Glen Waverley bus interchange including improved customer experience and better access.	The very close proximity of the Glen Waverley bus interchange to both the existing Glen Waverley Station and new SRL Station provides a good opportunity to upgrade the bus interchange. Access and customer experience upgrades to the bus interchange will help to address existing challenges by: • Improving the existing bus interchange waiting areas with better amenity and facilities • Prioritising pedestrian safety, wayfinding, and DDA compliance at Glen Waverley bus station • Facilitating more efficient pedestrian access between the Glen Waverley bus station and the existing Glen Waverley Station. This recommendation also responds to identified modal principles including to: • Provide clear connections for pedestrians travelling between modes • Provide public transport service levels that unlock development potential.
14	**Plan for a more useable bus network** Plan for the upgrade of bus stop infrastructure, such as reviewing bus stop locations, provision of shelters, hardstands, real time information and wayfinding to provide a quality bus network throughout Glen Waverley.	Glen Waverley is generally well serviced by the current bus network. Upgrading the bus stop infrastructure to provide a high and consistent user experience will help to address existing challenges by: • Improving the existing bus stop waiting areas to prioritising pedestrian safety, DDA compliance, and better amenity • Potentially improving accessibility through the review of bus stop locations, and providing better wayfinding towards and at bus stops. This recommendation also responds to identified modal principles including to: • Reduce conflict between vehicles and people walking and cycling • Facilitate the provision of a local public transport stop within 400 m of 95% of properties • Provide public transport service levels that unlock development potential.

REF	RECOMMENDATION (OTHER STATE GOVERNMENT AGENCY)	STRATEGIC JUSTIFICATION
15	**Investigate future bus priority** Investigate the need for future additional bus priority corridors as Glen Waverley evolves.	Ongoing reviews of the bus network will help to address challenges by: • Improving service reliability and performance on key corridors as demand increases • Identifying potential service efficiency issues with all services through the Glen Waverley Structure Plan Area stopping via the bus interchange. This recommendation also responds to identified modal principles including to: • Provide priority for buses along their alignment to provide users with predictable journey times • Provide public transport service levels that unlock development potential.

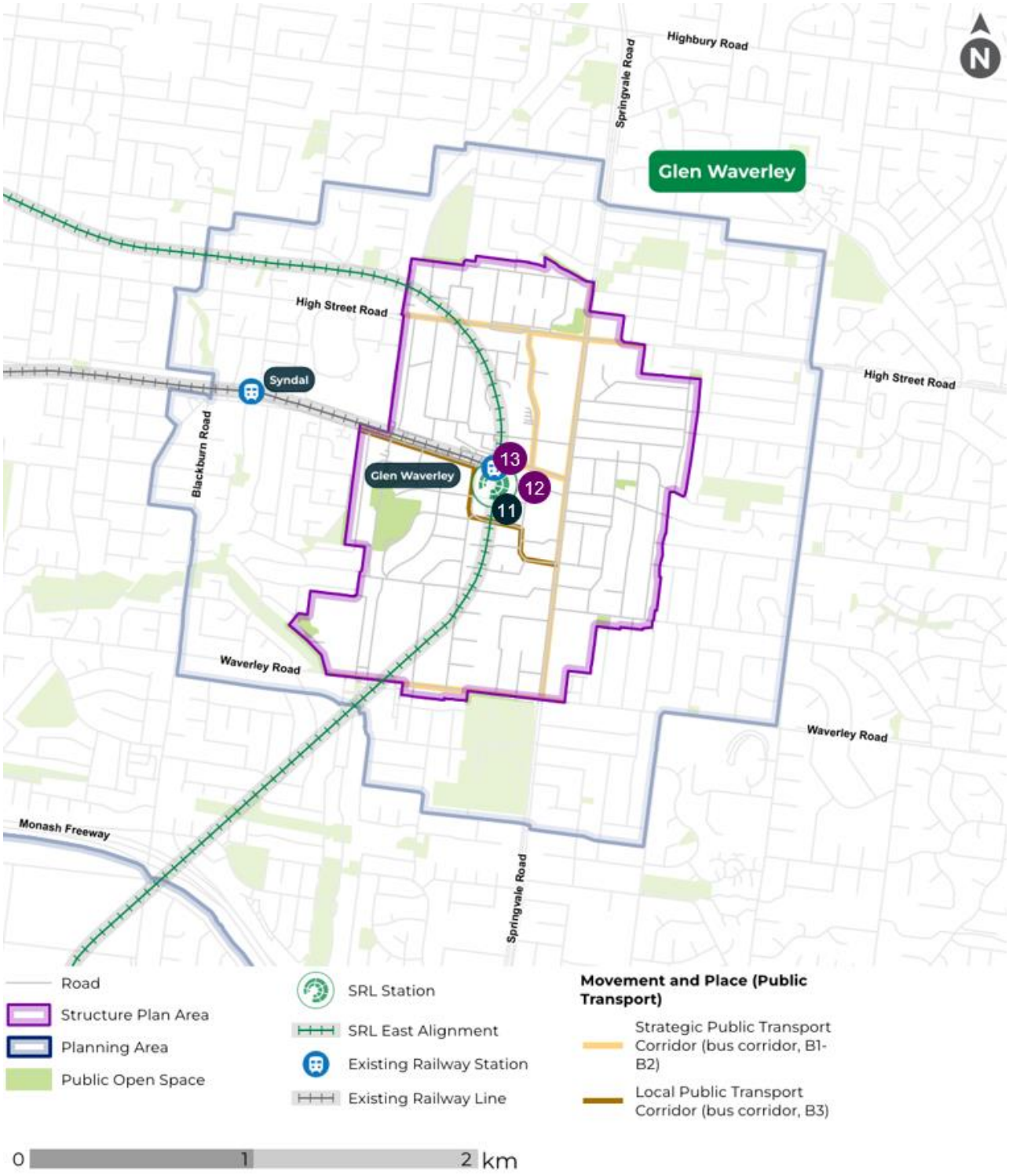


FIGURE 6.17 INFRASTRUCTURE RECOMMENDATIONS – INTEGRATED INTERCHANGES AND PUBLIC TRANSPORT

6.2.5 ENABLING PRIORITY MOVEMENT WHILE PROTECTING LOCAL ACCESS

The focus of recommendations which enable the priority network include maintaining existing strategic traffic corridors to allow other corridors to cater for local, more sustainable modes of transport, implementing changes to parking, and providing low-traffic neighbourhoods.

Springvale Road, High Street Road and Waverley Road are important traffic corridors that support key bus, general traffic and freight movements through Glen Waverley that will be maintained.

Sustainable modes of travels will be prioritised on corridors such as local streets. This is further supported by designated low-traffic neighbourhoods in Glen Waverley. Low-traffic neighbourhoods generally refer to a residential area usually within a boundary of arterial corridors where traffic management measures are implemented to reduce general traffic movements, particularly through-traffic. These low-traffic neighbourhoods are located in areas where collector roads and local streets are concentrated. Low-traffic neighbourhoods prioritise the use of sustainable modes of transport including walking, cycling and public transport in a safer low-speed environment where local car access is maintained.

Infrastructure recommendations have been identified and aim to reduce private vehicle trips through the precinct core such as encouraging car park access via alternate routes off major arterial roads where higher general traffic movements are supported.

The identified recommendations for Glen Waverley intended to unlock the priority movement network are detailed in Table 6.7 and shown in Figure 6.18.

TABLE 6.7 INFRASTRUCTURE RECOMMENDATIONS – ENABLING THE PRIORITY NETWORK

REF	RECOMMENDATION	STRATEGIC JUSTIFICATION
16	**Maintain major road functionality** Maintain the strategic bus, traffic and freight function of Springvale Road, High Street Road and Waverley Road to enable transformation of streets within the heart of Glen Waverley.	The strategic road network allows for a significant number of vehicles to access and pass through Glen Waverley. Maintaining the strategic function of these roads will help address identified challenges by: • Keeping strategic traffic, including freight vehicles, off the local roads within Glen Waverley, and where traffic is entering the precinct core or other key destinations, ensuring it is via the most direct route to the destination as possible • Maintaining the ability to provide future bus priority measures to continue service reliability • Widening the walkable catchments to public transport nodes and hubs. Maintaining major road functionality will respond to identified modal principles including to: • Provide priority for buses along their alignment to provide users with predictable journey times • Provide for vehicle movements through the SRL East Structure Plan Areas • Limit the impact of cars and service vehicles on high-activity and high-value places.
17	**Facilitate low-traffic neighbourhoods** Facilitate low-traffic neighbourhoods that reduce rat running, improve safety, and make streets a quieter and more enjoyable environment for walking and chatting with neighbours. Low-traffic neighbourhoods to maintain the role of collector roads.	Low traffic neighbourhoods create an environment whereby the impacts of vehicle traffic are minimised, with a higher ability to cater for sustainable transport modes. The provision of low traffic neighbourhoods throughout Glen Waverley will address existing challenges by: • Maintain local vehicle access on these streets, while considering safer vehicle speeds to improve safety and amenity for local walking and cycling trips • Assist in the management of on-street parking around key destinations including commuter parking during busy periods. The provision for low traffic neighbourhoods will respond to identified modal principles including to: • Reduce conflict between vehicles and people walking and cycling • Allow street space to respond to changes in use and community needs • Facilitate the provision of local cycling corridors within 200m of 95% of properties.
18	**Maintain access to off-street car parking** Maintain access to car parking nodes at Bogong Avenue, Euneva and The Glen Shopping Centre are accessible from major arterials, minimising car trips through the pedestrian core and free other sites for development. *Connected to recommendations 1 and 2*	Glen Waverley provides a significant level of off-street car parking facilities. Maintaining access to these car parks as Glen Waverley develops will continue to support the local economy and help address identified challenges by: • Encouraging traffic entering the precinct core to take the most direct route to the car parks as possible, rather than through the core, minimising the impact on the active transport environment and amenity • Minimising the impacts of vehicles queuing onto major roads when trying to access car parks during peak times • Help minimise underutilisation of the multi-story car parks around the precinct core outside peak periods. Maintaining access to off-street carparking in Glen Waverley will respond to identified modal principles including to: • Limit the impact of cars and service vehicles on high-activity and high-value places • Minimise parking in high-value space areas to support development intensity • Provide easy and intuitive access by providing adequate wayfinding and informing people of their trip choices.
19	**Support implementation of smart transport network** Support implementation of smart network improvements on arterial roads to increase network resilience and facilitate diversion of vehicles to arterial roads with available capacity.	Transport infrastructure and traffic management within Glen Waverley will be supported by implementing smart network improvements in order to get the most benefit. Smart transport network improvements will help address identified challenges by: • Ensuring traffic is diverted via the appropriate routes to key destinations, including car parking within and around the precinct core • Minimising traffic congestion on both the strategic and local road network within Glen Waverley.

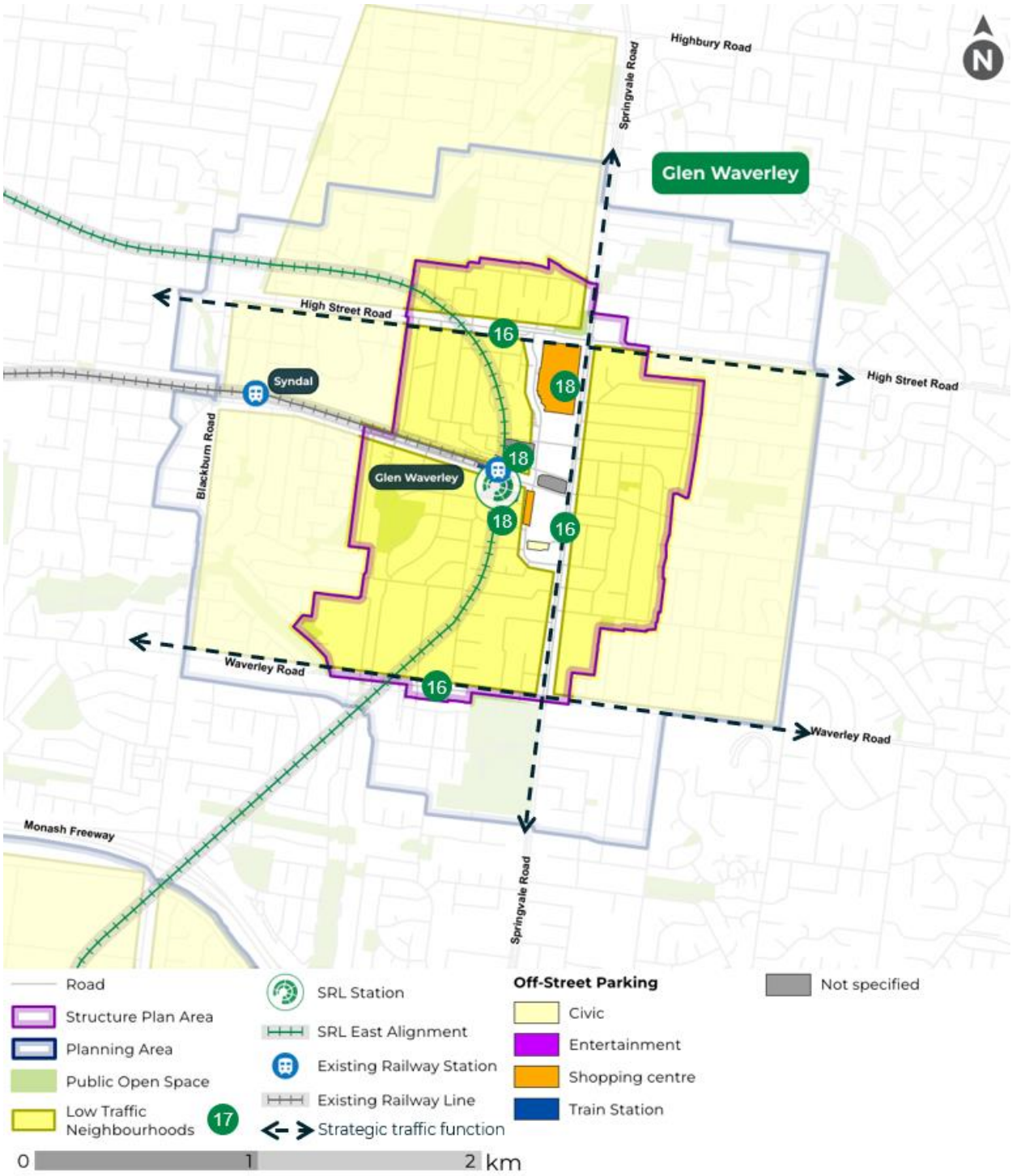


FIGURE 6.18 INFRASTRUCTURE RECOMMENDATIONS – ENABLING THE PRIORITY NETWORK

7 Non-infrastructure recommendations

This section sets out non-infrastructure tools and recommendations to help achieve the traffic and transport ambitions for the Glen Waverley Structure Plan Area.

The recommendations may be incorporated as an amendment to the Monash planning scheme or may simply be a supporting opportunity. The non-infrastructure recommendations may be identified as mechanisms in their own right and also to support the infrastructure recommendations to encourage a mode shift to active and public transport modes for local trips to, from and within Glen Waverley.

A Precinct Parking Plan for Glen Waverley was developed alongside this report to inform recommendations including car parking rates and other management tools, and bicycle and micromobility parking rates. The SRL East Structure Plan –Transport Technical Report – Appendix A Precinct Parking Plan – Glen Waverley provides an integrated parking response for the Glen Waverley Structure Plan Area and is attached as Appendix A to this report.

A more efficient and sustainable use of the kerbside will be important role as activity increases within Glen Waverley. Recommendations are provided to guide the management of kerbside activities, property access, waste management, last-mile freight deliveries, and the development of a Kerbside Management Framework to facilitate better use of the kerbside.

Additional recommendations are identified, including well-established initiatives such as Green Travel Plans and car share schemes, and innovative approaches such as mobility hubs are explored.

7.1 Integrated parking

A better paradigm for parking that is smarter and more efficient across all modes towards a more sustainable precinct.

Parking movements are required at the start and end of every journey for a range of travel modes including bikes, micromobility, and cars. The common parking types are shown in Figure 7.1.

FIGURE 7.1 EXAMPLES OF PARKING

This section sets out guiding principles for parking and identifies tools to manage integrated parking in Glen Waverley. These tools also aim to promote active and sustainable transport choices in the Structure Plan Area.

7.1.1 INTEGRATED PARKING PRINCIPLES

A series of guiding principles have been established to inform the development of the integrated parking experience in the SRL East Structure Plan Areas. These integrated parking principles are shown in Figure 7.2.

These parking principles align with the transport ambition and goals and provided a framework throughout the development of the infrastructure recommendations to ensure walking formed part of the integrated transport network.

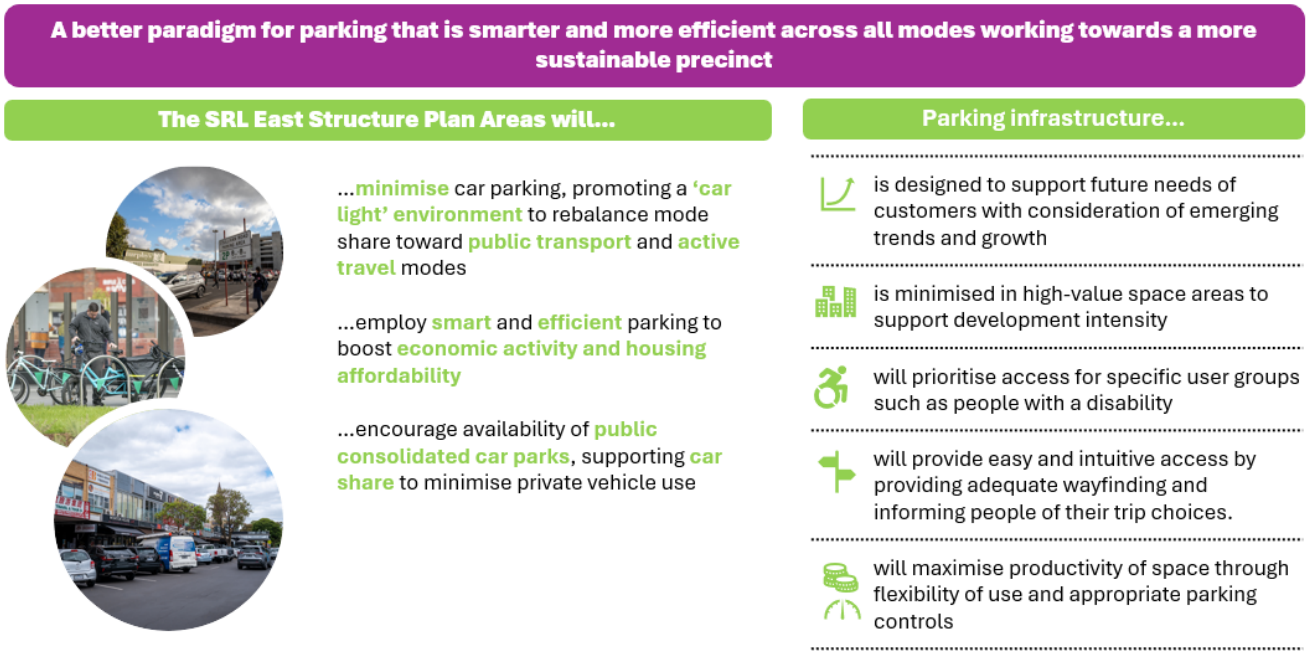


FIGURE 7.2 INTEGRATED PARKING PRINCIPLES

7.1.2 CAR PARKING MANAGEMENT TOOLS

The SRL East Structure Plan – Transport Technical Report – Glen Waverley – Appendix A Precinct Parking Plan – Glen Waverley (Precinct Parking Plan – Glen Waverley) discusses car parking management tools to support the development of the Structure Plan Area and help achieve the transport goals and ambition for Glen Waverley.

Table 7.1 provides an overview of the recommended car parking management tools proposed in the Precinct Parking Plan – Glen Waverley.

TABLE 7.1 CAR PARKING MANAGEMENT TOOLS PROPOSED IN THE PRECINCT PARKING PLAN

CAR PARKING MANAGEMENT TOOLS	DESCRIPTION	PRECINCT PARKING PLAN REFERENCE
Development parking controls – maximum parking rates	The Precinct Parking Plan – Glen Waverley proposes maximum parking rates for land uses, including specific nominated rates for residential (multi-dwelling developments), office and retail land uses. These maximum parking rates are based on a review of policy, standards, guidelines empirical data and examples of car parking management in other locations.	Section 5.1 of the Precinct Parking Plan – Glen Waverley
On-street parking management	On-street parking management techniques include parking restrictions, paid parking schemes and monitoring / enforcement tailored to support various goals such as pick-up / drop-off areas, short to long-term visitor parking and residential / commuter needs, while considering pedestrian safety and place-making activities through guidance to local governments.	Section 5.4 of the Precinct Parking Plan – Glen Waverley
Consolidated parking	Consolidated parking is shared parking that is generally provided off-site from the end destination and can reduce the total amount of parking provided in a precinct by allowing the same space to be used by different people at different times.	Section 5.5 of the Precinct Parking Plan – Glen Waverley
Unbundled parking (decoupled parking)	Unbundled parking separates parking costs from development costs, allowing occupants to pay only for the parking they need, which may change over time, promoting efficiency and fairness.	Section 5.6 of the Precinct Parking Plan – Glen Waverley
Repurposing car parking	Designing parking spaces with flexibility and adaptability in mind, such as with suitable heights and flat floors, enables their adaptation for other purposes, optimising space utilisation.	Section 5.8 of the Precinct Parking Plan – Glen Waverley
Repurposing car parking	Designing parking spaces with flexibility and adaptability in mind, such as with suitable heights and flat floors, enables their adaptation for other purposes, optimising space utilisation.	Section 5.8 of the Precinct Parking Plan – Glen Waverley

7.1.3 PARKING FOR CYCLING AND MICROMOBILITY

The Precinct Parking Plan – Glen Waverley also identifies the need for appropriate provision and range of bicycle and micromobility parking to improve the experience of cycling and micromobility trips, encouraging an increase to mode share for cycling and micromobility.

Some cycling and micromobility trips also require end-of-trip facilities, allowing users to change and shower, while offering security and weather protection for cyclists and their devices.

Section 5.2 of the Precinct Parking Plan – Glen Waverley discusses the recommended minimum bicycle parking rates and recommended bicycle parking supporting facilities respectively.

7.2 Better use of kerbside

The kerbside is the space between the road carriageway and footpath as shown in Figure 7.3. The kerbside can be a contested space with various competing uses. These competing uses include priority lanes for buses or bikes, providing driveway access to properties and businesses, and providing pick-up / drop-off space for people and goods. The kerbside also supports place-making activities such as outdoor dining and landscaping such as trees to provide canopy cover.

FIGURE 7.3 KERBSIDE SPACE IN THE CONTEXT OF THE STREET CROSS SECTION

The layout of different streets can influence how people travel and influence the attractiveness of a place. Some streets will have a different balance of modes and changes to the public realm, which may require a street's cross section to change. As travel behaviours in Glen Waverley shift to using active and public transport, there is the opportunity to change the focus of the kerbside from primarily supporting car trips with parking and property access to a more balanced approach. These changes can range from minor enhancements to more transformative changes similar to those seen in inner Melbourne and some suburban activity centres over the last 30 years where more trees, wider footpaths, safe bike lanes and public transport priority have been implemented alongside growth in central city activity.

Ambitions for a better public realm will require better management of the kerbside space to support features such as improved landscaping, tree canopy coverage and place-making opportunities like outdoor dining. Examples of different kerbside uses are shown in Figure 7.4.

FIGURE 7.4 DIFFERENT KERBSIDE USES

7.2.1 KERBSIDE MANAGEMENT FRAMEWORK

The Glen Waverley Structure Plan provides an opportunity to embrace a more efficient and diverse kerbside. Parking will continue to be provided depending on the street, surrounding properties, and street activity. However, other uses such as landscaping, dining, bicycle / shared micromobility parking within mobility hubs or travel lanes may be a better fit in some places. Where parking is an appropriate use, parking controls will be adopted that direct space for different users and support the wider private vehicle parking aims and ambitions.

Applying road user hierarchies and considering place to develop a Kerbside Management Framework is a transparent way of identifying when and where different users of the street have priority in the kerbside. Table 7.2 shows a suggested kerb use hierarchy for different area types include the activity centre, residential area

and industrial area. These priorities will need to be further developed and aligned to key street typologies to support different goals and aspirations for Glen Waverley.

The City of Monash will be encouraged to develop the Kerbside Management Framework to guide controls and restrictions across streets where proactive management of the kerbside is required.

TABLE 7.2 SUGGESTED KERB USE HIERARCHY FOR DIFFERENT AREAS

	ACTIVITY CENTRE	RESIDENTIAL AREA	INDUSTRIAL AREA
Landscaping opportunities	High	High	Medium
Public transport	High	High on bus routes	High on bus routes
Emergency services	Case by case, but if required High	Case by case, but if required High	Case by case, but if required High
Car share	High	High	Medium
Taxi & rideshare	High	Low	Low
Electric vehicle charging	Medium	Medium	Medium
Parklets	High	Medium	Low
Micromobility and bicycle parking	High	Medium	Low
Food deliveries	High	Low	Low
Deliveries	High	Low	High
Accessible	High	Medium	High
Pick up / drop off (PUDO)	High	High around schools and community activity areas	Low
Car parking for residents	Low	Medium	Low
Car parking for local workers	Low	Medium	Medium
Car parking for customers	Medium	Low	Medium
Commuter car parking	Not an acceptable kerb space use	Low	Low
Car parking for construction workers	Case by case	Case by case	Case by case

7.2.2 ACCESS TO PROPERTIES

Providing driveway access to properties is an important function of roads that requires the management of conflicts between vehicles turning into properties and other traffic such as pedestrians and cyclists. This impacts the space that can be used for place-making that can contribute to better people-focused environments.

Better outcomes can be achieved by providing access into new developments away from frontages with high movement or place-making functions (strategic walking and/or cycling corridors) to locations such as rear laneways or reducing or consolidating the number of access points. Minimising vehicle crossovers in strategic locations along Upgraded Strategic Corridors and Green Streets as well as arterial roads where significant increase in land use intensification is proposed can support safer movements and better amenity for pedestrian and cyclists.

A broad set of property access guidelines have been developed based on the M&P classifications and are listed in Table 7.3.

TABLE 7.3 BROAD SET OF PROPERTY ACCESS GUIDELINES

	PROPERTY ACCESS GUIDELINES
General considerations	• Consider the land use and property access requirements, whether primarily residential, commercial, and whether the property is in the Structure Plan Area core, along busy arterial corridors or within surrounding residential areas • All new property development or redevelopment should consider the appropriate statutory and design guidance and specifications set out in: » Austroads, *Guide to Traffic Management Part 5 – Road Management* » Municipal Planning Scheme requirements » Australian Standards (AS2890 – Parking Facilities).
Properties with multiple street frontages	• Where access via a laneway to the side or rear of a property is available, provide appropriate space to facilitate on-site car park access, delivery vehicle and waste removal vehicles • Properties with multiple frontages to provide car park access along the frontage that is neither an Upgraded Strategic Corridor nor Green Street, or the lesser M&P classification. Existing access crossovers should be consolidated to provide a single crossover where possible • Should both property frontages share the same street type such as a Green Street or Upgraded Strategic Corridor, and M&P classifications, consider additional factors including traffic (all modes) volumes, adjacent property characteristics and other relevant factors.
Properties with single street frontages	• Where the property frontage has a M&P classification of 3 or less and is neither a Green Street nor Upgraded Strategic Corridor, provide a single point of access to the property • Where the property frontage is on a street whereby the M&P classifications for general traffic, public transport, freight and cycling are 3 or less and on an Upgraded Strategic Corridor, provide a single point of access to the property • Where the property frontage is on a street whereby the M&P classifications for walking, cycling, and place are 3 or less and on a green street, provide a single point of access to the property • Where the property frontage is on a street whereby the respective M&P classifications are greater than 3, and a Green Street or Upgraded Strategic Corridor, provide a single point of access to the property. Integrate appropriate kerbside/ access management measures to minimise the impact on the street frontage.

7.2.3 WASTE MANAGEMENT

Waste management is an integral part of city life, albeit a ’back of house’ function, associated with waste removal.

Large developments often have on site loading and waste facilities due to the size of land block, scale of the task, type of vehicle and/or the need to store goods on-site due to high shelf turnover.

Some shops with street frontages may lack alternative access and often cannot facilitate larger storage areas and so rely on the local street interface, generally using smaller vehicles.

Residential development has traditionally not included service areas but as density increases the need to facilitate more frequent turnover of residents, family size households and higher waste management means these tasks are less suitable for the kerb space, as shown in Figure 7.5.

FIGURE 7.5 APARTMENT BINS BLOCKING PAVEMENT

7.2.4 LOCAL FREIGHT DELIVERIES

The *Victorian Freight Plan 2018–2050, Delivering the Goods* predicted the freight movement task for Victoria will increase two to three-fold from 2014 levels by 2050. Since this prediction, as with many aspects of daily life, the COVID pandemic has potentially changed the trajectory of freight growth and potentially the type of freight vehicle, with COVID travel restrictions introducing the benefit of online shopping to new markets. While the need to shop from home has diminished, the benefits of online shopping for customers and retailers means this market continues to grow.

While online retailing has the potential to reduce personal travel and car trips, the overall implications for the road network can be significant as more people need individual freight deliveries more frequently, particularly smaller parcels. It is not uncommon to observe multiple freight-based trips occurring on local streets associated with the delivery of orders and parcels.

There is opportunity in the SRL East Structure Plan Areas to work with developers, local governments, community and businesses to harness new practices and options for freight to reduce the impact of these trips on the local network by managing freight, so the right vehicle type is used for the right delivery.

The Victorian Freight Plan was developed in consultation with local governments and the freight industry to consider the future of freight in the state. This 'freight future' includes recognition of more personal freight delivery, and opportunities for smaller lighter and more efficient forms of freight delivery, particularly in the last mile first mile space.

The Freight Plan sets out five priorities to support the freight and logistics system to improve how goods are moved to their local interstate, and overseas markets. How the Freight Plan should be reflected in the SRL East structure planning is summarised in Figure 7.6.

Victorian Freight Plan 2018-2050

5 Priorities

1. Manage existing and proposed freight corridors and places in conjunction with urban form changes
2. Reduce the impact of congestion on supply chain costs and communities
3. Better use of our rail freight assets
4. Plan for Victoria's future port capacity
5. Stay ahead of the technology curve

- Manage existing and proposed freight corridors and places in conjunction with urban form changes
- Reduce the impact of congestion on supply chain costs and communities
- Work with local government to remove or reduce first and last mile impediments
- Develop more freight friendly solutions for Melbourne's CBD
- Prioritise the use of technology to improve the management of network congestion on the road network

Reflections for SRL East Structure Plan Areas

- Management of on-street loading restrictions can improve efficiency of freight
- Traditional CBDs can be problematic for freight movements. There is the opportunity to proactively plan areas for more freight friendly solutions, including development controls and last / first mile freight policies
- Ensuring the local network hierarchy recognises the role of freight and freight corridors where appropriate
- Reducing the climate cost of transportation of freight – supporting increasing use of cargo bicycles and EVs

FIGURE 7.6 VICTORIAN FREIGHT PLAN AND HOW THIS CAN BE REFLECTED IN SRL EAST STRUCTURE PLANNING

Managing the 'first and last mile' of freight tasks will be key in ensuring balance between the needs of people and freight in the SRL East Structure Plan Areas. The City of Melbourne and Transport for NSW have both recognised the potential for managing this part of the freight task for network efficiency and improved urban amenity with the former releasing a Last Kilometre Freight Plan[35] and the latter a Last Mile Freight Toolkit.[36]

A Last Mile Freight Plan (LMFP) is recommended to be developed for the Structure Plan Area, particularly with smaller parcels and deliveries. The Freight Plan will guide new and existing developments in adopting emerging and more sustainable modes for local deliveries.

The Freight Plan will likely include the use of cargo bikes, smaller electric delivery vehicles, and freight and mobility hubs. This could include community delivery boxes, such as the Australia Post Parcel Lockers shown in Figure 7.7 which are becoming more common and will continue to evolve. These sustainable last mile freight delivery options and parcel lockers can also be integrated into mobility hubs to improve access and reduce unnecessary trips as recipients can collect their parcels during an existing trip. There is also an opportunity to encourage alternative freight modes and approaches that improve convenience and sustainability for the delivery of take-away food and groceries.

[35] *City of Melbourne, June 2016, Last Kilometre Freight Plan, <https://www.melbourne.vic.gov.au/sitecollectiondocuments/last-kilometre-freight-plan-june-2016.pdf>*

[36] *Transport for NSW, November 2020, Freight and Servicing Last Mile Toolkit – A guide to planning the urban freight task, <https://www.mysydney.nsw.gov.au/sites/default/files/2023-05/Freight%20and%20Servicing%20Last%20Mile%20Toolkit%20Master%20Document(1)-compressed-1.pdf>*

FIGURE 7.7 COMMUNITY DELIVERY BOX EXAMPLE (SOURCE: AUSTRALIA POST PARCEL LOCKER[37])

Other potential Last Mile Freight Plan considerations are summarised in Table 7.4.

TABLE 7.4 LAST MILE FREIGHT PLAN CONSIDERATIONS

Potential for consolidating delivery and servicing facilities between different properties	Potential for the role of precinct freight consolidation hubs. Identify redundant space with the potential to support consolidation of delivery tasks. This could range from Freight Consolidation Centres (FCCs) through to community delivery parcel drop off sites that allow multiple personal deliveries in one trip rather than through multiple trips. Integration of freight into mobility hubs.
Development of a freight journey planner and freight access maps for use by businesses and logistics companies servicing properties	
Development of principles for allowing out of hours deliveries, to reduce freight traffic during peak activity periods and opportunities to use redundant out of hours space	Special loading permit zones and spaces for more efficient and low impact / low emission vehicles
Encouragement for local businesses to invest in and utilise cargo bikes to manage local delivery tasks	Monitor the use of street loading spaces so that local government can timely respond to overuse and under use of loading spaces
Stakeholder engagement including potential for the development of precinct freight portals to share and promote more efficient freight options and new and advancing technological options and experiences	Pilot studies to inform businesses of opportunities to change practices and support change
Identify opportunities to use local traffic management during construction projects to encourage more sustainable freight choices - for example, partial road closures could still allow cargo bikes and other two wheeled vehicle passage	Development of last mile toolkit to assist business, developers, and residents in understanding and implementing more sustainable last mile practices
Out of hours loading in the street scape when demands for other purpose is minimal (for example, bus lanes or pedestrian areas between midnight and 6am)	

It is recognised that some of the last mile freight initiatives are likely to be new to businesses in Glen Waverley. As such, there may be benefits in working with existing business to develop pilot schemes that can trial and/or showcase different approaches to managing last mile freight use.

As the roll out of electric vehicles (EVs) continues it may also be prudent to plan for the potential to provide EV charging associated with loading facilities.

[37] *https://auspost.com.au/receiving/collection-points/use-a-247-parcel-locker*

Finally, it is recognised the period where the densification of Glen Waverley and the delivery of the SRL station is likely to result in periods and locations of disruption. Implementing Last Mile Freight Plans may provide a tool that will help SRLA, the City of Monash and the local community manage deliveries during these periods. This will take advantage of the opportunities these periods produce to do things differently, which may then continue post construction if they are successful.

There is an opportunity to showcase these evolving freight management approaches in Glen Waverley, providing a benchmark for managing freight in Melbourne's middle to outer centres.

7.3 Supporting travel choices

Enabling greater choice for how you would like to get around wherever you are in Glen Waverley.

Approaches to supporting travel choices will complement recommendations for all transport modes and parking. Supporting travel choices will contribute to achieving the transport goals and ambitions with an integrated transport approach. These include measures such as Green Travel Plans, car share schemes, mobility hubs, and street layouts that support a greater diversity of travel choices and activity.

7.3.1 GREEN TRAVEL PLANS

A Green Travel Plan sets out ways that occupants or visitors to an existing or new commercial or residential building can adopt more sustainable transport such as walking, cycling, public transport or car-pooling.

Green Travel Plans can be a significant contributor to achieving more sustainable mode share targets. United Kingdon studies cited in a City of Sydney guideline indicate that providing Green Travel Plans can achieve significant reductions in commuter car trips, averaging 18 per cent and as high as 50 per cent.[38] Green Travel Plans are most effective when they include regular monitoring.

Green Travel Plans can be prepared by or on behalf of developers, tenants, owners, body corporate, businesses, education and leisure occupiers and facility / property managers. Green Travel Plans prepared by developers will be passed on to the tenants or other occupants allowing for specific business or property manager incentive commitments to be incorporated to meet the needs of the users. These incentives can range from providing towels and hairdryers as part of end-of-trip facilities, cycle-to-work incentives and supporting walking, cycling and car share groups, through to financial incentives such as travel vouchers, MYKI cards, subsidised bicycle hire, or low-interest rate loans to help purchase equipment or bicycle insurance.[39]

When prepared at the development planning application stage, Green Travel Plans can contribute to evidence for Green Star ratings and/or Built Environment Sustainable Scorecard (BESS) alignment. A well prepared Green Travel Plan can form part of the marketing for new developments to demonstrate to potential occupiers its sustainable access and the need for less parking.

Effective Green Travel Plans include enforcement, regular monitoring and updating to understand the changing gap between aspirational mode share and actual mode share.

The need to require Green Travel Plans is being incorporated into more planning schemes across Victoria. However, the trigger for mandating these travel behaviour tools varies.

[38] *UK Department for Transport, March 2008, Essential Guide to Travel Planning, < https://webarchive.nationalarchives.gov.uk/ukgwa/20101213165120/http://www.dft.gov.uk/pgr/sustainable/travelplans/work/>*

[39] *Examples of incentives in existing Melbourne and international GTPs: La Trobe University Sports Park Partner Precinct GTP; Northumberland Street office development, Collingwood; Barratt and Darwin Green residential development, Cambridge UK*

Using Green Travel Plan requirements and triggers examples from Victoria and NSW as well as internationally, the Green Travel Plan triggers listed in Table 7.5 are recommended to be captured in the Monash Planning Scheme by means of an appropriate Schedule to the relevant zone.

TABLE 7.5 RECOMMENDED GREEN TRAVEL PLAN TRIGGERS AND APPROACH

USE	GREEN TRAVEL PLAN TRIGGER [1]	EXCEPTIONS
Residential	≥ 10 dwellings or if not known: > 1000 m^2 GFA	-
Office	> 1000 m^2 GFA	-
Retail premises	> 1000 m^2 GFA	-
Education	All	except for schools where student requirements may make Green Travel Plans irrelevant
Leisure	> 1000 m^2 GFA	except where movement generated < 50 trips per hour
Industrial	> 5000 m^2 GFA	except where movement generated < 50 trips per hour
[1] Green Travel Plan development size trigger intended to ensure requirements imposed on developments over a nominated size.		

For existing major uses in the SRL East Structure Plan Areas, it is recommended that SRLA should work with these land holders to develop or update Green Travel Plan to recognise the increasing accessibility of Glen Waverley that will be delivered as part of the SRL works.

7.3.2 CAR SHARE SCHEMES

Car share schemes provide access to shared vehicles, reducing the need for private car ownership optimising the use of space. When integrated with high quality local public transport and active travel options, car share schemes can significantly decrease car ownership and use, with research suggesting that a single car share vehicle can replace 7 to 10 privately owned cars.[40]

Car share scheme spaces should be encouraged in on-street car parking areas and within off-street development sites and supported by the development of car share policies and/or guidelines in consultation with Council and building and strengthening relationships between key stakeholders and car share operators. This is discussed in detail in Section 5.3 of the SRL East Structure Plan – Transport Technical Report – Appendix A Precinct Parking Plan – Glen Waverley.

7.3.3 MOBILITY HUBS

Mobility hubs provide a space designed specifically to offer access to various sustainable transport modes with enhanced facilities that enable integrated travel choices.[41] They provide users with one location for all travel choices and facilitates investment in better facilities rather than choices and facilities spread across an area.

The hubs are often located near community services, co-working places, or an Activity Centre, and are connected to strategic cycling corridors. The hub provides space for mobility, place and logistics functions:

[40] *Shaheen, S.A. & Cohen, A.P. (2013), Carsharing and Personal Vehicle Services: Worldwide Market Developments and Emerging Trends,* International Journal of Sustainable Transportation, *Volume 7, (Issue 1), https://www.researchgate.net/publication/241730570_Carsharing_and_Personal_Vehicle_Services_Worldwide_Market_Developments_and_Emerging_Trends*

[41] *Collaborative Mobility UK (CoMoUK), 2023, What are mobility hubs?, <https://www.como.org.uk/mobility-hubs/overview-and-benefits>*

- The mobility function includes the co-location of transport modes, including conventional public transport, e-scooter and bike hire, car share, and sustainable private transport modes
- The place function could include facilities to improve convenience and comfort such as bathrooms, water fountains, shaded areas and vending machines
- The logistics function includes the integration of parcel lockers or micro-delivery centres.

The mobility hub functions and conceptual network are shown in Figure 7.8.

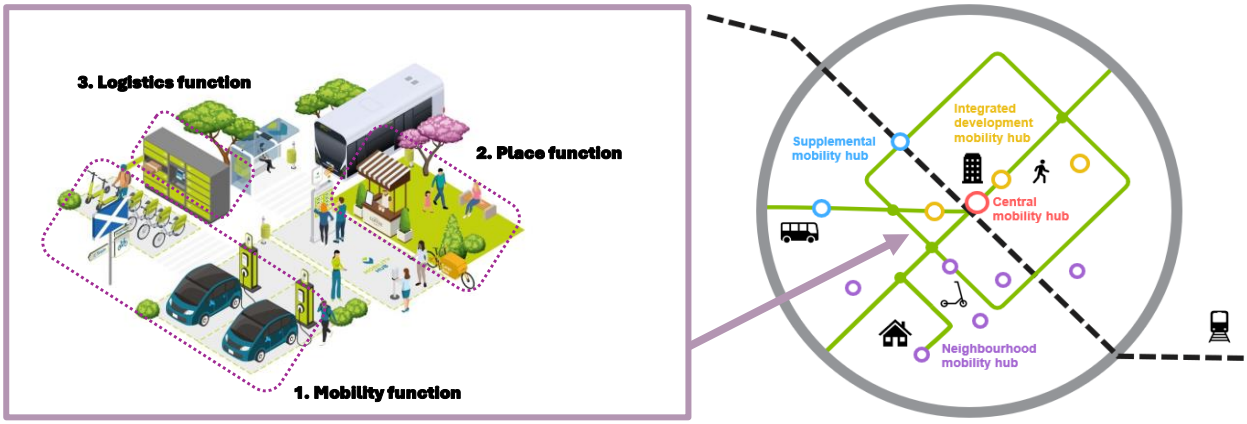


FIGURE 7.8 MOBILITY HUB FUNCTIONS AND CONCEPTUAL NETWORK (SOURCE: COMOUK[42])

The benefits that mobility hubs generate for the wider community include improved access to sustainable transport, especially for first and last mile trips, convenient transfer between transport modes, land use integration, improved public realm, and reduced street clutter. Mobility hubs also provide an opportunity to reduce car parking demand within Glen Waverley.

7.4 Non-infrastructure recommendations summary

A set of non-infrastructure recommendations to manage parking and provide better active and sustainable transport choices have been developed, along with recommendations to manage kerbside activities and local freight deliveries. A pragmatic approach to car parking is adopted, recognising the growing opportunities and viability other travel options, including bicycle and micromobility, for trips to, from and within Glen Waverley.

The full list of non-infrastructure recommendations and opportunities is provided in Table 7.6 and is based on the analysis undertaken for this report and the SRL East Structure Plan – Transport Technical Report – Appendix A Precinct Parking Plan – Glen Waverley attached as Appendix A to this report.

Table 7.6 also identifies where the non-infrastructure recommendations and opportunities strongly support the infrastructure recommendations discussed in Section 6.2.

[42] *Collaborative Mobility UK (CoMoUK), 2023, What are mobility hubs? <https://www.como.org.uk/mobility-hubs/overview-and-benefits>*

TABLE 7.6 NON-INFRASTRUCTURE RECOMMENDATIONS

REF	NON-INFRASTRUCTURE RECOMMENDATION / OTHER OPPORTUNITY		SUPPORTED INFRASTUCTURE RECOMMENDATION(S)
INTEGRATED PARKING			
GWTP 1*	Implement increased minimum bicycle parking and end-of-trip facility requirements to support sustainable modes and reflecting the change in cycling usage within 'living locally' based neighbourhoods and over time.	Recommendation	• Enable a people-focused precinct core (Ref. 2) • Enable upgrades to Coleman Parade (Ref. 3) • Enable an active transport spine along Kingsway and Snedden Drive (Ref. 4) • Enable a network of local Green Streets (Ref. 6) • Important – Key Links (Ref. 8) • Local – Key Links (Ref. 9) • Deliver a high-capacity bicycle parking hub at the SRL station (Ref. 11).
GWTP 2*	Develop public realm cycling and micromobility end-of-trip policy / guidelines.	Opportunity	
GWTP 3*	Implement maximum development parking controls, limiting new development parking provisions.	Recommendation	• Enable a people-focused precinct core (Ref. 2) • Facilitate low-traffic neighbourhoods (Ref. 17).
GWTP 4*	Support major landholders to explore reducing existing parking supply and adopting alternative uses for the land as accessibility and density in the Structure Plan Area increase.	Opportunity	• Enable a people-focused precinct core (Ref. 2) • Maintain access to off-street car parking (Ref. 18).
GWTP 5*	Encourage adoption of an unbundled car parking model for on-site car parking provision and management.	Recommendation	• Enable a people-focused precinct core (Ref. 2).
GWTP 6*	Encourage the provision of consolidated car parking options which could be used to manage accessibility changes over time and reduce reliance on on-site parking.	Recommendation	• Enable a people-focused precinct core (Ref. 2) • Facilitate low-traffic neighbourhoods (Ref. 17).
GWTP 7*	Implement adaptable building design requirements for new above-ground car parking facilities that enable their use for other purposes as parking demand reduces over time. Require developers to have an Adaptable Parking Plan which outlines future options for the use of on-site parking.	Recommendation	• Enable a people-focused precinct core (Ref. 2) • Facilitate low-traffic neighbourhoods (Ref. 17).
GWTP 8*	Encourage Council to further develop and update the on-street parking management policy that supports the significant changes in land use density, diversity and accessibility levels in the Structure Plan Area over time.	Opportunity	• Enable a people-focused precinct core (Ref. 2) • Enable a network of local Green Streets (Ref. 6) • Facilitate low-traffic neighbourhoods (Ref. 17).
GREEN TRAVEL PLANS			
GWTP 9	Implement Green Travel Plan requirements for applicable new developments to help guide occupant travel behaviour, including monitoring commitment and program.	Recommendation	• Enable a people-focused precinct core (Ref. 2) • Enable upgrades to Coleman Parade (Ref. 3) • Enable an active transport spine along Kingsway and Snedden Drive (Ref. 4) • Enable a network of local Green Streets (Ref. 6).
GWTP 10	Encourage Council to develop an improved Green Travel Plan Framework in the short term to guide and influence travel behaviours of occupants and visitors to new and existing buildings. This may include providing best practice templates, tools and strategies and incorporation of monitoring and review requirements.	Opportunity	
GWTP 11	Support preparation of Green Travel Plans for existing major employers and land holders, including local education	Opportunity	

REF	NON-INFRASTRUCTURE RECOMMENDATION / OTHER OPPORTUNITY		SUPPORTED INFRASTUCTURE RECOMMENDATION(S)
	facilities to help influence existing travel behaviours to major destinations as accessibility increases.		
CAR SHARE SCHEMES			
GWTP 12*	Encourage Council to develop policy and guidelines for car share schemes in public areas and new developments that include electric vehicle charging facilities, by • Facilitating stronger relationships between developers and car share operators • Recognising electric vehicle charging for car share schemes in Green Travel Plans • Encouraging on-site car share scheme parking with electric vehicle charge points.	Opportunity	• Enable a people-focused precinct core (Ref. 2) • Facilitate low-traffic neighbourhoods (Ref. 17).
MOBILITY HUBS			
GWTP 13	Encourage the development of a network of new mobility hubs in strategic locations across the Structure Plan Area.	Recommendation	• Enable a people-focused precinct core (Ref. 2) • Enable upgrades to Coleman Parade (Ref. 3) • Enable an active transport spine along Kingsway and Snedden Drive (Ref. 4) • Enable a network of local Green Streets (Ref. 6).
GWTP 14	Develop a mobility hub strategy and implementation framework with key stakeholders and partners, considering private and public sites, including: • Investigate partnerships with shared micromobility operators and Council and explore potential to undertake trials within the Structure Plan Area • Delivery of a central mobility hub with Council and land-owners in the centre of the Structure Plan Area • Facilitate or contribute to the provision of integrated development mobility hubs • Consultation and delivery of supplementary mobility hubs that can be tied to other public transport interfaces and peripheral parking areas • Investigate possible neighbourhood mobility hub land options and partnerships with Council.	Opportunity	
LOCAL FREIGHT DELIVERIES AND WASTE MANAGEMENT			
GWTP 15	Encourage centralisation and sharing of loading, waste and freight management facilities to reduce the number of access points and kerbside demands during peak community activity periods.	Recommendation	• Enable a people-focused precinct core (Ref. 2) • Maintain major road functionality (Ref. 17).
GWTP 16	Support adoption of alternative freight vehicle and freight delivery models within the Structure Plan Area to reduce vehicle emissions associated with these trips, including development of a Last Mile Freight Plan in association with Council.	Opportunity	
BETTER USE OF THE KERBSIDE			
GWTP 17	Encourage Council to develop a suite of policies and plans with Council to manage the function and needs that interface with the kerbside, which may include: • A Kerbside and Access Management Framework based on use hierarchy principles which supports urban cooling, sustainable transport modes and reduced private car trips, and on-street parking demands • A Kerbside Management Plan to inform access, freight and waste management and kerbside use in the Structure Plan Area.	Opportunity	• Enable a people-focused precinct core (Ref. 2) • Enable upgrades to Coleman Parade and Springvale Road (Ref. 3 and 5) • Enable a network of local Green Streets (Ref. 6) • Investigate future bus priority (Ref. 15) • Facilitate low-traffic neighbourhoods (Ref. 17).
GWTP 18	Implement controls to respond to design recommendations for:	Recommendation	• Enable upgrades to Coleman Parade and Springvale Road (Ref. 3 and 5)

REF	NON-INFRASTRUCTURE RECOMMENDATION / OTHER OPPORTUNITY		SUPPORTED INFRASTUCTURE RECOMMENDATION(S)
	• Access of secondary roads where possible (lane ways, side streets) • Access discouraged from Upgraded Strategic Corridors and/or Green Streets, high activity pedestrian and cyclist links • Encouraging on-site waste and freight management facilities.		• Enable a network of local Green Streets (Ref. 6) • Facilitate low-traffic neighbourhoods (Ref. 17).
GWTP 19	Implement loading and waste management requirements for new developments including requirement for loading to be entirely on-site for key land uses (such as large residential, large retail, industrial).	Recommendation	• Enable a people-focused precinct core (Ref. 2) • Maintain major road functionality (Ref. 17).
GWTP 20*	Encourage shared parking arrangements in developments to enable efficient and overall lower parking provisions.	Recommendation	• Enable a people-focused precinct core (Ref. 2) • Facilitate low-traffic neighbourhoods (Ref. 17).
GWTP 21*	Encourage car share scheme parking spaces in developments.	Recommendation	
* Item included in the SRL East Structure Plan – Transport Technical Report – Appendix A Precinct Parking Plan – Glen Waverley.			

8 Conclusion

SRL East will improve access to and from Glen Waverley and to nearby state and regional significant activity centres.

More active and sustainable transport choices will help improve the amenity and liveability of the Structure Plan Area. Compared to the Baseline Scenario, this will reduce traffic congestion, better manage parking and provide for more efficient use of land. The mode share target shows an increase in active transport mode share by 33 per cent (an increase of 1200 trips during a typical peak hour) compared to the baseline from 21 per cent to 28 per cent, with public transport mode share increasing by 13 per cent (an increase of 400 trips during a typical peak hour).

Table 8.1 summarises the types of recommendations that have been developed and their alignment with the transport goals. The infrastructure and non-infrastructure recommendations will deliver a more connected network and increased travel choice by building on existing arterial road and rail access and contributing to a modal shift towards sustainable travel choice across the Glen Waverley Structure Plan Area.

In doing so, these recommendations will support achieving the vision for the Glen Waverley Structure Plan Area and provide a framework to guide growth and change, while protecting and preserving the character and features that people love about them now.

TABLE 8.1 TYPES OF TRANSPORT IMPROVEMENTS AND ALIGNMENT WITH THE TRANSPORT GOALS

TRANSPORT RECOMMENDATIONS	TRANSPORT GOALS						
	A safe and connected walking and cycling environment	A revitalised bus experience	An all-inclusive transport network	Anchoring sustainable travel services and shared mobility to SRL East	Prioritising safe and healthy movement	Smart and efficient use of parking	Enable new and emerging innovative mobility
Infrastructure types							
New and Upgraded Strategic Corridors that enable the Structure Plan with a particular focus on active and public transport upgrades	✓	✓	✓		✓		
Upgraded local Green Streets, with a particular focus on active transport upgrades and support for innovative modes	✓		✓			✓	
New Key Links, focusing on creating active transport permeability and connecting transport corridors	✓		✓	✓			
New and upgraded crossings of busy roads	✓		✓		✓		
Upgrades to public transport interchanges to enhance the services, facilities, and customer experience		✓		✓			
New bicycle hubs to encourage active transport to the SRL station, existing railway station and bus interchange	✓	✓		✓			
Maintaining strategic traffic and freight corridors		✓				✓	
Designating low traffic neighbourhoods	✓		✓		✓		
Non-Infrastructure types							
Development of SRL East Structure Plan Area appropriate parking rates					✓	✓	
Partnering with Council to plan and manage streets through local freight delivery and kerbside management plans						✓	
Supporting travel choices including Green Travel Plans and encourage use of mobility hubs					✓		✓

AJM
Joint Venture

Appendix A

SRL East Structure Plan – Transport Technical Report - Appendix A Precinct Parking Plan – Glen Waverley

AJM
Joint Venture

Appendix B

Peer Review Report

eukai

18 February 2025

Suburban Rail Loop East Structure Planning Transport Peer Review Report – Glen Waverley

To:	Tim Power (Partner), White & Case
Cc:	Sallyanne Everett (Partner), Clayton Utz
From:	Tim De Young (Director), Eukai
Date:	18 February 2025

Subject: Suburban Rail Loop East Structure Planning Transport Peer Review Report – Glen Waverley

1. Introduction

1.1. Background

The Suburban Rail Loop East project (**SRL East**) will deliver six underground rail stations between Cheltenham and Box Hill and connect major employment, health, education and retail destinations in Melbourne's east and southeast. The Minister for Planning approved the SRL East rail project in 2022 and it is expected to be completed by approximately 2035.

In December 2023, the Minister for the Suburban Rail Loop declared a Suburban Rail Loop Planning Area for SRL East (**SRL East Planning Area**) under section 65(1) of the *Suburban Rail Loop Act 2021*. The Suburban Rail Loop Authority (**SRLA**) is the planning authority under the *Planning and Environment Act 1987* for this area.

SRLA has defined boundaries for the preparation of structure plans (**Structure Plan Areas**) within the SRL East Planning Area and is in the process of preparing structure plans and draft planning scheme amendments (**PSAs**) for each Structure Plan Area.

AJM Joint Venture (**AJM**) was engaged by SRLA to prepare a Transport Technical Report (**TTR**), inclusive of a Precinct Parking Plan (**PPP**), for each Structure Plan Area. The TTRs set out transport responses and recommendations that have informed the development of the Structure Plans.

1.2. Instructions

In November 2024, I was instructed by Clayton Utz (refer to letter at Attachment A) to undertake a peer review of the Glen Waverley TTR and prepare a peer review report that addresses the following matters:

> *"(a) the scope of your role in reviewing the Technical Report;*
>
> *(b) the appropriateness of the methodology, assumptions and limitations in the Technical Report;*
>
> *(c) whether the findings, assessment outcomes and recommendations in the Technical Report are appropriate in the context of the structure planning process for the Glen Waverley Structure Plan Area."*

I have set out a response to these three matters in Sections 2 to 4 of this memo, respectively.

1.3. Reference Documents

In undertaking this peer review and preparing this memo, I have principally focussed my review on the following documents:

- "SRL East Draft Structure Plan – Transport Technical Report – Glen Waverley" prepared by AJM, Revision 01 dated February 2025 (**'TTR'**)
- "SRL East Draft Structure Plan – Appendix A – Precinct Parking Plan – Glen Waverley" prepared by AJM, Revision 01 dated February 2025 (**'PPP'**)

In addition, I note that I was also provided with various additional information from SRLA in response to clarifications requested by me in undertaking my peer review. This information was principally issued to me in December 2024 and January 2025 in response to queries raised by me to assist me prepare this memo. This additional information is discussed further in Section 2.2 of this memo.

Furthermore, I note that whilst I was provided with the "SRL East Draft Structure Plan - Glen Waverley Draft Implementation Plan" prepared by SRLA dated 7 February 2025 (**'the Implementation Plan'**), I have not undertaken a detailed review of this plan as part of my peer review. It is referenced in this memo only in the context of my awareness and support of its preparation as part of the set of documentation to be exhibited.

2. Scope of my role

2.1. Duration of peer review

I have provided peer review advice associated with the SRL East Structure Planning process via two engagements:

1. From May to July 2024, I was engaged as a sub-consultant to Stantec, who had been engaged by White & Case (acting on behalf of SRLA) to provide peer review advice in relation to the TTRs for all six station precincts. The Stantec team at that time was led by John Kiriakidis and my role was that of "co-lead". This entailed me attending meetings with Stantec Subject Matter Experts (SMEs) and liaising directly with White & Case to provide advice on behalf of the broader team. During this initial engagement, the focus of the review was the TTR for the Glen Waverly precinct only, as other TTRs were yet to be issued to Stantec for review.

2. Since August 2024, I have been engaged directly by Clayton Utz and White & Case (acting on behalf of SRLA) to provide peer review advice in relation to the TTRs for Glen Waverley, Monash and Clayton station precincts. During this period, I have principally been assisted by two colleagues – Will Fooks (Eukai Director) and Hans Gao (Eukai Senior Consultant)[1]. I also note that I have provided advice during this period in parallel with Hilary Marshall of Ratio who I understand was engaged by Clayton Utz (acting on behalf of SRLA) to provide peer review advice in relation to the TTRs for the Box Hill, Burwood and Cheltenham station precincts.

[1] Will Fooks' assistance was provided between September and October 2024. He principally assisted me by reviewing the draft TTR documentation, identifying potential areas for enhancement, and liaising with SRLA to clarify our advice. Hans Gao's assistance was provided between November 2024 and the date of this peer review memo. He principally assisted me by reviewing the final TTR documentation, analysis clarifications provided to me by SRLA, and drafting this peer review memo. I note that Hans was also a member of the Stantec team, assisting John Kiriakidis, between May and July 2024.

2.2. Nature of peer review advice

During both engagement periods, my peer review role entailed undertaking reviews of draft TTR reports prepared by AJM for the station precincts and providing advice to steer the development of those reports for exhibition in early 2025.

The principal tasks completed by me included:

- Undertaking site inspections to understand existing transport conditions at the Glen Waverley, Monash and Clayton precincts.
- Undertaking research into technical transport reports and parking overlays prepared to support land use and transport changes in other activity centres in metropolitan Melbourne. This research included, but was not limited to, consideration of other precincts that I have recently been involved in providing transport and parking advice, such as Preston Market, Box Hill Central North, and Victoria Gardens.
- Reviewing draft versions of the draft TTR documentation (including the accompany draft PPPs) for the Glen Waverley, Monash and Clayton precincts.
- Attending workshops to provide guidance in relation to the draft TTR documentation with the primary aims of:
    - Aligning the structure and content of the TTRs with relevant policies, guidelines and practice notes;
    - Enhancing the robustness of the justification presented in the TTRs with respect to the recommended transport responses;
    - Providing guidance on technical matters, such as car parking rates including the areas to which those rates apply; and
    - Providing comment on matters that can be addressed as part of the subsequent stages of the structure planning process.
- Liaising with the team via telephone and email to reconfirm and further discuss advice shared at the workshops.

As a part of my peer review, I note that I also requested and subsequently received various clarifications from SRLA on matters that informed the preparation of the TTR. The clarifications predominately related to the following:

- The VITM modelling used to inform the trip demand estimates referenced in the TTR including the consistency of the land use yields that informed that modelling with the land use yields envisaged in the Glen Waverley Structure Plan Area.
- The deliverability of important active travel connections that are proposed in the TTR, including the level of planning that had been completed by SRLA to confirm matters such as the extent of any required land to facilitate their provision.
- The extent of future year bus network planning completed by the Department of Transport and Planning (DTP) for the Glen Waverley Structure Plan Area.

The provision of these clarifications has assisted me form the conclusions outlined in this peer review memo as it provides me with high amount of confidence that a significant body of work has been completed by SRLA to inform the TTR and enable the delivery of its recommendations. These clarifications are discussed in further detail in the body of this peer review as appropriate.

The following limitations are noted with respect to my peer review:

- I have largely confined my review to the documents outlined In Section 1.3 of this memo which I note does not include the Parking Overlay recommended in the PPP within the TTR.
- I directed greatest effort to investigating the transport responses and/or sections of the TTRs that I consider to be the most critical in terms of overall impact on the Structure Plan Area and proposed transport changes. In this context, I note that it is possible that my peer review has not identified every possible transport issue or implication of the TTRs.
- I have not reviewed the detail of proposed active travel improvements, such as their exact alignment or configuration. Notwithstanding, as outlined above, I did receive clarifications from SRLA in preparing this memo which gives me confidence that appropriate investigations have been completed by SRLA for these improvements.
- I have focussed my review on the likely effects of the recommendations related to the Structure Planning rather than effects and/or impacts associated with the approved SRL East rail project including its surface-level transport improvements to active travel and public transport infrastructure and services. I note that details of the SRL East rail project can be found in its approved Environment Effects Statement and the Minister for Environment and Climate Action's assessment of that Statement.
- I have not undertaken a forensic assessment of the VITM modelling which informed the trip demand estimates presented in the TTR, as it is beyond the scope of this peer review. Notwithstanding, following a review of the clarifying material provided to me by SRLA, I am not aware of any matter which causes me concern regarding the accuracy of the trip demand estimates, particularly given they are presented as ‘estimates only’ and the purpose for their inclusion in the TTR is principally to guide the ”vision and validate” methodology and the subsequent focus on increasing the use of sustainable transport modes. This methodology is discussed further below.
- I have not undertaken a detailed review of the accuracy of existing transport conditions in the precincts such as existing levels of transport accessibility, car parking restrictions, supply or demand on streets, and the like.
- I have focused on matters directly relevant to transport and have not considered matters such as, but not limited to, cost, urban design and noise implications of transport. The latter matters sit outside of my area of expertise.

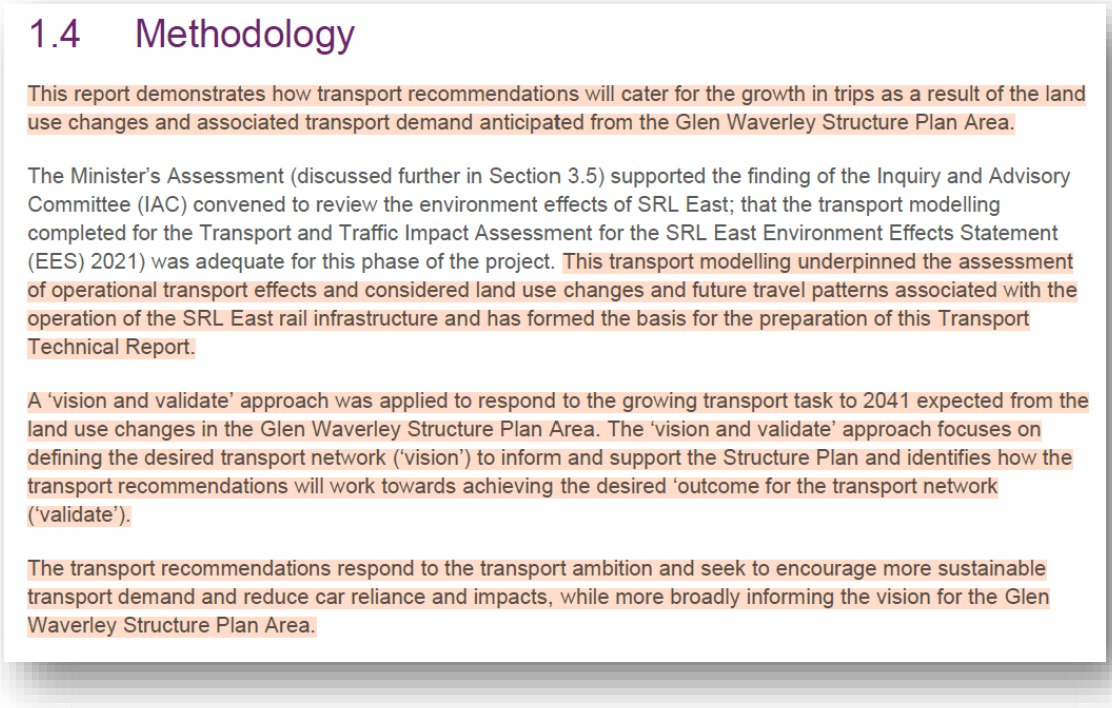
I consider these limitations to be appropriate for a peer review role, particularly given the peer review is being completed as an early stage of the Structure Planning process. This process is discussed in further detail in Section 4 of this report.

3. TTR methodology, assumptions and limitations

3.1. Methodology

The TTR methodology is outlined in detail in Section 1.4 of the Glen Waverly TTR.

For reference, I have reproduced important text from this section of the TTR in the below extract (noting that the highlighting has been added by me to emphasise key items).



1.4 Methodology

This report demonstrates how transport recommendations will cater for the growth in trips as a result of the land use changes and associated transport demand anticipated from the Glen Waverley Structure Plan Area.

The Minister's Assessment (discussed further in Section 3.5) supported the finding of the Inquiry and Advisory Committee (IAC) convened to review the environment effects of SRL East; that the transport modelling completed for the Transport and Traffic Impact Assessment for the SRL East Environment Effects Statement (EES) 2021) was adequate for this phase of the project. This transport modelling underpinned the assessment of operational transport effects and considered land use changes and future travel patterns associated with the operation of the SRL East rail infrastructure and has formed the basis for the preparation of this Transport Technical Report.

A 'vision and validate' approach was applied to respond to the growing transport task to 2041 expected from the land use changes in the Glen Waverley Structure Plan Area. The 'vision and validate' approach focuses on defining the desired transport network ('vision') to inform and support the Structure Plan and identifies how the transport recommendations will work towards achieving the desired 'outcome for the transport network ('validate').

The transport recommendations respond to the transport ambition and seek to encourage more sustainable transport demand and reduce car reliance and impacts, while more broadly informing the vision for the Glen Waverley Structure Plan Area.

I consider this methodology to be appropriate for the TTR, noting the following:

- I consider it appropriate that the TTR seeks to demonstrate how its transport recommendations will cater for the growth in trips as a result of the land use change and associated transport demand anticipated from the Glen Waverley Structure Plan Area.

  I hold the view that this overarching objective is consistent with the directions and requirements of the Transport Integration Act 2010[2] and specifically Section 11 which states :*"the transport system and land use should be aligned, complementary and supportive and ensure that—*

  (a) transport decisions are made having regard to the current and future impact on land use;
  (b) land use decisions are made having regard for the current and future development and operation of the transport system;
  (c) transport infrastructure and services are provided in a timely manner to support changing land use and associated transport demand."

[2] Compliance with the Transport Integration Act is a decision guideline outlined in Planning Practice Note 46 (Strategic Assessment Guideline)

- I consider it appropriate that the TTR leverages the previous work completed for the SRL East EES, including – but not limited to – the associated transport modelling that was considered "adequate for this phase of the project", as noted in the Minister's assessment of the SRL East EES.

  I agree that the TTR ought not be required to reconfirm the appropriateness of the SRL East project or seek to define its associated ground level transport infrastructure given it was subject to its own and very extensive assessment. Rather, I hold the view that the TTR should assume that the SRL East rail project is approved, and will be constructed by circa 2035, and thus the focus of the TTR should be on the additional transport recommendations that ought to be completed as the Structure Plan Area develops to further reduce the reliance on private motor vehicle and thereby extend the anticipated benefits of SRL East.

- I consider it appropriate that the TTR adopts a "vision and validate" approach which seeks to encourage more sustainable transport use.

  I note that the adoption of this approach is consistent with contemporary transport planning practice, as well as various State and local government policies, and I consider it appropriate for adoption within the TTR given:

  - The SRL East project will substantially alter how people travel to/from the precinct, leading to a significant uplift in sustainable transport trips; and
  - The transport recommendations outlined in the TTR will further support the use of sustainable transport modes for travel within the precinct (both by encouraging these modes and discouraging the continued reliance on private vehicles).

  In contrast, I note that the adoption of the historic 'Predict & Provide' approach would typically focus on expanding infrastructure for private vehicles through (for example) the provision of larger intersections, wider roads and/or abundant car parking. This approach is known to encourage the cycle of car dependence, whilst also reducing the attractiveness of other modes and the 'place' of the redeveloped precincts. I consider that such an approach would be inappropriate if it were adopted (which I note is not the case in the TTR).

I also note that Section 1.4 of the TTR outlines a six-step process for the planning, development and validation of its transport recommendations. These steps are:

1. *"Review the existing conditions*
2. *Review the future baseline (i.e., the future as proposed in the SRL East EES, including the land use development uplift and the changes to the network.)*
3. *Setting the transport ambition and goals*
4. *Determine the movement network and opportunities to inform the structure planning process*
5. *Iterate the development of the Structure Plan with transport infrastructure input.*
6. *Validate the TTR transport recommendations against the transport challenges and ambition to cater for the projected changes in land use and associated transport demand."*

In my view, the steps outlined above align with the adopted methodology and are consistent with typical practice for the preparation of TTRs for major urban renewal precincts. As such, I also consider the steps outlined in the TTR to be appropriate. In this context, I also confirm my support for the transport ambition outlined in the TTR i.e., managing the growing number of trips expected to and from Glen Waverley in the future by encouraging people to walk, cycle and catch public transport.

3.2. Assumptions

I consider the most influential assumptions that have informed the TTR are:

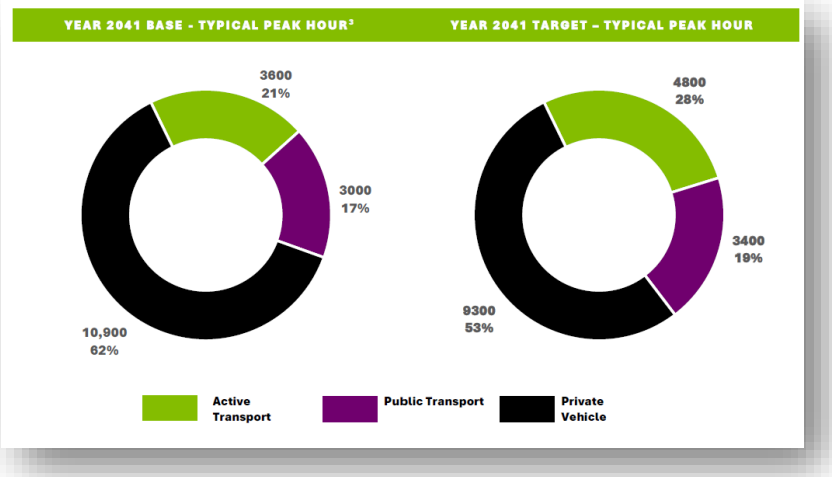
1. The assumptions relating to future land use yields for the Structure Plan Area, coupled with the resultant trip demand estimates as sourced from the Victorian Integrated Transport Model (VITM) based on these yields.

   Specifically, I note the following in this regard:

   - Section 4.3 of the TTR presents the land use yield predictions, as summarised in the below extract. The source of this data is referenced as "AJM (2025), Economic Profile – Glen Waverley".

FIGURE 4.2 POPULATION AND EMPLOYMENT GROWTH WITHIN THE STRUCTURE PLAN AREA

   - Section 5.4 of the TTR presents the future trip generation estimates for the Year 2041 'base' scenario (i.e., with SRL East), as shown in the graph on the left in the extract below. This figure anticipates a future trip generation of approximately 17,500 person trips to/ from the Structure Plan Area in a typical peak hour. TTR footnote #24 outlines that this estimate is sourced from the VITM modelling completed for the EES.



   In light of the significant scale of the future development in the Structure Plan Area, I consider it appropriate to estimate future trip demands using VITM modelling and I note that I have adopted this approach for the assessment of other major urban renewal precincts. I also consider it reasonable to source this estimate from the VITM modelling completed for the EES as I understand that the EES modelling was based on future land use yields in the Structure Plan Area that remain broadly consistent with those land uses yields now proposed. This consistency is discussed on page 64 of the TTR.

2. The assumptions used to estimate the mode shares and resultant trip estimate for the future Year 2041 “target” scenario.

   Specifically, I note the following in this regard to this assumption:

   - Section 5.4 of the TTR (refer to text at the base of page 70) outlines that the target Year 2041 trip estimates assume a 25% increase in sustainable transport use, with a corresponding decrease in private vehicle use, compared to the base scenario.
   - Section 5.4 of the TTR (refer to the first dot point on page 70) outlines that of the 25% increase in sustainable transport modes, 75% of the trip demand increase is assumed to change to active transport modes with the remaining 25% assumed to change to public transport modes.
   - The resultant target Year 2041 trip demand estimate is shown on the right of Figure 5.5, which is the figure presented above.
   - The TTR outlines a range of factors that informed its assumptions in this regard, including analysis of trip mode by trip length sourced from the VITM modelling for the Year 2041 base scenario. The analysis indicates:
     - Approximately 60% of the estimated 17,500 person trips to/from the Structure Plan Area in the future Year 2041 conditions are expected to occur within a 5km radius of the SRL station. This is shown in Figure 5.3 of the TTR.
     - With the exception of trips less than 1km in length (which predominantly favours active transport modes), there is a strong bias towards the use of private vehicle for all other trip lengths. This bias is shown in Figure 5.4 of the TTR, reproduced below, which highlights (for example) that approximately 40% and 60% of trips of a length of 1-2km and 2-3km respectively are expected to be completed by private vehicle.

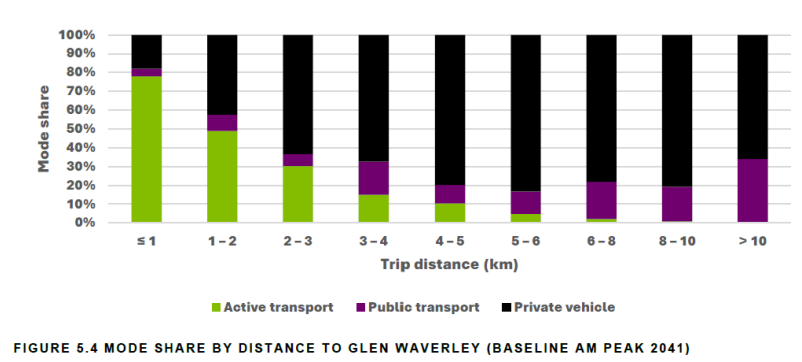


FIGURE 5.4 MODE SHARE BY DISTANCE TO GLEN WAVERLEY (BASELINE AM PEAK 2041)

   I agree with the opinion stated in the TTR that this analysis confirms there is a clear opportunity to achieve a greater quantum of sustainable transport trips than is assumed in the Year 2041 baseline estimate. I also agree with the TTR that the increased use of sustainable transport is likely to occur as the density of the area increases in the future due to its development.

   In this context, I consider the assumptions used in the TTR to estimate the target trip demands to be reasonable.

3.3. Limitations

In my view, some limitations of the TTR include:

1. The TTR does not seek to determine or quantify the extent of future bus service enhancements that are being planned by Government and are expected to be delivered across Melbourne, including but not limited to the Structure Plan Area, over the coming decades. Based on the additional material provided to me by SRLA in response to my requested clarifications, I understand that an extensive body of bus network planning has been progressed by DTP, in collaboration with SRLA, which outlines that additional routes and frequency improvements are under investigation for the Structure Plan Area in the lead up to the opening of SRL East. In my view, future bus network planning is beyond the reasonable remit of a Structure Planning process and I therefore consider it acceptable this level of detail is not included within the TTR.
2. The TTR estimates future trip demands based on VITM modelling outputs (as described above) noting that VITM is known to have limitations in accurately forecasting active travel and public transport trips. Despite this limitation, I consider it appropriate to estimate future trip demands using VITM, noting that this limitation is also mitigated in the TTR via the adoption of the "vision and validate" approach and inclusion of target mode shares. By setting these target mode shares and reducing car reliance and private vehicle use, the TTR effectively seeks to reduce future traffic congestion in the Structure Plan Area below the levels previously assessed (and accepted) as part of the EES.
3. The TTR does not specify the timing of its transport recommendations, other than as specified in Section 6 of the PPP. Rather, this detail is included in the separate Glen Waverley Draft Implementation Plan. I consider this approach to be acceptable as I understand that the TTR and Implementation Plan will be available to be reviewed at the same time.

Overall, I consider the limitations of the TTR are acceptable, noting my view that the purpose of the TTR ought not be to determine every potential transport infrastructure project in detail but rather outline the key transport recommendations, including those that may require further investigation, for implementation over time.

3.4. Summary of Opinion

Overall, I consider the TTR's methodology, assumptions and limitations to be appropriate. Most notably, I consider that the methodology aligns with the directions and requirements of the Transport Integration Act, and therefore also Planning Practice Note 46.

4. TTR Findings, Assessment Outcomes & Recommendations

4.1. Structure Planning Process

This section addresses my views on whether the findings, assessment outcomes and recommendations in the TTR are appropriate in the context of the structure planning process for the Glen Waverley Structure Plan Area.

In providing views on this matter, I consider it necessary to first outline the key steps for the SRL structure planning process. These steps are advised on the Victorian Government's "Big Build" website[3] and are reproduced at **Table 1**.

Table 1: Key steps for SRL East structure planning

Step	Timeframe	Key outcomes
Developing shared visions	Mid to late 2023	• Share feedback captured to date • Outline the structure planning process and timeline • Seek input on ambition statements and proposed priority outcomes for each SRL East Precinct
Refining the visions	Late 2023	• Seek feedback on draft precinct visions • Refine opportunities and challenges • Explore place-shaping criteria and values and needs for each area
Shaping the plans	Early to mid-2024	• Continue gathering feedback to inform final precinct visions and draft structure plans • Build awareness of upcoming exhibition process • Encourage continued feedback and participation
Exhibiting the plans	Late 2024/early 2025	• Release final visions, draft structure plans and planning scheme amendments • Exhibit structure planning documents for public review and comment • Seek stakeholder and community submissions
Public hearing	2025	• An independent advisory committee is convened • Structure planning documents are considered by the committee • A public hearing is held by the advisory committee
Sharing the outcomes	2026	• Structure plans are finalised • Planning scheme amendments are approved and gazetted • Structure plans are applied to all development within SRL East precincts

At the time of preparing this memo (February 2025), I note that SRLA is at the 'Shaping the plans' step and nearing the exhibition of the plans (including associated technical reporting) after having finalised the visions in late 2024. Importantly, I also understand that the Structure Plan to be exhibited will be issued as a draft and will be subject to refinement as part of the subsequent 'Public hearing' and 'Sharing the outcomes' steps.

[3] https://bigbuild.vic.gov.au/projects/suburban-rail-loop/planning/srl-east-precinct-planning

4.2. Summary of Opinion

I hold the view that the TTR findings, assessment outcomes and recommendations are appropriate for the current 'Shaping the plans' stage of the structure planning process for the following reasons:

- I consider that the TTR contains a comprehensive list of transport recommendations which I expect will likely be sufficient to achieve the target mode share change outlined in the TTR.
- I understand that the list of transport recommendations has been developed with the benefit of consultation with relevant stakeholders including – but not limited to – the Department of Transport & Planning (DTP) and Monash City Council.
- I note that the Structure Plan will be exhibited to seek public review and comment and that the transport recommendations included within it may therefore be subject to refinement as part of the structure planning process.

From a technical perspective, I also support the transport recommendations within the TTR, particularly:

1. The proposed enhancements to sustainable transport connections / infrastructure within the Structure Plan Area to help facilitate a shift away from private motor vehicle for short-trips. These recommendations include – but are not limited to – the following:
    - Enabling a "people-focused" precinct core which prioritises pedestrian and cycling movements and an expansion to the laneway network.
    - Enabling upgrades to Coleman Parade to become the primary east-west pedestrian and cyclist spine which links the GW station precinct to Syndal to the west and the residential areas to the east.
    - Enabling upgrades to Kingsway and Snedden Drive to become the primary north-south pedestrian and cyclist spine with the Structure Plan Area.
    - Enabling upgrades to Springvale Road aimed at improving pedestrian and cyclist amenity and safety, whilst also allowing for the prioritisation of bus movements in the future[4].
    - Enabling the creation of new active travel links, defined in the TTR as 'Important Key Links' and 'Local Key Links', to improve access to primary walking destinations, reduce conflict between vehicles and pedestrians and cyclists, and help improve accessibility to public transport stops.
    - Enabling new and improved pedestrian and cycling crossings of key roads such as Springvale Road, Waverley Road, High Street and Snedden Drive.

    The majority of these recommendations are illustrated in Figures 6.15 and 6.16 of the TTR, as reproduced on the following pages.
2. The investigation into public transport enhancements in the precinct, which I understand are to be completed by the DTP in the future, such as improvements to Glen Waverley train station, upgrades to the Glen Waverley bus interchange, and other upgrades to bus infrastructure.
3. The proposed introduction of maximum car parking rates and minimum bicycle parking rates to encourage sustainable transport use for new development.

[4] I envisage that bus prioritisation along Springvale Road will be subject to its own study to be completed by DTP which may explore items such as prioritisation treatments at intersections in the short-term to the potential dedication of bus only lanes in the long-term.

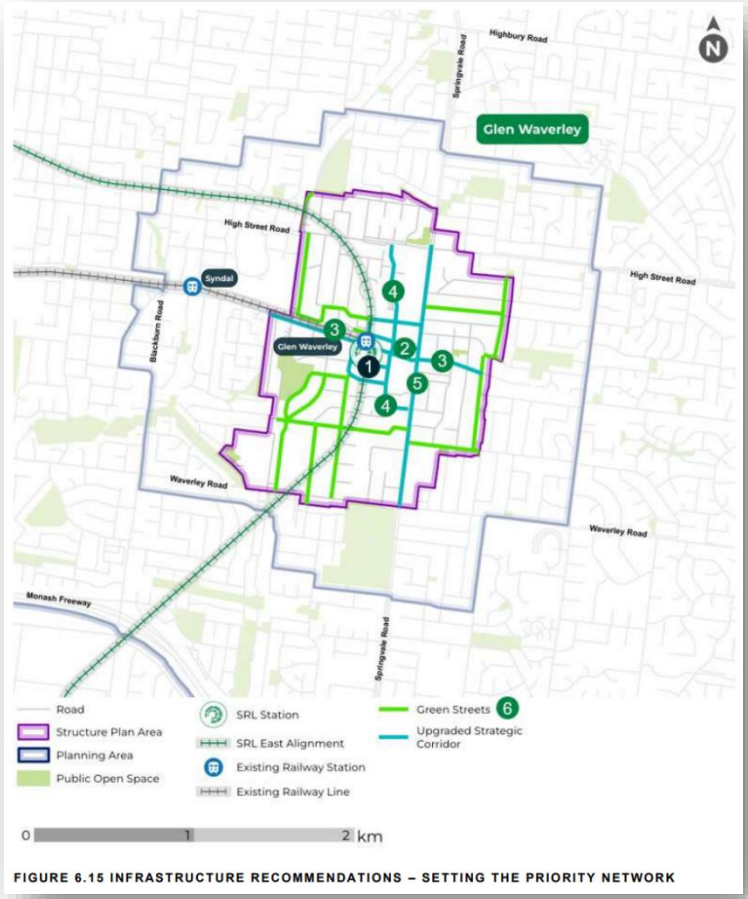


FIGURE 6.15 INFRASTRUCTURE RECOMMENDATIONS – SETTING THE PRIORITY NETWORK

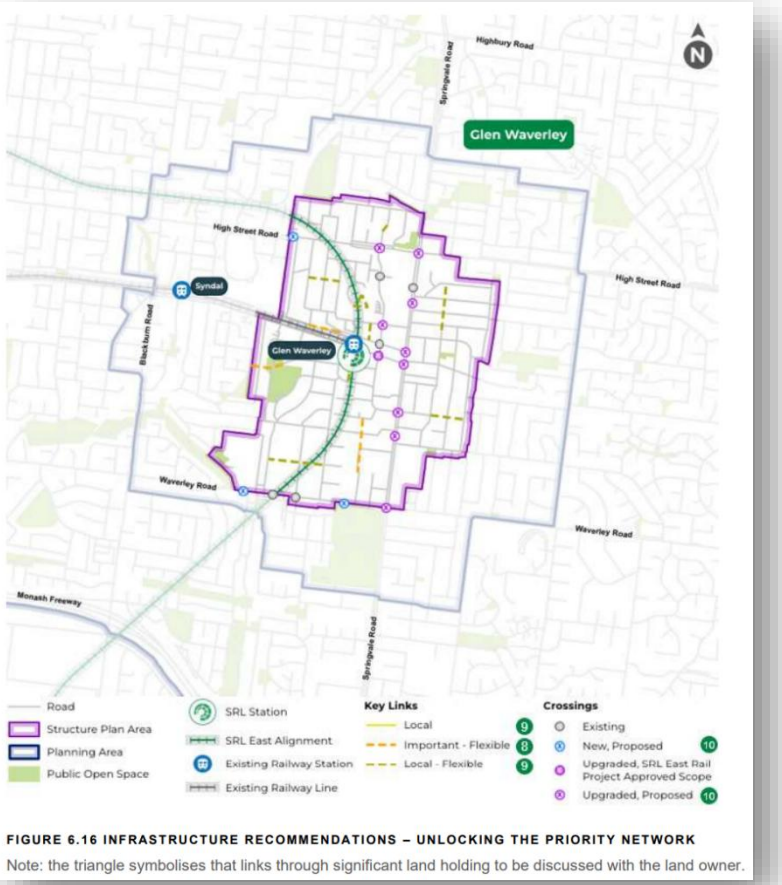
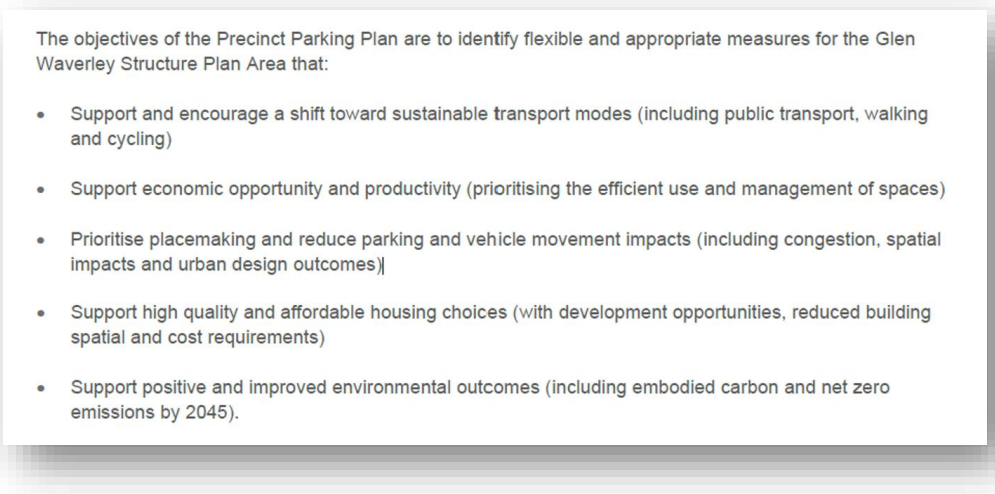


FIGURE 6.16 INFRASTRUCTURE RECOMMENDATIONS – UNLOCKING THE PRIORITY NETWORK

Note: the triangle symbolises that links through significant land holding to be discussed with the land owner.

With specific regard to car parking matters outlined in the PPP (contained as an appendix to the TTR), I further note the following:

- I support the objectives outlined in the PPP, as reproduced in the extract below.



The objectives of the Precinct Parking Plan are to identify flexible and appropriate measures for the Glen Waverley Structure Plan Area that:

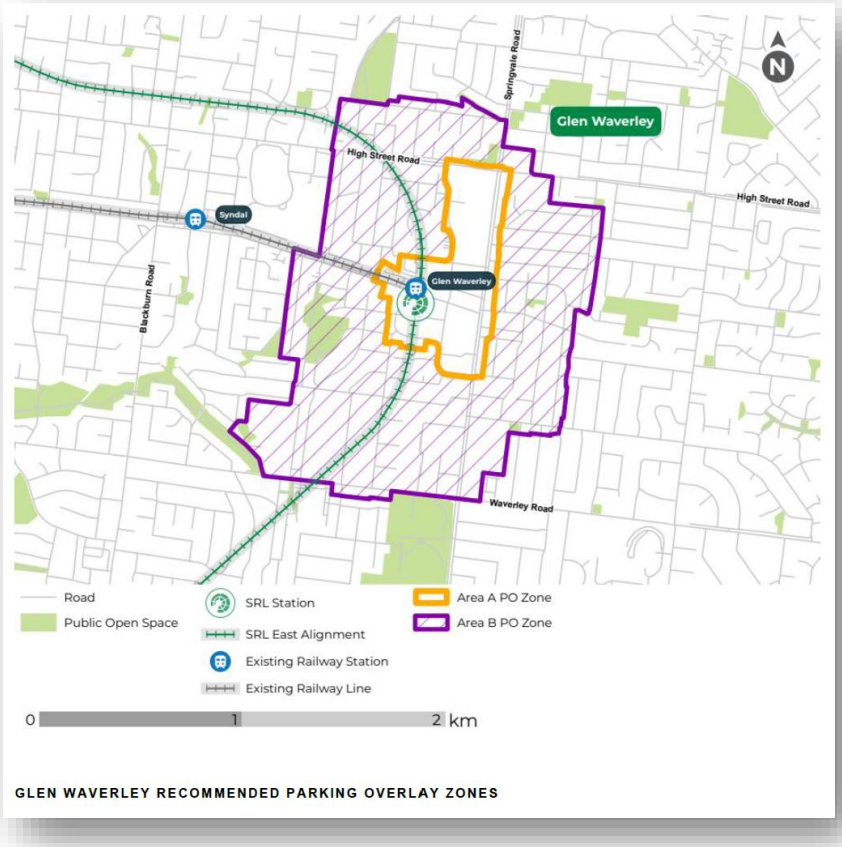
- Support and encourage a shift toward sustainable transport modes (including public transport, walking and cycling)
- Support economic opportunity and productivity (prioritising the efficient use and management of spaces)
- Prioritise placemaking and reduce parking and vehicle movement impacts (including congestion, spatial impacts and urban design outcomes)
- Support high quality and affordable housing choices (with development opportunities, reduced building spatial and cost requirements)
- Support positive and improved environmental outcomes (including embodied carbon and net zero emissions by 2045).

  In my view, these objectives align with the broader ambition outlined in the TTR (i.e., to manage the growing number of trips expected to and from Glen Waverley in the future by encouraging people to walk, cycle and catch public transport), whilst also appropriately seeking to achieve other non-transport benefits such as supporting affordable housing choices and improving environmental outcomes.

- I support the approach of establishing two different zones for the car parking controls (as shown in the extract below), including:
  - 'Area A' covering the anticipated high-density core of the precinct which is best serviced by public transport service and is already well managed by car parking controls that generally precludes long-term on-street car parking.
  - 'Area B' covering the remaining Structure Plan Area (which I note is largely within the Principal Public Transport Network).

  In addition, I support the approach of setting different car parking rates for these different zones, as follows:
  - For Area A - maximum car parking rates for all land uses, and
  - For Area B - minimum and maximum rates for dwellings and maintaining minimum car parking rates for all other land uses.

  In my view, the adoption of different car parking rates in these different areas has appropriate regard for the differences in the existing transport conditions of each area, including their proximity to public transport services and extent of existing car parking management controls. In this context, I consider the proposed PPP approach aligns with Planning Practice Note 57 (The Parking Overlay) which dictates that new car parking rates are to be substantiated based on the local conditions.



- I support the car parking rates identified in the PPP, as reproduced in the extract below, as I consider they are in the "right order of magnitude" for the key land uses and have appropriate regard to local conditions including the availability of public transport that will exist in the area up to the delivery of SRL East in circa 2035. Specifically, I note:
    - The proposed maximum rates for the dwelling use for both Areas A and B are generally aligned with ABS car ownership census data for the area. In this respect, I do not consider the rates represent a "suppression" of resident car parking provision. I also note that reduced resident car parking provisions are being sought for other non-transport reasons, as outlined in the objectives above.
    - The proposed supermarket and retail maximum rates for Area A are consistent with empirical rates often applied for such land uses in activity centres. I consider the rates will likely encourage a reduction in car parking supply while allowing developers to deliver car parking consistent with market demands if required. The adoption of a lesser minimum supermarket rate in Area B, compared to the existing statutory rate, will also encourage reduced car parking provision aligned with the empirical evidence whilst protecting against under provision which may adversely affect surrounding residential areas.
    - The maximum office rate in Area A generally aligns with rates commonly adopted in activity centres, such as Moonee Ponds (maximum rate of 2 spaces per 100sqm) and Footscray (rate between 1.5 and 2 spaces per 100sqm). Notwithstanding this, I expect this maximum office car parking rate will likely reduce over time, particularly following the delivery of SRL East in circa 2035.

- For all other land uses, the PPP proposes the Clause 52.06 'Column B' rates as the maximum and minimum rates in Area A and Area B, respectively. For Area A, I consider the adoption of the Column B rates as maximums to be appropriate and I note that it aligns with the Parking Overlays for other major activity centres, including Fishermans Bend and Victoria Gardens. For Area B, I consider it appropriate to adopt Column B rates as minimums given the majority of the land in this area is located within the PPTN at present and I consider that the balance of the land not currently within the PPTN will benefit from the active and public transport projects recommended in the TTR.

GLEN WAVERLEY RECOMMENDED PARKING OVERLAY RATES

USE	AREA A (MAXIMUM)	AREA B	UNIT/ MEASURE
Dwelling	0.7	0.5 min – 1 max	1 bedroom/studio
	1.0	0.7 min – 1 max	2 bedroom
	1.4	1.4 min – 2 max	3+ bedrooms
Residential building (student accommodation)	0.3 (maximum)	[1]	bed
Supermarket	3.5	3.5 min	100 m^2 LFA
Retail premises including Shop	2.5	Retail – N/A Shop – Clause 52.06 'Column B' rates (minimum)	100 m^2 LFA
Office	2.5		100 m^2 NFA
Other	Clause 52.06 'Column B' rates (maximum)		

[1] Unspecified (default to Monash local policy 16.01-1L-02)

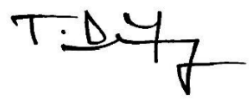
- I support the PPP recommendation that "SRLA develop a suite of documents in consultation with the City of Monash to effectively manage the function and needs of the kerbside and on-street parking" (PPP page 52) and expect this will include additional parking restrictions on the streets within and potentially adjacent to the Structure Plan Area.
- I support the principles and objectives outlined in the PPP in relation to the consolidation, sharing, and unbundling of car parking, as well as the adaptive design of car parking structures. I have been advised that more detail regarding these matters will be contained in the Parking Overlay recommended in the PPP.

5. Summary

I am satisfied that the Glen Waverley TTR dated February 2025 is appropriate for exhibition as part of Structure Planning process outlined in this memo.

Naturally, should you have any questions relating to the opinions outlined in this memo, please do not hesitate to contact me.

Kind regards,



Tim De Young
Director, Eukai Pty Ltd

BEng (Civ), BCom, MBA | CPEng, FIEAust, NER

Attachment A –
Clayton Utz Letter of Instruction dated 13 November 2024

Confidential and subject to legal professional privilege

Email: tim.deyoung@eukai.com.au

13 November 2024

Tim de Young
Eukai
Level 22,
8 Exhibition Street,
Melbourne, VIC, 3000

Dear Tim

Suburban Rail Loop East Precinct Planning
Instructions to peer review Glen Waverley Transport Technical Report

Clayton Utz (ABN 35 740 217 343) (**Clayton Utz**) together with White & Case continue to act as legal advisors to the Suburban Rail Loop Authority (**SRLA**) in relation to the precinct planning process for the Suburban Rail Loop (**SRL**) East precincts.

This letter sets out your instructions to undertake a peer review and provide peer review report of your opinions, for the purposes of Clayton Utz and/or White & Case providing legal advice to SRLA.

In December 2023, the Minister for the Suburban Rail Loop declared a Suburban Rail Loop planning area for SRL East (**SRL East Planning Area**) under section 65(1) of the *Suburban Rail Loop Act 2021*. It is in respect of this area that SRLA is a planning authority under the *Planning and Environment Act 1987*.

SRLA has defined boundaries for the preparation of structure plans (**Structure Plan Areas**) within the SRL East Planning Area and is in the process of preparing structure plans and draft planning scheme amendments (**PSAs**) for each Structure Plan Area located around the SRL East stations at Box Hill, Burwood, Glen Waverley, Monash, Clayton and Cheltenham (**SRL East Precincts**). The boundaries of the Structure Plan Area for Glen Waverley are shown here: https://bigbuild.vic.gov.au/__data/assets/pdf_file/0004/859594/SRL-Glen-Waverley-Structure-Planning-Boundary-map.pdf

The Glen Waverley Transport Technical Report (**Technical Report**) has been prepared to inform preparation of the structure plan and draft PSA for the Glen Waverley Structure Plan Area. A copy of the Technical Report was separately provided to you earlier today.

1. **Instructions**

This letter sets out instructions for you to undertake a peer review of the Technical Report and prepare a peer review report.

Your peer review report should address the following matters:

(a) the scope of your role in reviewing the Technical Report;

(b) the appropriateness of the methodology, assumptions and limitations in the Technical Report;

(c) whether the findings, assessment outcomes and recommendations in the Technical Report are appropriate in the context of the structure planning process for the Glen Waverley Structure Plan Area.

Tim de Young, Eukai 13 November 2024

2. **Conflict of interest**

It is important that you remain free from any possible conflict of interest in providing your advice. You should ensure that you have no connection with any potential party to this matter which could preclude you from providing your opinion in an objective and independent manner.

3. **Confidentiality**

This letter is confidential, and may only be disclosed at the sole discretion of Clayton Utz or White & Case. Any reports or advice prepared pursuant to these instructions are confidential, and may only be disclosed at the discretion of Clayton Utz or White & Case.

If anyone other than Clayton Utz or White & Case contacts you about this letter or your instructions, you must contact Clayton Utz or White & Case immediately.

If you have any questions about this letter or require any additional information, please contact us.

Yours sincerely

Sallyanne Everett, Partner
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VICTORIA'S BIG BUILD

SUBURBAN RAIL LOOP AUTHORITY

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If you need assistance due to a hearing or speech impairment, please visit **relayservice.gov.au**