

Let's Talk About Transport

CITY OF
BALLARAT



BALLARAT TRANSPORT OVERVIEW



THE BALLARAT INTEGRATED TRANSPORT PLAN

Let's Talk About Transport

BALLARAT TRANSPORT OVERVIEW

Ballarat's population is on track to reach 160,000 by 2040, so we need to future-proof the city's transport network and plan for the long term.

The Ballarat Integrated Transport Plan (BITP) is a long-term vision for Ballarat's transport system, ensuring all networks are efficient, sustainable and well-planned. This Transport Overview outlines the current transport situation and will inform the development of the BITP.

The plan is underpinned by the 10-Minute City principal of the Ballarat Strategy – council's long-term plan for the city to 2040.

The BITP will outline actions the City of Ballarat can take to improve the transport systems it owns or manages, including footpaths, bicycle infrastructure and local roads.

It will also recommend advocacy actions for improvements to parts of the transport system the state government owns or manages, including major roads, freeways and highways, bus services and train lines.



CONTENTS

2. 1.0 OVERVIEW
3. 2.0 REGIONAL CONTEXT
4. 2.1 GETTING TO AND FROM BALLARAT
5. 3.0 LOCAL CONTEXT
6. 3.1 GETTING AROUND BALLARAT: DRIVING
7. 3.2 LIVING CLOSE TO WORK, SERVICES AND PUBLIC TRANSPORT OPPORTUNITIES
8. 3.3 GETTING AROUND BALLARAT: ACTIVE TRANSPORT
9. 3.4 GETTING AROUND BALLARAT: PUBLIC TRANSPORT
10. 4.0 FREIGHT: MOVING GOODS IN AND OUT OF BALLARAT
11. 5.0 SUMMARY

1.0 OVERVIEW

A key principle of the Ballarat integrated transport discussion, is to ensure Ballarat remains easy to get to, from and around for local residents, visitors and freight. As Ballarat grows, pressures on existing transport networks will be apparent in terms of:

- traffic congestion
- increasing time and monetary costs to move around and access jobs, services and other daily needs
- Crowding on public transport such as Ballarat-Melbourne trains

Effective long-term integrated transport and land use planning is required to manage transport networks in a way that minimises the negative impacts of population and economic growth.

A sustainable transport system for Ballarat is fundamentally about giving the community more convenient options for how they move, considering their personal needs and circumstances. In dealing with a growing population, we are able to provide more options for people in creating frequent services, diverse routes and longer operating hours. In order to optimise the benefits of these opportunities, careful long-term planning for sustainable transport must begin now.

In order to achieve this, it is important to understand Ballarat's current transport situation. This is all about people's movements, at a regional and local level in accessing work, education, shopping, recreation and tourism opportunities.

The BITP also seeks to improve the efficiency of freight movements for businesses, making them more competitive in their industry.



2.0 REGIONAL CONTEXT

WITHIN THE CENTRAL HIGHLANDS REGION, BALLARAT PLAYS A CRITICAL ROLE AS THE PRIMARY ACTIVITY CENTRE. IT HOUSES ABOUT HALF THE POPULATION BUT PROVIDES NEARLY 70% OF ALL OF THE REGION'S EMPLOYMENT OPPORTUNITIES. THIS MEANS A SIGNIFICANT NUMBER OF PEOPLE COMMUTE TO AND FROM BALLARAT FROM OUTSIDE THE REGION.

As shown in figure 1, Ballarat is a highly concentrated employment centre for the region, providing over 45,000 or 69% of the region's jobs. These jobs are generally located around Ballarat CBD, West Employment Zone (BWEZ), Wendouree and in Mt Helen. As job growth in the region continues, it is likely that the BWEZ will increase its role in terms of the share of total employment.

In 2016, 81% of Ballarat's workforce lived in Ballarat. This meant that over 7,000 people commuted to and from Ballarat for work everyday from elsewhere in the region. Almost 3,000 of these commuters came mainly from southern parts of the region, near Rokewood, Meredith and Elaine. A substantial number also came from eastern parts, near Ballan and Bacchus Marsh. Clear data is not available but on the average day, it is anticipated that a further 15,000 people come from regional areas to Ballarat for other purposes such as for shopping, education, health or recreation. The Central Highlands Region is forecasted to grow by 30,000 by 2021. Based on the current 80/20 split between living and working in Ballarat, this will mean the number of regional commuters will significantly increase into the future.

As Melbourne continues to expand westward (towards Ballarat) the commute times from Melbourne's outer suburbs to Ballarat are reducing. Already, in some circumstances, residents in Melton can access jobs and education in Ballarat quicker and more reliably than they can access jobs or education in Melbourne CBD.

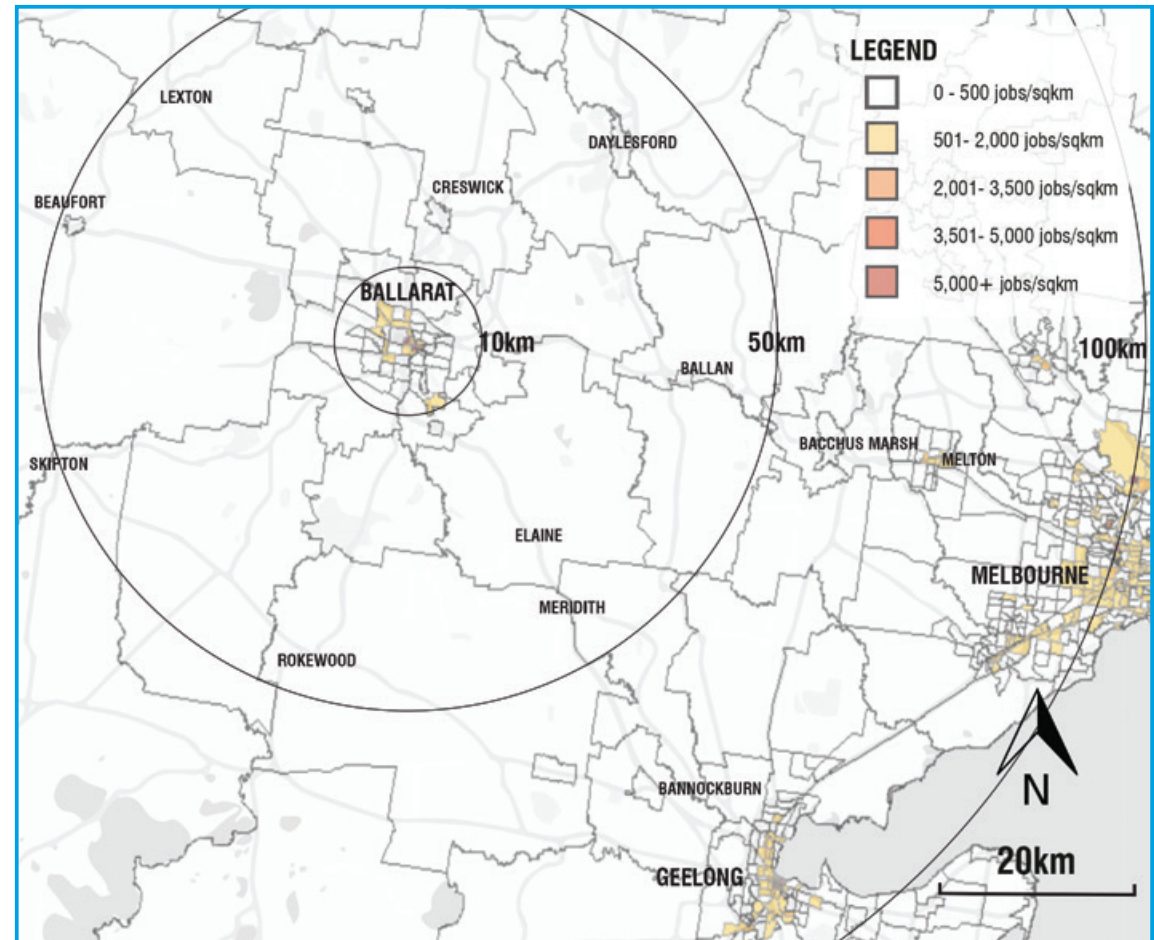


Fig.1
Place of work density by 'destination zone', showing a high density of places of work in Ballarat's CBD as well as in Wendouree to the West and Federation University, Mt Helen to the South.

2.1 GETTING TO AND FROM BALLARAT

IN 2016, 98% OF REGIONAL COMMUTERS DROVE, WHILE ONLY 2% CAUGHT PUBLIC TRANSPORT. THIS SPLIT IS DUE TO A LACK OF CHOICE COMMUTERS FACE WHEN TRAVELLING TO BALLARAT FOR WORK FROM ELSEWHERE IN THE REGION. THIS PLACES A LARGE AND EVER-INCREASING DEMAND ON ROAD INFRASTRUCTURE REGIONALLY AND LOCALLY.

It is highly cost-ineffective to continue to upgrade this infrastructure as growth accelerates, making the provision of better transport choices a necessity. In considering the region's substantial growth over the next decade, it is important to ensure travel costs including time remain low. In increasing the viability of public transport to Ballarat, costs for travellers are reduced as is pressure on local road congestion and parking infrastructure.

Currently, public transport to and from Ballarat is limited to regional links to other regional town centres. Most of these towns including: Beaufort, Ararat, Skipton, Elaine, Meredith, Creswick, Ballan, Bacchus Marsh and Melton take 60 minutes or less to get to and from by public transport. Most regional commuters live in rural locations requiring them to drive to stations in order to use this public transport.

There is a significantly larger catchment however, for those commuting by car to and from Ballarat within the same timeframe of 60 minutes. Considering the public transport commute from these locations is likely to be the same time or longer than a car, many choose to drive straight to work, rather than parking at a station and transferring to a train. In addition to this, as shown in Figure 2, These towns often have limited services, especially in the cases of Avoca, Skipton, Mayborough, Elaine, Meredith and Daylesford, which make the time for departure inflexible. In cases where there are only 1 daily service, there is the added difficulty in making the commute home. These factors of inflexible departure times, lack of return services and and equal or slower travel make driving to and from Ballarat far more attractive than public transport.

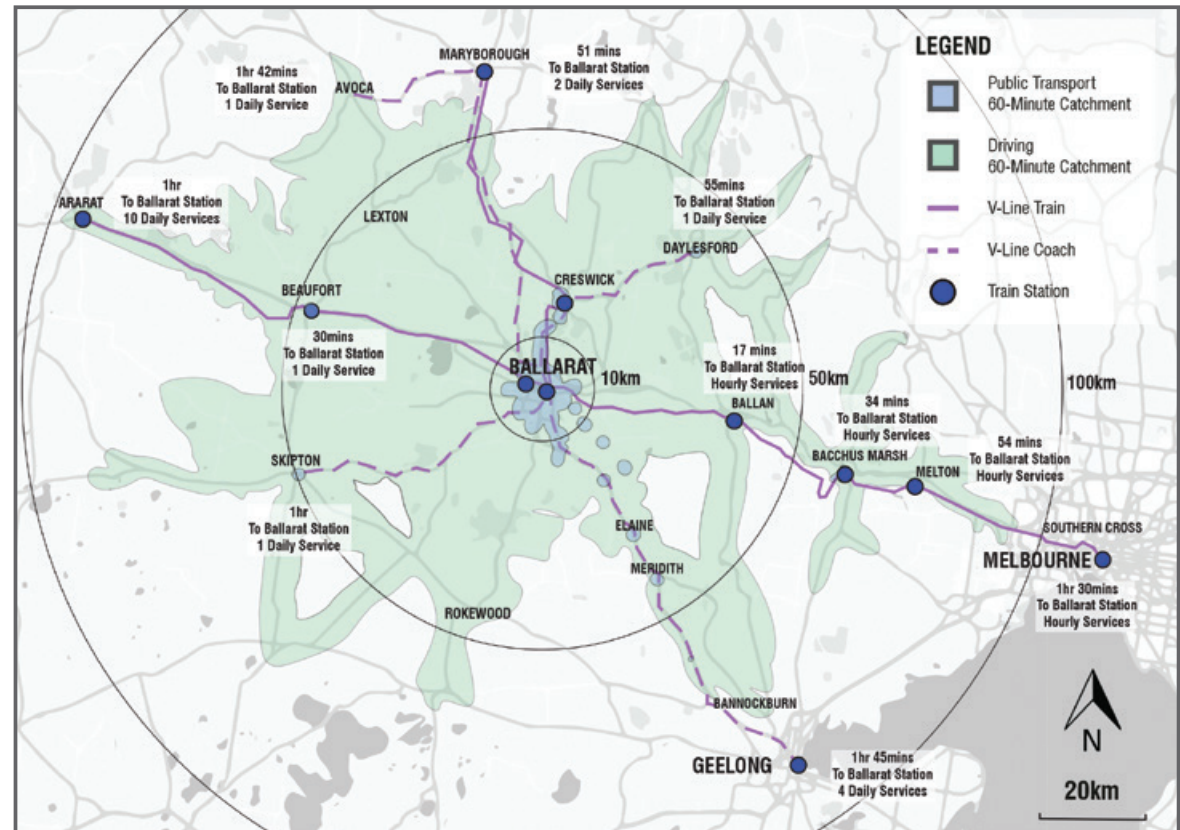


Fig.2
Regional transport map based on 60 minute catchments of car and public transport - showing high flexibility with car use against limited flexibility offered by public transport.

3.0 LOCAL SITUATION: TRAVEL & EMPLOYMENT WITHIN BALLARAT

BALLARAT PROVIDES NEARLY 40,000 JOBS FOR LOCAL RESIDENTS. EACH OF THESE JOBS, IS NOT ONLY A DESTINATION FOR A WORKER, BUT ALSO OFFERS A SERVICE SUCH AS EDUCATION, SHOPPING AND RECREATION WHICH PEOPLE ALSO NEED TO TRAVEL TO. STARTING WITH JOURNEYS TO WORK, WE CAN UNDERSTAND KEY TRAVEL PATTERNS WITHIN BALLARAT WE NEED TO PLAN FOR.

As figure 4 demonstrates, Ballarat CBD employs nearly 38% of locals, leaving 62% of the jobs in other suburbs. The suburb with the second highest number of jobs is Wendouree (inclusive of BWEZ) with 20%, while Ballarat North, Ballarat South and Alfredton each employ 10%. These patterns highlight key considerations in understanding traffic and planning for bus networks. Having a CBD-centric bus route network for example will ultimately make it more difficult for many residents to travel directly to their workplace using public transport, for example the approximately 1500 people from Ballarat South who travel to Wendouree.

Many people work in the same suburb as they live, especially locals to Ballarat CBD, which employs 60% of its own residents. This provides the most opportunities for providing ways for people to walk and cycle to work. Reducing car use for these people in particular will not only save them on fuel costs, but also for the cost of the car and its garage. In addition, encouraging this market segment to use alternative modes of transport also ensures congestion is eased for regional commuters and for local commuters travelling in from other suburbs.

Currently however, according to Victorian Integrated Transport Modelling, 91% of all trips, not just to work, are made by car. The remaining 9% is split between active (walking and cycling) (5%) and public (4%) modes of transport.

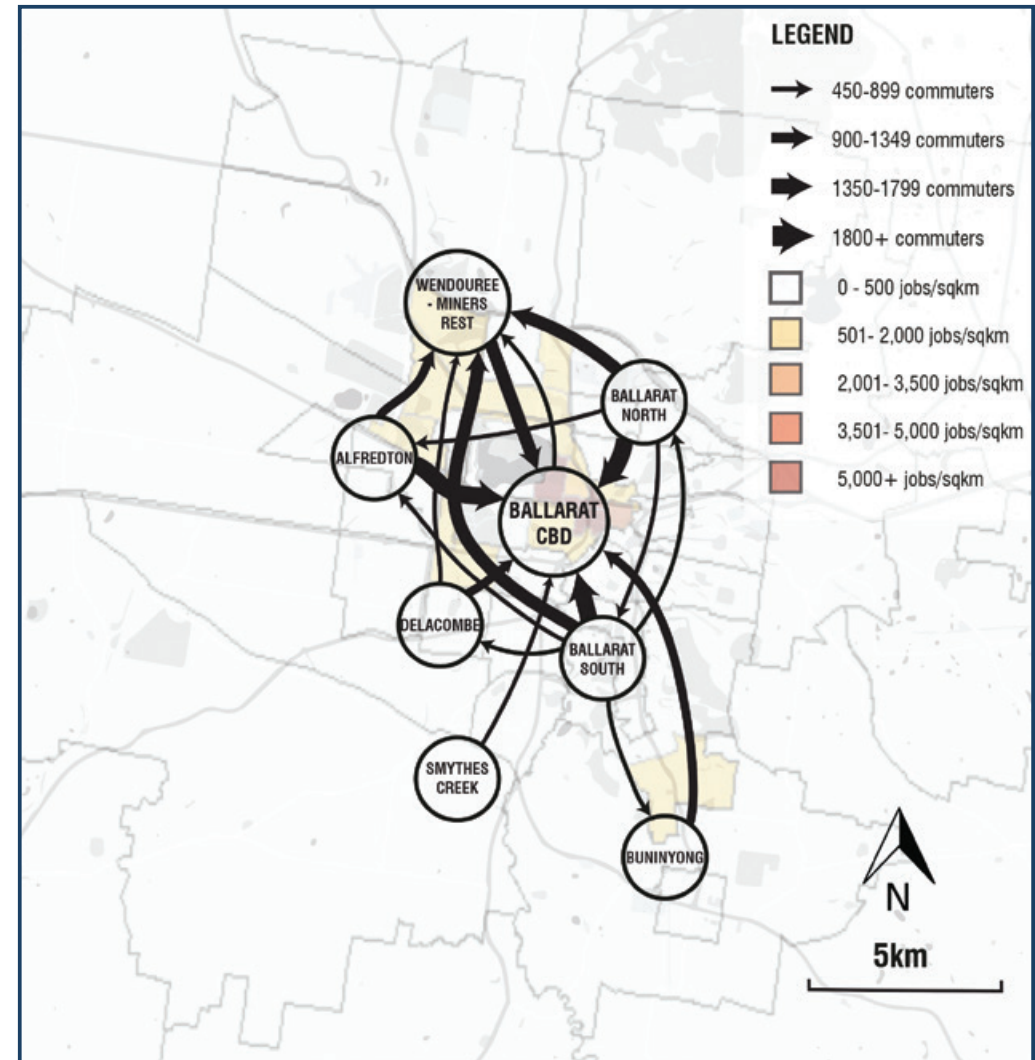


Fig.3

Work Trips Map by ABS Statistical Area 2 - ABS Census Data 2016

3.1 GETTING AROUND BALLARAT: DRIVING

AS BALLARAT GROWS AND FACES INCREASING LEVELS OF CONGESTION BOTH LOCALLY AND FROM ELSEWHERE IN THE REGION, DEVELOPING CHOICES FOR PEOPLE TRAVELLING LOCALLY BECOMES CRITICAL.

As the vast majority of locals and visitors continue to drive for most trips, the volume of cars on the road is set to increase. This increase is projected to cause congestion in many key streets and intersections by 2031. This will mean that despite continuing to pay car costs including fuel for the most direct journey possible, journey times will be longer for everyone. Road space, particularly in the heritage core of Ballarat is very difficult to expand, and alternative (more space efficient) transport options need to be provided for.

Currently, as figure 3 demonstrates, driving is far more flexible than the public transport alternative. This is because, not only does it allow people to depart whenever is convenient for them, but it is also possible to go significantly further in less time. As long as this is the case, driving will continue to be the dominant mode of transport.

Key considerations must therefore be made in planning for alternative transport options, with regard to where people travel, in ensuring they can make their trips between 10 and 20 minutes and in leaving when it is most convenient for them. When considering active transport in particular, trips must be useful, safe, comfortable and enjoyable.

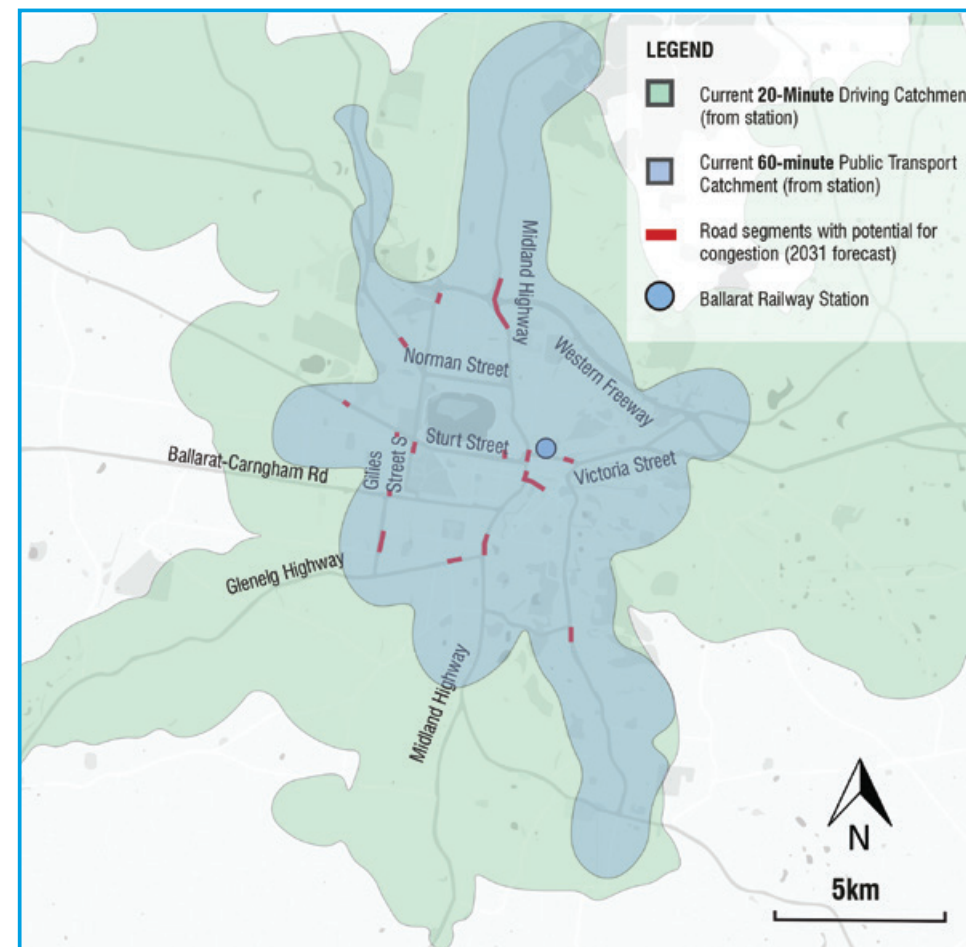


Fig.4

20 minutes by car or 60 minutes by public transport. Continued car use will lead to congested areas, making the public transport network quicker and more viable will be key to reducing this.



3.2 LIVING CLOSE TO WORK, SERVICES AND PUBLIC TRANSPORT OPTIONS

WHEN PEOPLE ARE HOUSED WITHIN 2KM TO SERVICES SUCH AS JOBS, SHOPS, SCHOOLS AND RECREATION THEY CAN MAKE SHORT TRIPS BY ACTIVE TRANSPORT (CYCLING AND WALKING). BEING LOCATED 400M FROM BUS STOPS AND TRAIN STATIONS ALLOWS FOR PEOPLE TO TRAVEL LONGER TRIPS BY PUBLIC TRANSPORT. ALL OF THESE TRIPS SHOULD TAKE 10 MINUTES.

Historically, Ballarat evolved as a network of suburbs based on 10 minute walking catchments to local shops and pubs (these can be seen as the pink areas on figure 5). Each walking catchment had its own local shopping area, and there was a high reliance on walking and bicycle riding for transport. As the geographic area of Ballarat has grown, the transport focus has shifted from active transport to motorised transport - firstly trams and then cars and (to a much lesser extent) buses.

This pattern of growth is set to continue, as areas for projected residential growth as shown in figure 5 as red continue to spread outside of both walking and existing public transport route catchments. This pushes demand for more transport infrastructure, particularly roads and bus routes as active transport becomes less viable due to the extensive distance people will have to walk or cycle. Given that it is less cost-effective to provide new public transport infrastructure for a lower concentration of people, these services will be minimal and inflexible, meaning people will be likely to drive.

The Ballarat Strategy identifies key existing and future public transport corridors for high frequency service (highlighted in the light orange on figure 5). Close access to frequent services provides opportunities for more flexible public transport options. Furthermore, ensuring that places of work and other services are also close to this transport, means that trips are direct. Finally, ensuring that these places are also within 2km to activity centres provides people access to shops and recreation opportunities enables people to walk and cycle.

Locating people in this way creates more transport opportunities which limit congestion. This ensures that people can access key areas of employment and services within 10 minutes, by walking to some, cycling to others and commuting by public transport for the rest.

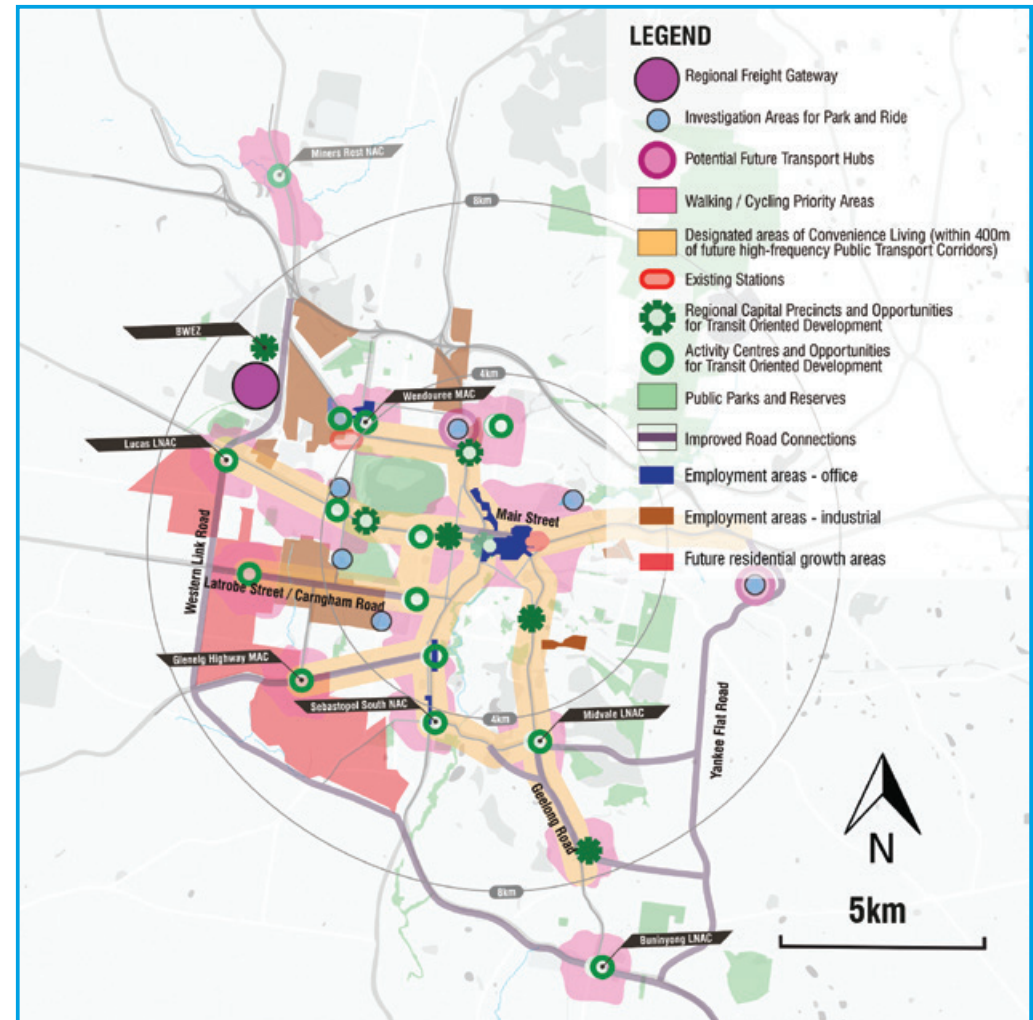


Fig.5

Future areas for residential and industrial growth are generally outside of walking distance to existing activity centres and areas for high frequency transport convenient living corridors as planned in the Ballarat Strategy.

3.3 GETTING AROUND BALLARAT: ACTIVE TRANSPORT

IN ADDITION TO REDUCING CONGESTION, OPTIMISING ACTIVE TRANSPORT AS A VIABLE TRANSPORT OPTION PROVIDES MANY BENEFITS INCLUDING: HEALTH AND WELLBEING, SOCIAL, FINANCIAL, ECONOMICAL AND ENVIRONMENTAL. THIS REQUIRES THE RIDE OR WALK TO BE USEFUL, SAFE, COMFORTABLE AND ENJOYABLE.

Infrastructure in Ballarat is improving to provide opportunities for people to walk and cycle not just for recreation, but as a mode of transport. Walking especially has seen comparatively little investment compared to other modes of transport. Providing accessible links which prioritise pedestrians and not cars within and between residential estates and industrial estates is key to this.

Cycling in Ballarat is also improving in a similar way. The Ballarat Cycling Action Plan (2017) has been developed to guide development of facilities for bicycle riders. The strategy is focussed on providing facilities that make bicycle riding for transport safer and more viable for all residents.

The 20 minute bicycle rider catchment from Ballarat Station currently covers much of Ballarat's existing urban area, but does not extend into the western growth areas of Delacombe or Lucas. These areas however, have planned routes which will be constructed in future. The Cycling Action Plan (2017) has recently been adopted by Council after significant Community consultation. Council is now determining the priority projects that will proceed.

It is estimated that with continued innovation and investment, active transport infrastructure initiatives are projected to change the current 91% car 5% active and 4% public transport mode split depending on distance.

- For 10 minute trips, the split is projected to change to 71% car 20% active and 4% public.
- For 15 minute trips the projected change is 76% car 15% active 4% public.
- For 25 minutes or more 86% car 9% active and 4% public (which is still an overall 5% increase in active transport).

This shift from cars to active transport not only means less cars congesting the road, but also a lowered environmental impact and benefits to health and wellbeing, personal finances and local business and economic vitality.

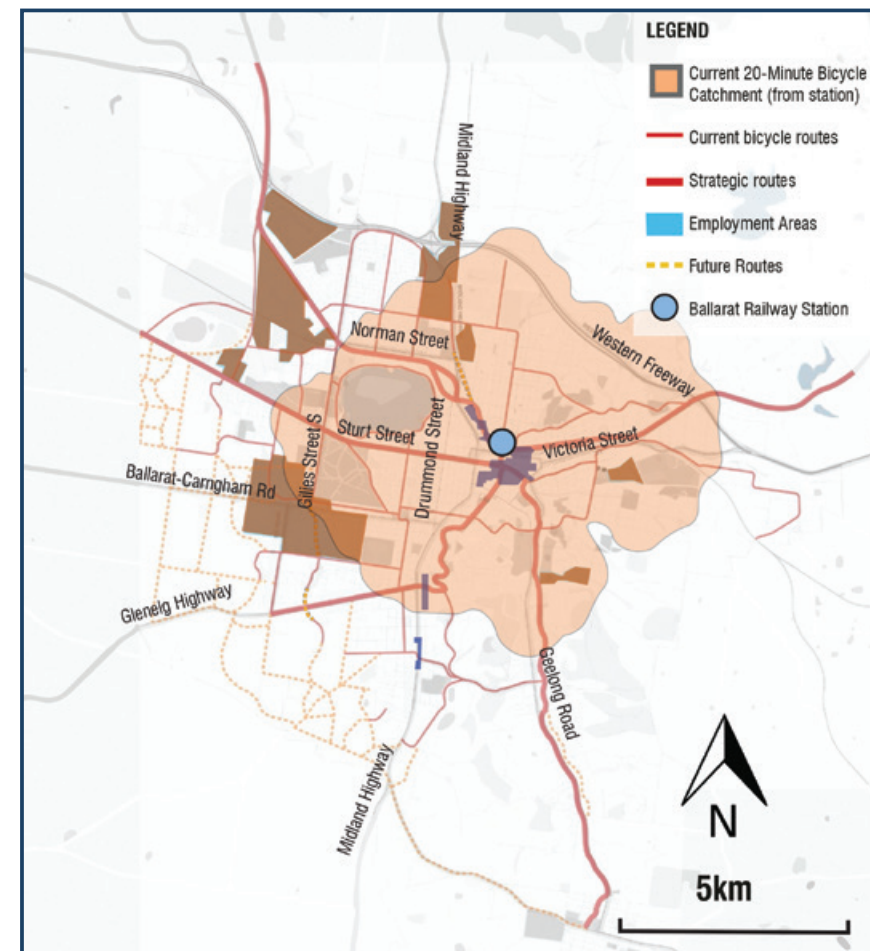


Fig.6
20 minute cycle catchment
from Ballarat Station

3.4 GETTING AROUND BALLARAT: PUBLIC TRANSPORT

FOR LONGER TRIPS, INCREASING PUBLIC TRANSPORT'S VIABILITY AS AN OPTION CAN SIGNIFICANTLY REDUCE CONGESTION AND PEOPLE'S TRAVEL COSTS. HOWEVER, IN ORDER TO MAKE PUBLIC TRANSPORT MORE VIABLE, IT MUST BE FLEXIBLE, FAST AND CONVENIENT.

The Ballarat bus network has substantial room for improvement. In 2016 only 451 people or 1% of employed people caught the bus to work (ABS). Buses in Ballarat are overwhelmingly slower than they should be. This is because these routes are planned for the worst traffic conditions possible which results in buses needing to stop to avoid running ahead of schedule. Trimming this fat provides opportunities for this saved time to accommodate higher frequencies on some routes, or time for new routes altogether.

The current schedule is essentially a 'copy and paste' timetable, where all routes have almost exactly the same departure and arrival times at each major stop (all providing more journey time than necessary). The timing of services undermines the local network by scheduling many services through the CBD at the same time rather than spacing them out evenly to provide a 'Turn-up-and-Go' frequency in key corridors.

For example, seven buses operating from Ballarat Base Hospital to Ballarat Station combine to provide inconsistent wait times of 7 minutes for one bus, then 23 minutes for the next. This happens for every hour of every day. There is the potential to provide a bus every 8.5 minutes consistently, making the timetable easier to understand and giving passengers the assurance that when they miss a bus, the next is only 8.5 minutes away, rather than facing a potential 23 minutes wait. This is similar for people travelling from Mt Clear to Federation University, as they have four services an hour to choose from, but face a potential wait of 5 or 25 minutes for a bus, rather than an even 15 minute gap between services which is more dependable and allows more flexibility.

Ballarat's bus network is also highly CBD centric and as illustrated in figure 4, making cross-town travel difficult and slow as the travel demand patterns are more dispersed. This means there is a lack of direct connections into other key activity areas including BWEZ and local centres.

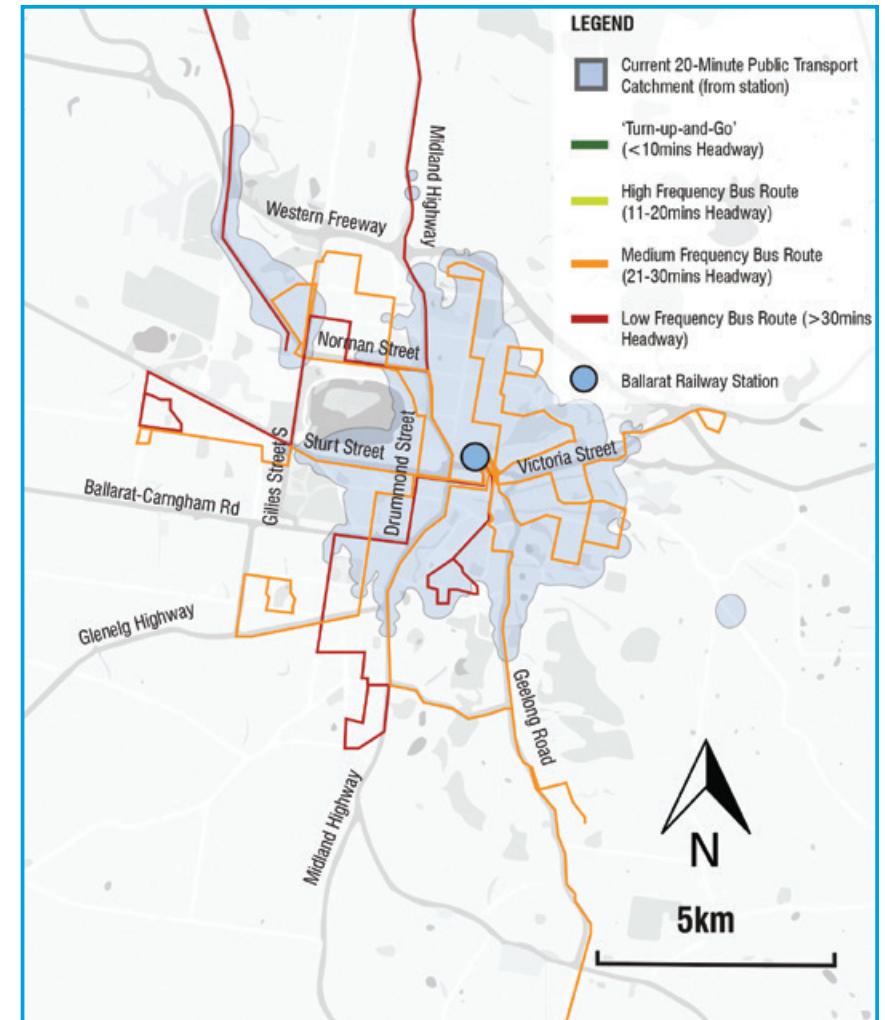


Fig.7

Ballarat's bus network and 20 minute travel time catchment from Ballarat Station



4.0 FREIGHT: MOVING GOODS IN AND OUT OF BALLARAT

FREIGHT MOVEMENTS ARE CRITICAL TO THE BALLARAT ECONOMY. THE ABILITY TO MOVE GOODS AROUND THE CITY EFFICIENTLY HAS A DIRECT IMPACT ON BUSINESS PRODUCTIVITY AND OUR ABILITY TO ATTRACT NEW INVESTMENT.

The movement of freight around and through Ballarat has a significant impact on our transport networks. The road network caters for a large number of movements, that are more dispersed and include an increasing number of home deliveries. Truck movements on Ballarat roads are increasing at around 5% per annum.

The rail network historically catered for the bulk of long distance freight movements to Ballarat, but has become less competitive as road freight costs have reduced and land uses have dispersed away from the rail infrastructure. There is an opportunity for the rail network to cater for freight movements to the Port of Geelong and Port of Melbourne with an intermodal facility planned for the Ballarat West Employment Zone (BWEZ) and rail freight shuttles to the Ports.

Ballarat's High Productivity Freight Vehicle (HPFV) Mass Network includes the Western Freeway and a small segment of Learmonth Road to access the Freeway from the Ballarat Link Road. The Ballarat Link Road will create a direct heavy vehicle route from the Western Freeway to the Glenelg and Midland Highways, and reduce heavy vehicle movements through central Ballarat.

Recent developments including the relocation of the Livestock Saleyards and development of the BWEZ are reducing some of these pressures and creating new pressures on the transport network. The HPFV network will need to continue to be expanded to facilitate the efficient movement of freight around the city.

The Murray Basin Rail Plan and other rail freight and port projects are expected to increase the mode share for rail freight, particularly over longer distances. To support this transition and transport more freight on rail, the BWEZ Master Plan has identified part of the precinct for the development of a freight and logistics hub. Future freight movements may rely on Ballarat Airport similar including fresh freight. The location of BWEZ next to the Ballarat Airport helps to focus future freight network infrastructure investments.

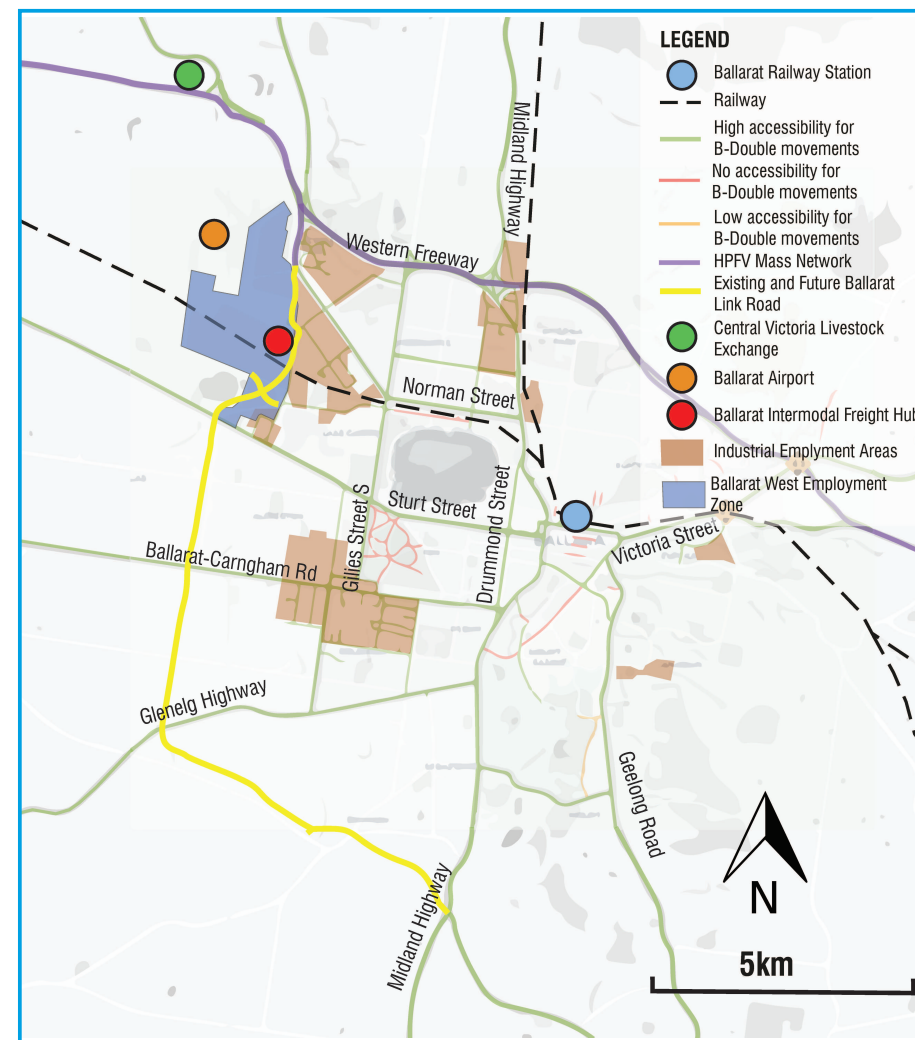


Fig.8
Key freight movement network
and employment destinations

5.0 SUMMARY

Ballarat currently has a very high level of car dependency. Growth in population and geographic size of our urban area will have a direct and compounding affect on traffic congestion in Ballarat. To ensure traffic keeps flowing we will need to develop new strategies and plans that support people using other modes. A key first step is to ensure that public transport meets people's needs and active transport connections are safe and convenient. We will also need to revise our road network and provide more efficient road links while also considering locations where access might need to be limited.

Ballarat requires a transport network which has the capacity to effectively move goods and people as we grow. An essential element will be a more urbanised transport approach that reduces the need for motorised travel and gives our community viable, safe, efficient and cost saving alternatives to private car use. Achieving this requires a holistic view of the transport network that provides for most people using private vehicles, while also providing for when each of use would like to walk, ride a bicycle or catch public transport.

The Ballarat Integrated Transport Plan will explore the challenges and opportunities to improve all modes of transport. Community discussion will be informed by a series of brief mode-specific discussion papers, supported by background research papers.

Ballarat has an exciting future. We are in a good position to have long-term economic prosperity without the traffic congestion that prosperity typically brings. Achieving this growth without congestion will reduce the cost of living in Ballarat, and improve amenity and lifestyle for everyone in the community and provide productivity gains for business.. We will aim to provide more transport choices for you, your family and friends to get you all where you need to go.

Join the conversation and help develop the Ballarat Integrated Transport Plan:

<http://www.ballarat.vic.gov.au/city/city-strategy/integrated-transport-planning>





