

MOVEMENT AND ACCESS

# BACKGROUND REPORT

## BAKERY HILL AND BRIDGE MALL PRECINCT



# EXECUTIVE SUMMARY

**The Bakery Hill and Bridge Mall Urban Renewal Precinct (the Precinct) plays a vital role in the economy of the City of Ballarat. It forms part of the core historic commercial area of Ballarat and still presents a heritage character of small, fine grain independent shops which are supported by larger commercial activity.**

In recognition of the Precinct's declining economic activity and a reduction in the number of people who visit the area, Council will prepare an Urban Renewal Plan for the precinct (the Project) which will identify the structural, urban design and economic changes which are needed to catalyse and facilitate urban renewal within the Precinct.

Changes to the movement network over time, including the inadequate north/south pedestrian connections, have contributed in part, to the reduced foot traffic within the mall. Through the community consultation process, it has become clear that the majority of traffic and people circulate around the Bridge Mall and are not encouraged to walk through. From a transport and movement perspective, the project outcomes are aimed at reducing complexity in the transport network

whilst also improving public transport, walking and cycling facilities and access throughout the precinct. It is essential in this regard that the movement network delivers various forms of movement, which will deliver beneficial land use outcomes. It is essential in this context, to recognise that the movement network is more than just a means to transport people and goods and that a carefully designed transport network can assist in achieving a range of benefits including improved amenity, health and well-being.

Redefining of the transport network also offers the potential to bring people into the core of the precinct and announcing the City in a way that could strengthen the tourism appeal of Ballarat, particularly through identifying and integrating the significant Aboriginal and post-contact heritage stories into the fabric of the precinct. The urban design of key routes through the precinct offers a significant opportunity to tell the stories of Bakery Hill in a contemporary way.

Ultimately, this transport and movement analysis and its implications will be integrated into the urban renewal plan and will present short, medium and long-term actions which will focus on facilitating redesign of the movement network in a way that will support the ongoing renewal of the precinct.



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# 1. CONTEXT

This chapter provides an overview of the Precinct, including its regional location, key transport routes, land uses, and policy and strategy relevant transport and movement within the precinct and the broader Ballarat CBD.

## 1.1 BAKERY HILL AND BRIDGE MALL STUDY AREA

The Study Area comprises approximately 70ha of land including most of the Bakery Hill area and a small area west of Grenville Street.

Figure 1.

The Precinct boundary was determined having regard to the Precincts that were identified in the Ballarat Strategy. A variety of land uses and built form exists within the Precinct, incorporating a distinctive heritage character of smaller precincts, particularly along Main Road and the Bridge Mall – whilst larger format retailers are located around the periphery of the Bridge Mall. The larger format retail premises often incorporate large areas of at grade car parking. Currently, there is very limited residential supply, particularly within the Core Study Area. Most of the residents which live within the precinct are currently located in the southern part of the study area.



Figure 1: Precinct boundary

# 1. CONTEXT

## 1.2 HISTORY AND URBAN CONTEXT

### **The Bakery Hill and Bridge Mall Precinct is situated within the eastern part of the Ballarat CBD.**

It is an important entry point to the Ballarat CBD from the east and is a historic site of national significance, being the location of several events in the lead up to the Eureka Stockade of 1854, including the first raising of the Eureka Flag. Historically, Bakery Hill developed around several major goldmines and gold leads, connecting the mining claims that led to creation of an informal urban form which remains a highly valued element of the precinct within the community. The precinct's traditional strategic importance to commerce was its junction to Victoria Street (the road to Melbourne) and Main Road (the road to Geelong).

Bridge Mall/ Bridge Street is at the heart of what is referred to by most as Bakery Hill. The precinct forms the oldest commercial retail area in Ballarat and is located within the river flats of the Yarrowee River. The continuing commercial activities along Main Road are an important reminder of its role as a flourishing commercial retail thoroughfare since the 1850s. Importantly, the commercial buildings in Main Road, Bridge Mall and

Victoria Street are also associated with continuing commercial developments in the precinct from the 1860s and into the early decades of the 20<sup>th</sup> century.

Prior to its closure to vehicular traffic in 1981, Bridge Mall was once the primary east-west thoroughfare through the city linking Victoria Street and Main Road to Sturt Street. Historically, Bridge Street (as it was) was Ballarat's core retail area with many surviving buildings from the mid-19<sup>th</sup> century typifying the retail legacy of the era with narrow shop fronts and a highly fragmented pattern of subdivision. As the goldrush sparked a boom that saw Ballarat emerge as a major Victorian-era city, retail and commercial development moved east of Grenville Street and along Sturt Street. Most of Ballarat's main commercial and cultural institutions of the goldrush era occupy the higher ground west of Bakery Hill.

Although built on gold, the importance of gold to Ballarat's fortunes faded from the turn of the century and consolidated its position as western Victoria's key regional city. In the early 1980s, because of both traffic congestion and the popularity of pedestrian malls, Bridge Street was reconfigured with the street closed to vehicular traffic and the surrounding transport network was modified to accommodate through and circulating traffic.



## 2. HISTORIC MOVEMENT PATTERNS

Prior to European settlement, what has become known as the Bakery Hill Precinct was an ecologically diverse food bowl for the Wadawurrung Traditional Owners, which sustained them for many thousands of years.

In combination, the elevated landforms to the east and west of the precinct, the central floodplain of the Yarrowee River and the confluence of the Specimen Vale, Warrenheip Gully, Pennyweight Gully and Canadian Creeks would have offered rich food sources – see Bioregions below.

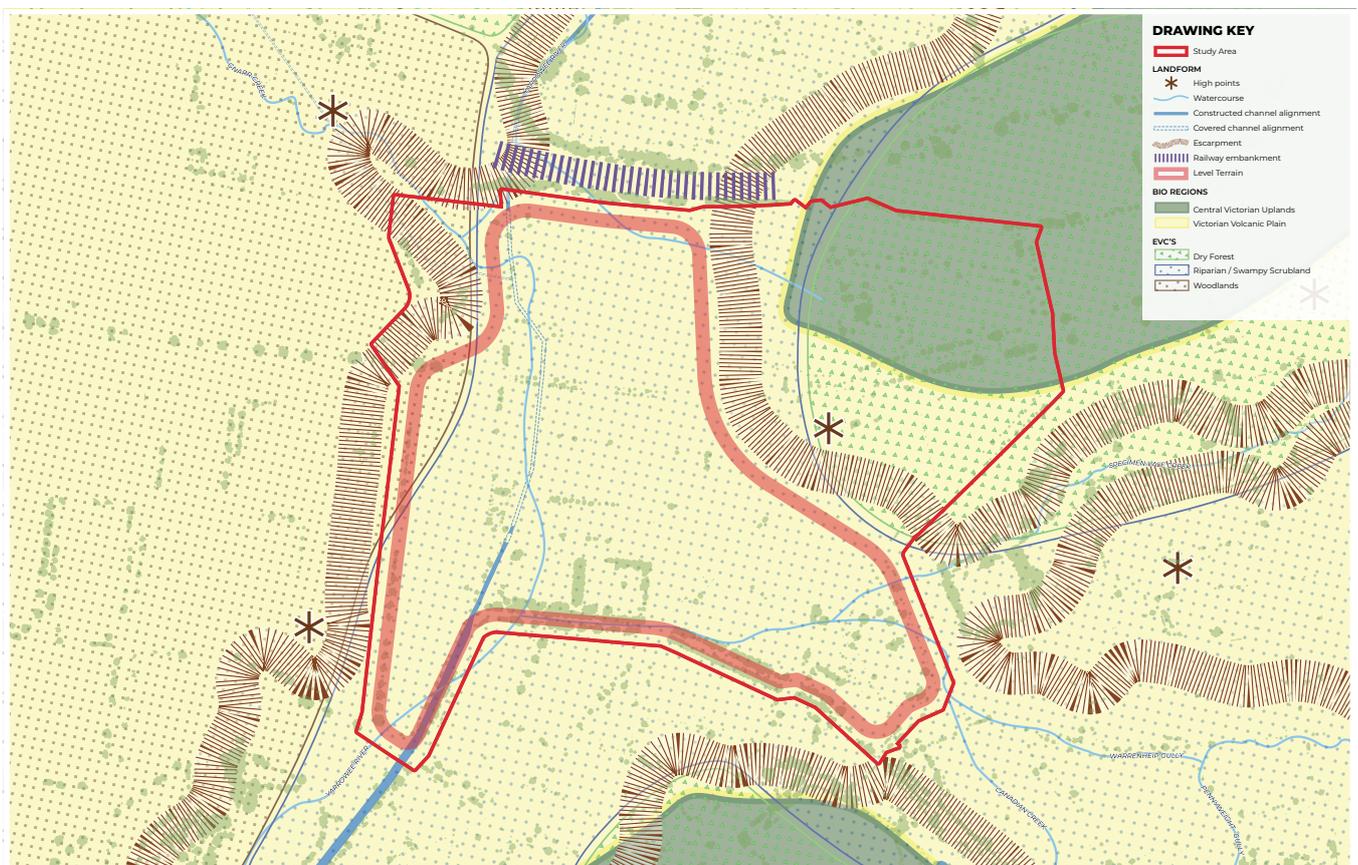


Figure 2 Landforms, Waterways and Bioregions

## 2. HISTORIC MOVEMENT PATTERNS

During the gold rush period, the gold leads that were established had a very significant impact on creation of the core part of the movement and access network through the Bakery Hill Precinct.

The Gravel Pits Lead established the location and general alignment of what eventually became the Main Road to Sturt Street connection via Bridge Street. Other gold leads, including the Bakery Hill Lead, the Old Gravel Pits Lead, the Eureka Lead, the Red Streak Lead, the Mopoke Lead and the Golden Point Lead established secondary connections into the Gravel Pits Lead – see Figure 3 below.

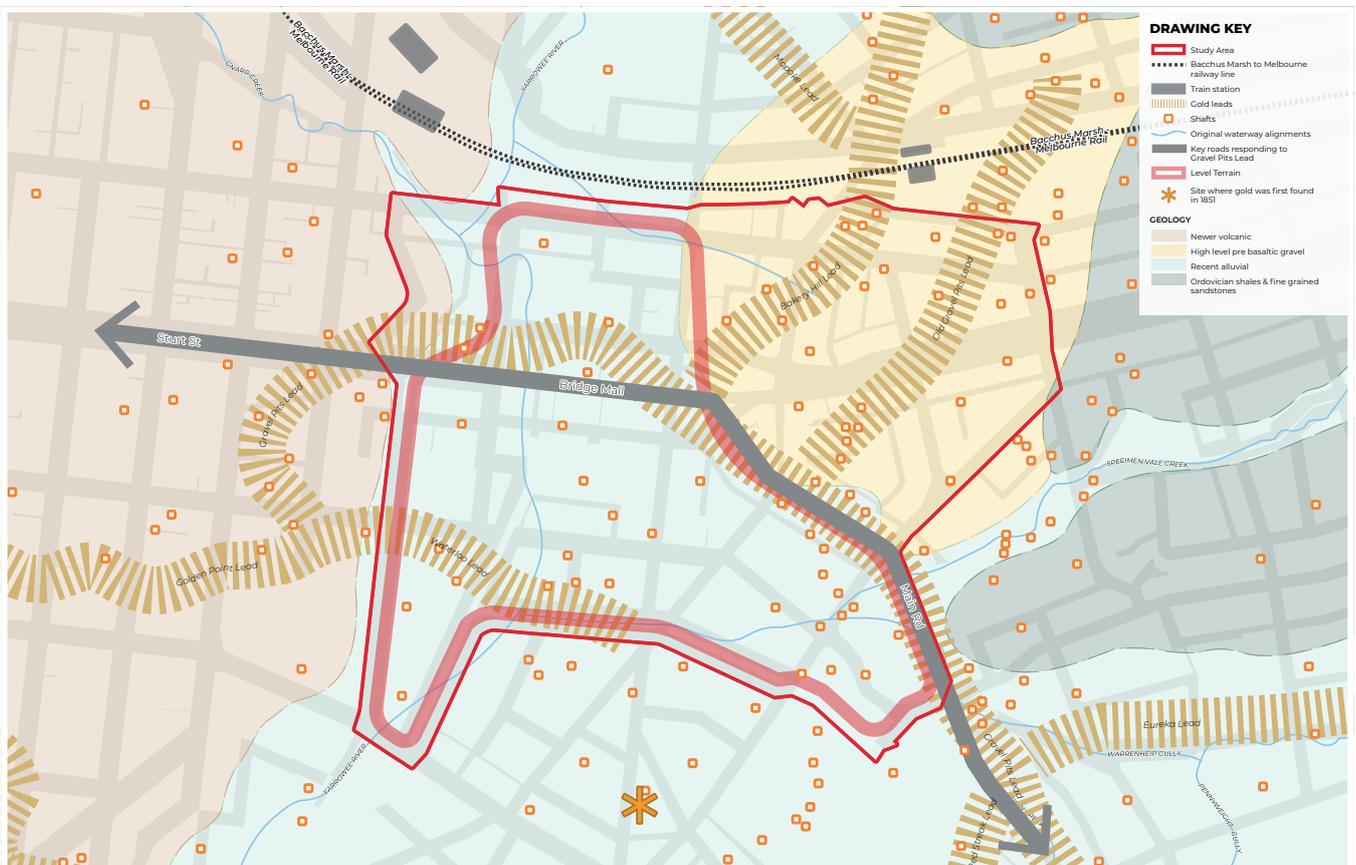


Figure 3 Geology and Gold Mining

## 2. HISTORIC MOVEMENT PATTERNS

**In the years during and post the gold rush period, the Bakery Hill precinct and Ballarat more generally went through a significant urbanisation process.**

The plans below (see Figure 4) show the street network that was developed by 1861, 1866 and 1933. In this context Figure 4 clearly shows the important role that Bridge Street performed as the connecting 'main street' between Sturt Street and Victoria Street and Sturt Street and Main Road. What is unusual about the planned role of Bridge Street is that the grandeur of Victoria Street and Sturt Street

(60m cross sections with divided carriageways) were designed to transition into the undivided 20m cross section of Bridge Street. This was due to Bridge Street aligning with the width of an historic bridge over the Yarrowee, before the burgeoning settlement was subject to formal planning by the Crown surveyor.

During the time that Bridge Street acted as the retail core, Bridge Street was supported by Little Bridge Street, Curtis Street, Peel Street and Grenville Street in addition to several lower order streets and laneways. Importantly, this made Bridge Street a busy place with pedestrians, cars, other vehicles and a tram route all sharing the street.



Figure 4 Historic Movement Network



Figure 5 Corner of Bride Street and Sturt Street



Figure 6 Bridge Street in 1979 with one way traffic (Source: Bridge Street Mall: A Short Story)

## 2. HISTORIC MOVEMENT PATTERNS

**When Bridge Street was closed to vehicular traffic in response to traffic congestion and the popularity of pedestrian malls in 1980, it is important to recognise that there were several associated changes made to the surrounding street network.**

These include:

- **Little Bridge Street** redefined as a two lane, one-way street providing east to west traffic movement potential between Victoria Street and Sturt Street;
- **Curtis Street** redefined as a one lane, one-way street providing west to east traffic movement potential from Sturt Street to Victoria Street (partially via a new extension of Curtis Street between Peel Street and Victoria Street).
- **Main Road between Little Bridge Street and Humffray Street South** converted to one way only (recent change);
- **Bridge Mall between Peel Street and Little Bridge Street** converted to one way only.

The intent of these changes to the operation of the local street network was to distribute the traffic that would have otherwise travelled along Bridge Street (in either direction) to a new one-way street system that was designed to separate east to west traffic movements from west to east traffic movements to effectively by-pass Bridge Street.

From a traffic engineering perspective, the changes were successful in defining a modified transport network to carry the required traffic volumes however the associated impacts on the precinct and its operation are significant and include:

- Loss of the 'gateway' experience of entering the City from the east via Bridge Street which then transitions to Sturt Street;
- Loss of the tram service that used to run along Bridge Street;
- Access through Bakery Hill to Sturt Street has become confusing particularly for visitors;
- Exposure of the 'backsides' of Little Bridge Street and Curtis Street to passing traffic;

- Loss of exposure and passive surveillance along Bridge Street;
- Little Bridge Street and Curtis Street operating as car park accessways and/or bypass routes rather than streets that perform multiple functions with a positive land use interface;
- Loss of car parking in Bridge Street and reliance on the at grade car parks;
- Bridge Street has become a 'forgotten' part of the precinct; and
- Traders in Main Road have felt separated from Bridge Street.

The changes to the movement network as described above, in association with loss of some of the fine grain streets and laneways to the south of Little Bridge Street and to the north of Curtis Street are shown below – see Figure 8.

**In addition to the various changes that have been made to the movement network, it is important to recognise the changes that have been made to the alignment and condition of the Yarrowee River. The natural or pre-development alignment of the Yarrowee River is shown on Figure 3.**

Bridge Street crosses the Yarrowee River and it is this crossing of the Yarrowee River that led to the name 'Bridge' Street. The natural alignment of the Yarrowee River has been modified over time and the river has been channelised through the precinct where it now flows underground. To the south of Eastwood Street the river continues in a bluestone lined channelised form (but the channel is not under cover) where it eventually transitions to a more natural alignment and form opposite Yarrowee Parade approximately 1.5 kms to the south of Eastwood Street. The Wallaby track runs parallel to the Yarrowee and provides an unmade pedestrian and cycle path.

Channelisation and covering of the alignment of the Yarrowee was an extreme response to flood risk and the general condition of the river that had suffered from many years of neglect and contamination from a range of sources.



Figure 7 Bridge Street in the 1940's, Looking East

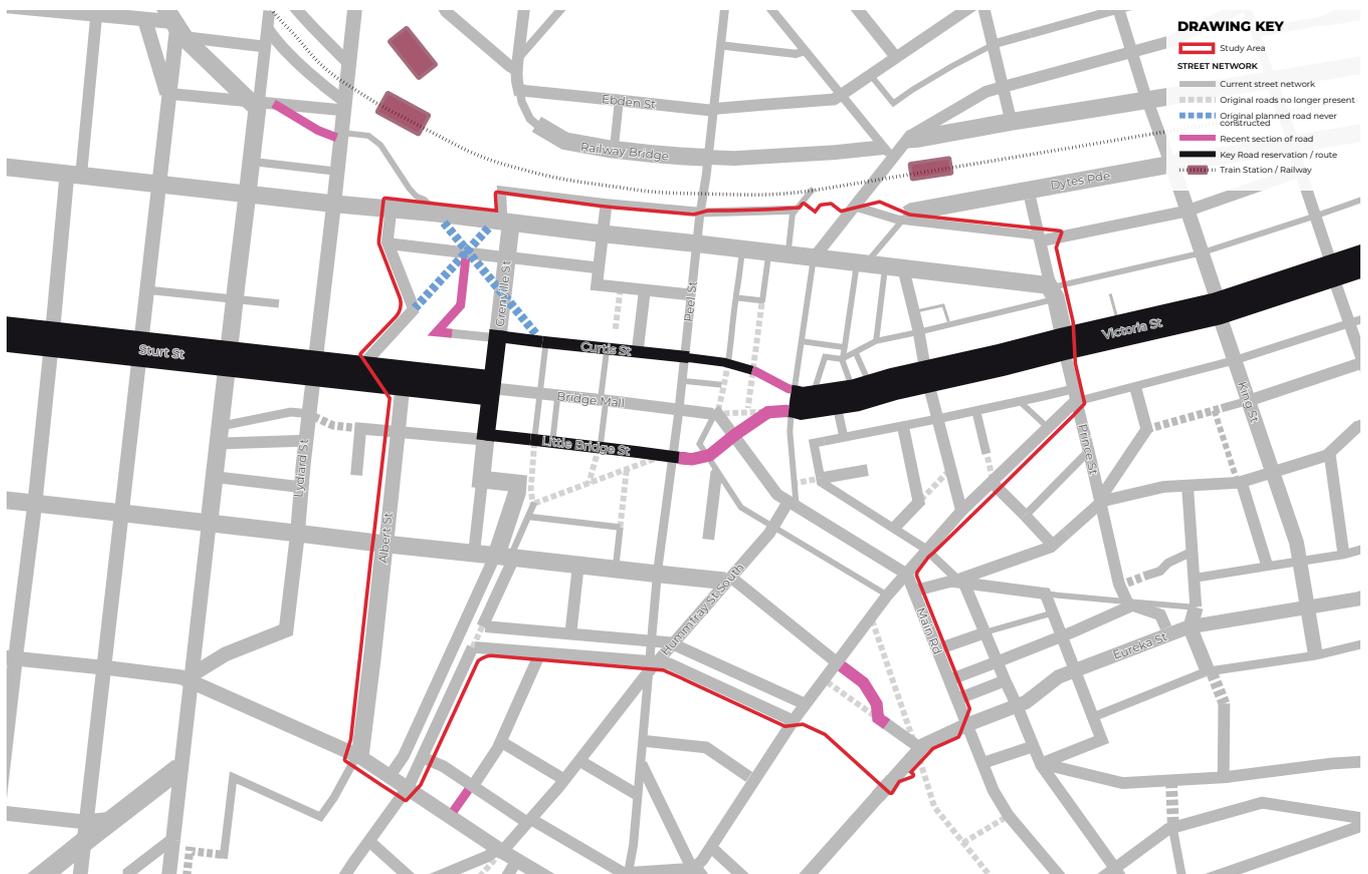


Figure 8 Current Movement Network

## 3. CURRENT MOVEMENT PATTERNS

### 3.1 ROAD NETWORK

**The current road network has evolved substantially since it was first developed. The most significant change to the road network occurred when Bridge Street was closed to traffic and the surrounding east west street network was modified to operate as a one-way by-pass system**

When the Mall was closed to traffic the historic two-way transport route between Main Road and Sturt Street via Bridge Street (the Bridge Mall) was re-routed at the northern end of Main Road into the one-way system along Little Bridge Street for west bound movements. East bound movements along Sturt Street seeking to connect with Main Road have also been re-routed via Curtis Street to Humffray Street South.

Outside of the core of the precinct, the balance of the road network operates as a relatively well spaced modified grid network. The regular grid to the west of the precinct in the city centre is interrupted by the landform at either end of the precinct and in response to the railway line. Since the transport network was initially established, Mair Street has been planned as a higher order east-west link and offers the opportunity to bypass the city to the north of the Bridge Mall. Dana Street/Eastwood Street/Barkly Street effectively operates as a southern bypass. Both routes ultimately intersect with the Midland Highway which provides north-south connectivity beyond the City. Notwithstanding the accessibility and relative legibility of the arterial and higher order road network, the lower order road network lacks legibility and connectivity particularly around the one-way road system.

Beyond the precinct, the Western Freeway offers the opportunity to bypass the City completely. In combination, the external by pass route (the Western Highway) and the internal by pass routes (Mair Street and Dana Street/Eastwood Street/Barkly Street) have served to significantly reduce the volume and speed of traffic through the precinct and the City centre such that the one-way system of roads through the core of

the precinct has been able to carry traffic flows without any unreasonable amenity impacts or unreasonable delays. Notwithstanding the ability of the one-way street system to carry the remaining traffic, closure of the Mall to traffic has resulted in loss of the grandeur and discovery of the historic town core when travelling along both Sturt Street and Victoria Street as the trip from either direction has been interrupted to bypass the Mall.

Peel Street and Grenville Street South and North offer important north south connectivity to the train station and beyond via Mair Street. Some of the very fine grain streets and laneways that were originally part of the transport network (particularly to the north of Curtis Street and to the south of Little Bridge Street) were removed when the large format land uses and associated at grade car parks were constructed.

Intersection types vary from traditional signalised 4 way intersections throughout the core of the City centre and into the precinct, through to non-standard roundabouts such as is located at the eastern end of Victoria Street and modified T intersections to control traffic movements through the one way street system.

Street cross sections vary from:

- 60m grand boulevards  
(Sturt Street and Victoria Street)
- 30m Higher Order Streets  
(Eastwood Street for example)
- 20m Lower Order Streets  
(Curtis Street for example)
- 10m Lower Order Streets and Laneways  
(Porter Street for example).

The roads, streets and lanes that define the study area in terms of movement and public space have a formal, grand character but also an intimacy and the offset lower order street network adds an element of discovery as one historic building or place often leads to another around the corner or in the next street.

Figure 9 shows the existing road/street network.



Figure 9 Existing Road / Street Transport Network

# 3. CURRENT MOVEMENT PATTERNS

## 3.2 PUBLIC TRANSPORT

### **Ballarat is accessible via rail with the v-line providing public transport from Melbourne, Ararat and Maryborough.**

A V-line coach provides public transport access from Geelong to Ballarat through a network of towns to the south-west including Mt Gambier. Historically a tram route connected Bridge Street to the CBD and beyond. The tram route and connectivity to Bridge Street was consistent with the role of Bridge Street as the 'main street' within the precinct. Currently, the primary mode of public transport through the City of Ballarat is bus.

There are currently 15 urban bus routes in Ballarat, and despite revised timetables in 2017 attracting increased patronage, busses continue to attract a relatively low share of commuters.

Issues relating to the bus network include:

- Poor frequency;
- Indirect routes;
- Low patronage and mode share;
- Poor route legibility;
- Poor connections with other modes of transport; and
- Lack of integration with surrounding land uses.

As a short term action, there is significant opportunity for the bus network to be enhanced and for a higher ridership to be achieved as an alternative means of transport to the private vehicle. In the longer-term,

there is significant opportunity for new technologies to dictate the future of movement and access. An integrated transport plan should be prepared to better understand what these opportunities are and how we can integrate them into the Precinct.

There are bus stops/interchanges in Little Bridge Street and Curtis Street that offer connectivity and activity however there are on-going safety and other issues about the location and operation of the bus stops/interchanges. Anti-social behaviour associated with the bus interchange in Little Bridge Street and Curtis Street is a significant issue that needs to be addressed. The location of the interchange on Little Bridge Street is particularly problematic given its relationship to the open at grade car parking. This interchange may be more appropriately relocated to the east side of Grenville Street south or an alternative suitable location in association with other recommendations of the urban renewal plan to revitalise and consolidate Little Bridge Street and Grenville Street South.

As part of future work within the precinct, investigating an alternative location and/or design for the bus interchange will be necessary. In addition, further analysis on the future of public transport should be a short term action to better understand and determine how the precinct can best leverage public transport options in the future.

Figure 10 and 11 show the strategic location of the precinct relative to the train station and also shows the various bus routes throughout the precinct.

**REGIONAL DEVELOPMENT**  
- THE CAPITAL OF WESTERN VICTORIA

**ECONOMIC GROWTH AND DIVERSIFICATION**  
- AUSTRALIA'S PREMIER HIGH TECHNOLOGY AND KNOWLEDGE BASED REGIONAL ECONOMY

**CAPITALISING ON POPULATION GROWTH**  
- A BIGGER AND MORE DIVERSE COMMUNITY.

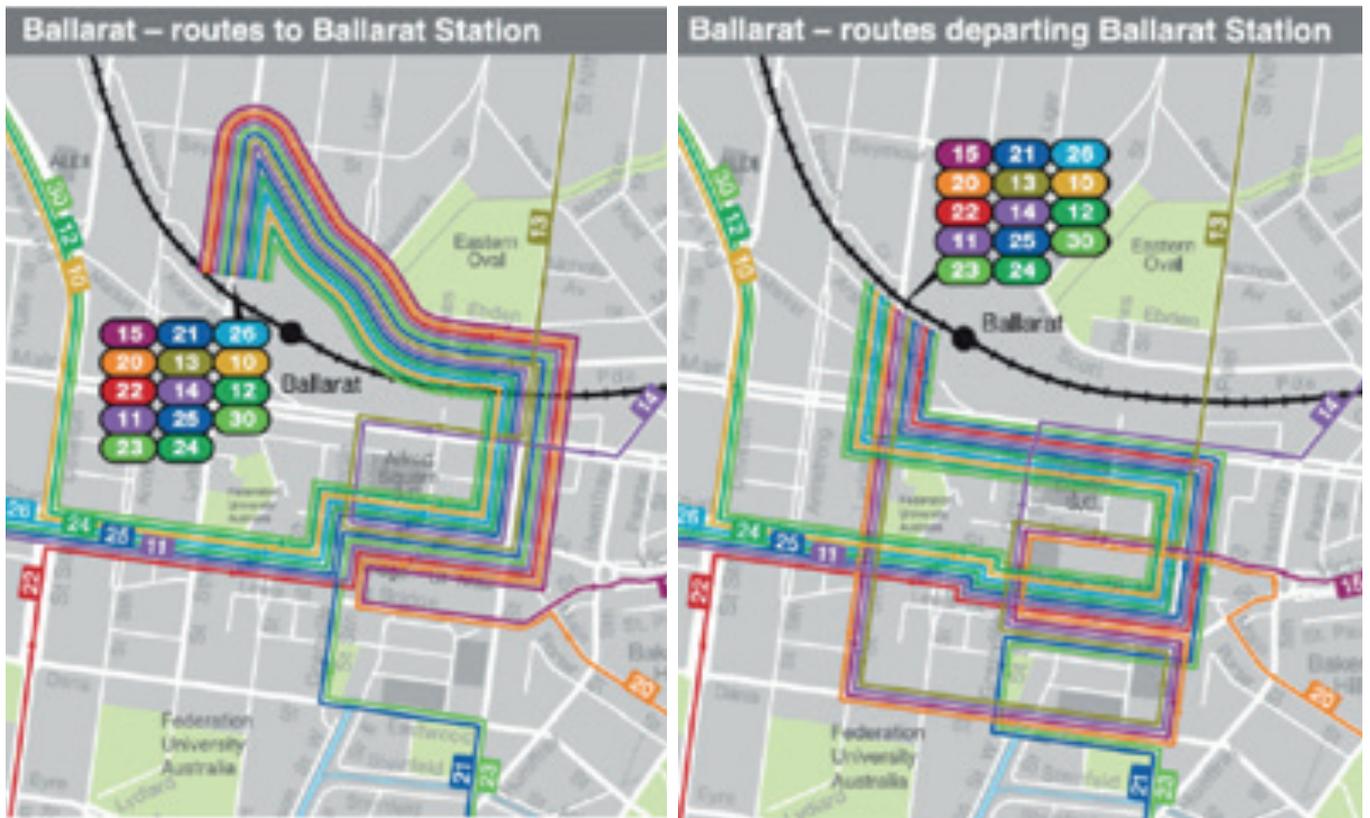


Figure 10 – Existing Bus Routes



Figure 11 Public Transport Network and Accessibility

## 3. CURRENT MOVEMENT PATTERNS

### 3.3 PEDESTRIAN AND CYCLE ACCESS

**Council's aspiration for a 10 minute city identified through the Ballarat Strategy, should be a primary design driver for the future redevelopment of this precinct.**

In Ballarat, 1,320 people chose to walk to work in 2016 which is just 3 per cent of the total number of people who travel to work. This precinct offers a significant opportunity to support a much larger number of people who can walk to work through a more integrated mixed-use precinct.

The key barriers within the precinct to supporting walking includes:

- Lack of safe crossing points, particularly on busy roads such as Humffray Street;
- Lack of safe and convenient accessibility from key locations, such as the railway station;
- Maintenance of existing walking infrastructure;
- Poor connections to public transport;
- Perceptions of safety; and
- Local weather and shelter.

The precinct currently has a well-developed network of footpaths however there are areas within the precinct where the footpaths become narrow, lack passive surveillance, weather protection and continuous street

tree cover. North-south pedestrian connections in particular are not well defined, lack amenity and in some places there are physical barriers that prevent easy movement. This includes the fencing along the bus interchange, the uneven cobblestone laneways, poor pedestrian legibility and wayfinding from the Ballarat train station, and a series of poor pedestrian crossings, including the link between Sturt Street and Bridge Mall.

Through this urban renewal plan, the physical and visual north/south links should be strengthened to better connect the Bridge Mall from the current big box retail anchors and to enhance ease of movement through the precinct for all users. Wayfinding and safe spaces for pedestrians and cyclists are critical in attracting locals and visitors to the precinct.

In particular, any future redevelopment of the station precinct may offer the opportunity to implement a more direct physical and visual connection between the precinct and the station including pedestrian accessibility across Mair Street. Pedestrian accessibility and priority at the eastern and western gateways to the precinct is also lacking and could be significantly improved.

Dedicated cycle lanes are disbursed and discontinuous in some areas. Improvement of on-road cycle facilities is needed across the Ballarat CBD to further encourage active transport.

Figure 12 shows the existing pedestrian and cycle network.

### 3. CURRENT MOVEMENT PATTERNS

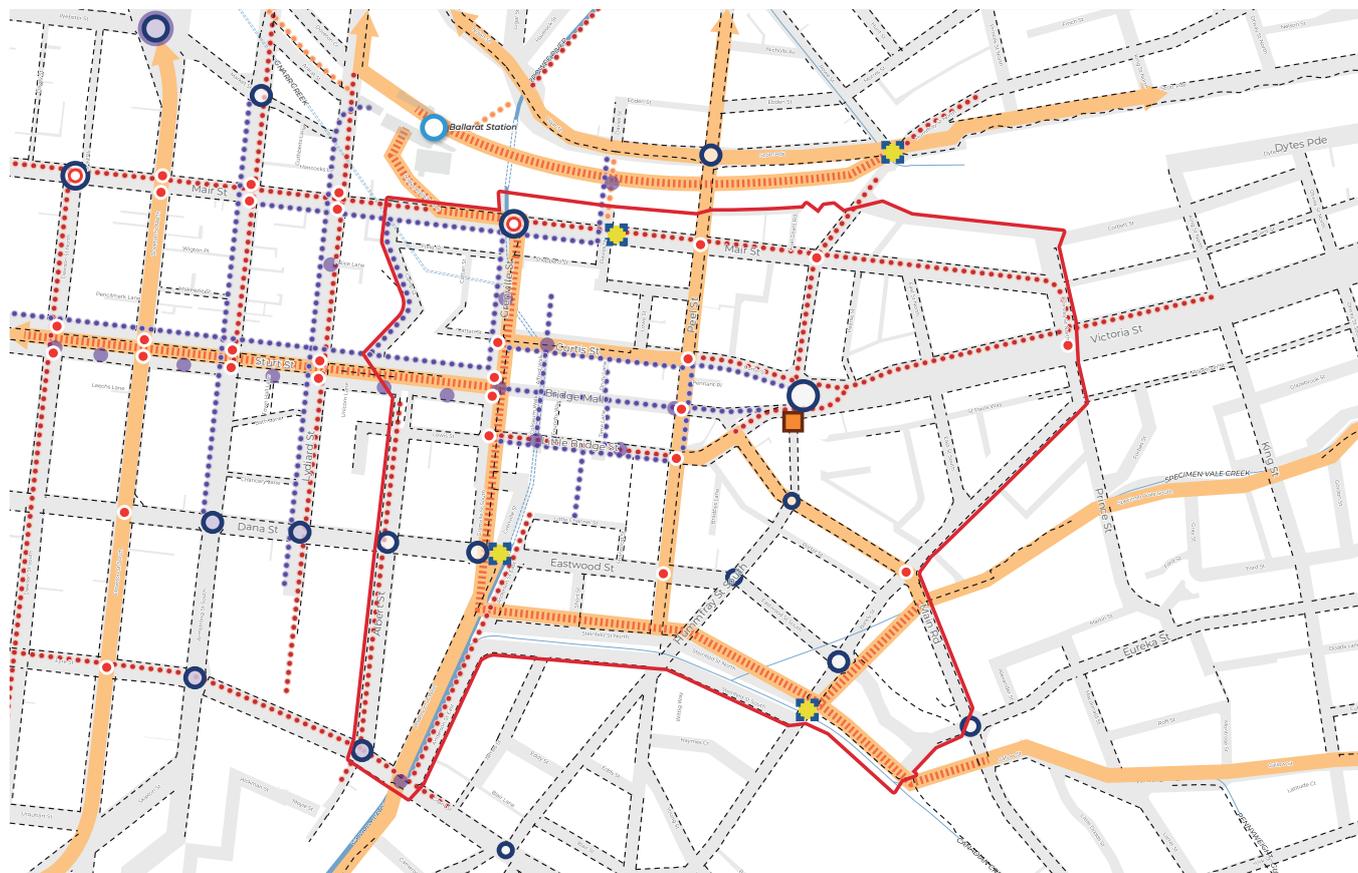


Figure 12 Existing Pedestrian and Cycle Network

## 3. CURRENT MOVEMENT PATTERNS

### 3.4 CAR PARKING

**The majority of the at grade parking in the precinct is associated with the supermarkets and other large format stores which are adjacent to Bridge Mall to the north of Curtis Street and to the south of Little Bridge Street. Vehicular access to these car parks is via Little Bridge Street, Curtis Street and Greenville Street.**

Access to Bridge Mall from these car parks is through laneways and pedestrian links that are well utilized. Land that is occupied by at grade car parking is partially owned by Council but potential options for redevelopment are constrained by an existing right of access and use by Coles. On-street car parking is provided in a variety of configurations throughout the precinct and supplements the large at grade car parks.

Any opportunity to consolidate car parking in either a basement or above ground decked arrangement would enable land to be developed for retail, commercial, residential or mixed-use purposes. Redevelopment of the existing at grade car parks would serve a number of very important purposes including increased land use intensification and activity, re-establishment of two-sided streets with active edges rather than open edges to car

parking and improved pedestrian safety and amenity.

The Council owned car park on the south side of Little Bridge Street offers a significant opportunity for public and private sector investment if sufficient capital can be raised to fund a decked car park (on the assumption that the land component would be recognised as the Local Government contribution) such that car parking numbers could be maintained but with release of land for other purposes as described above. The existing at grade car park on the south side of Little Bridge Street is preferred for intervention if there were an opportunity to consolidate the at grade car parking on the assumption that the existing supermarkets remain for the medium term and on the assumption that if redevelopment were to occur on the north side of Curtis Street that finer grain mixed use development outcomes including residential could be delivered taking into account proximity to the railway station.

With regard to the mall and the dependence of the mall traders on the at grade car parks, if the mall were re-opened to traffic in a very controlled way that has the potential to deliver a range of beneficial outcomes it is noted that some car parking may be able to be delivered in the re-opened street. It is essential however that the location and extent of car parking is balanced with other desirable objectives. Figure 13 shows the current car parking areas and access options.

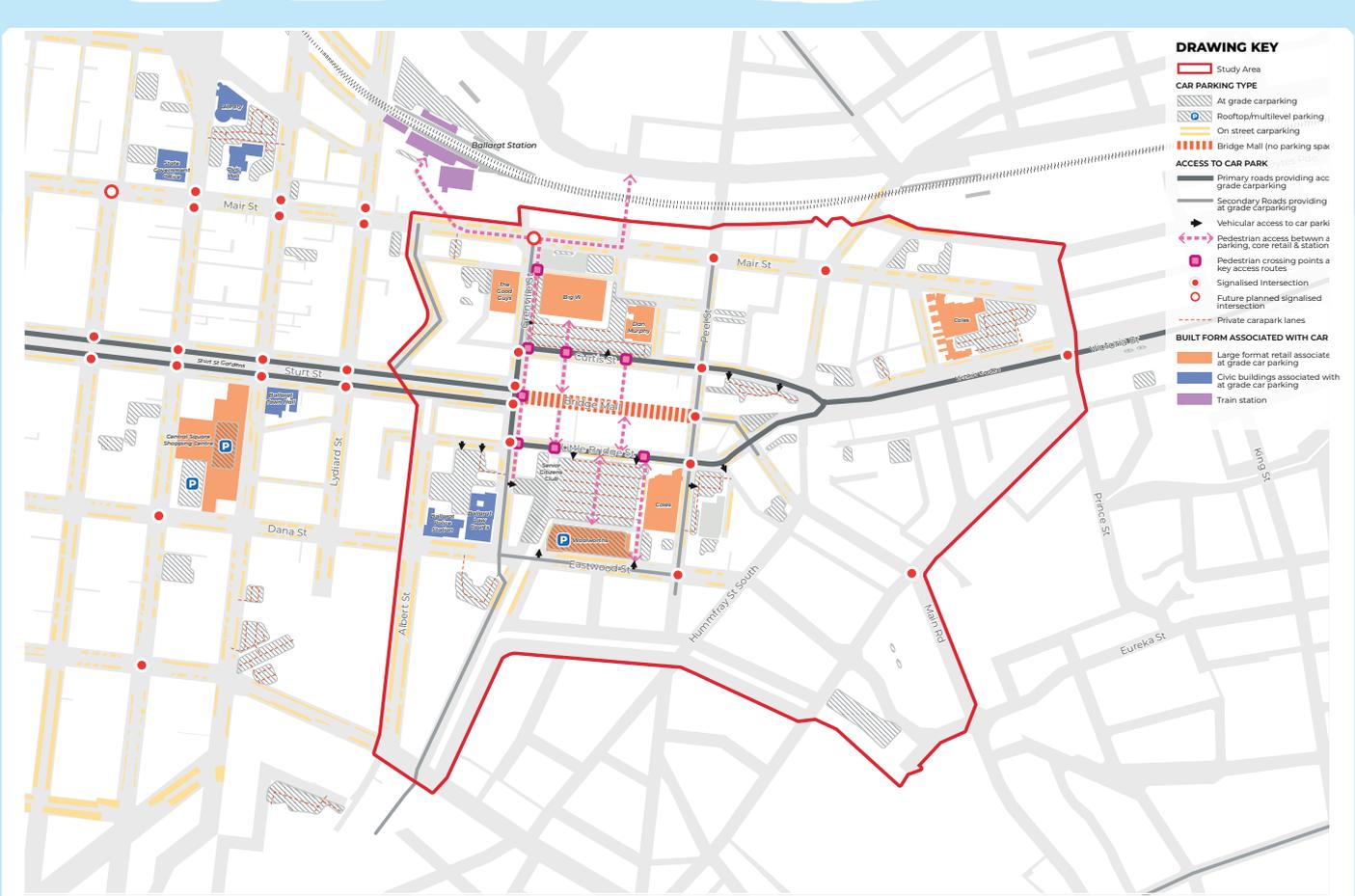


Figure 13 Car Parking and Access



Figure 14 Existing Street Trees

# 3. CURRENT MOVEMENT PATTERNS

## 3.5 STREETScape AMENITY

**The Bakery Hill and Bridge Mall precinct is blessed with a large number of heritage buildings and places that collectively create a strong sense of place and identity.**

Where streets have intact heritage buildings on both sides, streets are typically characterised by relatively wide pavements, a consistent kerb line (typically bluestone) and a footpath on both sides between the kerb and the building line. The location and configuration of car parking is however variable but typically comprised of parallel and angle parking or a combination thereof.

The existing streetscapes within the precinct (other than the grand boulevards) are not characterised by large street trees that have a continuous canopy, as are often found in other regional locations, but rather

the quality and diversity of heritage buildings that have a relatively consistent building line and height.

Where the consistent building line has been interrupted by construction of large format land uses and their associated at grade car parks such as is Little Bridge Street and Curtis Street, the streetscape character and quality has been compromised and the sense of enclosure of the streets has been lost. Where this has occurred the streetscape amenity for pedestrians and visitors is significantly lower than within streets where heritage buildings have been retained on both sides.

Aside from the character and quality of the heritage buildings (some of which require maintenance and renewal) from a pedestrian amenity point of view pedestrians are exposed to cold winds during winter and during the summer months there is little shade due to the inconsistent coverage of street tree planting.



Figure 15 Main Road one way street (view to the north towards Little Bridge Street)



Figure 16 Little Bridge Street View 1 (view to the west along Little Bridge Street at the Little Bridge Street/Peel street crossing)

### 3. CURRENT MOVEMENT PATTERNS



Figure 17 Little Bridge Street – View 2 (view to the west from road crossing fronting Tattersalls)



Figure 18 Little Bridge Street – View 3 (view to the west from the Little Bridge street bus interchange)



Figure 19 Sturt Street (view to the west from Sturt Street/Grenville Street North intersection)



Figure 20 Grenville Street South (view to the north towards Sturt Street/Bridge Mall and Grenville Street intersection)



Figure 21 Coliseum Walk (view to the south)



Figure 22 Curtis Street (view to the west)

## 4. KEY ISSUES AND OPPORTUNITIES

### **The key issues that arise from analysis of the historic and current movement and access networks include:**

1. The historic movement and access network included all modes of transport on streets, resulting in pedestrian and vehicle conflict.
2. By closing the Bridge Mall to traffic, a series of unintended but very significant impacts on movement through the precinct was created. This includes people and vehicles predominantly circling around the Mall and not moving through it.
3. Since the Bridge Mall was closed to traffic in 1984, new east/west bypass routes have been created, including the introduction of the Western Freeway, and upgrades to Mair Street, Barkley Street/Eastwood Streets.
4. Simplifying the movement and access network could enhance the entry to the City and enhance safety for pedestrians and cyclists.
5. Wayfinding for pedestrian and cyclists throughout the precinct is not well defined and is not welcoming or obvious in terms of priority for pedestrians and cyclists.
6. The precinct is blessed with many high quality heritage buildings and places but the quality of streets could be enhanced by restoring consistent built form edges on both sides of streets wherever possible and by delivering street tree planting to provide shade and wind protection.
7. The important movement and environmental value of the Yarrowee River presents a significant opportunity for rediscovery and/or interpretation within the precinct.
8. The current bus interchanges/primary stops within the precinct are the focus for antisocial behaviour and may need to be relocated and/or redesigned.
9. Car parking within the core of the precinct is in short supply however the existing at grade car parks present an opportunity for redevelopment to deliver a reduced area for car parking and to enable any released land to be developed for mixed-use development.
10. Simplifying the movement and access network will require re-engineering of a number of the existing intersections.

# 5. POLICY CONTEXT AND TRANSPORT AND MOVEMENT STRATEGIC DIRECTION

In preparing this Background Report, a review of strategies and policy documents relevant to transport and movement has been undertaken, which include:

- Relevant sections of the Ballarat Planning Scheme
- The Ballarat Strategy: Today Tomorrow Together (2015)
- The CBD Strategy (2010)
- Ballarat Cycling Action Plan 2017-2025 (March, 2017)
- Ballarat Integrated Transport Plan (BITP) – Rail Network

- Ballarat Central Business Area (CBA) Car Parking Strategy (October, 2007).

The key implications arising from these strategic policy documents are set out following.

# 5. POLICY CONTEXT AND TRANSPORT AND MOVEMENT STRATEGIC DIRECTION

## 5.1 BALLARAT PLANNING SCHEME

**The Ballarat Planning Scheme sets out the objectives, policies and provisions for the use and development of land within the City of Ballarat.**

There are several clauses that are relevant to transport and movement within Ballarat's Local Planning Policy Framework (LPPF).

These include:

### **Clause 21.01-4 Key Issues**

This clause highlights key issues within the City of Ballarat, including issues regarding transport and infrastructure, which are identified as:

- *Transitioning Ballarat towards a more sustainable transport system.*
- *Supporting a less car dependent community.*
- *Improving the connectivity and quality of walking and cycling networks.*
- *Improving the efficiency of moving freight and people.*
- *Ensuring infrastructure provision keeps pace with population and housing growth*

### **Clause 21.08 Transport and Infrastructure**

This clause provides strategic directions given the issues identified in Clause 21.01-4 above. Clause 21.08 includes the following objectives and strategies that are of most relevance to the Bakery Hill and Bridge Mall are:

### **Objective 2**

*To develop and maintain a comprehensive, safe, comfortable and convenient pedestrian network throughout the municipality.*

### **Strategies**

- 2.1 *Give priority to pedestrian use in high volume pedestrian areas, particularly in the CBD and around activity centres.*
- 2.2 *Support the development of accessible pedestrian routes (including shared paths) within 10 minutes of major destinations, including the creation of mid-block and through development connections to enhance permeability.*
- 2.3 *Ensure pedestrian networks are accessible to all users, including those with wheelchairs and prams.*

# 5. POLICY CONTEXT AND TRANSPORT AND MOVEMENT STRATEGIC DIRECTION

## Objective 3

*To develop a comprehensive, safe and convenient cycling network.*

### Strategies

- 3.1 Establish and encourage ongoing development of a user focussed, safe and legible Ballarat Bicycle Network to link all major parks and commercial centres in Ballarat.*
- 3.2 Ensure new development provides bicycle access and high quality, safe and secure end of trip cycle facilities.*

## Objective 7

*To ensure new physical, social and economic infrastructure meets the needs of the community during the forecast population growth.*

### Strategies

- 7.3 Strategy Integrate new or renewed community facilities with residential developments in order to provide the appropriate balance and mix of facilities.*
- 7.4 Encourage the co-location of complementary facilities.*
- 7.5 Ensure all future community facilities can accommodate multipurpose uses where appropriate and can be adapted to suit the needs of the community.*

# 5. POLICY CONTEXT AND TRANSPORT AND MOVEMENT STRATEGIC DIRECTION

## 5.2 THE BALLARAT STRATEGY: TODAY TOMORROW TOGETHER 2015

**Section 4 of the Ballarat Strategy - A Connected Ballarat has an overriding objective to *Integrate transport and land use planning to link people to each other, jobs, services and goods to markets.***

The Strategy includes a plan for change to 2040 and seeks to achieve improved performance in relation to a range of areas including:

- A More Sustainable Transport Network
- Build a Less Car-dependent Community with a More Sustainable Transport System
- Ensure Land Use Supports the Viability of Frequent Public Transport
- Support a High Quality Walking and Cycling Network to Improve Local Accessibility
- Plan for Future Transport Capacity and Demand
- Make Better Use of Existing Transport Infrastructure and Network Capacity
- Support Improved Connections within the Region and to other Key Jobs and Business Markets
- Improve the Efficiency of Moving Freight

In addition to the specific initiatives and implementation actions that accompany each key objective, the Strategy states that Transport decision-making will be guided by the following key principles:

1. **People first approach to priority**  
Council will manage the transport network so as to promote sustainable transport alternatives, improve accessibility and inclusiveness, and benefit the walking economy.
2. **User friendly streets and grid network**  
Council will consider streets as places where people live, work and play and provide access for all users as part of a safe, integrated and efficient transport system.
3. **A better public transport system**  
Council will collaborate with key Agencies and stakeholders to improve public transport access, connectivity and convenience within, across and from Ballarat.
4. **Improve integration of land use and transport to deliver wide-ranging community benefits**  
Council will encourage a pattern of land use that supports the viability of high-frequency public transport, and utilise the concept of the '10 Minute City' to support walking and cycling to key destinations and local neighbourhoods.
5. **Consider economic value when prioritising network efficiency**  
Council will prioritise uses on certain key corridors to maximise supply chain efficiencies and economic activity, in alignment with the Ballarat's Road User Hierarchy. Key freight routes, for example, will be prioritised for business and commercial uses.
6. **Promote cultural change towards more sustainable transport choices**  
Council will promote, educate and provide leadership on supporting walking, cycling and public transport initiatives to encourage change in perceptions and travel behaviour.
7. **Embrace technology and innovation as an enabler of better transport choice and accessibility**  
Council will be open, proactive and flexible in supporting new and emerging ways to move – including technologies and business models for transport not yet mainstream, but offer the potential to benefit the community and better connect Ballarat.

Specific projects and programs will be identified through the development of Action Plans. Community engagement and advocacy will be an integral part of the long-term transition.

# 5. POLICY CONTEXT AND TRANSPORT AND MOVEMENT STRATEGIC DIRECTION

## 5.3 THE CBD STRATEGY (MAY 2010)

**The CBD Strategy sets out a long-term vision for the Central Business District (CBD) that is underpinned by five city-wide themes: Commercial and Cultural Capital, Connections, Places for People, Building Quality and Strong Leadership and Governance.**

Of most relevance to this background report is the city-wide theme of Connections which include the following objectives:

- Ensure equitable access for all.
- Encourage a shift from car travel to sustainable transport modes.
- Encourage access to and within the CBD by walking and cycling.
- Promote the public transport network as a viable alternative to car travel.
- Manage the CBD road network to optimise its safety, amenity and efficiency for all road users including cars, cyclists and public transport.
- Manage car parking demand and provision to support the activity, streetscape amenity and economic competitiveness of the CBD.
- Enhance CBD entrance statements and way finding within the CBD.

The strategy also provides the basis to guide renewal for the Bakery Hill and Bridge Mall Urban Renewal Plan as it outlines objectives, strategies and actions for 10 Precincts identified within the CBD Study Area, including Bakery Hill (Precinct 2).

The following objectives, strategies and actions are of most relevance to movement and transport:

### Objectives

- Improve the CBD entry point via Little Bridge Street.
- Improve pedestrian permeability, safety and traffic flow.
- Create stronger connections between Ballarat Central and the Yarrowee River.

### Strategies and Actions

- 2.1.1 *Prepare a comprehensive master plan for the Precinct which addresses all issues of land use, built form, car parking, access and pedestrian amenity in a holistic manner.*
- 2.4 *Provide replacement car parking within a deck structure. This could be an internal car park space sleeved with active uses at the building frontages. Alternatively, provide car parks in the upper levels of retail/commercial buildings.*
- 2.5 *Examine traffic management and circulation within Little Channel and Sharwood Streets and how they would be incorporated into new development.*
- 2.9 *Improve north-south pedestrian connections through laneway 'walk through' spaces.*

The Bakery Hill and Bridge Mall Urban Renewal Plan seeks to reevaluate and build on the objectives and strategies set out within The CBD Strategy for Precinct 2, where appropriate.

# 5. POLICY CONTEXT AND TRANSPORT AND MOVEMENT STRATEGIC DIRECTION

## 5.4 BALLARAT CYCLING ACTION PLAN 2017-2025 (MARCH, 2017)

The Cycling Action Plan established a Ballarat Bicycle Network (BBN) with the aim of identifying and creating safe, predominantly off-road or quieter routes which are suitable for individuals, families and children. The priority of the plan is to provide safe and continuous bicycle routes.

The plan seeks to achieve five goals:

- **Goal 1**

*Partner with the community to develop a user-focused cycling network, as a game changing enabler to growth in bike riding*

- **Goal 2**

*Manage cycling networks as a mainstream transport mode, linked to public transport and walking networks*

- **Goal 3**

*Change travel behaviour to increase bike riding, particularly focusing on those groups not currently cycling*

- **Goal 4**

*Build an everyday bike riding culture in Ballarat so that it is seen as a legitimate use of the road with mutual respect between riders and drivers*

- **Goal 5**

*Support sport, recreational, fitness and other special interest cycling*

To achieve these goals, 11 strategies are identified in the plan. Strategy 1 and 2 are highlighted in this background document as key considerations for the Bakery Hill and Bridge Mall Urban Renewal Plan. These strategies are briefly discussed below.

### Strategy 1

**Define and establish a cohesive network of cycling routes between destinations, targeted at novice or everyday riders (known as the Ballarat Bicycle Network)**

To support this strategy, the Cycling Action Plan has identified future CBD connections, one of which includes a north-south link via Grenville Street, to the west of Bridge Mall. This link seeks to contribute to the existing BBN within the CBD by providing a connection between Ballarat Station and Yarrowee Creek trail.

### Strategy 2

**Partner with VicRoads and the State Government to deliver key cycling routes within the BBN as premiere quality connections (known as Strategic Cycling Corridors)**

These Strategic Cycling Corridors include key connections such as:

- Connections of Miners Rest to Wendouree Station
- Opportunities to link Wendouree railway Station to Ballarat Station (CBD) by the existing rail corridor (or Gregory St as an alternative)
- To connect through the Ballarat Station precinct, linking Lydiard St to the existing off-road bike trail from Humffray St to M.A.D.E (Bunny Trail), (over the Peel St viaduct)
- Ballarat Station through the CBD to connect to the Yarrowee Creek trail to Buninyong
- Sturt St connection linking Lucas to CBD and through to Brown Hill

The findings and recommendations of the Cycling Action Plan will be used as input for the Ballarat Integrated Transport Plan (BITP).

# 5. POLICY CONTEXT AND TRANSPORT AND MOVEMENT STRATEGIC DIRECTION

## 5.5 BALLARAT INTEGRATED TRANSPORT PLAN (BITP)

**The BITP will set out a long-term vision for Ballarat's transport system including walking, cycling and driving, as well as public transport and freight movement. It seeks to address transport issues and build upon opportunities to improve the current transport network.**

The City of Ballarat is currently undertaking phase one of the BITP by starting the transport conversation to gain a better understanding of the current transport situation. This involves developing a series of five discussion papers for different modes of transport, which will inform the BITP.

The discussion papers include:

- Ballarat Transport Overview and Rail Network discussion paper (released)
- Walking and Pedestrian Network discussion paper
- Local Public Transport discussion paper
- Roads, Streetscape and Emerging Vehicle Technology discussion paper
- Aviation discussion paper

The Ballarat Transport Overview and Rail Network discussion paper is briefly discussed below.

## 5.6 BALLARAT'S FUTURE RAIL NETWORK BACKGROUND PAPER (JUNE 2019)

**This background paper was prepared by Movement & Place Consulting who were commissioned by the City of Ballarat to inform the Ballarat Integrated Transport Plan (BITP).**

The background paper seeks to understand the current situation of the heavy rail network in the Ballarat region by exploring the issues, challenges and opportunities for the rail network. The background report states that improving transport and accessibility to Ballarat and its surrounding area, will reduce pressures in the Melbourne metropolitan region.

While the report does not provide specific detail on the relationship between Ballarat CBD or Bakery Hill and the future rail network, it highlights the importance of the rail network. As such, the Bakery Hill and Bridge Mall Urban Renewal Plan must consider the relationship of the study area with the broader railway network, particularly in terms of improving access to Ballarat Station.

# 5. POLICY CONTEXT AND TRANSPORT AND MOVEMENT STRATEGIC DIRECTION

## 5.7 BALLARAT CENTRAL BUSINESS AREA (CBA) CAR PARKING STRATEGY (OCTOBER, 2007)

**The Ballarat CBA Car Parking Strategy was developed by Maunsell Australia on behalf of the City of Ballarat.**

While the strategy is over a decade old, it ultimately sought to establish parking rates that reflect the local conditions at that time. The strategy also developed parking precinct plans to manage parking and initiate a revision of the parking rates in Clause 52.06 of the Victorian Planning Scheme at that time.

In addition to the establishing parking rates, the strategy identifies several findings that are relevant to Bakery Hill. These are listed below. It should be noted that the study undertaken to inform the strategy is over a decade old. It is likely that several changes have occurred. Clause 21.08-4 of the Ballarat Planning Scheme states that a review of the Ballarat Car Parking Strategy is required.

Findings regarding car parking that are relevant to the Bakery Hill and Bridge Mall area:

- Off-street car parks adjacent to Bridge Mall such as Big W and Coles are almost 100% occupied during the peak period.
- Several Bridge Mall traders park in the 2 hour time restricted Coles ground level car park, continuously moving their vehicles every two hours due to a lack of secure close parking facilities.
- The Law Courts car park has free unrestricted public car parking between 5:00pm and 6:00am Monday to Friday and all day free public parking on Saturday and Sunday. However intimidating signs and line marking result in its under-utilisation by the public, particularly on weekends. (This car park was excluded from the parking supply/demand analysis).
- The need for a future multi-level car park facility within the proximity of Bridge Mall, Mair Street (within this precinct boundary) and the rail station should be evaluated. Council should work in collaboration with other key stakeholders regarding the proposal.

# 6. DESIRABLE CHARACTERISTICS OF THE MOVEMENT NETWORK

## **Many books have been written about the important role of streets and the need to ensure that streets become places for people rather than traffic sewers.**

As a key part of the public realm, streets of all scales need to be balanced in their composition and offer equality of access for all users of the movement network. In addition to being balanced in their composition and offering equality of access, streets also need to be welcoming and engender a sense of place and identity.

Council has foreshadowed such an approach toward establishment of the desirable characteristics of the movement network in defining the 7 key guiding principles with the Ballarat Strategy that will guide decision making in relation to transportation within the City.

- 1. People first approach to priority**  
*Council will manage the transport network so as to promote sustainable transport alternatives, improve accessibility and inclusiveness, and benefit the walking economy.*
- 2. User friendly streets and grid network**  
*Council will consider streets as places where people live, work and play and provide access for all users as part of a safe, integrated and efficient transport system.*
- 3. A better public transport system**  
*Council will collaborate with key Agencies and stakeholders to improve public transport access, connectivity and convenience within, across and from Ballarat.*
- 4. Improve integration of land use and transport to deliver wide-ranging community benefits**  
*Council will encourage a pattern of land use that supports the viability of high-frequency public transport, and utilise the concept of the '10 Minute City' to support walking and cycling to key destinations and local neighbourhoods.*
- 5. Consider economic value when prioritising network efficiency**  
*Council will prioritise uses on certain key corridors to maximise supply chain efficiencies and economic activity, in alignment with the Ballarat's Road User Hierarchy. Key freight routes, for example, will be prioritised for business and commercial uses.*

- 6. Promote cultural change towards more sustainable transport choices**  
*Council will promote, educate and provide leadership on supporting walking, cycling and public transport initiatives to encourage change in perceptions and travel behaviour.*
- 7. Embrace technology and innovation as an enabler of better transport choice and accessibility**  
*Council will be open, proactive and flexible in supporting new and emerging ways to move – including technologies and business models for transport not yet mainstream, but offer the potential to benefit the community and better connect Ballarat.*

In addition to the guidance that is offered within the Ballarat Strategy, the CBD Strategy contains the following objectives:

- Ensure equitable access for all.
- Encourage a shift from car travel to sustainable transport modes.
- Encourage access to and within the CBD by walking and cycling.
- Promote the public transport network as a viable alternative to car travel.
- Manage the CBD road network to optimise its safety, amenity and efficiency for all road users including cars, cyclists and public transport.
- Manage car parking demand and provision to support the activity, streetscape amenity and economic competitiveness of the CBD.
- Enhance CBD entrance statements and way finding within the CBD.

The emphasis on achievement of equitable access for all and a shift away from car travel to sustainable transport modes is a consistent theme within the Ballarat Strategy and the CBD Strategy. These initiatives are also supported by the Ballarat Cycling Action Plan, 2017-2025 and the Ballarat Integrated Transport Plan.

# 7. IMPLICATIONS FOR THE URBAN RENEWAL PLAN

**Analysis of the historic and current movement and access patterns and application of the guiding principles and objectives of the relevant transport strategies indicates that the entire precinct offers a rare opportunity to progressively deliver a walkable, dense and vibrant neighbourhood that will be comprised of a range of land uses and other activities.**

In this context, there is an opportunity for the movement and access network to support delivery of the broader objectives of the Urban Renewal Plan by:

1. Create pedestrian prioritised streetscapes which encourage activity within the precinct through the day and evening.
2. Incorporate a simplified movement and access network that removes unnecessary confusion particularly for visitors.
3. Incorporate an integrated movement and access network that accommodates traffic and other transport movements in a balanced way.
4. Incorporate an integrated movement and access network that places greater emphasis on pedestrian and cycle access and connectivity.
5. Investigate options for re-opening the Bridge Mall to a variety of modes of transport but with a deliberate emphasis on place making, pedestrians and identity in order to support visitation and renewal within the precinct.
6. Improving the amenity of streets through increased street tree planting and other initiatives such as re-establishment of verandas.
7. Improving safety and lack of surveillance in key locations through introduction of controlled vehicle access.
8. Identifying preferred locations for redevelopment of the existing at grade car parks.

# 8. RECOMMENDED MOVEMENT NETWORK INTERVENTIONS TO STIMULATE URBAN RENEWAL

## STRENGTHS AND WEAKNESSES FOR OPTIONS

### Context

Closure of Bridge Street and creation of the Bridge Mall in 1981 caused a series of intended and unintended impacts on the movement and access network. Within the context of concerns regarding safety and surveillance, shop vacancy and declining retail activity in the mall, the opportunity has emerged to re-open the mall as a component of the integrated movement and access network.

Re-opening malls and revitalisation of former main streets has been the focus of numerous local and international initiatives to stimulate urban renewal.

One way to revitalise Bridge Mall (amongst a series of other Council driven economic actions and incentives) could be through the reopening of the Mall to vehicles at certain times of the day. There are numerous local and international examples where pedestrian focused streets do share their space with vehicles, with the intention of bringing movement back into the Mall itself.

### Objectives for redesigning Bridge Mall

Should the Bridge Mall be reopened to vehicles at certain times of the day, key transport related objectives for re-opening Bridge Street to traffic, include:

- To accommodate local access, low speed vehicular traffic.
- To maintain high levels of pedestrian amenity and priority.
- To improve accessibility for all road users.
- To provide on-street car parking facilities.
- To discourage use by through traffic.

### Grenville Street Intersection Management

Traffic management at the Grenville Street end of Bridge Street needs to be a key consideration when making decisions around traffic flows that are to be accommodated within Bridge Street.

Key matters include the following:

- Due to its close proximity, the 3 Grenville Street intersections with Curtis Street, Sturt Street and Little Bridge Street are currently managed by a single set of traffic signals, resulting in a relatively complex intersection.
- The wide Sturt Street centre median means that a Bridge Street carriageway will not align with Sturt Street to form a typical cross intersection.
- There are a range of pedestrian and cyclist movements needed to be accommodated at this locality.
- Traffic controls can alter the relative convenience of Bridge Street compared with other eastwest routes (this also applies at the eastern end).

### Humffray Street Intersection Management

Well-designed roundabouts typically have approaches which are spaced well apart. In the event that more than 4 roads approach a roundabout (which is the case at the Humffray Street intersection), safety can be further compromised. The Humffray Street / Victoria Street / Curtis Street / Little Bridge Street roundabout currently has 5 approaches plus an exit from the McDonalds carpark, which makes it an extremely complex roundabout.

The additional of an eastbound approach from Bridge Street will pose further challenges, likely to necessitate major alterations to this intersection, to ensure safety of pedestrians, cyclists and vehicles.

# 8. RECOMMENDED MOVEMENT NETWORK INTERVENTIONS TO STIMULATE URBAN RENEWAL

## Bicycle Lanes

Bicycle lanes or paths are desirable for cyclist amenity and safety. The provision of on-road bicycle lanes or separated paths will likely require a width in the order of 2.5m to 4.0m. Widths in the upper of this range may be needed to adequately address safety issues associated with interactions with volumes of pedestrians and car parking space turnover.

The Ballarat Safer Cycling Connections project has been considering improved on and off-road cycling infrastructure at key locations and along key corridors. It is understood that this has included consideration of a north-south route along Grenville Street and Sturt Street being recognised as a strategic cycling corridor. It is understood this work is continuing.

It is noted that a low speed street typically accommodates shared vehicular and bicycle movements within traffic lanes in a safe manner. Therefore, provision of bicycle lanes or paths, which will come at the expense of a traffic lane or parking lane may not be the best allocation of road space given project objectives. But if the cycling infrastructure is a critical part of a wider cycling network, then the road space allocation may be warranted.

## Potential Traffic Flow arrangements for Bridge Mall

The local and international examples demonstrate the positive extent to which urban renewal can be achieved via adoption of an integrated approach. Whilst Main Street revitalisation, in the form of re-opening of a pedestrian mall, should be viewed as a part of a broader urban renewal plan and process, the Bridge Mall has some very important strategic advantages that could support its future success as a main street.

The important strategic advantages include:

**History and Culture** the history and culture and stories of Bakery Hill and prior settlement offer an opportunity to develop a positive point of difference.

**Location and Alignment** the Bridge Mall is positioned centrally within the precinct with the ability to offer a unique gateway experience for visitors and locals.

**Dimensions** the width of the Bridge Mall is 20m which is a common main street width than can support a variety of transport options.

**Flexibility** the public space which is the street could be designed to support adaptable use for festivals and other community events.

Having regard to these important strategic advantages and the other issues associated with the performance of the mall, this background paper supports the principle of re-opening the mall provided that the key principles and objectives of the relevant strategies can be achieved in a transparent way.

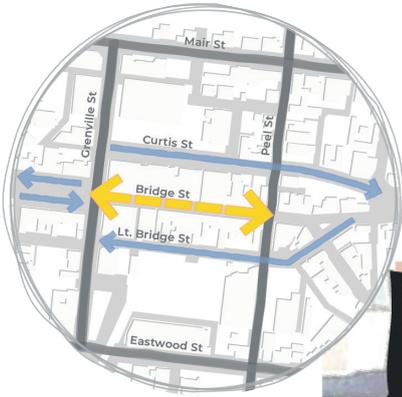
Notwithstanding underlying support for re-opening the mall, there is a need to identify options as to how re-opening the mall can be achieved whilst taking into account the impacts on the remainder of the movement and access network.

The movement and access options that have been identified for re-opening the mall include:

- **Option One** Two-way continuous travel
- **Option Two** One-way continuous east to west travel
- **Option Three** One-way continuous west to east travel
- **Option Four** One-way interrupted

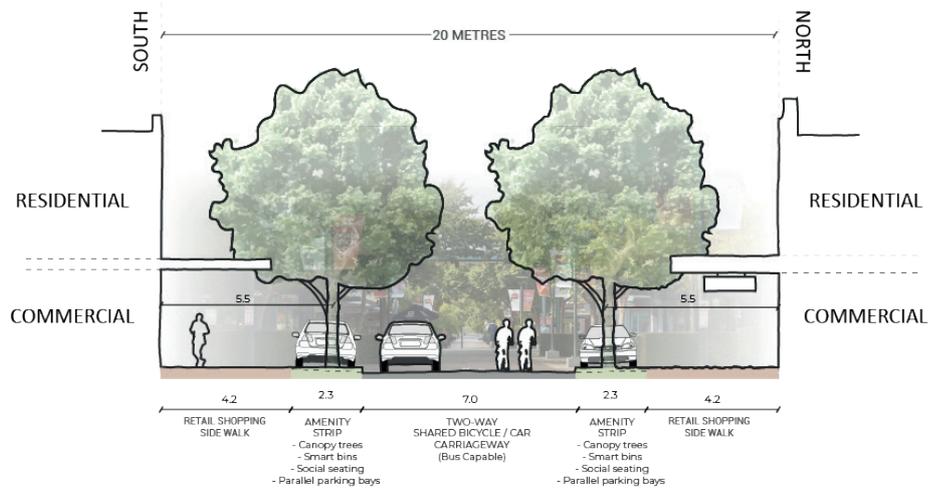
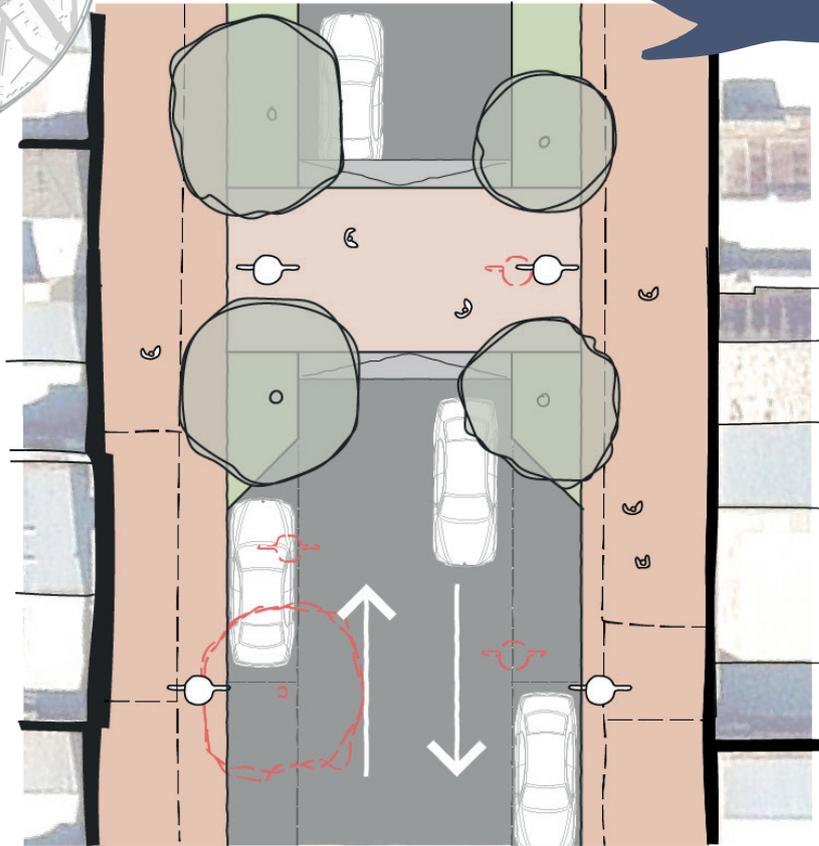
The relationship between each of the options and the balance of the street-based movement and access network is set out below.

# 8. RECOMMENDED MOVEMENT NETWORK INTERVENTIONS TO STIMULATE URBAN RENEWAL

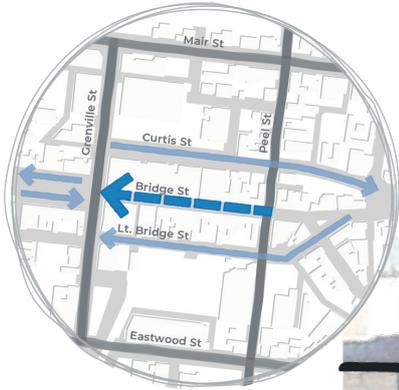


## OPTION 1 TWO-WAY STREET

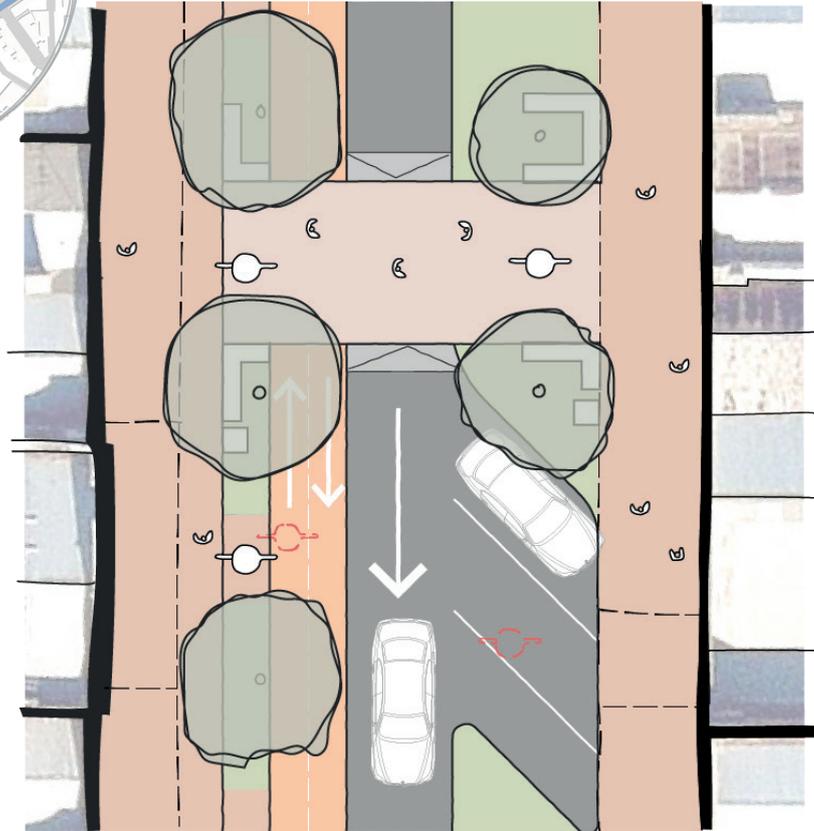
**HAVE YOUR SAY ABOUT THE OPTIONS.**



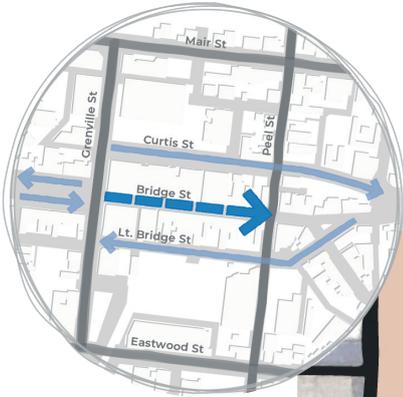
# 8. RECOMMENDED MOVEMENT NETWORK INTERVENTIONS TO STIMULATE URBAN RENEWAL



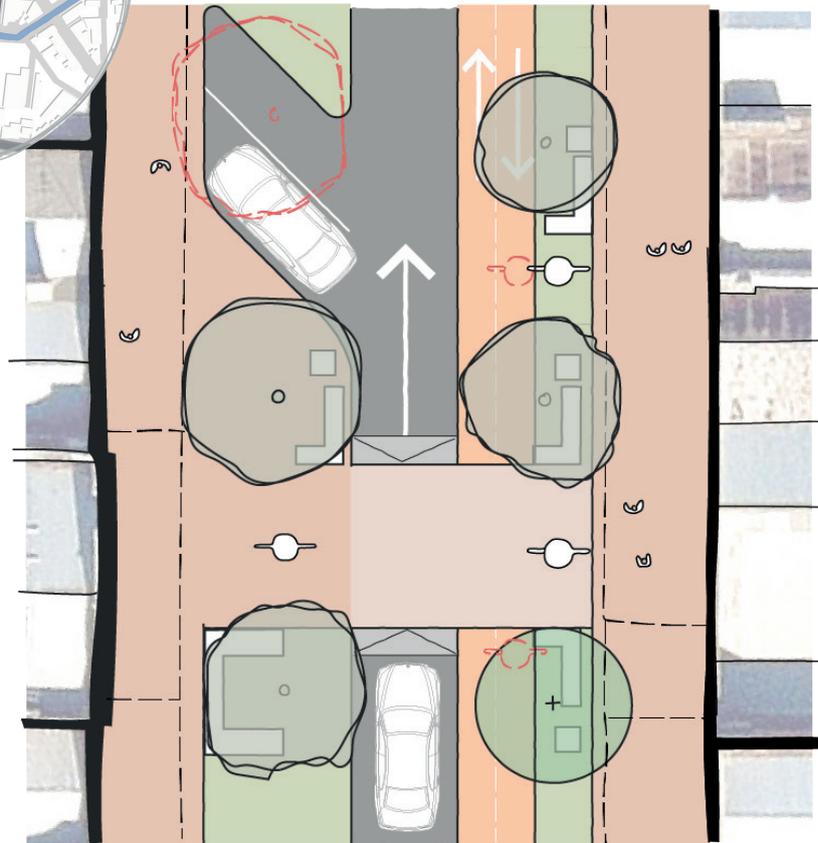
## OPTION 2 ONE-WAY STREET (WEST TO EAST)



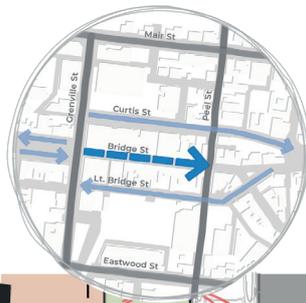
# 8. RECOMMENDED MOVEMENT NETWORK INTERVENTIONS TO STIMULATE URBAN RENEWAL



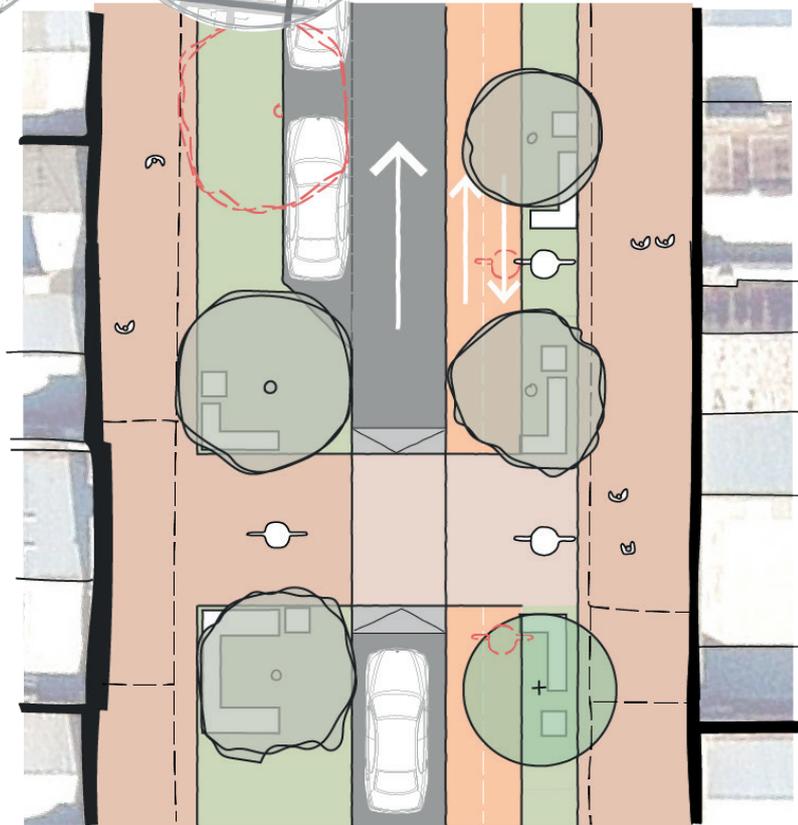
## OPTION 3 ONE-WAY STREET (EAST TO WEST)



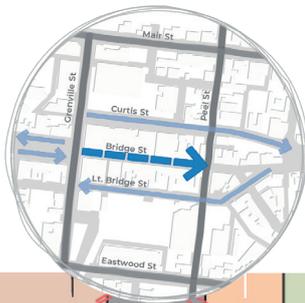
# 8. RECOMMENDED MOVEMENT NETWORK INTERVENTIONS TO STIMULATE URBAN RENEWAL



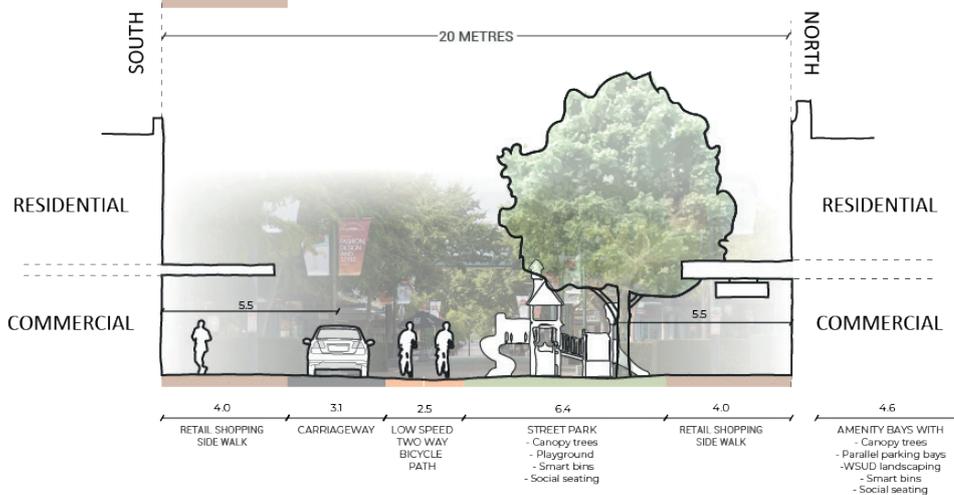
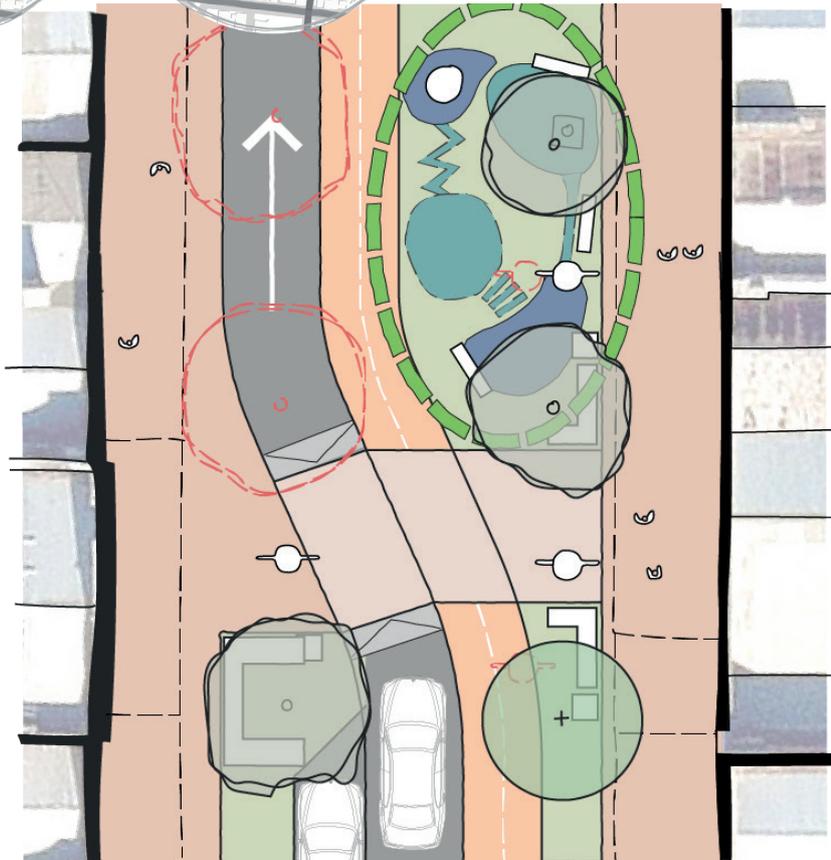
**OPTION 2/3**  
**ONE-WAY VARIATION - A**  
**PARALLEL PARKING**



# 8. RECOMMENDED MOVEMENT NETWORK INTERVENTIONS TO STIMULATE URBAN RENEWAL



## OPTION 2/3 ONE-WAY VARIATION - B VERGE PARK



# 8. RECOMMENDED MOVEMENT NETWORK INTERVENTIONS TO STIMULATE URBAN RENEWAL



## OPTION 4 ONE-WAY TO CENTRAL PARK

HAVE YOUR SAY ABOUT THE OPTIONS.



# 8. RECOMMENDED MOVEMENT NETWORK INTERVENTIONS TO STIMULATE URBAN RENEWAL

**Irrespective of which option is adopted, the objective is to apply the integrated themes of Connected, Thriving and Distinctive by:**

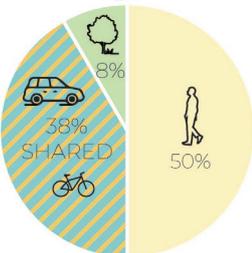
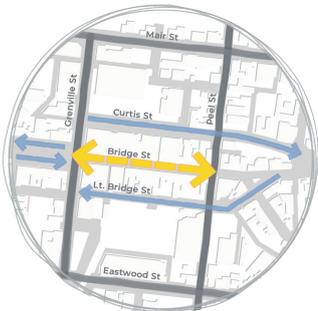
- ☆ Simplifying the movement network;
- ☆ Adopting an inclusionary approach toward design of the street to balance the needs of various users of the space;
- ☆ Drawing activity and movement into the street;
- ☆ Improving the amenity, safety, sense of place and identity in the street; and
- ☆ Promoting awareness and visitation to the street.

**The objective will be achieved by ensuring that the detailed design process has regard to the following design requirements:**

1. Community/stakeholder involvement
2. Responds to micro climate and offers protection
3. Inclusive of the needs of all users of the space
4. Incorporates increased convenience and comfort
5. Promotes night time activity and economy
6. Retains and/or enhances existing tree planting
7. Protects and respects heritage buildings and places
8. Communicates the story of Bakery Hill
9. Promotes land use change
10. Restricts travel to a very slow speed
11. Adaptable – can be closed in part or fully for events etc
12. Pedestrian friendly
13. Improves safety and surveillance
14. Creates or contributes to a distinctive point of difference
15. Enhances tourism potential

# 8. RECOMMENDED MOVEMENT NETWORK INTERVENTIONS TO STIMULATE URBAN RENEWAL

## OPTION 1 TWO-WAY STREET



### KEY ATTRIBUTES

**CAR PARKING**        
Indicative number of new car parks in Bridge Mall \* Depends on adoption of angled or parallel parking

**TREE RETENTION**        
Percentage of existing trees retained

**LEVEL OF CHANGE**       
Rating based impact on surrounding movement network and intersections

**SHOP REMOVAL** NONE

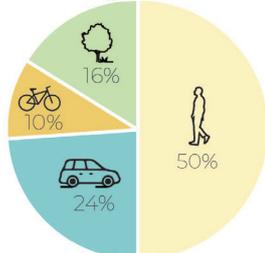
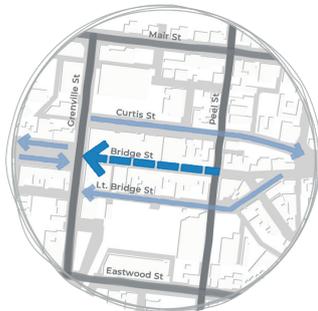
**PEDESTRIAN ACCESS**   
Percentage of streetscape for Walking and outdoor seating

**ROAD ACCESS**   
Percentage of streetscape for vehicle movement and parking

**BICYCLE ACCESS**   
Percentage of streetscape for Bicycle movement and parking

**LANDSCAPING**   
Percentage of streetscape for grass, garden beds and trees

## OPTION 2 ONE-WAY STREET (WEST TO EAST)



### KEY ATTRIBUTES

**CAR PARKING**        
Indicative number of new car parks in Bridge Mall \* Depends on adoption of angled or parallel parking

**TREE RETENTION**        
Percentage of existing trees retained

**LEVEL OF CHANGE**       
Rating based impact on surrounding movement network and intersections

**SHOP REMOVAL** NONE

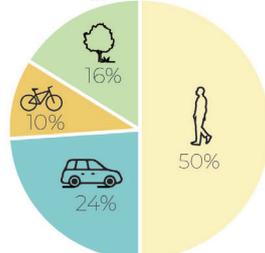
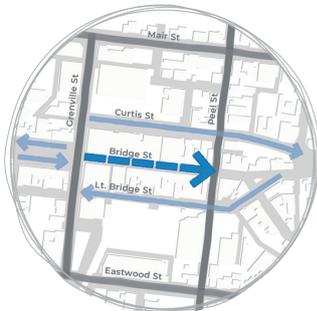
**PEDESTRIAN ACCESS**   
Percentage of streetscape for Walking and outdoor seating

**ROAD ACCESS**   
Percentage of streetscape for vehicle movement and parking

**BICYCLE ACCESS**   
Percentage of streetscape for Bicycle movement and parking

**LANDSCAPING**   
Percentage of streetscape for grass, garden beds and trees

## OPTION 3 ONE-WAY STREET (EAST TO WEST)



### KEY ATTRIBUTES

**CAR PARKING**        
Indicative number of new car parks in Bridge Mall \* Depends on adoption of angled or parallel parking

**TREE RETENTION**        
Percentage of existing trees retained

**LEVEL OF CHANGE**       
Rating based impact on surrounding movement network and intersections

**SHOP REMOVAL** NONE

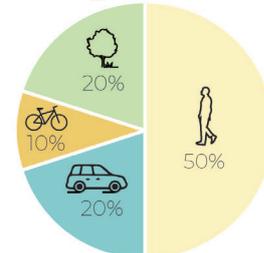
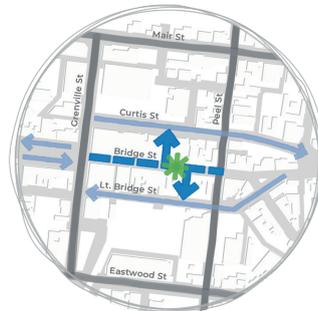
**PEDESTRIAN ACCESS**   
Percentage of streetscape for Walking and outdoor seating

**ROAD ACCESS**   
Percentage of streetscape for vehicle movement and parking

**BICYCLE ACCESS**   
Percentage of streetscape for Bicycle movement and parking

**LANDSCAPING**   
Percentage of streetscape for grass, garden beds and trees

## OPTION 4 GATEWAY TO CENTRAL PARK



### KEY ATTRIBUTES

**CAR PARKING**        
Indicative number of new car parks in Bridge Mall \* Depends on adoption of angled or parallel parking

**TREE RETENTION**        
Percentage of existing trees retained

**LEVEL OF CHANGE**       
Rating based impact on surrounding movement network and intersections

**SHOP REMOVAL** 1 2

**PEDESTRIAN ACCESS**   
Percentage of streetscape for Walking and outdoor seating

**ROAD ACCESS**   
Percentage of streetscape for vehicle movement and parking

**BICYCLE ACCESS**   
Percentage of streetscape for Bicycle movement and parking

**LANDSCAPING**   
Percentage of streetscape for grass, garden beds and trees

## STRENGTHS AND WEAKNESSES FOR OPTIONS

This type of comparative assessment will need to be completed in the urban renewal plan having regard to the movement and access principles and objectives and the other principles and objectives to enable assessment of the overall performance of each of the options.

Specifically in relation to movement and access, the following issues are noted in relation to each of the options.

OPTION	STRENGTHS	WEAKNESSES
Option 1	<p>Provides for continuous travel in both directions</p> <p>One way street system can be maintained in Little Bridge Street and Curtis Street or provision can be made for two way traffic</p> <p>Pavement can be used as shared space for cyclists</p>	<p>Up to 7.0m of cross section will be occupied by pavement for cars and other vehicles (plus additional area for car parking if desired)</p> <p>Reduced area for landscaping and/or other transport modes by comparison to other options</p> <p>Requires reconfiguration of eastern and western gateways although works could be staged</p>
Option 2	<p>Provides for one way east to west travel with potential to enhance/re-establish the eastern gateway experience for visitors</p> <p>Increased area available for other modes of transport and other uses by comparison to two-way option</p> <p>Reduced requirement for reconfiguration of eastern and western gateways</p>	<p>West to east movement for private vehicles not accommodated</p>
Option 3	<p>Provides for one way west to east travel with potential to enhance the western gateway experience for visitors</p> <p>Increased area available for other modes of transport and other uses by comparison to two-way option</p> <p>Reduced requirement for reconfiguration of eastern and western gateways</p>	<p>East to west movement for private vehicles not accommodated</p>
Option 4	<p>Gateway potential from east and west</p> <p>Central open space could be developed for feature playground to create interest and announce arrival to the City</p> <p>Increased area available for other modes of transport and other uses by comparison to two-way option</p> <p>Creates direct connectivity between Bridge Street and Little Bridge Street and Curtis Street with potential for further extension to the north and south</p>	<p>Would require demolition of existing buildings to create access to Little Bridge Street and Curtis Street</p>

# 9. CASE STUDIES

## Church Street, Parramatta NSW

The Church Street Mall was reopened to cars to reduce crime, increase safety and revitalise business.<sup>1</sup> Church Street began as a two-block pedestrian mall and was redeveloped in 2007 to accommodate one way traffic and parking within the northern strip and a town square to the southern strip.

To encourage further activation, Parramatta City Council also introduced the **Church Street Retail Frontage Improvement Program**, which offers successful applicants grants of up to 30% of the total costs of upgrading retail shopfronts.

Church Street was one of several pedestrian malls that were reopened to traffic during the early to mid 2000s. According to a survey commissioned by Wollongong City Council, several councils reported a drop in crime/anti-social behaviour as a result of the reopening.

## Church Street, Parramatta NSW

two block pedestrian mall → one way traffic (north) and town square (south)

One way traffic on Church St (North)



CROSS-SECTION WIDTH: ~20m  
BLOCK LENGTH:  
~95m to 185m



<sup>1</sup> Pryor, L 2007, 'Malls reopen to cars to driveaway crime', Sydney Morning Herald, 8 March, <<https://www.smh.com.au/national/malls-reopen-to-cars-to-drive-away-crime-20070308-gdpmel.html>>

# 10. IMPLEMENTATION ACTIONS

## Short term (12-24 months)

ACTIVITY	EXPLANATION	OWNER
Prepare Stage 2 Traffic Analysis	Further traffic engineering assessments be undertaken to guide decisions around traffic flow arrangements, cross sections, intersection designs and supporting traffic management in the surrounding area. Key tasks should include additional data collection of existing traffic flows, assessment of the likely changes to traffic flows, conceptual design of intersection layouts and operational analysis of key intersections.	Strategic Planning/ Traffic
Prepare an Integrated Transport Plan	Undertake further public transport analysis through an Integrated Transport Plan to determine future Public Transport within the Precinct and supporting area.	Strategic Planning/ Traffic
Undertake further option assessments to relocate or redesign bus interchange at Little Bridge Street	There is significant opportunity to further assess the relocation or redesign of the bus interchange at Little Bridge Street to enhance safety and better connect the precinct within a north/south direction.	Strategic Planning/ Traffic/ City Design Studio/ Community Safety
Prepare streetscape upgrade designs and prepare a program of works which prioritises implementation	Prepare concept and detailed design for streetscape upgrades and ensure there is a clear prioritisation of work	City Design Studio/ Strategic Planning
Understand the implications of the spend data mapping for the Precinct	Understand the short-term implications of the spend data for the Precinct to understand what is the role of Bakery Hill and Bridge Mall in relation to the broader Ballarat CBD – to what extent are people travelling to Stockland Wendouree to eat or shop and how can the URP service this demand? This allows Council to track spend data over time and to understand potential medium to longer term interventions.	Economic Development

ACTIVITY	EXPLANATION	OWNER
Review Planning Scheme Controls	Ensure that effective planning controls apply to the precinct to ensure protection of significant elements (such as heritage) but also to encourage redevelopment of land where possible	Strategic Planning
Identify the types of 'attractor' retailers Prepare a prospectus for potential investors/ developers	Focus on 'first movers' to help define what the retail function should and could be, including retailers specialising in food, beverage and entertainment	Economic Development / Strategic Planning
Progress negotiations with large landowners	Help to facilitate redevelopment of private/public land which will contribute to the precinct's transition into a thriving mixed-use precinct	Economic Development/ Strategic Planning/ Development Facilitation
Investigate opportunities to incentivise private sector investment	Help to facilitate redevelopment of private/public land which will contribute to the precinct's transition into a thriving mixed-use precinct	Economic Development/ Strategic Planning
Encourage higher density accommodation	Negotiate hotel/serviced apartment projects as the initial residential developments in the Precinct Engage with Community Housing Limited and other housing associations about their interest in funding medium-density built form outcomes on Council owned land Engage with Federation University, ACU and Notre Dame about their interest in establish a presence and/ or student accommodation on their own or Council/owned land	Economic Development/ Strategic Planning
Curate public artwork within the public space areas of the precinct	Engage with Creative Victoria and Ballarat Evolve to explore opportunities to establish art spaces and creative initiatives within the URP, specifically in shop fronts, shop tops and throughout the public realm	
Encourage short-term leases particularly for shopfronts which have had long term vacancies	Work closely with landowners to encourage leasing of vacant sites to tenants and investigate ways in which Council could incentivise long term vacant shops to be leased	Economic Development
Apply for external funding, including to State and Federal Government agencies as appropriate	Identify funding opportunities to continue the transformation of the precinct to a vibrant mixed-use precinct	Economic Development/ Strategic Planning

ACTIVITY	EXPLANATION	OWNER
Prepare an Affordable Housing Strategy for the Precinct	Understand the supply and demand for affordable housing across the precinct, including how to encourage at least 5% of new dwellings within the precinct - delivered as a combination of community and private housing	Strategic Planning/ Social Policy

### Medium term (2-4 years)

Identify and target retailers and users of the Precinct	<p>Explore the various delivery models for achieving the revitalisation outcomes, with the assistance of appropriately qualified architects and commercial advisors, including:</p> <ul style="list-style-type: none"> <li>• Exploring attracting tenants through some (time limited) rental support or other financial assistance to landlords</li> <li>• Explore strategic acquisitions by Council within the Bridge Mall and identify the hard and soft costs and benefits associated with these</li> <li>• Explore funding a program to assist Mall traders with business strategy, retail offers, displays, promotions and other means to increase visitation</li> </ul>	Economic Development/ Strategic Planning
Advocate to State Government to assist in funding non-market housing or educational uses	Enhance opportunities to provide accommodation/housing within the precinct through State Government investment	Strategic Planning/ Social Policy
Explore options to relocate the bus interchange or explore opportunities to better activate the land uses and spaces around them.	Relocating or redesigning the bus interchange to improve safety, would need to be supported by attractive and walkable connections to/from the railway station	City Design Studio/ Strategic Planning

### Long term (4+ years/ ongoing)

Redesign the eastern gateway	Explore opportunities to redesign and enhance the eastern gateway. This could be achieved through a local design competition	City Design Studio
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