

*Ashburton CBD Streetscape Renewal  
Issues and Options Report  
Ashburton District Council*

# *Ashburton CBD Streetscape Renewal Issues and Options Report*

## *Quality Assurance Information*

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## Executive Summary

Ashburton Town Centre is experiencing redevelopment and the Ashburton District Council (ADC) wishes to support investment in the town centre and encourage revitalisation of the town centre core also known as the Central Business District (CBD).

This report outlines the development of concept street designs for the Ashburton CBD. The streets included are:

- East Street (Moore Street to Havelock Street)
- Burnett Street (East Street to Cass Street)
- Tancred Street (East Street to Cass Street)
- Moore Street (East Street to Cass Street)
- Havelock Street (East Street to Cass Street)
- Cass Street (Moore Street to Havelock Street)

Although part of the project area it was concluded that the design of Baring Square (East) be integrated with the design of the new council offices and library.

It is recommended that a 30km/hour speed limit zone is created in the area bound by East Street, Moore Street, Cass Street and Havelock Street. This will support the desired low speed environment and reflect current speed management practice in New Zealand. It is also recommended that gateway treatments are created at the four key entry locations, these could be used as the speed limit transitions. The Moore Street/Cass Street and Havelock Street/Cass Street intersections would be roundabouts that form two of the gateways.

The recommended street designs are outlined in the table on the following pages, these will require further development including seeking community feedback. The designs are considered to be consistent with the Ashburton Town Centre Concept Plan that was initiated as part of delivering the Ashburton Development Plan (adopted by Council in 2005). In addition to the street designs Council are encouraged to pursue the development of lane connections between the streets and also wider cycle network connections as identified in the walking and cycling strategy.

A recent review of the 2011 Parking Strategy concluded that it was not current and recommended that a CBD Parking Management Plan be developed to inform the CBD streetscape renewals project. The parking management plan was partially developed and includes the following objectives: Provide parking that:

- a) Supports vibrant, attractive places in which people can live, work and play and businesses can operate successfully now and into the future.
- b) Provides residents and visitors with a viable system that is safe and easy to use.
- c) Supports a range of travel choices including more sustainable transport modes.

The future demand for parking is not expected to increase and the existing amount of on-street and off-street parking is sufficiently catering for current demand. However, how parking is managed needs to be considered as the streetscape renewals project will impact the current parking meters and pay & display machines (East Street). This offers the opportunity to consider a range of management options.

A range of on-street parking management options were considered in this project and these require further developed before a final decision is made.

## Street

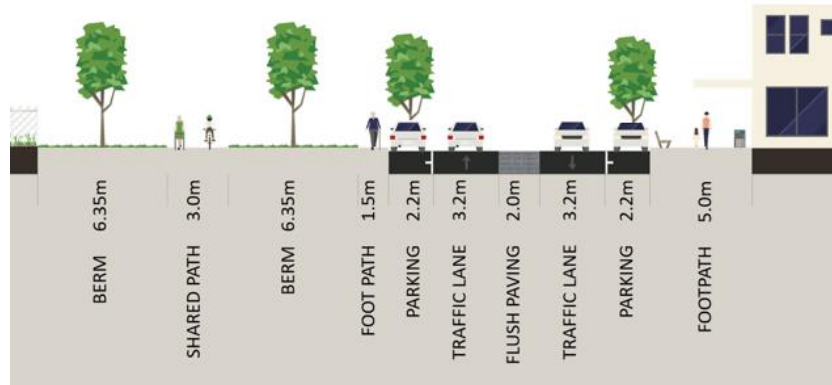
## Recommended cross-section design

## Artist impression of the design

**East Street**

(Moore Street to Havelock Street)

- Wider footpath on east side, flush paved median and parking on both sides, shared path on west side.
- Raised platforms intersections with Burnett Street and Tancred Street
- 30km/hour thresholds (gateways) located where drivers enter this part of East Street via the traffic signals at Moore Street and Havelock Street.

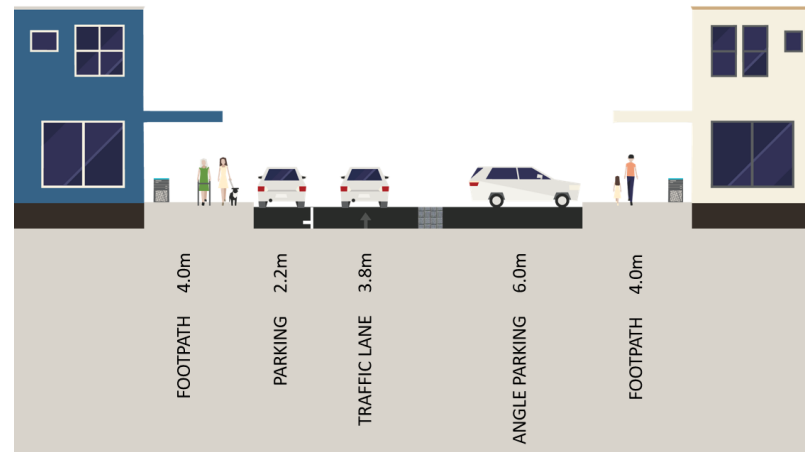
**Burnett and Tancred Streets**

(East Street to Cass Street)

These streets will be a one-way pair, Burnett Street will be west bound and Tancred will be east bound

The design is a combination of two cross section types:

- Each end of the street will feature angle parking on one side and parallel parking on the other, the traffic lane will be one-way

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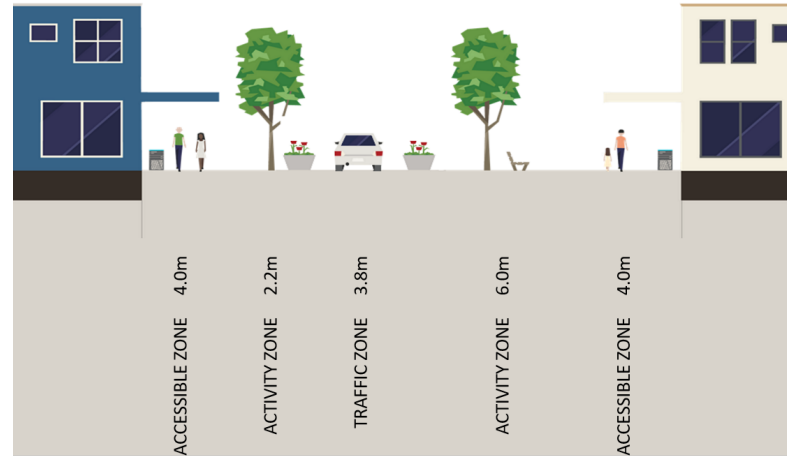
**Issue Date:**

15 March 2018



Street	Recommended cross-section design	Artist impression of the design
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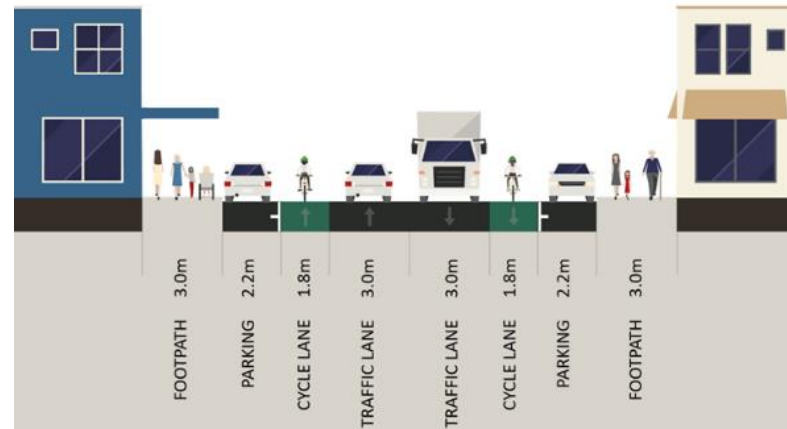
- The central part of the street will be shared space with a one-way traffic zone, this part of the streets will tie together the future pedestrian lanes



### Cass Street

(Havelock Street to Moore Street)

- Cycle lanes and parking on both sides, a kerb buildout somewhere between Tancred and Burnett Streets depending the final Eastfields site layout



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## Street

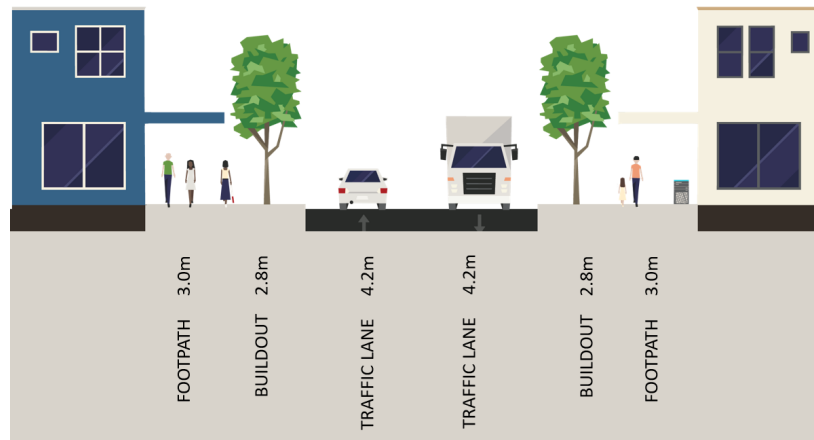
## Recommended cross-section design

## Artist impression of the design

**Havelock Street**

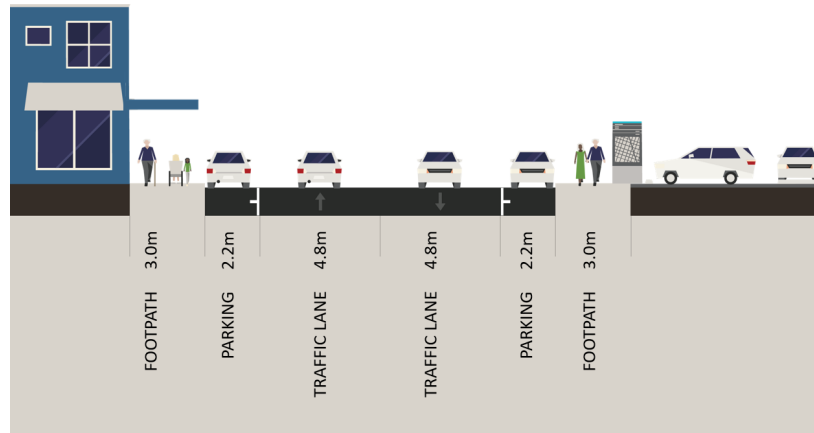
(East Street to Cass Street)

- Current layout but with two kerb buildouts to provide landscaping and pedestrian crossing locations, one near to the east of the Baring Square intersection and one between this and the Cass Street intersection

**Moore Street**

(East Street to Cass Street)

- Current layout but with a kerb buildout mid-way along the block to provide landscaping and pedestrian crossing location



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***Appendix A Existing transport layout***

***Appendix B Safety assessment***

***Appendix C Parking map***

***Appendix D Proposed transport layout***

# 1. Introduction

## 1.1 Aim of the project

Ashburton Town Centre is experiencing redevelopment and the Ashburton District Council (ADC) wishes to support investment in the town centre and encourage revitalisation of the town centre core also known as the Central Business District (CBD).

The aim of the revitalisation project is:

*To utilise Ashburton's current strategic framework to guide improvements and future developments for the revitalisation of the CBD, integrated with a master plan for the streetscape and a review to determine the parking demand and supply for the CBD. A viable and vibrant Ashburton Town Centre is critical if the Council is seeking to reinforce the primacy of the town centre, reclaim retail spend and attract businesses back to the commercial centre.*

The project objectives are:

1. *To further develop the Ashburton Town Centre Concept Plan.*
2. *To create a pedestrian friendly environment which encourages transport choice within the CBD.*
3. *To review the Parking Strategy Plan for currency.*
4. *To identify projects that take into account long term Council and community needs, asset renewals, proposed future development in the area, impacts on the local residents and businesses, and the needs of the wider community.*
5. *To guide decisions with respect to the use and development of existing Council-owned land.*
6. *To develop a CBD Streetscape Renewal within the agreed timeframe and budget.*

As per Objective 6 a project has been set up to progress the development of streetscape upgrades to support the revitalisation of the CBD. The streetscape project however requires consideration of the other objectives to ensure an integrated project, particularly Objective 2. The Parking Strategy review is being undertaken in parallel with the streetscape renewal project and concluded that the 2011 Parking Strategy is not current. The review recommended that a revised strategy be developed for the district or at least the CBD to support the streetscape project.

ADC commissioned Abley Transportation Consultants Limited (Abley) to undertake a review of the streets in the Ashburton CBD (see **Figure 1.1**) and propose concept designs.

This report outlines the project background, the current environment, the opportunities and challenges this project presents, the street design objectives and proposed street design cross sections.

Section 7 provides a commentary on the elements that make a streetscape, this is background to the option development. Sections 8 to 14 outline the options for each of the street, assesses these against the design objectives and identifies a preferred option for each street.

Section 15 outlines a parking management plan for the CBD and the final section outlines the recommendations.

The project has involved workshops with ADC staff and the Town Centre Working Group. Further stages of the project will involve consultation with the wider community.



## 1.2 Scope of the project

The project area is shown in **Figure 1.1**, this is considered the retail core of the CBD and generally includes the streets with the highest pedestrian movement. Potential laneway connections between the streets will also be considered.

Development projects currently planned within this area include a number of site rebuilds and the following three largescale developments:

- A new Ashburton District Council office and library will be established on the site at the corner of Havelock Street and Baring Square (east).
- The Eastfield precinct in the Burnett, Cass and Tancred Street block includes plans for a medical centre, a hotel, a range of retail and commercial businesses, and a selection of hospitality offerings, public spaces connected to the adjacent streets by laneways and a car park.
- The Ashburton Club and MSA site between Burnett Street and Havelock Street will be also redeveloped.

The streets are laid out in a grid however they are oriented north-south and east-west. For the purposes of this report the orientation descriptions have been simplified as shown on Figure 1.1, rather than using north-east etc as this will result in lengthy descriptions.

**Figure 1.1**  
Ashburton CBD  
street renewal  
scope



## 2. Background

### 2.1 CBD specific background plans and studies

#### Ashburton Town Centre Concept Plan (2009)

The Ashburton Town Centre Concept Plan was initiated as part of delivering the Ashburton Development Plan (adopted by Council in 2005). The Concept Plan was prepared by Boffa Miskell and the output was a Final Draft Report. The development of the plan involved two days of public consultation.

The Concept Plan set a broad framework for improvement but acknowledged that it would need to take effect over many years and have the flexibility to accommodate a range of new initiatives (only some of which were known at that time). The key Concept Plan objectives relevant to the streetscape renewal project are:

- *Connections between places (physically and visually) – improving walking and cycling convenience and encouraging movement between common destinations, from east to west and other parts of the town.*
- *Managing traffic and parking demand – by improving the pleasantness of busy streets and slowing traffic through the core of the town centre. Providing parking in convenient locations for visitors and commuters, while prioritising street design to encourage people to walk and cycle within the town centre.*

The Concept Plan proposed an implementation plan that included a range of key projects as shown in **Figure 2.1**. The relevant street renewal projects included the upgrade of streets in the core, improving laneways and the creation of gateways.

**Figure 2.1** Town Centre Concept Plan - Proposed Implementation Plan





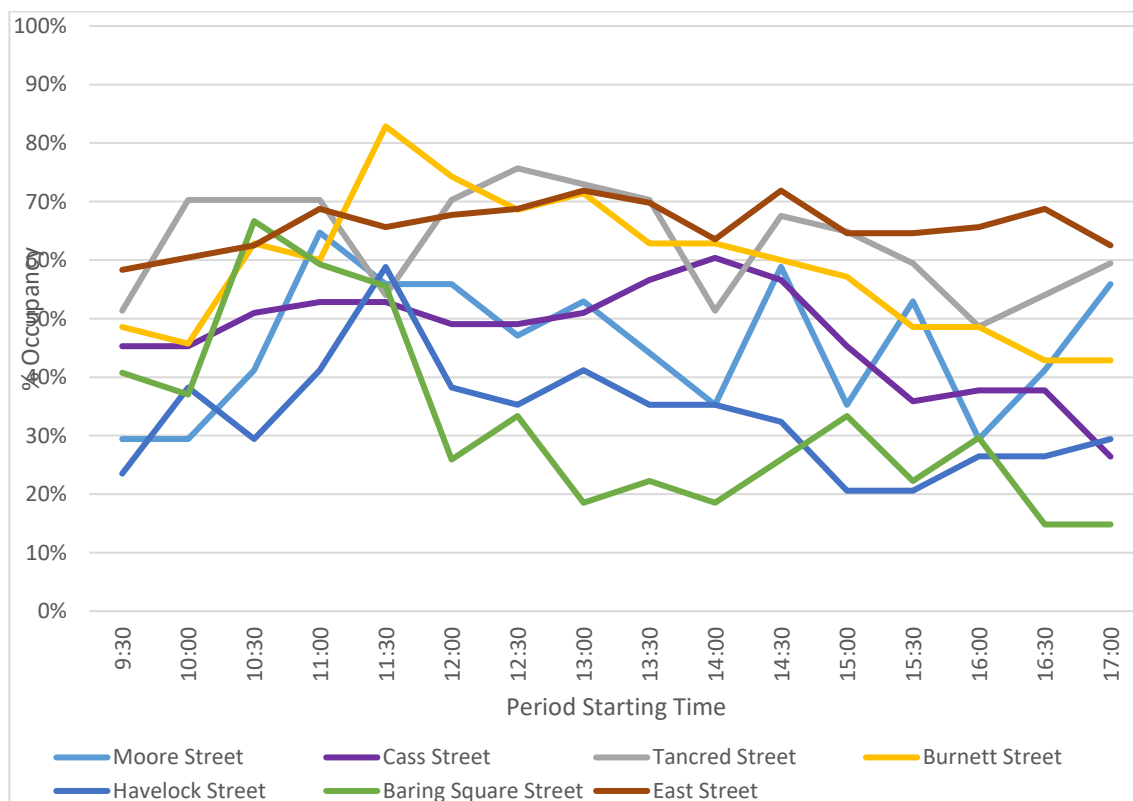
## Parking Survey (2017)

Abley undertook a parking survey of key streets in the CBD in November 2017 to better understand the level of parking occupancy and turnover. The survey helped to inform this streetscape renewal project and the review of the 2011 Parking Strategy. The key findings of the parking survey relevant to the streets are:

- Average parking occupancy of the on-street parking spaces was 49% across the 8-hour survey period.
- On-street parking demand varies significantly across the day whereas the off-street parking occupancy was consistent up to 4pm. Tancred and Burnett Streets had the highest occupancy rates while Baring Square and Havelock Street were the least occupied.
- No vehicles were recorded parking in the mobility or taxi spaces on Burnett Street throughout the survey, however a vehicle could have parked there for less than 30 minutes whilst the surveyor was completing the survey of the zone and it would not have been recorded, this is a limitation of the survey method.
- The peak combined on-street parking occupancy (60%) across the study area was recorded in the 30-minute period between 11:30am and 12pm.
- 9% of the vehicles parked within the time restricted parking spaces were found to be not complying with the corresponding time restrictions (excluding East Street).
- 5% of the vehicles parked in East Street 60 minute spaces were not complying with the time restriction.
- 29% of the vehicles parked in East Street 10 minute spaces were not complying with the time restriction.
- 5.5% of vehicles moved between close by on-street spaces throughout the survey period (excluding East Street).

**Figure 2.2** shows the variability of occupancy of the on-street spaces by street throughout the survey period.

**Figure 2.2**  
Ashburton CBD  
on-street parking  
occupancy



## 2.2 District wide relevant documents

### District Plan

The District Plan zoning for the CBD is 'Business A Zone'. The Plan envisages that *"Although providing for a range of accommodation, community and commercial uses, the Business A Zone provides principally for small scale retail activity. In this area, shop-top apartments (residential activities above retail and commercial activities) rather than detached residential units will be encouraged. Residential activities will not be promoted at ground level to ensure the strong retail character of the town centre is retained. If managed effectively, this mix of activities can retain the vibrancy of the town centre as permanent residents will utilise local services and can assist in keeping the area 'alive'; whereby there is continual activity created by both the retail and residential elements. Although it is acknowledged that many trips to and from the commercial centre of Ashburton will likely involve private vehicles, retailing activities that are strongly vehicle oriented are discouraged from the Business A Zone in that location. The emphasis is on maintaining and enhancing an environment that, whilst accessible, is safe, attractive and convenient for the pedestrian."*

The relevant District Plan objectives and policies to consider in this project are:

- **Objective 5.1: Business Area Development and Effects** *Growth, maintenance and consolidation of business areas, provided that adverse effects on the environment are avoided, remedied or mitigated.*
- **Objective 5.2: Qualities of Business Areas** *Business areas that are pleasant places to visit and work within*
- **Policy 5.1A** *Maintaining and enhancing the function, integrity, convenience and viability of the inner commercial areas of Ashburton.*

Within the Business A Zone no building setback is permitted. This means that all buildings are required to be built up to the street boundary and reflects the Council's desire to maintain the traditional appearance of the District's main shopping areas and a continuous vista along its main streets. It also ensures that continuous veranda coverage, where it is required, is able to be achieved. This provision also contributes to a sense of enclosure which defines this zone as a focal point of activity. Continuous frontage also maximises the accessibility and convenience of shops and services to the public.

In the Business A Zone of Ashburton only (the CBD area), no on-site car parking is required except for residential activities. Where on-site car parking for the convenience of persons working or living on-site is proposed, it shall be provided to the rear of any building(s) on the site and all required loading spaces shall be provided at the rear of building(s) on the site.

### Ashburton Transportation Study (2008)

Transit New Zealand (now NZTA) and ADC commissioned the Ashburton Transportation Study (Opus, 2008) to identify present and future transportation demands within the Ashburton study area for the 20 year period through to 2026, and to recommend measures to optimise the performance of the land transport system within Ashburton township.

Consultation identified a range of issues such as conflicts between State Highway 1, through traffic and local needs; concern for pedestrian and cyclist safety; promotion of active forms of transport, including cycling and walking; intersection and roundabout inefficiencies; State Highway 1 Ashburton River Bridge capacity and safety; need for alternative route for 'passing through' traffic, particularly trucks; Tinwald traffic problems; lack of public transport; street parking issues; and impacts of trains and shunting in the town.

The following principles were developed:

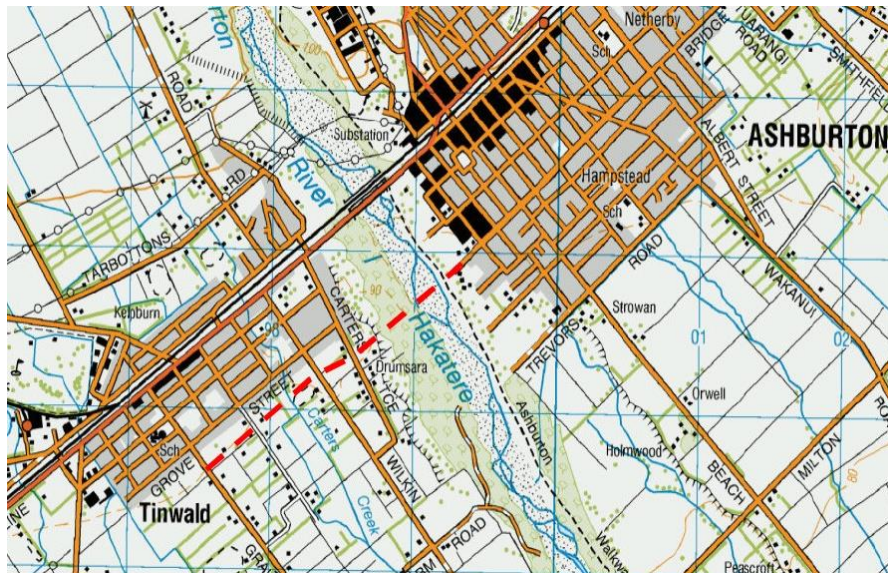
- *Principle 1: Provide an integrated approach to land use and transportation planning so as to minimise the adverse effects of one on the other;*
- *Principle 2: Provide safe and efficient access to SH1 at Tinwald;*
- *Principle 3: Encourage and enable safe use of alternative modes such as walking and cycling;*
- *Principle 4: Provide a “ring” route encompassing Oak Grove, Walnut Avenue, Chalmers Avenue, a new Ashburton River bridge, and a link to Tinwald;*
- *Principle 5: Improve links between road and rail for freight operations*
- *Principle 6: Reduce side friction and conflict between through and local vehicles on State Highway arterials; and*
- *Principle 7: Provide safe and efficient access to North East Ashburton Business Park and the Riverside area.*

The study then developed a range of options to address the principles and it appears that some of these were modelled. Traffic modelling indicated that traffic volumes on key routes throughout Ashburton were likely to increase significantly by 2026. This was expected to result in significant congestion and delays at a number of locations, including the existing Ashburton River bridge and the intersection of SH1 with Moore Street (SH77). The key project that emerged from the study was the need for a further work into where a new bridge over the Ashburton River would be best located.

### ***Ashburton 2nd Urban Bridge - Options Assessment Report (2013)***

The study investigated a range of options to cross the Ashburton River and the preferred option was a new bridge as shown in **Figure 2.3**. This connected Chalmers Ave in the east to a new road link to the west in Tinwald.

**Figure 2.3** Second bridge and access routes as shown in the Notice of Requirement



Vehicle number plate surveys undertaken in 2006, and repeated again in 2012, confirm that the bulk of the traffic on the existing bridge during peak times is local traffic between Tinwald and Ashburton. Less than 30% of the traffic is “through traffic” on SH1. It was identified that physical construction of the bridge would not be required until approximately 2026, at which time traffic congestion on the existing bridge is expected to reach a point which justifies the need for a second bridge. Traffic modelling indicated that up to 14,000 vehicles per day (vpd) are likely to use a second bridge by 2026, with between 5 and 10% expected to be

heavy goods vehicles (HGV's). This traffic is likely to distribute amongst side roads to the north and south of the bridge and is expected to result in an overall reduction in total average travel time for all vehicles in the Ashburton urban area.

This project is in the preliminary planning stages. Council has budgeted \$300,000 for land designation in 2012/13, with a resource consent application in 2020/21 – 2021/22. Current plans are for the bridge to be constructed by 2026. No significant construction expenditure will be incurred in the coming ten years.

### ***Walking and Cycling Strategy (2008)***

The long-term vision of the strategy is “*Walking and Cycling Unlimited: More people, more active, more often*”, the objectives to support this are:

- *To develop safe walking and cycling facilities and environments*
- *To provide an effective network that ensures accessibility and connectivity*
- *To increase the number of people walking and cycling*
- *The ADC to provide leadership in the advocacy of walking and cycling in the District*
- *To promote walking and cycling as safe, healthy and active modes of transport and recreation for the community and visitors*
- *To improve the physical environment through reduced use of motorised transport*

A range of methods were developed for the implementation of the strategy. The CBD street renewal has the potential to help implement some of these methods, e.g. infrastructure is considered best practice, end of trip facilities are provided at key locations and direct walking routes.

A network plan was developed in the strategy and this identified areas of high demand, such as schools, town centres, places of employment, and tourist attractions. In addition to the existing routes at that time new routes were proposed and consisted of two route types:

- *Principal routes: the main walking and cycling routes in the Ashburton Urban Area;*
- *Feeder routes: the walking and cycling routes used to access the principal routes; and*

Development of the new routes has not progressed significantly since the strategy was developed however the CBD streetscape project offers the opportunity to identify which of the proposed routes would help connect the CBD to the wider town.

### ***Parking Strategy (2011)***

In 2010 Opus International Consultants were commissioned to update the Parking Strategy that was initiated in 2008. The resulting document stated that “*This report has been carried out to investigate the recommendations of the Central Parking Working Group report which identified current and future issues relating to parking in Ashburton’s business areas and suggested a range of solutions*”.

The goals, and the options identified to meet the goals were:

#### ***(a) Improve short-term parking for the Inner CBD East;***

*The following options have been identified to improve short term parking in the Inner CBD East:*

1. *Encourage modal shift towards cycling and walking through travel demand management reducing the number of cars visiting the area*
2. *Introduce one-way streets on Tancred Street and Burnett Street and incorporate angle parking allowing additional restricted parking spaces*
3. *Time restrict all parking in the existing West Street car park and relocate the existing long term parking elsewhere*

**(b) Minimise long-term parking in residential streets, the Outer CBD East and Outer CBD West;**

*The introduction of parking restrictions has been identified as an option to remove long term parking from the Outer CBD.*

**(c) Improve Mobility Impaired parking.**

*Locating an appropriate number of mobility parking spaces in locations to suit demand has been identified as an option to improve mobility impaired parking.*

A review of the strategy was undertaken in parallel with this project.

## **Council Policies and Bylaws**

### **Use of footpath for alfresco dining (2017)**

In Ashburton businesses owners can apply for a licence from Council to occupy the footpath. The area applied for can only be the area fronting the applicant's premises. The position of the dining area must ensure that a clear passage of two metres wide in a generally straight alignment is available to allow movement of pedestrians. This can be from the edge of the existing building to the proposed occupied area, or from the edge of the proposed occupied area to the kerb, or between two occupied areas. A wind/safety barrier is required where an occupied area is situated adjacent to the carriageway or kerb. The form and construction must be suitable for functional requirements, including prevailing weather conditions.

The use of car parks directly in front of the applicant's business, for the use of alfresco dining, will be considered by Council on the location and merit of each proposal.

### **Advertising Signage in Public Places Bylaw (2017)**

In Ashburton sandwich board signs are subject to a bylaw allows retailers and business premises to advertise their business by means of portable display boards in the immediate vicinity of their premises without having to seek the written permission of Council in each individual case. However, such advertising should not obstruct public thoroughfares or present an obstacle to the public, including disabled persons.



## 3. Description of current environment

### 3.1 Layout

The CBD streets are laid out in a grid around blocks that are 200m long by 100m wide. East Street is the western perimeter street and Cass Street is the eastern perimeter street. Moore Street, Tancred Street, Burnett Street and Havelock Street run between East Street and Cass Street. Baring Square (east) runs between Havelock Street and Cameron Street. All streets are two-way flow and subject to a speed limit of 50km/hour. **Appendix A** provides an overview of the transport layout including the road hierarchy, intersection types and pedestrian crossing locations and types. Each street is described in more detail in sections 7 to 14.

The railway corridor is located between East Street and West Street (State Highway 1). Access from the west is via traffic signals at Moore Street and Havelock Street. There are two pedestrian level rail crossings between East Street and the West Street car park, as shown in **Figure 3.1**.

**Figure 3.1** Rail level crossing between East Street and the West Street car park



Apart from the traffic signals at Moore Street and Havelock Street most of the other intersections are priority controlled (Stop or Give way), except for the Cass Street-Havelock Street intersection which is a roundabout as shown in **Figure 3.2**.

**Figure 3.2** Cass Street-Havelock Street roundabout



## 3.2 Safety

A safety assessment of the project area was undertaken to establish any trends. This involved all reported crashes between 2007 and 2017 (as of November 2017) being extracted from the NZ Transport Agency's Crash Analysis System (CAS). An overview of the recorded crashes is shown in **Appendix B**, this shows that there have been no deaths or serious injuries in this area over the last 10 years.

Using the Urban KiwiRAP process <sup>1</sup>(which provides a nationally consistent measure of road safety performance), no high-risk corridors or intersections were identified within the project area. The crash analysis did however highlight that the stop and give-way controlled intersections had a high number of non-injury and minor injury crashes compared to the Cass Street roundabout. This and observations made during the site visits indicate that drivers do struggle with the stop and give way intersections, particularly if there is a zebra crossing close to the intersection.

## 3.3 Parking

The CBD area includes on-street and off-street car parking areas (public and private), some spaces are time restricted and some permit all day parking. **Appendix C** includes a map of the parking restrictions.

There are two off street car parks on the edge of the CBD, the West Street car park and the Burnett Street car park. The West Street car park includes 144 all day parking spaces and 84 car park spaces with a 2 hour time limit. The Burnett Street car park includes 35 all day parking spaces.

All of the 310 on-street car parking spaces in the project area are subject to a time or class restriction. The most common on-street time restriction is 60 minutes. Parking charges apply to 50% of on-street parking spaces and this is collected via individual parking meters in the footpath as shown in **Figure 3.3**. The East Street parking spaces are 1 hour free parking and are monitored by inground sensors (Smarteye) to aid enforcement of this restriction. Pay and display machines are located on East Street but these are not currently operational. The majority of off-street parking spaces are unrestricted (68%) with the remainder subject to a 120-minute time restriction.

**Figure 3.3** Parking meters for each parking space



<sup>1</sup> <http://www.kiwrp.org.nz/>



### 3.4 Public spaces

Within the project area there are several public spaces. Baring Square is a public space adjacent to Baring Square (east), it features the clock tower, water features and a war memorial. There are also public spaces/features located on the west side of East Street in the greenspace between the street and the railway reserve. The public toilets and recently closed information centre are also within this space between the street and the railway reserve.

The space opposite the intersection of Burnett Street is known as the checkerboard and is shown in **Figure 3.4**. The space has potential to be enhanced as it has not been upgraded for many years.

**Figure 3.4** The Checkerboard



The space opposite the intersection with Tancred Street includes a water feature as shown in **Figure 3.5**.

**Figure 3.5** Water feature on East Street



Both of these areas would need to be redesigned if a cycle connection was to be created in this space parallel with East Street.

## 4. Opportunities

**Table 4.1** outlines a range of opportunities that the streetscape renewal project presents.

**Table 4.1**  
*Opportunities  
presented by the  
Streetscape  
Renewal Project*

Aspect	
<p><b>Integrate with adjacent developments</b></p> <p>Currently a number of sites are due to be redeveloped. Some of the development plans are available and these can be considered to ensure integration with the streetscape.</p>	
<p><b>Improve pedestrian connections</b></p> <p>Some connections between streets currently exist but these are informal and not particularly attractive. There may be opportunities to collaborate with land owners to formalise and upgrade the connections.</p>	
<p><b>Cater for mobility impaired</b></p> <p>Moving around the CBD can be challenging for mobility impaired people. For example, the footpath can be cluttered and crossing the road can be difficult. Better management of the footpath space and consideration of crossings are key opportunities.</p>	
<p><b>Provide pleasant spaces to linger</b></p> <p>Spaces near the current zebra crossings provide seating, however the areas are cluttered and not very attractive due to out dated street furniture and rubbish bin positioning.</p>	



## Aspect

### Address some existing safety issues

Some priority intersections have a crash record, albeit generally resulting in non-injury and minor injuries. This project presents the opportunity to address the safety issues through redesigning the intersections.

There may also be an opportunity to upgrade the rail pedestrian level crossings to the latest design standards.



### Utilise existing landscaping where possible

There are existing street trees that are attractive and provide shade, there are opportunities to retain these if they are in good condition. Low level landscaping in planter boxes may not be worth retaining.



### Co-ordinate with asset renewals

The kerb on many of the streets is old dish channel that will require renewal in the future. The consideration of stormwater management can also be made. Other assets such as watermain may also be renewed in co-ordination with the streetscape renewal project.



### Supporting active modes

There is opportunity to design the streets to support cycle movement throughout the CBD.

Currently bicycle parking is provided inconsistently, both in style and positioning. Old style 'wheel benders' on East Street are located in the parking lane requiring people to put their bike at risk of being hit by vehicles. There is an opportunity to locate single stands around the CBD to reflect that people have a range of destinations and require convenient bicycle parking.



## 5. Challenges

**Table 5.1** outlines a range of challenges and issues that the streetscape renewal project presents.

**Table 5.1**

*Challenges that the need to be considered in the Streetscape Renewal Project*

### Issue/challenge

#### Business servicing needs to be retained

Deliveries to businesses need to be considered. Some require larger vehicles than others for this servicing. Any street design needs to ensure access and appropriate space is provided for these current activities and those anticipated by the re-developments.

The current practice of double parking by courier drivers will also need to be considered.



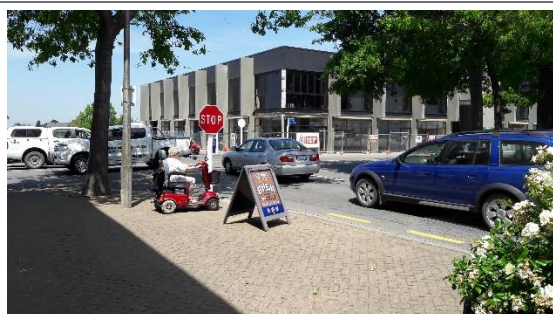
#### Parking expectations need to be managed

Some customers expect to be able to park directly outside their destination. Some design options may impact parking supply and location. This expectation will need to be managed by ensuring alternatives are available, albeit a short walk away. Making the streetscape attractive will improve the walking environment.



#### Integration of the works with wider street network

The CBD street renewals will need to be integrated with the wider street network, this will require transition treatments. The cycle network connections to the CBD will require consideration however this is difficult when the wider network is still under development.



### Issue/challenge

#### Retaining trees already causing root damage

Tree roots can uplift the adjacent footpath. This has occurred in a number of locations around the CBD and can cause a trip hazard. Retaining trees will require careful consideration of surface materials and construction methods.



#### Retaining verandas important

Verandas over the footpath are a key part of the CBD character. Most are cantilevered and some have poles. The cross section design needs to ensure that verandas are not adversely impacted, which may occur if the footpath was narrowed.



#### Varying levels

The design of streets needs to consider the adjacent site levels to ensure aspects such as stormwater management do not have an adverse impact on land beyond the road reserve.



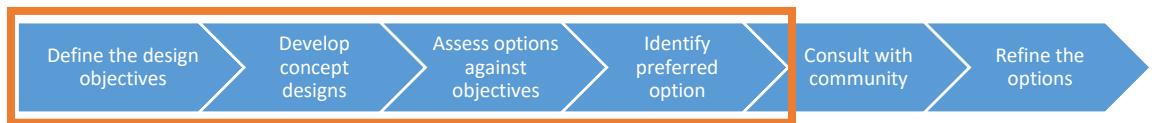


## 6. Design objectives and principles

### 6.1 Design objectives

The design process involves a number of key steps as shown in **Figure 6.1**. This phase of the project includes the first four steps.

**Figure 6.1** Outline of design process



The overall design objectives are, that the streets should:

- *Create a streetscape that attracts people to the CBD and provides a place where people can linger.*
- *Facilitate safe and user friendly pedestrian movements (along and across the street).*
- *Facilitate safe and user friendly bicycle travel (to and through the CBD).*
- *Facilitate safe motor vehicle movements.*
- *Ensure business access is retained.*
- *Accommodate the appropriate level of on-street servicing (deliveries, parking etc).*
- *Integrate with adjacent existing and proposed land uses.*

### 6.2 Key design principles

Two of the key overarching design principles to consider are the users needs and what should the speed environment be. These are discussed below.

#### **CBD user needs**

There are a range of people who will use the CBD streets and parking, their needs may differ as overviewed below:

- **Local people from the town visiting the CBD to shop and do business** - Safe and convenient parking (car and bike), direct and safe walking routes, space to linger.
- **People from further away visiting the CBD to shop and do business** – Good wayfinding, easy to find, safe and convenient parking direct and safe walking routes, space to linger, easy to use parking payment options.
- **People working in the CBD** - Safe and convenient parking (albeit they will be prepared to walk further than visitors) direct and safe walking routes, good street lighting for hours of darkness when they arrive early/ leave late, space to have lunch outside.
- **Non local people traveling through Ashburton** - Good wayfinding, easy to find, safe and convenient parking direct and safe walking routes, space to linger, easy to use parking payment options.
- **Mobility impaired and elderly-** Mobility parking, clear walking routes, easy to use parking payment options.

## *Speed environment*

An overarching design consideration is the vehicle speed environment. Currently the project area is part of the urban 50km/hour speed limit zone. During the working day speeds will generally be lower than 50km/hour due to the circulating traffic and parking manoeuvres. The new designs will encourage low speeds (30-34km/hour) at all times of the day as this supports the design objectives. A revised posted speed limit could be considered to further support this.

The NZ Transport Agency's Speed Management Framework<sup>[2]</sup> was used to assess the appropriateness or otherwise of various speed limits for the Ashburton CBD streets. The framework sets out safe and appropriate speed ranges taking into account road function, design, safety and use. For urban roads with high numbers of pedestrians and cyclists speeds can be lowered from 50km/hour to 40 or 30km/hour depending on place function. For CBD/town centre environments with a 'high place function' 30km/hour is considered a safe and appropriate speed. This can be further lowered to 10km/hour for shared spaces.

Many centres around NZ are adopting lower speed limits for their CBD areas. Christchurch for example has created a slow core and applied a 30km/hour speed limit to this area. Gateway treatments with signage and road surface treatments define the area as shown in **Figure 6.2**.

**Figure 6.2**  
Example  
30km/hour  
gateway treatment



<sup>[2]</sup> <https://nzta.govt.nz/safety/speed-management-resources/>



## 7. Streetscape elements

### 7.1 Overview

The streetscape is made up of elements that are contained within the legal road reserve and those adjacent to the road, such as the buildings and landscaping. These combined elements define a street's character. This work focuses on the elements within legal road reserve that reflect how the street is intended to function, acknowledging that the interface with adjoining land uses including property access, need to be considered in the streetscape design.

The existing road reserves in the CBD are 20m wide. East Street is adjacent to a 15m reserve so is considered as a potentially 35m wide space for this project. This chapter discusses how the following streetscape elements influence the cross section development and overall layout:

- Pedestrian movement
- Bicycle movement
- Traffic lanes
- On-street parking
- Landscaping
- Shared space
- Gateways

### 7.2 Pedestrian movement

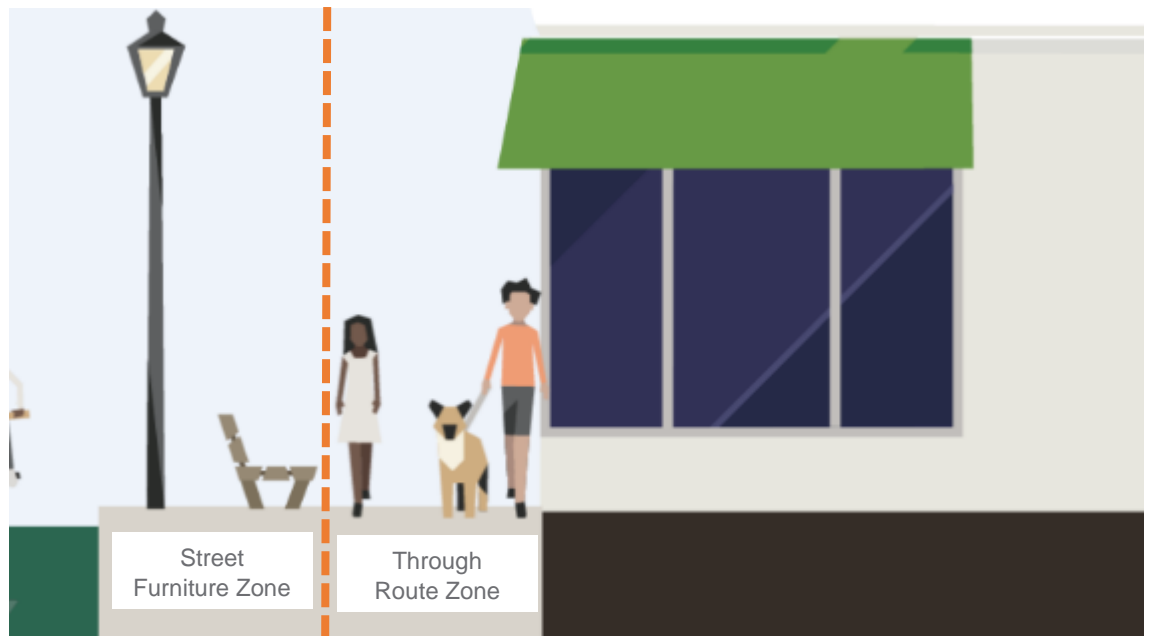
All streets in the CBD provide an important walking connection through the town centre, as well as providing access to adjacent activities (on both sides of the street). The streetscape design therefore needs to cater for pedestrian movement along and across the street, including crossing side roads.

This section focuses on the footpath (movement of pedestrians) element of the streetscape, however it is acknowledged that an enjoyable walking experience is influenced by many factors (e.g. changes in footpath grade, footpath material, proximity to moving vehicles, crossing types and location etc.).

It is important to recognise that in town centre environments street furniture, including sandwich board signs, are more prominent than in residential areas and sufficient footpath width needs to be provided to ensure that a clear route is available for pedestrian movement. The concept of street furniture zones and through pedestrian route zones is introduced in **Figure 7.1**.

In Ashburton sandwich board signs are subject to the Advertising Signage in Public Places Bylaw 2017. The bylaw requires that such advertising should not obstruct public thoroughfares or present an obstacle to the public, including disabled persons. The general exemption is granted to allow signs to be displayed up to 600mm from the legal boundary or up to 600mm from the adjacent kerb. In all cases a clear pedestrian access way not less than 2 metres wide is to be retained. Signs displayed on public thoroughfares shall not exceed 1.2 metres in height or 650mm in width and shall be located so as not to interfere with street furniture or fittings or with the opening of car doors in parking metered areas.

**Figure 7.1**  
Footpath Layout



The Pedestrian Planning and Design Guide (NZTA, 2007) contains pedestrian levels of service (LOS) guidance for footpaths. The LOS can be described simply as the ease of ability to move through a system or network, with LOS A indicating free and unimpeded pedestrian movement and LOS F indicating delayed and interrupted movement, similar to that experienced when leaving a large event.

Pedestrian Planning and Design Guide Table 14.3 covers the maximum pedestrian volumes for different through route widths that would result in LOS B. These can be considered minimum widths that apply to typical pedestrian flow conditions. Generally wider street furniture zones are required in areas with high adjacent vehicle speeds and volumes, and wider through route zones are required in areas with higher pedestrian volumes or with a high number of pedestrians stopping on the footpath. A 'through route' is the footpath space where pedestrians normally choose to travel and should be kept clear of obstructions at all times. This clear space is particularly important for visually impaired people, a meandering clear space is not appropriate for this reason. The overall footpath width is a function of the land use, for example if there is a lot of outdoor dining anticipated a wider footpath would be desirable. On street parking can also be removed in order to accommodate localised footpath widening for outdoor dining, either permanently or temporarily. **Figure 7.2** shows an example of where a car park is used as outdoor dining by installing a moveable enclosure that also incorporates planter boxes. This layout can be moved to another location if the building use changes over time.

**Figure 7.2**  
Example of  
moveable outdoor  
dining area within  
the parking lane  
(Richmond)



In Ashburton the use of car parks directly in front of the applicant's business, for the use of alfresco dining is provided for through policy and will be considered by Council on the location and merit of each proposal. In the CBD there are only several locations where outdoor dining areas have been created. This includes Burnett Street at the Cass Street intersection narrowing and on East Street within a kerb buildout at the intersection of Tancred Street as shown in **Figure 7.3**.

**Figure 7.3**  
Outdoor dining  
area on East  
Street



For the CBD it is considered that the minimum footpath width and through routes should be:

- Key streets – 3m footpath, 1.8m through route
- Other streets – 2m footpath (no veranda), 3m footpath (with veranda), 1.5m through route

## 7.3 Bicycle movement

There are four main ways to cater for cycling within the road reserve:

- Sharing the traffic lane with other traffic,
- On road cycle lanes,
- Physically separated cycle facilities (within the road), and
- Off road paths.

These are outlined below in more detail. For Ashburton sharing the traffic lane, cycle lanes and a potential shared path in the reserve adjacent to East Street are considered appropriate treatments. Separated cycle facilities are not considered appropriate as discussed below.

### *Share the Traffic Lane with other traffic*

This treatment creates a street environment where the cyclist shares the traffic lane with motor vehicles. This can either be when the cyclist and motor vehicles can travel side by side and therefore a lane width of 4.2m or greater is required, or when motor vehicles follow the cyclist in the traffic lane or make a proper overtake manoeuvre. The latter is only considered appropriate when the following conditions apply:

- The traffic lane is no more than 3.0m wide and traffic volumes are low (below 2,000 vehicles/day),
- Traffic must operate at slow speeds (30km/h or less),
- There are low servicing and access requirements for the adjacent land use, and
- The treatment is over short lengths, approximately one or two blocks, longer distances may evoke driver impatience as most cyclists will be travelling at speeds around 20 km/h.

It should be noted that even with the right conditions it may be off putting for inexperienced cyclists to share a 3.0m wide traffic lane, particularly if the lane is directly adjacent to a high turnover parking lane. The important aspect of sharing the lane is that traffic lane widths of between 3.0m and 4.2m should be avoided. These widths result in an unsafe arrangement where cyclists are 'squeezed' due to traffic overtaking within the same lane when there is insufficient width for this to occur safely.

'Sharrow' markings can be useful for indicating to cyclists and drivers that cyclists are expected to take a central position within a shared narrow lane. These markings have been trialled in New Zealand and approved as a legal traffic control device in December 2016 and are shown in **Figure 7.4**.

**Figure 7.4**  
Example of narrow lane widths with sharrow markings (Hardy Street, Nelson)





**Figure 7.5** shows an example of a wide traffic lane that allows sufficient space for cyclists and cars to travel side by side.

**Figure 7.5**  
*Example of wide traffic lanes allowing cyclists and vehicles to travel side by side (High Street, Motueka)*



The CBD streets all currently have wide traffic lanes (greater than 4.2m).

### ***On-road cycle lanes***

This treatment involves the provision of a separate lane for cyclists that is marked between the parking or kerb and general traffic lane. There is no physical separation between the lanes as shown in **Figure 7.6**. The cycle lane surface can be coloured green to highlight conflict points, for example across side street intersections. Cycle symbols are painted along the lane at regular intervals to legalise and reinforce its use. The cycle lane width is a function of the adjacent activity. For example, the width needs to be at least 1.8m when there are parked cars adjacent to the cycle lane to allow for car doors opening. When there is no on street parking adjacent the cycle lane can be reduced to 1.6m if necessary. Cycle lanes provide cyclists with their own space in the carriageway however can still be too intimidating for inexperienced/less confident cyclists. The provision of cycle lanes adds to the overall carriageway width and therefore can induce higher traffic speeds.

**Figure 7.6**  
*Example of an on-road cycle lane (Kaiapoi)*



None of the CBD streets currently feature cycle lanes. Higher volume streets in the CBD, such as Cass Street, may be appropriate for cycle lanes.

## Separated bicycle facility

A separated bicycle facility (SBF) is a facility that is physically separated from the general traffic lane and the footpath. The separation can be kerbs, vertical flexi-posts or landscape treatments such as planter boxes. SBFs can also be two-directional and provided on one side of the road. An example of a two-directional SBF with a 800mm wide separator is shown in **Figure 7.7**.

**Figure 7.7**  
Example of a  
Separated Cycle  
Facility (Colombo  
Street,  
Christchurch)



SBFs separate people on bicycles and motor vehicles to a greater degree than a cycle lane; however they require careful consideration where bicycles and motor vehicles interact, for example at intersections.

Another consideration is the interaction between pedestrians and cyclists at bus stops, pedestrian crossing facilities and between areas of high turnover parking and the footpath. Mitigation of these conflicts is a function of how much space is available; ideally passengers should not be able to walk directly off the bus, or step out of parked cars, into the separated cycle facility.

The use of SBFs in the CBD is not considered appropriate due to the high number of pedestrians accessing car parks and crossing the streets.

## Off-road paths

Off road paths can be cycle only paths or paths where cyclists and pedestrians share the path, known as a 'shared path'.

Shared paths are allowable under the Traffic Devices Rule 11.4 if the facility is signposted in accordance with the rule. Shared paths require careful consideration as the different speeds of pedestrians and cyclists can lead to inevitable conflicts. Some pedestrians, for example older pedestrians, feel insecure walking among faster cyclists. As the volumes of all users increase, conflicts between their needs can significantly affect the quality of provision for both pedestrians and cyclists. It has also been found that some cyclists will not divert from a roadway that provides a more direct route, so paths rarely completely replace the need for on-road provision. Conflicts can be mitigated to some extent by allowing cyclists to conveniently exit the path prior to intersections. However, the best tool to address conflict is to provide a shared path of sufficient width for the expected usage (including consideration of future usage).

Shared paths along the building frontages of the CBD streets is not considered appropriate due to the high number of pedestrians moving however a shared path through the existing greenspace north of East Street may be appropriate.

## 7.4 Traffic lanes

Traffic lanes are the general lanes used by motor vehicles and in some situations also by cycles. The main variables of a traffic lane are its width and whether it is line marked. The width of a lane is generally related to its required capacity and function. The majority of streets in the CBD are Local Roads, however East Street is classified as a Principal Road and Cass Street and Havelock Street are Collector Roads.

Other considerations when determining the width include the situation adjacent to the lane, for example, whether it is next to a cycle lane, parked cars or kerb. This is particularly important when considering how emergency services might travel through congested conditions, e.g. are the other vehicles able to move to the side allowing space for a fire truck to proceed. Speed is also a consideration in determining the lane width but to a lesser extent in a town centre environment due to the presence of other conditions that will support a low speed environment (side friction created by on-street parking, close intersection spacing etc.). Overall the selected lane widths should ensure a safe operating environment for all road users.

Traffic lanes can be separated by a median, either flush or solid (raised). Flush medians (**Figure 7.8**) create areas for turning vehicles to move out of the traffic flow, and also a space where able bodied pedestrians can break their crossing into two stages. Wide solid medians can have turning slots added but in town centre settings are generally narrow and provide landscaping and pedestrian refuges, as shown in **Figure 7.9**.

**Figure 7.8**

Example of a flush median through a town centre (High Street, Motueka)



**Figure 7.9**

Example of planted central median (Victoria Street, Hamilton)



None of the CBD streets in the project area feature a median. There is a flush median on East Street east of Havelock Street.



Streets can be made up of traffic lanes catering for vehicle movement in each direction (two-way streets) or feature traffic lanes that only cater for one direction of travel (one-way streets). One-way streets in CBD areas are usually paired with an adjacent street to ensure both directions of movement are catered for around a block. The multi-lane one-way streets in bigger centres were introduced in the 1970s to create more efficient traffic networks, some of these systems are being converted back to two-way to reflect the place function of CBDs better. One-way streets with one traffic lane have also been created in CBD areas to allow better use of the road reserve for pedestrians and cyclists, allowing wider footpaths etc as only one lane of traffic is required. Another advantage of a one-way street, is that pedestrians only have to deal with one direction of traffic. A disadvantage is that drivers may have to drive further to reach their destination, however good wayfinding and keeping the street length short help to mitigate this (say 200m or less). It is also useful to have one-way traffic flow in shared space streets as it reduces the potential pedestrian/vehicle conflicts, as shown in **Figure 7.10**.

**Figure 7.10** One-way shared space street in Kaiapoi



## 7.5 On-street parking

On-street parking can either be parallel to the kerb or at an angle. Angle parking generally provides a greater number of parking spaces along a length of road, however requires more width than parallel parking. Angle parking can create issues for cyclists if there is insufficient space provided between the parking and the traffic lane. An example of angle parking in a town centre is shown in **Figure 7.11**.

**Figure 7.11** Angle parking (Tauranga town centre)



On-street parking lanes can provide street landscaping opportunities by incorporating trees and landscaping between parking bays, either in tree pits as shown in **Figure 7.12** or in substantial kerb build outs as shown in **Figure 7.13**.

**Figure 7.12**  
Example of street tree planting between car park bays (Tauranga)



**Figure 7.13**

Example of street trees between parking and incorporating a pedestrian crossing (Hardy Street, Nelson)



On-street parking includes spaces allocated to drop off and pick up (short term parking), loading zones, mobility parking, taxi stands and site specific activities. These types of spaces need to be catered for in the streetscape and are generally allocated when a street undergoes scheme design and can be related to the land use at that time. Mobility parking requires careful design so that is accessible, being flush with the footpath is the preferred layout of users. The kerb creates a barrier to accessibility, in Richmond's recent streetscape renewal the parking was created flush with the footpath to allow all space to be accessible as shown in **Figure 7.14**. The separating strip is concrete with an exposed aggregate finish.

**Figure 7.14**

Example of parking flush with footpath to create accessible mobility parking in any space (Queen Street, Richmond)



Parking within the Ashburton CBD is made up of public and private off-street parking and public on-street parking. There is no on-street angle parking.



## 7.6 Landscaping

Landscaping introduces visual amenity into the street environment. For this stage of the street design process it is important to identify generally where trees are currently located and could be located within the cross section. Detailed guidance on matters such as placement to ensure safe road user sightlines, address CPTED<sup>[3]</sup> principles (i.e. no hiding areas), consideration of underground services and overhead services and structures (e.g. canopies) should be developed during the detailed design stage.

Kerb build outs soften the road environment and reduce the carriageway width at regular intervals thereby helping to reduce vehicle speeds. Both methods reduce the overall car parking spaces, but provide an avenue effect due to the trees being closer to the traffic lane. **Figure 7.15** shows an example of a buildout with landscaping and a spacious seating area.

**Figure 7.15**  
Example of Kerb  
Build Out between  
Parking Bays  
(Wanaka)



## 7.7 Shared space

Shared zones aim to eliminate the segregation of road users as pedestrians also share the roadway and, as such, no formal footpaths are required. Unlike shared paths, which are just for pedestrians and cyclists, shared zones include motor vehicles as well. This approach is popular in Europe and is becoming more common in New Zealand.

The concept relies on the removal of typical street elements including line-markings, signage and kerbs, with the addition of extra street furniture such as seats, cycle parking and landscaping. This results in an intentional level of ambiguity so that drivers proceed with caution and at slow speeds. Shared zones often do not provide any specific provision for moving cyclists, as the low vehicle speeds make it easy for them to interact with other users.

In shared zones, the needs and comfort of pedestrians are paramount. People cycling and driving in shared zones are expected to act like guests, travelling in a way that is consistent with a walking pace, and are legally required to give way to pedestrians.

Shared spaces can be divided into a 'trafficable zone', an 'accessible zone' and an 'activity zone'.

<sup>[3]</sup> Crime Prevention Through Environmental Design



The 'trafficable zone' is the space where motor vehicles are encouraged to travel; this is achieved through the strategic placement of street furniture and landscaping. The 'accessible zone' is a clear space for walking; a tactile paver edge will define this zone for visually impaired pedestrians. The 'activity zone', located between the trafficable and accessible zones, is where the street light poles, seats, rubbish bins and landscaping will be contained. Cyclists and pedestrians can use any of the zones.

An example of a shared space street in NZ is shown in **Figure 7.16**.

**Figure 7.16**  
*Shared space  
street (Darby  
Street, Auckland)*



## 8. East Street

### 8.1 Existing street design

The current cross section of East Street includes one traffic lane in each direction and a centreline with double yellow lines to prohibit overtaking, as shown in **Figure 8.1**. Parallel parking is provided on both sides, it is mostly restricted to 1 hour, however there are several 10 minute spaces. There is a coach stop located to the west side, north of the Burnett Street intersection. There are shops, cafes and businesses located on the east side of the street. Most buildings have verandas that cover the footpath. East Street is classified as a 'Principal' road in the road hierarchy. These roads cater for trips of intermediate length and will generally connect to arterial roads and to collector roads. The existing traffic volume is approximately 6,000 to 10,000 vehicles per day depending on the section.

East Street has a 20m road reserve. The footpath on the east side of the street is approximately 3m wide, the footpath on the west side is approximately 1.2m wide. The traffic lanes are approximately 6m wide and the parking lanes approximately 2.3m wide.

East Street is adjacent to a 15m reserve with two rows of substantial trees either side of a path, as shown in **Figure 8.2**.

**Figure 8.1** East Street looking south



**Figure 8.2** Greenspace between East Street and the railway corridor



## 8.2 Design considerations

The following are the key design considerations identified for East Street:

- High pedestrian volume, high parking demand
- Active frontages on east side - predominantly retail with verandas
- Tree lined path and toilets on west side
- Connections to West Street car park via level pedestrian crossings
- Frequent pedestrians crossing between each side of road as parking on both sides
- Needs to provide network resilience as it is an alternative main route if SH closed
- Classification as a Principal road therefore expected to have higher traffic volumes compared to other CBD streets

## 8.3 Options

A longlist of cross section options was developed for a workshop with ADC staff. This was refined to a short list of options for further development and assessment against the design objectives. **Table 8.1** outlines the long and short list options.

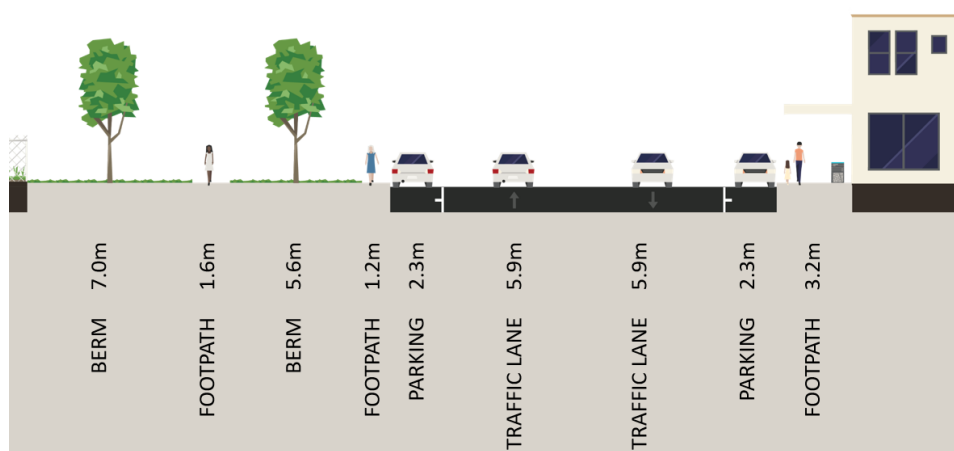
**Table 8.1** East Street cross section options

Longlist Option	Description	Any relevant discussion	Shortlist Option
1	Do minimum		A
2	Two-way, wider footpath, parallel parking both sides		B
3	Two-way, wider footpath, angle parking south side only		C
4	Two-way, wider footpath, angle parking north side.	All parking on north would require people to cross the road.	
6	Shared space street	Not considered appropriate for a street with high traffic volumes.	

### Option A - Do minimum

The do-minimum option retains the existing cross section (**Figure 8.3**) but could include improvements such as new kerb and channel to replace the dish channel, footpath resurfacing /paving, paved parking lanes and new street furniture/lighting. This cross section allows cars and bicycles to travel side by side. Drivers that pull over to then parallel park can do so without impeding the traffic flow. The footpath surfacing could also facilitate paving that defines where sandwich boards and other permitted display items can be placed to ensure a through route is retained.

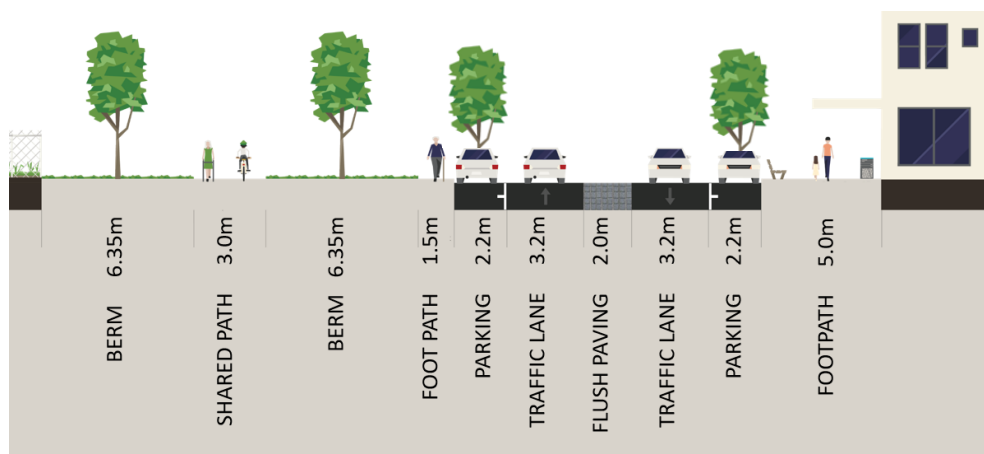
**Figure 8.3** East Street Option A



### Option B - Two-way, wider footpaths, parallel parking both sides

This option creates a wider footpath on the east side and reduces the traffic lane widths as shown in **Figure 8.4**. A paved flush central median is included to allow a central place for people crossing the road, see **Figure 8.5** for an example. This also retains extra trafficable width to move past people turning right into the side streets and recognises the classification of the road and need for use of this road if SH1 is closed. This cross section allows cars and bicycles to travel in the same lane (cyclists take the lane) but cyclists also have the option of using a widened shared path in the adjacent reserve. The flush paved median provides space for drivers who are turning into side streets or passing a cyclist. Trees can be planted in the planting lane between say every 6 spaces to help break up the overall road width, this would reduce the amount of parking by say 2-4 spaces per section of road.

**Figure 8.4** East Street Option B





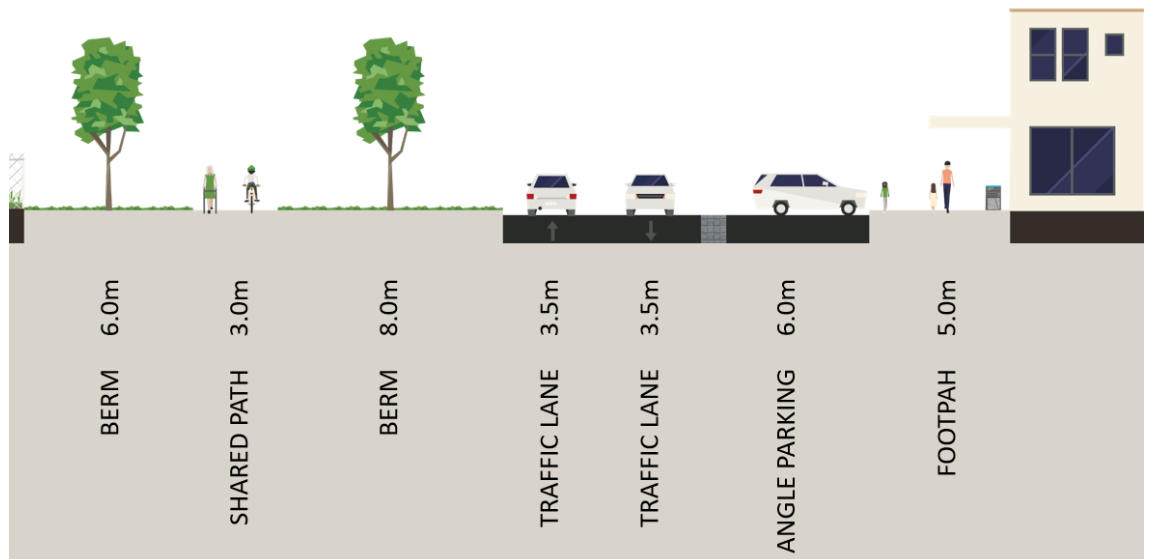
**Figure 8.5**  
Example of paved  
flush median  
(Freemantle,  
Australia)



**Option C - Two-way, wider footpaths, angle parking on south east side**

This option creates a wider footpath on the east side and reduces the traffic lane widths as shown in **Figure 8.6**. There is no parking on the west side of the street and the parking on the east side is 90 degree angle parking. The traffic lane widths recognise the classification of the road and need for use of this road if SH1 is closed however this width is undesirable for cyclists sharing with motor vehicles, the lane width could be widened to 4.2m but then may not reflect the desired lower speed environment. Cyclists also have the option of using a widened shared path in the adjacent reserve.

**Figure 8.6** East  
Street Option C



## Option assessment

Each of the above shortlisted options is assessed against the design objectives outlined in Section 6, see **Table 8.2**. The assessment is qualitative and considers the extent to which the option achieves the objective.

**Table 8.2** East Street Option Assessment

		Option			
	Objectives	A	B	C	Comments
1	Streetscape that attracts people and where they can linger	✓	✓✓	✓✓	Wider footpaths in B and C options allows for outdoor dining and 'linger nodes'.
2	Pedestrian provision	✓	✓✓	✓✓	All options have good movement provision, Option B has central crossing, Option C does not require frequent crossing.
3	Cycle provision	✓	✓✓	✓✓	Shared path in all options, travel in the road space varies. Angle parking not desirable for cyclists.
4	Vehicle movement	✓✓	✓✓	✓	A and B reflect the function of the street best.
5	Access	✓✓	✓✓	✓	Very few property accesses on this street.
6	Servicing and parking	✓✓	✓	✓	All options need consideration of potential loading zones. Angle parking may not be desirable by some by service providers. On-street parking retained, Option D will have less.
7	Integration with Land use	✓✓	✓✓	✓✓	All fairly equal in this respect.

- ✓✓✓ Exceeds the Objective
- ✓✓ Meets the Objective well
- ✓ Meets Objective
- Does not meet objective

## *Recommendation*

**Option B** is the recommended option.

An artist impression of the design is shown in **Figure 8.7**. The intersections with Burnett Street and Tancred Street will be raised paved platforms. There will be 30km/hour thresholds (gateways) located where drivers enter this part of East Street via the traffic signals at Moore Street and Havelock Street.

**Figure 8.7** East Street - recommended option



## 9. Burnett Street

### 9.1 Existing street design

The current cross section of Burnett Street includes one traffic lane in each direction and a centreline, as shown in **Figure 9.1**. Parallel parking is provided on both sides, it is restricted to 1 hour and a tariff applies. There are also two taxi spaces and a mobility space at the west end, north side. There are shops, cafes and businesses located on both sides of the street. Most buildings have verandas that cover the footpath. Burnett Street is classified as a 'local' road in the road hierarchy. The existing traffic volume is approximately 1,500 vehicles per day.

Burnett Street has a 20m road reserve. The footpaths on each side of the street are approximately 3m wide. The traffic lanes are approximately 4.8m wide and the parking lanes approximately 2.2m wide.

The intersections with East Street and Cass Street are narrowed and feature landscaping. The narrowing at East Street includes a zebra crossing. There is another zebra crossing approximately 80m south of East Street at a narrowing with street trees as shown in **Figure 9.2**.

**Figure 9.1** Burnett Street existing road layout



**Figure 9.2** Burnett Street at road narrowing for zebra crossing





## 9.2 Design considerations

The following are the key design considerations identified for Burnett Street:

- High pedestrian volumes, high parking demand
- Active frontages – predominantly retail with verandas
- Link to Tancred Street via Arcade, link to Havelock Street via lane
- Existing trees at zebra crossings and intersections
- Adjacent to Eastfields (south side) and MSA development (north side) sites

## 9.3 Options

A longlist of cross section options was developed for a workshop with ADC staff, this was refined to a short list of options for further development and assessment against the design objectives. **Table 9.1** outlines the long and short list options.

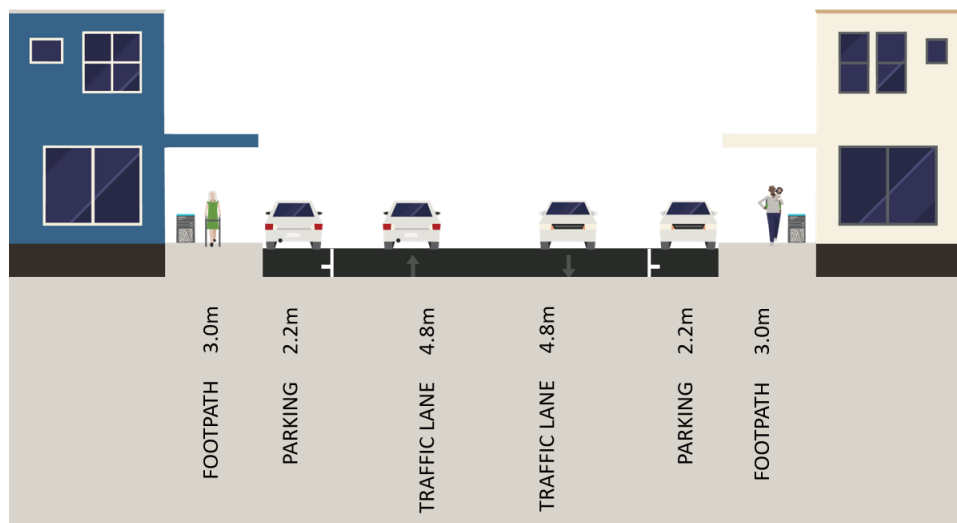
**Table 9.1** Burnett Street cross section options

Longlist Option	Description	Discussion	Shortlist Option
1	Do minimum		A
2	Two-way, wider footpaths, parallel parking both sides		B
3	Two-way, wider footpaths, parallel one side, angle other	This option is difficult to accommodate in the 20m reserve, it results in footpaths of the same width as existing.	C
4	One-way, wider footpaths, parallel one side, angle other		D
5	One-way, wider footpaths, angle parking both sides		
6	Shared space street (one-way)		E
7	Fully pedestrianised street	It is considered that the volume of pedestrians would not support a vibrant pedestrianised street, it would also have a high impact on traffic circulation and access.	
8		It was considered that Option 4 and 6 would work together along the blocks.	F

### Option A - Do minimum

The do-minimum option retains the existing cross section (**Figure 9.3**) but could include improvements such as new kerb and channel to replace the dish channel, footpath resurfacing /paving, paved parking lanes (see example in **Figure 9.4**) and new street furniture/lighting. This cross section allows cars and bicycles to travel side by side. Drivers that pull over to then parallel park can do so without impeding the traffic flow. The footpath surfacing could also facilitate paving that defines where sandwich boards and other permitted display items can be placed to ensure a through route is retained.

**Figure 9.3** Burnett Street Option A



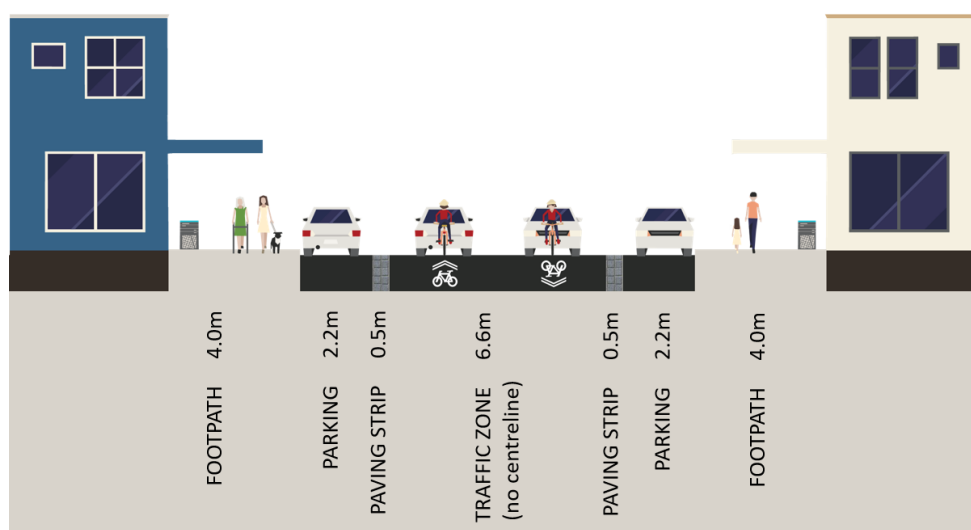
**Figure 9.4**  
Example of paved parking lane (Perth)



### Option B - Two-way, wider footpaths, parallel parking both sides

This option narrows the carriageway to allow wider footpaths whilst retaining parallel parking on both sides as shown in **Figure 9.5**. The traffic lanes would be shared by motor vehicles and bicycles and this could be communicated through the use of 'sharrow' markings as shown in the example in **Figure 9.6**. To help define the parking and create a buffer to prevent car doors opening into cyclists a paved feature strip could be created at the interface of the traffic lane and the parking lane.

**Figure 9.5** Burnett Street Option B



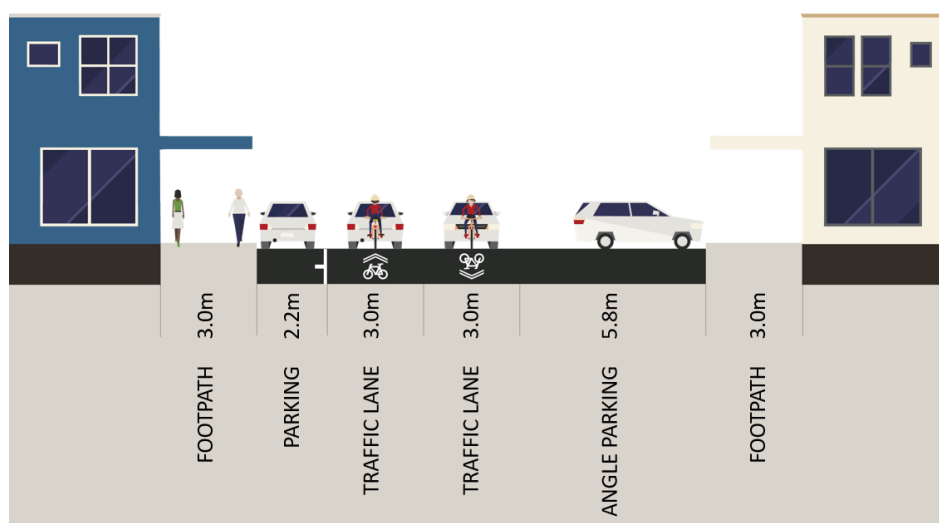
**Figure 9.6**  
Example of Option B cross section (Hardy Street, Nelson)



### *Option C - Two-way, parallel one side, angle parking other side*

This option involves retaining a two-way street. To provide 90-degree angle parking on one side of the street and parallel parking on the other side as shown in **Figure 9.7**, the footpaths need to remain 3m wide, no widening of the footpath is possible. An example of this layout is shown in **Figure 9.8**. The angle parking would be located on the north side given that the coach parking is required on the south side. Cyclists would travel in the traffic lane, a paved strip at the rear of the angle parking could be used to provide a 'buffer' to encourage cyclists to take the lane. The use of sharrow markings could also aid communication of the lane sharing.

**Figure 9.7** Burnett Street Option C



**Figure 9.8**  
Example of two-way street with parallel and angle parking (Christchurch)

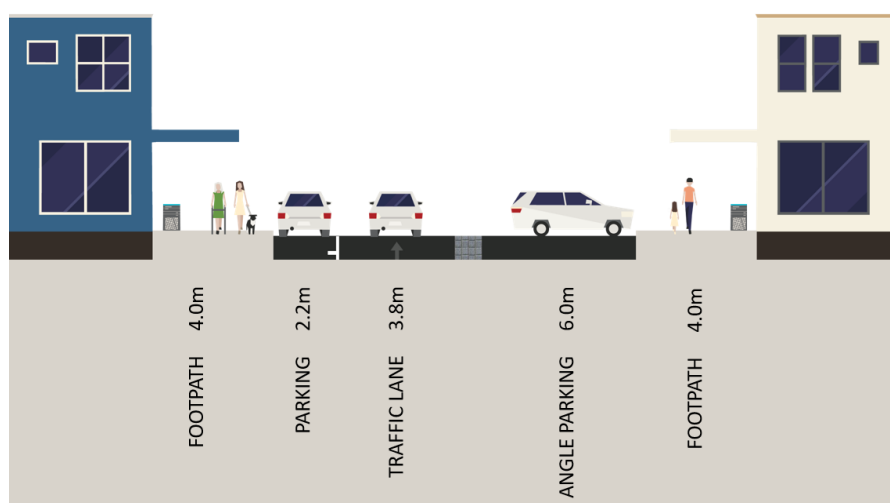




### *Option D - One-way, wider footpaths, parallel one side, angle other*

This option involves creating a one-way street. This allows space to provide 60-degree angle parking on one side of the street whilst retaining parallel parking on the other side as shown in **Figure 9.9**. It is recommended that the direction of travel be west bound as the plans for Eastfields seek coach parking outside of the hotel on the south side of the street. The angle parking would be located on the north side (drivers right hand side) given that the coach parking is required on the south side. Cyclists would travel in the traffic lane. The use of sharrow markings could also aid communication of the lane sharing.

**Figure 9.9** Burnett Street Option D

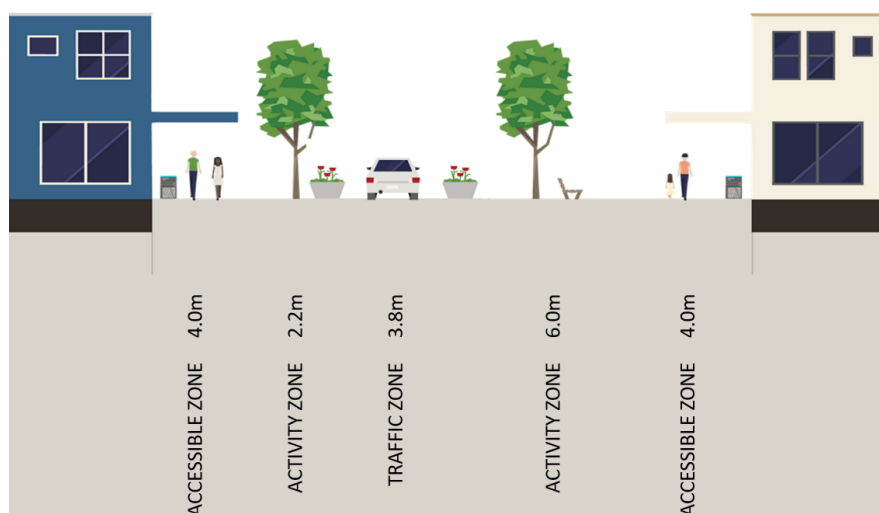


### *Option E - Shared space street (one-way)*

This option creates an environment where pedestrians are given space to wander and drivers are guests, this creates a very low speed environment. The design has no kerbs or other height difference for walking, the entire surface would be paved with storm water collected via systems such as slot drains.

The shared space is divided into a 'trafficable zone', an 'accessible zone' and an 'activity zone' as shown in **Figure 9.10**. The traffic zone would be one-way westbound. An example of a one-way shared space street is shown in **Figure 9.11**. There would be no parking however space for loading could be allocated.

**Figure 9.10** Burnett Street Option D



**Figure 9.11**  
Example of one-  
way shared space  
street (Fort Street,  
Auckland)



### ***Option F – Combination of D and E***

A combination of Options D and E could be adopted whereby a central section of the street is shared space to connect pedestrian links and provide a high quality public space (see Appendix D).

## Option assessment

Each of the above shortlisted options is assessed against the design objectives outlined in Section 6, see **Table 9.2**. The assessment is qualitative and considers the extent to which the option achieves the objective.

**Table 9.2** Burnett Street Option Assessment

		Option						Comments
	Objectives	A	B	C	D	E	F	
1	Streetscape that attracts people and where they can linger	✓	✓✓	✓	✓✓	✓✓✓	✓✓✓	Options B, D, E and F all have wider footpath space to create linger nodes.
2	Pedestrian provision	✓✓	✓✓	✓✓	✓✓✓	✓✓✓	✓✓✓	All options have good movement provision, Options D, E and F are one-way streets and these are easier to cross.
3	Cycle provision	✓	✓✓	✓✓	✓✓	✓✓	✓✓	Angle parking not desirable for cyclists but can be well designed in one-way streets. However one-way streets reduce cycle network permeability.
4	Vehicle movement	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	One-way streets reduce network permeability but provide good parking search circulation if supported by good wayfinding.
5	Access	✓✓	✓	✓✓	✓✓	✓✓	✓✓	Very few property accesses on this street.
6	Servicing and parking	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	All options need consideration of potential loading zones. Angle parking may not be desirable by some by service providers. On-street parking retained in all options, Option E and F will have less.
7	Integration with Land use	✓	✓	✓✓	✓✓	✓✓	✓✓	Options C to E offer good opportunities to integrate with Eastfields and MSA.

- ✓✓✓ Exceeds the Objective
- ✓✓ Meets the Objective well
- ✓ Meets Objective
- Does not meet objective

## Recommendation

**Option F** is the recommended option for further development.

This street will be one-way west bound and paired with Tancred Street that will be one-way east bound.

The design is a combination of two cross section types:

- Each end of the street will feature angle parking on one side and parallel parking on the other, the traffic lane will be one-way (see **Figure 9.12**)
- The central part of the street will be shared space with a one-way traffic zone, this part of the streets will tie together the future pedestrian lanes (see **Figure 9.13**)

**Figure 9.12**

Burnett Street -  
recommended  
option (parking  
focused section D)



**Figure 9.13**

Burnett Street -  
recommended  
option (shared  
space section E)





## 10. Tancred Street

### 10.1 Existing street design

The current cross section of Tancred Street includes one traffic lane in each direction and a centreline, as shown in **Figure 10.1**. Parallel parking is provided on both sides, it is restricted to 1 hour and a tariff applies. There are shops, cafes and businesses located on both sides of the street. Most buildings have verandas that cover the footpath. Tancred Street is classified as a 'local' road in the road hierarchy. The existing traffic volume is approximately 2,400 vehicles per day.

Tancred Street has a 20m road reserve. The footpaths on each side of the street are approximately 3m wide. The traffic lanes are approximately 4.8m wide and the parking lanes approximately 2.2m wide.

The intersections with East Street and Cass Street are narrowed and feature landscaping. The narrowing at East Street includes a zebra crossing. There is another zebra crossing approximately 80m south of East Street at a narrowing with street trees as shown in **Figure 10.2**.

**Figure 10.1**  
Tancred Street  
existing layout



**Figure 10.2**  
Tancred Street at  
road narrowing for  
zebra crossing



## 10.2 Design considerations

The following are the key design considerations identified for Tancred Street:

- High pedestrian volumes at west end, moderate parking demand
- Active frontages – predominantly retail with verandas
- Link to Burnett Street via Arcade
- Existing trees at zebra crossings and intersections
- Adjacent to Eastfields development (north side)

## 10.3 Options

A longlist of cross section options was developed for a workshop with ADC staff, this was refined to a short list of options for further development and assessment against the design objectives. **Table 10.1** outlines the long and short list options.

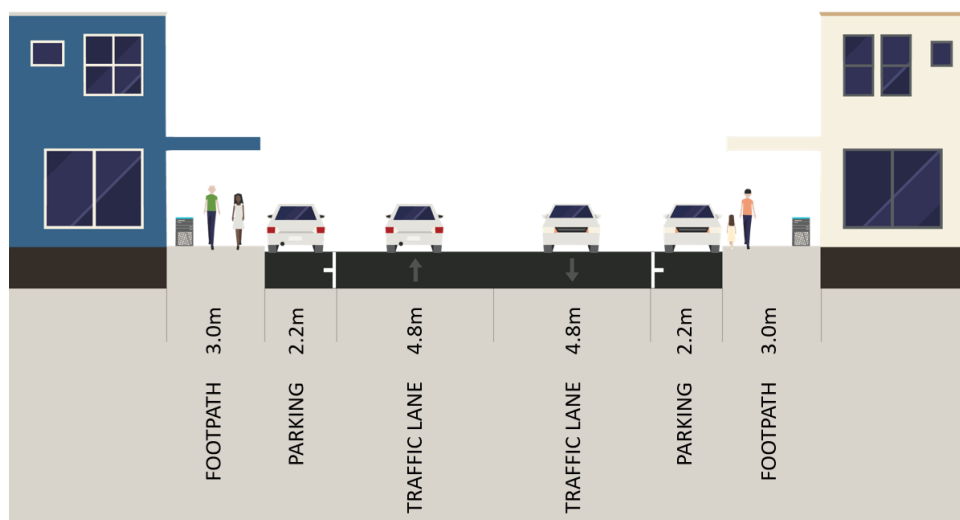
**Table 10.1**  
Tancred Street  
cross section  
options

Longlist Option	Description	Discussion	Shortlist Option
1	Do minimum		A
2	Two-way, wider footpaths, parallel parking both sides		B
3	Two-way, wider footpaths, parallel one side, angle other	This option is difficult to accommodate in the 20m reserve, it results in footpaths of the same width as existing.	C
4	One-way, wider footpaths, parallel one side, angle other		D
5	Two-way, wider footpaths, angle parking both sides	This option is difficult to accommodate in the 20m reserve, it would result in footpaths of the same width as existing.	
6	Shared space street (one-way)		E
7	Fully pedestrianised street	It is considered that the volume of pedestrians would not support a vibrant pedestrianised street, it would also have a high impact on traffic circulation and access.	
		It was considered that Option 4 and 6 would work together along the blocks.	F

### Option A - Do minimum

The do-minimum option retains the existing cross section (**Figure 10.3**) but could include improvements such as new kerb and channel to replace the dish channel, footpath resurfacing /paving, paved parking lanes (see example in **Figure 9.4**) and new street furniture/lighting. This cross section allows cars and bicycles to travel side by side. Drivers that pull over to then parallel park can do so without impeding the traffic flow. The footpath surfacing could also facilitate paving that defines where sandwich boards and other permitted display items can be placed to ensure a through route is retained.

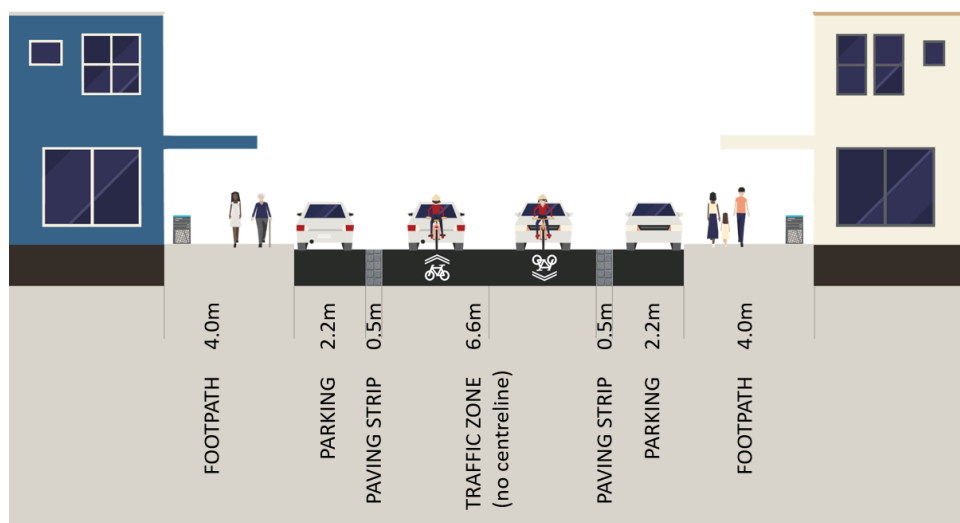
**Figure 10.3**  
Tancred Street  
Option A



### Option B - Two-way, wider footpaths, parallel parking both sides

This option narrows the carriageway to allow wider footpaths whilst retaining parallel parking on both sides as shown in **Figure 10.4**. The traffic lanes would be shared by motor vehicles and bicycles and this could be communicated through the use of 'sharrow' markings as shown in the example in **Figure 9.6**. To help define the parking and create a buffer to prevent car doors opening into cyclists a paved feature strip could be created at the interface of the traffic lane and the parking lane.

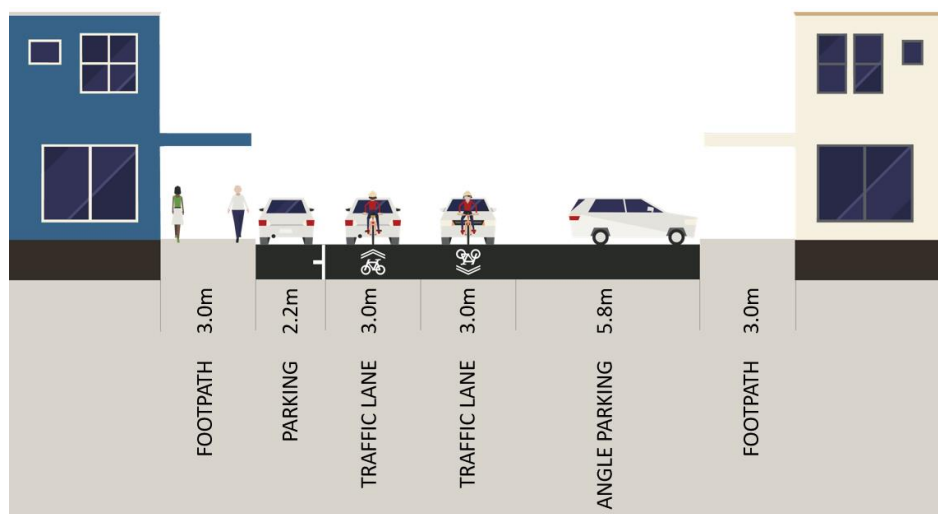
**Figure 10.4**  
Tancred Street  
Option B



### *Option C - Two-way, parallel one side, angle parking other side*

This option involves retaining a two-way street. To provide 90-degree angle parking on one side of the street and parallel parking on the other side as shown in **Figure 10.5**, the footpaths need to remain 3m wide, no widening of the footpath is possible. The angle parking would be located on the south side. Cyclists would travel in the traffic lane. The use of sharrow markings could also aid communication of the lane sharing.

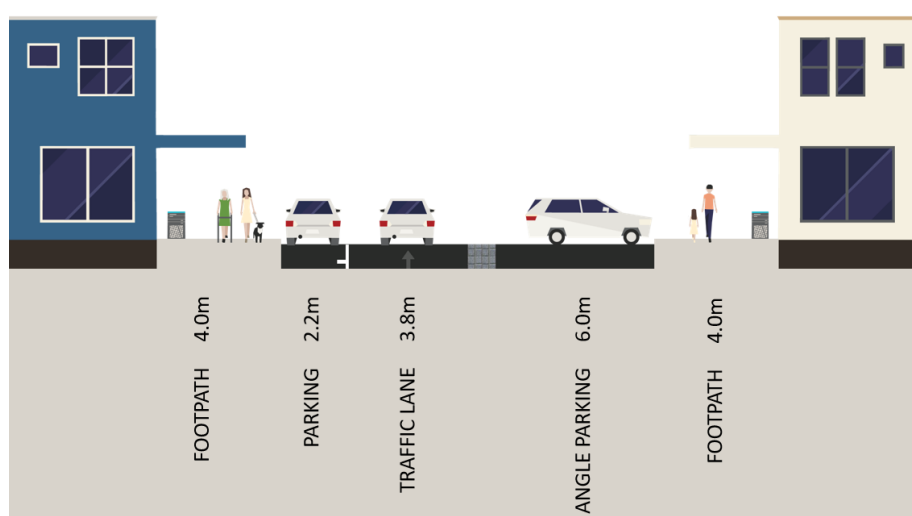
**Figure 10.5**  
Tancred Street  
Option C



### *Option D - One-way, wider footpaths, parallel one side, angle other*

This option involves creating a one-way street and could be used in conjunction with Burnett Street Option D. This allows space to provide 60-degree angle parking on one side of the street whilst retaining parallel parking on the other side as shown in **Figure 10.6**. It is recommended that the direction of travel be eastbound given Burnett Street is westbound, this makes a one-way pair. The angle parking would be located on the south side, this is the drivers right hand side as per the Burnett Street design. Cyclists would travel in the traffic lane. The use of sharrow markings could also aid communication of the lane sharing.

**Figure 10.6**  
Tancred Street  
Option D



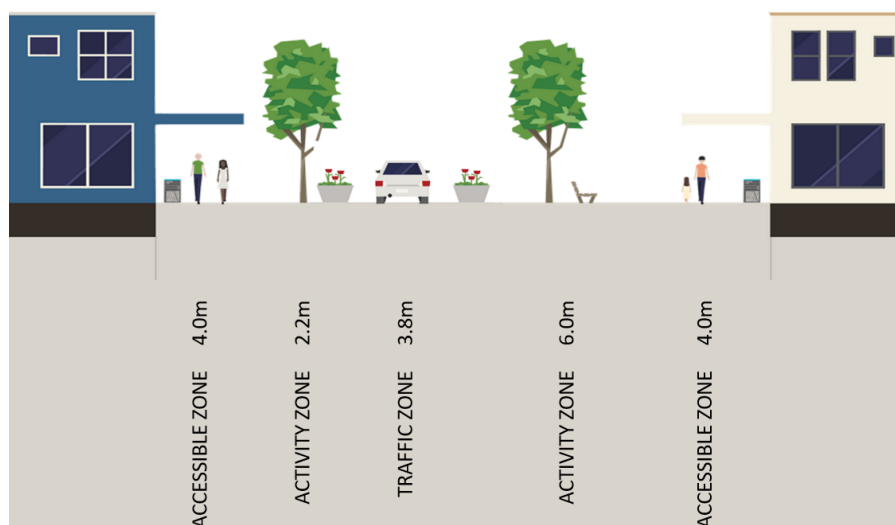


### *Option E – Shared space street (one-way)*

This option creates an environment where pedestrians are given space to wander and drivers are guests, which creates a very low speed environment. The traffic flow would one-way. The design has no kerbs or other height difference for walking, the entire surface would be paved with storm water collected via systems such as slot drains.

The shared space is divided into a 'trafficable zone', an 'accessible zone' and an 'activity zone' as shown in **Figure 10.7**. The traffic zone would be one-way eastbound. An example of a one-way shared space street is shown in **Figure 9.11**. There would be no parking however space for loading could be allocated.

**Figure 10.7**  
Tancred Street  
Option E



### *Option F – Combination of D and E*

A combination of Options D and F could be adopted whereby a central section of the street is shared space to connect pedestrian links and provide a high quality public space (see Appendix D).

## Option assessment

Each of the above shortlisted options is assessed against the design objectives outlined in Section 6, see **Table 9.2**. The assessment is qualitative and considers the extent to which the option achieves the objective.

**Table 10.2**  
Tancred Street  
Option  
Assessment

		Option						Comments
Objectives		A	B	C	D	E	F	
1	<b>Streetscape that attracts people and where they can linger</b>	✓	✓✓	✓	✓✓	✓✓✓	✓✓✓	Options B, D, E and F all have wider footpath space to create linger nodes.
2	<b>Pedestrian provision</b>	✓✓	✓✓	✓✓	✓✓✓	✓✓✓	✓✓✓	All options have good movement provision, Options D, E and F are one-way streets and these are easier to cross.
3	<b>Cycle provision</b>	✓	✓✓	✓✓	✓✓	✓✓	✓✓	Angle parking not desirable for cyclists but can be well designed in one-way streets. However one-way streets reduce cycle network permeability.
4	<b>Vehicle movement</b>	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	One-way streets reduce network permeability but provide good parking search circulation if supported by good wayfinding.
5	<b>Access</b>	✓✓	✓	✓✓	✓✓	✓✓	✓✓	Very few property accesses on this street.
6	<b>Servicing and parking</b>	✓✓	✓✓	✓✓	✓✓	✓✓	✓✓	All options need consideration of potential loading zones. Angle parking may not be desirable by some by service providers. On-street parking retained in all options, Option E and F will have less.
7	<b>Integration with Land use</b>	✓	✓	✓✓	✓✓	✓✓	✓✓	Options C to E offer good opportunities to integrate with Eastfields and MSA.

- ✓✓✓ Exceeds the Objective
- ✓✓ Meets the Objective well
- ✓ Meets Objective
- Does not meet objective

## Recommendation

**Option F** is the recommended option for further development.

This street will be one-way east bound and paired with Burnett Street that will be one-way west bound.

The design is a combination of two cross section types:

- Each end of the street will feature angle parking on one side and parallel parking on the other, the traffic lane will be one-way (see **Figure 10.8**)
- The central part of the street will be shared space with a one-way traffic zone, this part of the streets will tie together the future pedestrian lanes (see **Figure 10.9**)

**Figure 10.8**  
Tancred Street -  
recommended  
option (parking  
section D)



**Figure 10.9**  
Tancred Street -  
recommended  
option (shared  
space section E)



## 11. Cass Street

### 11.1 Existing street design

The current cross section of Cass Street includes one traffic lane in each direction and a centreline, as shown in **Figure 11.1**. Parallel parking is provided on both sides, the time restrictions are a mix of 1 and 2 hours and a tariff applies. The adjacent land use is a mix of offices, shops and businesses located on both sides of the street at the boundary with the road. Some of the buildings have verandas that cover the footpath. Cass Street is classified as a 'collector' road in the road hierarchy. Collector roads distribute and collect local traffic within and between neighbourhoods and link rural communities. They link to the arterial network and act as local spine roads within neighbourhoods. Their traffic movement function must be balanced against the property access function which they provide. The existing traffic volume is approximately 2,400 vehicles per day.

Cass Street has a 20m road reserve. The footpaths on each side of the street are approximately 3m wide. The traffic lanes are approximately 4.8m wide and the parking lanes approximately 2.2m wide.

The intersections with Tancred Street and Burnett Street are narrowed and feature landscaping. There is a zebra crossing on Cass Street just east of the Tancred Street intersection as shown in **Figure 11.2**. The intersection with Havelock Street is a roundabout.

**Figure 11.1** Cass Street existing layout



**Figure 11.2** Zebra crossing on Cass Street just east of Tancred Street





## 11.2 Design considerations

The following are the key design considerations identified for Cass Street:

- Moderate pedestrian volumes, moderate parking demand
- New developments on east side between Tancred and Burnett Streets
- Crossing demand from all day parkers in blocks to the east
- Intersections with Tancred and Burnett have a crash record
- Role as collector road means traffic volumes will be higher than other CBD streets, but lower than East Street.

## 11.3 Options

A longlist of cross section options was developed for a workshop with ADC staff, this was refined to a short list of options for further development and assessment against the design objectives. **Table 11.1** outlines the long and short list options.

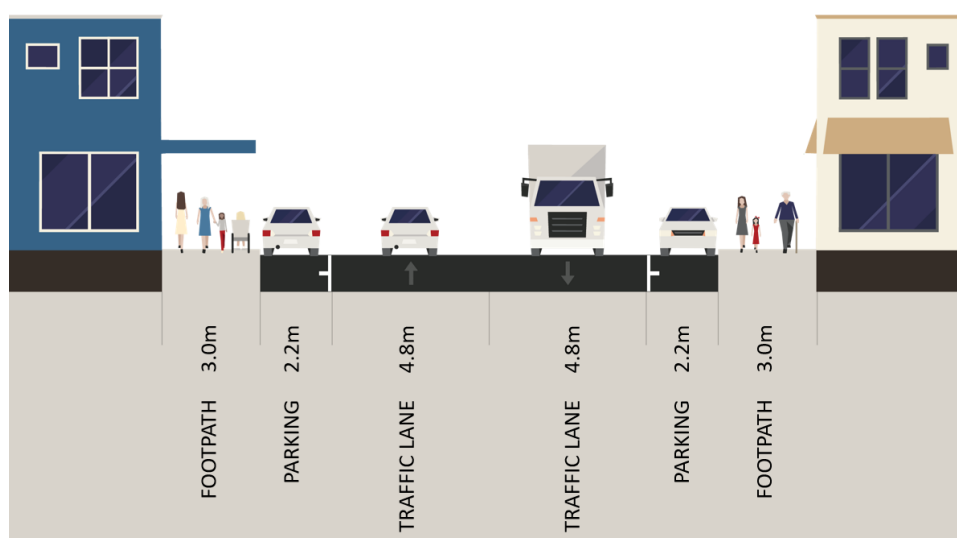
**Table 11.1** Cass Street options

Longlist Option	Description	Discussion	Shortlist Option
1	Do minimum		A
2	Two-way, wider footpaths, parallel parking both sides	This option was modified following the staff workshop to include on-road cycle lanes as given the collector classification it is unreasonable to expect cyclists to share the lane.	B
3	Two-way, wider footpaths, parallel one side, angle other		C
4	One-way, wider footpaths, parallel one side, angle other	Not considered appropriate for a collector road.	
5	One-way, wider footpaths, angle parking both sides	Not considered appropriate for a collector road.	
6	Shared space street (one-way)	Not considered appropriate for a street with moderate/high traffic volumes.	
7	Fully pedestrianised street	It is considered that the volume of pedestrians would not support a vibrant pedestrianised street, it would also have a high impact on traffic circulation and access.	

### Option A - Do minimum

The do-minimum option retains the existing cross section (**Figure 11.3**) but could include improvements such as new kerb and channel to replace the dish channel, footpath resurfacing /paving, paved parking lanes (see example in **Figure 9.4**) and new street furniture/lighting. This cross section allows cars and bicycles to travel side by side. Drivers that pull over to then parallel park can do so without impeding the traffic flow. The footpath surfacing could also facilitate paving that defined where sandwich boards and permitted other display items can be placed to ensure a through route is retained.

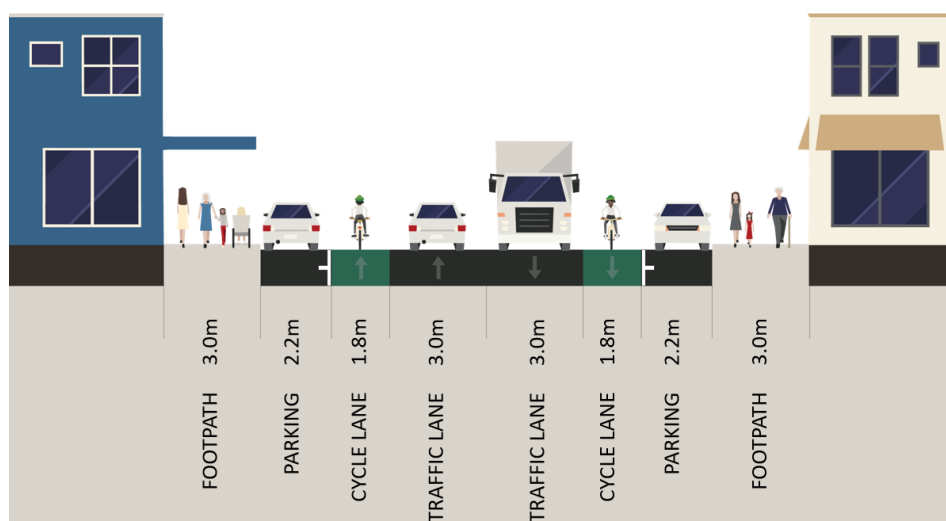
**Figure 11.3** Cass Street Option A



### Option B - Two-way, cycle lanes, parallel parking both sides

This option retains the same footpath width as existing but allocates 1.8m of the existing traffic lane to cycle lanes as shown in **Figure 11.4**. The parallel parking is retained however road narrowings that use the parking lane width can be created midway between intersections to provide crossing locations. This would be desirable opposite the Eastfields site.

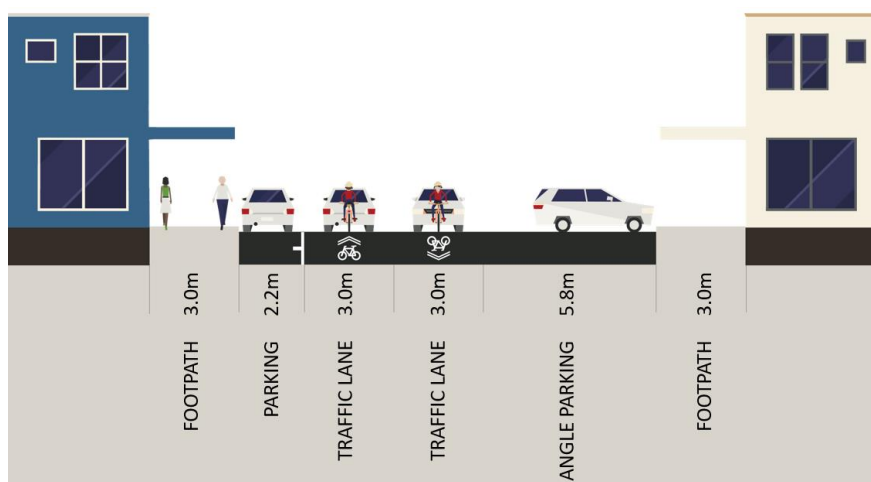
**Figure 11.4** Cass Street Option B



### *Option C - Two-way, parallel parking on side, angle parking on the other*

This option retains the current footpath width on both sides as shown in **Figure 11.5**. There is parallel parking on the south side of the street and the parking on the north side is 90-degree angle parking. The traffic lanes would be shared by motor vehicles and bicycles and this could be communicated through the use of 'sharrow' markings. Temporary outdoor dining areas can be created in the parking spaces if the adjacent activity desired this (as shown earlier in **Figure 7.2**).

**Figure 11.5** Cass  
Street Option C



## Option assessment

Each of the above shortlisted options is assessed against the design objectives outlined in Section 10, see **Table 11.2**. The assessment is qualitative and considers the extent to which the option achieves the objective.

**Table 11.2** Cass Street Option Assessment

		Option			
	Objectives	A	B	C	Comments
1	Streetscape that attracts people and where they can linger	✓	✓✓	✓✓	
2	Pedestrian provision	✓	✓✓	✓✓	Existing crossing arrangements are not appropriate, Option B allows this to be improved.
3	Cycle provision	✓	✓✓✓	✓	Option C is undesirable for cyclists
4	Vehicle movement	✓	✓✓	✓	Reflects collector road classification.
5	Access	✓✓	✓	✓	Roadway width facilitates larger truck deliveries into and out of accesses, except in option C
6	Servicing and parking	✓✓	✓	✓	On street parking is retained.
7	Integration with Land use	✓✓	✓	✓	

- ✓✓✓ Exceeds the Objective
- ✓✓ Meets the Objective well
- ✓ Meets Objective
- Does not meet objective



## *Recommendation*

**Option B** is the recommended option for further development.

The street will feature a traffic lane in each direction, cycle lanes and parking on both sides. A kerb buildout located between Tancred and Burnett Streets is recommended but the location will be subject to the final Eastfields layout.

**Figure 11.6** Cass Street - recommended option



## 12. Baring Square (East)

### 12.1 Existing street design

The current cross section of Baring Square includes one traffic lane in each direction and a centreline, as shown in **Figure 12.1**. Parallel parking is provided on both sides, it is restricted to 1 hour, no tariff applies. The town clock tower and gardens are located on the west side of the street. There is a church and ADC building on the south side. Baring Square is classified as a 'local' road in the road hierarchy. The existing traffic volume is approximately 500 vehicles per day.

Baring Square has a 20m road reserve. The footpaths on each side of the street are approximately 3m wide. The traffic lanes are approximately 4.8m wide and the parking lanes approximately 2.2m wide.

The intersections with Havelock Street and Cameron Street are uncontrolled.

**Figure 12.1** Baring Square (East) existing layout



### 12.2 Design considerations

The following are the key design considerations identified for Baring Square East:

- Currently low parking demand
- Adjacent to Baring Square (clock tower)
- New Civic building to be located on east side, south end
- Requires strong pedestrian link to rest of CBD, lane to Burnett Street will be important
- Potential to link to Triangle to strengthen the heritage connection

It was concluded the design of this street is integrated with the design of the new council offices and library.

## 13. Havelock Street

### 13.1 Existing street design

The current cross section of Havelock Street includes one traffic lane in each direction and a centreline, as shown in **Figure 13.1**. Parallel parking is provided on both sides, it is restricted to 2 hours, a tariff applies. The adjacent land use is a mix of offices shops and businesses located on both sides of the street at the boundary with the road. Some of the buildings have verandas that cover the footpath. Havelock Street is classified as a 'collector' road in the road hierarchy. Collector roads distribute and collect local traffic within and between neighbourhoods and link rural communities. They link to the arterial network and act as local spine roads within neighbourhoods. Their traffic movement function must be balanced against the property access function which they provide. The existing traffic volume is approximately 3,300 vehicles per day.

Havelock Street has a 20m road reserve. The footpaths on each side of the street are approximately 3m wide. The traffic lanes are approximately 4.8m wide and the parking lanes approximately 2.2m wide.

The intersection with East Street is signalised and the intersection with Cass Street is a roundabout as shown in **Figure 13.2**.

**Figure 13.1**  
Havelock Street  
existing layout



**Figure 13.2**  
Havelock Street  
intersection with  
Cass Street



## 13.2 Design considerations

The following are the key design considerations identified for Havelock Street:

- Low pedestrian volumes and low parking demand
- Less active frontages, some verandas
- Ashburton Club and MSA entry on south side
- Access to customer car parks
- Links to Burnett Street via a lane (private)

## 13.3 Options

A list of cross section options was developed for a workshop with ADC staff, this was a short list so did not need refining, but it was agreed that a narrowing option that could work with the do-minimum would be progressed further. **Table 13.1** outlines options.

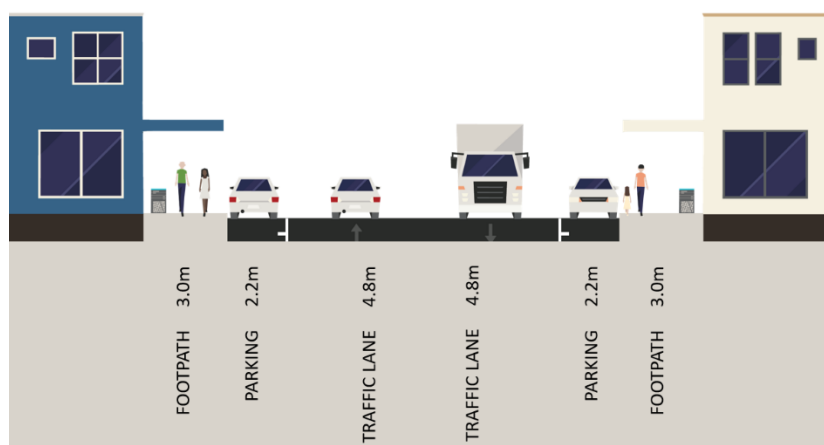
**Table 13.1**  
Havelock Street  
cross section  
options

Workshop Option	Description	Discussion	Shortlist Option
1	Do minimum		A
2	Two-way, wider footpaths, parallel parking both sides	Changed to localised road narrowing layout	B

### Option A - Do-minimum

The do-minimum option retains the existing cross section (**Figure 13.3**) but could include improvements such as new kerb and channel to replace the dish channel, footpath resurfacing /paving, paved parking lanes (see example in **Figure 9.4**) and new street furniture/lighting. This cross section allows cars and bicycles to travel side by side. Drivers that pull over to then parallel park can do so without impeding the traffic flow. The footpath surfacing could also facilitate paving that defined where sandwich boards and other permitted display items can be placed to ensure a through route is retained.

**Figure 13.3**  
Havelock Street  
Option A

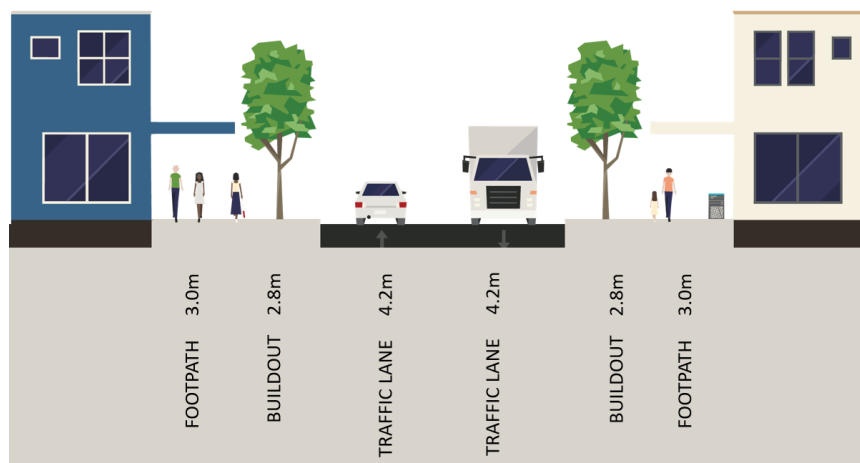




### Option B – Road narrowing

This option creates a kerb buildout to allow for street trees to be planted and also creates a mid-block pedestrian crossing location as shown in **Figure 13.4**. The traffic lane widths still allow for cyclists to travel side by side with motor vehicles.

**Figure 13.4**  
Havelock Street  
Option B



### Option assessment

Each of the above shortlisted options is assessed against the design objectives outlined in Section 6, see **Table 14.2**. The assessment is qualitative and considers the extent to which the option achieves the objective.

**Table 13.2**  
Havelock Street  
Option  
Assessment

Objectives		A	A and B	Comments
1	Streetscape that attracts people and where they can linger	✓	✓✓	Option A+B introduces street trees and potential linger nodes
2	Pedestrian provision	✓✓	✓✓✓	Option A+B provides mid-block crossing
3	Cycle provision	✓✓	✓✓	
4	Vehicle movement	✓✓	✓✓	No change
5	Access	✓✓	✓✓✓	No change as long as narrowing located away from accesses
6	Servicing and parking	✓✓	✓✓	Option A+B will reduce on-street parking
7	Integration with Land use	✓✓	✓✓	

Exceeds the Objective

✓✓ Meets the Objective well

✓ Meets Objective

- Does not meet objective

## Recommendation

**Option A** (current layout) with two **Option B** kerb buildouts (see **Figure 13.5****Figure 14.5**) to provide landscaping and pedestrian crossing locations. One buildout would be located near to the east of the Baring Square intersection and the other between that and the Cass Street intersection.

**Figure 13.5**  
Havelock Street  
Option B



## 14. Moore Street

### 14.1 Existing street design

The current cross section of Moore Street includes one traffic lane in each direction and a centreline, as shown in **Figure 14.1**. Parallel parking is provided on both sides, it is restricted to 2 hours, a tariff applies. The adjacent land use is a mix of offices shops and businesses located on both sides of the street, some buildings are at the boundary with the road, others are set back as shown in **Figure 14.2**. Some of the buildings have verandas that cover the footpath. Moore Street is classified as a 'local' road in the road hierarchy. The existing traffic volume is approximately 6,200 vehicles per day.

Moore Street has a 20m road reserve. The footpaths on each side of the street are approximately 3m wide. The traffic lanes are approximately 4.8m wide and the parking lanes approximately 2.2m wide.

The intersection with East Street is signalised and the intersection with Cass Street is a stop control with priority to Moore Street traffic.

**Figure 14.1** Moore Street existing layout



**Figure 14.2** Moore Street adjacent landuse



## 14.2 Design considerations

The following are the key design considerations identified for Moore Street:

- Low pedestrian volumes and low to moderate parking demand
- Kerb and footpath recently upgraded
- Less active frontages
- Access to front of building customer car parks

## 14.3 Options

A list of cross section options was developed for a workshop with ADC staff, this was a short list so did not need refining, but it was agreed that a narrowing option that could work with the do-minimum would be progressed further. **Table 13.1****Table 14.1** outlines options.

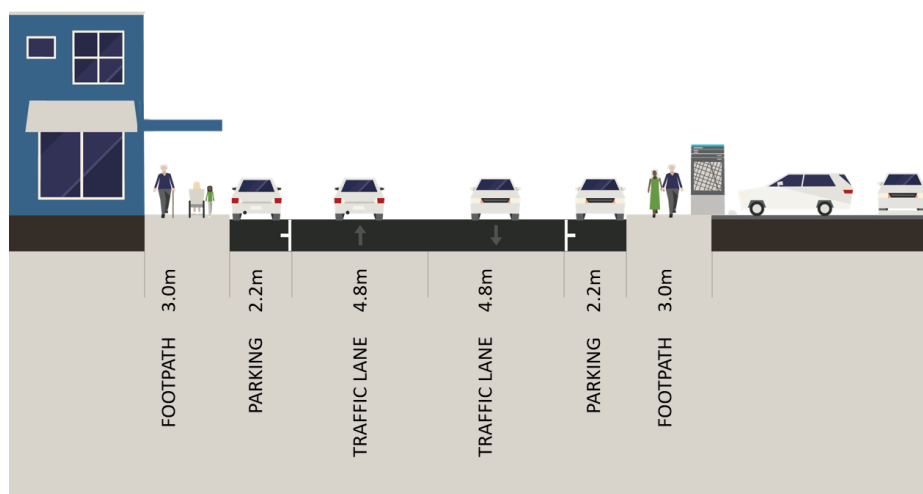
**Table 14.1** Moore Street cross section options

Workshop Option	Description	Discussion	Shortlist Option
1	Do minimum		A
2	Two-way, wider footpaths,	Changed to road narrowing layout	A+B

### Option A - Do-minimum

The do-minimum option retains the existing cross section (**Figure 14.3**), the kerb and channel and footpaths were recently upgraded but enhancements such as footpath paver strips and paved parking lanes (see example in **Figure 9.4**) could be considered to ensure the materials are linked to the rest of the CBD improvements. This cross section allows cars and bicycles to travel side by side. Drivers that pull over to then parallel park can do so without impeding the traffic flow.

**Figure 14.3** Moore Street Option A

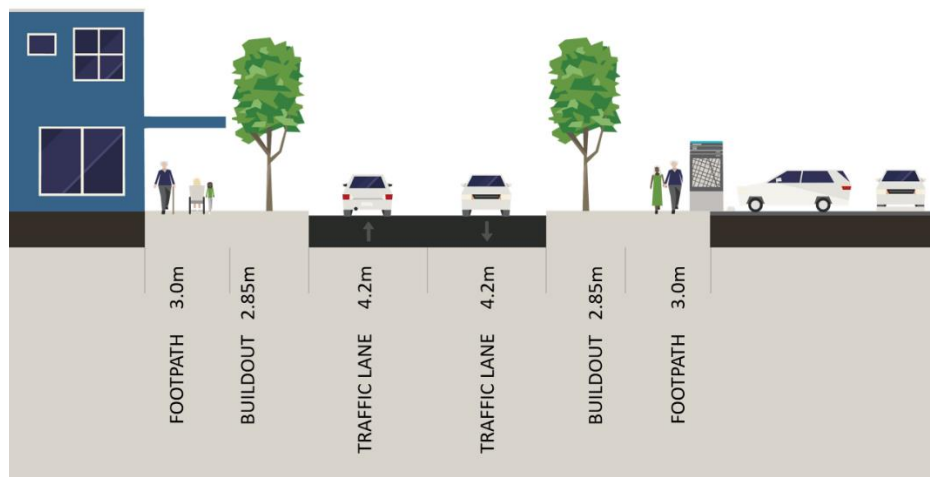




### Option B – Road narrowing

This option creates a kerb buildout to allow for street trees to be planted and also creates a mid-block pedestrian crossing location as shown in **Figure 14.4**. The traffic lane widths still allow for cyclists to travel side by side with motor vehicles.

**Figure 14.4** Moore Street Option B



### Option assessment

Each of the above shortlisted options is assessed against the design objectives outlined in Section 6, see **Table 14.2**. The assessment is qualitative and considers the extent to which the option achieves the objective.

**Table 14.2** Moore Street Option Assessment

Objectives		A	A and B	Comments
1	Streetscape that attracts people and where they can linger	✓	✓✓	Option A+B introduces street trees and potential linger nodes
2	Pedestrian provision	✓✓	✓✓✓	Option A+B Provides mid-block crossing
3	Cycle provision	✓✓	✓✓	
4	Vehicle movement	✓✓	✓✓	No change
5	Access	✓✓	✓✓✓	No change as long as narrowing located away from accesses
6	Servicing and parking	✓✓	✓✓	Option A+B will reduce on-street parking
7	Integration with Land use	✓✓	✓✓	

Exceeds the Objective

✓✓ Meets the Objective well

✓ Meets Objective

- Does not meet objective

### *Recommendation*

**Option A** (current layout) with an **Option B** kerb buildout (see **Figure 14.5**) mid-way along the block to provide landscaping and pedestrian crossing location narrowing is the recommended option.

**Figure 14.5** Moore  
Street Option B



## 15. CBD Parking Management

### 15.1 Introduction

A recent review of the 2011 Parking Strategy concluded that it was not current and recommended that either a new district wide strategy be established, or a CBD Parking Management Plan be developed to inform the CBD streetscape renewals project. A parking management plan would include the following:

- Set a clear direction for parking management and supply in the CBD through objectives.
- Establish future growth and its impacts by examining demographic, future travel trends, traffic and economic development projections.
- Develop options that also consider future growth and technology.
- Transparently assessments of any alternative options against objectives.

It was agreed at a workshop with ADC staff that CBD parking management should be considered as part of this streetscape renewal project prior to a wider strategy being developed.

### 15.2 Parking objectives

The CBD parking objectives were developed at a workshop with ADC staff as follows.

Provide parking that:

- d) Supports vibrant, attractive places in which people can live, work and play and businesses can operate successfully now and into the future.**

This objective reflects the aim of the CBD revitalisation project and the desired outcomes of the Town Centre Plan. Parking can support this through the appropriate provision, location and design of parking.

- e) Provides residents and visitors with a viable system that is safe and easy to use.**

In this context viable means financially sustainable, affordable and operationally efficient. 'Safe' relates to people feeling comfortable from a personal security and traffic exposure perspective. Parking needs to be easy to use in terms of access and egress, easy to find and any technology and payment systems need to be simple to understand and use.

- f) Supports a range of travel choices including more sustainable transport modes.**

Parking should not be provided at the expense of more sustainable transport modes. In some centres limiting car parking supply can be used to promote alternatives. However the reality in Ashburton is that there is currently no public transport and many visitors to the CBD are coming from locations where walking and cycling are not feasible due to the distance. At the last Census (2013) 20.5 percent of households in Ashburton District had access to three or more motor vehicles, compared with 16.1 percent of all households in New Zealand.

This objective can be achieved through ensuring that parking is provided for people cycling, that parking areas are not blocking pedestrian desire lines and that future transport options are not precluded (such as ride sharing).

## 15.3 Parking supply and demand

### Current supply

The CBD area includes on-street and off-street car parking areas (public and private), some spaces are time restricted and some permit all day parking, as outlined in **Table 15.1**. **Appendix C** includes a map of the parking restrictions.

**Table 15.1** Current supply within project area

Parking Area	No Restriction	Time restricted	Taxi	Mobility	Total
On-Street	0	307	2	1	310
Off-Street	180	84	-	-	264
<b>TOTAL</b>	<b>180</b>	<b>124</b>	<b>2</b>	<b>1</b>	<b>574</b>

There are two off street car parks on the edge of the CBD, the West Street car park and Burnett Street car park. The West Street car park includes 144 all day parking spaces and 84 P120 car park spaces. The Burnett Street car park includes 35 all day parking spaces. There is also a temporary car park accessed off Burnett Street and Cass Street that is on private land but is available to the public as all day parking with a fee of \$2/day. This is the site of the Eastfields development that is expected to commence in 2019. Once the site is developed any off-street car parking will be privately managed.

There are 310 on-street car parking spaces in the project area, these are all subject to a time or class restriction. The most common on-street time restriction is 60 minutes. Parking charges apply to 50% of on-street parking spaces and this is collected via individual parking meters in the footpath as shown in **Figure 15.5**. The East Street parking spaces are 1 hour free parking and are monitored by inground sensors (Smarteye) to aid enforcement of this restriction. Pay and display machines are located on East Street but these are not currently operational.

**Figure 15.6**  
Parking meters for each parking space





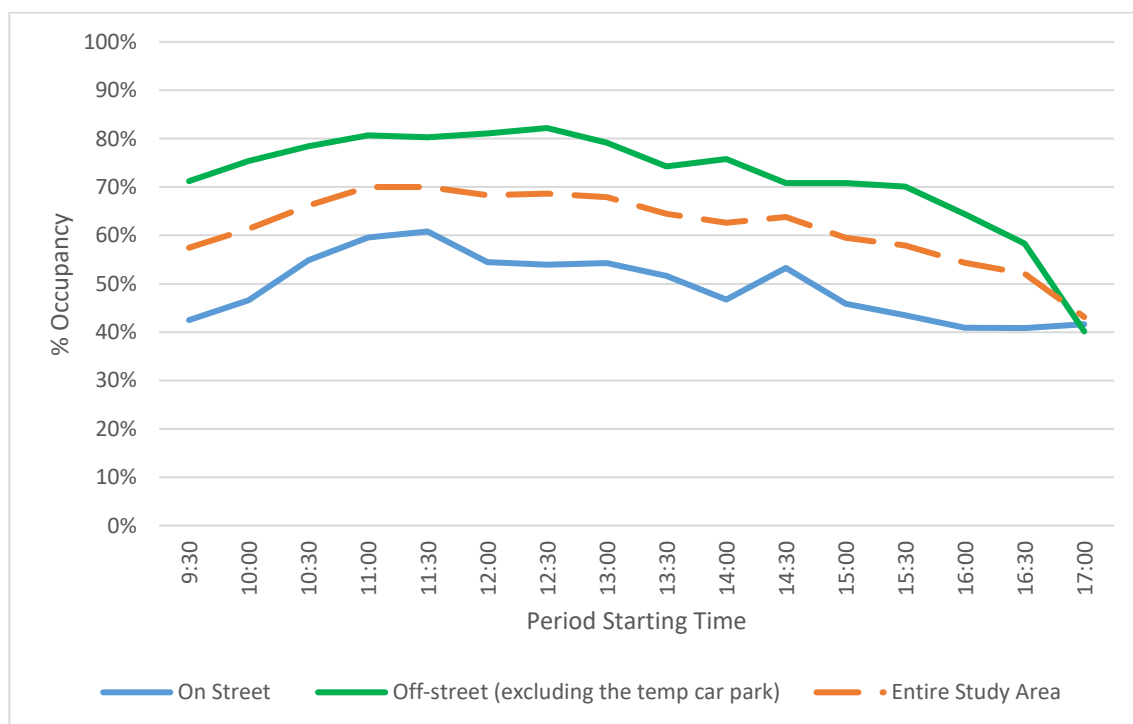
## Current demand

People working in the CBD park in the all day spaces located within the West Street and Burnett Street car parks, and also on adjacent streets where no time restrictions exist (known as long term parking). The adjacent streets used for all day parking are predominately Havelock, Burnett, Tancred and Moore Streets east of Cass Street as these areas are still very close to the CBD in terms of walking distance. These streets generally serve residential land use so have a low parking demand during the day. The 2011 Parking Strategy stated this parking was 'marring the streetscape' and suggested that long term parking alternatives should be found. ADC staff report that there is very little negative feedback from residents regarding this parking.

Visitors to the CBD park in the on-street time restricted spaces or the time restricted spaces in the West Street car park (known as short term parking).

A parking survey undertaken in November 2017 found that the demand across the day was highest for the off-street parking (between 40% and 83%) and lower for on-street parking (between 40% and 61%) as shown in **Figure 15.6**. The temporary car park accessed from Burnett Street and Cass Street was not included in the results as its capacity cannot be confirmed however, approximately 100 vehicles were parked in this car park over the survey period.

**Figure 15.7**  
Parking demand  
across the day



### Supply under proposed street designs

The designs recommended will change the on-street parking layouts and quantity because of intersection changes, kerb buildouts for landscaping and pedestrian crossings, and shared space street sections.

**Table 15.3** outlines the current and proposed spaces per street. The peak occupancy per street demonstrates there still capacity within the CBD and that the reduction of 16% of the current supply will not significantly impact the CBD visitor parking.

**Table 15.3** On-street parking supply - current and proposed

Street	No Restriction	Time restricted - free	Time restricted - tariff	Current Total	Current peak occupancy	Proposed total	Parking reduction
East Street	-	87	-	87	66%	82	5
Moore Street	-	-	34	34	56%	30	4
Cass Street	-	40	13	53	53%	42	11
Tancred Street	-	-	37	37	54%	36	1
Burnett Street	-	4	34	38	83%	26	12
Havelock Street	-	-	34	34	59%	26	8
Baring Square	-	27	-	27	56%	19	8
On-Street totals	-	158	152	310		261	49

## *Future demand*

When predicting future parking demand it is important to understand how the demand and use of parking could change over time. The change in demand for parking in a particular area is influenced by a range of factors such as demographic adjustments, changes to a destination's characteristics making a place more or less popular, and changes to the proportion of travel undertaken and travel mode changes. Growth in traffic volumes on arterial roads can also be an indicator however the volumes on SH 1 for example have remained steady for the last five years indicating that this is not an influencing factor in Ashburton. Demographic changes, land use changes and potential travel changes are discussed below.

### **Demographic changes**

The population of the district at the 2013 census was 32,300. NZ Statistics have made low, medium and high population growth projections for the district out to 2043, these projections result in a per year growth rate of 0.4% to 1.3%. This level of growth is very unlikely to significantly change parking demand.

The most significant demographic issue is that the proportion of the population aged 65 and over is 16.7 percent of the total number of people in Ashburton District, compared with 14.3 percent of the total New Zealand population. This is especially important because older people tend to travel/drive less; travel at off-peak times; need to park closer to their destination (to reduce walking distances due to mobility issues); and have greater reliance on alternative modes (usually ride share, shuttle 'modes' or public transport).

### **Land use changes**

There are no plans to expand the Business A zone. Future development in the CBD is likely to be the intensification of existing sites by increased building floor areas (through building height increases). However, the level of intensification is not predicted to be such that a significant proportion of new jobs will be created. Food and beverage related development is likely to impact the time of day that parking is required, for example more restaurants would likely result in more night time activity in the CBD when shopping demand is lower. Accommodation related developments such as hotels would require consideration of on-street coach parking and demand rather than visitor parking in public parking areas. A potential increase in demand for short term parking could occur if the CBD became a destination for through travellers who currently either stop on the SH 1 side of the town for refreshments or do not stop in Ashburton at all.

### **Travel changes**

There is potential for parking demand to decrease as people change how they travel in the future, for example more use of rideshare schemes and increased active travel as the walking and cycling network develops in the wider town. This will not have a large impact on parking demand in the short term. In the longer term the potential for autonomous vehicles to reduce the need for parking is likely but the timing and extent of the impact is unknown.

### **Projected future demand**

Overall it is concluded that future demand for parking associated with the CBD will not increase significantly above current demand. The survey has shown that current supply is meeting demand and there is still some capacity within the overall parking supply, especially in the time restricted spaces. The survey has shown there is scope to amend the time restrictions to match parking needs and scope to reallocate some of the time restricted parking in the West Street car park to all day parking due to low demand for the P120 spaces.

If the current practice of parking on residential streets close to the CBD remains acceptable then long stay parking is currently well catered for in terms of capacity and proximity to the CBD. The short to medium term future demand for long stay parking is predicted to be low and therefore it is not considered that further supply is necessary. The long term future is very uncertain in terms of how people will travel so again it is not considered that supply will need to be increased significantly.

## 15.4 Management options

Even if supply is not expected to increase, how the current supply is managed needs to be considered now as the streetscape renewals project will impact the current tariff gathering infrastructure. This includes the parking meters and pay & display machines (East Street). If kerb lines change then the infrastructure would need to be relocated or replaced. This offers the opportunity to consider a range of management options particularly as the coin fed parking meters will be less likely to meet the needs of the users over time and the pay & display machines are experiencing operational issues.

A range of on-street parking management options were developed in a workshop with ADC staff as listed below. Note that the Smarteye inground sensors used on East Street are an example of technology that is assisting with the enforcement of time restrictions and provides valuable occupancy data. It would be worth considering these being used in all time restricted spaces.

- Option 1 - Some free, some have tariff applied, all spaces time restricted
- Option 2 - All free but time restricted
- Option 3 - None free (tariff applies), all spaces time restricted
- Option 4 - All free for first hour then tariff applies, all spaces time restricted

The options are discussed below in **Table 15.5** in terms of advantages and disadvantages. A full economic assessment will be required as part of the final decision making, including infrastructure and on-going operation costs and also revenue. Ideally the timing of the decision will align with the construction of streets so that any infrastructure is installed at the time of construction rather than retrofitted.

**Table 15.5** On-street parking management options

	Advantages	Disadvantages
<b>Option 1 (status quo)</b> Some free, some have tariff applied, all spaces time restricted	<ul style="list-style-type: none"> <li>• Provides choice of parking type</li> <li>• Revenue from both non-payment and time restriction violations</li> </ul>	<ul style="list-style-type: none"> <li>• Potential confusion over which streets are free and which aren't</li> <li>• People could favour 'free' streets</li> <li>• On-going tariff collection and meter maintenance costs</li> </ul>
<b>Option 2</b> All free but time restricted	<ul style="list-style-type: none"> <li>• Easy for people to understand as all streets are the same in terms of being free</li> <li>• No on-going tariff collection and meter maintenance costs</li> </ul>	<ul style="list-style-type: none"> <li>• Difficult to reintroduce tariffs once removed</li> <li>• Revenue from time restriction violations only</li> </ul>
<b>Option 3</b> None free (tariff applies), all spaces time restricted	<ul style="list-style-type: none"> <li>• Easy for people to understand as all streets the same in terms of having a tariff</li> <li>• Revenue from both non-payment and time restriction violations</li> </ul>	<ul style="list-style-type: none"> <li>• On-going tariff collection and meter maintenance costs</li> </ul>
<b>Option 4</b> All free for first hour then tariff applies, all spaces time restricted	<ul style="list-style-type: none"> <li>• Supports short stay visits</li> <li>• Revenue from both non-payment and time restriction violations</li> </ul>	<ul style="list-style-type: none"> <li>• May discourage people from staying in the CBD longer if they must return to the meter for extra time beyond 1 hour</li> <li>• On-going tariff collection and meter maintenance costs</li> </ul>



## 16. Recommendations

The proposed transport layout is shown in **Appendix D**. This shows the recommended option per street section and also the type of treatments that would be required where street intersect. Most intersections are recommended to be narrowed with a paved surface, the Cass Street intersections would be flush and the East Street intersections would be raised given the higher pedestrian volumes. At the intersections of Cass Street with Moore and Havelock Streets compact roundabouts are recommended (with aprons on the central islands to allow for larger vehicles) as these provide a gateway treatment.

The key street design recommendations are:

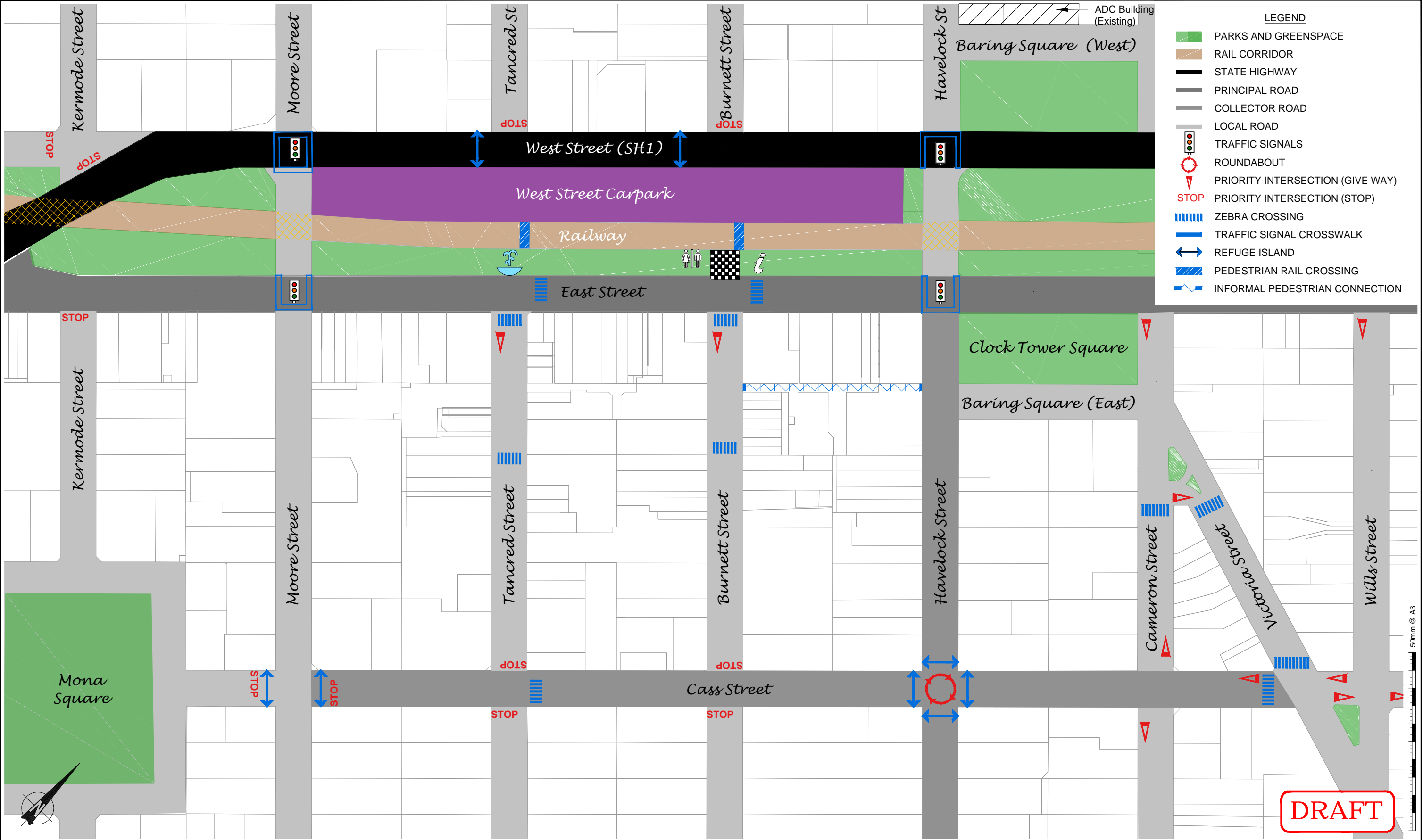
1. The design of Baring Square (East) be delayed so that it can be integrated with the design of the new council offices and library.
2. It is recommended that a 30km/hour speed limit zone is created in the area bound by East Street, Moore Street, Cass Street and Havelock Street. This will support the desired low speed environment and reflect current speed management practice in New Zealand.
3. It is recommended that gateway treatments are created at the four key entry locations, these could be used as the speed limit transitions.
4. It is recommended that ADC pursue the development of lane connections as shown in Appendix D.
5. It is recommended that ADC pursue development of wider cycle network connections to the CBD.
6. It is recommended that ADC confirm a parking management approach so it can be developed in conjunction with the streetscape renewals.
7. It is recommended that the street designs as outlined in **Table 16.1** are developed further and then presented to the community for consultation prior to detailed design. A priority order for the work is also suggested in terms of integration with adjacent developments and greatest alignment with the project objectives. The matters that require further development are:
  - a) Arborist assessment of the existing street trees to determine if their condition life span.
  - b) Topographical survey to determine the levels and hence impact of the designs on the existing levels (stormwater).
  - c) Prepare rough order costs for each street.

**Table 16.1**  
Recommended  
street designs

Street	Recommended option	Construction Priority
East Street	B	High
Burnett Street	F	High
Tancred Street	F	High
Cass Street (Burnett to Tancred)	B	High
Cass Street (Burnett Street to Havelock Street)	B	Med
Cass Street (Tancred Street to Moore Street)	B	Med
Havelock Street	A+B	Low
Moore Street	A+B	Low

## *Appendix A*

### *Existing transport layout*



Rev	Date	By	Chk	Description
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----	----	----	----	----
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Design	JW
Drawn	BSJ
Checked	JW
Issued	02/02/2018
Scale	1:2000 @ A3

Ashburton CBD Streetscape Renewals  
Existing Transport Layout

Project No.	ADC-J002
Dwg #	ATC10074
Sheet	1
Revision	--

## *Appendix B*

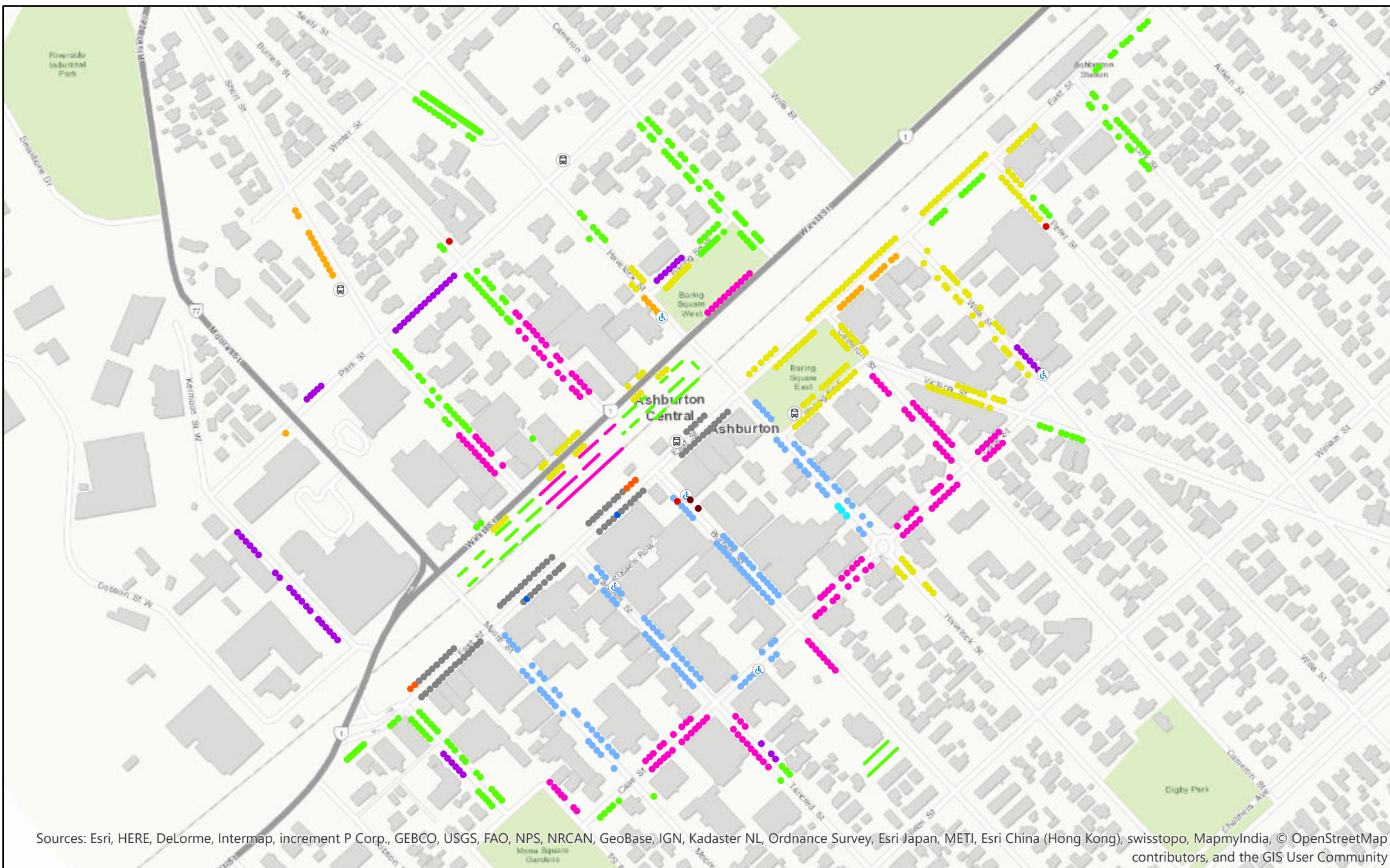
### *Safety assessment*





















## *Appendix C* *Parking map*

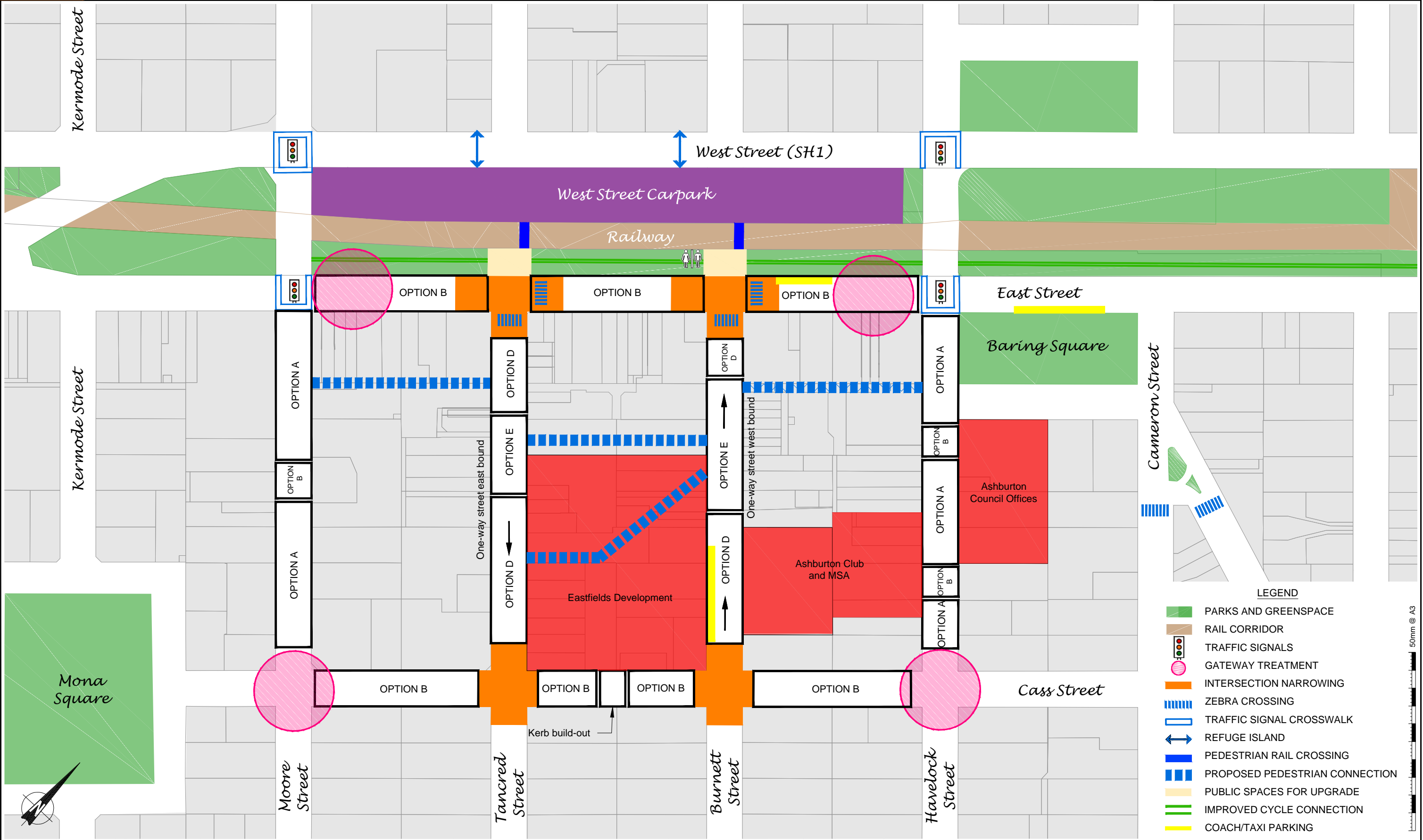




## Legend

- |  |  |   |   |
|--|--|---|---|
|  Bicycle stand    |  P15          |  Parking meter (P60) |  Taxi stand                |
|  Bus stop         |  P30          |  P120                |  Loading zone              |
|  Disabled parking |  P60          |  No time limit       |  No time limit (offstreet) |
|  P10 Smarteye     |  P60 Smarteye |  Reserved parking    |  P120 (offstreet)          |

*Appendix D*  
*Proposed transport*  
*layout*



Rev	Date	By	Chk	Description
A	15/03/2018	AW	JW	Amended for Issue



Design	JW
Drawn	BSJ
Checked	JW
Issued	02/02/2018
Scale	1:2000 @ A3

Ashburton CBD Streetscape Renewals

Proposed Transport Layout

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Project No.	ADC-J002
Dwg #	SKETCH
Sheet	1
Revision	A



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