

LOCAL AREA TRAFFIC MANAGEMENT PLAN - ZONE 2 - PARKSIDE



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1. INTRODUCTION

1.0 Introduction

The City of Unley has been progressively completing a series of local area traffic management (LATM) studies across the City. This latest study includes the area bounded by Greenhill Road, Glen Osmond Road, Fullarton Road, Wattle Street and Unley Road.

The study has been undertaken by Council's Transport and Traffic team, and is based largely on existing data and knowledge of the area from previous feedback from the community, generally focussing on three themes:

- Parking
- Walking and Cycling
- Traffic Management and Safety

Following the analysis of data, Council undertook a comprehensive engagement program with the local community. It was evident during the community engagement process that local residents and businesses are generally supportive of solutions to the identified issues.

Recommendations address the key traffic related issues in a systematic manner while minimising impacts on local residents. However, as is the case with any traffic/parking interventions, there will be some residents/businesses that will be impacted, but will overall result in positive change to traffic, parking and road safety issues.

1.1 LATM Prioritisation Study

Local area traffic management (LATM) is the planning and management of road space within a local area. It considers neighbourhood level traffic-related problems, and proposes solutions in context of the local area, rather than in isolation.

In order to establish these 'local areas', a LATM Prioritisation Study was undertaken, where the City of Unley was divided into 36 precincts that are bounded by natural traffic boundaries (e.g. tram/train lines, arterial/collector roads). These 36 precincts were combined into six LATM study areas, which are depicted in Figure 1.1. The LATM Prioritisation Study compared these areas based on community concerns received, crash history (safety issues), and traffic data, which informed a relative priority. This LATM is area 2, which was considered the second highest priority of the six areas.

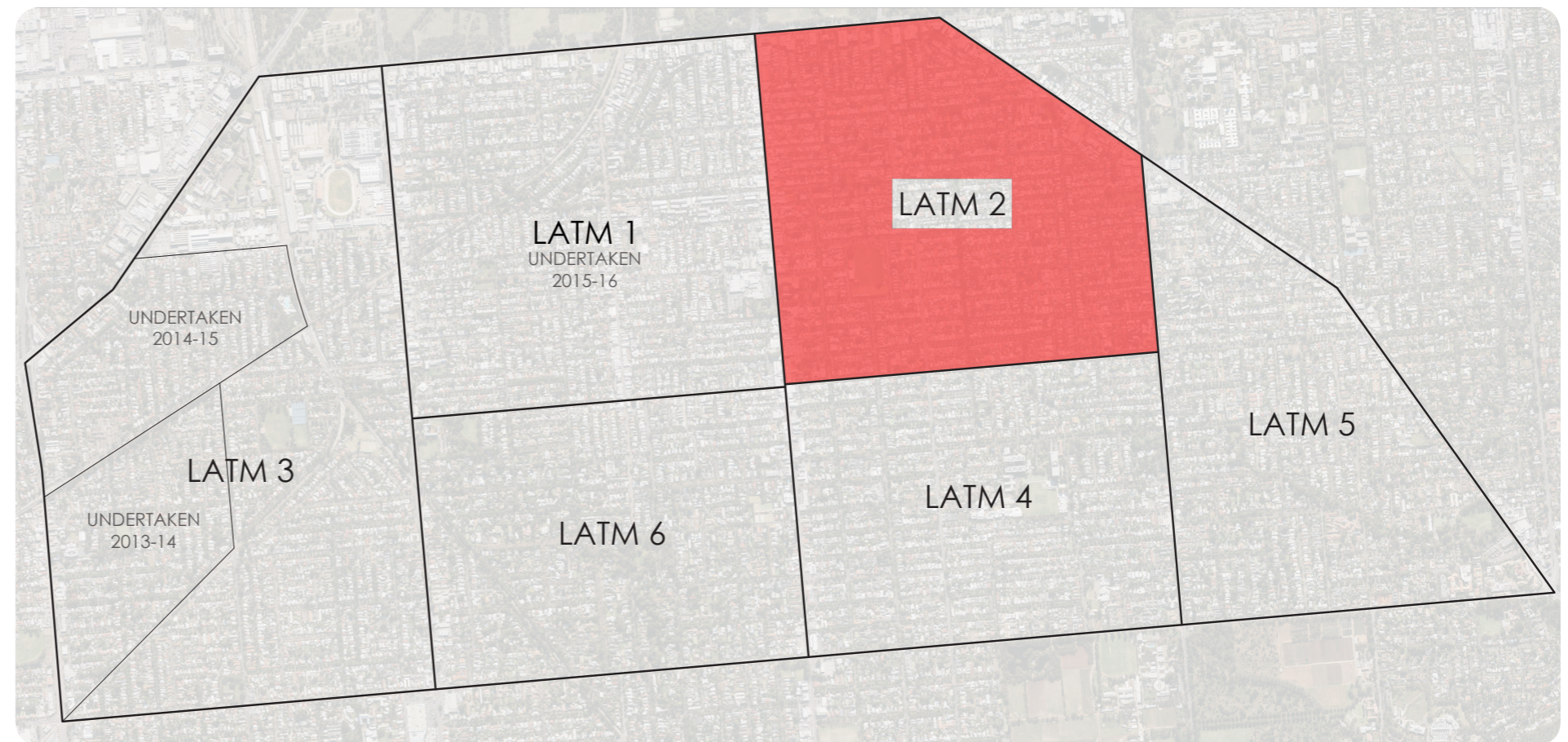


Figure 1.1 Local Area Traffic Management Study Areas, City of Unley

1.2 Strategic Overview

Local area traffic management plays a key role in delivery of the Unley Integrated Transport Strategy, and in turn the City of Unley Community Plan 2033 (refer to Figure 1.2 for the strategic planning hierarchy). Measures resulting from LATM directly support objectives of these strategies:

Community Plan 2033 and Four Year Delivery Plan 2017-2021

Community Living theme

- Objective 1.5 - Our City is connected and accessible
- Strategy 1.5a Ensure an effective network for all modes of transport.
- Strategy 1.5b Encourage walking and cycling as methods of transport.
- Strategy 1.5d Manage parking across the city to maximise its availability.

Unley Integrated Transport Strategy

Active Transport focus area

- Unley is recognised as a leader in providing connected, efficient and safe active transport choices.
- Active transport options are more utilised by the local community.

Parking focus area

- Unley is recognised for its proactive, innovative, and customer centric approach to parking management.
- Equitable and convenient parking options are delivered throughout the City.

Traffic Management and Road Safety focus area

- Unley is recognised as a leader in road safety and traffic management outcomes.
- Safety is at the core of all of our infrastructure, traffic and transport management initiatives.
- Unley's street and path networks provide effective, safe routes for all users.

1.3 Purpose of a LATM Study

The objective of a LATM study is to achieve acceptable levels of traffic volume and speed, and improve the general amenity of the area. This can create safer and more pleasant streets.

These objectives are primarily achieved through influencing driver behaviour, either through physical influence on vehicle operation, or by influencing the driver's perception of what is appropriate behaviour in a street or area.

In order to meet these objectives, a LATM study considers traffic volumes, traffic speeds, crash history, parking, local street connectivity and proximity to main roads, and also community perceptions regarding traffic issues.

Tools available include the use of physical devices, streetscaping treatments and other measures such as parking controls and regulatory signs.

The need for LATM arises from:

- An intent to reduce traffic-related problems,
- orderly traffic planning and management (i.e. to align with a desired road hierarchy),
- a desire to improve the community space and sense of place,
- a desire to improve environmental, economic and social outcomes,
- a need for traffic interventions associated with new development,
- the implementation of pedestrian and bicycle plans and other policies/strategies.

Traffic problems include:

- Traffic safety, leading to measures to control traffic speeds and behaviour,
- protection or improvement of local amenity focussing on appropriate allocation, design and use of street space.

Management involves:

- Coping with the pressure of traffic growth,
- the need to reduce traffic impacts on resident amenity,
- spill-over from traffic routes – restraints on 'rat-running',
- direction of traffic to the most appropriate routes,
- creating conditions for safe and comfortable cycling and walking.

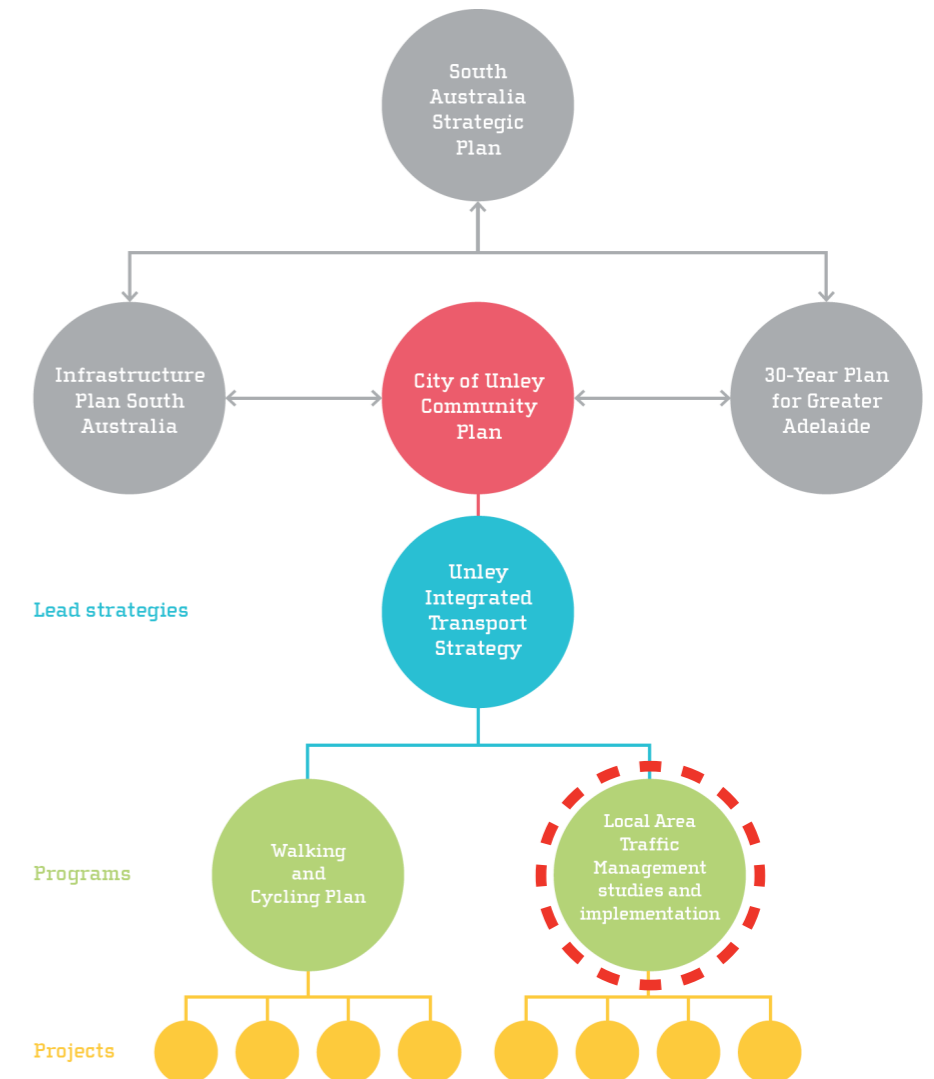


Figure 1.2 Strategic Planning Hierarchy

2. METHODOLOGY

Methodology

The LATM study process consisted of four stages:

Identify issues

Potential issues were identified through historical knowledge of the area and community perceptions, issues/projects highlighted in the Walking and Cycling Plan, and where aligned with State Government funding opportunities.

Engage community

The community were engaged on identified issues and general feedback was sought to understand any other key transport related priorities of residents and businesses in the area.

Determine desired outcomes

Community feedback and both existing and new traffic data was analysed in detail to determine desired outcomes for the area.

Recommend actions

Individual issues were investigated and 30 recommendations were developed and prioritised.

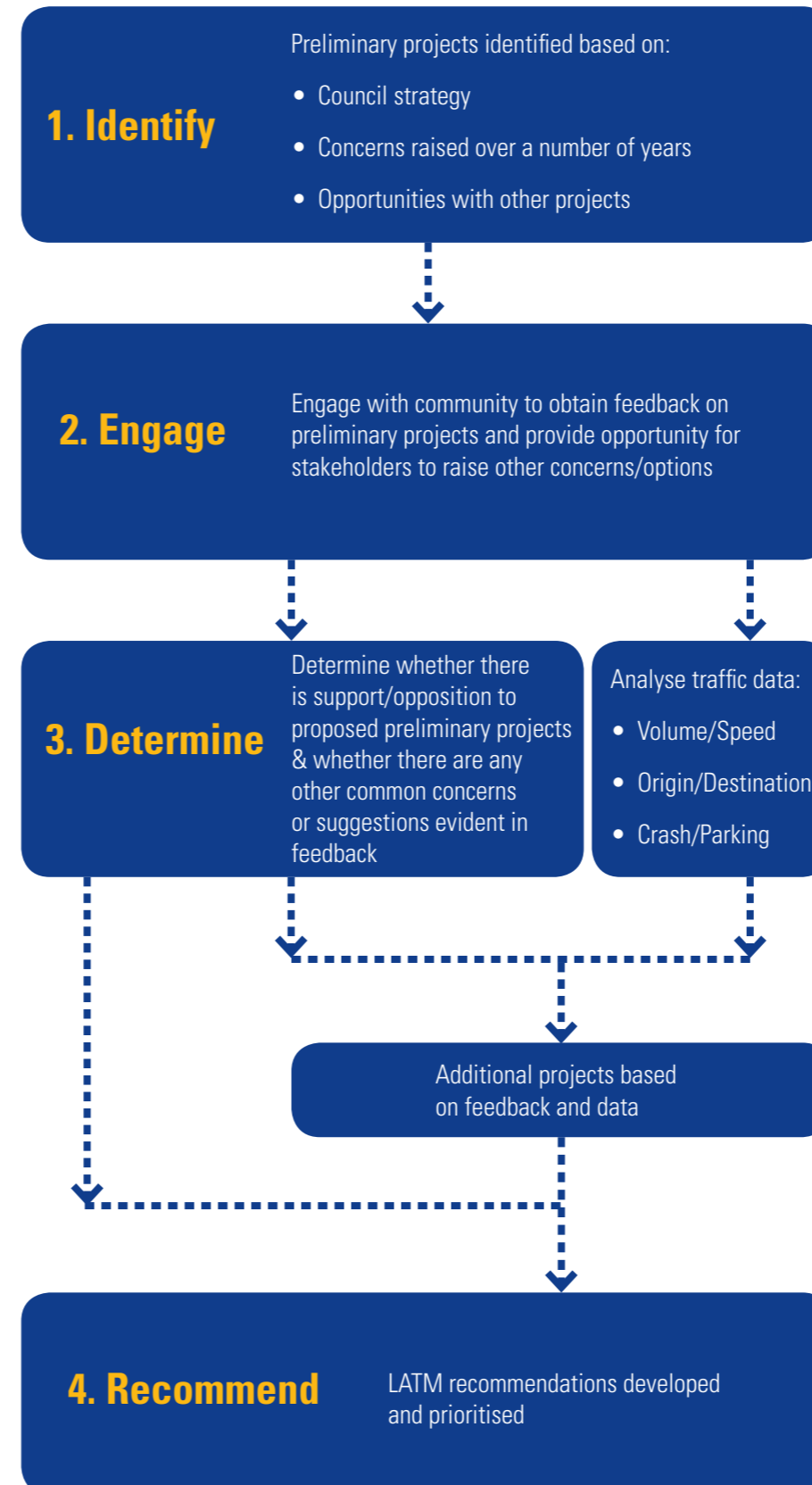


Figure 2.1 Methodology Flow Chart

3. CONTEXT

The LATM area is bounded Greenhill Road, Unley Road, Wattle Street, Fullarton Road, and Glen Osmond Road. The Adelaide CBD, located to the direct north of the LATM study area, results in significant north/south through traffic along the arterial roads of Unley Road, Fullarton Road, Glen Osmond Road, and the major collector road of Duthy/George Street to a lesser degree.

Congestion is experienced at major intersections, including Unley Road/Greenhill Road, Fullarton Road/Glen Osmond Road and Greenhill Road/Glen Osmond Road, as well as George Street/Greenhill Road to a lesser extent. This can lead to rat running behaviour through residential streets.

Office type land use along Greenhill Road results in legitimate through traffic to Greenhill Road as well as high demand for on-street parking. Five schools in the area add additional pressure to the traffic network, particularly during the 8-9.00am period which coincides with the peak traffic period where motorists travel to work. This suggests that there is legitimate traffic accessing the residential street network and any measures to discourage rat-running should take this into consideration.



Figure 3.1 Land Use Context

4. TRAFFIC DATA

4.1 Warrants

When using traffic data to aid decision making, there is ideally an agreed level or condition where action is warranted (i.e. traffic volume over a certain value). Establishing when LATM action is necessary or desirable is often based on warrants or other objective measures of relative need, usually referring to traffic speeds, traffic volumes, or crash rates. There is no agreed or formally-adopted statement of conditions in Australian Standards or Austroads Guides at which LATM measures must be implemented. These conditions must be determined based on the individual circumstances and with professional judgement of traffic engineering practitioners, and expectations of the community. Austroads Guide to Traffic Management Part 8: 'Local Area Traffic Management' suggests that the categories set out in Table 4.1 should be adopted.

Warrants for the City of Unley

Warrants for the City of Unley are based on objective measures and community perceptions. Objective measures include, for example, the traffic volume that could cause delays at intersections, speeds at which it is difficult for pedestrians to cross a road, or speeds where it is potentially unsafe for bicycles and motor vehicles to share the road.

An understanding of community perceptions is developed through interactions with the community in the LATM 2 area, and through other LATM's in the City of Unley, to determine what is perceived as appropriate. There is often a threshold where residents start to consider traffic a problem.

However, the role and function of a street must also be considered as well as traffic generators on the street or in the area. For example, a street adjacent a school may have a high percentage of traffic during the peak morning or afternoon period. This may not be considered acceptable for residents, but may not be considered a problem objectively as that is the role of the street.

Table 4.2 sets out the general warrants applicable for the City of Unley for 40km/h residential streets. Analysis of daily traffic volumes, 85th percentile speeds, and peak volumes through the LATM area support these values.

Problem level and likely response	Technical Criteria	Response/Action
Substantial problem (a deficiency)	Above the problem warrant level or threshold, i.e. fails the deficiency standard	The problem is significant enough to be included on a funded treatment program, in order of funding priorities
Acknowledged technical problem	Satisfies the deficiency standard but fails the desirable planning standard	Acknowledged problem justifying investigation, but not sufficient to attract funding in the short-term. Alternative (non-LATM) low-cost approach may be considered
Possible technical problem	Achieves the planning standard but conditions are perceived to be above tolerance levels for some in the community	There may be a problem, but not so serious as to attract funding, even in the longer-term. Alternative (non-LATM) low-cost approach may be considered
No agreed problem	Below majority tolerance levels and thus clearly achieves the planning standard although some negative community reports may occasionally occur	Unlikely to be required

Table 4.1 Problem categories

Applicable in residential streets only	Daily Traffic Volume	85th percentile speed	% of daily traffic in peak AM	% of daily traffic in peak PM	Casualty crashes in 5 year period	
Substantial problem (a deficiency)	> 3000	>= 50	> 20	> 20	3+	Further investigation required
Acknowledged technical problem	> 2000	48-49	17-20	17-20	3+	
Possible technical problem	> 1500	46-47	14-16	14-16	3+	
No agreed problem	< 1500	<= 45	< 13	< 13	< 3	No investigation required

Table 4.2 Traffic warrants for the City of Unley

Definitions

Daily traffic volume

Total number of vehicles recorded travelling past a particular point in a road over a 24 hour period. Ideally an average of weekdays across an entire year is used. Data provided in this report is an average of two week days, typically a Tuesday and Thursday.

The average daily traffic volume for the area is 981 vehicles per day.

85th percentile speed

Speed at which 85% of vehicles travel at or below under free flowing conditions past a nominated point (AS1742.4) i.e. 15% of vehicles travel at the 85th percentile speed or higher. This provides a measure of the frequency and extent of speeding. This is more useful than a mean (or average) speed as a mean speed is affected by outliers (if several vehicles travel at a very low speed past the measurement point it will impact the average and distort the data).

Free flowing conditions are periods when traffic is not significantly delayed by the volume of vehicles. As roads within the LATM area are free flowing for the majority of the day, the highest 15% of vehicle speeds measured is considered accurate.

The average 85th percentile speed for the area is 41.9km/h (on 40km/h roads only). Although this is above the speed limit, 85th percentile speeds up to 10% over the speed limit is commonly observed. It is important to consider this when assessing individual streets/intersection treatments.

Average 85th percentile speed for the area is 41.9km/h.

Percent of daily traffic volume in peak AM and PM hours

The percentage of traffic travelling along a street, in the busiest hour in the AM and PM periods, is used to determine whether the street is used as part of a rat run/short cut. Generally, in a residential street, it is common for 10% of the daily traffic volume to use the street in each of these hours. This would consist of residents going to and from their homes, any visitors, and some through traffic accessing other local streets or businesses. This varies depending on the various land uses and residential density. As an example, if a street carried 1000 vehicles per day, approximately 100 would generally use the street in the AM peak hour (8-9am in most cases), and approximately 100 would generally use the street in the PM peak hour (often either 3-4pm, 4-5pm, or 5-6pm).

The percentage of traffic considered appropriate is generally based on residents' perceptions. Figure 4.1 indicates that in the PM peak period, most streets are within the 8-12% range. Percentages within the AM period extend across a wider range and are more variable. It shows that there are a number of streets with a high percentage of daily traffic in the AM, suggesting these streets are used as part of a rat run. Although it should be noted that the peak school drop-off period usually coincides with the peak traffic period in the AM, whereas these do not coincide in the PM, so marginally higher percentages are expected in the AM in particular streets.

Average for the area is 13.7% and 11.5% in the AM and PM respectively.

Casualty crash

A casualty crash consists of an injury or a fatality involving a pedestrian, cyclist, or driver. The Department of Planning, Transport and Infrastructure compile this data and analyse it over the previous five years. A single casualty crash does not necessarily indicate a traffic hazard. If three crashes have occurred, this suggests there could be a pattern. Much higher casualty crash rates occur on arterial roads due to the higher traffic volume and speed. The majority of collisions are rear end crashes at signalised intersections and right turn crashes when motorists turn out of side streets. Although turning restrictions or median treatments on DPTI controlled arterial roads could reduce right turn crashes, treating safety hazards on DPTI roads is not within the scope of this LATM.

Property damage only crash

A property damage only (PDO) crash not resulting in a reported injury. This is more common than a casualty crash, particularly in a 40km/h area where modern vehicles protect occupants. In the traffic engineering industry, less weighting is placed on a PDO crash as funds are more effectively spent addressing locations where there has been a casualty. This is due to the higher financial costs to the community associated with treating injuries or due to fatalities.

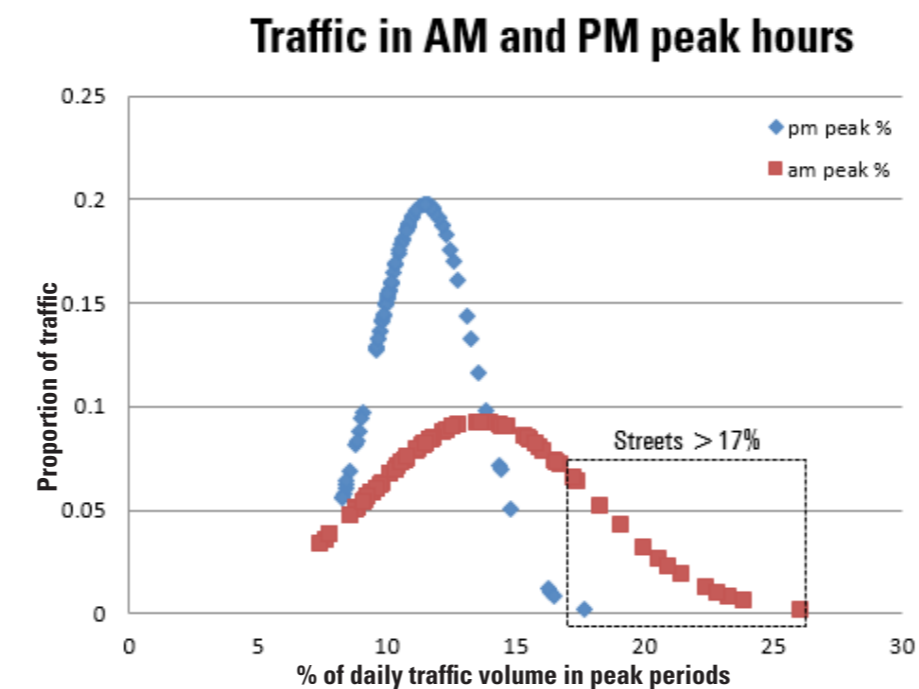


Figure 4.1 Peak period traffic volume graph

Average Daily Traffic Volume



**981 vehicles
per day**

85th Percentile Speed



**Average Speed
41.9 KMH**

% of Daily Traffic Volume



13.7% AM

11.5% PM

4.2 SPEED + VOLUME

Traffic speed and volume summary

The adjacent figure provides a summary of streets considered a possible or substantial problem based on traffic data. Refer to Appendix A for traffic volume, speed, and peak AM and PM data for individual streets.



Speed and Volume Insights

1. Porter Street

High AM volumes. This street acts as an exit out of the local area and for traffic intending to do a U-turn on Greenhill Road and travel East. Negative impact of this volume on the cycling route should be considered. Possible technical problem - further investigation required.

2. Stamford Street

Stamford Street experiences a very high AM peak volume, potentially due to rat runners. This is an acknowledged problem and further investigation is required.

3. Young Street

Young Street high AM peak volume due to school and potentially rat running.

4. Streets around Parkside Primary School

High AM peak volume due to school. Intervention to reduce this would be ineffective due to required access to the school. An improved school crossing and measures at intersections will limit negative impacts of this. Further investigation required.

5. Macklin Street

High AM peak volume due to school. Intervention to reduce negative impact on pedestrians and residents could be considered. Further investigations required.

6. Frederick Street

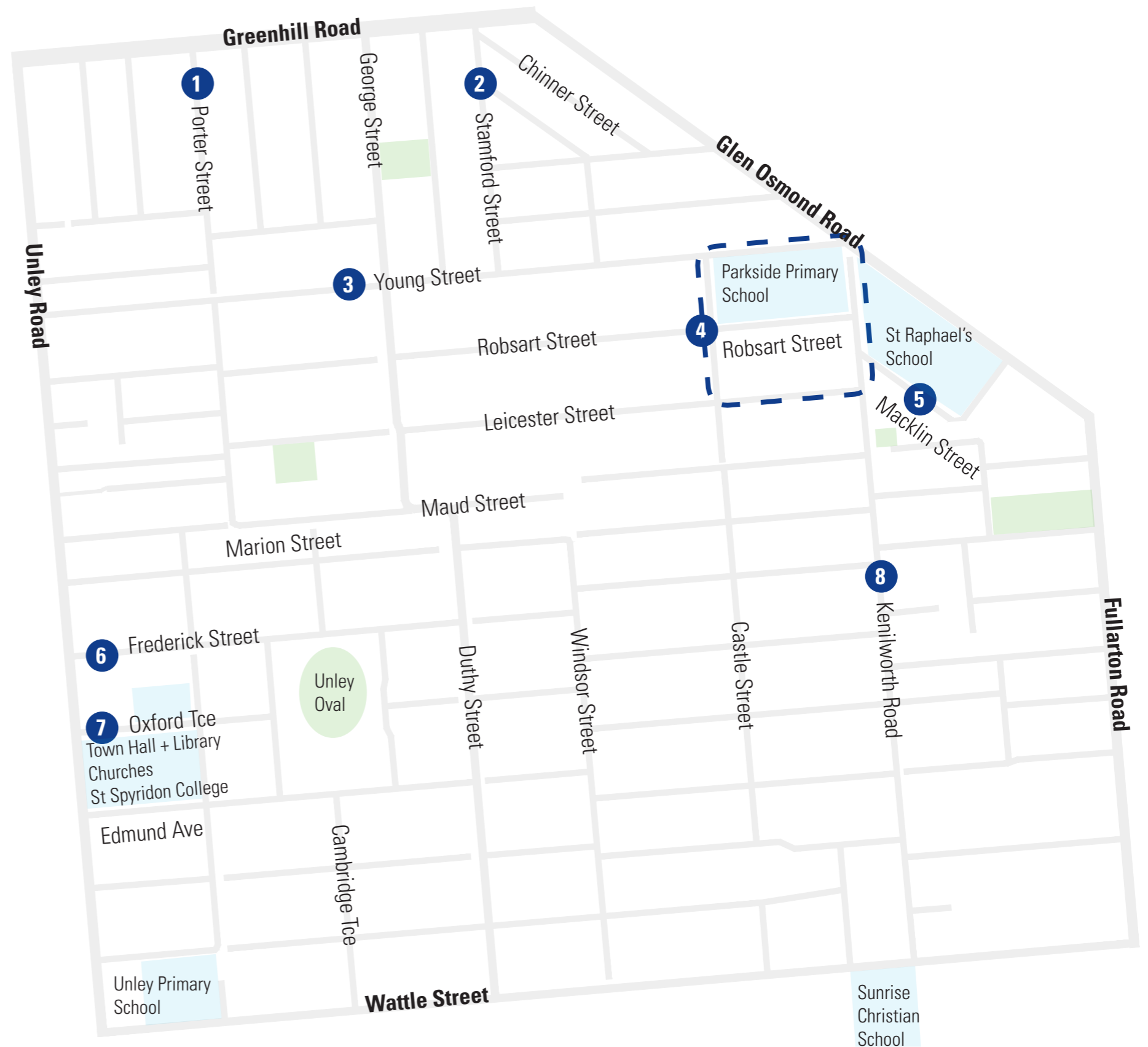
High daily volume and low-moderate peak volumes suggests this street is for local access throughout the day. Measures may not be effective in reducing volumes. Further investigation required.

7. Oxford Terrace

High daily volume. Land use and connection to Unley Road means that this volume is appropriate for the role of the street and it is not desirable to shift this traffic to other streets. Measures to address the negative impact of high volumes (whilst not aiming to reduce volumes) could be considered. Further investigation required.

8. Kenilworth Road

Relatively high daily volumes and high AM peak volumes. Speeds within acceptable parameters in most sections. Acknowledged problem. Further investigation required.



4.4 ORIGIN + DESTINATION

Origin-destination data involves matching vehicles (using number plate recognition) at various intersections within a road network to understand the routes they take. This can help quantify and understand rat running through the area. Stations are chosen at likely locations where vehicles enter and exit the area. If they are matched, it suggests that they are taking a short cut through the area, which is undesirable as it unnecessarily congests the area and impacts resident amenity. Surveys were undertaken during the 8-9am period on Wednesday 22 November 2017 in the northern Parkside area and on Tuesday 28 November 2017 in the Unley area.

Note that vehicles dropping off children at nearby schools and then leaving the area are also included.

AREA 1

Regent Street

48 vehicles used Regent Street as part of a rat run to avoid the George Street/Greenhill Road intersection.

AREA 2

Stamford Street

Data suggests that approximately 100 vehicles from Glen Osmond Road and Kenilworth Road rat run through Area 2 and use Stamford Street to access Greenhill Road. This partially explains the approx. 300 vehicles using the street in the 8-9am period.

Young/Alfred/St Ann's Place

Data suggests that 7, 28 and 10 vehicles respectively turn from Glen Osmond Road and exit on to Greenhill Road from Stamford Street, avoiding the Glen Osmond Road/Greenhill Road intersection.

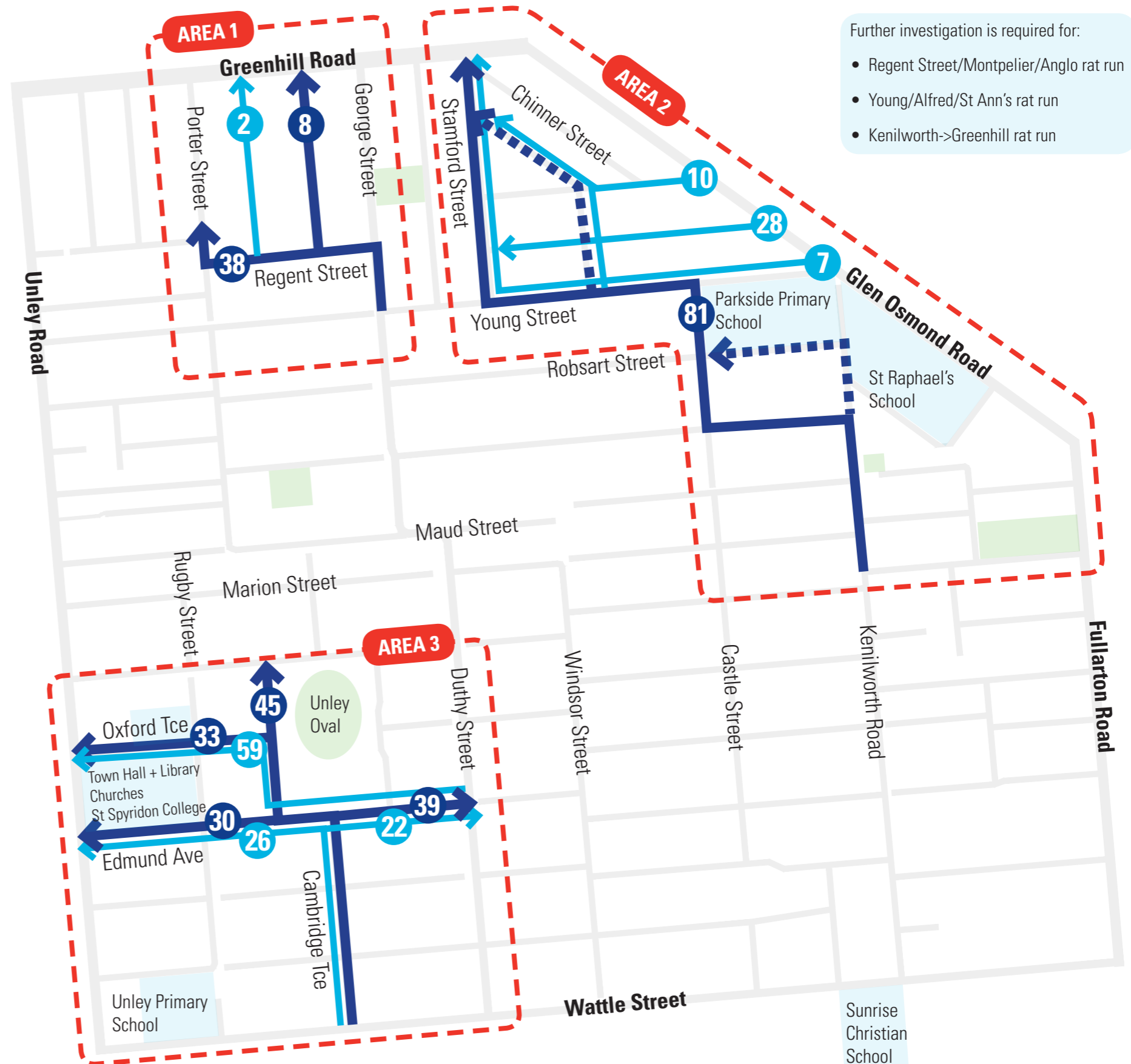
Kenilworth Road

81 vehicles were recorded on Kenilworth Road and exited at Stamford Street. A portion of this is likely to be school traffic.

AREA 3

Cambridge/Edmund/Oxford Terrace

Data does not conclusively suggest the area is used as part of a rat run. North-bound residents or staff of businesses in the area may access Cambridge Terrace from Wattle/Fisher Street, and then disperse through Area 3 at Edmund Avenue. The number of matched vehicles in these streets is not high relative to the daily traffic volumes, suggesting that this is not a major concern for residents.

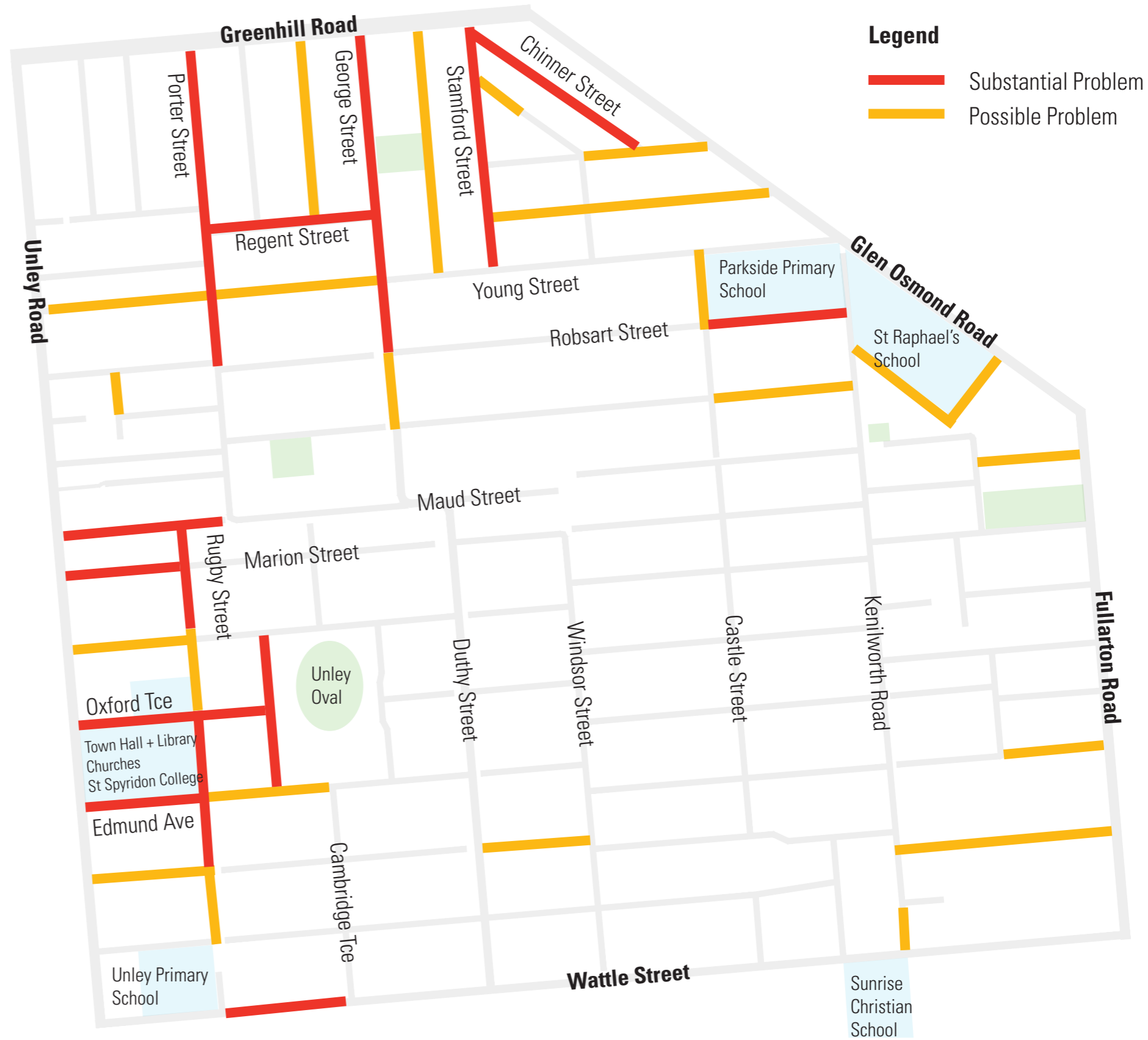


4.5 PARKING DATA

Parking Data

Parking occupancy data was collected a typical weekday. Parking is considered a possible problem if a street is 50-70% occupied, and a substantial problem if it is 80% occupied or more.

Note that there are parking time limits in all streets north of Young Street, and, in general, most streets south of Young Street are unrestricted (i.e. no parking controls).



5. COMMUNITY ENGAGEMENT

Residents, businesses, and property owners were consulted in September/October 2017, with 4850 letters sent to stakeholders, in addition to online engagement. The approach involved highlighting potential projects and areas of concern we were already aware of. These potential projects were developed based on knowledge of the area and concerns raised by residents over a number of years. In addition to this, particular projects had already been identified in the Walking and Cycling Plan or to help achieve Council goals in the Community Plan 2033/Four Year Delivery Plan.

Community members were provided a plan showing potential projects for the area (Figure 5.2) and asked to provide feedback by completing a survey (Figure 5.1). They were also provided an opportunity to raise any additional projects/concerns they had.



FEEDBACK FORM

LOCAL AREA TRAFFIC MANAGEMENT STUDY

We are seeking your views and experiences as a **MOTORIST, CYCLIST OR PEDESTRIAN MOVING THROUGH AND LIVING IN THE LATM STUDY AREA**. Feedback will be received until **29 OCTOBER 2017** and will be considered by Council's 'City Development - Transport' team & used to determine priority outcomes from the LATM.

PLEASE PROVIDE YOUR CONTACT DETAILS:

Name

Address

Email

Would you like to receive LATM updates via email?

Yes No

Phone number

Return this form by **29 OCTOBER 2017** either by using the reply paid envelope provided or posting to: Local Area Traffic Management Study
City of Unley, PO Box 1, Unley SA 5061

OR

Provide feedback online by visiting the Local Area Traffic Management study online community engagement page at:

Figure 5.1 Community engagement feedback form

1. DO YOU HAVE ANY COMMENTS ON THE POTENTIAL PROJECTS HIGHLIGHTED IN THE ATTACHMENT?

2. DO YOU HAVE ANY COMMENTS ABOUT WALKING/CYCLING/DRIVING/PARKING IN THE LATM STUDY AREA?

Potential Projects Identified

(subject to further investigation/prioritisation and funding)

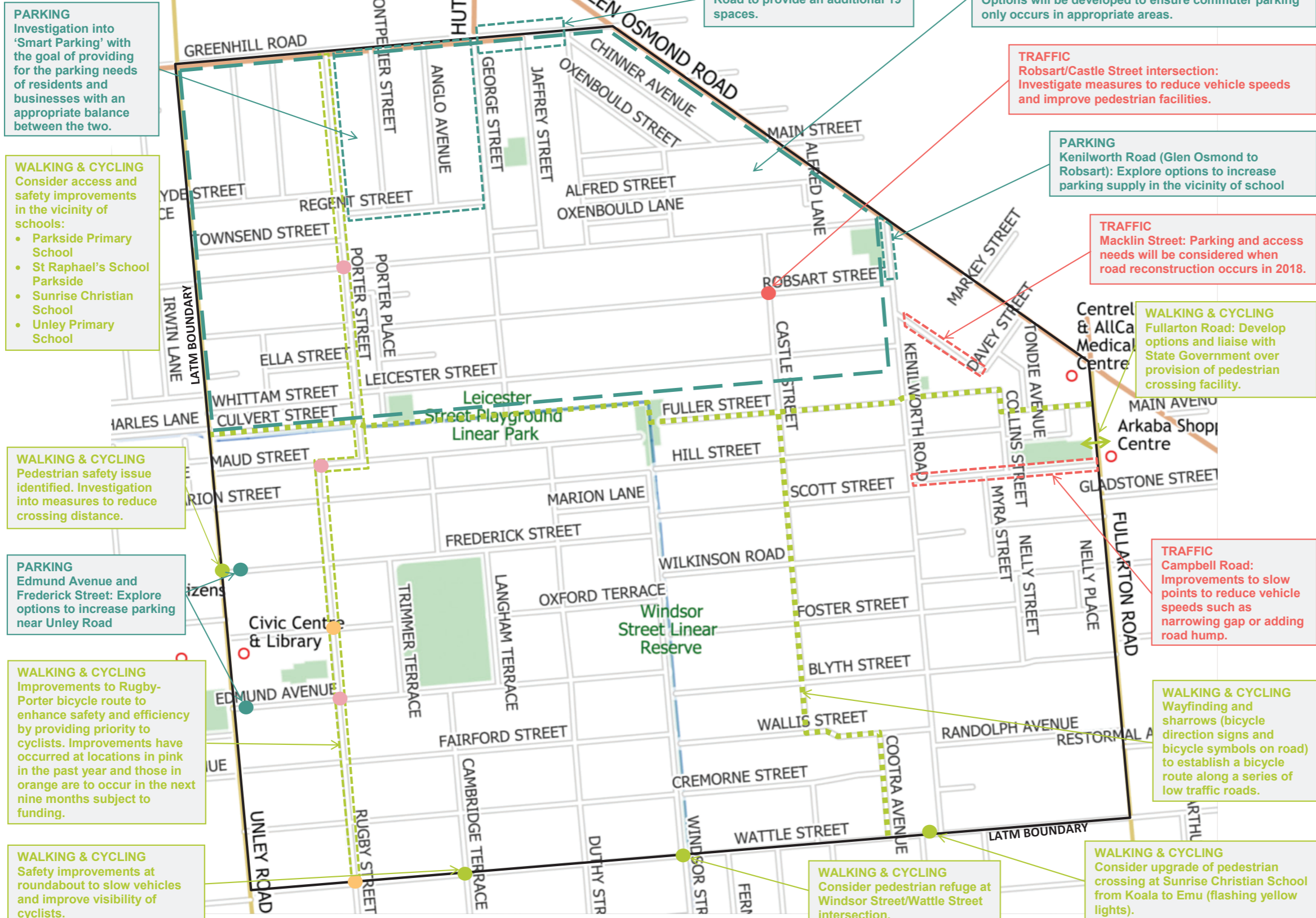


Figure 5.2 Community engagement potential projects map

Feedback on projects/issues highlighted:

A summary of the 303 consultation responses is provided in Appendix D. Table 5.1 provides a summary of the feedback from residents showing support or opposition for the potential projects identified. Respondents generally commented only on projects they felt strongly about. Some respondents commented that they supported all projects, which have not been included in any quantitative values below.

Note that a lack of feedback does not suggest a project should not proceed as not all projects are necessarily ones that address community issues and are road safety issues.

Project	Recommendation	Feedback	Comments	Supported/ Not supported/ Insufficient data
Parking Theme				
Edmund Avenue/ Frederick Street	Opportunities to increase parking near Unley Road	3 comments: 3 supporting, 0 opposing	Respondents mentioned that parking in the area can be difficult	Insufficient data
Smart parking	Solutions to achieve an appropriate balance between business and resident parking	8 comments: 3 asked what it is, 3 supported, 2 opposed	Several did not know what it is, and were referred to the Yoursay website for further information. Those opposing are concerned that it would impact residential streets	Insufficient data
Greenhill Road indented parking	Indented parallel parking between George Street and Stamford Street to increase parking supply	13 comments: 11 supporting, 2 opposing	Comments about potential for 'car dooring' and concern about loss of trees	Supported
Parking in Parkside north of Young Street	Investigate options to reduce commuter parking in Parkside north of Young Street	Most frequent comment in all feedback	Concern over commuter and business staff parking occurring in residential streets	Supported
Traffic Theme				
Robsart/Castle intersection	Intersection improvements to reduce potential for conflict between pedestrians/motorists	5 supporting	Comments were generally supporting improved pedestrian measures near Parkside Primary School, citing unsafe driver behaviour and rat running in the area	Supported
Macklin Street	Improvements to support parking and access needs	7 comments received supporting improvements	Comments consisted of parking/access/pedestrian conflict, as expected	Supported
Campbell Road	Improvements to existing one-way slow points such as adding a road hump or reducing the width of the slow point opening	42 comments received: 10 supporting, 28 opposing, 5 neutral	Generally those opposing were from surrounding streets who frequently use the street and do not want to be inconvenienced, or believe it operates satisfactorily. Residents of Olive Street are concerned it will push additional traffic to their street. Several residents of Campbell Road support changes and several do not (not all provided an address so cannot quantify).	Not supported

Table 5.1 Community feedback on projects identified

Project	Recommendation	Feedback	Comments	Supported/ Not supported/ Insufficient data
Walking and Cycling theme				
Frederick Street/ Unley Road	Pedestrian safety at Unley Road – Measures to reduce pedestrian crossing distance (i.e. refuge)	No comments		Insufficient data
Rugby/Porter bicycle route	Continuing program of treatments to improve cyclist safety and efficiency of route	13 comments: 10 supporting, 3 not supporting	Potential conflict between motorists and cyclists was consistently raised. Many consider rat running along Porter Street an issue which presents a safety concern for cyclists, particularly north of Townsend Street.	Supported
Wattle/Cambridge Terrace roundabout	Measures to reduce traffic speeds and improve visibility of cyclists	3 relevant comments received	Comments mentioned general unsafe traffic behaviour at this and other roundabouts	Insufficient data
Windsor/Wattle pedestrian refuge	Pedestrian refuge to support Glen Osmond Creeek trail	10 comments: 7 supporting, 3 opposing	Some believed it may not be necessary	Supported
Fullarton Road crossing facility	Pedestrian crossing facility adjacent Arkaba Shopping Centre	Approximately 30 comments supporting, 3 opposing	Strong support for this, however some concerns over potential conflict with those exiting Campbell Road or Arkaba Shopping Centre	Supported
Sunrise Christian School pedestrian crossing upgrade	Pedestrian crossing upgrade from emu to koala (flashing lights)	4 comments received: 3 supporting, 1 opposing		Insufficient data

Table 5.1 Community feedback on projects identified (continued)

From the consultation period, the following other issues and locations were identified that warrant consideration:

- Duthy Street pedestrian crossing improvements (Oxford Terrace to Fairford Street) – Difficulty crossing due to traffic volumes and speeds
- Safety of parking on the eastern side of Unley Road north of Wattle Street – concerns over lack of road space in the eastern southbound lane on approach to this intersection
- Conflicting stop control at the George Street/Maud Street intersection – a stop sign is present on George Street for vehicles turning right into Maud Street, and a stop sign is present for vehicles exiting Maud Street, causing confusion
- Safety of parking on Porter Street adjacent intersections, impacting sight distance to vehicles and cyclists
- Kenilworth Road traffic volumes and rat running concerns
- George Street pedestrian refuge – lack of space for cyclists
- Oxford Terrace pedestrian crossing difficulty in the vicinity of St Spyridon College and child care centres
- Rugby/Porter Bikeway bicycle route link through Haslop Reserve – safety concerns over conflict between cyclists and school children, and at the Cremorne Street bend.


6. RECOMMENDATIONS

Project

1. Duthy Street pedestrian refuge
2. Angle parking adjacent oval
3. Pedestrian safety improvements
4. Pedestrian safety improvements
5. Angle parking
6. Angle parking adjacent oval
7. Fullarton Road pedestrian crossing facility
8. George Street/Glen Osmond Creek Path refuge widening
9. Greenhill Road indented parking
10. Delineate parking
11. Traffic calming measures
12. Maud Street/George Street stop control review
13. Traffic calming at Oxford/Rugby intersection
14. Pedestrian crossing facility
15. Implement a consistent parking time limit through area
16. Consolidate/reduce parking signs throughout area
17. School crossing on Young Street
18. School crossing on Robsart Street
19. Traffic calming at Robsart/Castle intersection
20. Restrict parking at intersections
21. Restrict parking during AM and PM peaks
22. Continue implementation of Rugby/Porter bicycle route
23. Improve cycling link through Haslop Reserve
24. Smart Parking - parking sensors
25. Smart Parking - pay for use parking solutions
26. Driveway entry links at three intersections
27. Upgrade of children's crossing
28. Traffic signals project justification/investigation
29. Upgrade of roundabout for cyclist safety
30. Pedestrian crossing facility
31. Kenilworth Road streetscape improvement


Analysis of data and community feedback has resulted in a series of potential issues to be investigated. This section of the report summarises these investigations and provides 31 recommendations with a cost estimate and relative priority.



Street	Issues	Investigation	Recommendation	Cost	Priority
<p>Duthy Street</p> <p>Major collector road</p>	<p>Difficulty experienced by pedestrians crossing Duthy Street between Oxford Terrace and Fairford Street.</p> <p>Raised during community engagement.</p>	<p>Duthy Street has a traffic volume of 11-14000 vehicles per day. Crossing points are provided along this road at approximately 300m spacing, including pedestrian refuges, pedestrian actuated crossings, and the signalised intersections of Wattle Street and Fisher Street. However the distance between Wattle Street and the pedestrian refuge located near Frederick Street is approximately 600m. As there are several shops in the vicinity, and Edmund Avenue and Oxford Terrace provide a link to/from the centre of Unley, an additional pedestrian refuge would be of benefit. This was highlighted by residents during community engagement.</p> <p>A location between Edmund Avenue and Fairford Street would be appropriate and provide improved access to the shops on the eastern side. The exact location should be determined based on pedestrian counts, minimising the loss of on-street parking, and potentially allowing existing lighting to be utilised/ upgraded to reduce overall costs. An example of a pedestrian refuge on Duthy Street is provided below, which would be similar to the facility provided through this recommendation.</p> 	<p>Recommendation 1</p> <p>Pedestrian refuge on Duthy Street at or between the intersections of Edmund Avenue/Duthy Street and Fairford Street/Duthy Street.</p>	\$20,000	Low
<p>Edmund Avenue</p> <p>Local access route to arterial network</p>	<p>High daily traffic volume (2,000-2,500vpd)</p> <p>High parking demand at western end.</p>	<p>Traffic</p> <p>Edmund Avenue experiences high parking demand due to a range of local activities. Council recently installed 45° angle parking towards Unley Road which has successfully increased parking whilst putting downward pressure on vehicle speeds by narrowing the available road width. However this parking is frequently 80-100% occupied, and surrounding streets also experience high demand.</p> <p>Parking</p> <p>Further parking opportunities have been considered. Edmund Avenue is primarily residential in nature except for adjacent Unley Oval. It is not desirable to install angle parking outside residential properties as the number of driveways limits the potential benefit. There is an opportunity however to increase parking from 20 spaces to 35 spaces on the northern side of Edmund Avenue between Trimmer Terrace and Langham Terrace. This could be in the form of line marking only, or involve kerb extensions at Trimmer Terrace and Langham Terrace intersections. Kerb extensions would help reduce the road width, creating a lower speed environment, improve visibility at interections, as well as provide an additional landscaping opportunity.</p>	<p>Recommendation 2</p> <p>Edmund Avenue – change from parallel to angle parking adjacent Unley Oval.</p>	<p>\$5,000 line marking only</p> <p>\$30,000 line marking and kerb extensions</p>	Medium
<p>Frederick Street</p> <p>Local access route to arterial network</p>	<p>High daily traffic volume (1,700-2,700vpd)</p>	<p>Traffic</p> <p>Similar to Edmund Avenue, Frederick Street accommodates a high daily traffic volume. Generally when the volume is >2,000 vehicles in a residential street it negatively affects the amenity for residents. Despite being a residential street, Frederick Street provides access between Unley Road and Duthy Street, and access to the Oxford Terrace traffic signals and community facilities. Therefore, the traffic volume is deemed acceptable. However, measures to create a lower speed environment would be beneficial.</p>	<p>Recommendation 3</p> <p>Stage 1 - Landscaped median refuge or kerb extensions at Unley Road/Frederick Street intersection.</p>	\$25,000	Medium

Street	Issues	Investigation	Recommendation	Cost	Priority
Frederick Street	Pedestrian safety concerns at Unley Road intersection	<p>Pedestrian safety at Unley Road</p> <p>Frederick Street is 13.1m wide, which results in a large crossing distance for pedestrians walking along Unley Road. Due to the road width and 60km/h speed on Unley Road, motorists often negotiate the intersection at a high speed and do not give way to pedestrians. This issue can be addressed by reducing the crossing distance through installation of kerb extensions or a median refuge, which would also provide a landscaping opportunity near Unley Road. These measures would likely mean that both a right turning and left turning vehicle exiting the street cannot be accommodated concurrently (which currently occurs). This may result in occasional minor delays for vehicles. If successful, a similar approach could be adopted on Edmund Avenue and Marion Street in the future.</p>	<p>Recommendation 4</p> <p>Stage 2 - Landscaped median refuges or kerb extensions at Unley Road/ Marion Street and Unley Road/Edmund Avenue intersections.</p>	\$50,000	Low
Frederick Street	High parking demand near Unley Road	<p>Parking</p> <p>High parking demand in the area suggests that additional parking spaces would be of benefit. Although parking occupancy is high generally west of Trimmer Terrace only, any additional parking demand or parking time limits in these streets could result in further parking occurring east of Trimmer Terrace. Additional parking spaces would provide for this, as well as reduce the strain on surrounding streets during Sturt football matches, which are held at Unley Oval.</p>	<p>Recommendation 5</p> <p>Implement angle parking on Frederick Street towards Unley Road</p>	\$2,000 line marking only	Medium
Frederick Street	High parking demand near Unley Road	<p>Parking</p> <p>Additional parking spaces could also be provided adjacent Unley Oval, with an increase in parking from 21 spaces between Trimmer Terrace and Langham Terrace, to 33 spaces. Although 85th percentile speeds are at or below 45km/h on Frederick Street, which is acceptable, long and wide roads can result in speeding. Angle parking on one side would reduce traffic speeds by narrowing the traffic lanes. This could be in the form of line marking only, or involve kerb extensions at Trimmer Terrace and Langham Terrace intersections. Kerb extensions would help reduce the road width, thus creating a lower speed environment, help maintain visibility at intersections by bringing vehicles at Trimmer Terrace and Langham Terrace further out into the road, as well as provide an additional landscaping opportunity.</p>	<p>Recommendation 6</p> <p>Angle parking adjacent Unley Oval and kerb extensions at Trimmer Terrace and Langham Terrace to provide sufficient sight distance.</p>	\$30,000 line marking and kerb extensions	Low
Fullarton Road pedestrian crossing Arterial Road	Improved crossing of Fullarton Road near Campbell Road	<p>Safety concerns have been raised over a number of years by pedestrians having difficulty crossing Fullarton Road adjacent the Arkaba Shopping Centre. Although there is a crossing at the Fullarton Road/Glen Osmond Road intersection (200m north), a crossing facility would provide residents greater connectivity with the shopping centre. This was a potential project identified prior to community engagement and received strong support from the community (approximately 30 residents supporting).</p> <p>Fullarton Road is under the care and control of the Department of Planning, Transport and Infrastructure, and they would therefore have a key role in this project in terms of approval and determining the most appropriate solution. As the project is important to City of Unley residents and would be largely to improve connectivity for these residents (rather than meet DPTI goals), Council must take the lead with this project.</p> <p>The type of facility may include a pedestrian refuge or pedestrian actuated crossing, depending on discussions between DPTI and Council and costs involved. The potential location is 30m north of Campbell Road which would be approximately centrally located between Campbell Road and the northern entry/exit to the Arkaba Shopping Centre car park.</p> <p>This should occur in two stages:</p> <p>Stage 1 (financial year 1) – investigate options in collaboration with DPTI, and produce concept designs and estimate costs</p> <p>Stage 2 (financial year 2) - install pedestrian crossing facility</p> <p>Staging this project over two financial years will allow an appropriate budget to be allocated once the exact type of facility has been determined in stage 1. In addition to this, it will ensure any delays due to the DPTI approval process will not delay installation.</p>	<p>Recommendation 7</p> <p>Stage 1</p> <p>Concept design work and crossing option assessment</p> <p>Seek DPTI approval for preferred option</p> <p>Stage 2</p> <p>Installation of crossing facility, if approved/ supported by DPTI</p>	\$12,000 \$40,000-\$120,000	High

Street	Issues	Investigation	Recommendation	Cost	Priority
<p>George Street</p> <p>Major collector road</p>	<p>Inadequate space for cyclists within refuge for Glen Osmond Creek Path on George Street.</p> <p>Raised through community engagement.</p>	<p>The Glen Osmond Creek Path is a shared use path and accommodates approximately 80 bicycles per day. The existing refuge at George Street has a storage area of 1.7m in width (1.7m measured perpendicular to road) and 1.2m in length, and is only appropriate for pedestrians and not cyclists. The minimum to accommodate cyclists is considered 2.0m in width, with 2.5m desirable, and ideally 3m in length.</p> <p>The adjacent traffic lane widths are currently 3.6m and therefore there is only marginal scope to increase the width of the refuge (3.5m is the general desirable lane width). Additional space could be provided by redesigning the refuge to provide additional length (for example, increasing from 1.2m to approximately 3m). Although this would still not accommodate cyclists if positioned perpendicular to the road, they could position themselves on an angle within the refuge.</p> 	<p>Recommendation 8</p> <p>Investigate and implement options to improve bicycle storage in the George Street/Glen Osmond Creek Path pedestrian refuge.</p>	\$10,000	Medium
<p>Greenhill Road</p> <p>Arterial Road</p>	<p>High parking demand near businesses on Greenhill Road east of George Street</p>	<p>Parking is in high demand in the vicinity of businesses on Greenhill Road. In addition to this residents experience high parking demand near their properties due to business staff, impacting their access to parking, particularly for those with little off-street parking which is common in the area. There is an opportunity to provide 19 additional parking spaces on Greenhill Road from George Street to Stamford Street. This was supported in the community engagement process (11 supporting).</p> <p>As Council owns the first 4.5m on the northern side of Greenhill Road, this would enable indented parallel parking to be installed on both sides of Greenhill Road. Although this is on Council land, it would be subject to consultation and approval from the Department of Planning, Transport and Infrastructure. Any design would ensure an appropriate footpath width is maintained, limit potential impact on the adjacent bicycle lane through 'car dooring' and avoid removal of established trees. This parking would provide an additional paid parking opportunity for Council.</p>	<p>Recommendation 9</p> <p>Indented parking on Greenhill Road (Stamford Street to George Street)</p>	\$70,000	Medium
<p>Macklin Street</p> <p>Local street, school access street</p>	<p>Parking impacting access to properties</p>	<p>Parking and property access</p> <p>There is no footpath or traditional kerb and gutter, and therefore there are no driveway crossovers to delineate parking. As there are no footpaths providing additional manoeuvring space for a vehicle exiting a driveway, a vehicle parked adjacent a property access can significantly reduce manoeuvring space.</p> <p>Parking could be delineated with parking bays, or through no stopping yellow lines in the vicinity of driveways, to help ensure that property access is maintained. This may reduce the overall parking capacity, which is potentially insufficient. Therefore, consideration should be given to providing residents of Macklin Street eligibility for an exemption permit to park on Davey Street. This will reduce parking, and the potential for illegal parking, in Macklin Street.</p>	<p>Recommendation 10</p> <p>Delineate parking and no stopping areas on Macklin Street.</p>	\$2,000	High
<p>Macklin Street</p>	<p>Safety walking on the road</p> <p>Traffic associated with St Raphael's School</p> <p>Illegal entries from Davey Street</p>	<p>Pedestrian safety/traffic</p> <p>The 85th percentile speed is 31km/h (prior to recent reconstruction, and has likely increased marginally due to the change from a paved surface to a bitumen surface). This speed is not high relative to other streets, but suggests that a portion of motorists travel at an inappropriate speed for an environment where pedestrians share the road. Low cost measures could be introduced to create a more pedestrian friendly environment by reducing speeds. This could include landscaped build-outs located centrally along the street. This would ensure motorists do not have a straight path along the street as well as positively reduce visibility from one end of the street to the other. Concerns have also been raised over illegal entries from Macklin Street, however this is due to non-compliance and physical measures to discourage this would be largely ineffectual.</p>	<p>Recommendation 11</p> <p>Install landscaped buildouts centrally along the street.</p>	\$10,000	Medium

Street	Issues	Investigation	Recommendation	Cost	Priority
<p>Maud Street/George Street intersection</p> <p>Local street/Major collector road intersection</p>	<p>Conflicting stop control for motorists exiting Maud Street, with motorists turning right from George Street to Maud Street</p>	<p>Lack of clarity of the priority at the intersection of George Street/Maud Street (western intersection) was raised during consultation. Motorists approaching the intersection on Maud Street and southbound motorists turning right from George Street to Maud Street are both presented with a stop sign. Historical aerial images show the turn from George Street was previously uncontrolled, then changed to give way, and then to stop control (as shown below). The Australian Road Rules indicate that when a motorist is stopped at a stop sign, they must give way to all other motorists, unless an opposing motorist is also stopped at a stop sign and is turning right. However, as both motorists are potentially turning right this does not apply, and feedback suggests this results in confusion. It could also present a safety hazard for motorists at the intersections and for those travelling along George Street</p> <p>In order to address this, the stop control should be removed from the George Street turning lane. Other minor changes may be necessary to adequately slow vehicles turning from George Street into Maud Street.</p> 	<p>Recommendation 12</p> <p>Changes to stop control at George Street/Maud Street intersection.</p>	<p>\$1000</p>	<p>High</p>
<p>Oxford Terrace</p> <p>Local access route to arterial network</p>	<p>High daily traffic volume (2,295-3,370vpd) mixed with high pedestrian and cyclist activity</p>	<p>Oxford Terrace accommodates a relatively high traffic volume due to demand throughout the day. The street is used to access various community facilities, St Spyridon School, two child care centres, by those en route to the Unley Shopping Centre and to use the Oxford Terrace/Unley Road traffic signals. As this is legitimate use of the street, measures should focus on limiting the negative impact of high traffic volumes and supporting these land uses, rather than discouraging use of the street.</p> <p>As part of the Rugby/Porter Bikeway bicycle boulevard implementation, kerb extensions and a contrasting pavement surface are to be installed at the Oxford Terrace/Rugby Street intersection. This will aim to reduce traffic speeds at the intersection by narrowing the east/west approaches (reduced road width), as well as improve sight distance and awareness of the intersection. These improvements have previously been endorsed by Council and investigation of Oxford Terrace and the area through the LATM study process supports these actions and their intent.</p> <p>A pedestrian crossing facility mid-block between Unley Road and Rugby Street would support the function of the street, and particularly the school. The type of crossing facility would be subject to further investigation. This investigation would consider pedestrian crossing data (including the number of crossing movements and locations), and factors such as minimising loss of parking and potential conflict with street trees (pedestrian sight distance and tree root protection zones).</p>	<p>Recommendation 13</p> <p>Continue implementation of the Rugby/Porter Bikeway bicycle boulevard, including actions for the Rugby Street/Oxford Terrace intersection.</p> <p>Recommendation 14</p> <p>Install pedestrian crossing facility between Unley Road and Rugby Street.</p>	<p>Funded to occur in 2018 through 2017/18 Council budget and potential DPTI grant.</p> <p>\$20,000-\$60,000 depending on preferred design.</p>	<p>Occurring in 2018</p> <p>Crossing facility – Low</p>

Street	Issues	Investigation	Recommendation	Cost	Priority
Parking controls – Various residential streets	Parking concerns raised over a number of years and also highlighted in community feedback	<p>Approximately 75 residents raised concerns over parking occupancy and demand in the streets bounded by Young Street, Glen Osmond Road, Greenhill Road, and George Street. Although these streets have parking controls, parking occupancy is still relatively high due to nearby businesses. Residents in this area have a greater need for on-street parking due to limited off-street parking compared with other parts of the City of Unley.</p> <p>There are a range of controls throughout the area, but are predominantly 2, 3, or 4 hour parking, 9am-5pm, Monday – Friday, or No Parking 8-10am to discourage commuter parking. These time limits effectively discourage commuter parking, whereby motorists park and walk or catch public transport into the Adelaide CBD. However, 4 hour parking zones and No Parking 8-10am zones can result in staff of nearby businesses legally obtaining on-street parking if they are willing to move their vehicles one time towards the middle of the day. This range of different time limits also means that each street is enforced individually, rather than taking an area wide approach.</p> <p>A consistent parking time limit in this area of 2-3 hours, 9am-5pm, would eliminate non-resident all-day parking, as well as improve the ease of enforcement.</p> <p>However, this should be considered in context of the On-street Parking Policy as eliminating on-street parking by business staff without an alternative would not be supportive of business needs. Through the On-street Parking Policy, (community being consulted on draft in June/July 2018) businesses may be eligible to park in these streets with a permit. However parking in each street would be limited and spread throughout the area, which would help ensure access to parking for residents within a reasonable distance of residential properties.</p>	Recommendation 15 Subject to business parking permit eligibility in On-street Parking Policy implement a consistent parking time limit in the area,	\$10,000 Potentially funded through Parking Initiatives in Annual Business Plan 2018/19.	High
Parking sign consolidation Residential Streets	Parking sign 'clutter' negatively impacting street aesthetics	<p>There is an opportunity to decrease the number of parking signs and posts in the area. This would improve the appearance of streets that currently have a high number of signs.</p> <p>A parking sign audit has been undertaken in the area. This audit details opportunities where the spacing between parking signs can be increased and where stobie poles can be utilised. Parking signs have, in the past, been generally placed at 40-50m intervals whereas the relevant Australian Standard indicates that spacing up to 75m is acceptable. Therefore any negative impact on parking compliance would be minimal. This will allow approximately 50 sign posts to be removed.</p> <p>This project is a secondary stage of a project undertaken in the 2017/18 financial year to create a parking sign layer in Council's GIS system. The LATM does not seek specific funding for this project as it can occur as part of the Annual Business Plan 2018/19 project 'Parking Initiatives'.</p>	Recommendation 16 Remove excess parking signs.	\$10,000 Potentially funded through Parking Initiatives in Annual Business Plan 2018/19.	Low
Parkside Primary School	<p>Slightly high speeds and AM volumes on Young Street</p> <p>High AM volumes – partly due to school and partly due to rat run to Greenhill Road</p> <p>General concerns over traffic and safety around Parkside Primary School</p>	<p>Streets around Parkside Primary School experience congestions during peak school times, which is the norm around schools. School related traffic cannot be discouraged from using these streets (other than by promoting walking and cycling) and measures should focus on reducing rat-running traffic in the area, as well as reducing any potential conflict between pedestrians and motor vehicles.</p> <p>Council has received DPTI funding to improve crossing opportunities on Young Street and for pedestrian improvements in the direct vicinity of the school. The project considers traffic management adjacent to Parkside Primary School at a holistic level and will aim to improve the safety of pedestrian movements to and from the school, particularly at key crossing points e.g. Robsart Street near the school entrance, Young Street near school accesses and the intersection of Robsart/Castle Streets.</p> <p>This will include installation of a 'flashing light' Koala crossing on Robsart Street, a new crossing installed on Young Street (Emu or Koala – to be determined and subject to consultation), and improvements at the intersection of Robsart Street/Castle Street upgraded to create a lower speed environment.</p> <p>However, the initiatives will likely result in some loss of on-street parking particularly around the new crossing on Young Street. The local community relies on on-street parking as Parkside residential properties generally do not have ample off-street parking. This may generate significant opposition by local residents who are affected by the project.</p> <p>Other measures in the area to reduce rat running would also contribute to reduced traffic congestion and speeds in the area. A school crossing would help reduce traffic volumes and speeds on Young Street both during and outside of peak school times.</p>	<p>Recommendation 17 Improve pedestrian crossing opportunities on Young Street (subject to consultation).</p> <p>Recommendation 18 Koala crossing on Robsart Street.</p> <p>Recommendation 19 Improvements to the Robsart/Castle Street intersection.</p>	\$150,000 (currently funded for 2018-19 through DPTI grant)	High

Street	Issues	Investigation	Recommendation	Cost	Priority
<p>Porter Street</p> <p>Local access to/from surrounding arterial network</p> <p>Bicycle route</p>	<p>High AM volumes – partially due to George Street->Regent Street->Porter Street rat run in AM.</p>	<p>For Porter Street, potential LATM measures should focus on reducing the impact of high AM volumes. Although origin-destination data suggests that some motorists do take the route of George Street->Regent Street->Porter Street in the AM, and anecdotally Greenhill Road->Porter Street->Townsend Street in the PM, it is necessary to maintain access to the street for local residents. Therefore, measures should focus on reducing potential conflict between parked cars and motorists with cyclists.</p> <p>Recommended measures:</p> <ul style="list-style-type: none"> Restrict parking at intersections to reduce potential conflict between vehicles and improve sight distance to cyclists. Increase length of No Stopping Zones at intersections (from 10m to approx. 15), whilst limiting parking loss. 	<p>Recommendation 20</p> <p>Restrict parking at intersections</p>	\$2,000	High
<p>Porter Street</p>	<p>Rat run Greenhill Road->Porter Street->Townsend Street in PM</p> <p>Concerns over sight distance at intersections to cyclists</p>	<ul style="list-style-type: none"> Install No Parking in the AM on the western side and PM parking restrictions on the eastern side to provide additional space for cyclists during peak times. Replace No Parking 8-10am, which is present on the eastern side of Porter Street north of Townsend Street, with time limit parking (consistent with 'Parking controls – various residential streets' recommendation 15), to reduce overall parking in the street. 	<p>Recommendation 21</p> <p>Install AM and PM parking restrictions</p> <p>Implement parking time limit changes in line with Recommendation 15 'Parking controls – various streets'.</p>	\$2,000	Medium
<p>Robsart/ Castle Street intersection</p> <p>Local streets</p>	<p>Improve pedestrian safety and support increased walking to/from school</p>	<p>Measures at this intersection, which is adjacent Parkside Primary School, were highlighted as a potential project during community engagement. Five residents supported the proposed changes during community engagement. Council has been provided funding to improve pedestrian crossing facilities around Parkside Primary School. This will include kerb extensions at the intersection of Robsart Street/Castle Street to improve crossing safety for children and parents. (See Parkside Primary School for additional project background information.)</p>	<p>See Recommendation 18 and 19 'Parkside Primary School'</p> <p>Kerb extensions at Robsart Street/Castle Street intersection.</p>	Funded 2018-19 through DPTI grant	2018-19 financial year due to DPTI funding
<p>Rugby/Porter bikeway</p> <p>Local streets</p>	<p>Increase cyclist safety and the number of trips by bicycle</p>	<p>This project involves measures previously endorsed by Council to implement the Rugby/Porter Bikeway bicycle boulevard. Within the LATM study area, the project includes improving cyclist access through the road closure at the Wattle Street/Rugby Street intersection, as well as at the Rugby Street/Oxford Terrace intersection (see Oxford Terrace for details). Investigation of Rugby Street and the area through the LATM study process supports the actions and intent of these previously endorsed measures along the bicycle route. Additional measures along the route are also discussed under Rugby Street, below.</p>	<p>Recommendation 22</p> <p>Continue implementation of previously endorsed Rugby/Porter Bikeway bicycle boulevard improvements.</p>	Funded - currently funded to occur in 2018 through 2017/18 Council budget and potential DPTI grant.	Occurring in 2018

Street	Issues	Investigation	Recommendation	Cost	Priority
Rugby Street Local Street	Safety concerns over Rugby/Cremorne Street bend and conflict between cyclists and school children	<p>A section of the Rugby/Porter Bikeway continues through Haslop Reserve, located between Cremorne Street and Wattle Street. This Council-owned reserve is adjacent Unley Primary School, and is used as an extended play area for children of the school. A dedicated cyclist path (no pedestrians), fenced on either side, is provided through the reserve and is an important link for those using the Bikeway.</p> <p>Concerns have been raised over potential conflict between cyclists using the path and children crossing at the northern and southern ends. This is partially due to the school recently starting to utilise land east of the path, which increases the number of children crossing in the vicinity. In addition to this, there have been existing safety concerns identified by Council over the intersection of the path and the bend where Cremorne Street transitions into Rugby Street.</p> <p>In order to address this, options to reduce the potential for conflict with children, and potential for conflict with motorists at the bend, will be considered and implemented. This may involve formalising a crossing point to the south of the path and improving visibility to/from pedestrians and cyclists, as well as improving the intersection with the Cremorne Street bend to maximise sight lines and space for cyclists. Potential conflict between cyclists/pedestrians/motorists along Rugby Street between Haslop Reserve and Wattle Street will also be within scope of the project.</p>	Recommendation 23 Develop options and implement improvements to the Rugby Porter link through Haslop Reserve	\$60,000 (approx. as scope to be determined).	Medium
Smart Parking	Provide on-street parking for businesses in a controlled manner that limits impact on residents.	<p>Smart Parking involves the use of technology to manage parking in local streets. This was highlighted in community engagement as a potential project, and received mixed support (with most respondents unclear of what this would involve).</p> <p>Installation of on-road parking sensors in several streets north of Young Street. Montpelier Street, Anglo Avenue, Regent Street were initially identified however streets should be assessed on their ability to accommodate non-local parking whilst limiting impact on residents. Sensors will ensure ease of enforcement of the parking zones. Motorists will have access to an online payment system to purchase parking in a particular parking space. This will act as a trial of the technology and could potentially be extended to other areas of the City of Unley.</p>	Recommendation 24 Install parking sensors in several streets in Parkside to undertake a trial of paid parking	Sensors - \$20,000	High
Smart Parking	Potential income generation for Council.	<p>Development and implementation of an Unley phone application where staff of Unley businesses (predominantly those located on Greenhill Road) can purchase a one-day parking permit in a local street. This would be subject to consultation and endorsement of the On-street Parking Policy to enable business eligibility for parking permits. Strong controls will be in place to limit the impact on local residents, such as limiting the parking spaces available through the initiative to 10% of a particular street's parking supply. This project would not be Parkside specific and would be implemented City-wide as part of the City of Unley's Digital Strategy. This is important for the LATM, as parking was a major concern for many residents. A way to improve this is to amend parking controls and increase enforcement, however this would negatively impact businesses. Therefore, this project will manage the parking and allow Council to provide an intentional and controlled balance between the two user groups.</p> <p>This will also provide an additional source of income generation, which could potentially offset the costs of the project, but likely in future financial years.</p> <p>There may be an opportunity to partially fund this through the Parking Initiatives budget endorsed in the Annual Business Plan 2018/19.</p>	Recommendation 25 Implement a phone application permit system to manage business parking in local streets	Phone app - \$10,000	High

Street	Issues	Investigation	Recommendation	Cost	Priority
Stamford Street Local access to surrounding arterial network	High AM volumes (26% of daily traffic/approx. 290 vehicles in 8-9AM period)	<p>Traffic data indicated that 1,112 vehicles use Stamford Street per day, which suggests it experiences demand other than its residential land use, such as part of a local access route to the arterial network. Traffic data collected during 8-9am indicated that 290 vehicles (243 northbound) use the street during this period, which is 26% of daily traffic using the street. This is high (highest in LATM area), and much higher than other hours during the day (generally 50-60 per hour), suggesting it is used as part of a rat run.</p> <p>Origin-destination data supported this, showing 126 vehicles matched entering the local area and exiting the local area via Stamford Street. These routes include motorists entering the area via Wattle Street/Kenilworth Road, St Ann's Place/Glen Osmond Road, Alfred Street/Glen Osmond Road, and Young Street/Glen Osmond Road intersections, and exiting at Stamford Street/Greenhill Road.</p> <p>There are likely other routes that contribute to the 290 vehicles, and a portion of traffic is potentially related to school drop-off. Based on the traffic volume it is clear however, that the street experiences an inappropriate amount of traffic during the 8-9am period and potentially 7:30-9:30am. Although rat-running was not highlighted by residents of Stamford Street, it is a reflection of rat-running occurring throughout the area, and measures to address Stamford Street would reduce rat-running throughout the area.</p> <p>To reduce high AM traffic volumes on not only Stamford Street, but the area as a whole, traffic could be discouraged from entering the area (i.e. Kenilworth Road/Wattle Street/Fullarton Road entrances to the area), or from exiting the area (Stamford Street/Jaffrey Street intersections with Greenhill Road). Care must be taken to ensure that measures to reduce traffic on one street does not push a significant number of vehicles to other streets.</p> <p>Options – addressing traffic volumes</p> <p>There are several options available to address traffic volumes and rat-running in the area. There is often a trade-off between impacting resident and other legitimate access through the area, and discouraging rat-running. From most extreme to least extreme impact (positive and negative impact), the following options are available:</p> <ol style="list-style-type: none"> 1. Partial road closure on Young Street west of Castle Street, allowing eastbound traffic through the closure only. This would eliminate the use of Stamford Street as part of a rat run from the south and significantly reduce rat-running along Kenilworth Road and around Parkside Primary School. It would however significantly impact residents of Young Street. 2. Partial Road closures on Stamford Street and Jaffrey Street, 50m south of Greenhill Road, allowing southbound traffic through the closure only. This would reduce the use of Stamford Street, whilst limiting potential flow-on effects to Jaffrey Street. This would also reduce rat-running on Kenilworth Road and around Parkside Primary School, as well as limit a portion of traffic rat-running through Alfred Street and St Ann's Place from Glen Osmond Road. This would lead to an increase in traffic on Oxenbould Street and Chinner Avenue however, and limit resident access to Greenhill Road. 3. Driveway entry links at Young Street intersections with Oxenbould Street/Stamford Street/Jaffrey Street. This involves heavily landscaped 'driveway' entries from Young Street, which can accommodate one-vehicle at a time (see image below). This would discourage, but not eliminate rat-running, but would not limit resident access in the area. <p>Option 3 is recommended, as designed effectively it could reduce rat-running to a more acceptable level, whilst limiting negative impact on residents' access and connectivity through the area.</p>	<p>Recommendation 26</p> <p>Install driveway entries at the intersections of Young Street with Oxenbould Street/Stamford Street/Jaffrey Street.</p>	\$150,000	High

Street	Issues	Investigation	Recommendation	Cost	Priority
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<p>Sunrise Christian School</p> <p>Local crossing collector road (Wattle Street)</p>	<p>Safety of children's crossing on Wattle Street</p>	<p>Sunrise Christian School is located on the southern side of Wattle Street between Duthy Street and Fullarton Road. Wattle Street functions as a collector route with 5-6000 vehicles per day. There is currently an 'emu' crossing for the school on Wattle Street. There are two types of children's crossing used in South Australia. There is the 'emu' crossing type where trained child monitors stop traffic during peak times and a 25km/h school zone is in place to slow traffic when children are present (indicated by school zone signs). The second type is a 'koala' crossing with flashing yellow lights where traffic must slow to 25km/h when the lights are flashing.</p> <p>Feedback and observation suggests that traffic does not adequately slow when children are present as they do not expect a children's crossing. A koala crossing is generally considered more effective, but has a higher cost when compared with an emu crossing. A koala crossing would increase compliance with the 25km/h speed limit and have a positive safety benefit for school children. As kerb extensions and kerb ramps are already in place, this project would primarily involve installation of the flashing signals.</p>	<p>Recommendation 27</p> <p>Upgrade of school crossing on Wattle Street to a Koala crossing.</p>	<p>\$20,000</p>	<p>Medium</p>
<p>Unley Road/Young Street intersection</p> <p>Arterial road/residential street intersection</p>	<p>Improved safety, particularly of right turn vehicle movements</p> <p>(12 right angle crashes, 24 crashes in total 2012-2016)</p>	<p>This intersection is used to access Unley Road from a number of streets both east and west of Unley Road. With four lanes of traffic, cyclists, turning movements and through movements from Young Street, this can result in delays and may lead to motorists misjudging gaps in traffic.</p> <p>Although measures to improve this would involve changes on a road under the care and control of DPTI (and generally out of scope of the LATM), improved safety and access would directly benefit the local community. This was also highlighted in LATM 1 as Unley Road is a border between the two LATM areas.</p> <p>Although this may lead to additional traffic on Young Street as residents, turning movements from Young Street, and particularly right turns, would be safer and easier if there were traffic signals at the intersection. Due to the high cost associated with this (approx. \$1,000,000), Council should establish a clear justification for the project and seek funding through DPTI or Commonwealth road safety funding programs.</p> <p>Establishing a clear justification would involve in depth analysis of crash data (including the reason for crashes and severity of injury), turning movement data, and cost estimation. This can then be put forward when funding opportunities are presented.</p>	<p>Recommendation 28</p> <p>Produce project justification report and commence discussions with DPTI.</p>	<p>\$5,000</p>	<p>High</p>

Street	Issues	Investigation	Recommendation	Cost	Priority
<p>Wattle Street/ Cambridge Terrace roundabout</p> <p>Local crossing collector road (Wattle Street)/ Local access route to arterial road network (Cambridge Terrace)</p>	<p>Cyclist/motor vehicle crashes</p>	<p>The intersection of Cambridge Terrace/Wattle Street has had three casualty crashes in the 2012-2016 period, all involving cyclists, as well as an additional four PDO crashes involving cyclists (2012-2015). This shows that there is a consistent history of crashes involving cyclists at this intersection.</p> <p>In all of the crashes, motorists were at fault by failing to give way to cyclists who were already negotiating the roundabout. Measures to improve this intersection would be focussed on reducing the speed of motorists and improving sight distance.</p> <p>The proposed treatment would be changing the intersection from a tangential design to a radial design (similar to Edmund Avenue and Rugby Street recent changes). Austroads research report titled Bicycle Safety at Roundabouts indicates that most roundabouts permit relatively high entry speeds, in excess of 30 km/h, whereas a radial-type alignment achieves approach and circulating speeds of less than 30 km/h. The report also cites research showing that this type of roundabout allows a cyclist to negotiate the roundabout in a more prominent position, which would improve sight distance between motorists and cyclists.</p> <p>The scope of work would include new kerb protuberances and splitter islands to change the approach angle and reduce the entry width to the roundabout. Openings in the kerb protuberances and splitter islands would be provided to allow for pedestrians.</p>	<p>Recommendation 29</p> <p>Change design from tangential to radial roundabout.</p>	<p>\$78,000</p> <p>Funded through Black Spot Program</p>	<p>High</p>
<p>Windsor Street/ Wattle Street intersection</p> <p>Local crossing collector road (Wattle Street)/ Local street (Windsor Street)</p>	<p>Improved crossing of Wattle Street</p>	<p>The Windsor Street trail is a popular walking route. Wattle Street carries approximately 800 vehicles per hour at peak times, suggesting a vehicle every 4.5 seconds - although this would likely consist of peaks and troughs even at peak times due to traffic signals at Duthy Street and Fullarton Road.</p> <p>Crossing of Wattle Street would be improved by installing a pedestrian refuge. Preliminary investigations suggest that as this is located at an intersection and it is necessary to provide two separate refuge areas east and west of the intersection to allow for vehicle manoeuvres in and out of Windsor Street. In addition to this, as it is necessary to provide for cyclists along Wattle Street, and due to the road width constraints, this would result in a loss of approximately four parking spaces. Any design should also try and accommodate north/south cyclists along Windsor Street in a separate refuge area.</p>	<p>Recommendation 30</p> <p>Installation of pedestrian refuge on Wattle Street.</p>	<p>\$30,000</p>	<p>Low</p>
<p>Kenilworth Road</p> <p>Local access route to/from arterial network</p>	<p>Streetscape</p> <p>Daily traffic volumes (2200-2500vpd) and in AM peak period (20-25% of daily volume in one hour)</p>	<p>Review opportunities to improve streetscaping along the length of the road particularly at intersections for traffic calming and greening for amenity.</p>	<p>Recommendation 31</p> <p>Review opportunities to improve streetscape.</p>	<p>\$15,000</p>	<p>Medium</p>

Street	Issues	Investigation	Recommendation	Cost	Priority
<p>Campbell Road</p> <p>Local access route providing access from local streets to/from arterial network</p>	<p>Concerns raised over existing slow point for a number of years.</p>	<p>There are existing one-way slow points on Campbell Road and feedback has been received suggesting they are ineffective at slowing traffic. Traffic data does not suggest there is a significant problem in Campbell Road, with an 85th percentile speed of 41-44km/h, which is not high, and a traffic volume of 1,749vpd which is consistent with the role of the street.</p> <p>As part of the community engagement process, a potential project was highlighted by Council, involving narrowing of the slow points and addition of a road hump within the slow points. Feedback received during community engagement indicated that some residents of Campbell Road and other streets strongly support changes, but the majority of residents of surrounding streets (and a portion of residents of Campbell Road) do not support changes (10 supporting, 28 opposing). Those opposing changes believe changes are not necessary, do not want to be inconvenienced, or do not want to live with the sound of road humps. Those supporting changes believe it will further slow speeds and reduce the potential for conflict when two motorists are approaching the devices.</p> <p>Based on the feedback received, there is not support for the proposed changes. In order to reduce traffic speeds, and potentially volumes, whilst taking into consideration comments of those opposing changes, the width (gap) of the slow points could be reduced but no road hump added. Currently the gap in the slow points is 2.9m, which aligns with AustRoads suggested width of 2.8-3.0m. However most passenger vehicles are 1.87m or less in width, which means motorists can easily negotiate the gap without any significant speed reduction. If the slow points were reduced from 2.9m in width to approximately 2.6m in width, this would further reduce speeds, but may result in some difficulty for large vehicles such as waste collection vehicles.</p> <p>However, considering that traffic data does not indicate a speeding problem, and there is not support for measures to reduce traffic speeds, no changes are recommended as part of the LATM.</p> 	<p>No changes considered necessary.</p>	<p>N/A</p>	<p>N/A</p>
<p>Regent Street/ Montpelier/ Anglo Avenue</p> <p>Local street</p>	<p>Rat running behaviour during the AM peak period</p>	<p>Whilst origin-destination data suggests that some motorists do take the route of George Street->Regent Street->Porter Street in the AM to avoid delays at the George Street/Greenhill Road intersection. The number recorded was 38 vehicles, which in context of the overall traffic volumes on Regent Street and Porter Street is low. Consequently no changes are considered necessary to discourage this.</p>	<p>No changes considered necessary.</p>	<p>N/A</p>	<p>N/A</p>
<p>Cambridge Terrace</p> <p>Local access route providing access from local streets to/from arterial network</p>	<p>High AM volume (380 vehicles 8-9am with 286 of these northbound)</p> <p>High daily volume (2,500vpd)</p>	<p>Residents of Unley and Malvern use Cambridge Terrace for intracity trips, as well as when en route to higher order roads. However, the high AM volume suggests the street is potentially used as part of a rat run and as an alternative to Duthy Street or Unley Road.</p> <p>Origin-destination data collected in 8-9am showed that approximately 160 vehicles matched on Cambridge Terrace at Wattle Street exit the area at Unley Road or Duthy Street, suggesting that the remaining 120-130 vehicles have a destination in the local area. A portion of these 160 vehicles are likely residents of surrounding streets attempting to avoid Unley Road due to potential delays, which is acceptable and aligned with the function of the road. During the remainder of the day these same residents would access Unley Road or Duthy Street directly from their street, rather than using Cambridge Terrace.</p> <p>These factors suggests that the street likely does not accommodate a high number of rat-runners, and those that do use the street in this manner do not significantly affect the daily or peak volumes. As the peak and daily volumes are aligned with the function of the street, no changes are considered necessary as part of the LATM.</p>	<p>No changes considered necessary.</p>	<p>N/A</p>	<p>N/A</p>

7. APPENDICES

A. TRAFFIC VOLUME

B. TRAFFIC VOLUME INSIGHTS

C. CRASH DATA INVESTIGATIONS

D. COMMUNITY FEEDBACK

A. TRAFFIC VOLUMES



Daily traffic volume: **1640**

85th Percentile Speed: **46**

% of daily traffic in peak AM hour: **17**

% of daily traffic in peak PM hour: **10**

- No agreed problem
- Possible technical problem (warrants further investigation)
- Acknowledged or substantial technical problem (warrants further investigation)

B. TRAFFIC VOLUME INSIGHTS

PORTER STREET HIGH PEAK AM VOLUME. THIS STREET ACTS AS AN EXIT OUT OF THE LOCAL AREA AND FOR TRAFFIC INTENDING TO DO A U-TURN ON GREENHILL ROAD AND TRAVEL EAST. NEGATIVE IMPACT OF THIS VOLUME ON THE CYCLING ROUTE SHOULD BE CONSIDERED. POSSIBLE TECHNICAL PROBLEM - FURTHER INVESTIGATION REQUIRED.

ANGLO AVENUE HIGH PEAK AM VOLUME BUT LOW DAILY VOLUME. A LARGE BUSINESS CAR PARK IS LOCATED ON THE CORNER. NO AGREED PROBLEM.

STAMFORD STREET EXPERIENCES A VERY HIGH AM PEAK VOLUME, POTENTIALLY DUE TO RAT RUNNERS. THIS IS AN ACKNOWLEDGED PROBLEM AND FURTHER INVESTIGATION IS REQUIRED.

PARKSIDE PRIMARY HIGH AM PEAK VOLUME DUE TO SCHOOL. INTERVENTION TO REDUCE THIS WOULD BE INEFFECTIVE AS THESE MOTORISTS REQUIRE ACCESS TO THE SCHOOL. AN IMPROVED SCHOOL CROSSING AND MEASURES AT INTERSECTIONS WILL LIMIT NEGATIVE IMPACTS OF THIS. FURTHER INVESTIGATION REQUIRED.

MACKLIN STREET HIGH AM PEAK VOLUME DUE TO SCHOOL. INTERVENTION TO REDUCE NEGATIVE IMPACT ON PEDESTRIANS AND RESIDENTS COULD BE CONSIDERED. FURTHER INVESTIGATION REQUIRED.

YOUNG STREET HIGH AM PEAK VOLUME DUE TO SCHOOL AND POTENTIALLY RAT RUNNING

FREDERICK STREET HIGH DAILY VOLUME AND LOW-MODERATE PEAK VOLUMES SUGGESTS THIS STREET IS FOR LOCAL ACCESS THROUGHOUT THE DAY. MEASURES MAY NOT BE EFFECTIVE IN REDUCING VOLUMES. FURTHER INVESTIGATION REQUIRED.

HONE STREET HIGH AM PEAK VOLUME, HOWEVER THIS IS LIKELY CONTRIBUTED TO BY THE LARGE CAR PARK ON THE STREET. NO AGREED PROBLEM.

OXFORD TERRACE HIGH DAILY VOLUME. LAND USE AND CONNECTION TO UNLEY ROAD MEANS THAT THIS VOLUME IS ACCEPTABLE AND IT IS NOT DESIRABLE TO SHIFT THIS TRAFFIC TO OTHER STREETS. MEASURES TO ADDRESS NEGATIVE IMPACT OF HIGH VOLUMES COULD BE CONSIDERED - FURTHER INVESTIGATION REQUIRED.

CAMPBELL ROAD DAILY VOLUME SLIGHTLY HIGH ON CAMPBELL ROAD HOWEVER AM AND PM VOLUMES SUGGEST THIS IS PREDOMINANTLY LOCAL TRAFFIC SPREAD THROUGHOUT THE DAY. NO AGREED PROBLEM.

RUGBY STREET HIGH PM PEAK VOLUME DUE TO SCHOOL. NO AGREED PROBLEM

CAMBRIDGE TERRACE RELATIVELY HIGH DAILY VOLUMES, AM PEAK VOLUMES, AND SPEEDS. STREET OPERATES AS A LOCAL COLLECTOR AND USED TO ACCESS UNLEY ROAD VIA A RIGHT TURN FROM OXFORD TERRACE (59 VEHICLES IN 8-9AM). POSSIBLE TECHNICAL PROBLEM - FURTHER INVESTIGATION REQUIRED.

KENILWORTH ROAD RELATIVELY HIGH DAILY VOLUMES AND HIGH AM PEAK VOLUMES. SPEEDS WITHIN ACCEPTABLE PARAMETERS IN MOST SECTIONS. ACKNOWLEDGED PROBLEM - FURTHER INVESTIGATION REQUIRED.

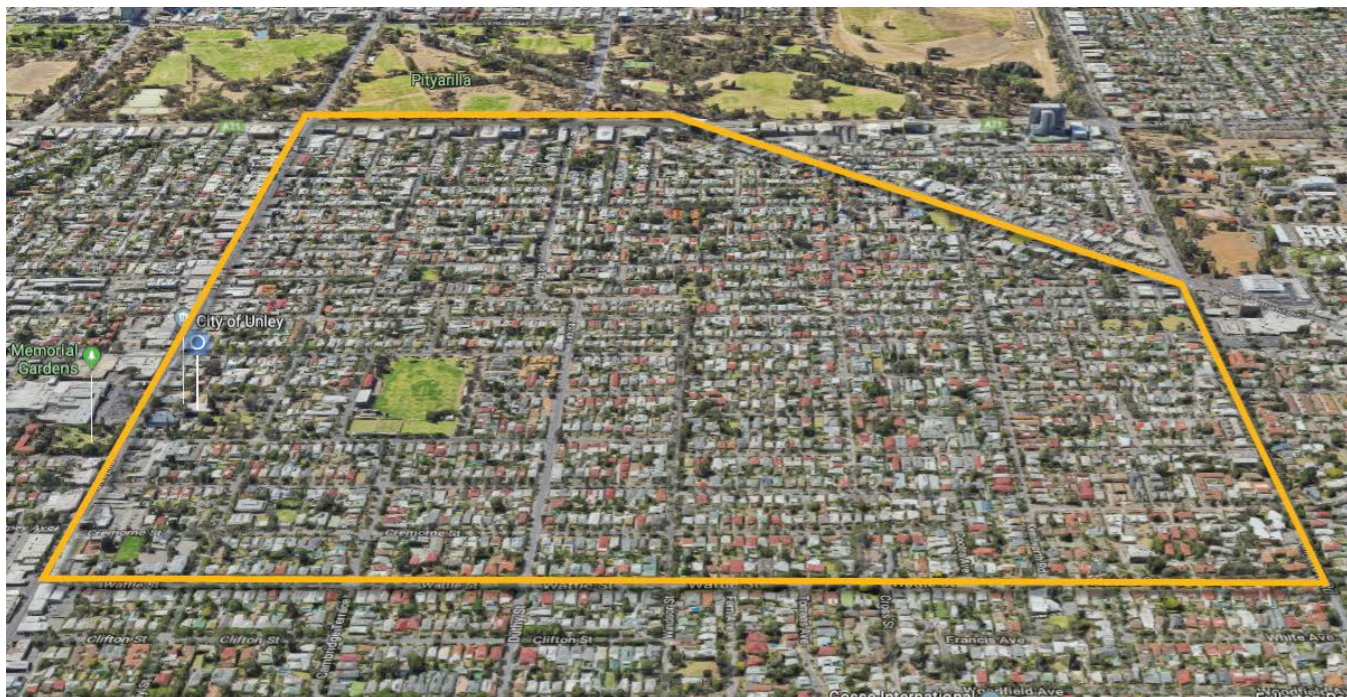


C. CRASH DATA INVESTIGATIONS

Location	Number of Crashes	Type of Crash	Comment
	Casualty/ Injury/ Fatality	Property Damage Only	
Wattle Street/ Cambridge Terrace intersection	3	6	9 x right angle (generally a vehicle turning out of a street and not giving way, and being hit on the side by another vehicle) 7 of these involved motorists failing to give way and colliding with cyclists. Council has submitted a Black Spot Program funding application to DPTI and will be advised in July 2018 whether this has been successful. If successful and supported by Council, this will help reduce further crashes. This potential project was included in the preliminary projects consultation with the community.
Wattle Street/ Kenilworth Road intersection	2	2	2 x right angle 2 x side swipe This is a fairly typical number of crashes for an intersection of a major collector road and a local street with approximately 2000vpd. However, as there is a school crossing directly west of this intersection and as two of these crashes involved cyclists, this was further investigated. Safe Intersection Sight Distance is achieved, which is the minimum sight distance where an approaching motorists can see a motorist failing to give way and stop in order to avoid a collision. This area must be free of fixed objects that limit visibility (ie does not include parked cars). The minimum value of this is only achieved due street trees. Activity within the pedestrian crossing may also reduce this further. If the crossing is upgraded this should be further considered.
Duthy Street/ Edmund Avenue intersection	2	2	1 x right angle 2 x side swipe 1 x rear end This is a fairly typical number of crashes for an intersection of a major collector road and local access street. Safe Intersection Sight Distance is provided at the intersection.
Duthy Street/ Frederick Street intersection	1	2	2 x right angle 1 x side swipe This is a typical number of crashes for an intersection of a major collector road and local access street. Safe Intersection Sight Distance is provided at the intersection.
Young Street – Glen Osmond Road to Parkside	0	5	4 x hit parked vehicle 1 x side swipe This section of Young Street is adjacent Parkside Primary School. These crashes likely were due to vehicles parked during school times pulling out without looking to see if other vehicles are approaching. This can potentially be improved by reducing vehicle speeds, which will occur through installation of a 'koala' school crossing on Young Street which is a recommended project.
Unley Road/ Young Street intersection	9	15	12 x right angle 12 x various This intersection is used to access Unley Road from a number of streets both east and west of Unley Road. With four lanes of traffic, cyclists, turning movements and through movements from Young Street, this can result in delays and may lead to motorists misjudging gaps in traffic. Although measures to improve this would involve changes on a road under the care and control of DPTI (and generally out of scope of the LATM), improved safety and access would directly benefit the local community. This was also highlighted in LATM 1 as Unley Road is a border between the two LATM areas. Although this may lead to additional traffic on Young Street, turning movements from Young Street, and particularly right turns, would be safer and easier if there were traffic signals at the intersection. Due to the high cost associated with this, Council should seek funding through DPTI or Commonwealth road safety funding programs.

D. COMMUNITY FEEDBACK

LATM 2 Community Feedback Analysis



Parkside | Unley | Fullarton

Street Name	No. of responses	Key themes
Alfred Street	10	<ul style="list-style-type: none"> • Parking – lack of accessible parking for residents, commuter parking is an issue, parking congestion due to business parking, reduce time limit to create turnover, regular enforcement needed. • Traffic volumes and rat-running is an issue • A suggestion to ban right turn from Chinner to Stamford
Anglo Avenue	8	<ul style="list-style-type: none"> • 'All planned projects look great' • Parking – review parking during business hours, additional parking along Greenhill Road is supported, hard to back out of driveway, illegal parking, business employee parking is an issue, need to employ more inspectors for enforcement • Support pedestrian crossing along Fullarton Road • New developments at Greenhill/George intersection will cause issues and need to be considered
Arnold Street	3	<ul style="list-style-type: none"> • Traffic from Campbell Road speeds down Arnold St • Cycling and walking are good • Hone Street safety issues with traffic congestion and access to/from GO RD • Traffic rat-run along Campbell Road • School drop off near Sunrise Christian PS is an issue to be considered
Audley Court	2	<ul style="list-style-type: none"> • Do not support speed limit change • Rat run along Young, Leicester, Robsart
Birks Street	3	<ul style="list-style-type: none"> • Campbell Road slow points need to be safety reviewed • Leicester/Kenilworth – sight lines issues • Rat-run through Birks Street • Crossing Fullarton Road is difficult • Support works to improve walking and cycling • Cyclists access Fuller and Hill
Blyth Street	5	<ul style="list-style-type: none"> • Parking – narrower due to parked cars on both sides creates traffic chaos • All improvement for traffic management, cycling and walking are supported • Pedestrian crossing near Oxford needed • Sightlines obscured Glen Osmond Trail and George St • The street is very busy and access off of Fullarton Road need review • Local business parking is an issue
Campbell	5	<ul style="list-style-type: none"> • Existing slow points – completely useless not slowing traffic, cars speed down, like to see improvements to slow point, support anything to stop street being used as cut through, the devices are only partially effective • Speeding and rat run issues along the street • Support pedestrian refuge along Fullarton Road • Difficulties associated with peak traffic and Arkaba access opposite the intersection

Cambridge	3	<ul style="list-style-type: none"> Increased traffic along the street Pedestrian Crossing along Fullarton Road is supported Consider removing speed humps in Wattle Street Aesthetic improvement near traffic devices/junctions Cyclists safety is important but also focus on motorists
Castle	9	<ul style="list-style-type: none"> Parking – congestion, high demand, school parking is an issue, business parking is an issue, Traffic on Campbell is well-regulated – no more nanny state! Support investigation on Robsart/Castle intersection issues Pedestrian crossing facility to cross Fullarton Road near Arkaba is essential Avoid driving Campbell Road as lack of driver courtesy A lot of traffic and rat-run along Castle St Increase parking spaces along Kenilworth near schools
Chinner	1	<ul style="list-style-type: none"> Parking is an issue – accessibility, review No Parking signs that apply between 9-5
Clyde	2	<ul style="list-style-type: none"> Crossing near Parkside Primary is needed (near Young St) More parking around Frederick/Edmund is needed Rat-run around Clyde St
Cootra	2	<ul style="list-style-type: none"> City of Unley has got too many restrictions along its street network More aesthetic improvement needed Support for Fullarton Road pedestrian crossing Footpath condition needs to be reviewed, more maintenance needed
Cremorne	?	<ul style="list-style-type: none"> Rat-run along Windsor Street Support projects suggested Traffic volumes during peak hours is an issue Pedestrian crossing along Fullarton Road is supported Make Cremorne Street a No Through Road Traffic congestion during school peak hours and at Unley road intersection Overhanging trees along footpath – regular tree maintenance needed
Culvert Street	1	<ul style="list-style-type: none"> Parking issues – commuter and city workers
Davey Street	3	<ul style="list-style-type: none"> Campbell Road leave it as it is Extra parking for businesses is a good idea Kenilworth Road needs resurfacing Regular breach of No Entry signs Drainage issues along Macklin Street No road humps
Dunks Street	3	<ul style="list-style-type: none"> Consider growing number of elderly people who needs better and wider footpaths Along main roads pedestrian crossing times need to be improved More pedestrian refuges needed Consider time limit parking for Young Street

		<ul style="list-style-type: none"> Some drivers don't obey 40km/hr
Duthy Street	2	<ul style="list-style-type: none"> Support projects – 'look good' Pedestrian crossing facility needed Duthy/Fairford Improve aesthetics, footpath needs regular maintenance Request for pedestrian crossing near bus stop 5 (between Oxford and Edmund)
Edmund Avenue	2	<ul style="list-style-type: none"> Crossing issues at Duthy/Edmund needs improvements
Ella Street	1	<ul style="list-style-type: none"> Difficulty in finding parking Support cycling and walking projects
Fairford Street	8	<ul style="list-style-type: none"> Support Campbell Road improvements Hone Street safety improvements needed Not sure if Windsor/Wattle ped. crossing is needed Rat-run is an issue along Porter Street Anything that can be done to improve walking and cycling is supported. Cycling should be encouraged There is no need for cycling improvements A pedestrian crossing near Duthy St shops is needed Visibility issues at Porter/Townsend Cars parking in No Stopping Zone
Foster Road	3	<ul style="list-style-type: none"> Rat-running on Kenilworth Road Fullarton Rd/GO Rd traffic signal needs green arrow for traffic from Fullarton to GO Support pedestrian crossing along Fullarton Road Resurface Kenilworth Road Reduce parking congestion
Frederick Street	6	<ul style="list-style-type: none"> Duthy Street traffic congestion issue during AM/PM peak Campbell road slow points are fine leave it unchanged George Street not safe, remove parking to create more space More bike ways Duthy/Oxford – review sight lines Marion lane is dangerous Trees/lifting pavers hazard on Frederick St.
Fullarton Road	4	<ul style="list-style-type: none"> Hone Street is busy Support Pedestrian Crossing along Fullarton Road Struggling to find car parking for business visitors/employees
Fuller Street	4	<ul style="list-style-type: none"> No more speed restrictions! Robsart/Castle – review visibility and sight lines Objection to Campbell Road slow point changes Support walking and cycling projects Increase parking accessibility in the area Promote walking and cycling No major changes are need in Parkside area
George Street	5	<ul style="list-style-type: none"> What has to be done – do it! Concerns with parking congestion due to new developments coming up along GH Rd/George intersection Parking permits are very important and needs to be maintained

		<ul style="list-style-type: none"> • Provide a balance for all modes of transport along George Street • Concern over insufficient space in pedestrian/cyclist refuge to accommodate a bicycle and multiple bicycles
Greenhill Road	4	<ul style="list-style-type: none"> • Not supporting additional indented parking on GH Rd – it may add to congestion • Parking restriction are not helpful for local businesses - more accessibility to parking is needed • Oppose the recently changed Clearway times • Parking should be more accessible
Hill Street	3	<ul style="list-style-type: none"> • Campbell Road – leave it as it is! • Walking improvement are needed on footpaths, particularly for elderly – wider footpath • Fullarton Road pedestrian crossing idea is supported
Jaffrey Street	3	<ul style="list-style-type: none"> • All suggested projects look effective, Jaffrey Street should be made a one way street • Dangerous entry/exit at GH Rd intersection • On-Street parking congestion, commuter parking is an issue. • Non local traffic rat running through the street
Kenilworth Road	15	<ul style="list-style-type: none"> • Parking issues – provide extra permit only zones! • Parking during school peak time is an issue • Kenilworth Rd is in bad condition, improvements are needed here not Campbell Road • Kenilworth Road needs speed humps • Footpath needs to be fixed • Speeding cars particularly after 4.30pm • So many children ride, walk to schools in the local area • Kenilworth section near GO Road – drivers disobey No Entry requirements • Rat running
Leicester Street	6	<ul style="list-style-type: none"> • West side of young street at George St intersection improve cyclists' access • Kenilworth Road needs resurfacing • Need traffic light arrow to turn from Fullarton Road to GO Rd • Glen Osmond Rd needs bike lanes • Children crossing near Parkside Primary School is needed • Parking congestion is an issue • Limit parking on one side in busy streets • Young/Robsart Sts intersection too many cars parked. Free up intersection for traffic flow • Don't like Campbell Road change idea • Robsart/Castle parking too close to intersection restrict parking • Appropriate parking for local needs need to be created • 'The potential projects look promising!'
Liston Street	1	<ul style="list-style-type: none"> • Speeding traffic • Rat-running issues • Traffic calming needed for the link Regent/Porter/Clyde section
Macklin Street	4	<ul style="list-style-type: none"> • Narrow street, reversing out of driveways difficult • Macklin St speeding traffic • Walking and Cycling access along the street poor

		<ul style="list-style-type: none"> • Davey/Macklin is a blind corner should be fixed • Ped. crossing at GO Rd needed traffic often run 'red lights'
Marion Street	6	<ul style="list-style-type: none"> • Marion Lane speeding traffic, needs to be closed at one end. • Duthy St Bus Stop 4 when buses stop all traffic is blocked • May have to limit parking on Porter Street • Do not open existing closed roads • Speeding traffic needs policing • 'Rugby/Porter St bike route is response to minority groups' • Bike speed along culvert shared path is an issue
Maud Street	2	<ul style="list-style-type: none"> • Maud/George intersection busy during peak hours, difficult to turn out of Maud St. • Very happy with Porter St bikeway • At GH Rd south side, bike lane very bumpy • Centre Blister vehicles using to undertake u-turns unsafely • Confusion over priority at Maud/George intersection due to two stop signs
Myra Street	3	<ul style="list-style-type: none"> • Increase parking for longer term car park needs • Consider older people from our community • Agree with pedestrian crossing across Fullarton Rd • Campbell Road leave it as it is! Or put plateaux • Campbell Road is fine on most occasions • Ped. Crossing near bus stop 6 Fullarton Rd is needed.
Olive Street	3	<ul style="list-style-type: none"> • Speeding issue • 'Leave it as is! You are wasting money' • Traffic has 'doubled up' due to Campbell Road slow points
Oxenbould Street	4	<ul style="list-style-type: none"> • Permit Only zones needed, parking accessibility issues • Commuter and all day parking despite of controls • Illegal parking over driveways • Making some existing streets collector routes necessary to manage the traffic • Develop more walking and cycling routes
Oxford Terrace	1	<ul style="list-style-type: none"> • Great initiatives providing considerations for cyclists, pedestrians and street parking • Just restrict through traffic to main roads will add to congestion
Paringa Street	1	<ul style="list-style-type: none"> • Pedestrian crossing Fullarton Road is supported • Indent bus stops along GO Rd • 'Make this area beautiful place to live'
Pine Street	2	<ul style="list-style-type: none"> • No projects in Pine Street? • Parking and rat-running need to be addressed • Parking congestion and commuter all day parking • Introduce 4 hour parking limit
Porter Street	12	<ul style="list-style-type: none"> • Improve sight lines at Porter/Townsend intersection • Commuter parking and parking accessibility is a major issue • Support project of indented parking along Greenhill Road • Parking on both sides of street is an issue for traffic flow • Entirely supportive of Rugby-Porter bikeway improvements

		<ul style="list-style-type: none"> Porter Street between Maud and Young streets too narrow for traffic to pass, stop parking on one side 'The projects are all worthy' Upgrade footpaths Townsend/Unley intersection improve and create more space/declutter Support smart parking Consider share cars, electrical vehicles charging points
Randolph Avenue	5	<ul style="list-style-type: none"> Speeding vehicles, difficult to see oncoming traffic when exiting driveways Review of Robsart and Castle intersection needed Rat running Sunrise School crossing upgrade good idea, Windsor/Wattle ped. crossing is supported Fullarton Road traffic is increasing, GO RD/GH RD intersection needs long term solutions Support Fullarton Road ped crossing
Regent Street	6	<ul style="list-style-type: none"> Increase local parking outside residential properties Parking concerns due to developments at George/GH Rd Rat running Commuter parking
Ridge Avenue	1	<ul style="list-style-type: none"> Need more parking like Katherine Street 'Obsession with cyclists reflects a sad need for political correctness'
Robsart Avenue	9	<ul style="list-style-type: none"> Create seating in shade along footpath 'Projects are excellent', but nothing to discourage traffic on Kenilworth Avoid humps Robsart/Castle suggestion for a mini roundabouts Support improvements to Robsart/Castle Improve bike lanes on George St Restrict parking to one side along Porter St Smart parking is a 'bad idea' Commuter parking
Scott Street	4	<ul style="list-style-type: none"> Fullarton Road pedestrian crossing idea is dangerous Better parking is needed Anything to continue to promote walking, cycling would be fabulous Rat running along Scott St
St Anne's Place	1	<ul style="list-style-type: none"> Young Street too narrow for parking on both sides Traffic lights at Young/GO Rd too slow to change
Stamford Street	2	<ul style="list-style-type: none"> 'Appreciate and welcome improvements to cycling safety in Unley area' Parking availability has been reduced, impossible to find parking outside my house Commuter parking
St. Helen's Street	1	<ul style="list-style-type: none"> Fullarton Road ped. crossing is supported
Townsend Street	2	<ul style="list-style-type: none"> Parking on both sides of street is problem for traffic flow Intersection of Townsend and Porter create more space, too

		<ul style="list-style-type: none"> narrow Unley/Townsend improvement needed - reduce parking at intersection Illegal parking makes it worse
Trimmer Terrace	1	<ul style="list-style-type: none"> Speeding issue Frederick/Trimmer Commuter parking issues
Unley Road	4	<ul style="list-style-type: none"> Support initiatives for parking, focus on business parking availability 'It's good to see prioritisation for the Porter/Rugby cycling over cross streets' Find Unley Road 'cluttered and hard to access'
Wallis Street	2	<ul style="list-style-type: none"> Drop off points near school need to be increased Speeding along Cambridge Don't want priority bike lanes Ped. Refuge at Wattle/Windsor is supported.
Wattle Street	9	<ul style="list-style-type: none"> Green arrow from Fullarton to GO Rd is needed at the signals Oppose upgrading children crossing outside Sunrise School Council should consider how it would get more cyclists off of George St Agree with Windsor/Wattle ped. refuge Upgrade of Sunrise School will enable safer movement for children No humps on Campbell Road Support all of the projects
Wilkinson Road	6	<ul style="list-style-type: none"> Consider 'keep clear' at Fullarton Road difficult to get in/out Campbell Road Kenilworth/Wilkinson review intersection for visibility Campbell Road is a major access for local residents from the area Dedicated 'green arrow' from Fullarton to GO Rd As a cyclist, happy with accessibility Rat-running Support ped. refuge Wattle/Windsor Ban parking on eastern side of Castle St between Young and Robsart to reduce traffic congestion
Windsor Street	1	<ul style="list-style-type: none"> Ped. refuge at Windsor/Wattle is supported
Young Street	5	<ul style="list-style-type: none"> Suggest installation of many bike rack near bus stops Currently too much focus on traffic/car project Parking along Unley Road need to be banned Increase Clearway times on south side of GH Rd 'I love the attention that Council taking to improve cyclists/pedestrian routes' Rat running between GO Rd and Stamford St Disappointed with no traffic calming suggested on Young Street
Comments from members of	6	<ul style="list-style-type: none"> Traffic in Campbell Road is already slowed no need to add Limit commuter parking Unley Road needs resealing 'Awful for Cycling'

**public
outside study
area**

- Walking along shared use paths are lovely, However, cyclists do not ring bell
- More parking is helpful
- Support Fullarton Rd ped crossing
- Arnold St commuter parking
- Campbell Rd/Fullarton Rd access issue
- Busy intersection Campbell/Fullarton
- Parking congestion around Montpelier