

# Strategic Plan

**Kyneton Movement Network Plan** (2024-2033)



Date of Adoption	26 June 2024			
Adoption Method			☐ Execut	tive
CEO Signature	Bollwan	Date		8 August 2024
Manager	Eng Lim			
Department	Engineering and Resource Recovery			
Unit	Engineering Services			
Term	2024 to 2033			
Last Endorsement Date	Nil			
Nominated Review Period	☐ Annually ☐ Biennially ☐ Other (ten years)			
Next Endorsement Date	June 2033			

Macedon Ranges Shire Council acknowledges the Dja Dja Wurrung, Taungurung and Wurundjeri Woi Wurrung Peoples as the Traditional Owners and Custodians of this land and waterways. Council recognises their living cultures and ongoing connection to Country and pays respect to their Elders past, present and emerging. Council also acknowledges local Aboriginal and/or Torres Strait Islander residents of Macedon Ranges for their ongoing contribution to the diverse culture of our community.

DOCUMENT HISTORY	Version	Date	Author
Initial Draft	1	16/2/2024	Eng Lim
Second Draft	2	24/5/2024	Eng Lim
			/ Benup Neupane
Final Draft	3	4/6/2024	Eng Lim / Benup
			Neupane
Approval	4	18/6/2024	Eng Lim
Council Approval	5	26/4/24	

# **Contents**

Executive Summary	4
Introduction	5
Strategic Context	7
Movement Network Review	8
Issues and Opportunities	25
Kyneton Traffic Model (2041)	28
Recommendations	31
Prioritisation of Projects	51
Advocacy to DTP	60
Appendix A – State and Regional Strategies	61
Appendix B – Council Policies and Strategies	64
Appendix C – Movement & Place Classification Maps	73
Appendix D – Existing Public Transport Details	80
Appendix E – Existing Freight Network Details	83
Appendix F – Traffic Volume	85
Traffic Count Data - 2023	86
Appendix G – Detailed Issues and Opportunities	92
Appendix H – Traffic Model Scenarios	106
Appendix I –Traffic Model Development and Options Testing	111
Appendix J – Type of Recommended Projects	149
Appendix K – MCA Prioritisation Outputs	156

## **Executive Summary**

The Kyneton Movement Network Plan (2024 - 2033) (KMNP) proposes a strategic transport plan for infrastructure to accommodate long-term population growth within the Kyneton township boundary and to address the local community's existing transport concerns. This plan informs future movement network infrastructure planning and provides direction to guide transport infrastructure and service planning provided by Council and other levels of government.

The plan has identified future transport infrastructure and advocacy projects to guide capital works and resourcing priorities. These projects are intended to achieve the following outcomes:

- Improving access to and frequency of public transport network (bus and rail), which connects
  more people to public transport services during peak and off-peak times;
- Developing and improving/extending pedestrian and cycle networks to key destinations and improving the Campaspe River trail network;
- Developing stronger commuter connections to and from Kyneton to major services and employment centres;
- Integrating land use and transport planning;
- Facilitating tourism opportunities through greater connection with rail and the town cycling network;
- Making the road network safer by reducing congestion, and short cut traffic improving intersections and addressing missing links in both road, footpath, and public transport services;
- Catering for user needs for accessible parking;
- Improving connectivity in and between new and established neighbourhoods and
- Advocating to the Department of Transport and Planning on infrastructure upgrades and improvements on arterial roads and public transport to support the long-term growth of Kyneton.

## Introduction

Macedon Ranges Shire Council (MRSC) commenced a Kyneton Movement Network Study (KMNS) in 2022 with the assistance of a transport consultant. This study aimed to address transport and infrastructure development in the town for current needs and, in the future, to respond to the forecast population and land use development.

## **Background**

A Draft Kyneton Movement Network Study (KMNS) was prepared in 2018 in response to the adopted Structure Plan and potential population and development projections for the southern areas of Kyneton. The draft KMNS (2018) was not finalised because the community did not support several recommendations from this study.

This led to the 2022 KMNS work, culminating in the Kyneton Movement Network Plan (2024-2033). The Kyneton Movement Network Plan (2024-2033) is informed by a series of activities from strategic planning and transport investigation/study between 2008 and 2018.

Council is also finalising the Kyneton Urban Design Framework (UDF). The Kyneton Movement Network Plan (KMNP) and the UDF should be considered when planning future projects in Kyneton. The UDF is anticipated to enhance the design of central Kyneton's important streetscapes and public spaces and improve connections with the surrounding area.

The KMNP and UDF support actions to address the current movement network needs and help prioritise Kyneton's future needs. The new KMNP will reflect the current strategic context and consider previous community feedback.

#### **Population**

The latest 2021 census data from the Australian Bureau of Statistics (ABS) states that the Kyneton District (Kyneton and its surrounds) has a population of 7,513.

The Settlement Hierarchy vision in Clause 21.04 of the Macedon Ranges Planning Scheme forecasts Kyneton evolving from a District town (with a typical population under 6,000) to a Regional Centre (with a typical population of more than 10,000) by 2036.

## Study Area

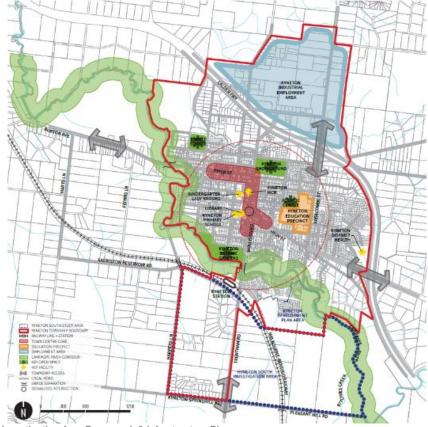
The study area includes the protected settlement boundary of Kyneton, as shown in Figure 1.



Source: VicPlan

Figure 1: Kyneton Study Area

The local facilities and precincts in Kyneton are shown in Figure 2.



Source: Kyneton South Investigation Area Framework & Infrastructure Plan

Figure 2: Kyneton Local Context

# **Strategic Context**

This section summarises the relevant strategic and local transport and planning documents to set the context for the KMNP.

## **State and Regional Strategies**

Listed below are the key state and regional documents that informed the development of the KMNP; **Appendix A** provides relevant details of these documents.

- Plan Melbourne (2017-2050)
- Victorian Road Safety Strategy
- Victorian Cycling Strategy 2018-2028
- Loddon Campaspe Integrated Transport Strategy (December 2015)
- Loddon Mallee South Regional Growth Plan (May 2014)

## **Council Policies and Strategies**

This section summarises key local strategic and planning documents that informed the development of the KMNP; **Appendix B** provides relevant details of these documents.

- Council Plan (2021-2031)
- Shirewide Footpath Plan (2023)
- Mobility and Road Safety Strategy 2023-2032
- Disability Action Plan 2021-2025
- Kyneton Structure Plan (2013)
- Draft Kyneton Movement Network Study 2018 (Version 4, February 2019)
- Kyneton Urban Design Framework (ongoing)
- Walking and Cycling Strategy (2014-2024)

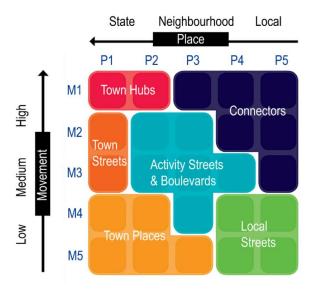
## **Movement Network Review**

A movement network comprises all transport modes, including vehicles (private cars, public transport, and freight), cyclists and pedestrians. In addition, a review of car parking was also undertaken. This section outlines a summary of the movement network review within Kyneton.

## **Movement and Place Classifications**

The Victorian Government adopted the Movement and Place (M&P) framework to translate broad strategic outcomes into priority changes, improving community transport outcomes.

Figure 3 shows six general road and street types, which define the various roads and streets on the rural transport network.



Source: Department of Planning and Transport - Movement and Place 2019

Figure 3: Movement & Place Classifications

The Department of Transport and Planning (DTP) has determined the Movement and Place (M&P) classifications for streets throughout Victoria. The M&P classifications were reviewed (refer to **Appendix C**), with findings summarised below:

#### Movement and Place

- Town connections (i.e. arterial roads) are classified as M3 (moderate movement of people and/or goods), whereas Council roads are primarily classified as M5 (local movement). It is likely that a few M5 roads (e.g. Edgecombe Road) in Kyneton serve considerable "through" traffic.
- Place classifications in Kyneton are typically P4 (neighbourhood level of significance) or P5 (local level of significance). Some locations in Kyneton likely have municipal or regional

significance, i.e., people travel further to experience them. Place classifications can change the movement classification assigned to a location's primary access route.

## Walking

- Mollison Street, south of the Campaspe River, is classified as W2 (regionally significant walking link) due to its proximity to the railway station.
- Mollison Street, north of Calder Freeway, and a section of Saleyards Road are also classified as W2; however, they cannot be justified based on the adjacent land use (Place classification of P3 is inappropriate). These would be more appropriately classified as W3 (municipal walking link), the same as the remaining section of Saleyards Road and Edgecombe Road north of Calder Freeway (routes providing access to P4 places).
- The remainder of Mollison Street is classified as W3, supporting pedestrian movements to and around the strip shopping centre and other activity generators, such as Piper Street and High Street/Bourke Street.
- Other streets classified as W3 are part or all of Edgecombe Street, James Street, Victoria Street, Ferguson Street, Epping Street, Welsh Street, Simpson Street, Baynton Street, Ebden Street, and provide access to the Education Centre, Bowling Club, library etc.
- The remainder of the streets within Kyneton township are classified as W4 (neighbourhood walking links) and serve primarily residential land, making up the balance of the pedestrian network.

#### Cycling

Kyneton has no C1 or C2 routes (Strategic Cycling Corridors). The C3 (municipal routes) and C4 (neighbourhood and local links) routes are not yet shown on the M&P maps. Specialised classifications, such as recreational (CR) and training (CT) routes, have yet to be mapped.

## Freight

Mollison Street, High Street/Bourke Street and Piper Street/Burton Avenue are classified as F3 routes – freight access routes where provision for freight vehicles is necessary; however, freight is not a priority movement.

#### General Traffic

 Mollison Street, High Street/Bourke Street and Piper Street/Burton Avenue are classified as GT3, serving moderate movement of people on routes connecting municipalities or providing access to municipal-level places. Saleyards Road (between Mollison Street and Edgecombe Road) and Edgecombe Road north of the Calder Freeway are also classified as GT3 routes.  All other streets in Kyneton are classified as GT5, serving local people's movement. Some of these streets (e.g., Edgecombe Street south of Calder Freeway) may be more appropriately classified as GT4, providing moderate movement of people within a municipality or primary access to neighbourhood-level (P4) places.

## **Public Transport**

Kyneton is served by regional rail, regional bus, and local bus services.

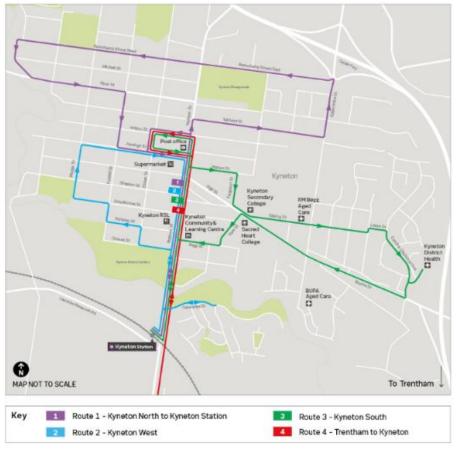
#### Rail Services

Kyneton Station provides access to train services on the Melbourne to Bendigo railway line. This line runs seven days a week and directly connects to the metropolitan rail network via stops at Sunbury, Footscray, and Southern Cross stations.

On weekdays, 22 services operate daily from Bendigo to Melbourne and 24 from Melbourne to Bendigo. During the peak and off-peak periods, services generally depart Kyneton at approximately 30-minute and 1-hour intervals, respectively. The Melbourne-Bendigo line runs 16-20 services on Saturdays and 13-17 on Sundays.

#### **Bus Services**

Since April 2019, the Kyneton bus network has been expanded to run six days a week, with services operating Monday through Saturday. Bus Routes 1, 2, and 3, as shown in Figure 4, operate from approximately 6 am—7 pm on weekdays with 9 or 10 return services and approximately 8:30 am—4 pm on Saturdays with six return services. Bus route 4 operates periodically on weekdays and Saturdays (2 services Monday through Saturday).



Source: PTV

Figure 4: Local Bus Routes

Regional bus routes serving Kyneton are as follows:

- Kyneton Malmsbury, with a stop at the Kyneton Town Centre (once every weekday)
- Lancefield Kyneton, with a stop at the Kyneton Town Centre (twice every day)

Detailed descriptions of rail and bus services are provided in **Appendix D**.

## **Walking and Cycling**

The Macedon Ranges community has increasingly sought safe walking and cycling opportunities.

Whilst some cycling infrastructure exists on a few Kyneton roads, pedestrian paths are generally well-provided throughout the town centre. Some pedestrian paths are within the general residential areas but are more limited within the industrial areas of Kyneton.

#### Pedestrian Network

**Figure 5** shows the existing footpath network and the endorsed footpath plan from the Shirewide Footpath Plan 2023 (split into a priority list of High, Medium, and Low).

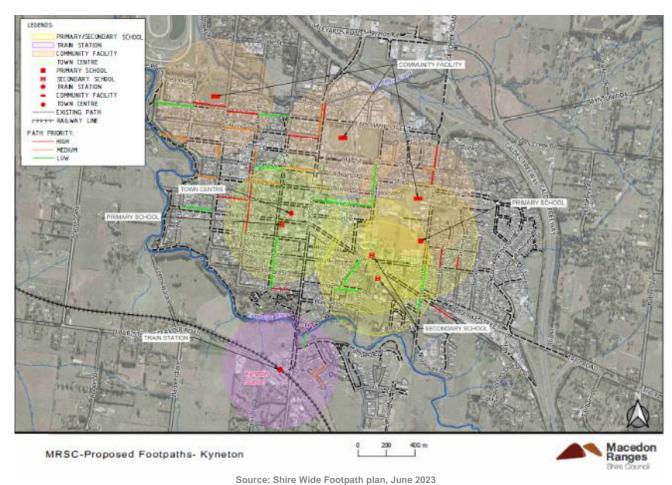


Figure 5: 2023 Kyneton Footpath Plan

#### Cycle Network

Most existing roads within Kyneton have limited or no provision for cyclists; for towns such as Kyneton, a cycling network would typically incorporate the Municipal Bicycle Network (MBN), which refers to cycling routes on local roads, and the Principal Bicycle Network (PBN), which incorporates arterial road cycling. Strategic Cycling Corridors (SCC), typically a subset of the PBN, are high-priority cycling corridors. There are no MBN or PBN routes or SCCs in Kyneton.

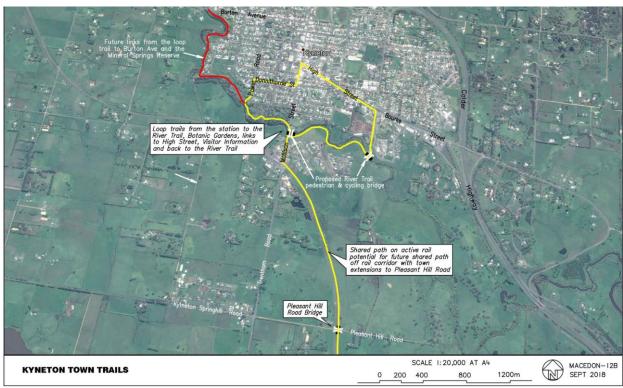
Mollison Street, a state-managed arterial road, provides on-road cycle lanes between Beauchamp Street in the north and just north of the Campaspe River bridge in the south. However, beyond this to the railway station, the cycle lanes are fundamentally non-existent and unmarked due to bluestone gutters.

Another state-managed arterial is High Street, which provides on-road cycle lanes between Mollison Street and the Calder Freeway north-facing ramp on the southern side. However, there is no cycle lane on the northern side of High Street east of Edgecombe Street. A 1.5 m path within the Bourke Street reserve needs to be wider to cater to pedestrians and cyclists.

#### Trail Network

A shared trail is provided on the northern side of the Campaspe River west of Mollison Street, although gaps exist along this trail.

Council has prepared the *Macedon Ranges Shared Trails Feasibility Studies*. The studies recommended safe and convenient shared-used trails between major towns in the Shire, including Kyneton, to encourage cycling, walking, and running for people across various abilities. The shared trail routes in Kyneton are shown in **Figure 6**. This section of the trail network has been identified as development priority two of six (as part of the Kyneton to Woodend section).



Source: Daylesford To Hanging Rock Shares Trails Feasibility Report (28 August 2019)

Figure 6: Potential Kyneton Trail Connections

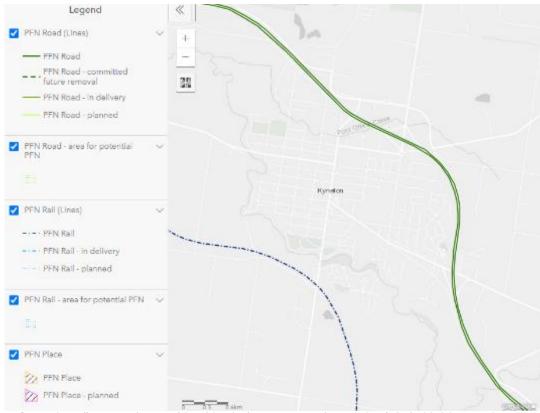
#### **Micro-Mobility**

Micro-mobility devices such as e-scooters and e-bikes are becoming a more prevalent mode of transportation. Many local governments within Metropolitan Melbourne are trialling these devices; however, a detailed assessment of their usage, success, impacts, and community perception has yet to be produced.

Council should consider opportunities to understand the community's perceptions and needs regarding micro-mobility devices in Kyneton.

## **Freight**

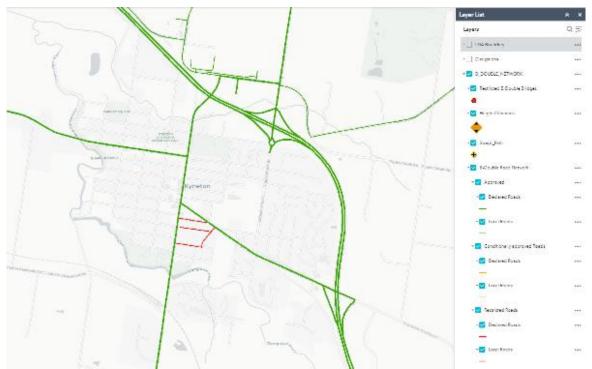
The Principal Freight Network (PFN) was last updated in 2020 and includes freight corridors and places of national, state, and regional significance. It supports high-capacity and efficient freight movements across Victoria. The PFN in and around Kyneton is shown in **Figure 7**. This map indicates that heavy vehicle movements bypass Kyneton via the Calder Freeway.



Source: https://transport.vic.gov.au/about/planning/transport-strategies-and-plans/principal-freight-network#maps

Figure 7: Principal Freight Network

**Figure 8** shows a map of Victoria's gazetted B-double route network. Pre-approved B-double truck routes are located mainly on the state-managed arterial roads with some restricted access to local roads in Kyneton.



Source: https://nhvr.maps.arcgis.com/apps/webappviewer/index.html?id=a24ada5b26c147788ce10765a8caf608

Figure 8: Victoria's Gazetted B-Double Network Map

Performance-based Standards (PBS) are a national heavy vehicle scheme designed to help the industry become safer and more productive. **Appendix E** describes PBS routes for prime movers and semi-trailers in Kyneton.

## **Road Network and Traffic Volumes**

As shown in **Figure 9**, the existing road network in Kyneton includes four state-managed arterial roads connecting Kyneton with the region and several Council-managed collector and link roads. The *Road Management Plan 2021*, which is available on the Council website, categorises the existing road network hierarchy.



Figure 9: Existing Road Network Hierarchy

#### Traffic Volumes (2023)

Macedon Ranges Shire collected tube traffic counts on key roads within Kyneton in August/September 2023. **Appendix F** presents the traffic count data.

A comparison of the previous (2015-2017) and recent count data suggests that daily traffic on Edgecombe Street and Trentham Road has increased quite significantly over the past eight years.

Traffic movement counts were commissioned at key intersections in Kyneton on Wednesday, 6 September 2023, from 3 pm to 6 pm. In addition, the consultant commissioned traffic movement counts at the Mollison Street/Campaspe Drive intersection on Wednesday, 6 April 2022, from 7 am to 9 am and 3 pm to 6 pm. **Appendix F** includes the peak hour counts. This data suggests that Mollison Street would carry as many as 4,500 vehicles per day north of Campaspe Drive.

A review of SCATS\* volume counts at the Mollison Street/High Street intersection was undertaken for two weeks, from Monday, 26 September 2022, to Sunday, 9 October 2022. The first week of this period overlaps with the school holidays, while the second week denotes a typical time of the year. Traffic volumes were generally higher, albeit slightly, when schools were open. The Fridays in each week recorded the highest volumes.

Figure 10 shows hourly traffic volume profiles at this intersection for Thursday, Friday, and Saturday. This data indicates that on a typical midweek day (Thursday), traffic volumes generally increased from 10 am to 3 pm and rapidly reduced afterwards. On the contrary, there were two peaks on Friday, one at noon and another at 3 pm. Volumes were relatively consistent on Saturday from 10 am to 1 pm. The morning peak was relatively insignificant on both weekdays.

<sup>\*</sup> SCATS refers to Sydney Coordinated Adaptive Traffic System (SCATS) which was developed by traffic engineers in NSW and adopted for use throughout Victoria controlling more than 4000 sets of traffic signals (including Mollison/High Street intersection). Traffic count data can be obtained from SCATS upon request.

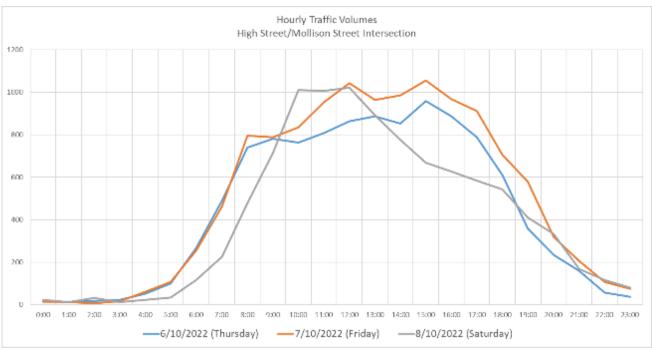


Figure 10: Volume Profile at High Street/Mollison Street Intersection

## **Signal Operations**

A review of the signal operation was carried out for the High Street/Mollison Street intersection to identify any opportunities for improvements. The phasing sequence includes a pedestrian-only phase, which can be activated by pedestrians wanting to cross the northern and eastern legs of the intersection. A dedicated right-turn phase is provided for the south-to-east movement. These right turns are also permitted when gaps are available in the southbound traffic stream along Mollison Street. Further discussion with the Department of Transport and Planning (DTP) will be required to see investigate the opportunity to optimise signal sequence and timings, subject to a detailed assessment of SCATS phasing and timing reports.

## **Casualty Crashes**

The DTP's CrashStats data was reviewed for the last five years. From 2016 to 2020, 31 crashes were reported in Kyneton. Seven involved serious injuries, with no fatalities reported.

A map showing key details of each of the 31 casualty crashes is provided in Appendix F.

Key trends over the past five years include:

 Three pedestrian crashes occurred on Mollison Street (one at Jennings Street involving minor injuries, one at Yaldwyn Street involving minor injuries and one at Mitchell Street involving serious injuries).

- Most crashes occurred on the arterial roads 12 on Mollison Street, four on Piper Street, and three on High Street/Bourke Street.
- Several crashes occurred along the local streets of Jennings Street, Ebden Street and Yaldwyn Street - all at cross intersections.
- Most of the crashes occurred at intersections, including:
  - three crashes at Mollison Street/Beauchamp Street (2 cross intersection type crashes, one rear-end crash)
  - two crashes at Mollison Street/Yaldwyn Street (1 cross intersection crash, one pedestrian crash)
  - two crashes at Yaldwyn Street/Ebden Street (1 cross intersection crash, 1 out of control crash)
  - two crashes at Bourke Street/Caroline Chisholm Drive (both cross-intersection type crashes).
- There were ten cross-traffic type crashes in Kyneton. The intersections were:
  - Piper Street/Wedge Street involving minor injury;
  - Jennings Street/Powlett Street involving minor injury;
  - Jennings Street/Ebden Street involving serious injury;
  - Yaldwyn Street/Ebden Street involving minor injury;
  - Piper Street/Ebden Street involving minor injury;
  - Mollison Street/Yaldwyn Street involving minor injury;
  - 2 x Mollison Street/Beauchamp Street, one involving serious injury and another involving minor injury;
  - Yaldwyn Street/Market Street involving minor injury; and
  - o Bourke Street/Caroline Chisholm Drive intersection involving minor injury.

## **Car Parking**

Car parking in Kyneton comprises several off-street car parks and a mix of restricted and unrestricted parking within various streets.

## **Parking Surveys**

The parking survey and assessment undertaken by a previous consultant (dated 12 July 2021) for the Kyneton Town Centre UDF were reviewed. A car parking occupancy and duration survey was conducted on Tuesday, 11 February 2020, between 7 am – 7 pm and Saturday, 15 February 2020, between 9 am – 4 pm within the four key precincts in Kyneton (Town Centre UDF study area, Sports and Aquatic Centre, Education Precinct and Train Station). **Figure 11** through **Figure 14** outline these precincts. This data is likely to represent typical conditions before the COVID-19 pandemic.



Figure 11: Town Centre UDF Study Area



Figure 12: Sports & Aquatic Precinct



Figure 13: Education Precinct



Figure 14: Train Station Parking Precinct

A second round of surveys was undertaken on Tuesday, 21 April 2021 and Saturday, 24 April 2021.

A review of the above survey data and associated memorandums was conducted. Key findings have been reproduced below:

#### UDF Area (Town Centre)

- The peak is generally between midday and 1 pm on weekdays and between 11 am 12 pm on Saturdays.
- The peak occupancy for off-street parking on weekdays and Saturdays is considerably higher than for on-street parking.
- The off-street car parks on Hutton Street, Jennings Street, Simpson Street and Yaldwyn Street East operate near capacity throughout the business day (9 am 5 pm) on weekdays.
   The peak occupancy for off-street parking is 83%.
- Piper Street between Mollison Street and Ebden Street consistently has high occupancy throughout the day, ranging from 90 to 100%.

 Overall, there are sufficient car parking spaces available to accommodate the current demand and possibly an increased demand in the short term within the Town Centre. More off-street parking may be needed soon.

#### Sports and Aquatic Centre

- The peak is generally between 3-4 pm on weekdays and 10-11 am on Saturdays.
- The car parking occupancy levels on Saturdays are significantly higher than on weekdays, which is likely to be associated with the recreational classes/sessions running within the centre.
- Overall, sufficient car parking spaces are available to accommodate the current demand and increased demand in the medium term within the Sports and Aquatic Centre.

#### **Education Precinct**

- The peak is generally between 3-4 pm on weekdays but varies on Saturdays.
- The car parking occupancy levels on Saturdays are significantly higher than on weekdays, which is likely to be associated with the recreational classes/sessions running within the centre.
- Overall, sufficient car parking spaces are available to accommodate the current demand and increased demand in the medium term within the education precinct.

#### Train Station

- The peak is generally between 11 am 12 pm and between 1-3 pm on weekdays with 81% occupancy and between 2-3 pm on Saturdays with 19% occupancy.
- Overall, sufficient car parking spaces are available to accommodate the current demand and possibly an increased demand in the short term. More parking may be needed at the railway station soon.

#### **Accessible Parking**

The provision of accessible parking is 38 spaces, comprising 24 spaces within the off-street car parks within the Town Centre, four on-street spaces within the Town Centre, five at the Sports & Aquatic Centre and five at the train station. This provision equals about 1.8% of total public parking spaces across the four precincts, Town Centre, Sports & Aquatic Centre, Education Precinct and Train Station. The Education precinct provides only one public accessible parking on Victoria Street.

The 2021 parking assessment referenced above indicated a peak occupancy rate of 33% for accessible parking. This study noted that accessible parking is limited outside areas with concentrated off-street parking.

Generally, 2% of the total parking provision should be accessible parking spaces. Given the peak occupancy of accessible parking is only 33%, any increase in accessible parking in the future will be subject to requests and further investigation on a case-by-case basis.

# **Issues and Opportunities**

The issues and opportunities have been developed in this section based on the previous work undertaken by Council and associated community feedback and a review of the existing and likely future movement network conditions.

## **Public Transport**

Key potential issues about public transport services in Kyneton are summarised below.

- Inadequate bus access and connections to new residential areas south of Campaspe River, the industrial precinct, the Aged Care Centre off Riverwalk Boulevard, and the entire length of Edgecombe Street.
- Inadequate frequency of town bus routes during the morning and afternoon peak periods (particularly late mornings and early afternoons).
- There is a lack of frequent buses between the train station and the town centre during peak tourist season.
- Heavy traffic on three of the four town routes.
- Empty buses during the off-peak. Need to optimise bus routes and services.
- Emissions and pollutants generated by buses.

Detailed issues and opportunities are provided in **Appendix G**.

## Walking and Cycling

Key potential issues about pedestrians and cyclists in Kyneton are summarised below.

- Incomplete walking or cycling infrastructure and road crossings on routes to and from the Kyneton Station.
- There is a lack of safer and more convenient town connections, road crossings, and supporting infrastructure.
- Missing links and/or narrow sections along the river trail between Piper Street and Sanctuary Drive.
- Access connections along the river trail are too few and far between.
- There is a lack of pedestrian and cycling crossing across the Campaspe River.
- Supporting amenities like wayfinding, water taps, etc., are missing along the river trail.
- There is an opportunity to introduce marked cycle lanes on Piper Street, subject to a detailed investigation of the bluestone gutters and drainage requirements.

- Several high-order Council roads, e.g. link and connector roads, have no footpaths or only provide a footpath on one side.
- There is an opportunity to enable walking or cycling paths to safely access the town from the residential area to the north (e.g. Bushland Resort) and to the south (Kyneton South off Trentham Road).
- The existing on-road cycle lanes are narrow to encourage more cycling.
- The surface type and width of footpaths vary throughout the town.
- One of the key barriers to walking around and within the Town Centre is the lack of priority crossings on busy streets.
- Transit through the Mollison Street/High Street and Mollison Street/Piper Street intersections can be difficult and unsafe for cyclists.
- There is an opportunity to identify and map C3, C4, CR and CT routes for Kyneton on M&P classifications.

Detailed issues and opportunities are provided in **Appendix G**.

## **Freight**

Through/external freight traffic via the Town Centre can impact the local amenities. The revision in the PFN (Principal Freight Network) may have reduced the quantum of external freight movements via the Town Centre.

Delivery truck movements into and out of Mollison Street should be encouraged to occur outside the peak periods (AM peak, midday, and PM peak). This would improve amenities and enhance the safety of vulnerable users.

Providing adequate wayfinding signage for heavy vehicles on the approaches to the town and key destinations such as the industrial precinct could redirect the flow of heavy vehicles away from streets being used by pedestrians and cyclists.

## **Road Network and Traffic Operations**

Key potential issues and opportunities for the road network and operation in Kyneton are summarised below.

- Capacity shortfall at the High Street/Mollison Street intersection.
- Short-cut traffic and potential speeding on Begg Street, Bodkin Street and New Street.
- Future opportunity for a second access to new residential developments south of Campaspe River.

- Right and left turns out of Jennings Street can be challenging and unsafe.
- Delays at the proper turn movement from Piper Street into Mollison Street.
- There is a history of cross-intersection crashes at the Mollison Street/Beauchamp Street intersection. Vehicles turning right from Mollison Street into Market Street block the through movement.
- Right turns from High Street into Epping Street often block the through movement.
- Traffic volumes, vehicle speeds, and parking shortfalls are the areas of concern along
   Edgecombe Street near the education precinct.
- Short-cut traffic could occur on Ebden Street, Powlett Street, Pohlman Street, Donnithorne
   Street and Clowes Street.

Detailed issues and opportunities are provided in **Appendix G**.

## **Car Parking**

Potential issues about parking in Kyneton are summarised below.

- The provision of accessible parking is limited outside of the concentration of off-street car parks off Mollison Street.
- The accessible parking within the Education precinct is almost negligible (0.3% of all public parking supply).
- Non-standard and inconspicuous parking spaces tend to be less useable.
- More parking spaces are likely required at the train station as the population grows and
   V/Line patronage increases after the reduction of their regional fares.

Detailed issues and opportunities are provided in **Appendix G**.

# **Kyneton Traffic Model (2041)**

A traffic model was used as a tool to determine the impact the proposed land use changes within the Kyneton Township will have on the existing road network and to help determine what road network changes/upgrades are required to meet the expected growth in traffic.

For the future year, Council advised utilising the following growth forecasts for the development of the future baseline model:

- Housing demand: 85 dwellings per annum, with 80% (70 dwellings) delivered in greenfield areas and 20% (15 dwellings) delivered in infill locations.
- Commercial development: Total floor area and employment within the retail and office sector to align with recommendations in the Tim Knott report (5,200 square metres).
- Industrial Employment: a rate of 2.46% per annum.
- Education: Employment and enrolment growth are based on historical data from the My School website for each school in Kyneton.

The resultant housing growth forecast in the southern development area of Kyneton is shown in **Figure 15** based on available information at the time of this study. Any additional proposed increase in dwellings for Kyneton South will be tested through transport / traffic assessment by project proponents for Council review and approval.

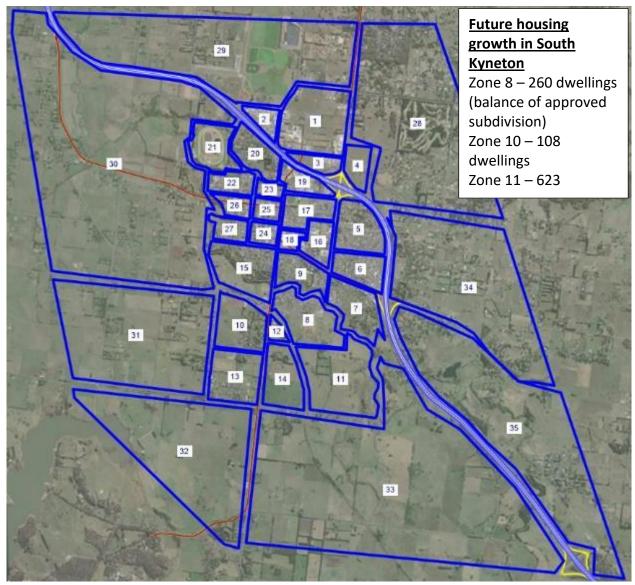


Figure 15: Zoning Structure and Assumed Housing Growth in South Kyneton

Following calibration/validation of the existing year model, the modelling assessment included three scenarios:

- 2041 baseline, using the existing road network.
- 2041 future network Option 1 comprising the Edgecombe Street Bridge connection across the Campaspe River and the town centre bypass route via Flynns Lane and;
- 2041 future network Option 2, like Option 1 but the bypass route via Harts Lane.

Further description of each scenario is included in Appendix H.

Key findings of the modelling assessment are as follows:

- Average weekday traffic counts presented in Table 1 on local roads are within the indicative traffic capacity set out in Clause 56.06 of the Macedon Ranges Planning Scheme for corresponding functional classification.
- Key east-west corridors, such as High Street and Piper Street, have high usage, although traffic on these roads is well within the anticipated capacity of 18,000 vehicles per day and 900 vehicles per hour per direction.
- Base year (2023) traffic model indicates that all roads within Kyneton operate within available capacity.
- Mollison Street is the busiest road in the traffic model, particularly a section between High Street and Yaldwyn Street, although it also has some spare capacity.
- Field observations indicate that the section of Mollison Street between Simpson Street and Lauriston Street, particularly the High Street intersection, is busier in the PM peak period.
- A notable uplift in traffic volumes is forecast in the Kyneton region to 2041 during the PM peak period (3-6 pm).
- There would be noticeable congestion in parts of the network in the future baseline scenario (without the Edgecombe Street connection across the Campaspe River), most significantly on Mollison Street.
- The Edgecombe Street connection would be well utilised as it becomes a key north-south corridor along with Mollison Street. This is logical and plausible.
- The two future network scenarios with Edgecombe Street connection would result in significant congestion relief on Mollison Street, given part of the north-south traffic is redistributed to Edgecombe Street.
- The two future network scenarios with Edgecombe Street connection indicate no significant catchment for the model's south-to-west movements, leading to negligible use of both potential bypass routes.
- Traffic demands in both network scenarios are very similar.

It is noted that both town centre bypass routes did not attract considerable traffic and, therefore, were not included in the ultimate recommendations.

A further assessment of forecast traffic volumes in both future network scenarios indicate that estimated daily traffic (based on peak hour to daily traffic ratio of 10%) would be within the theoretical capacities of key roads within Kyneton.

The model predicts relatively low utilisation of Campaspe Drive and the future east-west connector compared to Edgecombe Street. Further interventions are recommended along Edgecombe Street to minimise the increase in traffic volumes and retain the Calder Highway and Mollison Street as the main north-south routes. Following the implementation of the recommended projects (e.g. traffic calming treatments and reduced speed limit on Edgecombe Street, upgrades to the High Street/Mollison Street intersection, etc.), it would be expected that more traffic than those predicted by the model would utilise these two roads. This would alleviate the potential pressure on Edgecombe Street and lower its peak period volumes within the theoretical capacity.

A summary modelling report, including traffic volume outputs, is provided in **Appendix I**.

## Recommendations

This section has developed and presented recommendations and projects that address the identified existing transport issues and movement network gaps and cater for the predicted growth in traffic volumes based on the modelling results.

The recommendations have been organised by movement type (public transport, walking and cycling, freight, road network, traffic operations, car parking, etc.). Key types of projects identified in this section are explained in **Appendix J**.

# **Public Transport**

**Table 1** summarises recommendations for public transport services that address the key needs/focus areas.

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
	Bus access, connections, and routing	<ul> <li>Advocate to PTV to review bus routes to better serve education and industrial precincts on Edgecombe Street.</li> </ul>	Short-term	Low	High
PT1		<ul> <li>Trial on-demand flexible and accessible bus services in Kyneton outside peak periods to key destinations (e.g. the town centre, community centres, etc.).</li> </ul>	Medium-term	Moderate	Medium
	Bus efficiency and	<ul> <li>Advocate to PTV to review the frequency and schedule of bus services to increase services during peak periods matching the train schedule.</li> </ul>	Short-term	Low	High
PT2	frequency	<ul> <li>Investigate the feasibility of trialling an on-demand shuttle service between the railway station and the town centre during peak tourist reasons.</li> </ul>	Medium-term	Moderate	Medium
РТ3	Sustainable public transport	<ul> <li>Advocate for bus operators and/or PTV to replace existing fossil fuel forms of transport with hybrid or electric fleets.</li> </ul>	Medium-term	Moderate	Medium
PT4	Bus infrastructure	<ul> <li>Review (on-site) existing infrastructure of all bus stops within Kyneton in conjunction with patronage and advocate to PTV to upgrade high-priority bus stops to the current standard (including DDA tiles, pad, shelter, etc.).</li> </ul>	Short-term	Moderate	High

<sup>1</sup> Short-term: 0-5 years, Medium-term: 5-10 years, Long-term: >10 years

<sup>2</sup> Short-term: 0-5 years, Medium-term: 5-10 years, Long-term: >10 years

<sup>3</sup> Function of likely benefits (connectivity, safety, etc.), feasibility, likely alignment with local strategy and policy and stakeholder/community feedback.

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
PT5	Railway station	<ul> <li>Advocate for railway authorities (VicTrack, PTV, etc.) to upgrade facilities at the railway station, including improved pedestrian access and bicycle parking to cater to future growth and additional car parking.</li> </ul>	Short-term	Moderate	Medium
		<ul> <li>Advocate to DTP to review the existing at-grade railway crossing on Mollison Street and to identify/implement pedestrian safety improvements.</li> </ul>	Long-term	Moderate	Low
PT6	Growth areas	<ul> <li>Develop a bus-capable road network and infrastructure in growth areas to accommodate bus routes through Kyneton South.</li> </ul>	Long-term	Medium	Low

Table 1: Public Transport Recommendations

# **Walking and Cycling**

Table 2 summarises the issues and opportunities for pedestrians and cyclists in Kyneton.

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
AT1	Access to Kyneton Railway Station	<ul> <li>Ensure the delivery by the developers of traffic signals at the Mollison Street/Campaspe Drive intersection and a shared path on the northern side of Campaspe Drive between Mollison Street and Village Green Drive.</li> <li>Develop cycling/walking routes identified in AT2 and AT3 to enhance</li> </ul>	Short-term	Low	High
		<ul> <li>access and connections to the railway station.</li> <li>Prioritise/expedite the delivery of a shared path in/adjacent to the railway reserve extending from the south end of the approved subdivision at 22 Village Green Drive to Mollison Street (partly funded by developers).</li> </ul>	Long-term Short-term	High Low	High High
		<ul> <li>Seek funding from DTP to install pedestrian-operated signals at the railway crossing (across Mollison Street, on the northern side of the crossing); the indicative trigger point is when the shared path in the railway reserve is built to Mollison Street.</li> </ul>	Medium-term	Moderate	Medium
		<ul> <li>Extend the existing footpath/shared path in/along the railway corridor (one or both sides) as part of the rezoning/development of greenfield sites in Kyneton South.</li> </ul>	Long-term	High	Low

<sup>1</sup> Short-term: 0-5 years, Medium-term: 5-10 years, Long-term: >10 years

<sup>2</sup> Short-term: 0-5 years, Medium-term: 5-10 years, Long-term: >10 years

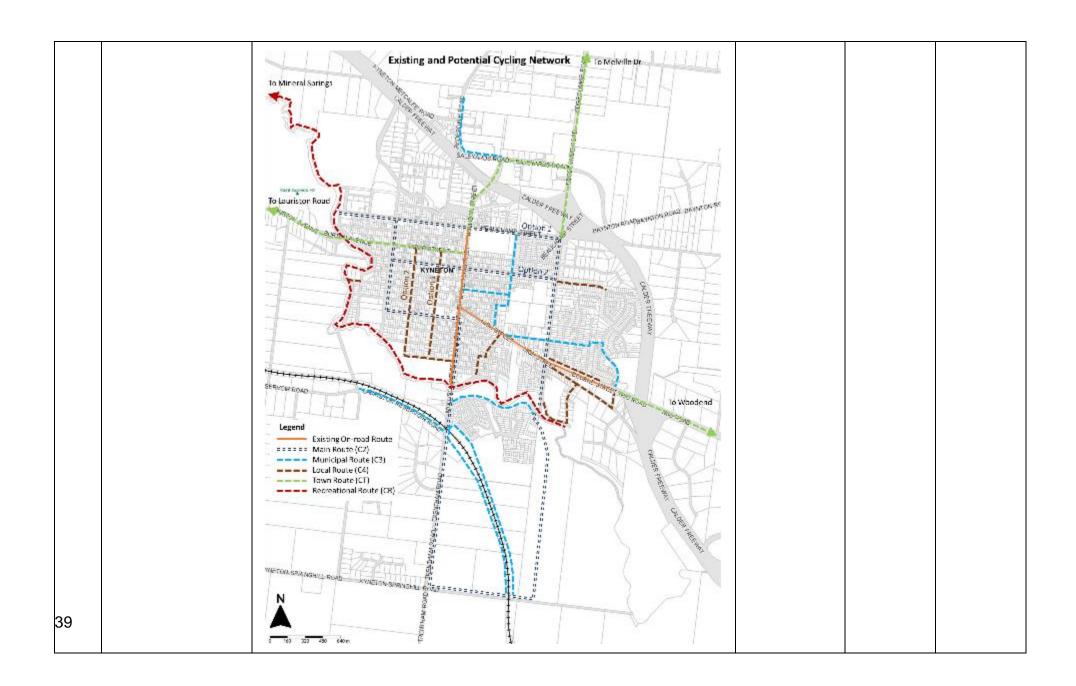
<sup>3</sup> Function of likely benefits (connectivity, safety, etc.), feasibility, likely alignment with local strategy and policy and stakeholder/community feedback.

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
	Campaspe River Trail	<ul> <li>Widen the river trail between the southern end of Wedge Street and the eastern terminus to match upgraded sections to the west/northwest.</li> <li>Extend the river trail from the eastern terminus to connect with the existing shared path on the south side of Rennick Avenue. The recommended width is 2.5m.</li> </ul>	Short-term Short-term	Moderate Moderate	High High
AT2			Short-term Short-term	Low Low Low	High High High
AT3	Cycling network and hierarchy	<ul> <li>Develop cycling classification in Kyneton as follows:</li> <li>Main Cycling Route (C2) – Consider installing on-road cycle lanes (in conjunction with reduced speed limit and suitable traffic calming treatments) or shared paths (2.5-3m wide as appropriate) on:         Edgecombe Street (Beauchamp Street to Pleasant Hill Road) – the southern section of this route is dependent on the construction of the Edgecombe Street bridge and the continuation of Edgecombe Street out of Pleasant Hill Road;     </li> </ul>	Short to long- term	Low to High	Medium to High

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
		Beauchamp Street or Yaldwyn Street (Edgecombe Street to			
		Campaspe River Trail);			
		Wedge Street (Beauchamp Street/Yaldwyn Street to Simpson Street);			
		Simpson Street (Wedge Street to Mollison Street);			
		Mollison Street/Trentham Road (Pleasant Hills Road to Simpson			
		Street) – a cycling route on Trentham Road should be delivered in			
		conjunction with future developments and			
		Pleasant Hill Road (Trentham Road to Edgecombe Street) – this			
		route depends on land development to the north.			
		<ul> <li>Secondary/Municipal Cycling Routes (C3) – Consider installing on-</li> </ul>			
		road cycle lanes/shoulders, sharrows (in conjunction with reduced			
		speeds and/or suitable traffic calming treatments) or shared paths			
		(2.5-3m wide as appropriate) on:			
		Both sides of the railway reserve east of Trentham Road (future,			
		partly funded by developer contributions);			
		Victoria Street;			
		Ferguson Street;			
		Market Street (Victoria Street to Ferguson Street);			
		Lauriston Street;			
		Epping Street;			
		Leete Street;			

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
		Campaspe Drive;			
		Caroline Chisholm Drive (Bourke Street to Leete Street);			
		Saleyards Road (Mollison Street to Jackson Drive); and			
		Lauriston Reservoir Road.			
		<ul> <li>Local Cycling Routes (C4) – Consider installing sharrows and</li> </ul>			
		suitable traffic calming treatments on:			
		Langley Street-Begg Street-New Street;			
		Ebden Street or Powlett Street (Piper Street to Clowes Street);			
		Clowes Street;			
		Jennings Street west of Mill Street;			
		Riverwalk Boulevard;			
		Sanctuary Drive;			
		Blair Drive;			
		High Street service road and			
		Bourke Street service road.			
		<ul> <li>Cycling Route between towns (CT) – install shoulders or on-road</li> </ul>			
		cycle lanes (1.5-2m wide as appropriate) on:			
		Mollison Street (Beauchamp Street to Saleyards Road);			
		Saleyards Road (Mollison Street to Edgecombe Street);			
		Edgecombe Street (Beauchamp Street to Bushland Resort);			
		Burton Avenue/Piper Street (Mollison Street to Lauriston Road); and			

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
		Bourke Street/Trio Road (to Woodend).			
		<ul> <li>Recreational Cycling Route (CR) – As identified in AT2. In addition,</li> </ul>			
		extend the Campaspe River Trail to Mineral Springs to the west of the			
		town and under the future Edgecombe Street bridge to Sanctuary			
		Drive to the east.			
		Some of the above projects are subject to further feasibility assessment and			
		require DTP approval. The map below illustrates the existing and recommended			
		potential cycling network in Kyneton.			



No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
AT4	Safer crossings	<ul> <li>Install a pram crossing or priority crossing (if warranted) on Mollison Street at the following locations, in conjunction with kerb outstands and a reduced speed limit (refer to TR5):         <ul> <li>Hutton Street/Bowen Street</li> <li>Simpson Street/Welsh Street</li> </ul> </li> </ul>	Short-term	Moderate	High
		<ul> <li>Install a priority crossing on Piper Street between Ebden Street and Powlett Street, along with kerb outstands and a reduced speed limit (refer to TR5).</li> </ul>	Short-term	Moderate	High
		<ul> <li>Install a priority crossing on High Street near ROW access to the Market Street car park and at the Ferguson Street intersection, in conjunction with kerb outstands and a reduced speed limit (refer to TR5).</li> </ul>	Short-term	Low	High
		<ul> <li>Install a priority crossing on Ferguson Street at Market Street in conjunction with kerb outstands.</li> </ul>	Short-term	Moderate	High
		<ul> <li>Upgrade the Mollison Street/Piper Street intersection with traffic signals or a roundabout with raised platforms to slow vehicle speeds and enable safer pedestrian crossings in conjunction with a reduced speed limit (refer to TR5).</li> </ul>	Medium-term	High	Medium
		<ul> <li>Install kerb outstands where feasible on the approaches of east-west streets (e.g. Market Street, Jennings Street, Lauriston Street, etc.) to Mollison Street to reduce crossing distance.</li> </ul>	Short-term	Moderate	High

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
		<ul> <li>Install kerb outstands where feasible on the approaches of Ebden Street,</li> <li>Powlett Street and Wedge Street to Piper Street to reduce crossing distance.</li> </ul>	Short-term	Moderate	High
		<ul> <li>Provide a pram crossing or wombat crossing (if warranted) on Edgecombe         Street at the existing shared path connection through the Education         Precinct, along with kerb outstands and a reduced speed limit (refer to TR4).     </li> <li>The above projects are subject to further feasibility assessment and require DTP approval.</li> </ul>	Short-term	Low	High
AT5	Connected footpath	Complete the remaining high-priority footpath projects identified in the Shire Wide Footpath Plan 2023 in Kyneton.	Short-term	Moderate	High
	network	Advocate for developers to provide footpaths on both sides of local residential streets in the Kyneton South growth area as part of new subdivisions.	Short-term	Moderate	High
		<ul> <li>Prioritise constructing additional footpaths on the following roads based on their classifications, bus routes and the proximity to activity nodes:</li> <li>Baynton Street (north side) – Wedge Street to Powlett Street</li> </ul>	Medium-term	Moderate	Medium
		<ul> <li>Jennings Street (north side) – Ebden Street to Powlett Street</li> <li>Beauchamp Street (north side) – Mollison Street to Ebden Street and</li> <li>Wedge Street to Powlett Street</li> </ul>			

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
		Victoria Street (west side) – Mair Street to Beauchamp Street			
		<ul> <li>Epping Street (south side) – Edgecombe Street to Barton Street</li> </ul>			
		<ul> <li>Lauriston-Reservoir Road (south side)  – Mollison Street to Harpers</li> </ul>			
		Lane			
		<ul> <li>Donnithorne Street (south side) – Powlett Street to Wedge Street</li> </ul>			
		<ul> <li>Pohlman Street (south side) – Ebden Street to Powlett Street</li> </ul>			
		<ul> <li>Wedge Street (west side) – Baynton Street to Jennings Street</li> </ul>			
		<ul> <li>Yaldwyn Street E (north side) – Mollison Street to Victoria Street</li> </ul>			
		Pedestrian projects identified in AT5 and AT6 are shown in the map below.			

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
		Potential Pedestrian Projects  CALDER FREEWAY  BEAUCHAMP STREET  KYNETON  Legend  Pram of Priority Crossing (with kerb outstands) Pedestrian friends y intersection Lygrade Side Sivere kerb outstands Frootpath Construction			

Table 2: Pedestrians and Cyclists Recommendations

# **Freight**

The following freight-specific projects are recommended to improve amenity and enhance the safety of road users in Kyneton:

- Ban heavy trucks (local delivery excepted) on the High Street and Mollison Street sections in the Town Centre (short-term, high priority). This recommendation will require consultation with the Town Centre businesses and approval from the DTP (Freight) and National Heavy Vehicle Regulator (NHVR).
- Establish detour routes for heavy trucks (short-term, high priority).
- Advocate for local businesses to arrange large deliveries outside the peak periods (shortterm, high priority). This has the potential to improve amenities and enhance the safety of vulnerable road users.
- Provide adequate wayfinding signage for heavy vehicles on the approaches to the town (including the Calder Freeway) and key destinations such as the industrial precinct. This could redirect the flow of heavy vehicles away from streets being used by pedestrians and cyclists.

.

# **Road Network and Traffic Operations**

Table 3 summarises recommendations for the road network and connections to address key needs/focus areas in Kyneton.

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
TR1	Operation of Mollison Street	<ul> <li>Signal rephasing at the Mollison Street/High Street intersection.</li> <li>Extend the southern right turn lane (re-line marking) by relocating the existing bus just north of Simpson Street to the frontage of the Mechanics Institute (in the form of an indented bay).</li> <li>The above projects are subject to further assessment and require DTP approval.</li> </ul>	Short-term Short-term	Low Low	High High
TR2	Short-cut traffic on Begg Street, Bodkin Street and New Street	<ul> <li>As per TR1.</li> <li>Consider implementing the following traffic management treatments as appropriate:         <ul> <li>Install speed humps on Bodkin Street;</li> <li>Install bus-friendly speed humps on Begg Street and New Street;</li> <li>Mark parking bays (hockey sticks) on both sides of Bodkin Street and New Street (north of Bodkin Street) to create a narrowing effect; and</li> <li>Install a splitter island on Bodkin Street approach to New Street;</li> </ul> </li> </ul>	Short-term Short-term	Low	High High

<sup>1</sup> Short-term: 0-5 years, Medium-term: 5-10 years, Long-term: >10 years

<sup>2</sup> Short-term: 0-5 years, Medium-term: 5-10 years, Long-term: >10 years

<sup>3</sup> Function of likely benefits (connectivity, safety, etc.), feasibility, likely alignment with local strategy and policy and stakeholder/community feedback.

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
TR3	Traffic flows /congestion	As per TR1.	Short-term	Low	High
	and safety at key intersections.	Signalisation and capacity upgrades of the Mollison Street/Campaspe     Drive intersection (to be delivered by others as already planned).	Short-term	High	Medium
		<ul> <li>Improve operations of Mollison Street at Market Street and Jennings         Street. Consider the following alternatives:         <ul> <li>Restrict right turns into Market Street during peak hours.</li> <li>Install a loop detector on Jennings Street to activate traffic signals at</li> </ul> </li> </ul>	Short-term Short-term	Low Low	High High
		the adjacent pedestrian crossing. This could alleviate pressure on the Mollison Street/Market Street intersection.  • Full signalisation of the Mollison Street/Jennings Street intersection (replacing the adjacent traffic signals at a pedestrian crossing) and sync it with the Mollison Street/High Street traffic lights. Given the volume (unless right turns are banned in peak hours), this might	Medium-term	Moderate	Medium
		require a right-turn lane on Mollison Street, which is only feasible if	Medium-term	Moderate	Medium
	•	<ul> <li>on-street parking is removed (subject to community consultation).</li> <li>New roundabout or traffic signals with raised safety platforms at the</li> </ul>	Medium-term	Moderate	Medium
		Mollison Street/Piper Street intersection.     New roundabout at the Mollison Street/Beauchamp Street intersection.	Medium-term	High	Low
			Short-term	Low	Medium

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
		<ul> <li>New roundabout or traffic signals at the Saleyards Road/Edgecombe Road/Pipers Creek Road intersection (likely to be implemented with the development of Bunnings and other commercial sites).</li> <li>Prohibit right-turn movement from High Street into Epping Street during the school drop-off and pick-up periods.</li> </ul>			
TR4	Traffic, safety, and parking conditions in the vicinity of Education Precinct	<ul> <li>Reduce the posted speed from 60 to 40 km/h on Edgecombe Street between Epping Street and Beauchamp Street (to complement the designation of the leading cycling route).</li> <li>Reconfigure the carriageway of Edgecombe Street between High Street and Beauchamp Street with 2 x 3.3m wide traffic lanes and 2 x 2.7m wide shared parking/bicycle lanes (marked).</li> <li>Install kerb outstands intermittently on Edgecombe Street between High Street and Beauchamp Street to create a narrowing effect and reduce crossing distance.</li> </ul>	Short-term Short-term Short-term	Low	High High High
TR5	Vehicle speeds and short-cut traffic (for existing and forecast traffic)	<ul> <li>Implement an area-wide speed zone within the town centre of 30 or 40 km/h.</li> <li>Reduce the speed limit on residential streets surrounding the town centre to 40 km/h. This includes all streets bounded by Piper Street/Mair Street to</li> </ul>	Short-term Short-term	Low	High High

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
		<ul> <li>the north, Victoria Street to the east, Donnithorne Street/Bodkin Street to the south and Wedge Street to the west.</li> <li>Install speed humps or other traffic calming treatments as appropriate on Ebden Street, Powlett Street, Pohlman Street, Donnithorne Street, Clowes Street, Mair Street, Orr Street, Sturt Street and Yaldwyn Street E to slow traffic speeds and reduce short-cut traffic.</li> </ul>	Medium-term	Low	High
TR6	Movement & Place classification	<ul> <li>Advocate to DTP to classify Edgecombe Street between Beauchamp         Street and the future Campaspe Drive connection to GT4 and M4 on</li></ul>	Medium-term	Low	High
TR7	Safely cater for forecast traffic volumes in Kyneton South.	<ul> <li>Construct an Edgecombe Street bridge across the Campaspe River that accommodates vehicle, pedestrian, and bicycle movements (to be funded partly by development contributions).</li> <li>Campaspe Drive is designed and constructed as a connector road and currently functions satisfactorily. As part of the Riverside development, the developer is installing a traffic signal at the Mollison Street/Campaspe Drive intersection and a roundabout at the Windridge Way/Campaspe Drive junction.</li> </ul>	Medium-term	High	High

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
		<ul> <li>Delivery of the bridge shall be planned ahead of Campaspe Drive, reaching the design capacity and being part of the overall development of Kyneton South.</li> </ul>			
		<ul> <li>Install a roundabout at the Campaspe Drive/Edgecombe Street extension intersection (to be funded partly by development contributions).</li> </ul>	Medium-term	Moderate	High
		Signalise and upgrade the High Street/Edgecombe Street intersection with pedestrian crossings across all four legs. This project would be triggered	Medium-term	High	High
		<ul> <li>Upgrade Edgecombe Street between the new bridge and High Street.</li> <li>Consider a bus-capable cross-section of 2 x 3.5m wide traffic lanes with indented parking on both sides, a 2.5m shared path on the western side and a 1.5m footpath on the eastern side. This project would be triggered simultaneously with the Edgecombe Street bridge.</li> </ul>	Medium-term	High	High
TR8	Safely cater for forecast traffic volumes.	<ul> <li>New roundabout at the Trentham Road/Pleasant Hill Road when greenfield sites are developed south of the Campaspe River with direct access off Pleasant Hill Road (to be funded partly or wholly by development contributions).</li> </ul>	Long-term Long-term	High High	High Low
		<ul> <li>New roundabout at the Trentham Road/future east-west access road intersection when greenfield sites east and west of Trentham Road are developed (to be funded partly by development contributions).</li> </ul>			

No.	Identified Need/Focus Area	Recommendations	Timeframe <sup>1</sup>	Cost <sup>2</sup>	Priority <sup>3</sup>
TR9	Safely cater for forecast traffic volumes.	<ul> <li>Upgrade Pleasant Hill Road to a suitable standard when greenfield sites are developed south of the Campaspe River with direct access off Pleasant Hill Road (to be funded by development contributions). Consider creating a 24m reserve to provide a bus-capable collector/connector street.</li> </ul>	Long-term	High	High
		<ul> <li>Advocate DTP to upgrade Trentham Road between Pleasant Hill Road and Mollison Street to a suitable standard to support future developments on both sides.</li> </ul>	Long-term	High	Low

Table 3: Road Network and Operational Recommendations

# **Car Parking**

The following recommendations about car parking aim to improve accessibility and availability of parking for all users in Kyneton:

- Undertake an accessible parking audit (short-term with high priority) in the town centre and surrounding areas and identify improvements to ensure compliance with relevant guidelines and standards.
- Target an accessible parking supply of at least 2% of the total supply within the Town
  Centre and Education Precinct (short-term with high priority). This can be done by (upon
  request on a case-by-case basis):
  - Converting standard on-street parking spaces into accessible spaces in the town centre at/near shops and community facilities.
  - Installing/marking accessible parking spaces on High Street, Epping Street and Edgecombe Street within the Education Precinct.
- In the medium term, formalise the unsealed council-owned car park on the corner of the Ebden Street/Yaldwyn Street intersection.
- Assess parking demands and compliance with timed restrictions every 4-5 years in the town centre and activity areas to identify the need for additional parking or changes to timed restrictions.

# **Prioritisation of Projects**

A Multicriteria Assessment (MCA) was undertaken to assist with prioritising projects for delivery. MCA is a decision tool that assists in comparing both quantitative and qualitative aspects of projects by assigning weights and scores to various criteria and their performance metrics.

The recommendations presented above were split into projects that can be delivered individually or in a group. 116 projects were identified, encompassing all transport and car parking modes. Most of the identified projects include capital works for delivery, although a few involve advocacy to state governments and private developers.

Six criteria and associated performance metrics included in the MCA for prioritisation of these projects are outlined as follows:

- Feasibility / Constructability: Prioritise projects that:
  - o are within Council land and can be delivered without external approval/consultation.
  - have no/less environmental and cultural heritage impacts and do not require the removal of trees.
  - do not require major construction or infrastructure upgrades.

- Connectivity: Prioritise projects that:
  - improve/enhance the serviceability of key destinations.
  - o complete critical gaps in the existing movement network.
- Safety: Prioritise projects that:
  - provide the most significant increase in safety for all road users.
  - o align with Safe System principles.
- Alignment with Movement and Place classifications: prioritise projects that address
  Movement and Place performance gaps.
- Alignment with local strategy and policy: Prioritise projects that:
  - support the Council's objectives for the movement network.
  - o provide additional community benefits, such as tourism, local businesses, etc.
  - have already been developed to reduce total project time and cost or will be partially delivered by developer contributions.
- Stakeholder and community sentiments: Prioritise projects (after the community and stakeholder consultation) that:
  - o the local community support.
  - have the likelihood to be supported, in principle, by external stakeholder stakeholders.
  - This criterion has been added as a placeholder for this report. It will be fully incorporated into the MCA once feedback from the community and stakeholders (DTP, etc.) on the identified projects is received.

Each assessment criterion and performance metric were assigned a weighting based on importance, and scores were scored between 1 and 5 based on a pre-established scoring guide. The scoring guide comprised factors that capture the anticipated benefits (connectivity, safety, proximity to key destinations, etc.) and implications (costs, environmental, cultural impacts, etc.). As such, the MCA ranking provides an objective ranking for each identified project.

#### Community Consultation

The draft Kyneton Movement Network Plan was completed and presented at the Council Meeting on 27 March 2024. Council released this draft Plan for six (6) weeks of consultation in April and May 2024.

Community feedback is an important input to the MCA process.

The draft report outlines 116 potential projects, ranked from highest to lowest priority based on the initial MCA analysis (using criteria such as feasibility, connectivity, safety, alignment with Movement and Place aspirations, and alignment with local strategy and policy).

Officers conducted the community consultation as per Council's Community Engagement Policy, as follows:

- The consultation was supported by promotions through various Council channels, including inclusion in the March 2024 Council Meeting wrap-up media release on 2 April, posted to our website and circulated to media outlets (coverage on 9 April Midland Express);
- The consultation was also mentioned in the monthly March 2024 Mayor's video on 3 April, posted to our website and shared on social media;
- Mentions in Council's regular fortnightly half-page advertisement in the Midland Express on 9 and 23 April and 7 May;
- Social media post on 10 April flagging open consultations, including this Plan;
- An online consultation page was created on the Council's Your Say portal. It outlines the draft report and invites feedback for six weeks, from 2 April to 13 May 2024.

This consultation aimed to seek the stakeholders' and community's sentiments and feedback for incorporation into the MCA (as one of the six assessment criteria) and finalise the project priorities for the final report.

A total of 52 responses were received from the community.

The community generally supported the initial projects identified in the draft and provided its views on their priority.

The community was unsupportive of the following three projects:

- No. 74. Restrict access to left-in/left-out on New Street at High Street
- No. 75. Restrict access to left-in/left-out on Bodkin Street at Mollison Street
- No. 76. Restrict access to left-in/left-out on Begg Street at Mollison Street.

The community identified 13 additional projects that they would like to see developed and implemented in Kyneton. These projects are outlined in **Table 4** and were also scored in the MCA.

Project No.	Project Type	Description
117	Active transport	Orr Street (south side between Tower Road and Edgecombe Street): construction footpath
118	Car parking	Market Street (between Mollison Street and Ferguson Street): convert to parallel car parking
119	Active transport	Ebden Street (eastern side where required): seal existing footpath
120	Active transport	Redesdale Road: construct a shared path
121	Active transport	Jennings Street: construct a shared path
122	Active transport	Powlett Street: construction footpath between Piper Street and Baynton Street
123	Active transport	Conduct townwide footpath audit of existing footpath
124	Road network and vehicular traffic	Welsh Street: review the road closure to enable access by pedestrians and cyclists
125	Car parking	Victoria Street: undertake an audit of on-street parking
126	Road network and vehicular traffic	Redesdale Street at Council transfer station: crossover safety improvement
127	Road network and vehicular traffic	Beauchamp Street: reduce the speed limit to 50km/h
128	Priority crossing with kerb outstands	East of High Street and Ferguson Street intersection
129	Priority crossing with kerb outstands	Intersection of Market Street and Ferguson Street

Table 4: Additional Community Identified Projects

# **Top 30 Projects post-consultation**

Following input from the community, the MCA process was updated to rank 129 projects (including the 13 additional community-identified projects described in **Table 4** above) from highest to lowest priority.

The following projects were removed due to the lack of community support and conflict with other projects:

- No. 74. Restrict access to left-in/left-out on New Street at High Street;
- No. 75. Restrict access to left-in/left-out on Bodkin Street at Mollison Street;
- No. 76. Restrict access to left-in/left-out on Begg Street at Mollison Street;
- No. 65. Establish a heavy vehicle detour route through Ebden Street. This project conflicts with N. 38 (install bicycle sharrows); and
- No. 66. Establish a heavy vehicle detour route through Ferguson Street and Victoria Street.
   This project conflicts with N. 26 and 27 (install bicycle lanes or shared paths).

Total feedback for and against the projects was counted, and the net support was calculated. This number was then divided by the maximum net support for any project, and 20% weight was applied to calculate the community score for projects. This score was fed into the MCA process. For example, Project No. 72 received six comments for it and four against it, equating to a net support of 2. The maximum net score for any project was 6. On this basis, the community score of the Project Number was calculated as 7% (20% of 2/6).

If a project did not receive any comments or had more comments against it than for it, then a community score was set at 0.

The 13 new projects identified by the community were scored based on the number of residents who raised them.

**Table 5** provides of the final list of the top 30 projects prioritised by the MCA approach, incorporating community feedback, which is mapped in **Figure 16**.

The raw outputs of the MCA comprising all identified projects and their ranking are included in **Appendix K**.

MCA Ranking (after community consultation)						
MCA Ranking	Project ID	Project Type	Road Name	Project	Start	End
1	84	Vehicle Traffic	Kyneton Town Centre	Area speed limit reduction (30km/h or 40km/h)		
2	97	Vehicle Traffic	Edgecombe Street (post the construction of a bridge at Campaspe River)	Road upgrade and reconfiguration	High Street	Future Campaspe River bridge
3	70	Vehicle Traffic	Bodkin Street	Traffic calming (speed humps, splitter island at New St)	Mollison Street	New Street
4	69	Vehicle Traffic	Mollison Street/High Street	Intersection upgrades (right turn extension and signal mods)		
5	85	Vehicle Traffic	Streets surrounding town centre (bounded by Piper/Mair, Victoria, Donnithorne/Bodkin & Wedge)	Speed limit reduction (to 40km/h)		
6	45	Active Transport	High Street at Market Street Car Park ROW access	Priority crossing with kerb outstands		
7	104	Car Parking	Kyneton Town Centre	Undertake accessible parking audit in 2027		
8	83	Vehicle Traffic	High Street/Edgecombe Street (post the construction of a bridge at Campaspe River)	Intersection upgrades (traffic signals)		
9	106	Car Parking	High Street, Epping Street, Edgecombe Street	Install on-street accessible parking in/around the Education Precinct		
10	129	Active Transport	Ferguson Street at Market Street	Priority crossing with kerb outstands		

MCA Ranking (after community consultation)						
MCA Ranking	Project ID	Project Type	Road Name	Project	Start	End
11	105	Car Parking	Kyneton Town Centre	Convert on-street parking spaces to accessible parking spaces (on a caseby-case basis)		
12	77	Vehicle Traffic	Mollison Street into Market Street	Restrict right turn movements during peak times (short term)		
13	49	Active Transport	Edgecombe Street at existing shared path connection through Education Precinct	Priority crossing with kerb outstands		
14	55	Active Transport	Beauchamp Street (north side)	Construct footpath	Wedge Street	Powlett Street
15	81	Vehicle Traffic	Edgecombe Street	Speed limit reduction (to 40 km/h)	Epping Street	Beauchamp Street
16	73	Vehicle Traffic	New Street	Traffic calming (speed cushions)	High Street	Begg Street
17	43	Active Transport	Mollison Street	Priority crossing with kerb outstands	Simpson Street	Welsh Street
18	42	Active Transport	Mollison Street	Priority crossing with kerb outstands	Hutton Street	Bowen Street
19	62	Active Transport	Yaldwyn Street E (north side)	Construct footpath	Mollison Street	Victoria Street
20	61	Active Transport	Wedge Street (west side)	Construct footpath	Baynton Street	Jennings Street
21	59	Active Transport	Donnithorne Street (south side)	Construct footpath	Powlett Street	Wedge Street
22	46	Active Transport	Mollison Street/Piper Street	Intersection upgrade - signalisation/roundabout		

	MCA Ranking (after community consultation)					
MCA Ranking	Project ID	Project Type	Road Name	Project	Start	End
23	72	Vehicle Traffic	Begg Street	Speed cushions	Mollison Street	Ross Street
24	128	Active Transport	High Street at Ferguson Street	Priority crossing with kerb outstands		
25	82	Vehicle Traffic	Edgecombe Street	Carriageway reconfiguration (shared bicycle and parking lane) and kerb outstands (narrowing effect and reducing crossing distance)	High Street	Beauchamp Street
26	44	Active Transport	Piper Street	Priority crossing with kerb outstands	Ebden Street	Powlett Street
27	60	Active Transport	Pohlman Street (south side)	Construct footpath	Ebden Street	Powlett Street
28	57	Active Transport	Epping Street (south side)	Construct footpath	Edgecombe Street	Barton Street
29	56	Active Transport	Victoria Street (west side)	Construct footpath	Mair Street	Beauchamp Street
30	96	Vehicle Traffic	Edgecombe Street across Campaspe River	New road bridge connection		

Table 5: Top 30 Priority Projects (after Community Consultation)

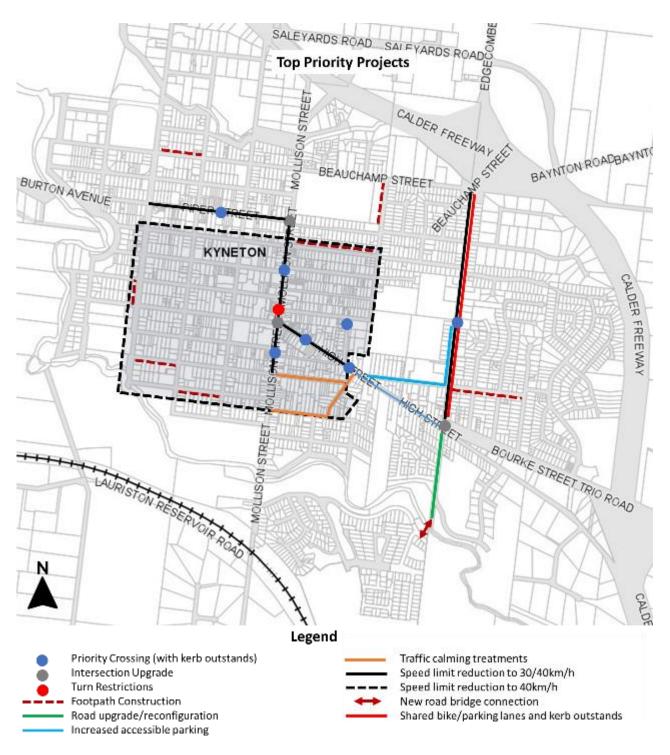


Figure 16: Top 30 Projects (after Community Consultation)

# **Advocacy to DTP**

The development and delivery of the priority projects requiring advocacy and approval from DTP are summarised in **Table 6**.

MCA Ranking	Project ID	Project	
1	84	Area-wide speed reduction in Kyneton Town Centre (30 or 40 km/h)	
4	69	Intersection upgrades (right turn extension and signal mods) at High Street/Mollison Street	
5	85	Area-wide speed reduction in residential streets surrounding Kyneton Town Centre	
6	45	Priority pedestrian crossing with kerb outstands on High Street at Market Street Car Park Right of Way (ROW)	
8	83	Intersection upgrades (traffic signals) at High Street/Edgecombe Street intersection (post the bridge construction)	
12	77	Restrict turn movements from Mollison Street into Market Street during peak hours.	
15	81	Speed limit reduction (to 40kmh) on Edgecombe Street	
17	43	Priority crossing with kerb outstands on Mollison Street at/near Simpson Street and Welsh Street.	
18	42	Priority crossing with kerb outstands on Mollison Street at/near Hutton Street and Bowen Street.	
22	46	Intersection upgrade at Mollison Street/Piper Street	
24	128	Priority crossing with kerb outstands on High Street at Ferguson Street	
26	44	Priority crossing with kerb outstands on Piper Street between Ebden Street and Powlett Street.	
36	102	Full signalisation of the Mollison Street/Jennings Street intersection (replacing the adjacent traffic signals at a pedestrian crossing) and sync it with the Mollison Street/High Street traffic lights	
43	103	Install a loop detector on Jennings Street to activate traffic signals at the adjacent pedestrian crossing.	

Table 6: Priority Projects Requiring DTP Approval/Advocacy

# **Appendix A – State and Regional Strategies**

Document	Key Messages	Relevant Issues Identified
Plan Melbourne (2017-2050)	Policy 7.1.2 Support planning for growing towns in peri-urban areas  Kyneton has been identified in peri-urban areas with the capacity for more housing and employment-generating developments, providing an affordable and attractive alternative to metropolitan living. Strategies are needed for the timely delivery of state and local infrastructure to support growth and protect the significant amenities (including agricultural and environmental assets) without urban sprawling.	NA
Victorian Road Safety Strategy 2021-2030	<ul> <li>Vision: Zero road deaths by 2050.</li> <li>Halve road deaths and reduce serious injuries by 2030.</li> <li>One of the strategic focus areas is vulnerable and unprotected road users, including cyclists.</li> <li>Levers to change include safer vehicle travel speeds, infrastructure improvements and education programs.</li> </ul>	NA
Victorian Cycling Strategy 2018-2028	Aim: increase the number, frequency and diversity of Victorians cycling for transport by:  Investing in safer, lower-stress, better-connected networks, prioritising strategic corridors  Making cycling a more inclusive experience.  The strategy prioritises strategic cycling corridors but recognises that neighbourhood cycling connections are essential to provide safe access to local destinations.	NA
Loddon Campaspe Integrated Transport Strategy (December 2015)	<ul> <li>Kyneton is recognised as a sub-regional employment centre with a strong population and economic growth expected.</li> <li>Relevant priorities include: <ul> <li>Develop a functional road use hierarchy for freight, community access and tourist routes, then prioritise investment in these road networks.</li> <li>Railway Station Access Improvement Program, which encourages active and public transport.</li> <li>Rail Trails and recreational tourism bike networks.</li> </ul> </li> <li>Small town connectivity plans.</li> </ul>	Lower-income families are being forced out of Kyneton into towns with fewer transport options and further from services.

Document	Key Messages	Relevant Issues Identified
Loddon Mallee South Regional Growth Plan (May 2014)	Recognised that large centres, such as Kyneton, act as hubs to small surrounding settlements and rural areas. Future directions include targeting new growth to settlements in Kyneton.  This plan identified an ample supply of existing residentially zoned la The following map shows directions for Kyneton's future land use. The plan directs that to support strong growth in Kyneton, the choice of transport modes should be increased, including those for commuters Kyneton to Bendigo.  **Map 16st Figure 10 of the Structure**  **Plantage 10 of the Stru	and. his s from
	Technique to an artistic to the control of the cont	repell whold as the second as

Table A1: Summary of State and Regional Strategic Documents

# **Appendix B – Council Policies and Strategies**

#### **Council Plan 2021-2031**

The Council Plan provides the strategic direction for the future of the Macedon Ranges Shire. It outlines key priorities for the next four years, covering the term of the current elected Council, and supports the achievement of the Community Vision through planned objectives and strategies.

One of the strategic objectives of the Council Plan is Connecting Communities. The key relevant priorities include:

- Improve connectivity and movement and provide the community with transport choices, including walking trails and bike paths. The KMNS will develop a cycling network to improve connectivity to key destinations and encourage the uptake of active transport.
- Integrate land-use planning and revitalise and protect the identity and character of the Shire. The KMNS will identify public and active transport opportunities in the southern area of Kyneton to guide future land use planning.

### **Shirewide Footpath Plan 2023**

The Shirewide Footpath Plan 2023 prioritises promoting health and well-being and improving the built environment by upgrading the municipality's walking and cycling infrastructure.

Council's Shirewide Footpath Plan highlights new footpath/shared path linkages forecast for ten years (2018-2027). Individual projects are prioritised by being evaluated against a select set of criteria.

The Plan incorporates community consultation on factors such as:

- connectivity to either a business precinct, recreation precinct, community facility or education facility;
- connectivity to a public transport node (i.e. bus stop, train station etc);
- the population within the catchment area for which the path is servicing;
- comparison with the current walking and cycling strategy; and
- servicing areas with potential mobility issues, preschools/aged care, etc.

The scope of the Shirewide Footpath Plan is limited to missing path links. In contrast, the Kyneton Movement Network Plan focuses on the interconnected system of streets, roads, and paths that accommodate pedestrians and cyclists, as well as on-road public transport and emergency and private vehicles. The ranking of the identified footpath projects may differ in these two documents due to their scope, noting the Kyneton Movement Network Plan also identifies most of the projects identified by the Shirewide Footpath Plan. Any additional new footpath (or shared path) identified in 65

the KMNP will be assessed based on the priority matrix on the Shirewide Footpath Plan and then added to the list of either high or medium priority based on its scoring.

# Mobility and Road Safety Strategy 2023-2032

The Shire's Mobility and Safety Vision is 'A safe and convenient road transport system for healthy people and a healthy environment'. The following strategic objectives align with the Council Plan 2023-2032 as follows:

- Mobility improving mobility so that people can easily access the places that are important to them.
- Road Safety reducing road trauma and creating a safe road environment.
- Road Safety and Mobility improving safety and mobility, creating an attractive environment and economic viability.
- Leadership playing a leadership role in road safety and mobility.

The online survey undertaken as part of this strategy provided the following feedback/trends:

- While car use is very high, many people walk, cycle, and use non-motorised vehicles (such as skateboards and scooters). Public transport tends to be used infrequently.
- Many people are unsatisfied with the safety of roads, footpaths and cycling facilities.
- The main issues related to infrastructure quality include poor roads and paths, lack of cycling facilities, and inadequate connectivity for walking and cycling. The school journey and safe movement around schools were also a significant concern.

# **Kyneton Structure Plan (2013)**

The Kyneton Structure Plan provides a planning framework for identifying the issues and planning opportunities to accommodate the future growth and development of Kyneton until 2036. The plan was organised around five themes, one of which is Transport and Access. This theme follows the principles of balancing the needs of pedestrians, cyclists, motorists, and public transport users and achieving a well-connected and mobile community through all modes of transport.

The following critical issues and considerations were identified in the Kyneton Structure Plan through consultations with local businesses, community members and other interested parties:

 The three main access routes and thoroughfares (High/Bourke Street, Mollison Street and Piper Street) that play a key role in shaping commercial, industrial, and residential development within the Town Centre and periphery of Kyneton are managed by the Department of Transport.

- There is a demand to upgrade infrastructure to encourage and assist access from areas such as the hospital and education precincts back into the Town Centre to ensure ease and safe access for walking and cycling.
- Linkages along and across the Campaspe River and Post Office Creek to connect various precincts within Kyneton are missing.
- The station car park is currently at capacity on weekdays. It has poor pedestrian and cycling
  access to the surrounding residential areas and a relatively poor connection to the Town
  Centre.
- Bus access and services are limited to cater for increasing population and demand, particularly to and from the Town Centre and the station. The residential areas to the east are not well served by bus routes.
- High long-term parking demand pressure on the existing parking facilities, particularly along Mollison Street, High Street and Piper Street.
- Through freight traffic via the town centre is an issue

The Transport and Access Plan for Kyneton is shown in Figure B1.

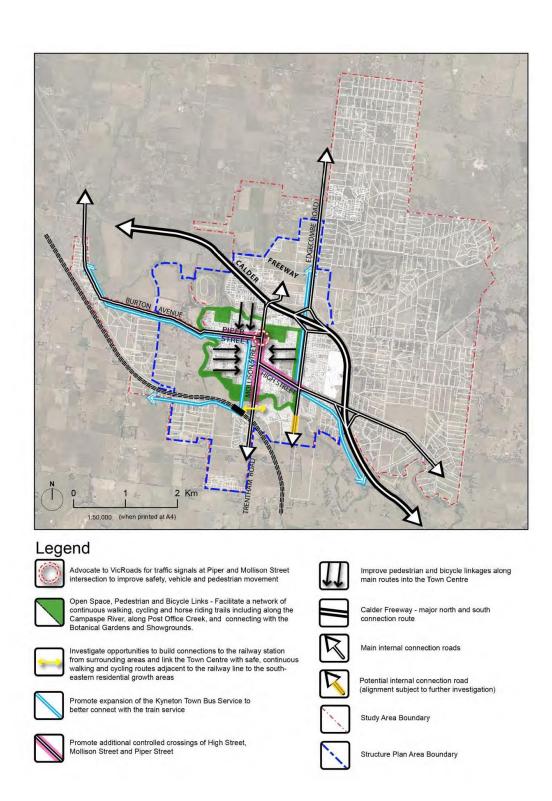


Figure B1: Transport and Access Plan from Kyneton Structure Plan

# **Draft Kyneton South Investigation Area Framework Plan (August 2017)**

The Framework Plan's purpose is to guide future medium to longer-term growth that may occur in the Kyneton South Investigation Area.

Council is updating the Framework Plan, which will make the 2017 plan redundant. Notwithstanding this, many issues and opportunities identified during its development through a targeted stakeholder workshop in October 2016 remain relevant. This workshop included representatives from State and local government and a range of authorities and agencies and focused on identifying the current and future constraints of Kyneton Township that need to be addressed.

The key relevant issues and opportunities that were raised during this process were:

#### Street Network

- To consider future growth, the Edgecombe Street crossing of the Campaspe River will be required to provide an alternate access point to the township.
- The planning for the investigation area should explore the opportunity of providing an East-West Road connection over the railway.
- Explore the potential for a western local bypass connection (e.g. Harpers Lane or Flynns Lane) to lessen the dependence on Mollison Street.
- Desired Melbourne-bound transport route from the Investigation area could utilise Trentham Road, head south to Carlsruhe Central Rd, and access the Calder Freeway.
- Upgrades may be required to the existing road, bike, and pedestrian infrastructure dependent on growth impact.
- Explore the potential for a rail bridge crossing along Pleasant Hill Road, preserving the existing heritage bridge for pedestrian/cycling purposes.

#### **Public Transport**

- There are timetabling issues associated with the current Public Transport offering, with bus services not aligning with the few train services provided during peak times.
- The increased population may trigger the requirement to expand the bus network to cater for future growth within the Township and Investigation Area.

#### Footpath and Trail Network

- The township's existing pedestrian and cycle infrastructure requires improvements to ensure that the future planned network can connect to the existing network.
- A cycle network hierarchy should be created for Kyneton, focusing on providing safe access to key destinations such as Kyneton Station, the Town Centre, employment areas, and the Education Hub.
- There is potential to utilise the tributaries of the Campaspe River as key north-south trail connections through the Investigation Area, linking the existing Kyneton community.

The potential street, cycle, and pedestrian plans from the 2017 framework are shown in Figure B2.

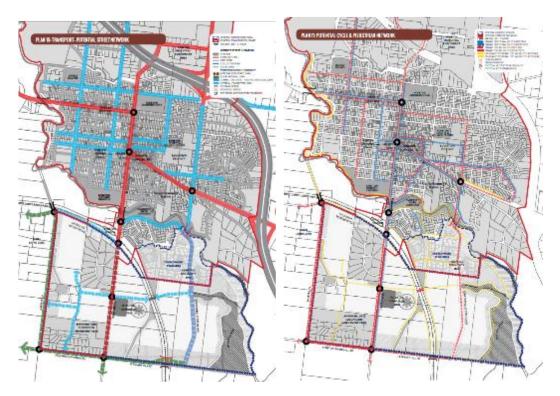


Figure B2: Potential Street, Cycle & Pedestrian Network Plans

# **Kyneton Urban Design Framework (ongoing)**

Council is refreshing Kyneton's Town Centre Urban Design Framework (UDF). The UDF will provide urban design direction for Kyneton's streetscapes, public open spaces, and buildings, focusing on the three main commercial streets: Mollison Street, High Street and Piper Street.

# Walking and Cycling Strategy (2014-2024)

Council's Walking and Cycling Strategy, which was adopted in 2014 aims to increase walking and cycling opportunities in the shire and promote healthy active lifestyles from 2014–2024. The key objective of the strategy is to provide Council with strategic direction on increasing participation and improving the supportive infrastructure and resourcing for walking and cycling in the shire over the next ten years.

Specific capital projects that are of importance to the KMNP are:

- Progressively implement the shared trail along the Campaspe River in Kyneton as identified by the Open Space Strategy (priority action).
- Link Piper Street to Campaspe River Trail (aspirational action).
- Fill gaps in Campaspe River Trail between Hutton Street and Jennings Street, as well as Donnithorne Street and Clowes Street (aspirational action).
- Loop around the school area along Mollison Street, Yaldwyn Street East, Edgecombe Road, and High Street (aspirational action).
- Provide a path along the south side of Campaspe River east of Mollison Street (aspirational action).

A list of key projects that will require Council advocacy to the Department of Transport to support implementation is as follows:

- The on-road connection between towns linking Kyneton to Gisborne (via Woodend and Macedon) along Old Calder Highway (high priority).
- Review the existing on-road cycle provision along Mollison Street between the Botanic Gardens and Showgrounds and ensure compliance with contemporary standards (high priority).
- The on-road connection between Lancefield to Kyneton along Three Chains Road, Chases Lane, and Pipers Creek Road (medium priority)
- Possible on-road connection along Kyneton Main Road to Mineral Springs and Malmsbury (medium priority).
- On-road connection along Piper Street from Mollison Street to Campaspe River (low priority).

The Walking and Cycling Strategy network map for Kyneton is shown in Figure B3.

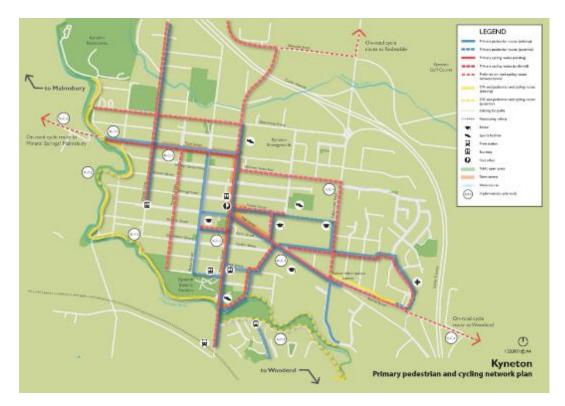


Figure B3: Kyneton Pedestrian and Cycling Network Plan

# **Disability Action Plan 2021-2025**

This plan is intended to reduce barriers and increase inclusion and participation for people with disability. It identifies ways the Council will make access to places easy and inclusion better for people who live, work, and visit Macedon Ranges.

This plan covers five areas: joining in, safety and health, helping people understand disability, access to buildings and places, and work.

The most relevant areas for consideration of this KMNP and associated actions are summarised below:

- Safe and healthy. Council will:
  - o ensure places that can be active for people of all ages and abilities.
- Access to buildings and places. Council will:
  - help people to understand and follow laws regarding keeping pathways clear for access.
  - o make more accessible car parks.
  - o make more footpaths in places where people need them.
  - o advocate for government funding to make more buildings and places accessible.
  - o advocate for more and better public transport.

# **Appendix C – Movement & Place Classification Maps**



Figure C1: M&P classifications (General)

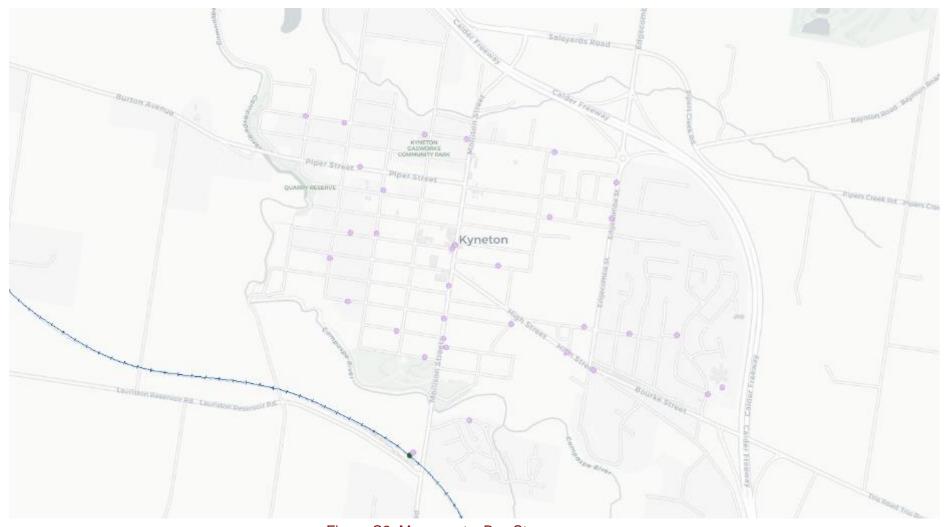


Figure C2: Movement – Bus Stops



Figure C3: Movement – School Bus Network



Figure C4: M&P Walking Classification



Figure C5: M&P Freight Classification

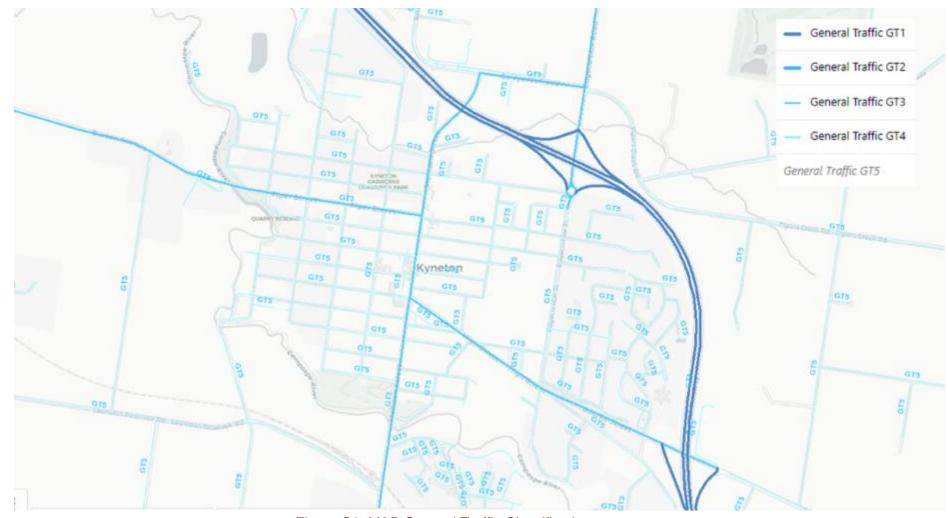


Figure C6: M&P General Traffic Classification

## **Appendix D – Existing Public Transport Details**

#### **Rail Services**

Station profile and sample patronage data supplied by DTP for the Kyneton Station indicate total passenger boardings in June 2022 were approximately 6,800 passengers, which are approximately 49% fewer than the total boardings for the same month before COVID-19 (i.e. in June 2019). Total boardings in May 2022 were approximately 8,200 passengers, reflecting roughly a 47% reduction from May 2019. Approximately 80% of boardings headed towards Bendigo, and the remainder towards Melbourne. The busiest hour of the day at the Kyneton station in June 2022 was from 4-5 pm.

Since introducing the regional V/Line daily fare cap to be the same as the Metropolitan fare on 31 March 2023, V/Line patronage data has shown an increase in passengers taking advantage of cheaper fares. More than 1.5 million people used public transport across regional Victoria in the first month of the new fares, including 210,000 passengers on the Bendigo Line. Patronage data shows an uplift in passengers on weekends and special services. For Kyneton station, monthly patronage has increased by approximately 6% from 9,730 in April 2023 to 10,303 in December 2023.

The Regional Network Development Plan (Connecting Regional Victoria, May 2016) lists the following future directions to improve rail services to Kyneton:

- Deliver capacity improvements on the Bendigo line
- Upgrade tracks on the Bendigo line to allow for higher speeds of up to 160 km/h
- Increase track capacity between Kyneton and Bendigo
- Improve safety at regional level crossings
- Investigate opportunities for local transport in Loddon Mallee to provide additional travel options for residents
- Review and upgrade stations and facilities in Loddon Mallee in line with changing community needs
- Plan for and implement bus service improvements across Loddon Mallee as service demand changes.

#### **Bus Routes**

Bus Route 1 operates almost hourly from approximately 9 a.m. to 3 p.m. on weekdays (7 services). It also has one service in the early morning, around 6:30 a.m., and two services in the evening (around 6 p.m. and 7 p.m.). On Saturdays, Bus Route 1 operates hourly from approximately 10:45 a.m. to 1:45 p.m. (4 services), with the first service around 8:45 a.m. and the last service around 3:20 p.m.

Bus Route 2 operates almost hourly from approximately 8:45 am to 1:45 am and then again from 1:45 pm to 4:45 pm on weekdays (a total of 7 services). Its first service is in the early morning, around 6:45 am, and the last is in the evening, around 6:30 pm. On Saturdays, Bus Route 2 operates almost hourly from approximately 10:20 am to 2:20 pm, with the last service around 4:20 pm.

Bus Route 3 operates almost hourly from approximately 9:30 am to 12:30 pm and then again from 2 pm to 4 pm on weekdays (a total of 6 services). It has the first service around 7 am and two in the evening around 5:45 pm and 6:45 pm. On Saturdays, Bus Route 3 operates almost hourly from approximately 9 am to 3 pm, with the last service around 4 pm. In the afternoon, upon arrival at the Town Centre, Route 3 service turns into Route 1 outbound service operating via Kyneton North.

## **Appendix E – Existing Freight Network Details**

**Figure E1** provides a network for PBS Level 1 vehicles in and around Kyneton. The PBS Level 1 vehicle (defined as three or 4-axle rigid trucks towing a three or 4-axle dog trailer) has access to most local roads except under certain conditions imposed by the road authority. Begg Street, Bodkin Street, New Street and Welsh Street have restricted access to PBS Level 1 vehicles. Edgecombe Street between Goode Street and Jacobs Avenue is a conditionally approved PBS Level 1 route, with no access permitted between 8-9:30 am and 2:30-4 pm Monday to Friday (School days only). Bayton Street is also a conditionally approved PBS Level 1 route, with restricted access between 8-9:30 am and 2:30-4 pm Monday to Friday (school days only).

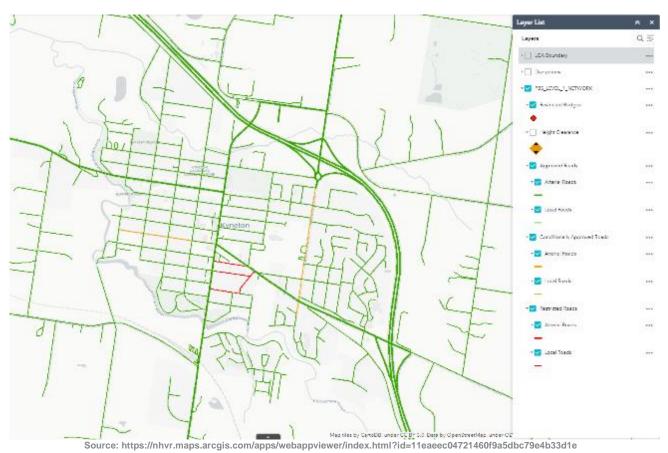


Figure E1: PBS Level 1 Network Map

Typical freight movements within Kyneton are likely to consist of delivery trucks (including semi-trailer trucks) accessing the Town Centre and retail outlets and heavy trucks to and from the industrial precinct. The traffic data suggests that trucks are heavily using the Calder Freeway/Edgecombe Street interchange to access the industrial precinct.

# **Appendix F – Traffic Volume**

#### **Traffic Count Data - 2023**

	2023 Traffic Count Data		
Road and Segment	Average Weekday	AM Peak Hour	PM Peak Hour Traffic
_	Traffic (vpd)	Traffic (vph)	(vph)
High Street west of	, , ,	689	653
Caroline Chisholm	6,950		
Drive		(8-9 am)	(3-4 pm)
Mollison Street north of		274	341
Mollison Place	3,640	(9-10 am)	(2-3 pm)
Edgecombe Road		269	306
between Saleyard Rd	3,220	200	300
and Dettmanns Ln	0,220	(8-9 am)	(3-4 pm)
		390	411
Burton Avenue between	4,310		
Harts Ln and Flynns Ln	1   '	(8-9 am)	(3-4 pm)
Trentham Road north of		236	233
Carlsruhe Road	2,420	(8-9am)	(3-4pm)
Edward Ctuart		36	45
Edgecombe Street,	490		
south of High Street		(9-10 am)	(3-4 pm)
Edgecombe Street		447	374
outside of #46	3,840		
		(8-9 am)	(3-4 pm)
Bodkin Street, west of	1,160	95	96
New Street		(40.44.535)	(0.4.7.7)
		(10-11 am)	(3-4 pm)
Begg Street outside	520	41	53
#19A	520	(8-9 am)	(3-4 pm)
Harts Lane, south of		8	9
Lauriston Reservoir	90		Ĭ
Road		(9-10 am)	(5-6 pm)
T-11- 4 0000 T (C- D-1	IC. D I IC		1

Table 1: 2023 Traffic Data on Key Roads in Kyneton

<sup>\*</sup> Note: vpd = vehicles per day, vph = vehicles per hour

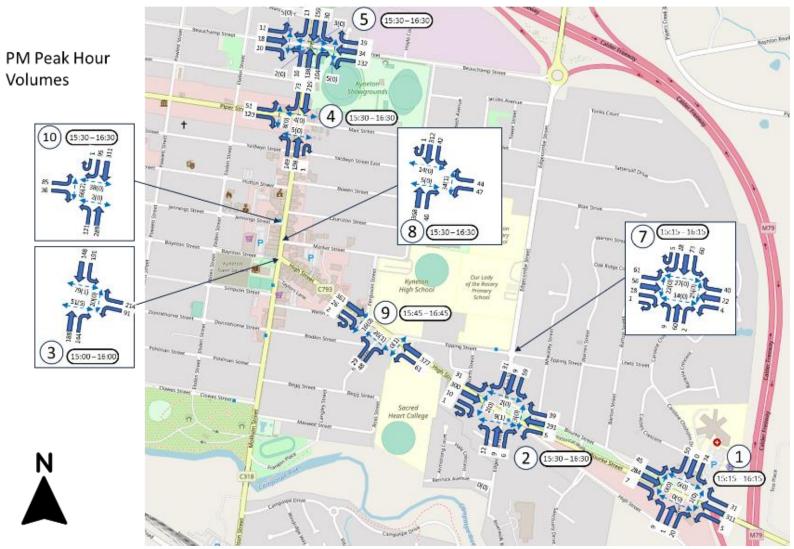


Figure F1: Peak Hour Traffic Counts (Sep 2023)

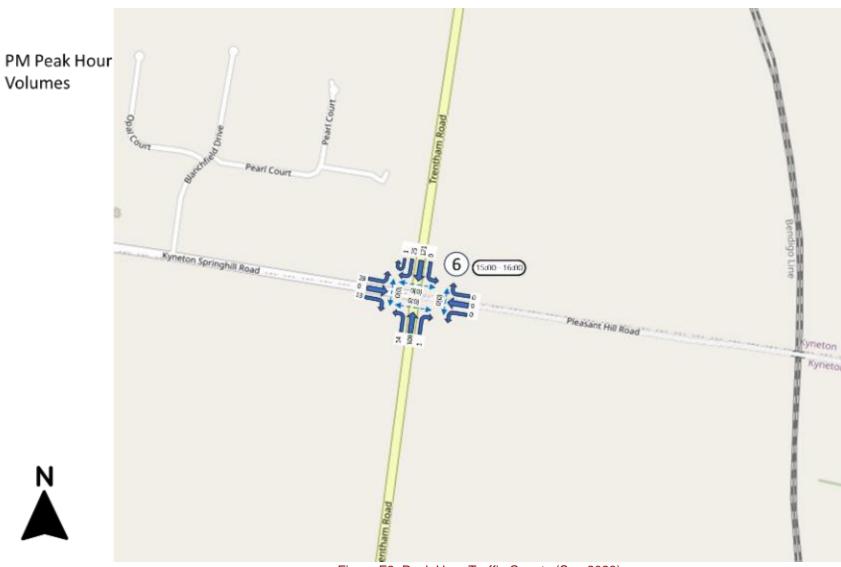


Figure F2: Peak Hour Traffic Counts (Sep 2023)

#### PM Peak Hour Volumes





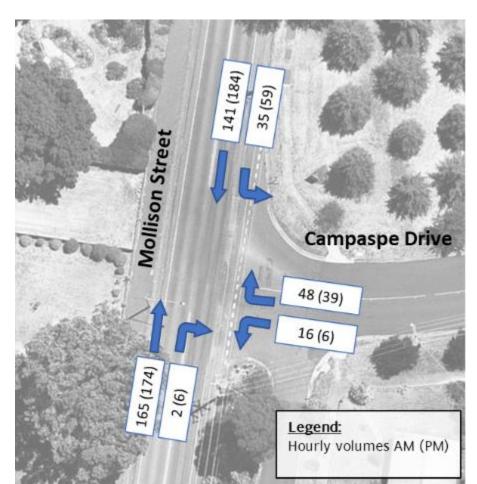


Figure F3: Peak Hour Traffic Counts (Sep 2023)

Figure F4: Peak Hour Traffic Counts (April 2022)

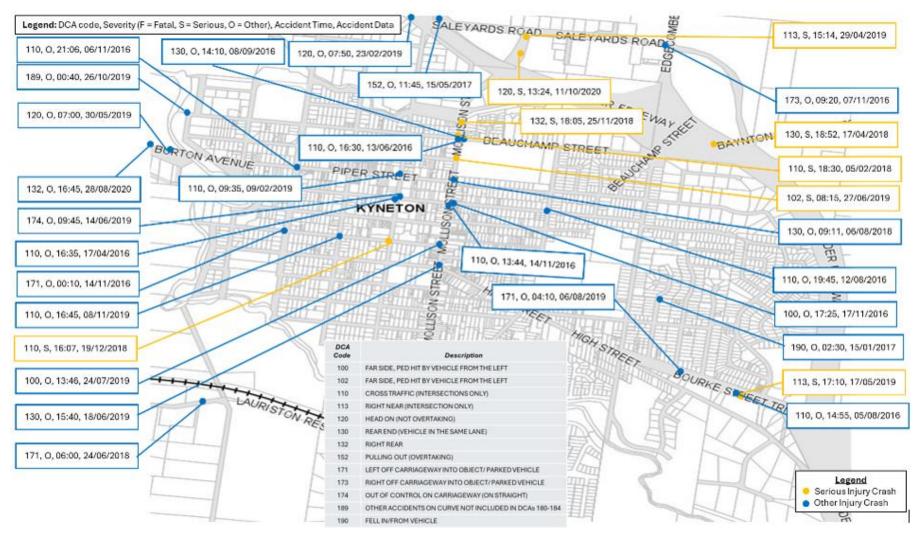


Figure F5: Last Five Years Casualty Crashes

## **Appendix G – Detailed Issues and Opportunities**

Туре	Issues/Opportunities
Access, Connections and Routes	<ul> <li>Current bus services can be extended to serve the entire town.</li> <li>Inadequate bus access and services in new residential areas south of the Campaspe River.</li> <li>No bus routes connecting the industrial precinct with the Kyneton station. This route can serve employees working in the industrial precinct without relying on private cars.</li> <li>Town bus routes are not extended along the entire length of Edgecombe Street, missing vital bus connections to the education precinct.</li> <li>Room for improvements for bus connection in existing areas. For example, direct route to BUPA Aged Care Centre off Riverwalk Boulevard and Sports &amp; Aquatic Centre off Victoria Street.</li> </ul>
Efficiency and Frequency	<ul> <li>Coordination between the town bus and train services improved in 2018/19. However, there may still be opportunities to enhance integration between bus and train services, particularly during peak periods (further feedback from the community and stakeholders needs to be sought).</li> <li>Town bus routes operate almost hourly during business hours but with only 9 to 10 daily services. There is room to increase the frequency of town bus routes during peak periods (late morning to early afternoon) to reduce the use of private cars.</li> <li>Without frequent bus services during the AM and PM peak periods and improved routes, getting people to and from the station and encouraging the mode shift is difficult. Opportunities to increase the frequency during the AM and PM peak periods in sync with the regional train line must be explored.</li> <li>Bus frequency to and from the Town Centre could be more frequent during peak tourist season.</li> <li>Improved taxi services can serve the community, including people with disabilities throughout the day.</li> </ul>
Active travel links	<ul> <li>Limited active transport links discourage active transport and may increase car usage to and from Kyneton station for commuting.</li> <li>More bike parking is desired by the community at the railway station.</li> </ul>
Congestion	<ul> <li>Three of the four town routes require buses to turn right from Jennings Street onto Mollison Street. This intersection gets quite busy during peak periods, so it would be challenging for buses to turn right without delays and adhere to the schedule.</li> <li>Buses also make a right turn from Ferguson Street onto High Street. Some delays could occur for this movement.</li> </ul>

Туре	Issues/Opportunities
Ridership	The community feedback suggested that buses often run empty. Buses are generally 12.5 m long, so they occupy more road space. There is a need to optimise bus services. One way to do this is to increase the bus frequency during peak periods and trial demand-responsive flex services outside during off-peak hours. Another way is to review and adjust bus routes to increase daily usage.
Environment	The bus fleet is likely to run on fossil fuel, which produces significant emissions.  Opportunities to upgrade the bus fleet to hybrid or electric vehicles should be considered to reduce emissions and greenhouse gases.
Rail Patronage	Declining rail patronage post-COVID-19 (which could partially be attributed to hybrid/work-from-home arrangements) is discouraging, albeit expected. Promoting train commuting at a regional level could increase patronage and reduce car trips.
Rail/Bus Interchange	There appears to be room to improve the look and feel of public transport facilities at the Kyneton station.

Table G1: Public Transport Issues & Opportunities

Туре	Issues/Opportunities
Access to Kyneton Railway Station	<ul> <li>The community felt that key barriers to walking or cycling to and from the Kyneton Station are less-than-optimal infrastructure (such as narrow on-road cycle lanes on Mollison Street leading to the station) and the lack of safer and convenient town connections, crossings and supporting infrastructure (e.g. street lighting, bike parking, seating, and water fountains).</li> </ul>
	<ul> <li>The narrowing of cycle lanes on Mollison Street from the Campaspe River bridge to the station access due to bluestone gutters is an issue for cyclists. The removal of bluestones can be challenging. Appropriate treatments could be considered to transition cyclists from the cycle lanes onto the western pathway along Mollison Street and vice versa.</li> </ul>
	<ul> <li>There is a need to provide a safer crossing for pedestrians and cyclists of all abilities across Mollison Street at/near the Kyneton station. The proposed signalisation of the Mollison Street/Campaspe Drive intersection, located approximately 250 m north of the station access, is anticipated to allow pedestrians to cross Mollison Street safely.</li> </ul>
	Further growth in the southern area may necessitate another pedestrian crossing at the railway crossing on Mollison Street.
	• The provision of connections to and from the station has the potential to promote walking and cycling. For example, a new footbridge connection east of Mollison Street can provide much better connectivity between the station and the areas to the northeast of the station. Another opportunity is to extend the shared trail along the Campaspe River to Sanctuary Drive and provide ramp access to the Mollison Street footpaths to attract more walking and cycling to and from the station.
Campaspe River Trail	<ul> <li>The shared trail along the Campaspe River is often favoured for walking and cyclists.</li> <li>Completing missing links (if any) or upgrades to narrow sections along this trail between Mollison Street and Piper Street will enhance recreational cycling and walking opportunities.</li> </ul>
	• The shared trail along the Campaspe River from the south end of Wedge Street to Piper Street (which was upgraded in 2018) is approximately 2.5 m wide. In contrast, the section from the south end of Wedge Street to Langley Street, including the Mollison Street underpass, is much narrower. This eastern section needs to be upgraded with a 2.5 m wide pavement to improve the western section.
	<ul> <li>Opportunities to extend the river trail from its eastern terminus to Sanctuary Drive, with connections to Ross Street and Riverwalk Boulevard, should be considered to</li> </ul>

Туре	Issues/Opportunities
	draw a wider community onto this trail and to increase its usage. A ramp from this trail to Mollison Street would provide improved access to the railway station.
	<ul> <li>Access connections along the river trail are too few and far between. There are opportunities to provide access to and from Yaldwyn Street W, Bayton Street, Wedge Street and Powlett Street.</li> </ul>
	<ul> <li>The northern end of this river trail appears to terminate at Mitchell Street (just north of Piper Street) without extending to the Racecourse Reserve.</li> </ul>
	<ul> <li>Supporting amenities are missing along the river trail. The community felt that wayfinding signage, water stations and seating should be provided along the river trail.</li> </ul>
Walking and Cycling Network	A well-planned and connecting cycling network that many residents will embrace needs to be developed.
	<ul> <li>There is a need to create a cycling network hierarchy for Kyneton that focuses on providing safe and convenient access to key destinations, such as Kyneton Station, the Town Centre, employment areas and the education precinct.</li> </ul>
	<ul> <li>The layout of the street network and the river trail provides opportunities for safe and purpose-built cycling loop routes for recreational and exercise usage and is suitable for people of all ages and abilities.</li> </ul>
	<ul> <li>Council could investigate a network of continuous walking and cycling trails along the Campaspe River and Post Office Creek. The inner loop could be developed along the river trail and through quiet local streets connecting key destinations, such as the Town Centre, the education precinct, the old primary school site, etc.</li> </ul>
	<ul> <li>There may be opportunities for marked cycle lanes on Piper Street, subject to detailed design investigations.</li> </ul>
	<ul> <li>There is an opportunity to extend the shared path along Campaspe Drive (on the northern side) from its current terminus at Village Green Drive to Mollison Street. This connection will allow residents to access bicycle lanes along Mollison Street to and from the railway station and Town Centre.</li> </ul>
	<ul> <li>Several high-order Council roads, e.g. link and connector roads, have no footpaths or only provide a footpath on one side. High-order local roads often serve public transport and provide access to key destinations. A more connected footpath network is sought, with paths provided on both sides of collector and link roads within Kyneton.</li> </ul>

Туре	Issues/Opportunities
	• There are no walking or cycling paths along Mollison Street/Trentham Road south of the station access to serve the residents living on Hill Drive and Kyneton-Springhill Road. Trentham Road does not provide any shoulders. Trentham Road has a sufficient reserve to offer a shared trail on the western side of the carriageway or a 1.5 m wide shoulder on either side, in the short term to cater for residents wanting to access the station and the town centre on foot or by bicycle. Further developments are expected to occur south of the Campaspe River in the short to medium term. Trentham Road will need to be reconfigured with a lowered speed limit (e.g. 60 km/h) to accommodate this growth.
	<ul> <li>The area north of the Industrial precinct has many low-density dwellings accessible via Edgecombe Road. There are no walking or cycling paths to safely access the town from this area. Providing wider shoulders and/or a lowered speed limit on Edgecombe Road from the industrial precinct to Bushland Resort would promote cycling into and out of the town.</li> </ul>
	<ul> <li>Residents in new estates just south of the Campaspe River have only one entry/exit point for all movements, including walking and cycling. Due to this, residents need to walk or cycle up to Mollison Street and then across a busy bridge before tracking back around to the schools.</li> </ul>
	<ul> <li>The extended shared trail along the Campaspe River to Mineral Springs along Burton Avenue could encourage many tourists who stay at the caravan park to access the town on foot or on bicycles.</li> </ul>
	• The existing on-road cycle lanes are too narrow to be effective and safe to encourage cycling. Providing standard and safer cycle lanes on High Street and Mollison Street would be challenging, with some level of impact on vehicle flows and/or parking. For example, widening cycle lanes may require the removal of parking on one or both sides of the road, which businesses may not support. Nonetheless, opportunities to reconfigure these streets or to establish alternative cycling routes should be examined.
	<ul> <li>Many streets have no sealed footpaths on either side of the road, which can be a disincentive to walking. While it is not practical to provide footpaths on all streets in the town, a footpath on one side of key streets, such as Caroline Chisholm Drive, Epping Road, Edgecombe Street, and Beauchamp Street and all streets within the town, will serve relatively large catchments to and from destinations.</li> </ul>

Туре	Issues/Opportunities	
	Council should continue seeking funding from the state and federal governments to establish off-road shared trail connections from Kyneton to Bendigo and Woodend (consistent with the Shared Trails Feasibility Studies).	
	<ul> <li>Opportunities to link the town centre with safe, continuous walking and cycling routes from the surrounding area need to be investigated. The potential options are Market Street, Lauriston Street or Yaldwyn Street E to the east, connecting the education precinct and residential areas with the Town Centre, and Baynton Street or Yaldwyn Street W to the west of Mollison Street.</li> </ul>	
Maintenance	<ul> <li>The quality of footpath surfaces is a major issue identified by the community. Slippery and/or uneven surface on many footpaths is a hazard, especially for older and young people and those with disabilities. Footpaths need repair and resurfacing with quality material. Better weed control is also required.</li> </ul>	
	Better/improved maintenance is needed on roads where cycle lanes exist.	
	The surface type and width of footpaths vary throughout the town. Council should ensure a minimum standard for new installations within and outside the Town Centre.	
	<ul> <li>One of the key barriers to walking around and within the Town Centre is the lack of priority crossings on busy streets.</li> </ul>	
Pedestrian Crossings	<ul> <li>Currently, there is little provision for pedestrians crossing the streets in the Town Centre, apart from the pedestrian crossing in front of the Post Office and the traffic lights at the High Street/Mollison Street intersection.</li> </ul>	
	<ul> <li>Safer crossing options along Piper Street and Mollison Street and their intersections are needed. Introducing traffic lights at the Piper Street/Mollison Street intersection would manage vehicle speeds and provide safer crossings for pedestrians.</li> </ul>	
	<ul> <li>Threshold treatments with kerb outstands can be provided at key midblock points along High Street, Mollison Street and Piper Street to slow vehicles and support people walking in the area. The previous feedback indicates that the community broadly supports removing some on-street parking to install more green space/planting and pedestrian crossings.</li> </ul>	
	Upgrading or adding streetlights in and around the Town Centre will improve the safety of pedestrians.	
Safety	<ul> <li>Existing on-road cycle lanes on Mollison Street and High Street are narrow, within the dooring zone of the adjacent parking lanes and are not immediately apparent to drivers. Green pavement can highlight bicycle lanes on Mollison Street and High</li> </ul>	

Туре	Issues/Opportunities
	Street with almost no impact on parking. Alternatively, parking can be removed on one of the two sides along Morrison Street and High Street to provide separated/buffered cycle lanes.
	<ul> <li>Transit through the Mollison Street/High Street and Mollison Street/Piper Street intersections can be difficult and unsafe for cyclists.</li> </ul>
	<ul> <li>The eastern cycle lane on Mollison Street does not extend to the High Street intersection. An alternative cycling route should be established to avoid this intersection.</li> </ul>
	<ul> <li>Pram crossings at key intersections in the Town Centre are inconsistent and often ineffective. Tactile surfaces are largely missing at crossings.</li> </ul>
	<ul> <li>Reducing speed limits to 40 km/h on all roads within the Town Centre and Education Precinct would ensure safer gaps for pedestrians and cyclists crossing various streets. In the event of a collision, crash forces would be closer to Safe System thresholds.</li> </ul>
	<ul> <li>Opportunities to install thresholds and kerb outstands need to be considered on the side street approaches at Mollison Street and Piper Street to reduce the crossing distances and control entry speeds. Strategic locations can be prioritised based on the number of crossings, turning movements, and the feasibility of installing such treatments.</li> </ul>
	There is not enough bike parking in the Town Centre.
Supporting Infrastructure	<ul> <li>There may be opportunities to convert a few on-street parking bays into kerb outstands to install bike hoops. Strategic locations within the town centre need to be identified as being less likely to be disruptive to pedestrian flows and businesses in general.</li> </ul>

Table G2: Pedestrians and Cyclists Issues & Opportunities

Туре	Issues/Opportunities
Begg Street, Bodkin Street and New Street	<ul> <li>Shortcut traffic and speeding on Begg Street, Bodkin Street, and New Street are mainly due to the queuing at the signalised Mollison Street/High Street intersection.</li> <li>Typical traffic calming measures, such as speed humps (noting the bus route along Bodkin Street-New Street would restrict the type of treatments), may discourage drivers from bypassing the Mollison Street/High Street intersection.</li> </ul>
	<ul> <li>One of the leading causes of traffic congestion along Mollison Street is the absence of the second river crossing.</li> <li>The community highly desires the Edgecombe Street bridge over the Campaspe River to support existing and future developments in the town, particularly south of the river, to relieve traffic at the High Street/Mollison Street intersection, and to remove barriers to walking and cycling.</li> </ul>
Campaspe River Crossing	• The need to provide a separate bridge over the Campaspe River may also be required for walking and cycling if gradients at the Edgecombe Street bridge and the road leading to High Street are adverse. When planning/designing the Edgecombe Street bridge and associated upgrades, particular consideration needs to be given to school children who might walk or cycle from the southern residential areas to access the education precinct.
	<ul> <li>The new river crossing will require upgrades to Edgecombe Street between High Street and Riverwalk Boulevard, including providing appropriate parking, walking, and cycling infrastructure within the 20 m road reserve. The constraints include steep gradients and utilities, including overhead cables and power poles on the western side of the carriageway.</li> </ul>
	<ul> <li>This new second river crossing will also necessitate upgrades to the Edgecombe Street/High Street intersection. Options include a roundabout or traffic lights.</li> </ul>
	<ul> <li>A high number of crashes was reported at cross intersections. Local streets could be treated with roundabouts or speed cushions/humps at stop lines.</li> </ul>
Traffic flows /congestion and Safety at intersections.	• Mollison Street/High Street – traffic capacity is a major issue at this signalised intersection, especially on the southern and eastern approaches during peak periods. Some congestion could also occur due to signal sequencing and timings. Traffic tends to avoid this intersection and short-cut traffic on local streets (including Bodkin Street, Begg Street and New Street). Signal sequencing and settings need to be improved to increase the vehicle throughput. Capacity improvements, including the extension to the southern right turn lane, separated left and right turn lanes on High Street, etc.,

Туре	Issues/Opportunities
	can also be carefully explored, noting some parking would need to be removed near this intersection.
	<ul> <li>Mollison Street/Campaspe Drive – the only entry/exit point for the new residential subdivision. Traffic signals are planned for this intersection.</li> </ul>
	<ul> <li>Mollison Street/Market Street – vehicles turning right from the south block the through movement. Consideration to ban right turns during peak periods may be considered.</li> </ul>
	• Mollison Street/Jennings Street – vehicles turning right from the north block the through movement. Right and left turns out of Jennings Street, including buses, often conflict with pedestrians and the through traffic on Mollison Street. Improvements, such as signalising this intersection or making it one-way away from Mollison Street up to the car park entrance, should be investigated, which requires detailed traffic surveys. Signalisation will necessitate the removal of pedestrian signals in front of the Post Office. The partial closure of Jennings Street at Mollison Street will alter bus routes and trigger improvements at other intersections along Mollison Street.
	<ul> <li>Mollison Street/Piper Street—The predominant traffic movements are from the west to the south and vice versa. Delays are expected for right turns from the north and right and left turns out of Piper Street. Due to this, shortcut traffic could occur on Ebden Street. Improvement options include reconfiguring a modified T-intersection or traffic signals.</li> </ul>
	<ul> <li>Mollison Street/Beauchamp Street—an unsignalled cross intersection with a crash history. Beauchamp Street is a link road providing critical access to the industrial area and Showgrounds to the east and the residential area to the west. Improvement options include a roundabout (which may require the relocation of utilities), traffic signals (which may not be warranted), or restricting the turn movements into and out of Beauchamp Street.</li> </ul>
	<ul> <li>Mollison Street/Saleyards Road—Given the provision of a right-turn lane on Saleyards Road, no significant issues are anticipated.</li> </ul>
	<ul> <li>Saleyards Road/Edgecombe Road/Pipers Creek Road—The staggered cross intersection is in the industrial precinct, where volumes are expected to increase with the planned developments. This intersection is to be upgraded with traffic signals.</li> </ul>
	Bourke Street/Caroline Chisholm Drive – with two reported crashes, the northern approach is the only access to many homes and the health precinct. The proximity to

Туре	Issues/Opportunities
	the freeway ramps can be an issue, limiting options available to upgrade this intersection.
	<ul> <li>High Street/Edgecombe Street—increased traffic due to the potential bridge crossing further south could trigger safety and operational issues at this cross- intersection, requiring improvements.</li> </ul>
	<ul> <li>High Street/Epping Street—Right turns from High Street often block through traffic from the east. This issue may be limited to school drop-off and pick-up times. Banning right turns can be considered, which may shift problems to the North Street intersection.</li> </ul>
	<ul> <li>Trentham Road/Pleasant Hill Road – upgrades to this intersection will be required when further developments occur south of the Campaspe River with direct access to Pleasant Hill Road. The most practical solution will be a roundabout control, highlighting it as a main entry to the township. In addition, Pleasant Hill Road and its bridge over the railway tracks will also need to be upgraded.</li> </ul>
Edgecombe Street Education Precinct	<ul> <li>Traffic volumes, vehicle speeds, and parking shortfall are the areas of concern along Edgecombe Street near the education precinct (although no casualty crashes have been reported in the last five years of available data).</li> </ul>
	<ul> <li>Edgecombe Street, which is classified as a link road, can attract considerable traffic due to its connections with the Calder Freeway, the industrial precinct over the freeway and towns further to the north (although the 2015/16 traffic counts were within the notional capacity).</li> </ul>
	<ul> <li>The second river crossing (if/when built) could increase traffic on Edgecombe Street past the education precinct to access the northern destinations or the freeway, which has the potential for unintended consequences.</li> </ul>
	<ul> <li>"Through" traffic on Edgecombe Street is unavoidable but can be reduced with aggressive traffic calming measures, improvements along Mollison Street, and/or a new northbound entry ramp from Bourke Street to the Calder Freeway; all initiatives may be challenging to achieve, given the previous community feedback and physical constraints.</li> </ul>
	<ul> <li>Connecting Blair Drive and Caroline Chisholm Drive can potentially reduce traffic on Edgecombe Street past the education precinct. Still, it would also increase traffic on Caroline Chisholm Drive, which provides a narrow carriageway and intermittent footpaths on the eastern side. This connection will also increase right turns into and</li> </ul>

Туре	Issues/Opportunities
	left turns out of Caroline Chisholm Drive at Bourke Street, which needs to be carefully assessed.
Traffic routes from the south	<ul> <li>Due to the heavy traffic along Mollison Street and Piper Street, the local street network west of Mollison Street and south of Piper Street is being used to travel from the south of the town to the north of the town during the AM peak period, and the reverse movement during the PM peak period.</li> </ul>
	<ul> <li>Short-cut traffic could occur on Ebden Street, Powlett Street, Pohlman Street, Donnithorne Street and Clowes Street. Further development of the area south of the Campaspe River would worsen traffic conditions without significant improvements to Mollison Street and Piper Street.</li> </ul>
	<ul> <li>Any aggressive traffic management treatments could be challenging given the use of local streets by the community and bus services, as well as the Kyneton CFA on Ebden Street.</li> </ul>
	<ul> <li>A western town centre bypass may ultimately be needed to cater for "through" traffic and movements between the southern area in Kyneton and northwest destinations (such as Bendigo).</li> </ul>
	<ul> <li>Opportunities to improve the operation of Mollison Street and Piper Street and to enhance pedestrian and cyclist facilities to reduce the reliance on cars need to be investigated in the short term.</li> </ul>
	<ul> <li>In the long term, providing a western bypass route would reduce "through" traffic on the local streets and support residential developments in the southern area. Although there are a few options, all of them would be costly and contentious.</li> </ul>
	<ul> <li>A detailed assessment should be undertaken to determine if/when the need to provide a township bypass would be triggered.</li> </ul>

Table G3: Road Network and Operational Issues & Opportunities

Туре	Issues/Opportunities
Accessible Parking	<ul> <li>The provision of accessible parking is limited outside of the concentration of off-street car parks off Mollison Street. However, the accessible parking provision is about 1.8% of all public parking in the town centre, slightly lower than a typical target of 2%.</li> <li>Opportunities to provide on-street accessible parking on side streets adjacent to the state-managed arterial roads could be explored to increase the accessible parking provision to 2% within the town centre. This may entail re-line marking a couple of</li> </ul>
	<ul> <li>The accessible parking within the Education precinct is almost negligible (0.3% of all public parking supply). Opportunities to convert a few standard parking spaces on High Street, Epping Street, and Edgecombe Street into accessible parking could be investigated.</li> </ul>
	<ul> <li>A review/audit of accessible parking is required to ensure compliance with relevant         Australian Standards and appropriate access, wayfinding/signage, and configurations.     </li> <li>Non-standard and inconspicuous spaces tend to be less useable.</li> </ul>
Parking Supply	• The parking surveys confirm that the parking supply in all precincts always exceeded the parking demand. Notwithstanding this, there is a perception among the community that the current supply in the Town Centre, the Education precinct and the train station are inadequate and that more parking is needed to support the existing demand and future growth.
	<ul> <li>The most critical car parks in the Town Centre appear to be Hutton Street, Jennings         Street, Simpson Street, and Yaldwyn Street. As the population grows, the parking         demand at these locations is likely to exceed capacity in the near future.     </li> </ul>
	<ul> <li>The most critical on-street parking locations appear to be Piper Street and Mollison Street.</li> </ul>
	<ul> <li>Opportunities to provide overflow parking can be considered in the short term. The unsealed council-owned car park on the corner of the Ebden Street/Yaldwyn Street intersection should be formalised in the medium to long term.</li> </ul>
	<ul> <li>More parking spaces will likely be required at the train station as the population grows.</li> <li>The provision of 50 new car spaces at the train station caters for short to medium-term needs.</li> </ul>
Parking Restrictions	<ul> <li>Longer parking restrictions could be considered at some on-street parking locations in the Town Centre to relieve the pressure on the off-street car parks.</li> </ul>
	There is an opportunity to improve parking enforcement.

Туре	Issues/Opportunities
Supporting infrastructure	<ul> <li>More wayfinding signage visible from the main roads should be provided to direct drivers to appropriate car parking.</li> <li>There is also room to improve line marking at on and off-street car spaces.</li> </ul>
New Estates	<ul> <li>Roads in new residential estates appear narrow and may not be suitable for on-street parking for residents and visitors.</li> <li>Council could set minimum road widths for new estates to allow on-street parking without impeding vehicle movement.</li> </ul>

Table G4: Car Parking Issues & Opportunities

## **Appendix H – Traffic Model Scenarios**

The modelling assessment included the following road network scenarios:

- Future (2041) Baseline, comprising existing road network (except for the southern growth area where connections to Pleasant Hills Road and Trentham Road were modelled) and future land use assumptions (guided by Council). The assumed road network is shown in Figure H1.
- Future (2041) Network Option 1, comprising the Edgecombe Street Bridge connection across the Campaspe River and the town centre bypass route via Flynns Lane. The assumed road network for this scenario is shown in **Figure H2**.
- Future (2041) Network Option 2, comprising the Edgecombe Street Bridge connection across the Campaspe River and the town centre bypass route via Harts Lane. The assumed road network for this scenario is shown in **Figure H3**.



Figure H1: Assumed Future Baseline Road Network



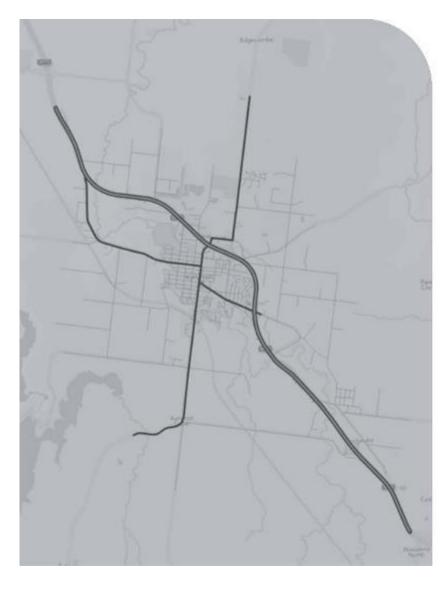
Figure H2: Assumed Future Road Network Option 1



Figure H3: Assumed Future Road Network Option 2

## Appendix I – Traffic Model Development and Options Testing

# **CLARITY Kyneton Movement Network Study** Traffic Model Development and **Options Testing** 16th January 2024



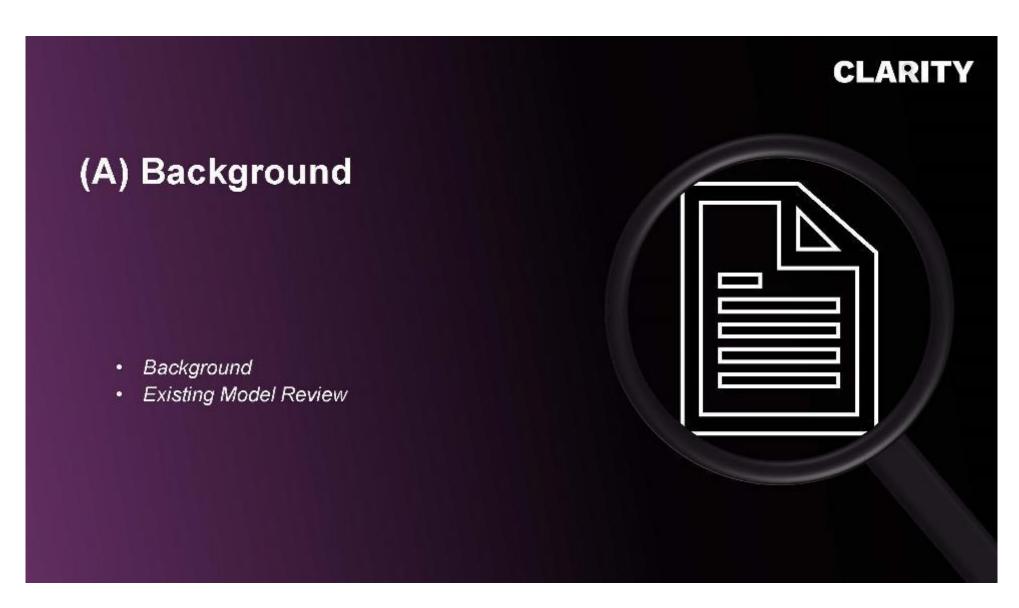
#### **Outline**

#### Base Model Setup, Validation and Outputs

- A. Background and Existing Model Review
- B. Base Model Development
- C. Base Model Validation
- D. Base Model Outputs

#### Future Model Outputs and Scenario Testing

- E. Future Base Model
- F. Scenario 1: Bridge + Shorter Bypass
- G. Scenario 2: Bridge + Longer Bypass



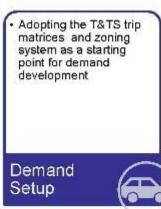
# **CLARITY** (B) Model Development Scope of Model Development Network Setup Demand Setup Data Collation and Analysis

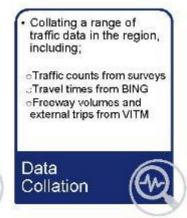
#### 2 – Scope of Model Development

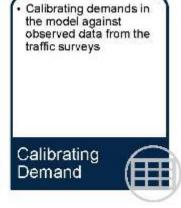
A methodology was developed to create a new model for the Kyneton region, to support the Kyneton Movement Network Study (KMNS). This is intended to be developed as a static model (i.e. without intersections or simulation) in the PTV Visum modelling software package and for the whole PM peak period (i.e. 3 to 6pm).

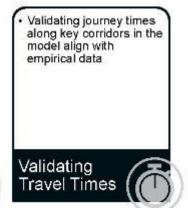
The model development methodology is outlined below, noting this *pivots off both the Department of Transport and Planning (DTP) Strategic Model (VITM) and Mesoscopic Model (Domino)*, while leveraging baseline demand patterns from the previous TTS work for internal demand distribution (in the absence of any other internal trip pattern matrix to use as a starting point):











#### 3 - Network Setup

The initial network structure was sourced from DTP, who had acquired this for the whole state of Victoria in 2022 from *HERE maps* (as shown below bottom left).

This network was then reviewed and updated as required in the context of the Kyneton area, with road network parameters sourced from the outer regions of the Metropolitan Domino model and embedded and linked into this model (parameters shown on bottom right).



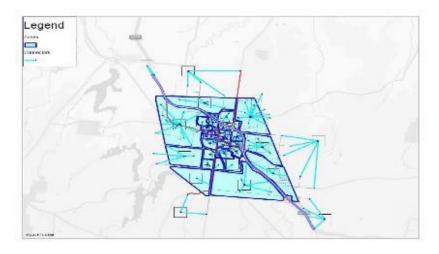
Link Types and modelling characteristics

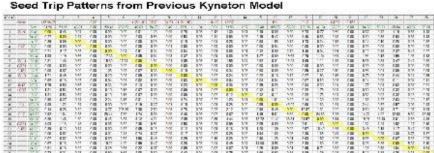
Туре	Road Type	Volume Delay Function (VDF)	Freeflow Speed Factor	Impedance	Lane Capacity	
61	Freeway	Akcelik2 ( 3.00 0.60 0.98 0.60)	80%	1.00	2,000	
62	Ramp	Akcelik2 ( 3.00 0.20 0.98 0.60)	80%	1.00	1,800	
43	Primary Undivided	BPR3 ( 1.05 1.75 1.15 0.50)	70%	1.05	900	
33	Secondary	BPR3 ( 0.90 1.75 1.00 0.50)	70%	1.10	850	
24	Local/Collector	BPR3 ( 0.90 1.75 1.00 0.50)	70%	1.15	800	
20	Minor	BPR3 ( 0.90 1.75 1.00 0.50)	65%	2.00	400	

- Volume Delay Function (VDF) function that determines how delays form as congestion builds, noting different types of roads behave in different ways.
- Freeflow Speed Factor (FFS) the sotual operating speeds along different sections of road, taking into account geometric and intersection constraints.
- Impedance the level of side friction experienced on different types of roads from for example parked vehicles pulling in and out of spots and interacting with traffic
- 4. Lane Capacity the theoretical lane capacity along different sections of comidor

#### 4 - Demand Setup

The initial demand set for the model was sourced from the T&TS model (trip matrix excerpt below) and embedded in this model, noting this was only utilised as a starting point for subsequent model development. Following this, zone connectors to disperse traffic in to and out of the network were regenerated, to provide more suitable access/egress locations (as shown to the bottom left).

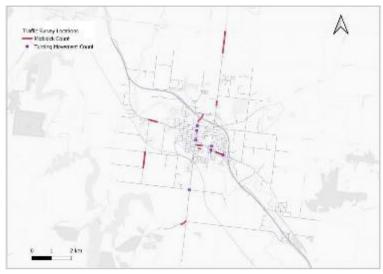




### 5 – Data Collation and Analysis (Traffic Surveys)

A data collection exercise was conducted in late 2023 to provide up to date traffic count information within the Kyneton region. *Data was collected between the period of August and September* and consisted of local network turning movement counts at 11 locations and automatic midblock tube counts at 10 locations.

The survey locations are marked up and tabulated below for both midblock and turning movement counts.

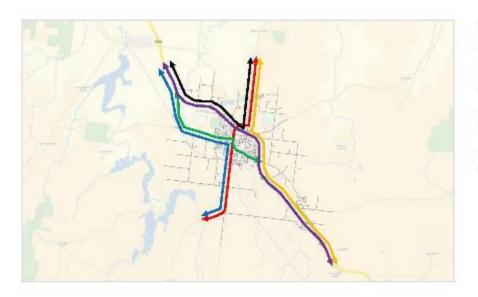


No.	Site
1	Caroline Chisholm Dr / Bourke Street
2	High Street / Edgecombe Street
3	High Street / Mollision Street
4	Piper Street / Mollision Street
5	Beauchamp Street / Mollision Street
6	Kyneton Springhill / Trentham Road
7	Epping Street / Edgecombe Street
8	Market Street / Mollision Street
9	High Street / New Street
10	Jenning Street / Mallisian Street
11	Trentham Road / Lauriston Reservoir

No	Site.			
1	Bourke Street, 150m from Caroline Chisholm Drive			
2	Mollision Street, 160m from Johnson Court			
3	Edgecombe Road, Between Dettmans & Saleyards Road			
4	Burton Avenue, Between Harts Lane & Flynns Lane			
5	Trentham Road, 500m from Carlsruhe Central Road			
6	Edgecombe Street, 100m from High Street			
7	Edgecombe Road, 200m from Red hill Road			
8	Bodkin Street, Between Mollision & New Street			
9	Begg Street, Between Mollision & New Street			
10	Harts Lane, 200m from Lauriston Reservoir Road			

### 5 – Data Collation and Analysis (BING Travel Times)

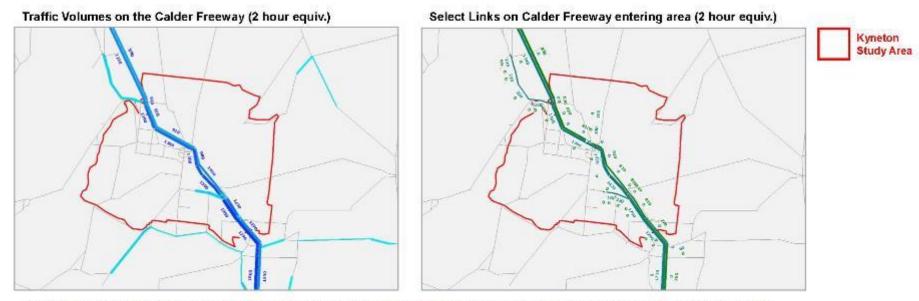
Travel time data was also sourced from the Bing Maps API for all the key Corridors in the study area. This resulted in six corridors with travel times extracted as shown in the plot below and tabulated to the right.



No.	Route	Between
1	Trentham Road	Redhill Road & Premier Mine
2	Burton Avenue	Wards Lane & Fairbarn Place
3	Calder Freeway	Woodend North & Malmsbury East
4	Trentham Road	Premier Mine & Malmsbury East
5	Edgecombe Road	Redhill Road & Woodend North
6	Edgecombe Road	Redhill Road & Malmsbury East

#### 5 – Data Collation and Analysis (VITM Extractions)

Finally, as part of the data collation process, information was sourced from the DTP statewide VITM model. This was focussed on the Calder Freeway, in the context of lack of data for the freeway and that strategic models in regional settings are only suitable at a macro level.



It is again worth noting that VITM is not specifically calibrated in this region and hence these outcomes are only used to guide the modelling with something appropriate for the Calder Freeway.

# **CLARITY** (C) Model Validation Guidelines Demand Calibration Travel Time Validation

#### 6 - Validation Guidelines

Model validation was conducted for both demand and operations, with comparisons to traffic counts on sections of the network for demand and comparisons to corridor travel times for operations.

The guideline targets adopted were sourced from DTP and are outlined below:

Metrics	Criteria	Source		
Traffic Counts	<ul> <li>50% of cases have a GEH &lt; 5</li> <li>80% of cases have a GEH &lt; 10</li> <li>R<sup>2</sup> &gt; 0.9</li> <li>Slope between 0.9 and 1.1</li> </ul>	DTP Strategic Modelling Guidelines		
Travel Time Corridors	80% of corridors within 30%	DTP Mesoscopic Modelling Advice		

#### 7 – Demand Calibration

Demand calibration was undertaken using the principles of matrix estimation. The outcomes of this estimation process against DTP criteria are outlined below. This demonstrates an *excellent fit of the model against the observed data*. Secondary checks of the volume of through trips in the model against VITM were also undertaken showing similarities in directional through trip portions, noting the new KMNS model had lower proportions of through trips overall<sup>1</sup>.

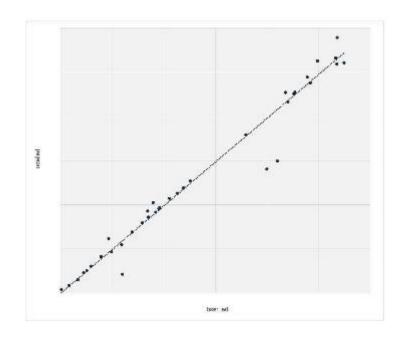
#### **Demand Calibration Outcomes**

Metrics (LV)	Criteria	Modelled	Meets	
GEH < 5	> 50%	92%	¥	
GEH < 10	> 80%	100%	*	
R <sup>2</sup>	> 0.90	1.0	1	
Slope	0.9 - 1.1	1.0	1	

#### **Through Trip Comparisons**

No.	VITM	KMNS Model	
Northbound	65%	50%	
Southbound	85%	55%	

¹ again it is worth noting that VITM is not calibrated in this area and is therefore only indicative of trip patterns in this region

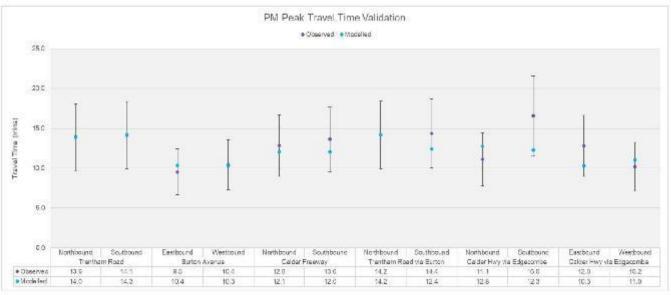


GEH	<ul> <li>The GEH Statistic is a <u>formula</u> used in <u>traffic engineering</u>, <u>traffic forecasting</u>, and <u>traffic modelling</u> to compare two sets of <u>traffic volumes</u>. The desired target for transport model calibration is to achieve a GEH value of less than 5.0 at more than 90% of sites in the core area and at least 80% of those in the peripheral element of the transport network.</li> </ul>
$R^2$	<ul> <li>R-squared is a statistical measure of how close the data are to the fitted regression line. It is the percentage of the response variable variation that a linear model explains.</li> </ul>

#### 8 - Travel Time Validation

Within the defined study area, seven corridors in both directions were identified for travel time validation (as shown below). A comparison of the modelled travel time against the observed time sourced from the BING Maps API is shown below, indicating 100% of routes are within 30% of observed values, with 83% of routes within 15%.





#### Summary – Model Development & Validation

A transport model has been developed for the Kyneton region, leveraging existing tools and modelled networks within the state of Victoria. The model network was extracted from the Victorian HERE maps network, before parameters and external trip patterns were sourced from Department of Transport and Planning's Domino and VITM models respectively. The model was then finally calibrated to surveyed traffic counts and performance validated to travel times as sourced from BING, both to DTP guidelines to ensure suitable representation of the network demands and performance.

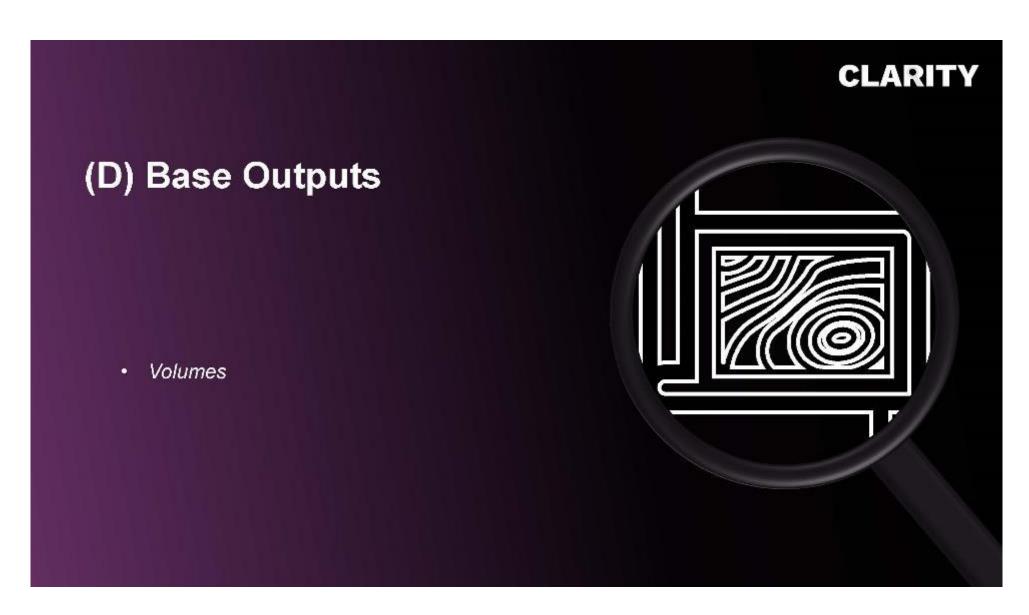
#### **Demand Validation**

✓ Demand validation demonstrated excellent outcomes, with all criteria significantly exceeded

#### Travel Time Validation

✓ Travel time validation also showed excellent outcomes, with 100% of routes demonstrating modelled outcomes within 30% of observed travel times and nearly 85% within 15%

Based on this model development process and achievement of DTP guideline requirements, the **model is deemed fit to move forward** to the subsequent scenario testing phase



#### 9 – Modelling Results

With the model suitably validated to DTP standards a suite of outputs from the model can be generated. These include the following plots, noting further information on network statistics can also be generated should this be beneficial:

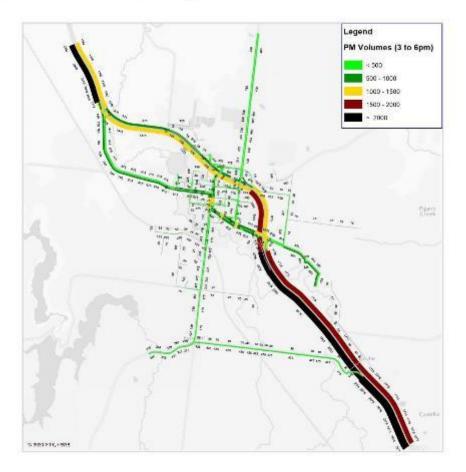
 Traffic Volumes Plots – plots showing the volume of traffic on all sections of road across the full three-hour peak period

#### 9 – Traffic Volume Plot (2023 PM Peak)

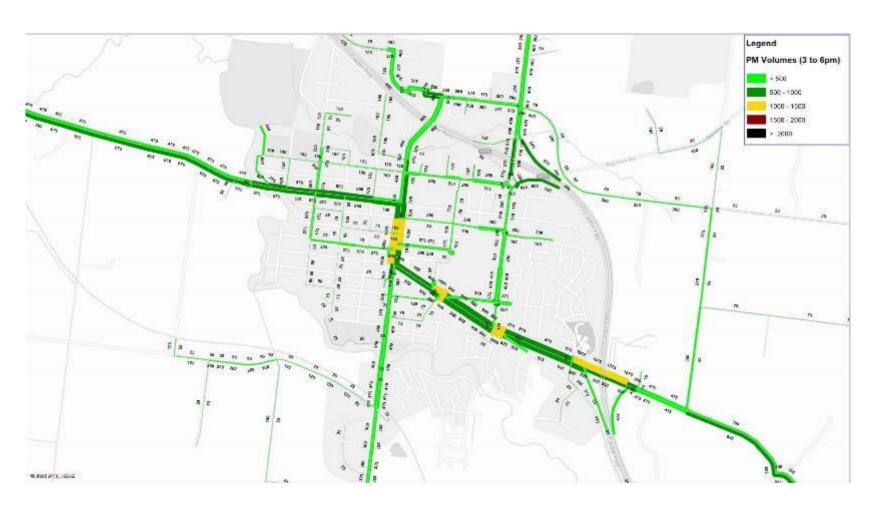
Traffic volumes in the PM peak period in the Kyneton region are shown to the right. This shows the Calder Freeway caters for a lot of traffic, most of which are through trips in both directions.

There are also high volumes on the east-west corridors of High Street and Burton Avenue, of between 700 and 900 vehicles across the three-hour PM peak period.

Zoomed in volumes in the town centre are found on the following page.



## 9 - Traffic Volume Plot Zoom (2023 PM Peak)

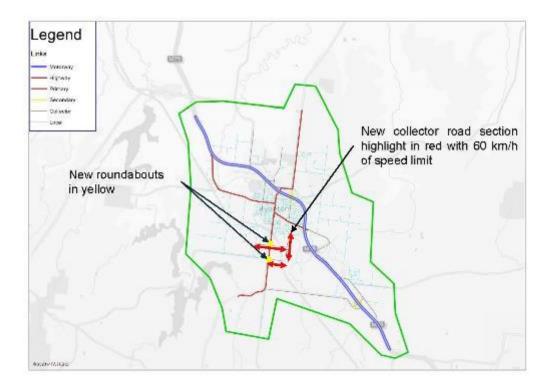




#### 10 - Future Base Model Network

Following development and outputting of the base year model, a future year model was developed for the Kyneton region to represent a circa 20 year horizon of 2041. Two aspects of the model were updated to reflect this, being the network and the demand. The network upgrades are shown below in schematic (left) and model markup formats (right).





#### 11 - Future Base Model Demand

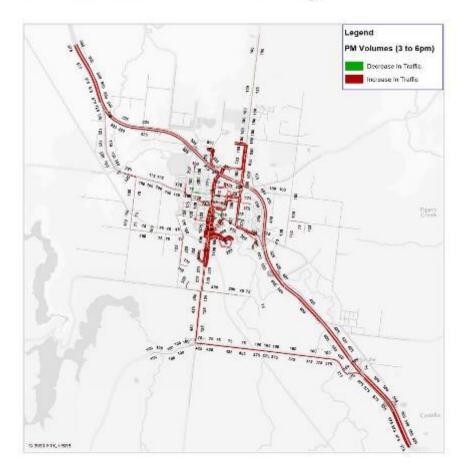
Future demand was then developed through a growth factoring process using the matrix estimation principle of furnessing. This process looked at infill into greenfield areas within Kyneton that are expected to build out across this horizon, as well as background growth both in and through the region, to provide total uplift in demand from and to each area in Kyneton. The demand growth by zone is shown below, alongside a graph of the total uplift from present day to future year 2041.

Zane	tu .	Type	Area (m²)	Origin Traffic	Sestination Traffic	20 years Origin Traffic	20 years Destination Traffic
11. 0	3.17007	bilen tabe	887	190.0	-213	960	857
2	11Z	Internals	:59	352	125	792	403
- 5	112	hiter rabi	39	65	134	165	320,
4	C22	liber abo	233	200	1	414	4.6
.5	9R21	Internals	427	200	216	240	370
- 9	GR21/FL28/01Z	Internals	920	52	47	725	- 000
T	\121.05.2/(38.2)	Internals	610	207	313	\$0.T	360
.0	5R21	Internals	617	03	78	530	795
- 9	GR21/5 20012	Internals	357	40	5	193	79
10	MZLUSZ	Internals	554	37	75	-165	250
33	147	hiller rets	1:990	150	100	K/K	1014
22	51002	hiles rebs	7.000	308	240	17.9	34
331	1.307	biller table	519	36	180	501	4hs
72	FZ	Internals	425	45	17	807	401
16	CRZ1(022/01Z	interrut-	6:8	308	720	571	304
16	P.	Internals	27.2	410	270	737	50
17	012/9521	Internals	327	350	71	347	570
19	C 29521	Internals	02	200	257	070	147
157	34/99271	Internals	226	5000	211	1915	201
291	GR/1	Internals	327	twi	256	472	520
CHT .	3.72	Internals	122	7567	0.50	320	0
20	C16/1	fuller refs	102	242	326	3919	343
200	3 2 3 C C C C C C C C C C C C C C C C C	Internets	100	53	219	357	272
36	C1-57 E	Internets	128	461	287	580	201
25	- 10 TO 100	Internals.	32	57	258	35	431
20:		Internals	:46	619	338	729	3.6
27		Internals.	:82	527	4:4	592	495
20		Internals	4.52	- T	11	17	10
20		Internals	427	65	142	53	142
30		Internals	8 900	74	15	7.	13
32		Internals	228	28	177	2.6	74
52		Inher No.	3.22	52	307	50	1007
3.3		Internals	0.012	39	613	28	155
8		Inferrels	3.543	78	143	16	163
385		hier etc	4.267	2635	7.K	865	3.05
595		Terra-	1000000	1.353	9069	5,635	2.675
57		10 411 4 -	- 2	2.635	1782	31/39	2391
38		4 471 4 -	12	283	250	327	421
384		2 4'T' H -	1 2 1	400	250	5041	-146
W)		Ecorne	100 1	- 5	90	12	115
-		MINISTER OF		12,000	3,350	17,642	18 751



## 12 – Traffic Uplift Plot (2041 vs 2023 PM Peak)

Traffic volume uplifts in the PM peak period in the Kyneton region are shown to the right. This shows increases in traffic throughout the network, with particularly large increases along Mollisons Road through the central part of the city and Edgecombe Road to the north/west.

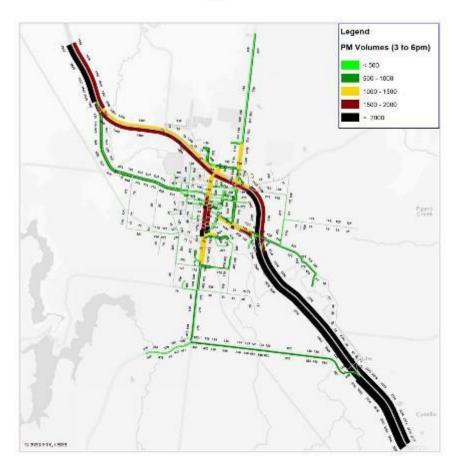


## 12 – Traffic Volume Plot (2041 PM Peak)

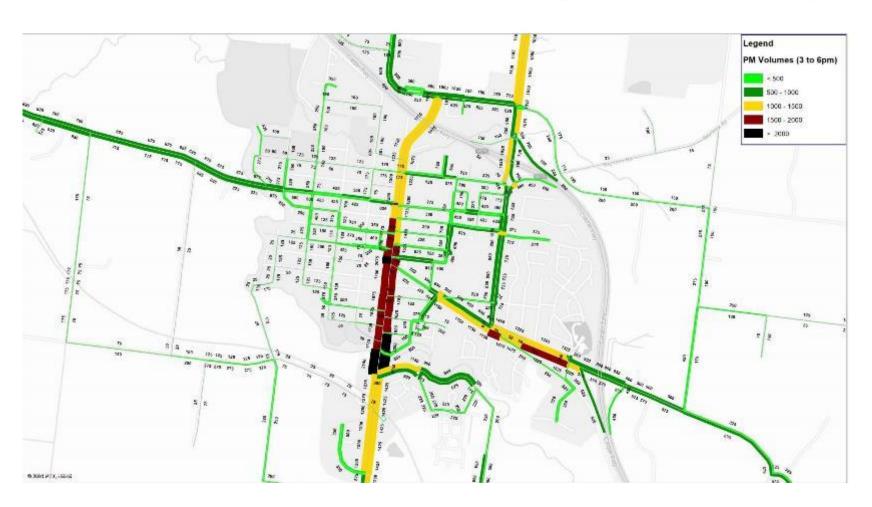
These uplifts in volume result in much higher volumes along many roads within the Kyneton region in the future PM peak, with:

- Mollison Street now catering for up to 2,000 vehicles in each direction
- High Street catering for over a 1,300 vehicles in each direction
- Edgecombe Road nearly tripling in traffic volume from 400 vehicles per direction to 1,200 vehicles per direction

Zoomed in volumes in the town centre are found on the following page.



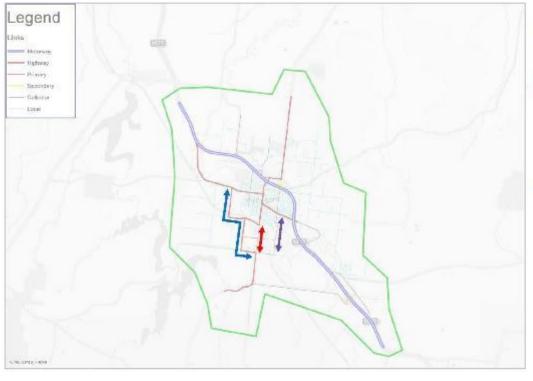
## 12 – Traffic Volume Plot Zoom (2041 PM Peak)





## 13 – Modelling Scope (Option 1)

The first option tested for Kyneton is outlined below. This includes:

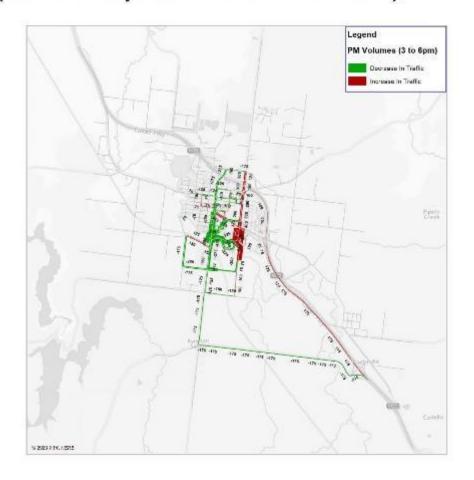


- New Bridge on Edgecombe connecting Edgecombe road to Campaspe Drive
- Down grading of Mollison between Lauriston Reservoir road & Kyneton Springhill with arterial downgraded to a collector speed reduced to 60 km/h
- New Arterial Bypass route connecting from Kyneton Springhill Road all the way to Burton Avenue, with an 80 km/h posted speed limit

#### 14 – Traffic Diversion Plot (2041 Option 1 PM Peak)

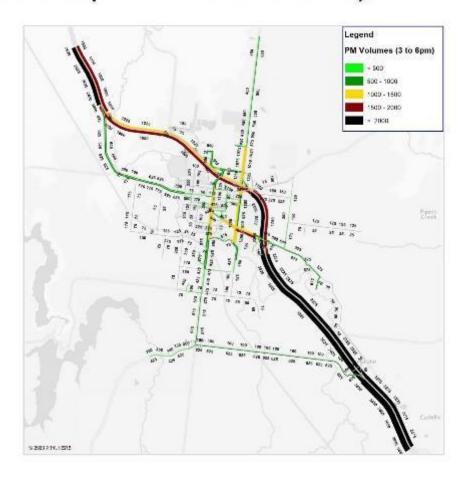
With the addition of the new Edgecombe Bridge, significant amounts of traffic are observed diverting off Mollison Street to utilise the new crossing, with up to 1,200 vehicles using the new crossing both directions. This provides some relief to Mollison Street, as well as Carlsruhe Central Road to the south, with vehicles now able to instead use the Bourke Street interchange.

Note limited traffic is noted to use the Bypass Routes proposed as part of this option/

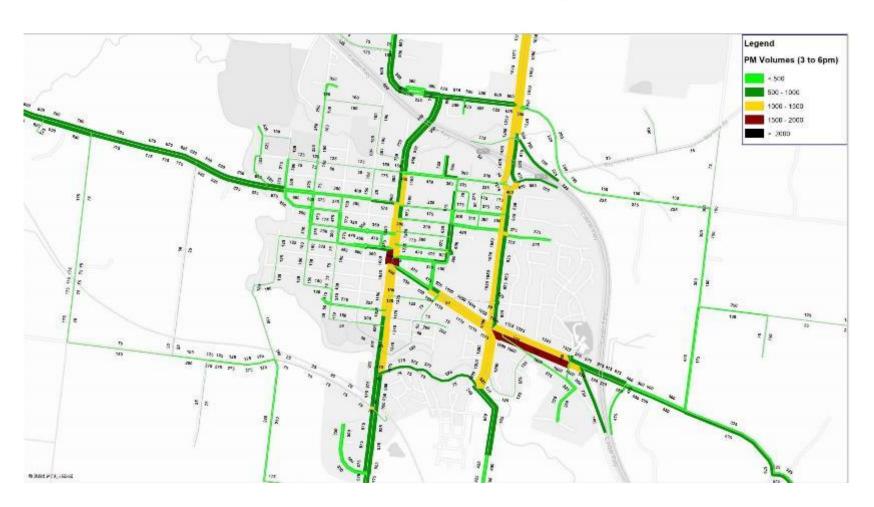


#### 14 – Traffic Volume Plot (2041 Option 1 PM Peak)

The diversion in traffic to the Edgecombe bridge changes the function of arterials in the Kyneton area, with Mollison Street and Edgecombe Street now effectively splitting traffic for the key north/south movement.



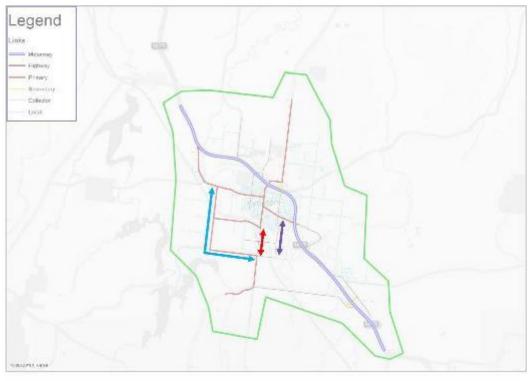
### 14 - Traffic Volume Plot Zoom (2041 Option 1 PM Peak)





## 15 – Modelling Scope (Option 2)

The second option tested for Kyneton has similar inclusions to Option 1, with the only difference being the configuration of the Bypass, as outlined below:



 New Arterial Bypass route connecting from Kyneton Springhill Road to Burton Avenue using Harts Lane instead of Flynns Lane

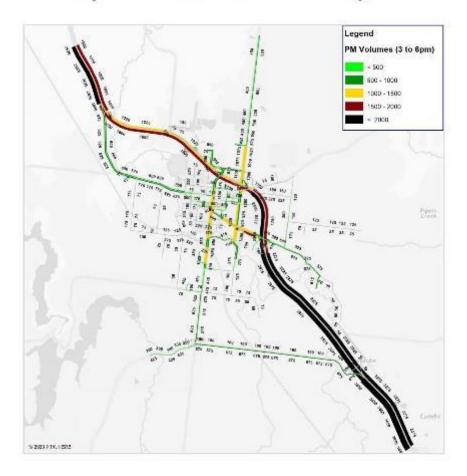
### 16 – Traffic Diversion Plot (2041 Option 2 PM Peak)

Traffic diversion outcomes in Option 2 are in line with Option 1, with no notable differences given the underutilisation of the proposed bypass route and Edgecombe Road attracting a lot more traffic due to the new bridge overpass.



# 16 – Traffic Volume Plot (2041 Option 2 PM Peak)

This results in similar traffic volumes to Option 1, with again Edgecombe Road becoming the key north/south arterial in the study area.



# 16 - Traffic Volume Plot Zoom (2041 Option 2 PM Peak)





Clear, tailored and transparent transport modelling and analytic solutions

www.clarityconsult.com.au

#### **Appendix J – Type of Recommended Projects**

Movement Type	Project Type	Description	Example Photo
Active Transport	Footpath	<ul> <li>Sealed path for pedestrians to walk along.</li> <li>Typical width is 1.5m.</li> </ul>	
Active Transport	Shared path	<ul> <li>Sealed path that is shared between pedestrians and cyclists for transport.</li> <li>Typical width is 2.5-3m for the context of this study.</li> </ul>	

Movement Type	Project Type	Description	Example Photo
Active Transport	Recreational/River trail	<ul> <li>Sealed paths that pedestrians and cyclists use for leisure.</li> <li>Typical width is 2.5-3m for the context of this study.</li> </ul>	
Active Transport	Pedestrian- operated signals	<ul> <li>Designated street crossing with traffic lights that activate a red light for motorists when a pedestrian pushes a button.</li> <li>Typical width is 2.5-3m for the context of this study.</li> <li>Suitable for high-volume roads with high pedestrian crossings (for example, at/near railway stations).</li> </ul>	

Movement Type	Project Type	Description	Example Photo
Active Transport	On-road cycle lanes	<ul> <li>Marked bicycle lanes on the sealed carriageway of a road dedicated to cyclists.</li> <li>Typical width is 1.2-1.8m for the context of this study.</li> <li>Typically installed along the kerb or between kerbside parking and traffic lane.</li> </ul>	STE!
Active Transport	Sharrows	<ul> <li>Pavement markings that indicate a road is a shared environment for bicycles and cars and alert all road users to the presence of bicycles on the road.</li> </ul>	
Active Transport	Pram crossing	A localised footpath area is lowered to the same level as the adjacent roadway to let pedestrians cross the road.	

Movement Type	Project Type	Description	Example Photo
Active Transport	Wombat crossing	<ul> <li>Raised pedestrian crossing that provides priority to pedestrians crossing the road and encourages motorists to slow down when approaching the crossing.</li> <li>Typical width varies from 3-3.5m.</li> </ul>	
Active Transport	Kerb outstands	<ul> <li>A localised widening of the footpath at intersections or mid-block, which extends the footpath into and across parking lanes or the road shoulder to the edge of the traffic lane.</li> <li>Kerb outstands reduce the crossing distance for pedestrians and cyclists, creating a narrowing effect along the road.</li> </ul>	

Movement Type	Project Type	Description	Example Photo
Active Transport	Raised platforms	<ul> <li>Elevated sections of road that aim to reduce vehicle speeds on the approach to areas of higher risk, such as intersections.</li> </ul>	
Traffic/road network	Speed humps	One of the traffic calming devices that uses vertical deflection to slow motor-vehicle traffic to improve safety conditions.	
Traffic/road network	Splitter islands	A raised or painted traffic island that separates traffic in opposing directions of travel.	

Movement Type	Project Type	Description	Example Photo
Traffic/road network	Access/movement restriction or control	Some turning movements are restricted to control traffic movements and improve road safety.	

Table J1: Description of Key Recommendation/Project Types

# **Appendix K – MCA Prioritisation Outputs**

	0.11	Key	KPI	Lan			Raw Sc	oring Guide		
Key Assessmen t Criteria	Criteria Weightin g	Performance Indicators (KPIs)	Individua I Weightin g	KPI Weighting Guide	0	1	2	3	4	5
Feasibility	25%	Arterial roads/rail corridors / non-Council land	10%	Council will have less influence for change on non-Council land.	n/a	Requires approval from external authoritie s	n/a	n/a	n/a	Within Council land
		Environment al and cultural impacts	5%	Will the project impact flora & fauna, cultural heritage, or require the removal of trees?	n/a	Major	n/a	Moderate	n/a	Minor
		Significant infrastructure	10%	Is major infrastructure required? Removal of existing or new infrastructure	n/a	Major	n/a	Moderate	n/a	Minor
Connectivity	15%	Proximity to essential services	13%	Is the project near key destinations such as schools,	n/a	No	n/a	Provides connectivit	n/a	Close proximity

				childcare centres, etc? Is the project within the town centre?						
		Complete critical gaps	2%	Does the project complete critical gaps in the existing movement network, e.g. missing offroad cycling links	n/a	No	n/a	Reduces gap	n/a	Completes critical gap
Safety	20%	Road safety	20%	Does the project improve safety for all road users	Greatly reduces safety	Reduces road safety	Neutral	Slightly improves safety	Improves safety (Safe System aligned treatments )	Significantl y improves safety (Safe System aligned treatments)
Movement and Place	10%	Alignment with Movement and Place Aspirations	10%	Does the project align with M&P aspirations? Will the project address an	Strongly goes against M&P objectives	n/a	n/a	Neutral	Aligns with M&P objectives. Addresses a gap.	Strongly aligns with M&P objectives. Addresses a large gap.

				M&P performance gap?						
		Aligns with relevant Council strategy	5%	How well does the project align with Council's strategy?	Strongly goes against strategic objectives	Goes against strategic objective s	Does not support strategic objective s	Neutral	Generally aligns with strategic objectives	Aligns strongly with strategic objectives
Alignment with local strategy and policy	10%	Social and economic benefits	2%	Does delivering transport improvement s provide added community benefits? Is this a tourism, local business, school, shopping, or cycling route? Does it provide activation and renewal opportunities ?	N/A	Low	N/A	Medium	N/A	High

		Project developed separately	3%	Has the project already been developed separately? This will reduce total project time and cost.	n/a	No	n/a	n/a	n/a	Yes
Stakeholder & community sentiment	20%	Community sentiments	20%	Is the community supportive of the project		Calculated b	ased on net	support from	the commun	ity

Table K1: MCA Prioritisation Criteria, Weightage and Performance Metrics

Proje ct Num ber	Path / Road Name	Project Type	Reside nt Sugges tion	Feasib ility	Connec tivity	Saf ety	Move ment and Place	Align ment with local strate gy and policy	Stakeh older & commu nity sentime nt	MC A Sco re	Rank ing MCA	Start	End
1	Campaspe River Trail	Rec Shared Path		11%	6%	12 %	10%	7%	0%	46 %	107	Wedge Street	Eastern Terminu s
2	Campaspe River Trail	Rec Shared Path		11%	8%	8%	10%	6%	0%	43 %	124	Eastern Terminus	Ross Street
3	Campaspe River Trail	Rec Shared Path		9%	8%	8%	10%	6%	3%	44 %	117	Ross Street	Rennick Avenue
4	Campaspe River Trail	Rec Shared Path		25%	7%	8%	8%	5%	0%	53 %	67	Access connections to Yaldwyn Street W, Bayton Street, Wedge Street and Powlett Street	
5	Campaspe Drive	Shared Path (advocacy - developers)		19%	8%	8%	6%	9%	0%	50 %	86	Mollison Street	Village Green Drive
6	Edgecombe Street	Shared path bridge		7%	8%	12 %	10%	9%	3%	49 %	92	Riverwalk Boulevard/R ennick Avenue	Campas pe Drive

7	Trentham Road	Shared path and footpath	7%	8%	16 %	10%	7%	10%	58 %	38	Railway station	Kyneton - Springhil I Road
8	Mollison Street	Improved Cycle Lanes/shared path	11%	2%	16 %	8%	4%	3%	45 %	115	Campaspe Drive	Railway Station
9	Piper Street	On-road cycle lanes	17%	8%	16 %	6%	7%	0%	54 %	64	Mollison Street	Harts Lane
10	Burton Avenue	On-road cycle lanes/shoulders	11%	8%	16 %	8%	5%	0%	48 %	101	Harts Lane	Lauristo n Road
11	Mollison Street	On-road cycle lanes/shoulders	11%	8%	16 %	8%	5%	3%	51 %	73	Beauchamp Street	Saleyar ds Road
12	Saleyards Road	On-road cycle lanes/shoulders/ shared path	13%	8%	16 %	8%	5%	0%	50 %	91	Mollison Street	Edgeco mbe Street
13	Edgecombe Street	On-road cycle lanes/shoulders/ shared path	11%	8%	16 %	8%	5%	0%	48 %	100	Beauchamp Street	Bushlan d Resort
14	Bourke Street	On-road cycle lanes/shoulders	11%	7%	16 %	8%	5%	0%	47 %	102	Edgecombe Street	High Street
15	Trio Road	On-road cycle lanes/shoulders	11%	7%	16 %	6%	6%	0%	46 %	108	High Street	Murphys Road
16	Campaspe River Trail	Wayfinding strategy	21%	6%	8%	6%	7%	0%	48 %	99		
17	Mollison Street/Camp aspe Drive	Signalised intersection (advocacy - developers)	13%	3%	16 %	6%	8%	3%	50 %	90		
18	Railway reserve	Shared Path	11%	7%	12 %	8%	8%	0%	46 %	106	22 Village Green Drive	Mollison Street
19	Mollison Street at a	Pedestrian operated signals	9%	11%	16 %	6%	5%	3%	50 %	85		

	railway crossing												
20	Railway reserve	Shared Path	7	7%	8%	12 %	8%	8%	3%	46 %	104	22 Village Green Drive	Toward Pleasant Hills Road
21	Edgecombe Street (post the construction of a bridge at Campaspe River)	On-road cycle lanes/shared path	1:	5%	12%	16 %	8%	6%	3%	60 %	31	Beauchamp Street	Pleasant Hills Road
22	Beauchamp Street or Yaldwyn Street	On-road cycle lanes/shared path	1:	9%	8%	16 %	8%	5%	3%	59 %	32	Edgecombe Street	Campas pe River Trail
23	Wedge Street	On-road cycle lanes/shared path	1:	9%	8%	16 %	8%	5%	0%	56 %	40	Beauchamp Street or Yaldwyn Street	Simpson Street
24	Simpson Street	On-road cycle lanes/shared path	19	9%	7%	12 %	8%	5%	0%	51 %	82	Wedge Street	Mollison Street
25	Pleasant Hill Road	On-road cycle lanes/shared path	19	9%	2%	12 %	6%	4%	0%	43 %	120	Trentham Road	Edgeco mbe Street
26	Victoria Street	On-road cycle lanes/shared path	1	9%	11%	12 %	8%	5%	0%	55 %	50	Market Street	Beauch amp Street
27	Ferguson Street	On-road cycle lanes/shared path	19	9%	11%	12 %	8%	5%	0%	55 %	49	Victoria Street	High Street

28	Market Street	On-road cycle lanes/shared path	19%	11%	12 %	8%	5%	0%	55 %	48	Victoria Street	Ferguso n Street
29	Lauriston Street	On-road cycle lanes/shared path	19%	11%	12 %	8%	4%	0%	54 %	62	Victoria Street	Mollison Street
30	Epping Street	On-road cycle lanes/shared path	19%	7%	12 %	8%	5%	0%	51 %	81	High Street	Barton Street
31	Leete Street	On-road cycle lanes/shared path	19%	7%	12 %	8%	5%	0%	51 %	80	Barton Street	Caroline Chishol m Drive
32	Caroline Chisholm Drive	On-road cycle lanes/shared path	19%	7%	12 %	8%	5%	0%	51 %	79	Bourke Street	Jessie Evelyn Crescen t
33	Saleyards Road	On-road cycle lanes/shared path	19%	7%	12 %	8%	5%	0%	51 %	78	Mollison Street	Jackson Drive
34	Lauriston Reservoir Road	On-road cycle lanes/shared path	19%	7%	12 %	6%	5%	0%	49 %	95	Mollison Street	Harts Lane
35	Langley Street	Sharrows and traffic calming	25%	3%	12 %	6%	5%	0%	51 %	77	Franklin Place	Begg Street
36	Begg Street	Sharrows and traffic calming	25%	7%	12 %	6%	5%	0%	55 %	47	Langley Street	New Street
37	New Street	Sharrows and traffic calming	25%	7%	12 %	6%	5%	0%	55 %	46	Begg Street	High Street
38	Ebden Street or Powlett Street	Sharrows and traffic calming	23%	7%	12 %	6%	5%	0%	53 %	68	Piper Street	Beauch amp Street
39	Riverwalk Boulevard	Sharrows and traffic calming	25%	3%	12 %	6%	5%	0%	51 %	76	High Street	Sanctua ry Drive

40	High Street Service Road	Sharrows and traffic calming	25%	3%	12 %	6%	5%	0%	51 %	75	Wheatley Street	Clarke Crescen t
41	Bourke Street Service Road	Sharrows and traffic calming	25%	3%	12 %	6%	5%	0%	51 %	74	Edgecombe Street	Eastern end
42	Mollison Street	Priority crossing with kerb outstands	17%	10%	20 %	6%	6%	7%	66 %	18	Hutton Street	Bowen Street
43	Mollison Street	Priority crossing with kerb outstands	17%	10%	20 %	6%	6%	7%	66 %	17	Simpson Street	Welsh Street
44	Piper Street	Priority crossing with kerb outstands	17%	10%	20 %	8%	7%	0%	62 %	26	Ebden Street	Powlett Street
45	High Street at Market Street Car Park ROW access	Priority crossing with kerb outstands	17%	10%	20 %	6%	7%	13%	73 %	6		
46	Mollison Street/Piper Street	Intersection upgrade - signalisation/rou ndabout	7%	6%	20 %	8%	6%	17%	64 %	22		
47	Jennings Street, Lauriston Street & Market Street at Mollison Street	Kerb outstands (reducing crossing distance) with priority crossing (if feasible)	17%	10%	16 %	6%	6%	0%	55 %	45		

48	Ebden Street, Powlett Street & Wedge Street at Piper Street	Kerb outstands (reducing crossing distance)	17%	10%	16 %	6%	6%	0%	55 %	44		
49	Edgecombe Street at existing shared path connection through Education Precinct	Priority crossing with kerb outstands	25%	10%	20 %	8%	6%	0%	69 %	13		
50	Kyneton township and its surrounds	Implement proposed footpaths in 2023 Shire Wide Footpath Plan	19%	7%	12 %	6%	9%	0%	53 %	66		
51	Kyneton South	Include footpaths in future development (advocacy - developers)	19%	3%	16 %	8%	8%	0%	54 %	51		
52	Bayton Street (north side)	Construct footpath	25%	7%	12 %	6%	5%	0%	55 %	42	Wedge Street	Powlett Street
53	Jennings Street (north side)	Construct footpath	25%	7%	12 %	6%	5%	3%	58 %	35	Ebden Street	Powlett Street

54	Beauchamp Street (north side)	Construct footpath	:	25%	7%	12 %	6%	5%	3%	58 %	34	Mollison Street	Powlett Street
55	Beauchamp Street (north side)	Construct footpath	:	25%	7%	12 %	6%	5%	13%	68 %	14	Wedge Street	Powlett Street
56	Victoria Street (west side)	Construct footpath	:	25%	7%	12 %	6%	5%	7%	62 %	29	Mair Street	Beauch amp Street
57	Epping Street (south side)	Construct footpath	:	25%	7%	12 %	6%	5%	7%	62 %	28	Edgecombe Street	Barton Street
58	Lauriston- Reservoir Road (south side)	Construct footpath	:	25%	7%	12 %	6%	5%	0%	55 %	41	Mollison Street	Harpers Lane
59	Donnithorne Street (south side)	Construct footpath	:	25%	7%	12 %	6%	5%	10%	65 %	21	Powlett Street	Wedge Street
60	Pohlman Street (south side)	Construct footpath	:	25%	7%	12 %	6%	5%	7%	62 %	27	Ebden Street	Powlett Street
61	Wedge Street (west side)	Construct footpath	2	25%	7%	12 %	6%	5%	10%	65 %	20	Baynton Street	Jenning s Street
62	Yaldwyn Street E (north side)	Construct footpath	2	25%	7%	12 %	6%	5%	10%	65 %	19	Mollison Street	Victoria Street
63	High Street	Heavy vehicle ban (advocacy - DTP/NHVR)		17%	10%	12 %	6%	5%	0%	50 %	88	Mollison Street	Ferguso n Street

64	Mollison Street	Heavy vehicle ban (advocacy - DTP/NHVR)		17%	10%	12 %	6%	5%	0%	50 %	87	High Street	Beauch amp Street
<del>65</del>	-Ebden Street	Establish Heavy vehicle detour route	ı	<del>15%</del>	<del>6%</del>	<del>12</del> <del>%</del>	<del>6%</del>	<del>6%</del>	<del>0%</del>	4 <del>5</del> %	<del>114</del>		
<del>66</del>	-Ferguson Street & Victoria Street	Establish Heavy vehicle detour route	_	<del>15%</del>	<del>6%</del>	<del>12</del> %	<del>6%</del>	<del>6%</del>	<del>0%</del>	4 <del>5</del> %	<del>113</del>		
67	Kyneton township and its surrounds	Concentrate heavy vehicle movements outside of peak times (advocacy - local businesses)		25%	2%	12 %	6%	5%	0%	50 %	84		
68	Kyneton township and its surrounds	Wayfinding to reduce heavy vehicle traffic through the township		17%	2%	12 %	8%	5%	0%	44 %	116		
69	Mollison Street/High Street	Intersection upgrades (right turn extension and signal mods)		17%	10%	16 %	6%	8%	17%	73 %	4		
70	Bodkin Street	Traffic calming (speed humps, splitter island at New St)		25%	6%	16 %	6%	6%	17%	76 %	3	Mollison Street	New Street
71	Welsh Street	Speed hump, Sharrow		25%	6%	12 %	6%	5%	0%	54 %	52	Mollison Street	High Street

72	Begg Street	Speed cushions		25%	6%	16 %	6%	6%	3%	62 %	23	Mollison Street	Ross Street
73	New Street	Traffic calming (speed cushions)		25%	6%	16 %	6%	6%	7%	66 %	16	High Street	Begg Street
74	- New Street at High Street	Restrict access to left-in/left-out only.	-	<del>15%</del>	<del>6%</del>	<del>12</del> %	<del>6%</del>	<del>6%</del>	<del>0%</del>	4 <del>5</del> %	<del>112</del>	-	_
<del>75</del>	- Bodkin Street at Mollison Street	- Restrict access to left-in/left-out only	ı	<del>15%</del>	<del>6%</del>	<del>12</del> %	<del>6%</del>	<del>6%</del>	<del>0</del> %	4 <del>5</del> %	<del>111</del>	1	-
<del>76</del>	- Begg Street at Mollison Street	Restrict access to left-in/left-out only	_	<del>15%</del>	<del>6%</del>	<del>12</del> %	<del>6%</del>	<del>6%</del>	<del>0%</del>	4 <del>5</del> %	<del>110</del>	-	_
77	Mollison Street into Market Street	Restrict right turn movements during peak times (short term)		17%	10%	20 %	6%	6%	10%	69 %	12		
78	Mollison Street/Beauc hamp Street	Intersection upgrade - roundabout		7%	2%	20 %	6%	4%	3%	43 %	122		
79	Saleyards Road/Edgec ombe Road/Pipers Creek Road	Intersection upgrade - signalisation/rou ndabout (advocacy - developers)		7%	6%	16 %	6%	4%	3%	43 %	125		

80	High Street into Epping Street	Restrict right turn movements during school times	17%	6%	16 %	6%	5%	3%	53 %	65		
81	Edgecombe Street (post the construction of a bridge at Campaspe River)	Speed limit reduction (to 40kmh)	17%	6%	20 %	10%	6%	7%	66 %	15	Epping Street	Beauch amp Street
82	Edgecombe Street	Carriageway reconfiguration (shared bicycle and parking lane) and kerb outstands (narrowing effect and reducing crossing distance)	21%	7%	20 %	8%	6%	0%	62 %	25	High Street	Beauch amp Street
83	High Street/Edgec ombe Street (post the construction of a bridge at Campaspe River)	Intersection upgrades (traffic signals)	13%	10%	20 %	8%	8%	13%	72 %	8	V	
84	Kyneton Town Centre	Area speed limit reduction	17%	10%	20 %	10%	8%	20%	85 %	1		

		(30kmh or 40kmh)										
85	Streets surrounding town centre (bounded by Piper/Mair, Victoria, Donnithorne/ Bodkin & Wedge)	Speed limit reduction (to 40km/h)	17%	6%	20 %	10%	7%	13%	73 %	5		
86	Ebden Street	Speed humps (or similar, where appropriate)	21%	6%	16 %	6%	5%	0%	54 %	61	Clowes Street	George Street
87	Powlett Street	Speed humps (or similar, where appropriate)	21%	6%	16 %	6%	5%	0%	54 %	60	Clowes Street	Lavende r Street
88	Pohlman Street	Speed humps (or similar, where appropriate)	21%	6%	16 %	6%	5%	0%	54 %	59	Mollison Street	Powlett Street
89	Donnithorne Street	Speed humps (or similar, where appropriate)	21%	6%	16 %	6%	5%	0%	54 %	58	Mollison Street	Wedge Street
90	Clowes Street	Speed humps (or similar, where appropriate) and bicycle sharrows	21%	6%	16 %	6%	5%	0%	54 %	57	Mollison Street	Wedge Street

91	Mair Street	Speed humps (or similar, where appropriate)	21%	6%	16 %	6%	5%	0%	54 %	56	Mollison Street	Victoria Street
92	Orr Street	Speed humps (or similar, where appropriate)	21%	6%	16 %	6%	5%	0%	54 %	55	Edgecombe Street	Victoria Street
93	Sturt Street	Speed humps (or similar, where appropriate)	21%	6%	16 %	6%	5%	0%	54 %	54	Edgecombe Street	Victoria Street
94	Yaldwyn Street E	Speed humps (or similar, where appropriate)	21%	6%	16 %	6%	5%	0%	54 %	53	Mollison Street	Victoria Street
95	Edgecombe Street	Update M&P Classification (GT4, M4, P4)	17%	6%	8%	10%	7%	0%	48 %	98	Beauchamp Street	Campas pe Drive (future connecti on)
96	Edgecombe Street across Campaspe River	New road bridge connection	7%	8%	16 %	6%	8%	17%	61 %	30		
97	Edgecombe Street (post the construction of a bridge at Campaspe River)	Road upgrade and reconfiguration	19%	8%	16 %	10%	7%	20%	80 %	2	High Street	Future Campas pe River bridge

98	Trentham Road/Pleasa nt Hill Road	Intersection upgrade - roundabout (advocacy - developers)	7%	2%	16 %	6%	5%	3%	39 %	126		
99	Trentham Road/future east-west access roads	Intersection upgrade - roundabout (advocacy - developers)	7%	2%	16 %	6%	5%	0%	36 %	129		
100	Pleasant Hill Road	Carriageway upgrade (advocacy - developers)	15%	2%	12 %	6%	5%	3%	43 %	118	Trentham Road	Future develop ment
101	Trentham Road	Carriageway upgrade (advocacy - DTP)	7%	6%	12 %	8%	7%	3%	43 %	119	Pleasant Hill Road	Mollison Street
102	Mollison Street/Jennin gs Street	Intersection upgrade - signalisation	7%	10%	16 %	6%	6%	13%	58 %	36		
103	Mollison Street/Jennin gs Street	Install loop detector to trigger existing POS	17%	10%	16 %	6%	6%	0%	55 %	43		
104	Kyneton Town Centre	Undertake accessible parking audit in 2027	25%	10%	12 %	6%	6%	13%	72 %	7		
105	Kyneton Town Centre	Convert on- street parking spaces to accessible	25%	10%	12 %	6%	6%	10%	69 %	11		

		parking spaces (case-by-case basis)									
106	High Street, Epping Street, Edgecombe Street	Install on-street accessible parking in/around the Education Precinct	25%	6%	12 %	6%	6%	17%	72 %	9	
107	Cnr Ebden Street/Yaldw yn Street	Formalise unsealed car park	21%	6%	12 %	6%	7%	0%	52 %	69	
108	Edgecombe Street, Industrial Precinct	Bus route review (advocacy - PTV)	17%	7%	8%	8%	9%	0%	49 %	94	
109	Btwn residential areas and key destinations	On-demand bus service trial (advocacy - PTV)	13%	12%	8%	10%	7%	0%	49 %	93	
110	Bus routes to the train station	Bus frequency/sched ule review (advocacy - PTV)	17%	7%	8%	8%	8%	0%	48 %	97	
111	Btwn town centre and train station	On-demand bus service trial during peak tourist season (advocacy - PTV)	13%	7%	8%	8%	7%	0%	43 %	123	

112	Kyneton township bus routes	Hybrid/electric bus uptake (advocacy - PTV)		13%	2%	8%	6%	8%	0%	37 %	128		
113	Kyneton township bus stops	Upgrade bus stop facilities (advocacy - PTV)		13%	6%	12 %	6%	6%	0%	43 %	121		
114	Kyneton township bus stops	Upgrade train station facilities (advocacy - VicTrack/PTV)		13%	10%	8%	6%	6%	3%	46 %	105		
115	Mollison Street at railway crossing	Level crossing safety review (advocacy - DTP)		13%	6%	16 %	6%	4%	0%	45 %	109		
116	Kyneton South growth areas	Develop bus network capability		11%	8%	8%	8%	8%	3%	46 %	103		
117	Orr Street (southern side)	Construct footpath	Yes	25%	7%	12 %	6%	5%	3%	58 %	37	Tower Street	Edgeco mbe Street
118	Market Street	Convert angled on-street car parking to parallel on-street car parking	Yes	25%	2%	12 %	6%	3%	3%	52 %	70	Mollison Street	Ferguso n Street
119	Ebden Street (eastern side)	Seal existing footpath	Yes	25%	6%	12 %	6%	5%	3%	58 %	39	Pohlman Street	Donnith orne Street
120	Redesdale Road	Shared path	Yes	19%	6%	12 %	6%	4%	3%	51 %	83	Saleyards Road	Jackson Drive

121	Jennings Street	Shared path	Yes	19%	6%	12 %	6%	5%	3%	51 %	72	Mollison Street	Mill Street
122	Powlett Street	Construct footpath	Yes	25%	7%	12 %	6%	5%	3%	58 %	33	Piper Street	Baynton Street
123	Kyneton Township	Conduct town- wide footpath audit of existing facilities	Yes	25%	2%	12 %	6%	5%	3%	54 %	63		
124	Welsh Street	Remove road closure	Yes	25%	2%	4%	0%	3%	3%	38 %	127	Adj. 2 Welsh Street	
125	Victoria Street	Undertake audit of on-street car parking	Yes	25%	2%	8%	6%	5%	3%	50 %	89	near Aquatic Centre	
126	Redesdale Street	Crossover safety improvement	Yes	21%	2%	12 %	6%	4%	3%	49 %	96	Council Transfer Station	
127	Beauchamp Street	Speed limit reduction to 50km/h	Yes	17%	2%	16 %	6%	7%	3%	51 %	71	Mollison Street	Edgeco mbe Street
128	High Street at Ferguson Street	Priority crossing with kerb outstands	Yes	17%	10%	20 %	6%	6%	3%	62 %	24		
129	Ferguson Street at Market Street	Priority crossing with kerb outstands	Yes	25%	10%	20 %	6%	6%	3%	70 %	10		

Table K2: MCA Outputs (All Project)