

4 Proposed LATM Measures and Recommendations

A number of proposed LATM measures have been recommended by Cardno to address the main traffic issues identified from the traffic data and community consultation data, in consultation with Council officers.

4.1 Key Issues

Issues have been identified through consultation via a community questionnaire survey, site observation, and analysis of the existing conditions via tube count surveys and existing traffic data provided by Council. The following 'key issues' were identified to guide the formulation of appropriate recommendations:

- > Speeding and hooning behaviour on Albert Street, Bourke Street, Davies Street, Dundas Street, Fitzroy Street, Grey Street, Halletts Way, Holts Lane, Jonathan Drive, Nathan Drive, Nelson Street, and Wittick Street;
- > Lack of footpath and/or footpath lighting throughout the study area;
- > Lack of crossing facilities to access Darley Park and the Darley Plaza shopping area at the southwestern corner of Grey Street and Gisborne Road;
- > Heavy truck high volume on Albert Street, Beresford Crescent, Davies Street, Dundas Street, Gisborne Road, Grey Street, Jonathan Drive, Halletts Way, Holts Lane, Nelson Street, and Wittick Street; and
- > On-street parking around Darley Park on days when Darley Market is in operation..

4.2 Objectives

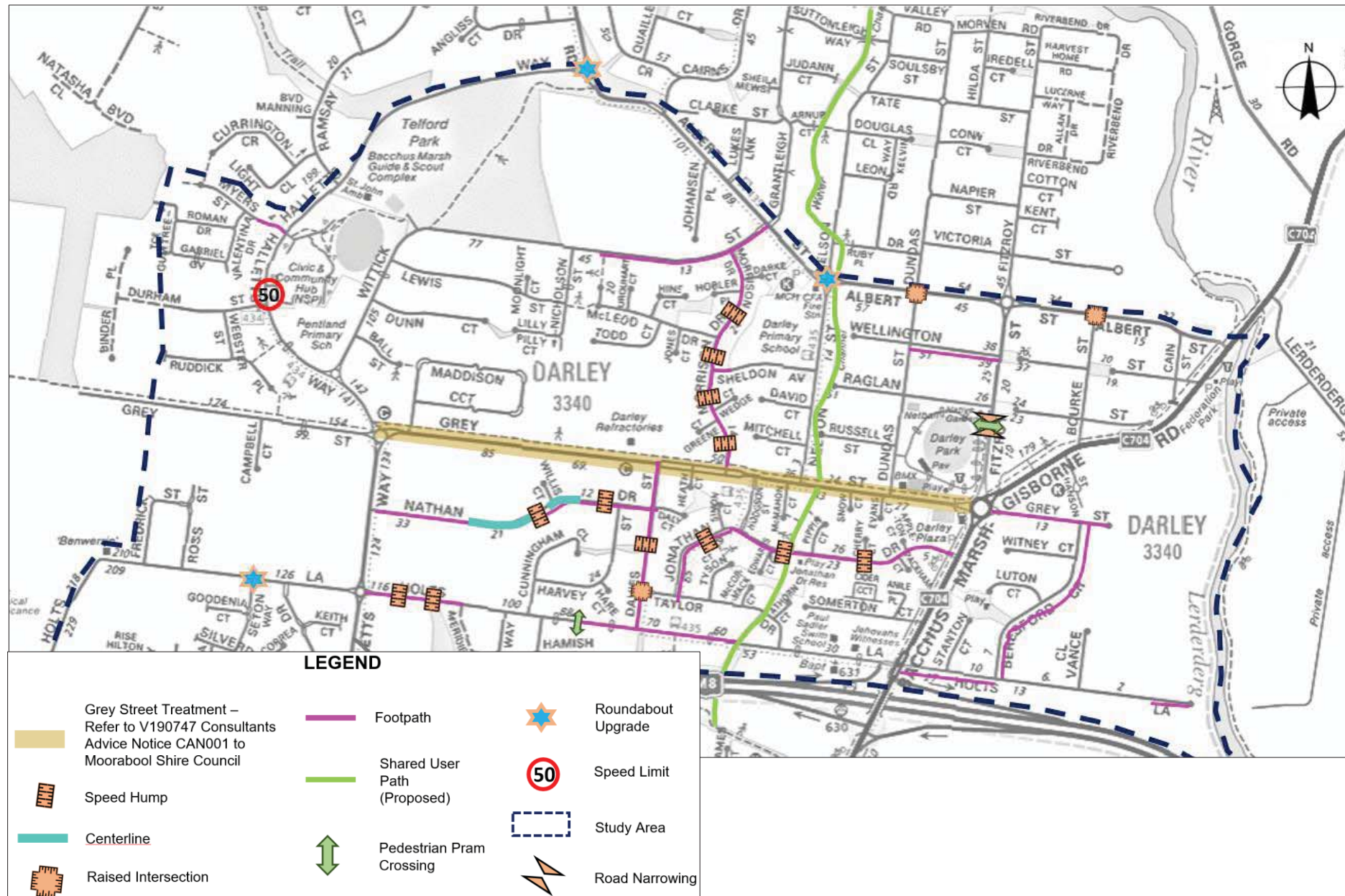
The objectives of the proposed plan are as follows:

- > Speed calming on local streets that are being used as rat running routes;
- > Improve existing facilities to maximise traffic operation safety and efficiency;
- > Footpath provision to improve levels of accessibility for active road users;
- > Maximise the benefits of available funding, with priority given to locations with higher demand and greater level of community concerns; and
- > Maintain adequate levels of accessibility for local residents, public transport, businesses and emergency services.

4.3 Proposed LATM Treatments

The proposed LATM measures consider a range of traffic management treatments intended to address the key concerns outlined above. The proposed draft LATM is shown in Figure 4-1.

Figure 4-1 Proposed Draft LATM Plan



4.4 Proposed Treatments

The following sections provide a summary of all the individual treatments included in the initial traffic management plan:

4.4.1 Albert Street

Albert Street is a wide corridor with long and straight alignment for the majority of the road, thus creating an environment that encourages speeding and hooning. The recorded 85th percentile speed is shown to be 61.2 km/hr in a 50 km/hr zone.

Albert Street between Links Road and Nelson Street is a bus route which had a relatively high Annual Average Daily Traffic Volume (AADT) of ,374 vehicles per day (vpd) recorded in 2019. It is therefore not suitable for many LATM measures. It is recommended, however, to upgrade the existing roundabout at Albert Street and Nelson Street intersection. In aerial images it can be seen clearly that the height of the roundabout does not achieve sufficient deflection, as shown in Figure 4-2. There are no other traffic calming devices near the existing children's crossing outside Darley Primary School on Albert Street, which can also be seen in Figure 4-2 to the north-west of the roundabout, therefore it is recommended that the roundabout provide better deflection to improve safety at the children's crossing.

Figure 4-2 The roundabout at the intersection of Albert Street and Nelson Street



Between Bacchus Marsh-Gisborne Road and Nelson Street the AADT is comparatively lower – 1,212vpd – and more practical for LATM devices. Currently there are no LATM measures along this length of Albert Street except for the roundabout at the intersection with Fitzroy Street, which results in two (2) uninterrupted lengths of road approximately 500 metres long. . Raised intersection treatments are suggested on Albert Street at the intersections with Bourke Street and Dundas Street to provide interruption and safer operation.

4.4.2 Davies Street

Davies Street has a wide corridor width, and can be used for rat running as it connects Grey Street and Holts Lane, and is parallel with Bacchus Marsh-Gisborne Road and Halletts Way. To address the speeding issue as well as discouraging rat running, it is recommended to install speed humps along Davies Street.

A raised intersection treatment has been suggested for the intersection with Taylor Drive to address hooving behaviour raised in the public consultation, noting that the location of the intersection on a bus route will require the ramps to be bus operation friendly.

4.4.3 Fitzroy Street

To provide better access to Darley Park for active road users, it is suggested to improve the crossing facilities on Fitzroy Street near the intersection with Raglan Street to connect the existing walkway footpaths

on either side of Fitzroy Street, as shown in Figure 4-3. The recommended measure is to install built-out kerbs with pram ramps at this location to provide a safer passage for pedestrians by narrowing the carriageway width for speed calming and also to shorten walking distance.

Figure 4-3 Fitzroy Street at the intersection with Raglan Street



It is also suggested to install footpath on Wellington Street between Fitzroy Street and Dundas Street to provide connection between two existing footpath pathways, further improving the accessibility for pedestrians to Darley Park.

4.4.4 Grey Street

In August 2019 Cardno prepared a concept layout plan for Moorabool Shire Council for Grey Street to provide a more efficient cross section on Grey Street between Halletts Way and Bacchus Marsh-Gisborne Road, and improved pedestrian facilities at the eastern end of the study area, near the intersection with Bacchus Marsh-Gisborne Road.

The concept plan has proposed for kerbside parking lanes, on -street bicycle lanes, elongations of the central median islands, new footpath to connect the missing links between existing children's crossings and footpaths, etc. The concept layout plan can be found in Appendix C for further information, noting that it is still subject to Council input.

4.4.5 Halletts Way

Many residents have suggested through the consultation that the current environment on Halletts Way between Wittick Street and Myers Street does not support the speed limit of 40 km/hr and drivers rarely oblige to it. The speed limit in this area is recommended to be changed to 50 km/hr, although a 40k school zone should still be applied for Pentland Primary School during pick up/drop off hours.

4.4.6 Holts Lane

The recorded 85th percentile operating speed was recorded to be 76.3 km/hr in 2017 between Cunningham Close and Halletts Way in a 50 km/hr speed limit zone. Since there are five existing speed humps along Holts Lane between Cunningham Close and Bacchus Marsh-Gisborne Road, it is considered appropriate to install three additional speed humps between Cunningham Close and Halletts Way to address the speeding issue.

Footpath is highly recommended to be installed along Holts Lane to connect the missing links between the existing footpath facilities. In particular, a connection at the eastern end of Holts Lane is recommended to access the walking trail along the Lerderderg River

The aerial image of the existing roundabout at the Holts Lane and Seton Way intersection shows that the roundabout is not providing sufficient deflection, thus minimal speed calming effect is achieved as shown in Figure 4-4. Improvements such as heightening and readjusting the size of the central island are recommended for investigation.

Figure 4-4 The intersection of Holts Lane and Seton Way



4.4.7 Jonathan Drive

Jonathan Drive has both speeding and rat running issues. As it is a local road it is suitable for speed hump installation, however, it needs to be taken in consideration that a length of Jonathan Drive is also a bus route. A centerline is also recommended to be installed at the curvatures.

It is also recommended for additional footpath provision along Jonathan Drive, as it connects Bacchus Marsh-Gisborne Road, Taylor Drive, and Davies Street. Children can also be expected to be using Jonathan Drive regularly to access Darley Primary School.

4.4.8 Morrison Drive

Morrison Drive connects Grey Street and Wittick Street and with a wide carriageway width, might be subject to speeding behaviour. Further data to confirm speeding behaviour is unavailable; however, if speeding behaviour is confirmed, the installation of speed humps is a suitable option for LATM implementation.

Footpath provision is also recommended to be improved along Morrison Drive as there is currently no footpath available on either side of the street and it is close to Darley Primary School where children are expected to be walking frequently.

4.4.9 Nathan Drive

A speeding issue has been reported by the local residents along Nathan Drive. It is suggested that speed humps be installed along the street to address the speeding issue and also to discourage heavy truck traffic and potential rat running behaviour. Centerline linemarking should also be installed at the curvatures.

In addition, footpath provision is highly recommended as there is currently no footpath on either side of the street and a certain amount of foot traffic can be expected along Nathan Drive as it connects to Halletts Way, Davies Street, and also is in proximity to Darley Primary School.

4.4.10 Nelson Street

Nelson Street provides the main access to Darley Primary School, and accordingly there is speeding issue and increasing heavy vehicle traffic along the road. However, the absence of kerb and channel on the eastern side of the road makes implementation of LATM devices impractical.

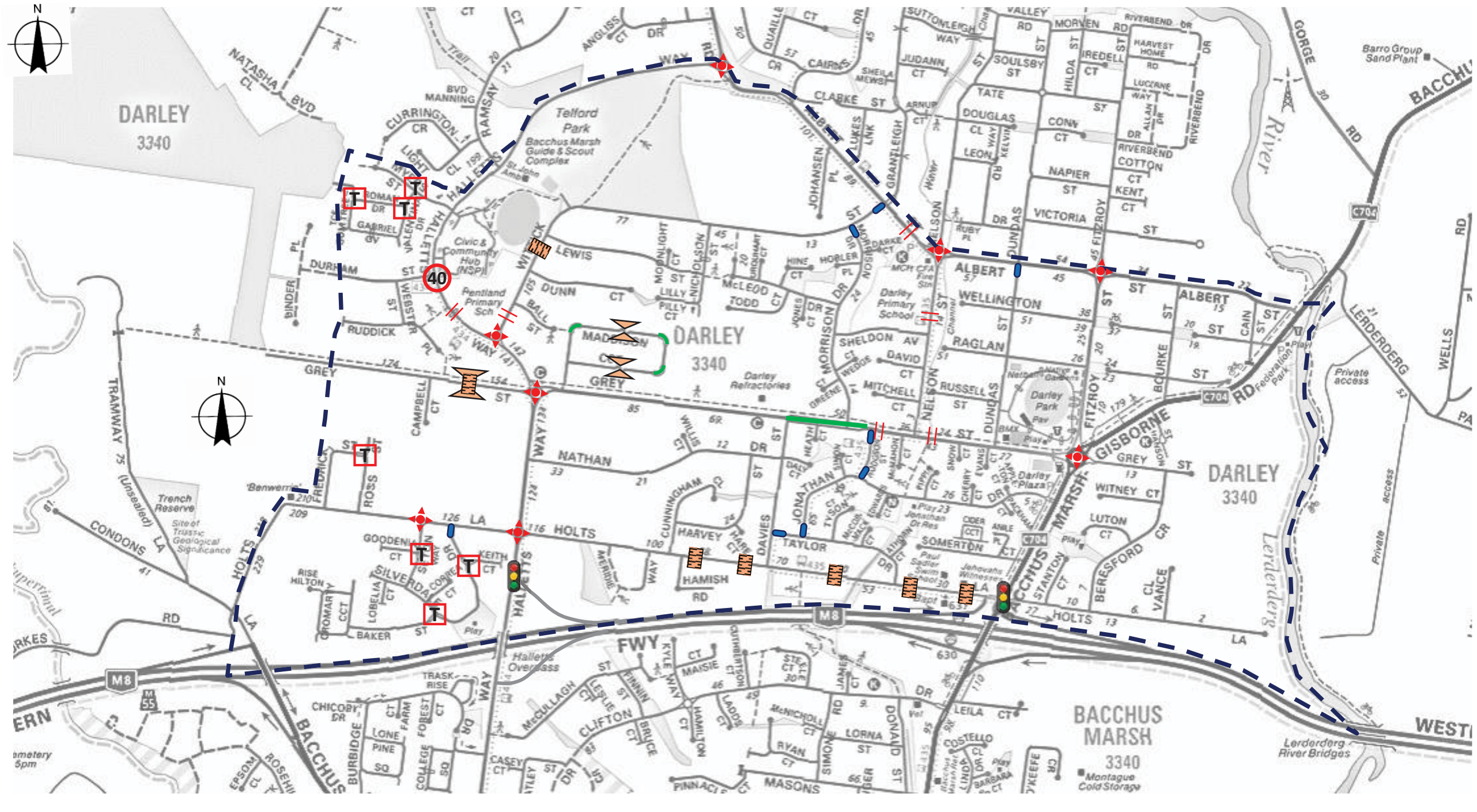
One option to improve the safety of the school operation along Nelson Street is to install footpath on the eastern side of the street, as many children are reportedly crossing Nelson Street between Grey Street and Darley Primary School unsafely due to the absence of footpath on the eastern side.

Bacchus Marsh Local Area Traffic
Management Study – Stage 3

APPENDIX

A

EXISTING CONDITIONS



Existing LATM Measures
25/10/2019



Bacchus Marsh
Local Area Traffic Management Study – Stage 3

LEGEND

- | | | |
|-----------------|-------------------------|-------------|
| Study Area | Traffic Signals | Speed Hump |
| Road Narrowing | Modified T-Intersection | Median |
| Splitter Island | School Crossing | Speed Limit |
| | Roundabout | |

Bacchus Marsh Local Area Traffic
Management Study – Stage 3

APPENDIX

B

DRAFT LATM MEASURES