

# Memorandum

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To:  
From: Rob Douglas-Jones  
Date: 12 February 2018  
Subject: Mt Eden Village bus stops review

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## Introduction

The current bus stop layouts in Mt Eden Village are too short to cater for the passenger demand and bus frequencies. As bus frequencies have increased with demand the instances of more than one bus stopping at each stop at the same time have also increased. When a bus already occupies the stop, the second bus has to stop within the Mt Eden Road / Stokes Road intersection, obstructing the pedestrian crossing and sometimes vehicle turning movements. AT are therefore investigating options to address this issue, including increasing the length of bus stops.

In response, the Mt Eden Village Business Association have asked AT to relocate the existing bus stops to the fringe of Mt Eden Village in order to retain more space for on-street parking. AT have therefore looked at several options for addressing the current issues with these bus stops.

## Parking Proposals

The Mt Eden Village parking review recommendations include converting 70 parking spaces into time restricted parking. AT are yet to consult with the public on this proposal, but if implemented it is expected to free up these spaces to provide additional parking capacity for visitors to Mt Eden Village.

## Conclusions / Recommendations

Six options were considered for the layout of bus stops for Mt Eden Village. This review concluded that the preferred option is Option 3 - retain bus stops in existing positions and extend them to create double stops.

Whilst this option does result in the removal of 6 parking spaces in the middle of Mt Eden Village, the project has been delayed in order to coordinate implementation along with parking improvements, and it is considered that the impact of removal of these parking spaces is more than outweighed by the planned improvements proposed for parking restrictions in the area.

Further, this review also concluded that Option 3 provides the highest level of accessibility, amenity and convenience for bus patrons and it addresses the issues resulting from the current stops being too short.

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## Summary Impacts

	Parking Impact	Infrastructure requirements	Position / connectivity	Bus operations
<b>Option 1 Relocate stops to north of Valley Road</b>	16 to 18 spaces removed	Significant new infrastructure required at new bus stop positions	Bus stop positions not as convenient for passengers visiting the Village, people will need to cross Valley Rd or Oaklands Rd	New bus stop positions and layouts expected to address existing issues. Bus stops on the hill are will make boarding / alighting more difficult and will mean that waiting is less comfortable for patrons
<b>Option 1a Relocate NB stop north of Valley Rd &amp; SB stop north of Stokes Rd</b>	16 to 18 spaces removed	Significant new infrastructure required at the northbound bus stop position	As per Option 1	As per Option 1
<b>Option 2 Relocate stops to south</b>	22 spaces removed	New infrastructure required at new bus stop positions	As per Option 1	New bus stop positions and layouts generally expected to address existing issues, but the constrained stop outside Mobile garage likely to become an issue
<b>Option 3 Retain the bus stops in the existing positions</b>	Six spaces removed	Minimal	Bus stops ideally positioned central in Village centre. Pushes some car parking further out, but parking availability not expected to be a problem with new parking restrictions.	Addresses existing issues with stops.
<b>Option 3a</b>	Four spaces removed	Minimal	As per Option 1	Addresses existing issues with stops, but not as optimal as Option 1 for northbound services

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## Options Considered

### Option 1 - Relocate stops to north of Valley Road

This option removes both the existing stops and relocates them to north of Valley Road. It would also be necessary to install two new stops on Valley Road to service the Outer Link, and a new northbound stop would be needed close to Grange Road to cater for the catchment between the Fairview Road and Valley Road stops.

#### Infrastructure Requirements

This option would require significant additional infrastructure to be constructed to provide shelter for bus patrons at the new stops, where there are no shop verandas. The stops should have large 'intermediate' or 'major' shelters, particularly in the citybound direction, and the cost to provide these would be increased by the fact that this section of road is on a relatively steep gradient. The steep gradient will also make it more difficult for mobility impaired users to board and alight and it will make it less comfortable for people waiting at the stops.

#### Pedestrian Connectivity

This option is less convenient for bus passengers who are visiting the village, and consideration would need to be given to providing a pedestrian crossing facilities over Valley Road and Oaklands Road to connect the stops to the Village centre. This option is also likely to encourage more

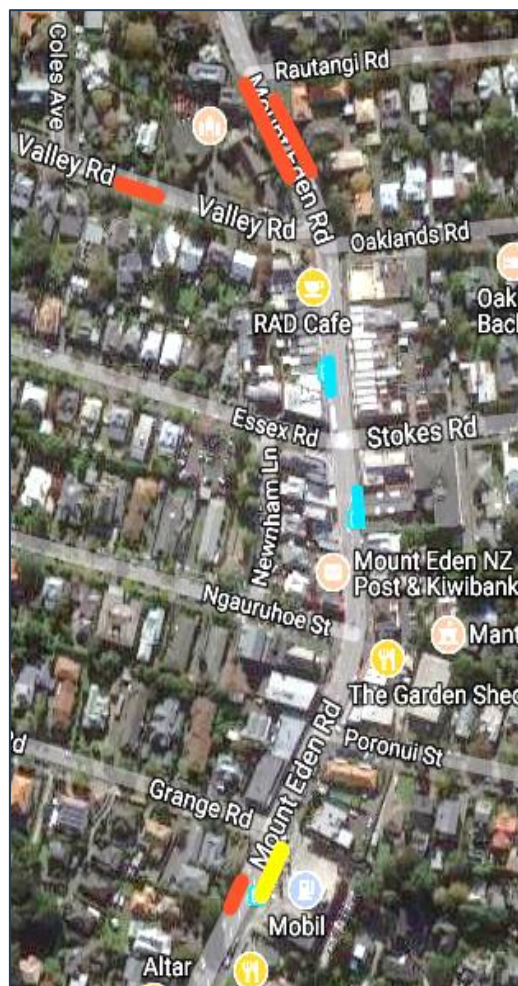
pedestrians to cross Mt Eden Road north of Valley Road, which could increase the risk of pedestrian crashes here unless a new crossing is installed.

#### Stop Spacing

With the stops located on the northern fringe of the Village, the distance from the previous northbound stop at Fairview Road would be about 600m, which is much greater than the AT's requirement of 400m. Therefore it will be necessary to provide an additional northbound stop in the area close to Grange Road to ensure adequate stop spacing, and to service the southern end of the Village.

#### Option 1 - Impact on parking

- Four spaces gained close to Stokes Road intersection,



Red	= parking removed for new bus stops
Blue	= parking gained from relocating bus stops
Yellow	= existing bus stop to remain

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- 16 spaces removed from north of Valley Road (all of the parking spaces on both sides of the road between Rautangi Road and Valley Road),
  - Four spaces removed for Outer Link stops on Valley Road and
  - Two spaces might need to be removed for an additional stop at Grange Road.
- Overall, 16 to 18 spaces would need to be removed from the area.

## Option 1a - Relocate northbound stop north of Valley Road and southbound stop north of Stokes Road

This option is similar to Option 1, but with the new southbound stop positioned south of Oaklands Road. This option has a similar impact on parking, but the existing shop verandas between Oaklands Road and Stokes Road help to reduce the amount of new infrastructure required for this stop.

### Infrastructure Requirements

Significant new infrastructure would still be required, including at the new northbound stop, and possibly a new shelter at the new Grange Road stop.

### Pedestrian Connectivity

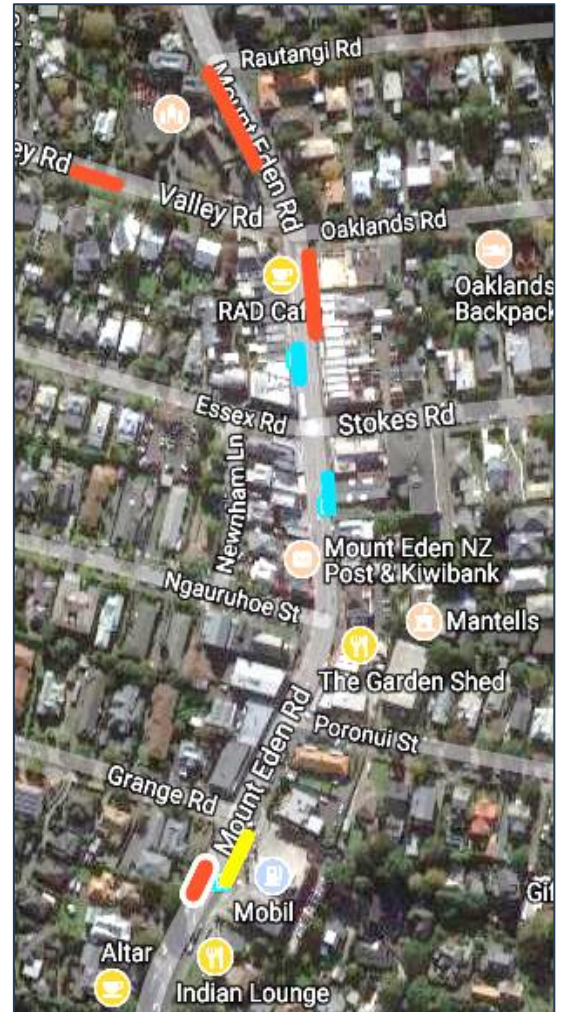
Consideration would need to be given to providing a new pedestrian crossing facility over Valley Road to connect the stops to the Village centre, but no additional facilities would be needed for Oaklands Road.

### Stop Spacing

As per Option 1, a new northbound stop is likely to be needed close to Grange Road

### Option 1a - Impact on parking

- Four spaces gained close to Stokes Road intersection by removing existing stops,
  - Seven spaces removed for southbound stop north of Stokes Road north of Valley Road
  - Nine spaces removed north of Valley Road for the northbound stop
  - Four spaces removed for Outer Link stops on Valley Road and
  - Two spaces might need to be removed for an additional stop at Grange Road.
- Overall, 16 to 18 spaces would need to be removed from the area.



Red	= parking removed for new bus stops
Blue	= parking gained from relocating bus stops
Yellow	= existing bus stop to remain

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## Option 2 - Relocate stops to south

This option removes both the existing stops and relocates them to close to Grange Road. There is an existing southbound stop directly outside the Mobil petrol station, however, there is not enough space to provide a double stop and when a second bus stops here it is likely to block the entrance into the petrol station. In the northbound direction, the stop would need to be positioned just north of Grange Road where there is enough space for a double stop. However, due to the stop spacing, the bus frequency and passenger demand would still likely require a double stop just north of Valley Road, and to provide a convenient interchange between the Outer Link and the 27a/b routes, it would also be necessary to install two new stops on Valley Road.

### Infrastructure Requirements

New shelters required north of Valley Road, inbound and outbound. The existing shop verandas north of Grange Road means that no new shelter would be required in this location.

### Pedestrian Connectivity

Similar to option 1, enhancements to pedestrian crossing facilities should be looked at to improve crossings at Valley Road and possibly Oaklands Road.

### Option 2 - Impact on parking

- Four spaces gained close to Stokes Road intersection by removing existing stops
- Six spaces removed for new northbound stop north of Grange Road
- 16 spaces removed north of Valley Road for the northbound stop
- Four spaces removed for Outer Link stops on Valley Road

Overall, 22 spaces would need to be removed from the area.



Red = parking removed for new bus stops  
Blue = parking gained from relocating bus stops  
Yellow = existing bus stop to remain

## Option 3, 3a - Retain the bus stops in the existing positions

- These options retain the stops in their existing positions but with varying bus stop lengths and therefore varying impacts on parking in the village.
- Both three options position the stops in the centre of the village, which is considered to be the ideal position for public transport to service the commercial area.
- These options also eliminate the need for AT to provide separate infrastructure to shelter patrons from the elements because the stop positions benefit from existing shop verandas.

## Option 3 - Retain bus stops in existing positions and extend them to create standard double stops

This option provides standard double bus stops on both sides of the intersection (two 15m stops, plus two 9m lengths of NSAAT to enable buses to pull out from stops). The stop layout ensures that two buses can be comfortably accommodated at both stops and at all times, and it provides enough space between the stops to enable the second bus to depart before the first bus if it completes boarding / alighting first.

This option is expected to eliminate the issue of buses blocking the pedestrian crossings.

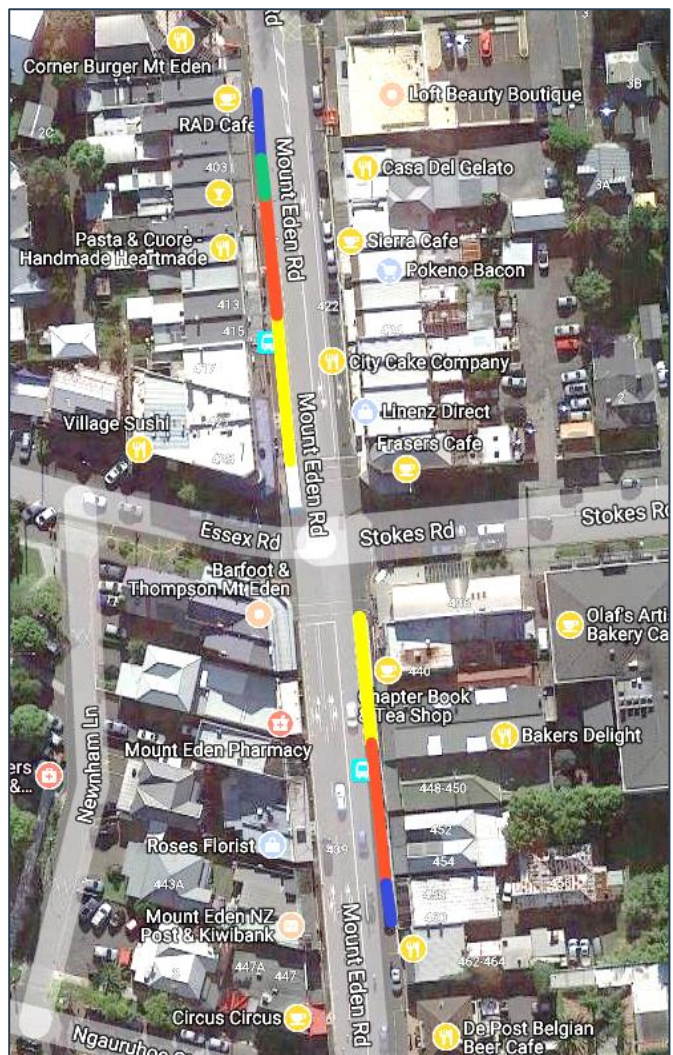
### Town Centre Amenity

This option is a relatively minor change from the existing situation and therefore it does not address some of the concerns / issues raised by the business association, including;

- Noise for businesses adjacent to the bus stops
- Buses obstructing visibility to / from businesses located adjacent to stops
- Congestion on the footpath north of Essex Road during the morning peak, when there are a lot of people waiting for the bus

### Option 3 - Impact on parking

Six spaces removed



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## Option 3a - Retain bus stops in existing positions and extend them to create minimum length double stops

Yellow = existing bus stops to remain  
Red = bus stops extended  
Green = relocated loading bay  
Blue = remaining parking

This option also delivers similar benefits to Option 3. However, the shorter stops would mean that when two buses are stopped at the same time, they would need to stop closer together, and the second bus would always need to wait for the front bus to depart first.

### Option 3a - Impact on parking

Four to five spaces removed

