

LOCAL AREA TRAFFIC MANAGEMENT PLAN: ANALYSIS

ZONE 5 - FULLARTON / MYRTLE BANK



LOCAL AREA TRAFFIC MANAGEMENT PLAN: ANALYSIS ZONE 5 - FULLARTON / MYRTLE BANK

OCTOBER 2024

Report prepared by:



CONTENTS

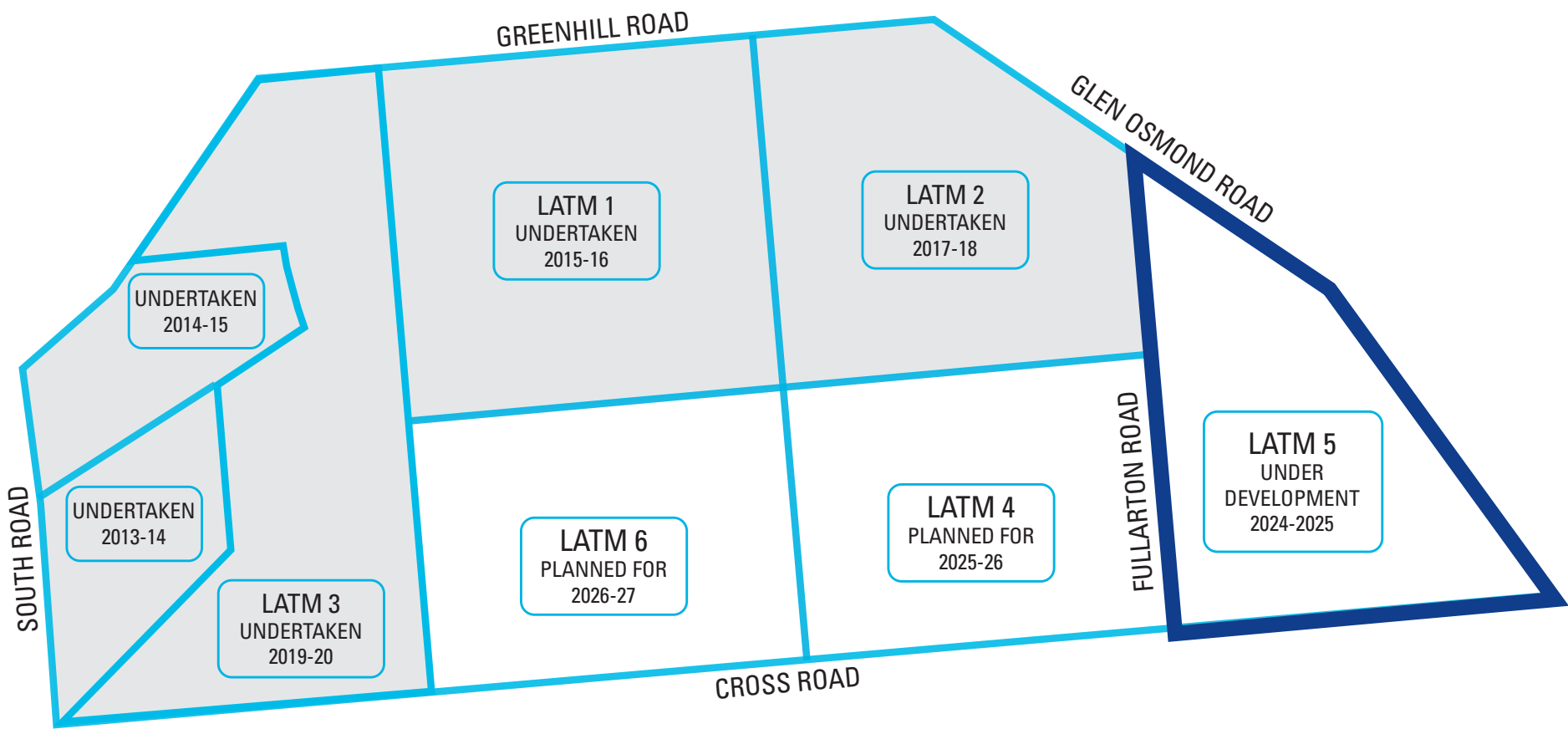
INTRODUCTION	1
LOCAL AREA TRAFFIC MANAGEMENT STUDIES IN THE CITY OF UNLEY	2
What is “local area traffic management”?	2
Methodology	2
Strategic alignment	3
STUDY AREA	5
PARKING CONTROLS	6
CRITERIA FOR INVESTIGATION AND ACTION	7
CRASH ANALYSIS	8
TRAFFIC VOLUMES	9
Average daily traffic volumes	9
Morning and evening peak traffic volumes	10
TRAFFIC SPEEDS	11
COMMUNITY CONCERNS AND REQUESTS	13
STREETS WARRANTING FURTHER INVESTIGATIONS	16
RECOMMENDATIONS	17

INTRODUCTION

The City of Unley has been progressively completing a series of Local Area Traffic Management (LATM) studies across the City. These studies examine traffic issues in local neighbourhoods and propose solutions to enhance safety for all users.

The City of Unley has been divided into precincts to advance LATM studies, as shown in Figure 1. This latest study is in the Fullarton/Myrtle Bank area, bounded by Fullarton Road, Cross Road and Glen Osmond Road (LATM 5).

Figure 1. Progress on completing Local Area Traffic Management studies in the City of Unley



LOCAL AREA TRAFFIC MANAGEMENT STUDIES IN THE CITY OF UNLEY

What is “local area traffic management”?

Local Area Traffic Management (LATM) is a planning and design process focused on improving safety within specific neighbourhoods or precincts. It involves identifying traffic-related issues and then implementing measures to manage traffic flow, reduce vehicle speeds and address parking congestion, enhancing safety for all road users, including people who walk, ride or drive.

By planning and managing road space within a local area, LATM studies focus on:

Making streets safer

Managing traffic

Considering walking and cycling needs

Considering parking needs

LATM initiatives are designed for entire neighbourhoods, offering solutions that are tailored to the local context rather than addressing singular issues in isolated locations.

The City of Unley is committed to delivering LATM initiatives in collaboration with the community. We involve residents to confirm our understanding of local issues and then seek feedback on recommended proposals. This thorough consultation process ensures the community can influence street design outcomes in their neighbourhoods.

Methodology



Figure 2 outlines the typical methodology for LATM precinct studies.

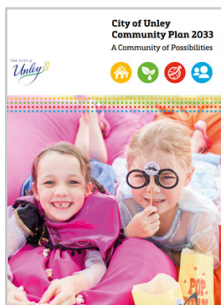
The Fullarton/Myrtle Bank LATM study is currently in Stage 2. We are seeking community feedback on traffic-related issues, outlined in this report, to ensure that the evidence-based analysis from Stage 1 and the problems identified align with local experiences. This feedback will help us gain a fuller understanding of the area’s issues, guiding the development of proposals in Stage 3. We will then return to the community for input on these proposals in Stage 4 before finalising them in the LATM recommendations report in Stage 5.

Please note that there is no current budget commitment to implement LATM proposals. Once the LATM precinct study is complete, we can request a budget allocation to implement the proposals, based on the prioritisation outlined in the LATM recommendations report.

Figure 2. LATM precinct study methodology

Strategic alignment

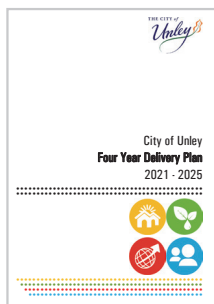
LATM is crucial in implementing the Unley Integrated Transport Strategy, which supports the broader City of Unley Community Plan 2033. This section highlights the objectives from these and other strategic plans that LATM projects aim to achieve.



City of Unley Community Plan 2033

The following key objectives are relevant to local area traffic management initiatives:

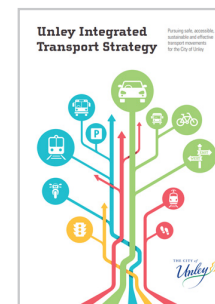
- 1.1 Our community is active, healthy and feels safe
- 1.3 Our City meets the needs of all generations
- 1.4 Our City is well planned to support community life
- 1.5 Our City is connected and accessible.



City of Unley Four Year Delivery Plan 2021-2025

The following key objectives are relevant to local area traffic management initiatives:

- 1.1b Provide services and infrastructure and design places to support our community to feel safe
- 1.4a Plan our City to sustainably accommodate growth, enrich character and promote community life
- 1.4d Support development activities and promote good design principles that enrich the character and sustainability of our local neighbourhoods
- 1.5a Ensure a safe, attractive, connected and accessible network of streets and paths
- 1.5e Consider the needs of all network users including vehicles, bicycles, pedestrians, wheelchairs, prams, scooters and gophers.



Unley Integrated Transport Strategy

The following key objectives are relevant to local area traffic management initiatives:

Active Transport focus area 1

- 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 2

- 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 4

- 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.



Walking and Cycling Plan 2022-2027

The following key priority actions are relevant to local area traffic management initiatives:

- ▶ A1. Improve and extend the walking and bicycle network
- ▶ A2. Improve walking and bicycle facilities
- ▶ A3. Improve walking and bicycle infrastructure around schools and support active travel to schools
- ▶ A4. Improve walking and bicycle connections to neighbouring councils
- ▶ A5. Establish high quality street design standards.

The City of Unley's Walking and Cycling Network highlights the following three key bicycle routes in the LATM 5 area:

1. Ferguson Avenue neighbourhood bicycle route
2. Wattle Street neighbourhood bicycle route
3. Rossington Rd-Riverdale Rd-Milton Ave-Moore St-Katherine St neighbourhood bicycle route.

It is recognised that improvements to these streets are needed to enhance bicycle access for the 60% of interested but concerned riders. Upgrades will be addressed as part of Council's Walking and Cycling Implementation Plans rather than through this LATM study.

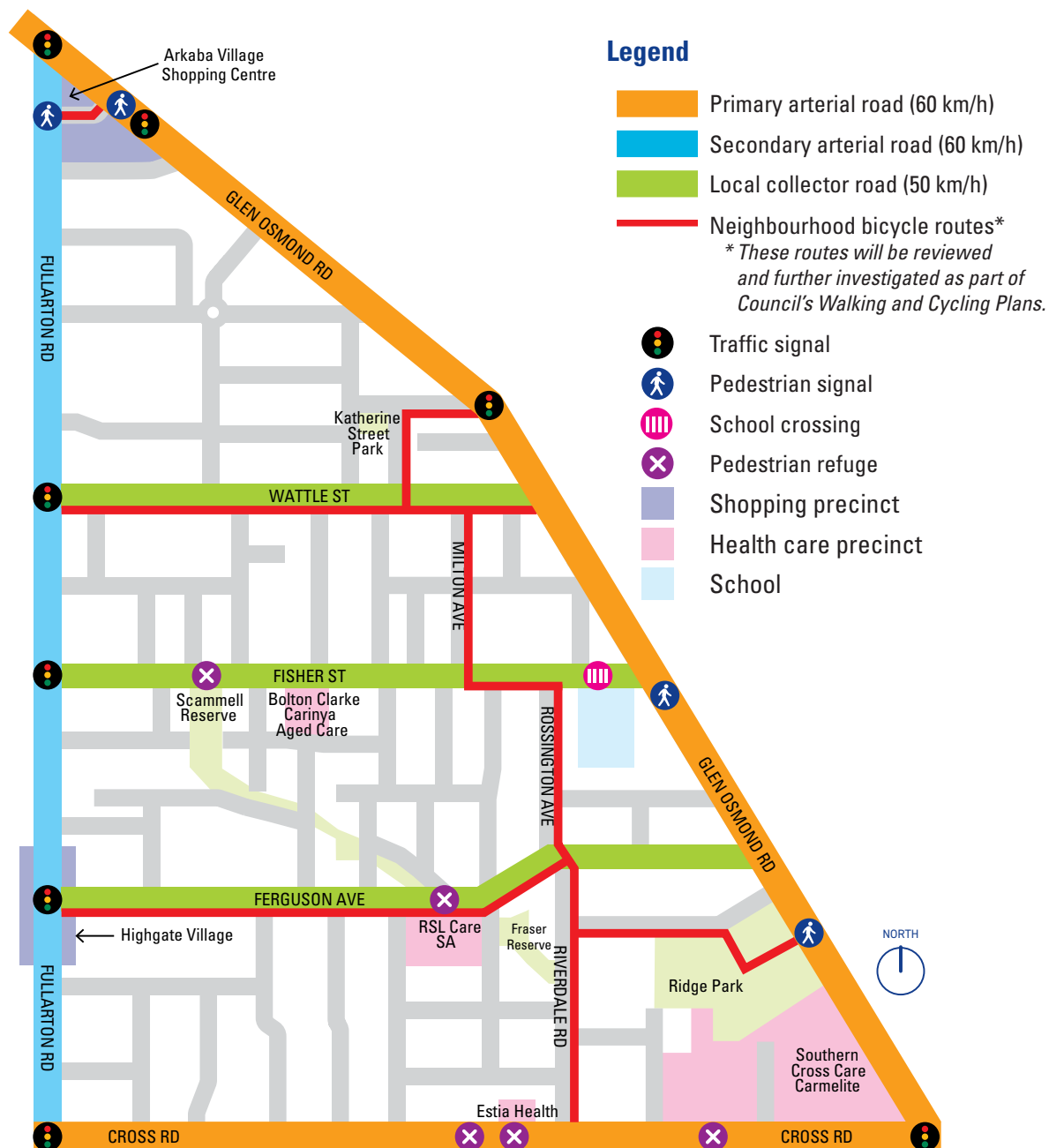


Unley Parking Management Plan 2023-2033

The following key priority actions are relevant to local area traffic management initiatives:

- ▶ 2.2 As part of the Council's annual road and kerb renewal program, consider opportunities to reduce existing wider road widths to 7.6 metres and allow for increased footpath and verge widths.
- ▶ 3.1 As part of road renewal projects, review and remove all existing driveway line marking that does not comply with the directions outlined in this Plan.
- ▶ 5.1 Continue the school parking reviews in the Unley area, in alignment with the aims, with the objective of conducting a minimum of one school parking review annually.

The Unley Parking Management Plan (UPMP) sets out key principles for managing parking in the City of Unley, aiming to balance the needs of residents, businesses, shoppers and visitors. It outlines 13 parking management directions to guide Council in making consistent, well-informed decisions that ensure a fair approach for all street users. Any parking improvements identified through this LATM study will need to align with the broader context of the UPMP.



STUDY AREA

The study area is bounded by Fullarton Road, Cross Road and Glen Osmond Road, as shown in Figure 3. This precinct encompasses the entire suburb of Myrtle Bank and the eastern half of Fullarton, with the western half of Fullarton extending west of Fullarton Road and beyond the study area. The western half of Fullarton will be addressed by a subsequent LATM Zone 4 study.

Approximately 5,000 people live in this area. Educational destinations include Glen Osmond Primary School and Bertram Hawker Kindergarten. The area also contains several aged care services, including Bolton Clarke Carinya Aged Care, RSL Care, Estia Health and Southern Cross Care Carmelite.

The area includes four open spaces/parks: Ridge Park (the largest in the City of Unley), Scammell Reserve, Fraser Reserve and Katherine Street Park.

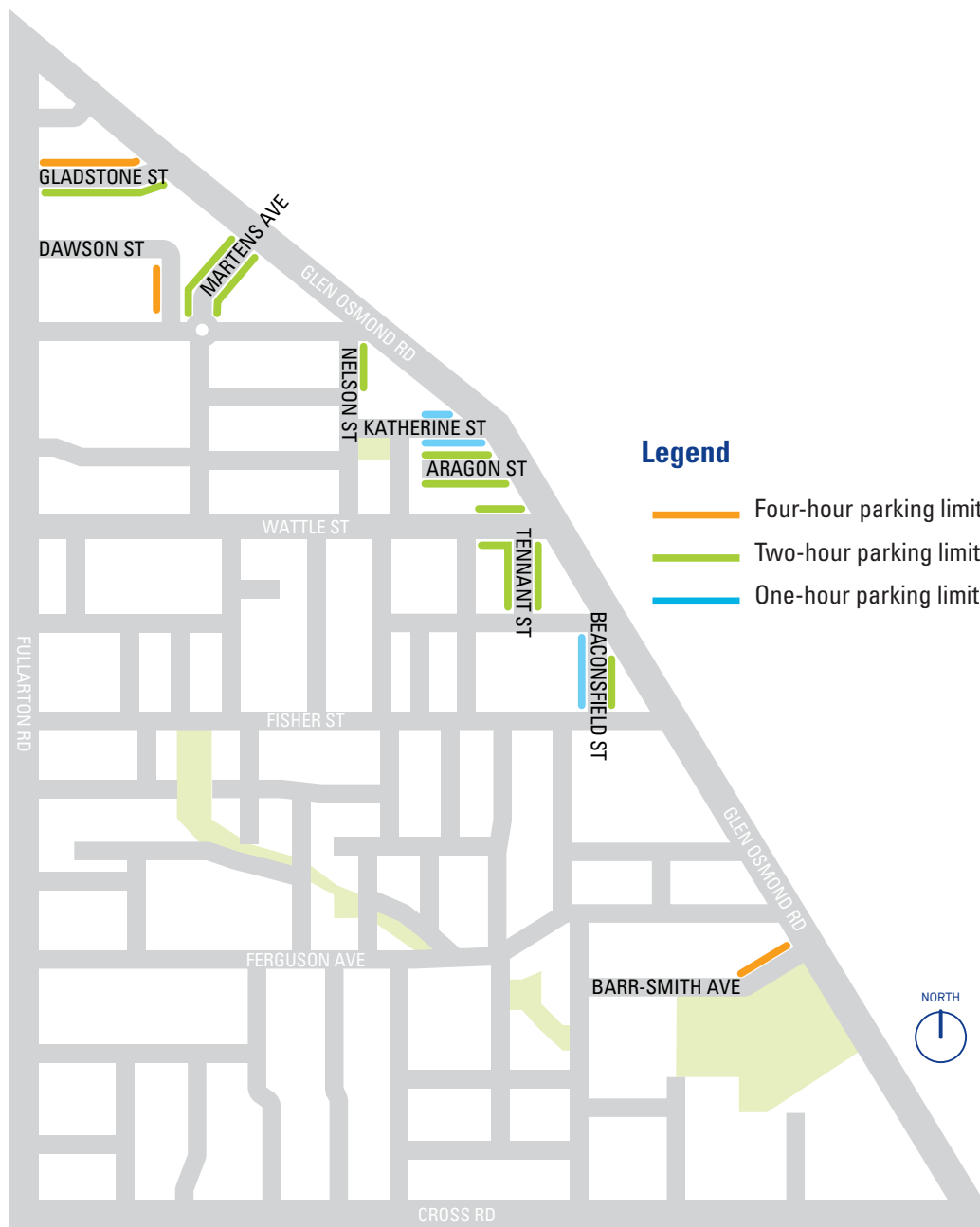
Local shopping destinations within the study area include Arkaba Village, with other shopping destinations around the perimeter of the area such as Highgate Village, Frewville Foodland (City of Burnside), Drakes Mini (City of Burnside) and various smaller shops along Fullarton and Glen Osmond Roads.

5,000
Residents

300
Local primary school
students

250
Aged care residents

Figure 3. LATM Zone 5 study area – Fullarton/Myrtle Bank



PARKING CONTROLS

The streets in this precinct are reasonably wide, allowing for parallel parking on both sides in most locations. It is estimated that there are 3,840 car parking spaces in this precinct. Only 6% of these spaces are time-controlled, primarily on streets off Glen Osmond Road, to encourage vehicle turnover in proximity to businesses.

Parking demand in the area is generally low, with 70% of on-street spaces having an occupancy rate of 40% or less along each street or section.

3,840

Approximate number of
on-street car parking spaces

6%

217 time-controlled
on-street car parking spaces

Figure 4. Streets with time-limited car parking spaces

CRITERIA FOR INVESTIGATION AND ACTION

When using traffic data to guide decision-making, it is important to have agreed-upon criteria or thresholds that indicate when action is needed (e.g., traffic volume exceeding a certain level). Deciding when to make changes to traffic management or the street environment typically relies on objective measures such as traffic speeds, volumes or crash rates, known as 'warrants'.

There is no standardised or formally adopted set of conditions in Australian Standards or Austroads Guides that dictates when LATM measures must be implemented. These conditions should be determined based on the specific circumstances, the professional judgment of traffic engineers and community expectations.

Based on the definitions for three levels of warrants outlined in the Austroads Guide to Traffic Management Part 8: 'Local Area Traffic Management,' as well as an understanding of community perceptions and expectations, Table 1 outlines the City of Unley's approach to determining when further investigations may be warranted for local streets. These warrants take into account the five aspects of traffic environment: daily traffic volume, 85th percentile speed, proportion of traffic during peak hours and crash rates.

This study references these warrants in the investigation of traffic speeds, volumes and crashes within the study area.

Table 1. Warrants for deciding when further investigations for local street conditions may be warranted

Level of problem	Daily traffic volume	85th percentile speed	Proportion of traffic in AM or PM peak	Casualty crashes in a five-year period	Action
Substantial problem					
The problem is significant enough to be included on a funded treatment program, in order of funding priorities.	>= 3,000	>= 50 km/h	>= 20%	3+	Further investigation required
Technical problem					
The problem justifies investigation, but is not sufficient to attract funding in the short-term. Alternative (non-LATM) low cost approach may be considered.	>= 2,000	>= 48 km/h	>= 17%	3+	Further investigation required
Possible problem					
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.	>= 1,500	>= 46 km/h	>= 14%	3+	Further investigation recommended
Not considered a problem					
Typical road conditions, not considered a problem.	< 1,500	< 46 km/h	<14%	<3	No investigation required

TRAFFIC VOLUMES

Average daily traffic volumes

To study traffic on local streets, surveys are conducted to measure the total number of vehicles passing a specific point on a road over a 24-hour period, referred to as the Average Daily Traffic (ADT) volume. Typically, traffic counters are placed across the street for one week and the averaged weekday counts estimate the typical ADT for the street.

The following traffic volumes are considered appropriate for council roads:

- ▶ Up to 7,500 vehicles on local collector roads
- ▶ Up to 1,500 vehicles on local streets.

ADT traffic volumes exceeding these thresholds indicate that local traffic conditions may not be consistent with the road's designated function.

Between August 2022 and May 2024, the Council conducted traffic surveys at 65 locations throughout the study area, covering most of the streets. Table 2 lists 20 survey locations in the study area with recorded ADTs above 500 vehicles per hour, presented in descending order.

The survey found that higher traffic volumes (1,500 vehicles per day or more) align with the local collector roads Wattle Street, Fisher Street and Ferguson Avenue (highlighted in Table 2 in grey). Traffic volumes on local streets were well below the 1,500 threshold, indicating that traffic volumes in the study area are not considered problematic.

Table 2. Study area roads with the daily traffic volumes above 500 vehicles per day

Road name	Survey/counter location	Average Daily Traffic volume	Posted speed limit
Wattle Street	Frew – Seaview	4,667	50
Wattle Street	Nelson – Alma	4,064	50
Fisher Street	Seaview – Alma	4,020	50
Fisher Street	Glen Osmond – Rossington	3,373	50
Fisher Street	Rossington – Glen Osmond	3,352	50
Ferguson Avenue	Boulderstone – Myrtle	2,848	50
Ferguson Avenue	Urrbrae – Wooltana	2,097	50
Ferguson Avenue	Riverdale – Glen Osmond	1,675	50
Florence Street	Fullarton – Martens	1,174	40
Riverdale Road	Auburn Ave – Way	970	40
Urrbrae Avenue	Glenferrie – Auburn	956	40
Katherine Street	Glen Osmond – Moore	799	40
Martens Avenue	Florence – Glen Osmond	760	40
Rossington Avenue	Fisher – Moorhouse	758	40
Katherine Street	Nelson – Moore	655	40
Frew Street	Fisher – Watson	626	40
Barr-Smith Avenue	Riverdale – Bend	598	40
Wellington Terrace	Ailsa – Restormal	574	40
Clinton Avenue	Hexham – Jenkins	543	40

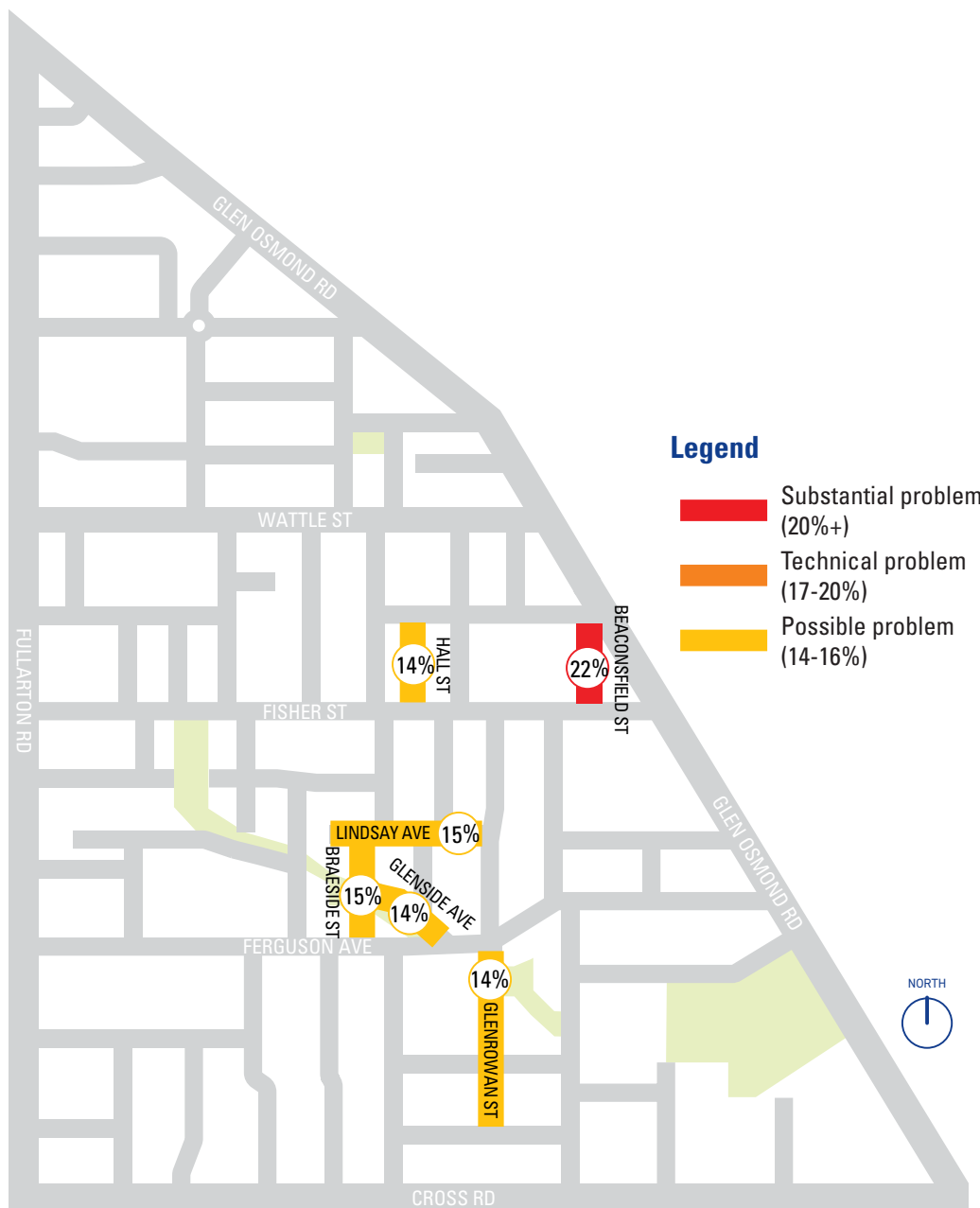


Figure 6. Streets with high traffic volumes in the AM or PM peak

Morning and evening peak traffic volumes

Peak hour is not a fixed concept; it varies by location and is influenced by the types of trips made by local residents and the street's proximity to key destinations, such as employment hubs or shopping centers.

Morning and evening peak hours are typically identified for each street individually based on traffic survey data.

Traffic intensity varies throughout the day, with up to 14% of daily traffic on residential streets typically occurring during the busiest morning peak hour and another 14% during the busiest evening peak hour.

Based on studies of residents' perceptions, if traffic volume during any hour falls between 14% and 16% of the daily total, in traffic studies it is flagged up as a 'possible problem'. When hourly traffic volume reaches 17%, it is deemed a 'technical problem,' and at 20%, it is considered a 'substantial problem.' High traffic proportions during peak hours may be an indicator of rat-running in the street.

Rat-running refers to the practice of drivers using local residential streets as shortcuts to avoid congestion or delays on arterial roads or major intersections. This often results in higher traffic volumes and speeds on streets that are not designed for through-traffic, potentially causing safety concerns and disruptions for local residents.

Figure 6 presents the peak hour traffic survey analysis for the study area. The analysis identified Beaconsfield Street as the only street with an AM peak traffic volume of 22% (considered a 'substantial problem'), exceeding the threshold of 14%. During the PM peak hour, six streets – Braeside Avenue (15%), Lindsay Avenue (15%), Hall Street (14%), Beaconsfield Street (14%), Glenside Avenue (14%) and Glenrowan Avenue (14%) – had traffic volumes ranging from 14% to 16%, which is considered a 'possible problem.'



Figure 7. Local streets with high traffic speeds (85th percentile speeds of 46km/h or more)

TRAFFIC SPEEDS

Traffic studies typically use the 85th percentile speed, which represents the speed at or below which 85% of cars travel. This metric is a reliable indicator of speeding frequency and severity. It is considered more reliable for understanding speeding than the average speed, as the latter can be skewed by a few cars travelling at extremely high or low speeds, misrepresenting typical travel patterns on a street.

Figure 7 highlights five local streets with posted speed limits of 40 km/h, where surveys recorded 85th percentile speeds of 46 km/h or higher. These speeds exceed the limit by 6 km/h and street conditions may warrant further investigation. Table 3 on page 12 lists the 85th percentile speeds in the study area in descending order, ending the list with speeds reaching up to approximately 10% above the local street speed limit.

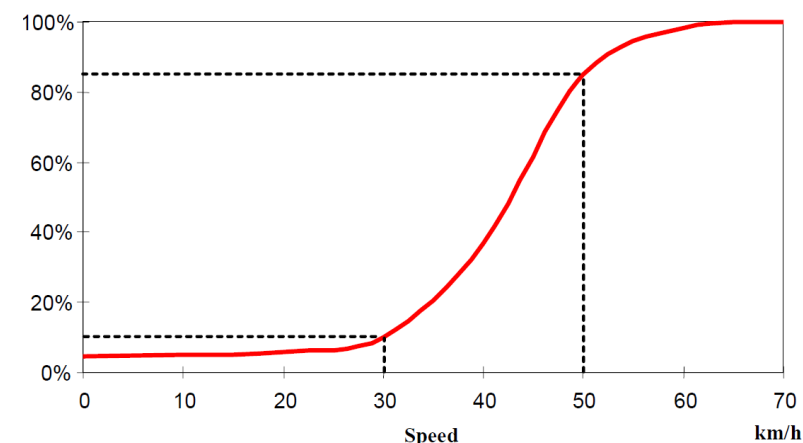


Figure 8. Probability of fatal injury for a pedestrian colliding with a car

Source: (Quoted in many international publications)

- OECD 'Speed Management' 2006
- Interdisciplinary Working Group for Accident Mechanics (1986);
- Walz et al. (1983)
- Swedish Ministry of Transport (2002).

Table 3. Study area roads with the 85th percentile speeds of 44km/h and above

Road name	Survey/counter location	Average Daily Traffic volume	Posted speed limit (km/h)	85th percentile speed limit (km/h)
Ferguson Avenue	Riverdale – Glen Osmond	1,675	50	53.5
Ferguson Avenue	Boulderstone – Myrtle	2,848	50	52.0
Wattle Street	Nelson – Alma	4,064	50	51.7
Wattle Street	Frew – Seaview	4,667	50	51.7
Fisher Street	Seaview – Alma	4,020	50	50.6
Ferguson Avenue	Urrbrae – Wooltana	2,097	50	47.7
Florence Street	Fullarton – Martens	1,174	40	47.5
Fisher Street	Glen Osmond – Rossington	3,373	50	47.3
Fisher Street	Rossington – Glen Osmond	3,352	50	47.0
Urrbrae Avenue	Glenferrie – Auburn	956	40	46.8
Clinton Avenue	Hexham – Jenkins	543	40	46.7
Watson Street	Wycliff – Arthur	474	40	45.9
Alma Road	Wattle – Osmond	448	40	45.9
Wellington Terrace	Ailsa – Restormal	574	40	45.3
Glenferrie Avenue	Urrbrae – Glenrowan	215	40	45.2
Seaview Street	Wattle – Fisher	275	40	44.9
Gladstone Street	Fullarton – Glen Osmond	393	40	44.7
Riverdale Road	Auburn Ave – Way	970	40	44.4
Bridge Street	Fisher – Culross	284	40	44.2
Glenrowan Avenue	Ferguson – Auburn	228	40	44.0
Auburn Road	Urrbrae – Glenrowan	144	40	44.0
Milton Avenue	Wattle – Osmond	374	40	44.0
Jenkins Avenue	Clinton – Cross	206	40	43.8
Raldon Grove	Fullarton – Boulderstone	290	40	43.8
Ringarooma Avenue	Fullarton – Hexham	209	40	43.5
Frew Street	Fisher – Watson	626	40	43.5

In recent years, there has been growing awareness of the relationship between car speed and the risk of injury to people walking and riding in the event of a collision. Based on international research, this relationship is depicted in the graph in Figure 8 on page 11. The graph shows that crashes at speeds above 30 km/h are likely to result in severe injuries, highlighting the significant impact of lowering vehicle speeds on safety.

Although current warrants and the existing approach to identifying streets with high-speed conditions are based on a posted limit of 40 km/h, with attention given to streets where the 85th percentile speed exceeds 46 km/h, there is a shift in general practice towards adopting a Safe System approach. Under this approach, local street speeds of 30 km/h are increasingly considered more appropriate. This is because research shows that at 30 km/h, the risk of severe injury or fatality in the event of a crash is significantly reduced, particularly for vulnerable road users like people walking and riding. Lower speeds not only enhance safety by reducing the likelihood of collisions but also provide drivers with more reaction time to avoid crashes altogether. The shift to a 30 km/h speed environment aligns with broader global trends prioritising the safety of all road users and reflects a growing recognition that safer, slower speeds contribute to more livable and sustainable urban areas.

For more information on safe speeds related to walking and cycling conditions, please refer to the City of Unley's *Walking and Cycling Plan 2022-2027*. At its meeting on 9 September 2024, the Council resolved to begin the process of applying to DIT to reduce the speed limit on all collector roads to 40 km/h. In the LATM 5 study area, this includes Wattle Street, Fisher Street and Ferguson Avenue.

COMMUNITY CONCERNS AND REQUESTS

This section summarises the letters and emails received over the past five years, from 2019 to 2024, concerning the study area, highlighting concerns and requests for street improvements related to local traffic management. This report summarises unresolved requests related to traffic management issues on the Council's road network.

It is important to consider these community requests for further investigation, as evidence alone cannot fully capture all the issues experienced by residents. For instance, while speed and traffic volume can be measured through surveys, user perspectives, local knowledge and on-site assessments are crucial for identifying issues related to sightlines, crossing ease, challenges in accessing or exiting arterial roads from the local street network and driver behaviour concerns.

Although the concerns summarised here stem from the community's unprompted input, further community consultation as part of this LATM study will help validate and expand upon the valuable information regarding issues that should be addressed.

Figure 9 maps the streets where residents raised concerns or submitted requests. Table 4 on page 15 provides traffic survey data for these streets.

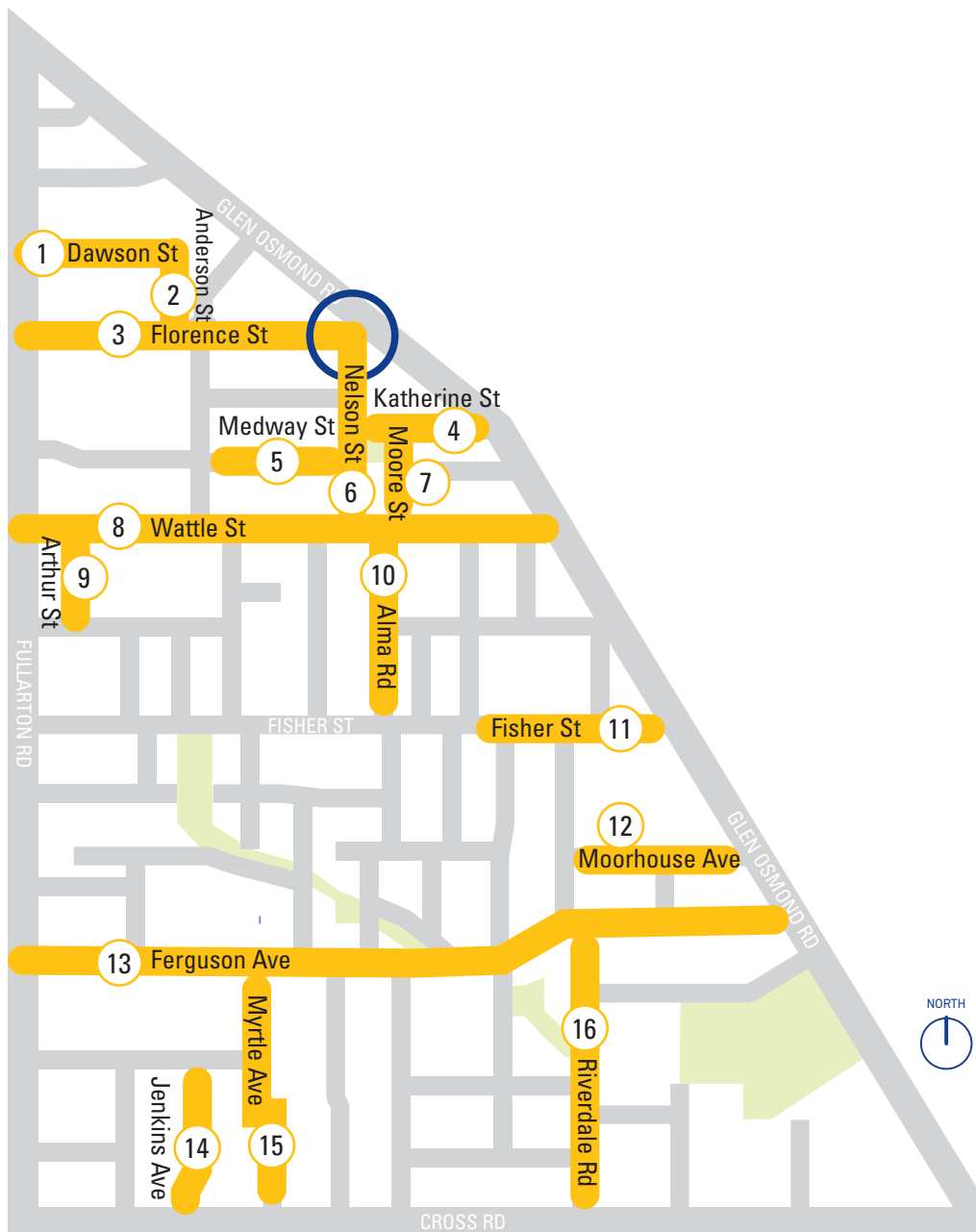


Figure 9. Locations of streets with resident concerns and requests (2019-2024)

40+

Letters and e-mails were received from 2019 to 2024 with community concerns and requests relating to traffic management in the area

1. Dawson Street

- Concerns about high vehicle speeds, especially when cars enter the street from Glen Osmond Road.

2. Anderson Street

- Concerns about the narrow street width and lack of accessible footpaths, forcing residents to frequently walk on the road.

3. Florence Street

- Concerns for growing car volumes travelling from Fullarton Road and for speeding cars.
- Observation of non-compliance with the posted speed limit and requests for traffic speed calming measures
- Concerns for the intersection with Glen Osmond Road.

4. Katherine Street

- Concerns about excessive car volumes and high speeds.
- Parking congestion and safety access issues, with requests for parking controls.

5. Medway Street

- Concerns about excessive car volumes and high speeds.

6. Nelson Street

- Concerns about excessive car volumes and high speeds along a narrow street.

7. Moore Street

- Concerns about excessive car volumes and high speeds.
- Request for traffic calming measures.

8. Wattle Street

- Lack of safe pedestrian crossings along the entire length of Wattle Street.
- Request for a pedestrian crossing aligned with the desire line towards Katherine Street Park.

9. Arthur Street

- Concerns for rat running cars in the morning and evening peaks with a request for traffic calming measures and turn restrictions.

10. Alma Road

- Concerns about excessive car volumes, high speeds, traffic-related noise and crashes witnessed by residents
- Requests for traffic speed calming measures and advisory signage to encourage slower driving speeds.

11. Fisher Street

- High traffic speeds around Glen Osmond Primary School.

12. Moorhouse Avenue

- High traffic speeds, with requests to slow cars down.

13. Ferguson Avenue

- High car speeds and high volumes, with requests to slow traffic down. Request to consider speed humps along the road
- Specific requests to investigate speeding at intersections with Wooltana Avenue, Rossington Avenue and Riverdale Road
- Concerns about cars using this street as a shortcut to bypass the arterial road intersection
- Conflict point due to challenging geometry and poor visibility at intersection with Riverdale Road
- Reports of witnessed car crashes attributed to speeding
- Concerns for safety of pedestrians crossing the street, especially around the creek.

14. Jenkins Avenue

- Concerns that cars are rat running through this street.

15. Myrtle Avenue

- Growing traffic volumes and aggressive driving.

16. Riverdale Road

- Growing traffic volumes and safety concerns for park users
- Reports of near collision misses due to speeding cars
- Poor visibility concerns for intersection of Riverdale Road with Barr-Smith Avenue with a request for 'no parking' areas to be line marked
- Concerns about cars rat running with requests for discourage high car volumes.

Table 4. Survey data available for the streets raised in community concerns or requests

Road name	Survey/counter location	Street width in metres	Street length in metres	Average Daily Traffic volume	Posted speed limit (km/h)	85th percentile speed limit (km/h)	Proportion of traffic in AM peak hour	Proportion of traffic in PM peak hour	Casualty crashes in a five-year period
1. Dawson Street	Fullarton – Anderson	12.8	250	369	40	43.4	4.9%	10.6%	0
2. Anderson Street	Dawson – Florence	4.8	130	292	40	32.4	5.5%	12.0%	0
3. Florence Street	Fullarton – Martens	10.5	600	1,174	40	47.5	4%	10%	1
4. Katherine Street	Glen Osmond – Moore	7.8	250	799	40	40.1	3.4%	12.3%	0
5. Medway Street	Wellington – Nelson	12	250	241	40	40.8	4.6%	11.6%	0
6. Nelson Street	Medway – Katherine	7.7	320	1,015	40	39.8	6.8%	11.1%	0
7. Moore Street	Katherine – Wattle	6.8	160	429	40	41.5	9.6%	12.8%	0
8a. Wattle Street	Nelson – Alma	12	900	4,064	50	51.7	6.2%	10.6%	0
8b. Wattle Street	Frew – Seaview	12	900	4,667	50	51.7	5.9%	10.2%	0
9. Arthur Street	Wattle – Watson	7.5	160	357	40	43.4	4.5%	9.8%	0
10. Alma Road	Wattle – Osmond	7.7	325	448	40	45.9	11.6%	10.5%	0
11a. Fisher Street	Seaview – Alma	12.4	1,100	4,020	50	50.6	6.7%	11.1%	1
11b. Fisher Street	Glen Osmond – Rossington	12.4	1,100	3,373	50	47.3	5.7%	11.0%	1
11c. Fisher Street	Rossington – Glen Osmond	12.4	1,100	3,352	50	47	5.6%	10.5%	1
12. Moorhouse Avenue	Rossington – Glen Osmond	8.3	310	296	40	42.6	7.8%	12.6%	0
13a. Ferguson Avenue	Riverdale – Glen Osmond	9.2	1,315	1,675	50	53.5	7.0%	11.2%	3
13b. Ferguson Avenue	Baulderstone – Myrtle	9.2	1,315	2,848	50	52	4.1%	10.7%	3
13c. Ferguson Avenue	Urrbrae – Wooltana	9.2	1,315	2,097	50	47.7	5.5%	10.3%	3
14. Jenkins Avenue	Clinton – Cross	8.1	277	206	40	43.8	8.3%	13.1%	0
15. Myrtle Avenue	Clinton – Cross	10.3	445	250	40	43.4	6.8%	13.2%	0
16. Riverdale Road	Auburn – Way	7.8	514	970	40	44.4	4.9%	11.6%	0

Notes:

- The local collector roads Wattle Street, Fisher Street and Ferguson Avenue are highlighted in grey.
- Due to the longer length of local collector roads, multiple survey points were used, with the table listing data from all counters.

STREETS WARRANTING FURTHER INVESTIGATIONS

Table 5 summarises the technical information for streets in the study area that meet one or more warrant criteria indicating the need for further investigation and potential intervention. Each of these technical conditions has been described separately earlier in the report.

Table 5. Streets with one or more criteria triggering warrants

Street name	Street previously raised in community requests	Daily traffic volume (vehicles per day)	85th percentile speed (km/h)	Proportion of traffic in AM peak hour	Proportion of traffic in PM peak hour	Casualty crashes in a five-year period
Florence Street	✓	1,174	47.5	4%	10%	1
Urrbrae Avenue		956	46.8	8%	12%	0
Clinton Avenue		543	46.7	4%	11%	0
Watson Street		474	45.9	3%	12%	0
Alma Road	✓	448	45.9	12%	11%	0
Hall Street		70	43	13%	14%	0
Braeside Street		196	42.9	7%	15%	0
Beaconsfield Street		286	38.4	22%	14%	0
Lindsay Avenue		137	33.8	6%	15%	0
Glenside Avenue		65	37	8%	14%	0
Glenrowan Avenue		228	44	5%	14%	0

Legend

Substantial problem

Technical problem

Possible problem

Not considered a problem

RECOMMENDATIONS

Based on the technical investigations summarised in this report and community feedback (including concerns and requests received by the Council over the last five-year period) Figure 10 outlines recommendations for further development and investigation.

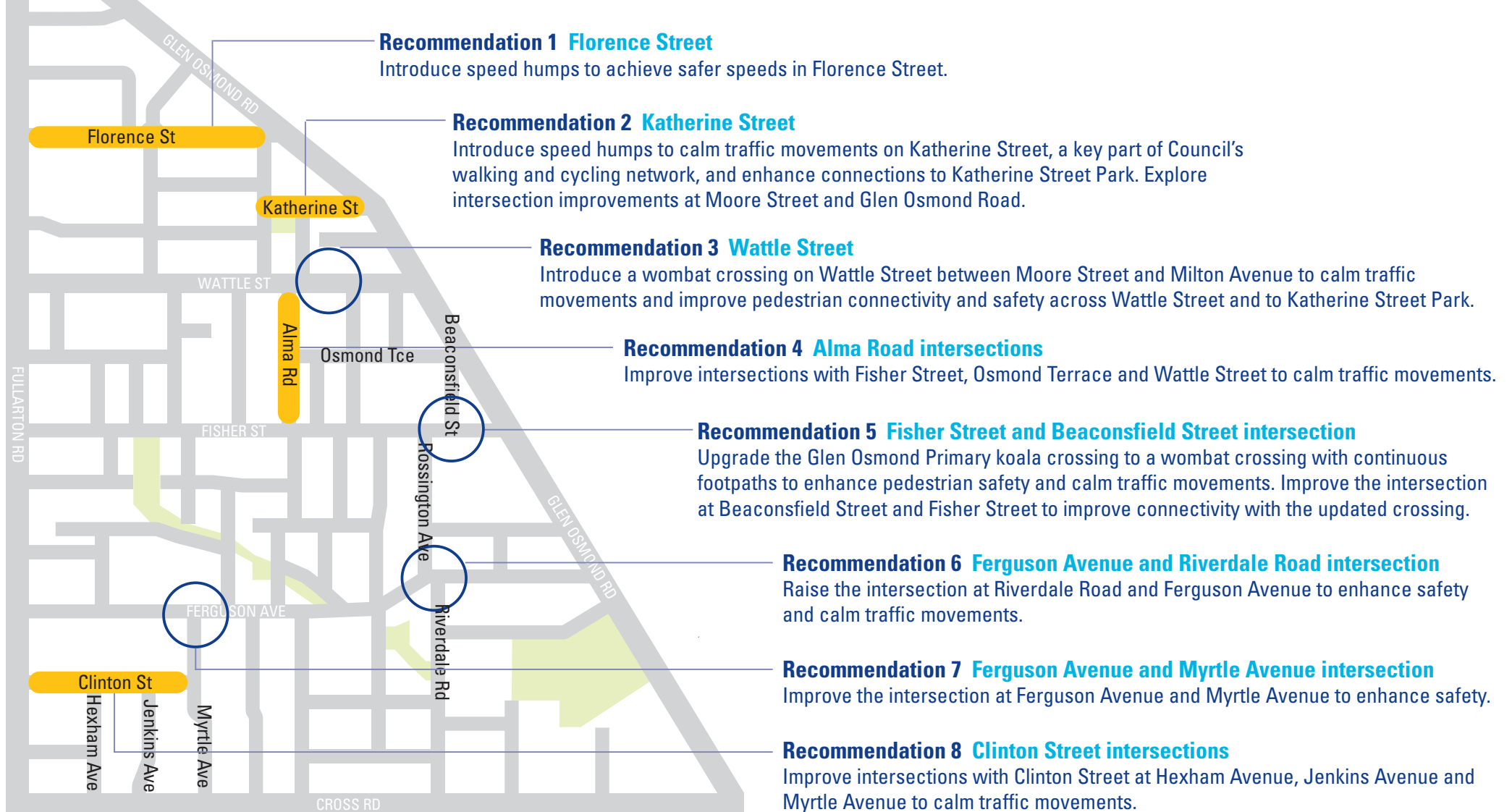


Figure 10. Recommended directions for measures in the study area