

AGENDA ITEM NO.: 19.9

TO: Council Meeting on 27 June 2017

DIRECTOR: Greg Georgopoulos, Director Infrastructure, Assets and Environment

REPORT AUTHOR: Alex Cortes, Manager Infrastructure, Assets and Environment

SUBJECT: Vehicles Parking on Council Verges

1. EXECUTIVE SUMMARY

- 1.1 City of Prospect has been provided an opportunity by the Local Government Association of South Australia (LGA) to give comment on whether there is support for Parking on Council Verges – Proposal to Amend the Australian Road Rules – Circular 19.4. **Attachment 1- 2.** The motion arose as a result of concerns regarding parking on both sides of narrow streets leading to hazards. These hazards could be alleviated by the proposed changes, as detailed in Circular 19.4.
- 1.2 The purpose of this report is to investigate the viability of proposed changes to the Australian Road Rules and/or State Regulations, regarding the legality of parking on verges. The report explores the impact of the proposed changes to a variety of items;
- 1.3 The proposal offers options to amend the rules and regulations, in order to allow parking to occur on the 'nature strip' or 'road related area'. The nature strip (verge) is defined as the area between a road and adjacent land, but does not include a bicycle path, footpath or shared path. Road related areas are defined under Rule 13 in the Australian Road Rules.
- 1.4 The two options were presented by the LGA:
- Option 1: Amend the Australian Road Rules (ARR) - This option results in changes being applied across the entirety of local government.
 - Option 2: Amend the Road Traffic (Miscellaneous) Regulations 2014 - This option explores the potential for individual councils to address the issues individually and on their own merits.
- 1.5 Consideration was also given to a third option:
- Option 3: No changes - No changes to either the ARR or the Regulations are made.
- 1.6 In considering Council's position, the following items were considered:
- 1.6.1 Uniformity and Consistency Across Council Areas
- 1.6.2 Existing Use of Council Verges
- 1.6.3 Asset Maintenance of Verges

- 1.6.4 Improvement on Traffic Management
- 1.6.5 General Communication with Public on Proposed Changes
- 1.6.6 Interface with Planned Council Strategies
- 1.7 Following the consideration of all factors in balance and in context of council's existing strategies, policies and procedures, council should oppose Option 1. Amend the Australian Road Rules (ARR)
- 1.8 Whilst it may be easier to implement, it would conflict with existing use of the nature strip and result in increased asset maintenance costs without significantly improving on current traffic management issues.
- 1.9 Option 2. Amend the Road Traffic (Miscellaneous) Regulations 2014 (prohibited unless permitted) could be considered for implementation as an adjunct to council's narrow streets policy. Additional guidelines would be developed by each council to restrict where verge parking would be appropriate. Further 'in field' consideration would have to be given to this scenario. It is suggested that verge parking only be considered as an alternative treatment option in narrow streets, once the existing policy options have been explored.
- 1.10 Option 2 does not obligate the city of prospect to actually introduce verge parking, but it does provide the city and other councils the option to do so if appropriate.

2. RECOMMENDATION

- (1) **The Council having considered Item 19.7 Vehicles Parking on Council Verges dated 27 June 2017, endorse Option 2 – Amend the Road Traffic (Miscellaneous) Regulations 2014, providing the ability to implement parking on verges in specified conditions and locations.**
- (2) **The Chief Executive Officer provides Council's response to the Local Government Association as an amendment of the Road Traffic (Miscellaneous) Regulations by 30 June 2017.**

3. RELEVANCE TO CORE STRATEGIES / POLICY

- 3.1 **Strategic Plan to 2020 Theme 1 – People** "Know, empower, celebrate, educate and activate our community"

Strategy 1.1 Know our community

In outlining a position, the needs of the community and impacts of the changes on the community were considered (Outcome 1.1.2).

- 3.2 **Strategic Plan to 2020 Theme 2 – Place** "Loved heritage, leafy streets, fabulous places"

Strategy 2.4 A greener future

In outlining a position, consideration was given to Council's Green Neighbourhoods vision (Outcome 2.4.1 and Outcome 2.4.2).

3.3 Strategic Plan to 2020 Theme 4 – Services “Leaders of the sector providing efficient, responsive, accessible services”

Strategy 4.1 Excellence in Infrastructure

In outlining a position, consideration was given to the ongoing maintenance of assets (Outcome 4.1.1).

4. COMMUNITY INVOLVEMENT

4.1 No community consultation has been undertaken as part of this.

5. DISCUSSION

5.1 City of Prospect has been asked by the Local Government Associated of South Australia (LGA) to give comment on whether there is support for Parking on Council Verges – Proposal to Amend the Australian Road Rules – Circular 19.4. The motion arose as a result of concerns regarding parking on both sides of narrow streets leading to hazards. These hazards could be alleviated by the proposed changes, as detailed in Circular 19.4. **Attachment 1-2:**

5.2 The proposal offers multiple options to amend the rules and regulations, in order to allow parking to occur on the ‘nature strip’ or ‘road related area’. The nature strip (verge) is defined as the area between a road and adjacent land, but does not include a bicycle path, footpath or shared path. Road related areas are defined under Rule 13 in the Australian Road Rules as being any of the following:

- An area that divides a road;
- A footpath or nature strip adjacent to the road;
- An area that is not a road and that is open to the public and designated for use by cyclists or animals;
- An area that is not a road and that is open to or used by the public for driving, riding or parking vehicles.

6. OPTIONS

6.1 Two options for changes to the Road Rules were presented by the LGA:

6.1.1 Option 1: Amend the Australian Road Rules (ARR) - This option results in changes being applied across the entirety of local government.

6.1.2 Option 2: Amend the Road Traffic (Miscellaneous) Regulations 2014 - This option explores the potential for individual councils to address the issues individually and on their own merits. No broad-sweeping changes are applied across the LGA. This option would allow Councils to stipule specific locations or conditions for which parking on verges would be permitted.

6.2 In the consideration of the Option preferred by City of Prospect, a number of factors were explored and final recommendation made. Consideration has also been given to a third option:

6.2.1 Option 3: No changes - No changes to either the ARR or the Regulations are made.

7. ITEMS CONSIDERED

Uniformity and Consistency across council areas

- 7.1 In determining an appropriate viewpoint, consideration was given to issues surrounding uniformity and consistency, as a result of the proposed amendments. Policies and procedures developed by the City of Prospect are in line with current Australian Road Rules and state regulations. Parking is not currently permitted on nature strips or road related areas. This is enforced by the City of Prospect's Community Safety Officers.
- 7.2 Option 1 would permit parking on all verges, although it is not clear from the LGA Circular whether a 'permitted unless prohibited' approach is being considered. That is, Council should ideally retain the right to ban parking on verges where appropriate.
- 7.3 Option 2 would allow each council to make changes on this basis of 'prohibited unless permitted' basis. Council could then specify particular locations for which verge parking would be permitted. There is no obligation for Councils to adopt this approach and each Council could retain a complete prohibition from verge parking. The community safety officers would therefore need to be aware of these locations such that they can expiate accordingly.
- 7.4 Option 3 would result in no change, and retain a blanket prohibition throughout all Councils.

Existing use of Council Verges

- 7.5 The existing use of council's verges should be considered in determining the appropriateness of changing existing rules and regulations. City of Prospect currently runs a popular 'Veggie Verge' program; whereby homeowners are encouraged to plant vegetables and herbs in their verges. The creation of vegetable gardens has community-wide benefits, including increasing the amenity of the neighbourhood, increasing neighbourhood biodiversity, as well as encouraging neighbours to engage with each other and feel more connected to their community. In addition to this, there are multiple nature strips where large trees and vegetation is already planted.
- 7.6 Option 1 would allow parking to occur on all verges within the Council area. Allowing unrestricted parking on verges would conflict with the Veggie Verge program and potentially damage existing vegetation. As previously noted, the LGA circular is silent on how to prevent parking on verges where appropriate. Council should be hesitant to support its implementation.
- 7.7 Option 2 allows Council to identify conditions for which parking on verges is allowed. There are then complexities associated with determining the permitted locations. For example, do these conflict with existing Veggie Verges and what are the outcomes for the homeowners? How does Council determine which homeowners would not be permitted to develop their verge and does this create unfairness?

- 7.8 Option 3 does not allow parking on verges and there would be no impact on existing usage.

Asset Maintenance of Verges

- 7.9 The impact of the proposed changes to the maintenance of the verges as assets should be considered. City of Prospect is responsible for the maintenance of nature strips and other road related areas. Allowing parking on verges would increase the both the inspection and maintenance costs of kerbing, topsoil, service infrastructure and other landscaping items.
- 7.10 Option 1 would result in maintenance costs that are not insignificant. Council would prefer to minimise costs where appropriate.
- 7.11 Option 2 would result in some increase of maintenance costs.
- 7.12 Option 3 would not result in any change.

Improvement on Traffic Management

- 7.13 The relative benefits to be gained by the proposed changes were considered in context of Council's existing issues and policies regarding traffic management. City of Prospect encounters a number of issues with regards to traffic management. There are multiple streets throughout its Council area which are narrow. This can lead to difficulty managing traffic flow through the street, parking, as well as accessibility to driveways. This led to City of Prospect developing a 'Narrow Streets Policy'. This Policy classifies streets as being narrow if they measure less than 7m wide. There are 96 streets currently classified as narrow. For these streets, following receipt of complaints from residents, Council may implement the associated 'Narrow Streets Procedure'. This procedure involves:
- Conducting an educational flyer letterbox drop to affected residents informing them of the current Australian Road Rules around parking on the street. This includes a reminder that road users must park such that a gap of 3m is maintained between cars, to allow for traffic flow. Road users are also reminded to park in such a way as to maintain access to driveways.
 - Conducting inspections over a period of 6 months, with education flyers attached to offending vehicles.
 - Where the educational flyers and inspections are not successful, community consultation is undertaken, where residents are asked whether they support the implementation of staggered yellow line marking. Where the majority is in favour, yellow line marking is installed. Where there is no majority, Council waits 12 months before beginning the process again.
- 7.14 City of Prospect has found the 'Narrow Streets Procedure' to be a reasonably effective policy in managing traffic issues associated with narrow streets. Fewer complaints are associated with streets wider than 7m.
- 7.15 Option 1 would provide another option to manage parking in narrow streets. However, it also introduces other issues in streets over 7m wide and will not significantly contribute to improving current traffic management issues throughout the Council area.

- 7.16 Given that Council has assigned a definition to streets experiencing issues related to its narrowness, Option 2 would likely be considered in conjunction with the Narrow Streets Policy. Changes to the regulations could potentially supplement current procedures. For example, where the steps undertaken through the Narrow Streets Procedure are considered unsuccessful, verge parking could be allowed. Council would need to develop additional criteria to determine under what circumstances verge parking could be considered.
- 7.17 Option 3 would result in no change to traffic management.

General Communication with Public on Proposed Changes

- 7.18 The implementation of any changes to the legality of parking on verges would have to be communicated appropriately to the public.
- 7.19 For Option 1, communication would be simpler and potentially involve posting on the website and/or distributing letters to residents council-wide. This would effectively be a blanket change to 'permitted unless prohibited'.
- 7.20 For Option 2, an initial notification using the website and distributing letters would likely occur. However, given the locations of permitted parking would be specified, signage would need to be installed informing road users of changed parking conditions. Assuming Council's own guidelines limit the application of parking on verges to select locations, the requirement for new signage will be limited.
- 7.21 Option 3 would require no communication with the community.

Interface with Planned Council Strategies

- 7.22 City of Prospect has a number of strategies it is currently implementing. One of these is the Green Neighbourhoods vision, in which Council is attempting to increase the amenity of streets. This includes aiming to create tree-lined streets and planting lush vegetation.
- 7.23 Option 1 would likely impact this vision, reducing the amenity of the streets. Option 1 will result in a significant increase in verge parking and/or significant increase in signage along roads to prevent parking in this manner.
- 7.24 Option 2 would have some impact on this vision, subject to the guidelines to be developed, and the needs of verge parking would need to be balanced in context of this vision.
- 7.25 Option 3 would have no impact on the vision.

8. COUNCIL'S POSITION

- 8.1 Following the consideration of all factors in balance and in context of Council's existing strategies, policies and procedures, Council should oppose Option 1. Whilst it may be easier to implement, it would conflict with existing use of the nature strip and result in increased asset maintenance costs without significantly improving on current traffic management issues. It is also not clear from the circular how 'permitted unless prohibited' would be implemented. Option 1 would significantly increase Council's obligation to ban parking on verges where required (which will be extensive).

- 8.2 Option 2 (prohibited unless permitted) could be considered for implementation as an adjunct to Council's Narrow Streets Policy, which addresses similar traffic management issues. This option provides Councils the option of permitting verge parking in specific instances where appropriate. Additional guidelines would be developed by each Council to restrict where verge parking would be appropriate. Further 'in field' consideration would have to be given to this scenario. It is suggested that verge parking only be considered as an alternative treatment option in narrow streets, once the existing policy options have been explored. Narrow streets often include very narrow footpath and verge areas, and it may be that verge parking will not necessarily solve the problems identified. Additional guidelines would include: verge widths, footpath widths, suitability of the verge area, use of the verge as extended garden areas, road safety, and the like.
- 8.3 Option 2 does not obligate the City of Prospect to actually introduce verge parking, but it does provide the City and other Councils the option to do so if appropriate.

ATTACHMENTS

- Attachment 1-2:** Circular 19.4 Parking on Council Verges – Proposal to Amend the Australian Road Rules



Circulars

Parking on Council Verges – Proposal to Amend the Australian Road Rules - Circular 19.4

To

Chief Executive Officer
Elected Members
General Inspector
Governance Officers
Policy and Strategic Planning Staff

Date

9 May 2017

Contact

Andrea Malone
Email: andrea.malone@lga.sa.gov.au

Response Required

Yes

Respond By

30 June 2017

Summary

The LGA Ordinary General Meeting resolved to consult with councils on whether there is support in the sector to advocate for a change to the Australian Road Rules to enable parking, wholly or in part, on council verges.

The LGA Ordinary General Meeting resolved to ask the LGA to consult with councils on whether there is support in the sector to advocate for a change to the Australian Road Rules to enable parking, wholly or in part, on council verges. The motion was put in the following terms:

that the Ordinary General Meeting requests the LGA to consult with Councils to see if there is support for the LGA to lobby DPTI to review the section of the Australian Road Rules 1999 (under the Road Traffic Act 1961 and the South Australian Road Traffic (Road Rules – Ancillary and Miscellaneous Provisions) Regulations 2014) relating to the provision of the legal parking of vehicles on the nature strip (verge) or road related area.

The motion arose from concerns that parking on both sides of narrow streets can be a hazard which could be alleviated by the change to the road rules to enable parking on verges.

Option 1 - Amend the ARR

This option would mean that any change would apply across local government.

Some of the factors that councils may wish to consider when determining a view on this question include:

- The Australian Road Rules (ARR) are a national set of road rules designed to increase consistency of road rules across Australia (although still allowing for some state differences)
- An amendment of the ARR will apply in all council areas
- Some council verges are used by householders as an extension to their garden areas and may not welcome the change
- Councils are responsible for maintaining verges
- Allowing parking on verges could alleviate hazards on narrow roads
- Many households now own multiple vehicles and allowing parking on verges may assist in alleviating parking problems.

Option 2 - Amend the Road Traffic (Miscellaneous) Regulations 2014

This option would then enable each council to address this on their own merits and not make it a general rule across the board for every Council

Under the Road Traffic Act section 174C a Council may grant exemptions from certain provisions.

(1) A council may exempt any person, or any persons of a specified class, or any specified vehicle, or any vehicles of a specified class, from compliance within its area with a prescribed provision of this Act.

If the amendment was made under section 63(2) of the Road Traffic (Miscellaneous) Regulations 2014, then each Council could exempt as required.
s63—Prescribed provisions (sections 174A, 174B, 174C and 174D of Act)

(2) For the purposes of section 174C of the Act (Council may grant exemptions from certain provisions).

Some of the factors that councils may wish to consider when determining a view on this question include:

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- Lack of consistency across council areas could cause difficulties for motorists
- How will the public be advised of the legality of parking on verges in each council area that permits it?
- Will councils provide signage to the effect that parking on verges is permitted on certain roads or in the council area generally?

For further information, please contact Andrea Malone (andrea.malone@lga.sa.gov.au)

Attachment

AGENDA ITEM NO.: 19.10

TO: Council Meeting on 27 June 2017

DIRECTOR: Greg Georgopoulos, Director Infrastructure, Assets & Environment

REPORT AUTHOR: Alex Cortes, Manager Infrastructure, Assets and Environment

SUBJECT: Local Area Traffic Management Plan – Churchill Precinct

1. EXECUTIVE SUMMARY

- 1.1 As part of Council's ongoing commitment to traffic management, City of Prospect engaged a traffic consultant to undertake the Churchill Precinct Local Area Traffic Management Plan (LATM) during 2016. A copy of the completed plan is provided in **Attachment 1-83.**
- 1.2 The primary function of this LATM was to identify aspects of the local road network which may require improvement, either through minor modifications, maintenance, moderating vehicle speeds, improving safety or discouraging through traffic on local roads.
- 1.3 The study area for this investigation encompasses the area to the west of Churchill Road, to the east of the railway line, south of Regency Road and north of Torrens Road.
- 1.4 This report does not include recommendations for improvements on roads maintained by DPTI (Churchill Road, Regency Road and Torrens Road) but has provided some recommendations for Council to undertake ongoing liaison with DPTI.
- 1.5 The northern portion of the study region also includes the Churchill Centre South retail district, north of Regency Road, west of Churchill Road and east of the railway line. However, this development site is accessible only from DPTI maintained roads and does not include internal Council-owned roads. As such this retail precinct is beyond the scope of any investigation undertaken as part of this Local Area Traffic Management study.
- 1.6 In general, the traffic volumes on the local street network fall within acceptable limits for the existing Local Road classifications.
- 1.7 Analysis of current and historic traffic volumes throughout the study area generally shows a reduction in traffic volume on the local streets. The 85th percentile speed data shows that travel speeds throughout the local area are generally moderate.
- 1.8 A number of residents raised concerns about on-street parking capacity within the study area due to the increasing residential population and new residential developments. InfraPlan conducted inspection of on- and off-street parking provision and use and did not observe any instance where on-street parking in the local area was not available, nor instances where on-street parking prohibited through traffic or presented a safety concern.

- 1.9 Excessive speed within the study area was raised as an issue by residents. InfraPlan suggests that the Council investigate the introduction of a 40km/h speed limit within the Churchill Precinct (excluding Pym Street and Belford Avenue), consistent with the area on the eastern side of Churchill Road.

2. RECOMMENDATION

- (1) **The Council having considered Item 19.9 Local Area Traffic Management Plan – Churchill Precinct dated 27 June 2017, endorse the plan and recommended actions provided as (Attachments 1-83).**
- (2) **The Council consider a budget bid for the Local Area Traffic Management Plan – Churchill Precinct recommendations as part of the 2018-2019 budget deliberation process.**

3. RELEVANCE TO CORE STRATEGIES / POLICY

3.1 Traffic Management Policy

Prospect (City) Development Plan: Land Use and Parking Requirements

30 Year Plan for Greater Adelaide

Integrated Transport and Land Use Policy (ITLUP)

Metropolitan Adelaide Road Widening Plan

3.2 **Strategic Plan to 2020 Theme 1 – People** “Know, empower, celebrate, educate and activate our community”

Strategy 1.1 Know our community

Strategic Plan to 2020 Theme 2 – Place “Loved heritage, leafy streets, fabulous places”

Strategy 2.3 An accessible City

Strategic Plan to 2020 Theme 4 – Services “Leaders of the sector providing efficient, responsive, accessible services”

Strategy 4.1 Excellence in Infrastructure

4. COMMUNITY INVOLVEMENT

- 4.1 A consultation process was undertaken as per the project and Council Policy requirements.

- 4.2 The following processes have been employed to gather feedback into the input of this report:

4.2.1 Initial contact with residents and stakeholders.

- 4.2.2 A letter box drop of the precinct with the following information.
- 4.2.3 Announcement of the project, its purpose and expected outputs.
- 4.2.4 An invitation to attend a Neighbourhood Forum, and
- 4.2.5 A link to an on-line survey questionnaire to identify concerns and opportunities
- 4.2.6 Neighbourhood Forum

(1) This open forum provided a platform to discuss issues in detail, confirm the issues identified and discuss possible options and solutions.

- 4.3 Traffic data was collected during May 2016 on the local road network at the midblock point of all east-west streets within the Study Area and midblock on Devonport Terrace (south of both Pym Street and Belford Avenue).

5. DISCUSSION

- 5.1 As part of Council's ongoing commitment to traffic management, the City of Prospect engaged a traffic consultant to undertake the Churchill Precinct Local Area Traffic Management Plan. The study area encompasses the area to the west of Churchill Road, to the east of the railway line, south of Regency Road and north of Torrens Road.
- 5.2 This Local Area Traffic Management Plan has been developed to consider all Council owned roads within the Churchill Local Traffic Precinct. The primary function of this LATM is to identify aspects of the local road network which may require improvement, either through minor modifications, maintenance, moderating vehicle speeds, improving safety or discouraging through traffic on local roads.
- 5.3 In general, the traffic volumes on the local street network fall within acceptable limits for the existing Local Road classifications. However, Pym Street and Belford Avenue carry traffic volumes greater than 1500 vehicles per day (vpd) and therefore fall within the Collector Road category. Therefore, to comply with the current City of Prospect road categorisation system, Pym Street and Belford Avenue should be re-classified to Collector Roads. It is recommended that the City of Prospect Traffic Management Policy be updated to reflect Pym Street as a Major Collector and Belford Ave as Minor Collector so that defined role and function more appropriately matches its observed operation.
- 5.4 Analysis of current and historic traffic volumes throughout the study area generally shows a reduction in traffic volume on the local streets.
- 5.5 The 85th percentile speed data shows that travel speeds throughout the local area are generally moderate. They are below 40km/h in all cases except for Kingdom Place, Pym Street and Boucher Place where they are 40.7, 45.5 and 45.7 km/h respectively. Over 5% of east-bound traffic on both Pym Street and Boucher Place was recorded above the posted speed limit of 50km/h.

- 5.6 In addition to speeds and volumes, the development occurring within the area was of Concern to residents with regard to its impact on Traffic in the area. Given that the infill development across the suburb is generally spread across the area, the expected impact of additional traffic is minimised as it will likely not be localised to any specific road or intersection. In the following table the assumed additional traffic generation of 1,400 vehicles per day over the next 5 years has been distributed across the network to determine if any of the local roads exceed the threshold of traffic volumes for local roads (as per the City of Prospect Traffic Management Guidelines).
- 5.7 Despite the potential average percentage increase of 48% of traffic volumes on local streets, the resultant additional traffic is considered acceptable given the threshold of 1,500vpd is not exceeded on any local street, other than on Belford Ave and Pym Street which already exceed the threshold.
- 5.8 The development potential of 250 Churchill Road and its impact on the precinct was requested for consideration by the Elected Member body. While appreciating the development potential of this significant land parcel, until the scale and land use mix is determined, a traffic impact statement should not be pursued, but will be required once the development capacity is known. This traffic impact statement should take into consideration this local area traffic management plan, and may require further consideration of other traffic control device interventions. As such this development was not considered as part of this LATMP.
- 5.9 Infraplan has recommended the following recommendations for the Churchill Precinct:
- 5.9.1 Kingdom Place - Install pavement bar island at the western end of Kingdom Place, at the approach to Devonport Terrace.
 - 5.9.2 Kingdom Place – Implement yellow line pavement marking to strengthen ‘No Stopping’ at the approach to Devonport Terrace (to ensure sufficient space is available on approach to the intersection).
 - 5.9.3 Corner of Devonport Terrace and Kingdom Place - Repair footpath paving blocks, (if possible, address local businesses to alert them to the issue and encourage assistance to prevent recurrence).
 - 5.9.4 Pym Street and Belford Avenue - Re-categorise Pym Street to a Collector Road and Belford Avenue to a Minor Collector Road to reflect the role and function of these roads in accordance with the City of Prospect Traffic Management Policy Road Hierarchy Plan.
 - 5.9.5 Full Churchill LATM area – Further investigate the introduction of a 40km/h speed limit, with the exception of Pym Street and Belford Avenue.
 - 5.9.6 Full Churchill LATM area - Replace on-street parking signage as necessary.
 - 5.9.7 Devonport Terrace, North Side of Belford Avenue Intersection - Install threshold pavement treatment similar to that on Devonport Terrace at Pym Street. Ongoing monitoring of impacts to traffic speed and volumes in Boucher Place, particularly commercial vehicle volumes.

- 5.9.8 Elizabeth Street, Devonport Terrace and Boucher Place - Replace worn painted yellow lines and parking signage on Belford Avenue. Install new painted yellow line markings to restrict parking on Elizabeth Street at the approach to Churchill Road to ensure sight distance and safe intersections widths are maintained. Remove signage and faded line markings to permit parking on the northern side of Belford Avenue (with clearance for driveways) while maintaining "No Parking" on the southern side.
- 5.9.9 Devonport Terrace at Ovingham Railway Station - Restrict parking to the eastern side of the road with painted yellow lines and / or no parking signs on the western side. This ensures access to driveways on the eastern side while maintaining a single travel lane and improves sight lines for cyclists. Driveways also provide passing space when required.
- 5.9.10 Devonport Terrace, Rail Reserve - Consider streetscape upgrade with improved vegetation along railway line.
- 5.9.11 Devonport Terrace, Rail Reserve - Consider installation of additional "No Dumping" where vegetation is sparse and dumping is occurring.
- 5.9.12 Devonport Terrace, speed humps and cycle paths - Improved maintenance practices including use of leaf blowers & brooms to clear affected sections ahead of street sweepers. Ongoing monitoring, particularly during heavy leaf fall seasons.

5.10 Pym Street

- 5.10.1 It is known that the Department of Transport has, over many years, considered possible works to address concerns with Pym Street regarding the level crossing of the Gawler passenger and Freight lines and the intersection at Churchill Road. Site observations showed that large volumes of heavy vehicles use this roadway to access local industrial precincts in the City of Port Adelaide Enfield from Churchill Road.
- 5.10.2 The recommendation to upgrade the categorisation of Pym Street to a Minor Collector Road acknowledges the elevated traffic and heavy vehicle volumes and use of Pym Street as a through road to endorse and support Council advocacy for improved road treatments of Pym Street and upgraded intersection arrangements.
- 5.10.3 In the absence of detailed investigations and designs of the intersection, it is recommended that solutions including road widening of Pym Street to allow multiple lane approaches, signalisation of the intersection and improved turning allowances for heavy vehicles entering Pym Street be considered. This is likely to require relocation of the stobie pole and 66kV power lines located at the north-western corner of the intersection and is also likely to force amelioration works on the level crossing at the western end of the City of Prospect section of Pym Street.

5.11 Pedestrian fencing for rail crossing at Pym Street

- 5.11.1 One local resident made mention of the fencing that was installed in 2016 parallel to the northern kerb on Pym Street within the Rail Reserve to prevent pedestrians from entering the roadway. While this fence is a permeable structure, it was observed during a site inspection that when viewed at an acute angle, the vertical elements obscure visibility along Pym Street to the west, affecting drivers approaching Pym Street, southbound on Devonport Terrace. It is recommended that Council advocate DPTI to realign this fence to provide greater visibility for these motorists, reducing the crash risk at the intersection.

5.12 Belford Avenue

- 5.12.1 Council is encouraged to advocate DPTI to investigate intersection widening at Belford Avenue to create two approach lanes eastbound to Churchill Road. This will separate left- and right-turn movements exiting Belford Avenue to Churchill Road, improving traffic flows from Belford Avenue and reducing opportunistic driver behaviour using parallel local streets.

5.13 Pedestrian crossings of Churchill Road near Ovingham Station

- 5.13.1 Rail passengers from Ovingham Station, including many school children were observed making uncontrolled crossings of Churchill Road near Avenue Road. There is no pedestrian crossing amenity provided in this area and medians are painted only, offering no shelter or protection for pedestrians. It is recommended that Council advocate to DPTI to provide a crossing facility in this area as a pedestrian desire line has been identified.

5.14 Electrification of Gawler Passenger Rail Line

- 5.14.1 It is recommended that Council supports the position of state government in pursuing the electrification of the Gawler passenger rail line. It is understood that such an upgrade comes with necessary improvements and changes to the rail corridor including extensive fencing around the high-voltage rail environment.

5.15 Station upgrades

- 5.15.1 It is noted that the three passenger rail stations in close proximity to the local area, Ovingham, Dudley Park and Islington, are among the worst rated and most poorly patronised stations on the Adelaide Rail Network. It is recommended that Council supports upgrades to station amenity including shelters, way finding and passenger information at these stations, with or without electrification of the rail line.
- 5.15.2 It is recommended that Council advocate to have Ovingham, Dudley Park and Islington stations added to the State Government Stations Upgrade Program.

ATTACHMENTS

Attachments 1-83: Churchill Precinct Local Area Traffic Management Plan

Churchill Precinct: Local Area Traffic Management Plan



Prepared by

infraPlan
InfraPlan (Aust) Pty Ltd

Attachment

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1. Executive Summary

This Local Area Traffic Management Plan (LATMP) has been developed to consider all Council owned roads within the Churchill Local Traffic Precinct (Churchill Precinct). The primary function of this LATMP is to identify aspects of the local road network which may require improvement, either through minor modifications, maintenance, moderating vehicle speeds, improving safety or discouraging through traffic on local roads.

Land uses, population, transport services and infrastructure change over time, and therefore it is important to review the local road network role and function, ensuring a fit-for-purpose current and future context.

All recommendations provided herein are descriptive only and require detailed design prior to implementation. Site visits, community consultation and desktop investigations have been carried out to ensure that the recommendations are feasible and can comply with:

- Austroads Guide to Traffic Management Part 8: Local Area Traffic Management
- Department of Planning Transport and Infrastructure (DPTI). Pavement Marking Manual
- DPTI, Manual of Legal Responsibilities and Technical Requirements for Traffic Control Devices

The City of Prospect is responsible for the implementation of the recommendations within this report and for detailed design in accordance with Australian Standards, Austroads Guides and DPTI codes.

2. Introduction

As part of Council's ongoing traffic management, the City of Prospect engaged InfraPlan to undertake the Churchill Precinct Local Area Traffic Management Plan.

The Study Area for this investigation is identified in Figure 1 and encompasses the area to the west of Churchill Road, to the east of the railway line, south of Regency Road and north of Torrens Road. As requested by Council, the report makes recommendations for Council-owned roads which are listed below.

Devonport Terrace	Boucher Place	Elizabeth Ave
Gurr Street	Winter Terrace	Allan Street
Kingdom Place	Totness Avenue	Clifton Street
Pym Street	Belford Avenue	Avenue Road

This report does not include recommendations for improvements on roads maintained by DPTI (Churchill Road, Regency Road and Torrens Road) but has provided some recommendations for Council to undertake ongoing liaison with DPTI.

The northern portion of the study region also includes the Churchill Centre South retail district, north of Regency Road, west of Churchill Road and east of the railway line. However, this development site is accessible only from DPTI maintained roads and does not include internal Council-owned roads. As such this retail precinct is beyond the scope of any investigation undertaken as part of this Local Area Traffic Management study.

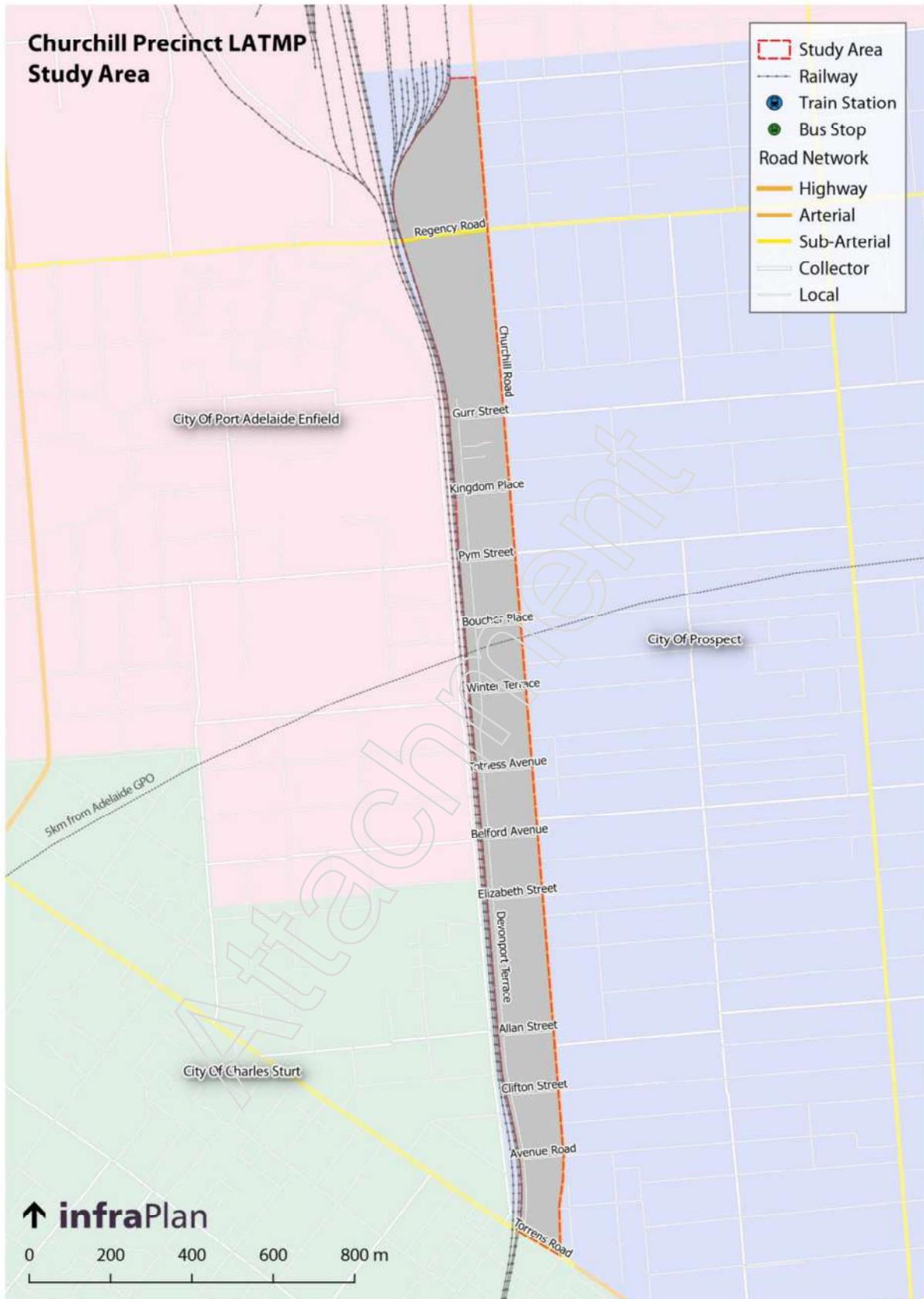


Figure 1 Churchill Precinct LATMP Study Area

3. Strategic Context and Policies

Several State and Local Government strategies and policies have been reviewed to ensure that the current policy framework aligns with the recommendations provided in this Local Area Traffic Management Plan.

3.1 City of Prospect Policies

Traffic Management Policy

The City of Prospect Traffic Management Policy was adopted by Council in May 2007, and defines the Churchill Precinct. The intention of the policy is outlined as follows:

- *The intention of this (Traffic Management) Policy is to establish a framework for the management of traffic on local roads throughout the City of Prospect.*
- *Managing the competing demands on our roads remains one of the most sensitive issues facing Prospect Council. Traffic management affects the whole community and must balance the needs of a broad range of road users with an appropriate level of amenity for the adjacent land uses*
- *To this end the objective of the Policy is to identify a range of factors by which Council and the community can assess the need for future traffic management intervention. This will include:*
 - (1) *An agreed road hierarchy for Council's road network*
 - (2) *Recognition of the functional use of the road network with regard to providing for social access, freight access, pedestrian and cycling movements*
 - (3) *An agreed set of criteria by which speeds and volumes (in particular) can be assessed relative to the road hierarchy*
 - (4) *An agreed process by which future traffic investigations will be undertaken.*

As identified in Section 4 herein, the Traffic Management Policy establishes the functional road hierarchy by which the recommendations of this report adhere.

The Traffic Management Plan also identifies several Policy Statements which are integral to the development of the recommendations of this Local Area Traffic Management Plan, specifically:

- *Management of the local road network must balance the needs of all road users*
- *Council will approach traffic management on the basis of local area precincts (as shown in "Local Traffic Precincts" Plan).*
- *Council will approach traffic management on the basis of a strategic road hierarchy and functional road use.*
- *The selection of traffic control treatments must also be proportional to the significance of the problem being addressed.*

City of Prospect Strategic Plan

The City of Prospect Strategic Plan establishes Guiding Principles, 'Our Focus' areas and Core Strategies (relating to 5 strategic areas of Community, Economy, Environment, Character and Council).

The Churchill Precinct features significantly in the Strategic Plan as one of the 10 'Our Focus' areas. The Plan identifies the Churchill Road Precinct as an area to *"Encourage quality medium to high density housing, attractive commerce and employment precincts, local shops, facilities and green recreational areas and streetscapes. Enable a mix of medium and high density, multi storey residential and retail development which is complemented by an inviting, accessible public realm and efficient public transport options"*.

Other "Our Focus' areas with relevance to this Local Area Traffic Management Plan include:

- *People Movement: A travel friendly city. Expand integrated people movement choices and work to ensure reliable high quality commuter networks throughout our City. Shape our commuter network to meet current and future community needs with a focus on increased pedestrian and cycle use. Council's approach will be guided by demographic changes, local employment and optimising the speed, safety and functionality of our transport networks and residential streets.*
- *Diverse Living: A variety of housing choices. Enable the development of quality medium and higher density housing appropriately located along our transport corridors, while protecting surrounding heritage and character. Cater for a diverse community to enable local people with changing needs to continue to call Prospect 'home'.*

As well as the focus areas, there are a number of Key Strategies which relate to transport and urban form which provide strategic direction to traffic management and which have relevance to the Churchill Local Traffic Precinct, including:

- 2.1.3 Promote Main North Road and Churchill Road as arterial gateway roads for medium to large commercial, retail and higher density residential development
- 2.4.1 Development of 250 Churchill Road precinct: Liaise with developer(s) and investment partner(s) regarding development within the Precinct
- 2.4.2 Development of 250 Churchill Road precinct: Pursue completion of the northern section of the Churchill Road Master Plan infrastructure works in response to development authority
- 4.2 Encourage development on arterial roads to improve housing options and to complement the character, heritage and amenity of our City
- 4.2.1 Support quality medium to higher density, mixed-use development on main arterial road corridors to achieve the desired character for each area
- 4.2.2 Support the development of diverse housing options including quality medium and higher density housing on our arterial road corridors
- 5.1.5 Complete the development, implementation and post implementation review of Local Area Traffic Management Plans
- 5.1.8 Improve movement by bicycle or on foot, through the development and maintenance of our street network
- 5.5.1 Actively improve non-vehicular community movement: Work to develop, implement and promote a network of safe and connected pedestrian and cycle routes to reduce the dependency on motor vehicles
- 5.5.2 Actively improve non-vehicular community movement: Action the footpath maintenance program based on use and risk around our City

- 5.7.3 Effectively advocate for improved roads, education services, transport services and other services to meet the community's needs through relationships established with all levels of government and external agencies

The Traffic Management Plan (outlined above) also identifies alignment with the City of Prospect Strategic Plan (albeit the outdated 2004-2007 Plan). However, the strategic directions of the 2012-2016 Plan are still relevant to this Local Area Traffic Management Plan.

Prospect (City) Development Plan: Land Use and Parking Requirements

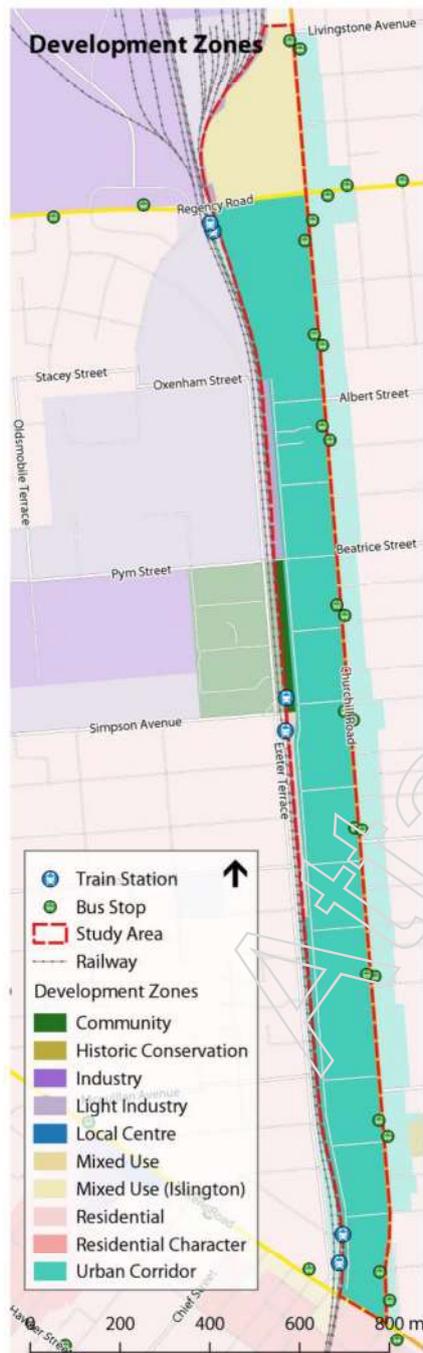


Figure 2 Development Plan Zones

Development Plans are the key development assessment documents in South Australia. They contain the rules that set out what development is allowable in certain areas and the detailed criteria against which development applications will be assessed.

The Study Area for this project is defined as an Urban Corridor (Boulevard Policy Area), as shown in Figure 2. The objectives of this Policy area are:

- Objective 1: Medium and high rise development framing the street, including mixed use buildings that contain shops, offices and commercial development at lower floors with residential land uses above.
- Objective 2: A uniform streetscape edge established through a largely consistent front setback and tall, articulated building façades.
- Objective 3: Development that does not compromise the transport functions of the road corridor.
- Objective 4: Development that contributes to the desired character of the policy area.

The allowance for medium and high rise development within the Urban Corridor (Boulevard Policy Area) has seen an increase in dwelling activity throughout the Study Area, and is being considered in the context of this Local Area Traffic Management Plan.

It is also important to note that there are two sub-policy areas:

Mixed Use Churchill Area (currently vacant land) which seeks to “*be developed at a greater intensity than the Boulevard Policy Area generally, containing an innovative mix of medium to high density residential development, community and non-industrial employment land uses*”. The concept plan for this precinct (including minimum and maximum building heights) is illustrated in Figure 3.

Cane Reserve Area is identified as “*a focal point for development within the Boulevard Policy Area, with an increase in building heights and residential densities surrounding this open space to invigorate the public realm and support a range of activities within the reserve*”. The concept plan for this precinct is illustrated in Figure 4.

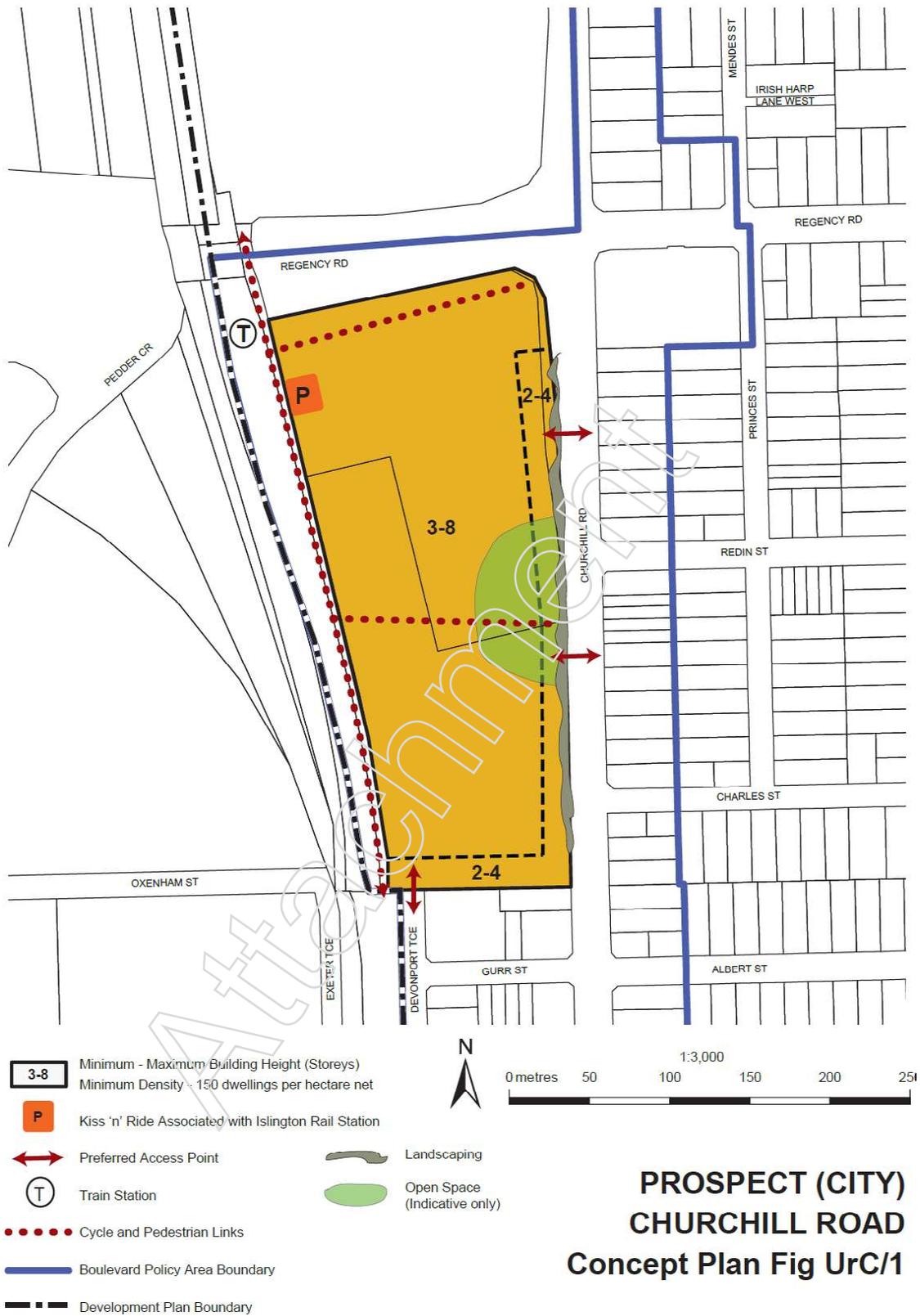


Figure 3 Mixed Use Churchill Area Concept Plan



Figure 4 Cane Reserve Area Concept Plan



As previously stated, the Development Plan also guides the land uses which should be considered in the context of traffic generation.

Some land uses generate more traffic and parking requirements (for example retail land uses generally generate more traffic than residential land uses) and should be considered in future developments. The land uses across the study area are identified in Figure 5.

Figure 5 Land Use across the Churchill Traffic Precinct

Also of significance for the Development Plan conditions for this LATMP are the applied parking rates for development. The following vehicle parking rates are applicable across the Study area (as per the off Street vehicle parking requirements for the Urban Corridor Zone). However, each development is assessed upon its own merits.

- 1 Residential development, in the form of residential flat buildings and residential development in multi-storey buildings should provide vehicle parking in accordance with the following rates:

Number of required vehicle parking spaces

Rate for each dwelling based on number of bedrooms per dwelling	Plus number of required visitor parking spaces
1 per studio (no separate bedroom), 1 or 2 bedroom dwelling 1.25 per 3+ bedroom dwelling	0.25 per dwelling

- 2 Row, semi-detached and detached dwellings should provide off-street vehicle parking in accordance with the following rates:

Number of bedrooms, or rooms capable of being used as a bedroom	Number of required vehicle parking spaces
1 or 2 bedrooms	1
3+ bedrooms	2

- 3 Tourist accommodation should provide off-street vehicle parking in accordance with the following rates:

Minimum number of required vehicle parking spaces	Maximum number of vehicle parking spaces
1 space for every 4 bedrooms up to 100 bedrooms and 1 space for every 5 bedrooms over 100 bedrooms	1 space for every 2 bedrooms up to 100 bedrooms and 1 space for every 4 bedrooms over 100 bedrooms

- 4 Non-residential development excluding tourist accommodation should provide off-street vehicle parking in accordance with the following rates:

Minimum number of required vehicle parking spaces	Maximum number of vehicle parking spaces
3 spaces per 100 square metres of gross leasable floor area	5 spaces per 100 square metres of gross leasable floor area

Figure 6 Urban Corridor Zone Parking Rates

3.2 State Policies

30 Year Plan for Greater Adelaide

The 30 Year Plan is the broad vision for Greater Adelaide over the next 30 years, and reflects broad policies for development, land use, housing, population, employment and transport.

In the 2009 release of the 30 Year Plan, the study area for the LATMP was earmarked as a 'regeneration area' and 'Major Corridor' which is considered for mixed use development and increased residential densities, refer to Figure 7. The advantages of the study area in terms of proximity to the City and integration with public transport make the area an ideal location for infill and regeneration, and since the release of the 30 Year Plan the study area has accommodated much of the policies envisioned within the 30 Year Plan, and the level of infill development within the suburbs of Ovingham and Prospect since the release of the 30 Year Plan (2009) reflects its appropriateness as an area for 'regeneration'. However, this must be considered in context and the impact of additional traffic and its impact on the local and arterial road network.

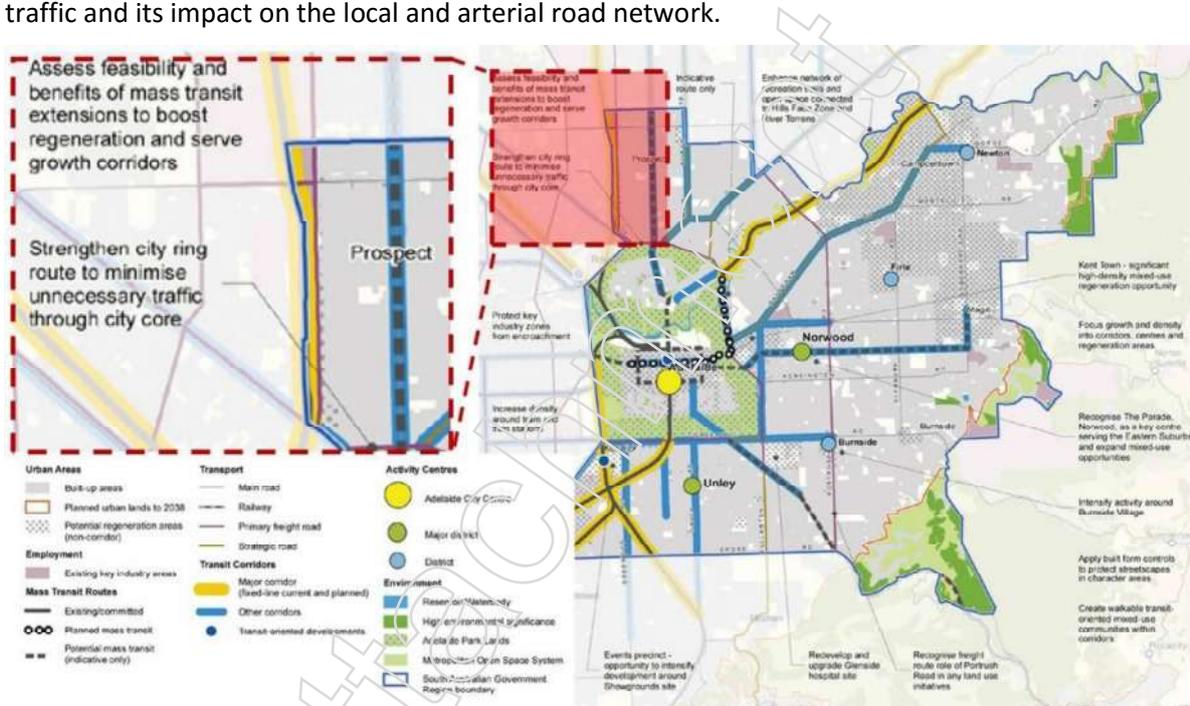


Figure 7 30 Year Plan for Greater Adelaide: Map E2 Eastern Adelaide directions

The 2016 review of the 30 Year Plan was recently released by the Department of Planning, Transport and Infrastructure. This review is still in draft form (as of March 2017), and is yet to be adopted by the State Government, however two targets which will have significance to the Churchill LATMP study area are as follows:

- 85% of all new housing in metropolitan Adelaide will be built in established urban areas by 2045. This is of significance for the study area, and the whole LGA of Prospect in general given the entirety of the LGA has been identified as 'metro infill'. As a result of this policy, increased urban density could be broadly expected across the LGA.
- 60% of all new housing in metropolitan Adelaide is built within close proximity to current and proposed fixed line (rail/tram/O-Bahn) and high frequency bus routes: The entirety of the Churchill LATMP study area is within this close proximity to rapid public transport, namely due to the Gawler rail line and the Churchill Road bus Go-Zone.

While these targets have been developed by the State Government, they align with The City of Prospect Strategic Plan.

Integrated Transport and Land Use Policy (ITLUP)

The *Integrated Transport and Land Use Plan* aims to facilitate the creation of a more vibrant Adelaide and a better connected South Australia through building on the state's strengths while remaining aware of future challenges. The strategy focuses on public transport, roads and cycling/walking solutions and actions.

The Churchill Precinct (refer Figure 8) is a strategically important location for projects identified within the *Integrated Transport and Land Use Plan*. Specifically, the Plan identifies:

- *“Preserve and construct when necessary potential future road duplications such as Churchill Road (Prospect)”* as a short, medium and long term priority.
- *“Gawler line – complete the electrification of the entire line, increase service frequency, staged upgrade of stations over 20 years”*, as a short, medium and long term priority

These two project are of significance for the local road network, and require consideration in terms of any recommendations.

The Gawler Greenway (shared path along the Gawler Rail Line) is identified in ITLUP as a priority project.

Area-wide solutions within ITLUP which may or may be relevant to the Churchill Traffic Precinct also include:

- *Targeted upgrades of key intersections and sections of road to improve efficiency and safety performance*
- *Grade separate road crossings of the rail line at key locations, such as Torrens Road, and potentially of the Glenelg and PortLINK tram lines at key locations*
- *Actively manage the operation and performance of the road network to give priority to movements along key freight and major traffic corridors*
- *Increase maintenance to improve and sustain the performance of the transport network and make better use of our transport assets*
- *Continue implement the Road Safety Strategy and address road safety blackspot and higher risk locations*

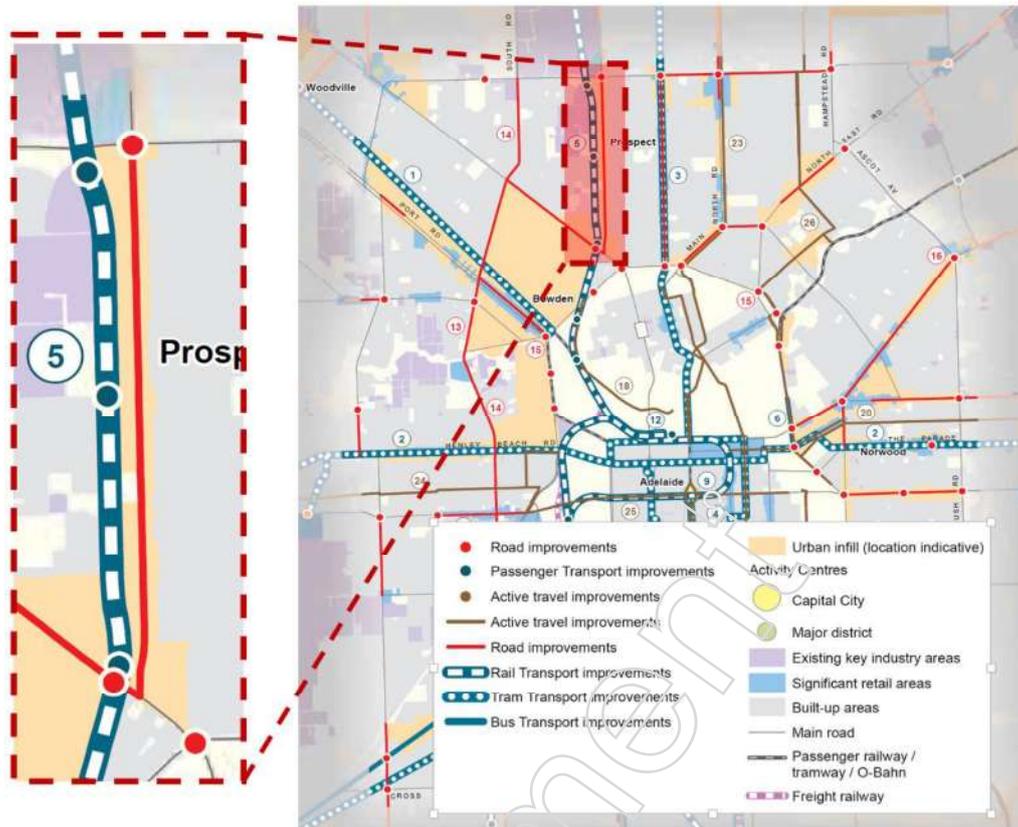


Figure 8 ITLUP (Figure 5-6 Central and Inner Adelaide Solutions)

Metropolitan Adelaide Road Widening Plan

Churchill Road is identified in the Metropolitan Adelaide Road Widening Plan (MARWP), refer to Figure 9. This Plan requires all proposed developments to obtain consent from the Commissioner of Highways and that all new developments to be set back 2.13 meters from the existing street frontage. This requirement is imposed so that there is provision for future road purposes: given that the duplication of Churchill Road has been identified this requirement has been applied (and will be applied) for all new development.

4. Existing Conditions

Understanding the existing transport context for the Study Area is an important aspect of ensuring the recommendations in this Local Area Traffic Management Study are justifiable and robust. The following sections of the report examine the defined strategic road hierarchy, the current use of traffic calming devices, speed profiles, traffic volumes and crash history of the Churchill Precinct.

4.1 Road Hierarchy

An important part of this LATMP was to assess whether the roads within the study area are operating as per their attributed road hierarchy categorisation.

The City of Prospect Traffic Management Policy defines the Strategic Road Hierarchy, as well as the specific role and function of these roads. The Strategic Road Hierarchy categorisation provides context on how to manage a road based on its use and condition. The four defined road categories expressed in the Traffic Management Plan are:

Arterial Road:

- Movement of vehicles / goods / people between regions
- Typically under control of the State Government
- Minimum of 1 lane in either direction – typically more
- The following are Arterial Roads: Prospect Road, Regency Road, Churchill Road, Main North Road, North East Road and Nottage Terrace

Major Collector Road:

- Major distributor of traffic within / through our City
- Typically, 1 lane in either direction
- May have bus route and/or cycle routes

Minor Collector Road:

- Connection between local streets and distributor or arterial roads
- Wide enough for 2 directions of traffic
- May have bus route and/or cycle routes

Local Road:

- End of trip functionality servicing adjacent properties
- Wide enough for at least one direction of traffic (may have to pass between parked cars)
- Through traffic should not be encouraged onto these routes

Table 1 lists the typical traffic volume and speed for each road hierarchy classification, as given in the City of Prospect Traffic Management Policy.

This hierarchy has been used as guidance for traffic management recommendations for this report. Where it is observed that the *typical volumes* or *speeds* are being exceeded, consideration has been given for intervention. (It is noted that there is an error in this table and traffic volumes between 2500 and 6000 are not listed, but fall between a Minor and Major Collector Road).

Table 1 Road Hierarchy classifications

Road Hierarchy Category	Typical Daily Traffic Volumes	Typical Speeds	
		Average	85 th Percentile
Arterial Road	Over 6000	60 km/h	60-65 km/h
Major Collector Road	6000-8000	50 km/h	55-60 km/h
Minor Collector Road	< 2500	45 km/h	55 km/h
Local Road	< 1500	40 km/h	45-50 km/h

The roads within the Churchill Precinct and their Road Hierarchy Categorisations are listed in Table 2.

Table 2 Road Hierarchy for roads in Churchill Local Traffic Precinct

Street Name	Road Hierarchy Categorisation 2007 (City of Prospect Traffic Management Policy)
Devonport Terrace	Local Road
Gurr Street	Local Road
Kingdom Place	Local Road
Pym Street	Local Road
Boucher Place	Local Road
Winter Terrace	Local Road
Totness Avenue	Local Road
Belford Avenue	Local Road
Elizabeth Ave	Local Road
Allan Street	Local Road
Clifton Street	Local Road
Avenue Road	Local Road
Churchill Road*	Arterial Road
Regency Road*	Arterial Road
Torrens Road*	Arterial Road

* Roads are maintained by the State Government, and do not form part of the recommendations of this report

4.2 Existing Local Area Traffic Management

A number of traffic management devices have previously been installed in the Churchill Precinct. They are illustrated on Figure 10 and listed below.

- 10 road humps (Watts profile) on Devonport Terrace between Gurr Street and Belford Avenue
- 1 Flat-Top Road Hump on Belford Avenue between Devonport Terrace and Churchill Road
- 1 Driveway Entry into Devonport Terrace, at the junction of Boucher Place
- Pavement Threshold treatments on Devonport Terrace, either side of the Pym Street intersection



Figure 10 Churchill Traffic Precinct: Traffic Control Devices and Road Hierarchy

4.3 Traffic Data - Volume and Speed

Traffic data provides insight into the role and function of a particular road, how a network is operating, and whether or not the road asset is fit for its defined/identified purpose (as per the Strategic Road Hierarchy defined in the City of Prospect Traffic Management Policy – see Local Road Hierarchy).

Traffic data was collected on the local road network at the midblock point of all east-west streets and midblock on Devonport Terrace (south of both Pym Street and Belford Avenue). Figure 12 illustrates traffic data locations and speeds recorded in May, 2016 as well as historical traffic volumes.

Traffic volume

In general, the traffic volumes on the local street network fall within acceptable limits for the existing Local Road classifications. However, Pym Street and Belford Avenue carry traffic volumes greater than 1500 vehicles per day (vpd) and therefore fall within the Collector Road category. This is not surprising given that these two roads provide access across the rail line. Therefore, to comply with the current City of Prospect road categorisation system, Pym Street and Belford Avenue should be re-classified to Collector Roads, refer to Table 3. It is recommended that the City of Prospect Traffic Management Policy be updated to reflect Pym Street as a Major Collector and Belford Ave as Minor Collector so that defined role and function more appropriately matches its observed operation.

Table 3: 2016 traffic volumes and road classification

Street	Daily Traffic Volume 2016 (max.)	Current Road Hierarchy Classification	Road Hierarchy Classification to meet Traffic Management Policy (2007)
Devonport Terrace	343	Local Road	
Gurr Street	285	Local Road	
Kingdom Place	446	Local Road	
Pym Street	3759	Local Road	Major Collector Road
Boucher Place	230	Local Road	
Winter Terrace	232	Local Road	
Totness Avenue	210	Local Road	
Belford Avenue	2095	Local Road	Minor Collector Road
Elizabeth Ave	289	Local Road	
Allan Street	212	Local Road	
Clifton Street	73	Local Road	
Avenue Road	192	Local Road	

Analysis of current and historic traffic volumes throughout the study area generally shows a reduction in traffic volume on the local streets. There is only one location that is directly comparable with previous traffic data which is at Devonport Terrace, approximately 70 metres south of Pym Street. At this location, a reduction in average daily traffic volume of 21% (92 vehicles) was observed.

The analysis has shown some anomalies, particularly in relatively high volumes of commercial traffic (see Figure 13) on Boucher Place (over 50% of east bound traffic). Analysis of the volume of movements, concentration to Boucher Place and hours of detection indicates that motorists linked to a local business are regularly driving through the area from the west via Belford Avenue, Devonport Terrace and Boucher Place to access Churchill Road northbound. It is unlikely that residents from the local area are responsible for all of the recorded movements.

Analysis of the direction of traffic flows shows a greater volume of westbound traffic in the AM Peak while eastbound movements are higher in the PM Peak on Kingdom Place and Pym Street, the major connectors to industrial and commercial operations in the Pym Street region to the west of the Gawler Rail line. The reverse case is true for other east-west roadways.

The inbound AM Peak, outbound PM Peak and high interpeak traffic loads on Pym Street and Kingdom Place (see below) indicate that the proportion of traffic attracted to local employment areas is greater than that generated by the local resident population. PM Peak loads on Kingdom Place also show traffic destined northbound on Churchill Road avoiding the Pym Street intersection due to queuing. Pym Street may also carry some cross-suburban traffic between Churchill Road and South Road but the close proximity to Regency Road and turning movement constraints from Churchill Road limits the preferencing of this route over nearby arterial roads.



Figure 11 Peak hour movement summary (AM/PM) at Kingdom Place, Pym Street and Devonport Terrace



Figure 12: Traffic Volumes, Vehicles per Day (current and historical, refer legend)



Figure 13 Commercial vehicle percentage of average weekday traffic (Class 3 and above)

Commercial Vehicle Traffic

Figure 13 shows Boucher Place recorded a high percentage of commercial vehicles at 26% of the average weekday traffic. Analysis of the recorded data shows that this activity is recorded during business hours and appears to be entering the study area from Belford Avenue, suggesting that many motorists, likely linked to a local operator, are using Boucher Place to avoid the flat-top road hump on Belford Ave, avoiding potential queuing/delays at the Belford/Churchill intersection and limit their exposure to Churchill Road traffic.

While the use of these streets is not illegal and doesn't necessarily present an increased safety risk to local residents or road users, it is not the intended road use and therefore warrants some consideration.

Traffic Speed data

The 85th percentile speed data (see Figure 14) shows that travel speeds throughout the local area are generally moderate. They are below 40km/h in all cases except for Kingdom Place, Pym Street and Boucher Place where they are 40.7, 45.5 and 45.7 km/h respectively. Over 5% of east-bound traffic on both Pym Street and Boucher Place was recorded above the posted speed limit of 50km/h.

Excessive speed was not noted as a problem on other streets in the region during the survey period. Speeding in the west bound direction is less prevalent, perhaps due to the tube counters having been placed closer to Churchill Road than Devonport Terrace due to the location of driveways, parked cars and other obstructions at the time of installation.

The traffic data combined with an assessment of the road layout and driver behaviour, indicates that Kingdom Place carries through traffic from Pym Street to Churchill Road northbound, to avoid queued traffic at the Pym Street / Churchill Road intersection. The higher travel speed recorded on Kingdom Place (85th percentile speed of 40.7km/h) is likely to be linked to this opportunistic behaviour as drivers attempt to 'get ahead' of the traffic, particularly in peak periods.

The higher speeds recorded on Boucher Place is of concern and analysis of the data suggests it is linked to through traffic from Belford Avenue, destined for Churchill Road via Devonport Terrace. Boucher Place may be the preferred link because this route avoids the single lane slow point on Devonport Terrace immediately north of Boucher Place. The road humps on Devonport Terrace between Belford Avenue and Boucher Place were observed to have a relatively flat ramp profile and may not be a strong deterrent to opportunistic 'through-traffic' motorists.



Figure 14: 85th percentile speed for weekday traffic

4.4 Crash History

Figure 15 illustrates the locations of crash clusters and severity of reported injuries. Locations of cyclists and pedestrian crashes have also been shown separately. A total of 109 incidents were reported within the study area between 2010 and 2014, resulting in 89 injuries, 7 of which were reported as Serious Injuries. No fatalities were recorded during this period. 10 incidents involved a bicycle and one involved a pedestrian.

Crash clusters are shown at the major intersections of Churchill Road/Torrens Road and Churchill Road/Regency Road. These are intersections of major arterial roads with high traffic volumes and these crash occurrences are similar across Metropolitan Adelaide.

There is a cluster of crashes at the intersection of Churchill Road and Pym/Beatrice Streets. Driver behaviour observed by infraPlan during the morning peak traffic periods showed some concerning driver behaviour at the Churchill Road and Pym Street intersection. This was largely associated with difficulty to turn right from Pym Street to Churchill Road due to high traffic volumes and insufficient gaps in Churchill Road traffic flows. This resulted in drivers sheltering in the painted median on Churchill Road (more than one vehicle at a time), merging into traffic in a hazardous manner and forcing other drivers to take evasive action.

Four crashes were recorded on Davenport Terrace, and nine crashes on Pym Street, (including four at the level crossing) between 2010 and 2014. The only crashes resulting in injuries were recorded on Churchill Road.



Figure 15 Crash locations, clusters, severity and pedestrian and cyclist involvement for the Churchill study area from 2010 to 2014

4.5 Public Transport

The Churchill Precinct is well serviced by Public Transport, located between Gawler Train services and the Churchill Road Go Zone for buses (see Figure 17).

The Churchill Precinct is serviced by 3 train stations on the Gawler line, specifically Islington (near Regency Road), Dudley Park (adjacent Devonport Terrace, opposite Winter Terrace), and Ovingham (adjacent Devonport Terrace, near Avenue Road). It is also important to note the two level crossings of the rail line within the study area at Belford Avenue and Pym Street; these may require specific consideration in the recommendations contained within this report.

No Adelaide Metro bus routes access Council roads in the Churchill Precinct. The bus stops and train stations within (and surrounding) the Churchill Local Traffic Precinct are identified in Figure 16.

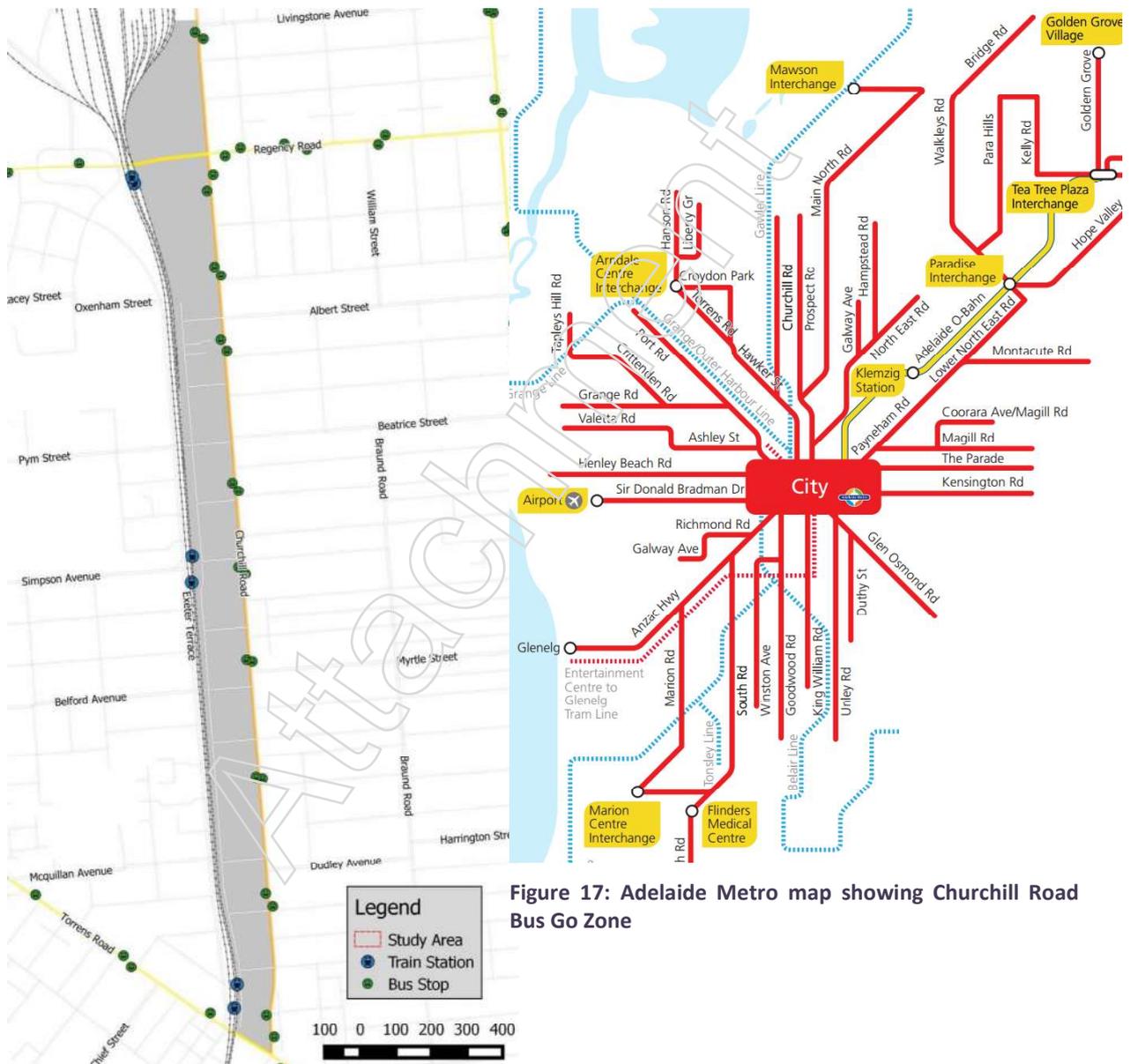


Figure 16: Bus Stops and Train Station Locations



Figure 17: Adelaide Metro map showing Churchill Road Bus Go Zone

4.6 Cycling

The Gawler Greenway is a State Government long-term vision for a cycling route and improved access to public transport extending from the City to Gawler. The alignment typically follows the Gawler railway line as well as adjacent low-volume streets.

The route passes through the Churchill Precinct, running along Devonport Terrace and connecting to a shared path between Gurr Street and Regency Road. Another, connected route crosses the rail line at Pym Street and continues within the City of Port Adelaide Enfield.

The Gawler Greenway is an important regional cycling route and provides improved access to rail stations. Cyclist and pedestrian safety and amenity is critical along these streets.

Other local roads within and adjacent to the study area on the cycling network are Belford Avenue, Beatrice Street and Myrtle Street (see BikeDirect Network map in Figure 18). These roads link to Braund Road which is a key north-south cycling route within the City of Prospect and identified as a future Bicycle Boulevard.

There are kerb side bicycle lanes on Churchill Road for the length of the Churchill Precinct.



Figure 18: BikeDirect Network

5. Population Growth and Traffic Generation

Given the context of the 30 Year Plan and the City of Prospect Development Plan, the Churchill Precinct (and environs) are subject to change, growth and development. The development of urban areas will often result in different transport outcomes which need to be considered. The development (predominantly residential) within the Churchill Precinct has been considered in this chapter in terms of traffic generation and network impact. The outputs of the traffic generation have been considered in the recommendations of this LATMP.

5.1 Demographic Comparison and suburban growth

Prospect and Ovingham are increasingly popular inner metropolitan suburbs, as evidenced by recent population growth. Although the Churchill Precinct only incorporates a section of these suburbs, a comparison of the 2006 and 2011 Census data (refer Appendix F), reflects the popularity as desirable suburbs. Between 2006 and 2011 (the past two Census periods), there has been a population increase of 675 persons and 174 dwellings in these two suburbs. Although the 2016 Census has not yet been conducted, the number of people and dwellings is expected to increase, especially in the Churchill Road precinct. The growth rate between 2006 and 2011 for the suburbs of Prospect and Ovingham and identified below:

Table 4 Ovingham and Prospect (Suburbs) Population and Dwelling growth (2006 – 2011)

Census Year	Population (persons)	increase from 2006-2011	Dwellings	increase from 2006-2011
2011	13,711	675	5,974	174
2006	13,036	-	5,800	-

Due to the locational advantages the suburbs enjoy, (close proximity to the city and residential suburban neighbourhoods which are close to services and amenities) the precinct has experienced dwelling and population growth over the past 10 years, with significant growth over the past 5 years. The land use policies from the 30 Year Plan, and now reflected in the Development Plan (Urban Corridor – Boulevard Policy Area), this growth is expected to accelerate further in the short term.

5.2 Traffic generation Rates

The Department of Planning, Transport and Infrastructure publication, *Trip Generation Rates for Assessment of Development Proposals (September 2013)* has been used to calculate likely traffic generation.

Given the Development Plan is encouraging medium density growth in the Study area, the rates for *Residential – Medium Density Flats* (section 7.2) have been applied to the following calculations. This also accords with the recent development of apartment-style dwellings that are smaller and with less bedrooms. The traffic generation rate from this form of development is generally lower than low density detached dwellings and will therefore generate slightly less traffic. This rate is also deemed relevant given the connectivity of the suburb to public transport with the Gawler rail and bus services on Churchill Road both in close proximity to all local residents.

Based on the *Trip Generation Rates for Assessment of Development Proposals, Residential – Medium Density Flats*, a rate of 5.6 daily trips and 0.6 peak hour trips per dwelling has been applied.

Although the development outcomes of the Churchill Precinct are guided by the Development Plan, they are also subject to external influences (predominantly market forces) which makes determining the likely development outcomes (not theoretical outcomes) of the precinct difficult. However, to demonstrate an assumed traffic impact of dwelling development across the study area, the following has been assumed:

Table 5 Projected dwelling increase within the Churchill LATM

Year	Dwellings (indicative, based on annual increase)	Assumed increase on an annual basis	Additional traffic generated (vehicles per day)	Peak hour traffic increase
2016	360 (based on number of dwellings calculated from letter drop in April 2016)	rounded figure based on site observations of development over 12-month period	Calculated using <i>Trip Generation Rates for Assessment of Development Proposals, Residential – Medium Density Flats</i>	
2017	410	50	280	30
2018	460	50	280	30
2019	510	50	280	30
2020	560	50	280	30
2021	610	50	280	30
TOTAL	610	250	1,400	150

The exception to this projection is the potential development of the Mixed Use Churchill Area (see Section 3.1) which will require a detailed Traffic Impact Statement to determine the impact and mitigation requirements.

Testing Traffic Generation Impact

Given that the infill development across the suburb is generally spread across the area, the expected impact of additional traffic is minimised as it will likely not be localised to any specific road or intersection. In the following table the assumed additional traffic generation of 1,400 vehicles per day over the next 5 years has been distributed across the network to determine if any of the local roads exceed the threshold of traffic volumes for local roads (as per the City of Prospect Traffic Management Guidelines).

Table 6 Projected traffic volume by street based on projected development within the Churchill LATM

Street	2016 Average Annual Daily Traffic	Assumed traffic volume 2021 (accounting for additional traffic growth from development within the study area)	% increase between 2016-2021
Devonport Terrace	343	459	33.82%
Gurr Street	285	401	40.70%
Kingdom Place	446	562	26.01%
Pym Street	3,759	3,875	3.09%
Boucher Place	230	346	50.43%
Winter Terrace	232	348	50.00%
Totness Avenue	210	326	55.24%
Belford Avenue	2,095	2,211	5.54%
Elizabeth Ave	289	405	40.14%
Allan Street	212	328	54.72%
Clifton Street	73	189	158.90%
Avenue Road	192	308	60.42%
Churchill Road*	25,100	26,500	5.58%

*assuming all traffic generated from new development uses Churchill Road

Despite the potential average percentage increase of 48% of traffic volumes on local streets, the resultant additional traffic is considered acceptable given the threshold of 1,500vpd is not exceeded on any local street, other than on Belford Ave and Pym Street which already exceed the threshold.

5.3 250 Churchill Road

The development potential of 250 Churchill Road has been identified in the City of Prospect Development Plan. At the time of the previous investigations, namely:

- 2.4.1 Development of 250 Churchill Road precinct: Liaise with developer(s) and investment partner(s) regarding development within the Precinct
- 2.4.2 Development of 250 Churchill Road precinct: Pursue completion of the northern section of the Churchill Road Master Plan infrastructure works in response to development authority

A subdivision proposal was submitted after the first draft of this report was submitted to council for consideration.

While appreciating the development potential of this significant land parcel, until the scale and land use mix is determined, a traffic impact statement should not be pursued, but will be required once the development capacity is known. This traffic impact statement should take into consideration this local area traffic management plan, and may require further consideration of other traffic control device interventions.

It is the consultants understanding that current access arrangements on Churchill Road are being undertaken: this is being undertaken between the proponent with DPTI. Pending the outcomes of these arrangement, further consideration to traffic control in the Churchill LATM area will be required. It should also be noted that the Pym Street/Churchill Road intersection may experience more traffic loading, which warrants further intersection intervention (See Section 7.2 of this report).

Attachment

6. Consultation

A consultation process was undertaken as per the project and Council Policy requirements. Detailed outputs from the consultation process, including the letter of invitation, survey outputs, advertising channels and a spreadsheet of reported issues and responses are provided in Appendix B, and are summarised below.

To date the following processes have been employed to gather feedback into the input of this report.

1. Initial contact with residents and stakeholders

A letter box drop of the precinct with the following information:

- Announcement of the project, its purpose and expected outputs
- An invitation to attend a Neighbourhood Forum, and
- A link to an on-line survey questionnaire to identify concerns and opportunities

2. Neighbourhood Forum

This open forum provided a platform to discuss issues in detail, confirm the issues identified and discuss possible options and solutions.

6.1 Summary of Consultation Feedback

Issues raised during consultation were reviewed on site by the project team.

On-Street Parking

A number of residents raised concerns about on-street parking capacity within the study area due to the increasing residential population and new residential developments.

InfraPlan has conducted inspection of on- and off-street parking provision and use and did not observe any instance where on-street parking in the local area was not available, nor instances where on-street parking prohibited through traffic or presented a safety concern. Observations show that while a number of side streets are constrained by on-street parking, this is in line with the Traffic Management Policy and serves as a passive traffic control device, limiting vehicle speed and traffic volumes and discouraging non-local traffic from using the affected streets.

The City of Prospect Traffic Management Policy defines Local Streets as having:

- End of trip functionality servicing adjacent properties (which includes use of recreational and community facilities)
- Wide enough for at least one direction of traffic (may have to pass between parked cars)

The east-west streets within the Churchill LATM region are no longer than 115m which allows for drivers to see any oncoming traffic from the other end of the roadway. In addition, driveways provide space for one vehicle to pull out of the running lane and permit opposing traffic to pass.

Photo 1 below shows an extreme case where events at Charles Cane Reserve generate large numbers of visitors to the area for a short period of time on weekends. This photo was taken at 3:35pm on Saturday 25th June during an amateur league soccer game at Charles Cane Reserve / Parndo Yerta. Observed weekday on-street parking demand throughout the region is far lower and restricts traffic movements to a lesser degree. Weeknight observations show that on-street parking demand during training sessions is moderate and largely limited to Elizabeth Street.

Site observations also showed a number of instances where parking signage and yellow line marking was faded or worn away, such as shown in Photo 2. Belford Avenue is a particularly good example of

this, and parking on this street indicates that the public ignores the parking restrictions and that parking controls are not enforced.



Photo 1 Weekend event parking on Elizabeth Street constrains traffic to a single lane



Photo 2 Faded 'No Parking' sign and worn and obscured painted lines on the road surface of Belford Avenue

Access to and from Churchill Road

As a DPTI controlled road, Churchill Road is not considered part of the project and thus access to and from this roadway is technically beyond the project brief and outside Council's scope of works. However, the number of concerns raised indicates that this is an important issue for residents of the Churchill LATM area.

Churchill Road is identified (in ITLUP and MARWP) for possible widening to two lanes in each direction. Intersection upgrades and accessibility are likely to be a part of any future works. A time-frame is not given for these works and therefore, in the shorter term it is recommended that Council liaise with DPTI to identify any possible improvements. Residents also raised concerns over the lack of pedestrian crossing points at the southern end of Churchill Road, near Avenue Road. It is understood that some train passengers from Ovingham Station use Avenue Road to reach Churchill Road and access areas on the eastern side, including nearby schools. InfraPlan observed pedestrians waiting in the centre painted island and right turn shelter lanes while attempting to cross Churchill Road, particularly in the AM Peak.

Although Churchill Road lies outside of the scope of this report, a recommendation has been included for Council to liaise with DPTI to install pedestrian refuges within the existing painted median area to provide a higher level of pedestrian safety during a 2-stage crossing.

Pym Street

Many issues raised regarding Pym Street relate to the intersection with Churchill Road and infrastructure associated with the rail level crossing. However, as a Department of Transport roadway, Churchill Road lies outside the jurisdiction of the City of Prospect and outside the brief for this project. It is understood that some design work is underway within DPTI to upgrade the Pym Street rail crossing and it is anticipated that any such measure would include assessment of intersection operations and the level crossing.

The concerns have been noted and recommendations are made to liaise with DPTI to seek solutions.

Speeding Traffic

Excessive speed within the study area was raised as an issue by residents. Traffic data collected during the survey indicated that speeds were generally in an acceptable range, with the exception of Boucher Place, where the 85th percentile speed for east-bound traffic was found to be 45.2km/h and therefore in excess of the recommended maximum as per the Prospect Traffic Management Policy.

It is recommended that pavement treatments be implemented in Devonport Terrace on the northern side of Belford Avenue to deter through traffic from entering Devonport Terrace and continuing to Boucher Place. This type of differentiated paving treatment is already in use on Devonport Terrace at the intersection with Pym Street.

Pym Street recorded an 85th percentile speed over 40km/h (45.5km/h), which is excessive for a local road but is not surprising given that the road is operating as a Collector Road.

InfraPlan also suggest that the Council investigate the introduction of a 40km/h speed limit within the Churchill Precinct (excluding Pym Street and Belford Avenue), consistent with the area on the eastern side of Churchill Road.

Footpath paving

While not raised by residents, it was observed during site visits that various footpaths showed some signs of unevenness and degradation. Of particular concern is the footpath paving at the corner of Devonport Terrace and Kingdom Place (see Photo 3 and Photo 4 **Error! Reference source not found.**). Paving blocks used in this section are in disrepair, presenting a potential tripping hazard. Inspection of the damage indicates that the damage was caused by heavy vehicles traversing this section of footpath. It is recommended that the paving blocks be replaced.



Photo 3 Footpath damage on Devonport Terrace at the corner of Kingdom Place



Photo 4 Detail of footpath damage

Construction traffic and through-traffic

Due to the number of new residential apartment developments in the area, residents have raised concerns about construction vehicles in the area, particularly along Devonport Terrace. However, due to the nature of the area and lack of alternative access, it is not feasible to suggest banning through traffic. It should be noted that construction traffic is linked to a site for a limited time during the development phase and will thus have limited term impacts. It is acknowledged that construction

in this region is likely to continue for a number of years into the future but that this will be at sites spread throughout the precinct. Development of these sites is occurring in line with Council Development Plan and the corridor plan for Churchill Road.

Construction workers parking on local streets and access restrictions as a result have also been raised through the consultation process. This is a necessary provision and affects local residents for a limited time during the construction process. Vehicle owners are also present on site if vehicles are preventing movements on local streets. It is unfeasible to restrict access and parking provision for these workers as they require vehicles to travel to and from various sites. This is a matter for individual site management and residents should make their concerns known to Site Managers if work vehicles are restricting property access or movement through their local neighbourhood.

Davenport Terrace - Rail reserve vegetation

Residents of Devonport Terrace in particular, expressed a desire for increased and improved protection from the rail line, including additional vegetation, noise walls or fencing. During site inspections, it was noted that the vegetation is sparse in some areas and is of poor aesthetic quality, (refer to Photo 5). In addition, there was significant build-up of pine needles along the road edge which will obstruct stormwater flows in the spoon drain and reduces space for cyclists and parking.

The rail line is fenced by chicken wire and wooden posts or star pickets. Vegetation lies outside of the scope of this LATMP however this does present an opportunity to improve the streetscape and visual environment along Devonport Terrace.

It is understood that a Devonport Terrace Masterplan project is already underway within council and that it will address issues including vegetation, fencing and lighting. The advice contained in this section is intended to inform and guide Council officers preparing the Masterplan. Recommendations contained within this report should be considered for further consideration as part of the development of the masterplan.

Devonport Terrace - Illegal dumping

It was observed during site visits that No Dumping signs (refer to Photo 6), have been erected to the western side of Devonport Terrace, north of Pym Street to discourage illegal dumping. Comments received regarding illegal dumping refer to locations toward the southern end of Devonport Terrace. It is recommended that Council consider erecting similar signs in the southern section of Devonport Terrace, at the interface with the Rail Reserve, to deter illegal dumping and encourage reporting of this behaviour to Council. Improvements to street lighting and vegetation in this area will also improve passive surveillance, reduce opportunity and improve the overall appearance of the area which can all contribute to reducing the instances of illegal roadside dumping.

The KESAB website includes an Illegal Dumping Toolkit, developed in conjunction with neighbouring Councils: (<http://www.lga.sa.gov.au/page.aspx?u=1888>) This online resource provides advice for councils on how to manage illegal dumping hotspots and gives access to signage and other control measures.



Photo 5 Fallen vegetation obscures the spoon drain and road edge on Devonport Terrace



Photo 6 A sign erected on Devonport Terrace to discourage illegal dumping along the rail corridor

Other issues raised

Other concerns were raised by residents but the issues occurred outside of the study area of this LATMP. These issues are included in the consultation response table (refer Appendices) for Council consideration.

6.2 Workshop with Elected Members

The draft report findings were presented to Elected Members and Council officers at a council meeting on March 14th 2017. In addition to issues raised during public consultation, the elected members raised the following concerns and feedback on the report.

- **Recommended treatment to Boucher Street and possible future impacts to Totness Ave, Winter Terrace.** An alternative suggestion was made to consider threshold treatment at the entrance to Devonport Terrace (north side of Belford Ave intersection) to deter traffic from using Devonport Terrace and thereby preventing changes in traffic flows affecting Totness Avenue and Winter Terrace. This advice has been considered and has resulted in recommendation number 7 in the following section of this report.
- **More detail requested on Pym Street and Belford Avenue treatments, particularly intersections at Churchill Road.** Note this is beyond the scope of the brief as it refers to intersections with a Departmentally controlled roadway. Design of intersections is outside the scope of a Local Area Traffic Management Plan and as such this request is addressed by identifying the operational concerns and suggesting possible approaches to address the issues. (see advocacy Section 7.2)
- **Recommendations around speed humps and cycle facilities on Devonport Terrace. Street sweepers cannot clean around these due to obstructions.** Note that while no complaints were made about this in public consultation, the accumulation of leaf litter at these points was noted by infraPlan staff during site visits to the Churchill region.
 - **Option 1** – Improve maintenance schedule and/or methods, supplementing street sweeping activities. We recommend the manual use of leaf blowers, shovels and/or brooms to clear leaf litter from obstructions and onto the roadway to facilitate collection by the street sweeping vehicle. Similar activity has been observed in clearing leaf litter from footpaths in the area. The affected region is small and directly associated with the Gawler Greenway, thereby limiting the time and cost of

additional maintenance works. The City of Prospect's goals to improve cycling infrastructure and promote alternative transport aligns with improved maintenance of the Gawler Greenway to encourage cyclists to this route and protect those already using it. This solution is recommended for its simplicity, ability to be implemented immediately, minimal cost to Council and no negative impact to road users.

- **Option 2** – Extend Watts Profile speed humps to gutter edge: This option will improve access to the kerb line for street sweeping vehicles but removes the visible preference and reduces comfort for cyclists along the Gawler Greenway.
- Additional options that addressed solutions using road infrastructure were assessed. These were eventually rejected for a variety of reasons including the scale of the interventions, construction costs, risks to stormwater drainage flow paths, interruptions to traffic flows and risks to other road users.
- **Access to Islington Station and integration with 250 Churchill development.** These considerations are linked to development planning of the whole site and are inextricably linked to DPTI plans for the Islington Station. Suggestions of Park'n'Ride facilities and transport interchanges are beyond the scope of this LATMP and cannot be properly considered without an understanding of the future development potential of the site. It is also recommended that any such ideas consider the best and highest use of the site as well as the access arrangements from Churchill Road. It is likely that any vehicle access point is likely to be well south of the Regency Road intersection and as such may not be conducive to a Park'n'Ride access arrangement. In the short term, improved amenity, safety and access to the train station can be provided with additional lighting for the existing path between the station and the Regency Road intersection. Amenity of this path is limited in the short term given the inactivated land surrounding the intersection and station. It is recommended that any future development plans for this site consider activating this walking and cycling route.

7. Recommendations

7.1 Direct actions for council to implement

The following recommendations are restricted to those areas within Council's jurisdiction, local roads, footpaths, signage, parking, vegetation etc.

Summary Table

Table 7 provides a summary of the recommendations to address identified issues. Previous sections of this report provide summary of the traffic data analysis, consultation, site visit observations, background information and intended outcomes that has resulted in these recommendations. The locations are illustrated in Figure 19.

Table 7 LATMP recommendation summary

No	Location	Priority	Recommendation
1	Kingdom Place	High	Install pavement bar island at the western end of Kingdom Place, at the approach to Devonport Terrace
2	Kingdom Place	Low	Yellow pavement marking to strengthen 'No Stopping' at the approach to Devonport Terrace (to ensure sufficient space is available on approach to the intersection)
3	Corner of Devonport Terrace and Kingdom Place	Medium	Repair footpath paving blocks, (if possible, address local businesses to alert them to the issue and encourage assistance to prevent recurrence)
4	Pym Street and Belford Avenue	High	Re-categorise Pym Street to a Collector Road and Belford Avenue to a Minor Collector Road to reflect the role and function of these roads in accordance with the City of Prospect Traffic Management Policy Road Hierarchy Plan
5	Full Churchill LATM area	Medium	Further investigate the introduction of a 40km/h speed limit, with the exception of Pym Street and Belford Avenue
6	Full Churchill LATM area	Medium	Replace on-street parking signage as necessary
7	Devonport Terrace, north side of Belford Avenue intersection	Medium	Install threshold pavement treatment similar to that on Devonport Terrace at Pym Street. Ongoing monitoring of impacts to traffic speed and volumes in Boucher Place, particularly commercial vehicle volumes.
8	Elizabeth Street, Devonport Terrace & Boucher Place	Medium	Replace worn painted yellow lines and parking signage on Belford Avenue. Install new painted yellow line markings to restrict parking on Elizabeth Street at the approach to Churchill Road to ensure sight distance and safe intersections widths are maintained. Remove signage and faded line markings to permit parking on the northern side of Belford Avenue (with clearance for driveways) while maintaining "No Parking" on the southern side.
9	Devonport Terrace at Ovingham Railway Station	Medium	Restrict parking to the eastern side of the road with painted yellow lines and / or no parking signs on the western side. This ensures access to driveways on the eastern side while maintaining a single travel lane and improves sight lines for cyclists. Driveways also provide passing space when required.

No	Location	Priority	Recommendation
10	Devonport Terrace, Rail Reserve	High	Consider streetscape upgrade with improved vegetation along railway line
11	Devonport Terrace, Rail Reserve	Medium	Consider installation of additional “No Dumping” where vegetation is sparse and dumping is occurring
12	Devonport Terrace, speed humps and cycle paths	High	Improved maintenance practices including use of leaf blowers & brooms to clear affected sections ahead of street sweepers. Ongoing monitoring, particularly during heavy leaf fall seasons.

Attachment

Recommendations and Background Information

Location 1	Kingdom Place at Devonport Terrace				
Public Consultation	Vehicles turning right from Devonport Terrace encroach westbound lane, speed concerns				
Site Observation / Desktop Assessment	During several site visits on 7 th June vehicles were observed to encroach on the westbound lane while turning from Devonport Terrace. Approach speed does appear to be a contributing factor; vehicles were clearly seen to be using Kingdom Place as a rat-run to avoid queues at the Pym Street / Churchill Road intersection.				
Road Hierarchy Categorisation	Devonport Terrace – Local Road Kingdom Place - Local Road				
Alignment with Council Traffic Management Plan Policy Statements	<ul style="list-style-type: none"> • <i>Management of the local road network must balance the needs of all road users</i> • <i>Council will approach traffic management on the basis of a strategic road hierarchy and functional road use.</i> • <i>The selection of traffic control treatments must also be proportional to the significance of the problem being addressed.</i> 				
Recommendation	Installation of a pavement bar island using rubber rumble bars at the western end of Kingdom Place, at the junction with Devonport Terrace				
Intended Outcome	Facilitate slower speeds on the approach to the junction by reducing the ability to cut the corner and encroach on other lanes				
Use of LATM Device (Austroads)	Reduce Speeds	Reduce traffic volume	Reduce crash risk	Increase pedestrian safety	Increase bicycle safety
	✓		✓	✓	✓
Potential Network Implications	May encourage use of Gurr Street by through-traffic. Therefore, ongoing monitoring of traffic behaviour recommended. Slower traffic speeds will improve safety for cyclists - particularly important given that Devonport Terrace is a part of the Gawler Greenway.				
Priority	High				

Location 2	Kingdom Place, southern side on approach to Devonport Terrace				
Public Consultation	Cars park too close to the intersection with Devonport Terrace				
Site Observation / Desktop Assessment	No pavement marking. Signage on the northern side but not southern side Parking appears to be generated by local businesses				
Road Hierarchy Categorisation	Local Road				
Alignment with Council Traffic Management Plan Policy Statements	<ul style="list-style-type: none"> • <i>Management of the local road network must balance the needs of all road users</i> • <i>Council will approach traffic management on the basis of a strategic road hierarchy and functional road use.</i> • <i>The selection of traffic control treatments must also be proportional to the significance of the problem being addressed.</i> 				
Recommendations	See Location 1 for pavement bar island recommendation. If installed, also install 'No Stopping' yellow pavement marking for length of island to prohibit parking adjacent.				
Intended Outcome	Provide clearance for turning movements at Devonport Terrace				
Use of LATM Device (Austroads)	Reduce Speeds	Reduce traffic volume	Reduce crash risk	Increase pedestrian safety	Increase bicycle safety
			✓		
Potential Network Implications	Improved traffic movement due to removal of restriction to turning movement and potential hazard				
Priority	Low				

Location 3	Corner of Devonport Terrace and Kingdom Place				
Public Consultation	none				
Site Observation / Desktop Assessment	Cracked paving blocks in the footpath on Devonport Terrace at Kingdom Place. Appears to have resulted from vehicles having repeatedly accessed the footpath, possibly for loading materials at neighbouring business places				
Road Hierarchy Categorisation	Devonport Terrace – Local Road Kingdom Place – Local Road				
Additional Considerations (speed, AADT, bus route, etc)	Possible evidence of heavy vehicle access to local business traversing the footpath, suggest addressing loading and supply access requirements with local traders to assess if additional access controls or allowances are necessary				
Alignment with Council Traffic Management Plan Policy Statements	<ul style="list-style-type: none"> • <i>Management of the local road network must balance the needs of all road users</i> • <i>Council will approach traffic management on the basis of a strategic road hierarchy and functional road use.</i> • <i>The selection of traffic control treatments must also be proportional to the significance of the problem being addressed.</i> 				
Recommended Action	Repair footpath paving, address local businesses to prevent recurrence				
Intended Outcome	Restored footpath pavement surface, prevent possible injury to pedestrians resulting from uneven surfaces				
Use of LATM Device (Austroads)	Reduce Speeds	Reduce traffic volume	Reduce crash risk	Increase pedestrian safety	Increase bicycle safety
				✓	
Potential Network Implications	none				
Priority	Medium				

Location 4	Pym Street and Belford Avenue				
Public Consultation	none				
Site Observation / Desktop Assessment	Traffic volumes, through traffic and commercial vehicle percentage are beyond the recommended limits of the Local Road categorisation which currently applies to these roadways				
Road Hierarchy Category	Currently categorised as Local Roads				
Alignment with Council Traffic Management Plan Policy Statements	<ul style="list-style-type: none"> • <i>Management of the local road network must balance the needs of all road users</i> • <i>Council will approach traffic management on the basis of a strategic road hierarchy and functional road use.</i> • <i>The selection of traffic control treatments must also be proportional to the significance of the problem being addressed.</i> 				
Recommended Action	<p>Recategorisation of Pym Street (Collector Road) and Belford Avenue (Minor Collector Road) to better reflect the role and function of these roads within the local area and in a wider context, including connectivity to the neighbouring Port Adelaide – Enfield Council area to the west of the rail lines. As the major carriers of through traffic in the region, these roads are the focus points for traffic concerns at Churchill Road.</p> <ul style="list-style-type: none"> - Raising the Road Hierarchy Categorisation increases the opportunity for Council to advocate DPTI for alterations to the intersections with Churchill Road. - While traffic volumes, speed and commercial vehicle data support the recategorization, the existing land use and road width are at odds with the proposed recategorisation. - Recategorisation should aid in directing future works and funds to these roadways which will continue to carry the bulk of traffic within the local area. - Recategorisation preserves the 50km/h speed limit applied to these roads in the event of a change throughout the local area. 				
Use of LATM Device (Austroads)	Reduce Speeds	Reduce traffic volume	Reduce crash risk	Increase pedestrian safety	Increase bicycle safety
				✓	✓
Intended Outcome	Direct traffic and future works to these major connecting routes, thereby reducing traffic volumes on other local roads and discouraging opportunistic driver behaviour that uses local roads.				
Potential Network Implications	Likely to deter opportunistic driver behaviour, limiting traffic volume growth on parallel routes and along Devonport Terrace.				
Priority	High				

Location 5	Churchill LATM area, possibly all of Prospect Council area				
Public Consultation	High vehicle speeds, particularly on Devonport Terrace, reportedly being used as an alternative to Churchill Road				
Site Observation / Desktop Assessment	No traffic control measures on Devonport Terrace, south of Elizabeth Street				
Road Hierarchy Categorisation	All roadways within the Churchill LATM area are categorised as Local Roads except for Regency Road and border roadways of Churchill Road and Torrens Road				
Alignment with Council Traffic Management Plan Policy Statements	<ul style="list-style-type: none"> • <i>Management of the local road network must balance the needs of all road users</i> • <i>Council will approach traffic management on the basis of a strategic road hierarchy and functional road use.</i> • <i>The selection of traffic control treatments must also be proportional to the significance of the problem being addressed.</i> 				
Recommended Action	<p>Consider implementing 40km/h across all streets in the local area (excluding Pym Street and Belford Avenue based on recommended recategorisation) given local urban and street environment. Needs further consideration, however applies a pragmatic approach to local area traffic management. The following key points have been considered in this recommendation:</p> <ul style="list-style-type: none"> - Creating consistency across the Local Government Area as adjacent suburbs currently apply a 40km/h speed limit - Most local streets (with the exception of Pym St, Boucher Pl and northern section of Devonport Ave) already have 85TH% speeds below 40km/h. - A rapid assessment of the precinct identifies that it generally meets the warrants for the application of a 40km/h environment: http://www.dpti.sa.gov.au/data/assets/pdf_file/0019/40258/2002793-v1-Tass_Publications_40_kph_Precinct_Speed_Limits.PDF 				
Intended Outcome	Encourage slower speed, improve safety for all road users including cyclists and pedestrians				
Use of LATM Device (Austroads)	Reduce Speeds	Reduce traffic volume	Reduce crash risk	Increase pedestrian safety	Increase bicycle safety
	✓		✓	✓	✓
Potential Network Implications	May redistribute traffic to surrounding arterial roadways. Through traffic on Pym St and Belford Avenue unlikely to be affected due to limited affected length of roadway. If Port Adelaide Enfield Council chose to impose a similar limit to these streets, redistribution from these streets may result				
Priority	Low				

Location 6	Churchill LATM area				
Public Consultation	none				
Site Observation / Desktop Assessment	Faded and missing parking control signage				
Road Hierarchy Categorisation	All roads within the LATM area are categorised as Local Roads				
Alignment with Council Traffic Management Plan Policy Statements	<ul style="list-style-type: none"> • <i>Management of the local road network must balance the needs of all road users</i> • <i>Council will approach traffic management on the basis of a strategic road hierarchy and functional road use.</i> • <i>The selection of traffic control treatments must also be proportional to the significance of the problem being addressed.</i> 				
Recommended Action	Replace or repair on-street parking signage				
Intended Outcome	Improved signage for local residents and visitors to provide guidance of parking controls within the Churchill LATM area				
Use of LATM Device (Austroads)	Reduce Speeds	Reduce traffic volume	Reduce crash risk	Increase pedestrian safety	Increase bicycle safety
			✓	✓	✓
Potential Network Implications	Improved traffic operations due to enforceable traffic and parking controls				
Priority	Medium				

Location 7	Boucher Place				
Public Consultation	No report				
Site Visit / Desktop Assessment	Traffic data on Boucher Street shows a high proportion of Commercial Vehicle traffic and 85 th percentile speed above desired maximum. Assessment of traffic data indicates that Boucher Place is likely being used by 'through-traffic' vehicles originating west of the rail line, using Belford Avenue, Devonport Terrace to avoid Churchill Road and intersection delays at Belford Ave/Churchill Road intersection.				
Road Hierarchy Categorisation	Local Road				
Alignment with Council Traffic Management Plan Policy Statements	<ul style="list-style-type: none"> • <i>Management of the local road network must balance the needs of all road users</i> • <i>Council will approach traffic management on the basis of a strategic road hierarchy and functional road use.</i> • <i>The selection of traffic control treatments must also be proportional to the significance of the problem being addressed.</i> 				
Recommended Action	<p>Option 1 – located on the northern side of the Devonport Tce and Belford Ave intersection, install a threshold pavement treatment similar to that on Devonport Terrace at Pym Street. Simple, cost efficient solution that does not require removal of existing traffic management (speed hump) measures. Preferably accompanied by introduction of 40km/h speed limit on local streets to deter opportunistic driver behaviours.</p> <p>It is then required to monitor the impact of this recommendation, before considering the installation of a flat-top road hump on Boucher Street to address CV volumes, speed, and opportunistic drivers.</p> <p>Option 2 – Table-top located at northern edge of intersection – likely more effective at deterring traffic movements from Belford to Devonport but costlier, requires removal of the existing speed hump and is preferably accompanied by extension of the separated bike path through the intersection.</p>				
Intended Outcome	Reduced speed, discourage non-local traffic				
Use of LATM Device (Austroads)	Reduce Speeds	Reduce traffic volume	Reduce crash risk	Increase pedestrian safety	Increase bicycle safety
	✓	✓			
Potential Network Implications	Through traffic is deterred from using local streets, increasing traffic loadings on Belford Avenue in line with recategorisation of this roadway to Minor Collector status. This in turn provides greater demand for DPTI led amendments to the Churchill Road intersection.				
Priority	Medium				

Location 8	Elizabeth Street, Devonport Terrace & Belford Avenue at Charles Cane Reserve / Parndo Yerta				
Public Consultation	Existing access and parking issues on Devonport Terrace and Elizabeth Street on game days				
Site Observations / Desktop Assessment	<p>Site observation on Saturday 25/6/16 showed extensive on-street parking on Devonport Terrace, Elizabeth Street and Belford Avenue but did not show any parking behaviour that presents a safety concern or causes problematic traffic circulation limitations</p> <p>M-F parking in Elizabeth Street linked to local businesses, no pavement marking or parking control signs. Pavement marking on Belford Avenue faded or missing.</p>				
Road Hierarchy Categorisation	Devonport Terrace – Local Road Elizabeth Street – Local Road Belford Avenue - Local Road				
Alignment with Council Traffic Management Plan Policy Statements	<ul style="list-style-type: none"> • <i>Management of the local road network must balance the needs of all road users</i> • <i>Council will approach traffic management on the basis of a strategic road hierarchy and functional road use.</i> • <i>The selection of traffic control treatments must also be proportional to the significance of the problem being addressed.</i> 				
Recommendations	Upgrade pavement marking on Belford Avenue. Install 'No Stopping' yellow pavement marking on Elizabeth Street for 6 metres on the approach to Churchill Road. Alter signage to allow parking on the northern side of Belford Avenue while maintaining 'No Parking' on the southern side.				
Intended Outcome	Improved traffic conditions, better control for parking				
Use of LATM Device (Austroads)	Reduce Speeds	Reduce traffic volume	Reduce crash risk	Increase pedestrian safety	Increase bicycle safety
			✓	✓	✓
Potential Network Implications	Improved traffic movements due to the removal of a turning movement restriction and potential hazard				
Priority	Medium				

Location 9	Western side of Devonport Terrace alongside Ovingham station				
Public Consultation	Uncontrolled parking, no pavement markings or signage to control parking on Devonport Terrace				
Site Observations or Desktop Assessment	<p>No signage or pavement marking observed on Devonport Terrace in the area identified.</p> <p>The roadway is 5.7m wide, insufficient for two parked cars and a travel lane.</p> <p>Devonport Terrace is a No Through Road south of Avenue Road</p>				
Road Hierarchy Categorisation	Local Road				
Alignment with Council Traffic Management Plan Policy Statements	<ul style="list-style-type: none"> • <i>Management of the local road network must balance the needs of all road users</i> • <i>Council will approach traffic management on the basis of a strategic road hierarchy and functional road use.</i> • <i>The selection of traffic control treatments must also be proportional to the significance of the problem being addressed.</i> 				
Recommendations	<p>Install 'No Stopping' yellow pavement marking on the western side of Devonport Terrace where kerb and gutter is installed near Ovingham Station.</p> <p>Turnaround areas also need yellow pavement marking to strengthen mandatory 'No Stopping' control.</p>				
Intended Outcome	Restricting parking to the eastern side of the road maintains access to driveways while maintaining a single travel lane. Driveways also provide passing space if required.				
Use of LATM Device (Austroads)	Reduce Speeds	Reduce traffic volume	Reduce crash risk	Increase pedestrian safety	Increase bicycle safety
	✓		✓	✓	✓
Potential Network Implications	<p>Improved traffic movement</p> <p>Actions to be considered as part of a proposed Devonport Terrace Masterplan include lighting, parking, drainage, vegetation, railway fencing</p>				
Priority	Medium				

Location 10	Vegetated screen between Devonport Terrace and Rail Reserve				
Public Consultation	More trees and shrubbery requested along street. Especially along railway side, would like to see more protection from the trains				
Site Observation / Desktop Assessment	Vegetation is inconsistent, dense in some areas and very sparse in others. Trimming was observed during a site visit and appears to occur reasonably frequently, extensive, deep vegetation, particularly fallen pine needles on the verge and roadway. Spoon drain on western edge of Devonport Terrace completely obscured with vegetation. Fencing for rail reserve very light, will not prevent persons accessing rail lines, allows for uncontrolled movements across rail				
Road Hierarchy Category	Devonport Terrace - Local Road Rail Reserve is under the auspices of PTSD				
Alignment with Council Traffic Management Plan Policy Statements	<ul style="list-style-type: none"> • <i>Management of the local road network must balance the needs of all road users</i> • <i>Council will approach traffic management on the basis of a strategic road hierarchy and functional road use.</i> • <i>The selection of traffic control treatments must also be proportional to the significance of the problem being addressed.</i> 				
Recommended Action	Consider additional planting and more regular and comprehensive street cleaning, especially along section of spoon drain.				
Intended Outcome	Better street environment, safer streets, safer rail corridor, better cycling amenity. Vegetation is seen as a preferred option for access control and sound mitigation than high-level fencing				
Use of LATM Device (Austroads)	Reduce Speeds	Reduce traffic volume	Reduce crash risk	Increase pedestrian safety	Increase bicycle safety
			✓	✓	✓
Potential Network Implications	<p>Increased useable road width in Devonport Terrace creates better traffic flows. Improves conditions for cyclists using this section of the Gawler Greenway</p> <p>Actions to be considered as part of a proposed Devonport Terrace Masterplan include lighting, parking, drainage, vegetation, railway fencing</p>				
Priority	High				

Location 11	Devonport Terrace, west side, interface with rail reserve				
Public Consultation	Dumping of hard rubbish along our section of the train line				
Site Observation / Desktop Assessment	No dumping noted but “No Dumping” signs observed on the western side of Devonport Terrace, north of Pym Street. While this is not a road and traffic issue, litter can become a safety concern, particularly for cyclists and pedestrians, is generally unsightly and reduces the appeal of the neighbourhood.				
Road Hierarchy Category	Local Road				
Alignment with Council Traffic Management Plan Policy Statements	<ul style="list-style-type: none"> • <i>Management of the local road network must balance the needs of all road users</i> • <i>Council will approach traffic management on the basis of a strategic road hierarchy and functional road use.</i> • <i>The selection of traffic control treatments must also be proportional to the significance of the problem being addressed.</i> 				
Recommended Action	Consider installation of additional “No Dumping” sign to be installed where vegetation is sparse and dumping is occurring				
Intended Outcome	Improved neighbourhood appearance, reduced litter, improved safety for road users, pedestrians and residents				
Use of LATM Device (Austroads)	Reduce Speeds	Reduce traffic volume	Reduce crash risk	Increase pedestrian safety	Increase bicycle safety
			✓	✓	✓
Potential Network Implications	<p>Reduction of hazardous materials and potential injury risks</p> <p>Improved street lighting and trimming of vegetation around lights will reduce “dark spots” and increase passive surveillance, deterring dumping.</p> <p>Actions to be considered as part of a proposed Devonport Terrace Masterplan include lighting, parking, drainage, vegetation, railway fencing</p>				
Priority	Medium				

Location 12	Devonport Terrace, speed humps and cycle paths				
Elected Members	Accumulation of leaf litter alongside road humps (Belford Avenue to Boucher Place) due to inaccessibility for street sweeping vehicles.				
Site Observation / Desktop Assessment	Bicycle lanes alongside road humps are not able to be cleaned by street sweeping vehicles due to protective bollards installed to prevent vehicles from suing this space to avoid speed humps. The resulting build-up of leaf litter in these areas becomes a hazard to cyclists, discourages use of bicycle priority infrastructure, obstructs stormwater flows and is unsightly.				
Road Hierarchy Category	Local Road				
Alignment with Council Traffic Management Plan Policy Statements	<ul style="list-style-type: none"> • <i>Management of the local road network must balance the needs of all road users</i> • <i>Council will approach traffic management on the basis of a strategic road hierarchy and functional road use.</i> • <i>The selection of traffic control treatments must also be proportional to the significance of the problem being addressed.</i> 				
Recommended Action	<p>Improved maintenance practices including use of leaf blowers & brooms to clear affected sections ahead of street sweepers. Ongoing monitoring, particularly during heavy leaf fall seasons.</p> <p>Note this demand is largely seasonal and similar behaviour has been observed in cleaning footpaths. The affected area is unique in the Council area and is due to the presence of the Gawler Greenway.</p> <p>A secondary solution is to extend the Watts Profile speed humps to the edge of the gutter line and remove the cyclist facility. This will improve the access for street sweeping vehicles but removes priority and reduces comfort for cyclists accessing the Gawler Greenway route.</p> <p>Additional treatment options utilising built infrastructure were abandoned due to the extent and cost of solutions to both solve leaf litter problems and retain cycling priority along the Gawler Greenway.</p>				
Intended Outcome	Better street environment, better cycling amenity.				
Use of LATM Device (Austroads)	Reduce Speeds	Reduce traffic volume	Reduce crash risk	Increase pedestrian safety	Increase bicycle safety
			✓		✓
Potential Network Implications	Improves conditions for cyclists using this section of the Gawler Greenway. Increased usage of cycling infrastructure and improved safety for cyclists by reducing conflicts with other road users				
Priority	High				

Attachment

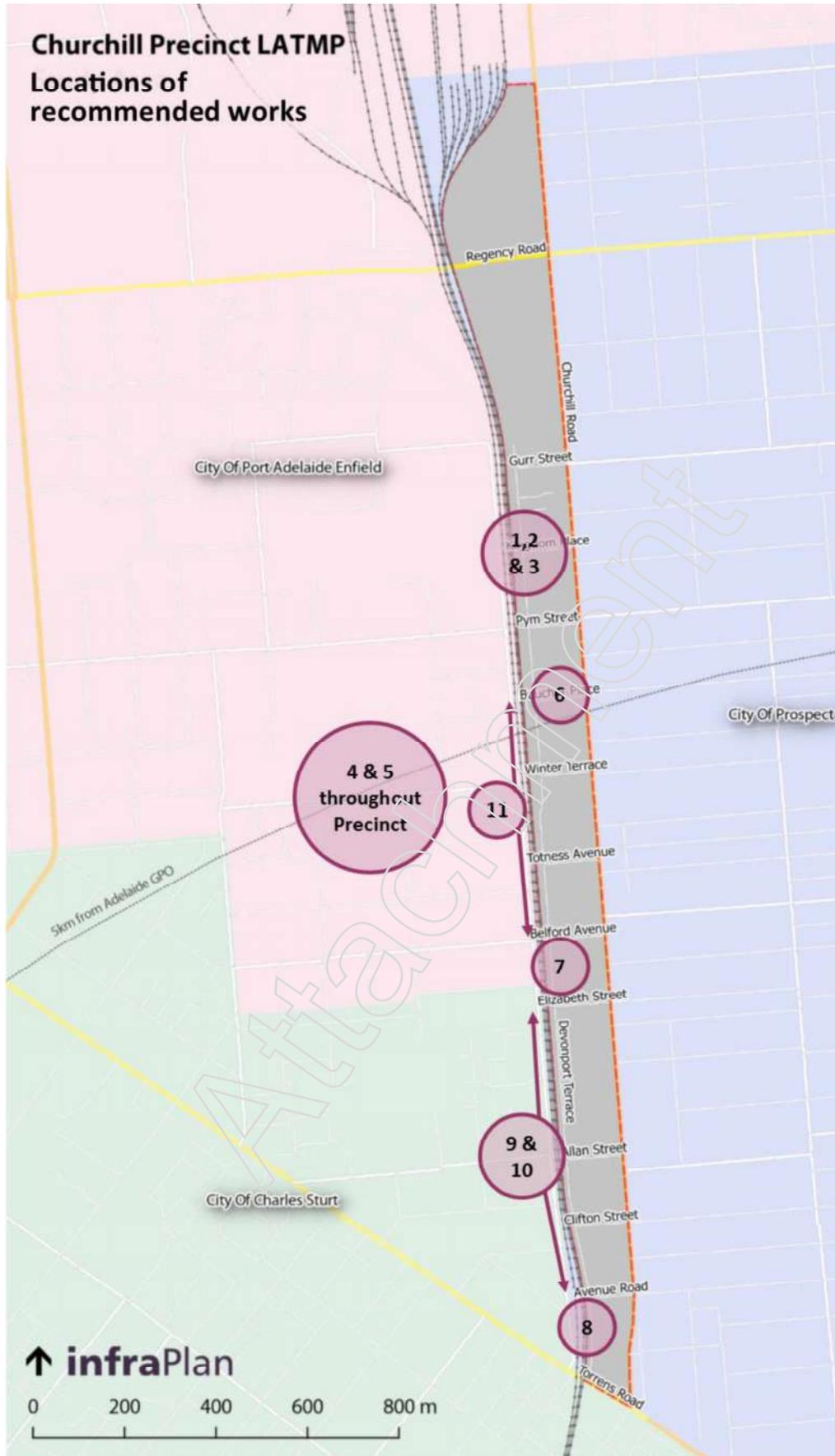


Figure 19 Location map for infraPlan recommendations

7.2 Issues for Engagement With and Advocacy To Others (primarily DPTI)

Pym Street

It is known that the Department of Transport has, over many years, considered possible works to address concerns with Pym Street regarding the level crossing of the Gawler passenger and Freight lines and the intersection at Churchill Road. Site observations showed that large volumes of heavy vehicles use this roadway to access local industrial precincts in the City of Port Adelaide Enfield from Churchill Road.

The recommendation to upgrade the categorisation of Pym Street to a Minor Collector Road acknowledges the elevated traffic and heavy vehicle volumes and use of Pym Street as a through road to endorse and support Council advocacy for improved road treatments of Pym Street and upgraded intersection arrangements.

In the absence of detailed investigations and designs of the intersection, it is recommended that solutions including road widening of Pym Street to allow multiple lane approaches, signalisation of the intersection and improved turning allowances for heavy vehicles entering Pym Street be considered. This is likely to require relocation of the Stobie pole and 66kV power lines located at the north-western corner of the intersection and is also likely to force amelioration works on the level crossing at the western end of the City of Prospect section of Pym Street.

It should be noted that existing traffic volumes on Churchill Road are temporarily exaggerated due to works on South Road. This increases the observed problems around intersections with local roads in the study area, particularly those at Pym Street and Belford Avenue. Observations for this project were taken prior to these works commencing and therefore the associated concerns are not the result of changed traffic conditions during South Road roadworks. However, it is also worth noting that at the completion of the Torrens to Torrens upgrade of South Road, Churchill Road traffic volumes are anticipated to fall, possibly below levels recorded prior to the upgrade works commencing.

DPTI cannot be expected to engage in non-essential works to Churchill Road while works are in progress on South Road. Re-evaluation of operations and traffic volumes at Pym Street / Churchill Road intersection should be undertaken once the South Road works are complete and traffic behaviour impacts have settled.

Pedestrian fencing for rail crossing at Pym Street

One local resident made mention of the fencing that was installed in 2016 parallel to the northern kerb on Pym Street within the Rail Reserve to prevent pedestrians from entering the roadway. While this fence is a permeable structure, it was observed during a site inspection that when viewed at an acute angle, the vertical elements obscure visibility along Pym street to the west, affecting drivers approaching Pym Street, southbound on Devonport Terrace. It is recommended that Council advocate DPTI to realign this fence to provide greater visibility for these motorists, reducing the crash risk at the intersection.

Belford Avenue

InfraPlan encourage Prospect City Council to advocate DPTI to investigate intersection widening at Belford Avenue to create two approach lanes eastbound to Churchill Road. This will separate left- and right-turn movements exiting Belford Avenue to Churchill Road, improving traffic flows from Belford Avenue and reducing opportunistic driver behaviour using parallel local streets.

Pedestrian crossings of Churchill Road near Ovingham Station

Rail passengers from Ovingham Station, including many school children were observed making uncontrolled crossings of Churchill Road near Avenue Road. There is no pedestrian crossing amenity provided in this area and medians are painted only, offering no shelter or protection for pedestrians. We recommend that Council advocate to DPTI to provide a crossing facility in this area as a pedestrian desire line has been identified.

Electrification of Gawler Passenger Rail Line

Prospect City Council supports the position of state government in pursuing the electrification of the Gawler passenger rail line. It is understood that such an upgrade comes with necessary improvements and changes to the rail corridor including extensive fencing around the high-voltage rail environment.

Station upgrades

It is noted that the three passenger rail stations in close proximity to the local area, Ovingham, Dudley Park and Islington, are among the worst rated and most poorly patronised stations on the Adelaide Rail Network. Prospect City Council supports upgrades to station amenity including shelters, wayfinding and passenger information at these stations, with or without electrification of the rail line.

Council advocate to have Ovingham, Dudley Park and Islington stations added to the State Government [Stations Upgrade Program](#):

“DPTI's Station Upgrade Program continues to upgrade selected stations along metropolitan passenger rail lines to provide safer and more efficient services for train customers. Upgraded stations include Elizabeth, Elizabeth South, Chidda, Evanston, Parafield, Munno Para, Gawler, Hallett Cove and Hallett Cove Railway Stations.

Improved facilities for commuters include new shelters, improved lighting, platform furniture, additional cover, improved access, pedestrian crossings, bike enclosures, additional CCTV camera, new access paths and ramp along with new car parking facilities. All improvements focus on accessibility that is in line with the DDA (Disability Discrimination Act) for public transport services.”

Islington Train Station access

The brief for the 250 Churchill Road development includes requests for improvements to public transport access, and facilities including improvement to lighting and access paths. The latter is of interest for Council in the short term to improve access and amenity for passengers utilising this station.

The Council does not have jurisdiction to require a Park'n'Ride facility as part of a new development on the 250 Churchill Road site. InfraPlan also question if this is the highest and best use of land in this location given the likely indirect nature of traffic movements through this future development site. Future planning for any such facility, including amendments to station access and surroundings would need to be considered as part of overall planning for the redevelopment of the 250 Churchill Road site.

Appendix A

Definitions and Abbreviations

AADT = Average Annual Daily Traffic

TCD = Traffic Calming Device

LATMP = Local Area Traffic Management Plan

VPD = Vehicles per Day

Council = City of Prospect

DPTI = Department of Planning, Transport and Infrastructure

PTSD = Public Transport Services Division (of DPTI)

ITLUP = Integrated Transport and Land Use Plan (of DPTI)

Attachment

Appendix B

Community Consultation

Item No.	Location or Street	Issue	Suggested Solution (by resident)	Response (InfraPlan)	NOTES
1	Devonport tce and Kingdom pl	traffic avoiding Pym and Churchill intersection speeding over speed humps and dangerously cutting the Kingdom Pl corner completely on the wrong side of Road without good vision into Kingdom Pl, at times nearly causing head on collisions.	police traffic observation and some sort of barrier to discourage corner cutting	Install pavement bar in Kingdom Place to control turning movements and reduce speeds. Future improvements to Pym St intersection should reduce this movement.	Observed 7.6.16 AM
2	Kingdom place	traffic parking too close to the left hand side, facing the train line	on both sides and parking too close to devonport tce.	Install line marking on Kingdom Place to provide 6m clearance from intersection. If pavement bar installed, line marking required on both sides to provide clearance	Observed 7.6.16 AM
3	Kingdom place.	traffic turning right from devonport tce into kingdom place	stop right hand turns altogether from Devonport	None Banning R turn movements will only relocate them to other local streets in the attempt to access arterial routes. Rat run is a small proportion of current vehicle loads at level crossing, no reason to deny this movement under current arrangements. Proposed controls should ameliorate safety concerns. See Item 1.	Although there appears to be a degree of through traffic using Kingdom Place, the traffic volumes are still within the acceptable thresholds as per the Prospect Traffic Management. Observed 7.6.16 AM
4	Totness Street	traffic banking up for turns to Churchill Road	no right turn to Churchill Road	None Not observed during AM peak, traffic levels considered acceptable. No recommendation to ban turning movements as per Item 3	Observed 7.6.16 AM
5	Belford Street	Traffic banking up for turns to Churchill Road	no right turn to Churchill Road	None Not observed during AM peak, traffic levels considered acceptable. No recommendation to ban turning movements as per Item 3	Observed 7.6.16 AM
6	Churchill Rd	trying to access Churchill Rd from Devonport Tce - traffic is a constant stream there is no break in traffic for local residents to access priority road	move the traffic away from this road	Issue to be communicated to DPTI (Churchill Road is departmental concern), recommend improvements to median shelter to better accommodate 2-stage turning.	Churchill road a 2 lane in both directions: this accords with the short to medium term duplication of Churchill Road as identified in ITLUP. Providing additional or wider shelter? Appears that 2-stage movements are thought unsafe or not preferable based on previous advice given for other locations. Observed 7.6.16 AM

Item No.	Location or Street	Issue	Suggested Solution (by resident)	Response (InfraPlan)	NOTES
7	Entire Churchill Rd	Peak hours Traffic Congestion - Road works and construction work slowing traffic during peak hour.	Carry out these works outside Peak times and make Churchill Road two lanes (All the new paving/side walks narrowed road to one)	Issue to be communicated to DPTI (Churchill Road is departmental concern). Note road works and construction are short-term items with limited impacts.	Not a local road, therefore outside the scope of Councils jurisdiction: although Churchill road becoming a 2 lane in both directions: this accords with the short to medium term duplication of Churchill Road as identified in ITLUP. Observed 7.6.16 AM
8	Churchill road	I love what you have done along churchill road with all the upgrades of the pavement and it is looking really nice however it is becoming a major road now and the single lane does cause a lot of traffic build up. it does make it also especially hard to turn out to the right along the road as the traffic is so congested.	either more turn lanes you can pull in to or making the road two lanes.	Issue to be communicated to DPTI (Churchill Road is departmental concern), recommend improvements to median shelter to accommodate improved 2-stage turning.	Not a local road, therefore outside the scope of Councils jurisdiction: although Churchill road becoming a 2 lane in both directions: this accords with the short to medium term duplication of Churchill Road as identified in ITLUP.
9	all streets accessing Churchill between Regency and Torrens	unable to turn right and left is difficult too, causing residents to choose left then next right and travel thru side streets to come back to churchill rd and turn left again onto Churchill.	??? making side streets busier	Issue to be communicated to DPTI (Churchill Road is departmental concern); recommend improvements to median shelter to accommodate improved 2-stage turning.	Observed 7.6.16 AM
12	Torrens Rd turn onto Churchill Rd	Can't see onto Churchill Rd when trying to access. Large passenger vehicles (eg 4WD, SUVs) block visibility when turning to Churchill Road	not sure	This is a DPTI roadway and is outside the scope of this project.... Parking is provided and designed to DPTI standards as this was a recent road upgrade. Requires ongoing observation and controls if necessary.	This is a DPTI roadway and is outside the scope of this project.... Observed 7.6.16 AM
10	Churchill Rd	inadequate pedestrian crossovers - bus passengers have to run through the traffic Particularly noted at southern end, near Ovingham Train Station	More pedestrian crossovers (a simple safe zone in the traffic island is enough - so not expensive)	Investigate opportunities to install more median shelters in areas where only painted medians exist. Issue to be communicated to DPTI (Churchill Road is departmental concern).	agree - requires investigation (for best location/need), however this is outside the responsibility of Council and DPTI will be required to implement... Observed 7.6.16 AM
	Churchill Rd pedestrian access				

Item No.	Location or Street	Issue	Suggested Solution (by resident)	Response (InfraPlan)	NOTES
11	Torrrens Rd turn onto Churchill Rd	2 lanes go into 1 - bottleneck of traffic - dangerous	not sure - but wait till that block is sold and 17 apartments are put on that corner	This is a DPTI roadway and is outside the scope of this project. Observed 7.6.16 AM	This is a DPTI roadway and is outside the scope of this project. Observed 7.6.16 AM
13	Devonport Tce	Calming devices and Reflectors	Provide decent speed humps and get rid of reflectors which are continually damaged and nothing gets done unless brought to the attention of Council	NoneReflectors appear to have been recently upgraded to units with spring bases, resisting breakage when driven over. Assessed control devices, these work well as slow point (single lane) and provide room for Gawler Greenway cycling facilities to avoid humps. Cycle paths need regular clearing of vegetation etc	Observed 7.6.16 AM
14	65 Devonport Terrace	our section of devonport Terrace from Elizabeth street (next to the oval) all the way down to torrens road is used for by cars to speed down and quickly avoid congestion on churchhill road	Speed humps would assist in stopping cars speeding down but there isnt much signage around what the speed limit is. maybe some more 40kmph signs.	This traffic is local traffic or construction vehicles for local sites only - access limitations define this. Recommend investigation of 40km/h zone.	recommendation: consider implementing 40km/h across all streets in the local area (if not the whole LGA); given narrow streets in the local area this may be a relevant treatment option. Needs further consideration, however applies a pragmatic approach to local area traffic management. also NOTE - the Tonkins report for the adjacent LATM also recommended the application of a 40km/h precinct http://www.adelaidenow.com.au/messenger/northeast/prospect-streets-could-be-40kmh-if-the-council-goes-with-suggestions-in-tonkins-traffic-report/news-story/2fc6ebf3aec60d765a1fc5a0ad374f1 Observed 7.6.16 AM
15	Devonport Tce	Speed	Reduce speed limit along the whole street to stop vehicles speeding through calming devices.	Recommend investigation of 40km/h zone	recommendation: consider implementing 40km/h across all streets in the local area (if not the whole LGA); given narrow streets in the local area this may be a relevant treatment option. Needs further consideration, however applies a pragmatic approach to local area traffic management. also NOTE - the Tonkins report for the adjacent LATM also recommended the application of a 40km/h precinct http://www.adelaidenow.com.au/messenger/northeast/prospect-streets-could-be-40kmh-if-the-council-goes-with-suggestions-in-tonkins-traffic-report/news-story/2fc6ebf3aec60d765a1fc5a0ad374f1

Item No.	Location or Street	Issue	Suggested Solution (by resident)	Response (InfraPlan)	NOTES
16	Devonport Terrace	Non local drivers speeding (to avoid Churchill Rd congestion). Many families with children live on this street (us included) and it's not safe	Speed humps on Devonport Tce (between Elizabeth St & Allan St). Make Devonport Tce a 40km zone! Put lots of signs up.	Recommend investigation of 40km/h zone No apparent requirement for control devices, no evidence of speed problems from Traffic Survey data	through traffic volumes do not seem significant. recommendation: consider implementing 40km/h across all streets in the local area (if not the whole LGA); given narrow streets in the local area this may be a relevant treatment option. Needs further consideration, however applies a pragmatic approach to local area traffic management. also NOTE - the Tonkins report for the adjacent LATM also recommended the application of a 40km/h precinct also NOTE - the Tonkins report for the adjacent LATM also recommended the application of a 40km/h precinct Observed 7.6.16 AM
17	All streets covered in the survey	On street parking	It is an issue that is only going to get worse and there needs to be some designated no parking areas in all streets.	None Parking on both sides of local streets should be allowed provided that there is sufficient width to allow a vehicle to pass. This actually provides a favourable outcome for traffic calming	No observed indication that on-street parking is causing undesirable obstruction to traffic flow or safety concerns Observed 7.6.16 AM
18	Winter Terrace	Parking will be a problem when the next two lots of apartments are completed	parking one side only	None 7m wide roadway allows for two parked cars and a travel lane between. Reduction in on-street parking not desirable, parked cars serve as passive traffic control measures and reduces traffic demand Site requires ongoing observation, especially if corner block (Churchill Rd) is approved for development	Observed 7.6.16 AM
19	Allan St	Construction has closed this road or almost no access for months and there's more construction to come. Where are the new residents (there is only one carpark space) for the newly built units going to park in this street? It is too narrow and congested.	Parking bays added.	To re-visit after 6pm to assess parking demand. It appears that vehicles parked on-street may belong to local residents. All properties have off-street parking but not being utilised. Observed on-street parking supply is deemed to be sufficient.	No capacity to introduce parking bays in verges or footpath space. Observed 7.6.16 AM
20	Allan St	Multiple new apartments placed on small side street - potentially at least another 30 odd cars trying to access Churchill Rd from sidestreets		See above	

Item No.	Location or Street	Issue	Suggested Solution (by resident)	Response (InfraPlan)	NOTES
21	Devonport Terrace	There is not really any indication of where people are meant to park in our area. Again from elizabeth street through to torrens road section of devonport has no markings of where to park. In front of the houses is fine but when people park along the railway side where all the trees are then it is hard to get through the cars.	Better indication of where to park. yellow lines marked on the road. also possibly creating parking areas along the train side as well. i do like the bike lines that you have put up next to the oval. if you could somehow continue that all the way along to torrens road you could also create parking bays along the train side	Recommend yellow line marking on western side where kerb is installed near Ovingham Train Station - road in 5.7m wide here, sufficient only for a single parked car and travel lane. Needs yellow markings around turn around areas. Improvements to cycling environment should include regular street sweeping and clearing of fallen vegetation within verge. This will also provide additional / improved parking conditions Extension of treatment at Charles Cane Reserve will limit Devonport Terrace to one-way. This is not a desirable or warranted traffic control measure	consider yellow line marking in some locations, especially where new developments have occurred. Observed 7.6.16 AM
22	Devonport Terrace	Parking on both sides of street making thoroughfare difficult	A yellow 'no parking' line on the railway side of the road, ensuring parking only on one side. Especially between Elizabeth St & Allan St	None	parking behaviour and yellow need to be investigated. Observed 7.6.16 AM
23	Charles Cane Reserve / Parndo Yerta	Existing access and parking issues on Devonport Tce and Elizabeth Street on game days (weekends). Concerns this will be exacerbated by new apartments being developed nearby		Disagree with this request. Passive traffic calming created by parked cars, sufficient width if parked cars are partly on the verge. Note no kerbing on the western side of Devonport Tce, spoon drain only. Requires more regular street cleaning.	First observation 7.6.16 AM Observed 7.6.16 AM
				First observation 7.6.16 AM Site observation on Saturday 25/6/16 showed extensive on-street parking on Devonport Terrace, Elizabeth Street and Belford Avenue but did not show any parking behaviour that presents a safety concern or causes problematic traffic circulation limitations. No observed need for additional parking restrictions. This appears to be a well-used community facility being utilised as intended. M-F parking in Elizabeth Street linked to local businesses, no line markings; parking control signs and line marking on Belford Avenue faded or missing	First observation 7.6.16 AM

Item No.	Location or Street	Issue	Suggested Solution (by resident)	Response (InfraPlan)	NOTES
24	Churchill Rd Resident parking	I am assuming that most of the multi story apartments have only one car parking space per unit? what happens to 2 car residents and visitors to the units? the side streets are already getting busy not to mention the many hundred new residents to come.	????	None Adequate on-street capacity under existing conditions - it appears a number of local residents currently park on the street rather than using off-street parking where driveways are available. Parking provisions for apartments (off-street) accords with the Development Plan, additional parking demands will negate ability to house all parking at ground level, likely to result in additional parking on street. Elevated parking floor not desirable for local area.	Observed 7.6.16 AM
25	Pym Street intersection /Devonport Tce	Congested when there is a train & difficult to turn right into Devonport Tce.	Not sure	Follow up on enquiries with DPTI re ongoing works on level crossing, Pym St / Churchill Road intersection etc	need to check the design that DPTI is currently pursuing for this crossing, and see if it will have any bearing on the intersection. Also, site observations will be required. Observed 7.6.16 AM
26	Pym st rail crossing	right turn from Devonport Tce unable to see street west of crossing for pedestrian fence	move fence north about a metre to enable drivers to see and not have to move forward over stop line into oncoming traffic	Address to DPTI - recommend that fence be set at an angle, fence is not visually permeable when viewed at an acute angle such as from a car stopped at the intersection on the northern approach.	consultation and comment needs to be sought from DPTI - understand there is some plans in process. Observed 7.6.16 AM
27	Pym and Churchill	turning onto Churchill from Pym, trucks unable to turn left if vehicles waiting to turn right from Churchill onto Pym causing traffic to bank up or use Devonport tce at speed as well.	traffic calmer's have been installed on Devonport tce but increased traffic is still a big issue - move large power pole corner Churchill and Pym to allow left turning lane, there is room in front of units.	DPTI; major electrical infrastructure etc. Intersection in need of re-evaluation and re-design	signalisation warrants investigation. But outside the scope of this study. Investigate if widening is being looked at - significant number of heavy and long vehicles requiring additional turning room - hence turning vehicles restrict movements Observed 7.6.16 AM
28	Pym Street	Major traffic build up with semi trailers and car traffic	no semis north of railway line	Semis related to local business. Is there a feasible alternate route? Intersection in need of re-evaluation and re-design	Observed 7.6.16 AM
29	Railway line	insufficient pedestrian crossing points	more pedestrian crossing points	To be addressed to DPTI and Rail group	Observed 7.6.16 AM
Pym st capacity & intersections					

Item No.	Location or Street	Issue	Suggested Solution (by resident)	Response (InfraPlan)	NOTES
30	Devonport Tce	Too narrow to allow trucks for construction on this road and disadvantages the local residents to get out onto a very busy Churchill road on any of the street exits. Please don't disadvantage us any more than what already exists.	No access of trucks on Devonport Tce. Widen Devonport Tce to make it a 2 way road. Think like a local resident. Make it more accessible to use the road by not putting in any slow points, change of directions or any restrictions on the road and allow room for all road users trucks excluded.	None These trucks are related to local construction activity and require site access. Devonport Tce access is required to allow for truck movements back to Churchill Road	Devonport Terrace traffic volumes insufficient to warrant widening, insufficient width for two lanes without encroaching on Commissioner of Railways land (DPTI rail corridor) and in any case would only increase through traffic. A preferable approach is to increase the capacity on Churchill Road (as per ITLUP) If trucks accessing Devonport Tce are doing so due to local construction works, it may not be logistically possible to limit access due to confined local network Observed 7.6.16 AM
31	Devonport Tce	Non local traffic parking and using Devonport Tce due to increased construction work on Churchill Road	Local traffic only' signs	as above	Traffic volumes seem to suggest that this is not a significant issue, and the traffic volumes are within tolerable levels. However north of Pym street there appears to be more of this occurring: Possible recommendation of putting road humps on Gurr and Kingdom. If traffic is a result of construction activity then traffic would be considered 'local' during construction period. Observed 7.6.16 AM
32	Churchill Road, rail corridor - Public Transport services	Public transport is always full		Check with DPTI on PT patronage from the area. Discuss PT service provision, frequency etc	Public Transport is a State Government controlled service and therefore beyond the scope of Prospect City Council and this study DPTI role to assess PT service adequacy - interesting to note other comment stating PT is non-existent, preventing use by new residents.
33	All off Churchill Rd	Hundreds of apartment residents adding to congestion - they will not access public transport cause it's near non-existent	stop the apartments - use Braund Rd more, use Main North Rd more - also build bridge over Ovingham Torrens Rd train line so traffic can move and not cause morning and evening grid lock	as above - note Braund Road, Main North Road and Torrens Road are all beyond the scope of this project. Braund and Main North Roads are also a long way from this location - not reasonable alternative routes for local residents or visitors to the precinct.	infill accords with 30-Year Plan, Council Strategic Plan and Development Plan. The growth to date is within tolerable thresholds, but needs continuing review. Duplication of Churchill road may relieve this pressure (as planned for in ITLUP). Revision of PT (DPTI responsibility) if service inadequate Note Torrens Road intersection is a DPTI intersection and is outside the scope of this project. To investigate and ask for clarification from DPTI: MASTEM outputs tend to suggest that there will be a long term reduction of traffic on Churchill Road. This is likely a response to completion of the north south corridor. Observed 7.6.16 AM
	non-local & construction traffic				
	Public transport				

Item No.	Location or Street	Issue	Suggested Solution (by resident)	Response (InfraPlan)	NOTES
34	Devonport Tce	More trees and shrubbery needed along street. Especially along railway side	Plant some please	Agreed, recommend increased and improved plantings to screen rail corridor and improve Devonport Terrace amenity	Appears all vegetation is on council land, however may need to investigate if some is within DPTI corridor. Observed 7.6.16 AM Council staff trimming vegetation along rail corridor
35	Devonport tce	would like to see more protection from the trains. the fence we have is quite small on our side of the train tracks. people are constantly crossing over the train lines which is very dangerous but also would like to see something put up that could mitigate the sound	if we had a high sound proof fence along devonport terrace from elizabeth street through to the station at torrens road then it would also allow you to redo that area and probably remove a lot of the trees. you could then create more parking bays on that side and plant trees at intervals along the train line.	In South Australia, the responsibility for managing transport noise is shared by homeowners and Local, State and Federal Governments. Local Councils use traffic calming measures, such as round-a-bouts and speed humps, to discourage traffic from entering residential areas, and use planning and zoning provisions to ensure new residential areas are protected from noisy road and rail corridors. The Department of Planning, Transport and Infrastructure (DPTI) undertakes noise mitigation when constructing new or substantially upgraded roads or railways adjacent to areas that are sensitive to noise. DPTI's Road Traffic Noise Guidelines (http://www.dpti.sa.gov.au/standards/environment) outline the circumstances where noise mitigation is considered. Supplementary to this a document which may be useful to reducing the rail noise impact has been released by DPTI, and provides some design methods for homeowners consideration http://www.dpti.sa.gov.au/__data/assets/pdf_file/0006/80079/DOCS_AND_FILES-6043816-v5-Environment_-_Noise_-_DPTI_Noise_Mitigation_Fact_sheet_for_community_for_standard_r.pdf The State Government maintains the position in its policies that noise mitigations works will only be undertaken when implementing new or significantly upgrading existing transport infrastructure: Given the potential for the Gawler line to be electrified in the short term (as per the State Governments Integrated Transport and Land Use Plan, 2013) there is the potential to implement the necessary noise reduction treatments, such as rail corridor barriers. Rail corridor barriers will provide a higher degree of noise mitigation when located as close as possible to the rail line. They will also perform better when the receivers are close to the rail corridor and the barrier, as would commonly occur in suburban areas. Recommendation: liaise with DPTI in the process of upgrading (electrifying) the Gawler Rail Line to investigate the need for/possibility of implementing noise barriers along the rail corridor, taking into consideration the preferred barrier placement, appropriate barrier design and materials, urban design (CPTED) principles and other public considerations. Secondary Recommendation: request DPTI undertake a rail crossing safety audit to ensure that the current crossing points meet standards, and ensure that proper usage by pedestrians across the rails line are being met. OR seek to investigate the opportunity for improved fencing along the rail corridor to match the fencing on the western side of the rail corridor.	
36	Devonport Tce near Cane Reserve one way section	Confusing exit and entry point here with share arrows and bike riders and pedestrians. Dangerous section for users of vehicles approaching South on Devonport Tce due bushes in the way. Blocks view of oncoming traffic coming from Elizabeth St	Clear the bushes.	None Evidence of the removal of one plant near the fence line, no observed sight-line concerns near this intersection	Observed 7.6.16 AM
37	Devonport Terrace	Ugly, it'd be great if some of the revenue increase from all of the new dwellings / apartments could be spent on upgrading / beautifying Devonport Terrace and verges		Devonport Terrace spoon drain needs more attention and regular cleaning - observed deep pine needle collection in verges.	Additional and improved plantings on rail side. Formalise kerb on rail side, upgrade to better indicate Gawler Greenway link in this street Observed 7.6.16 AM

Item No.	Location or Street	Issue	Suggested Solution (by resident)	Response (InfraPlan)	NOTES
38	Devonport Terrace	Gawler Greenway provision for cyclists – safety concerns	Clear vegetation on road, remove the bar obstructing access at the southern end of the separated section alongside Charles Cane Reserve	Regular street sweeping to ensure road markings are clearly visible, bike sections alongside road humps should be cleared, improve road surface south of Elizabeth St to newly paved section at southern end of Devonport Tce Recommend reassessment of the placement of bar at the southern end of the separated bike lane - presents a hazard for cyclists as the bar is not visible from a southern approach.	Observed 7.6.16 AM
39	65 devonport terrace	illegal dumping of rubbish. we find that people are always dumping hard rubbish along our section of the train line.	if you were able to do some of the things in the previous points (bike lane, wall and shrubbery) it might allow a cleaner looking space along the train line and stop people from dumping there. also maybe a few signs to show that dumping is illegal etc	Signs observed (see photo) north of Pym Street but not in other locations. Recommend additional signage along this rail corridor. (see	Not a traffic issue, but Question for Council: is clearing of illegal waste within (perhaps just adjacent council land) the responsibility of Council or DPTI? Recommendation: although Council provides a rapid response program to clearing illegally dumped waste, erect KESAB signs along the rail corridor (opposite side to Devonport Tce) to warn against illegal dumping. http://www.kesab.asn.au/product-sales/signs/illegal-dumping-signs/ Quoting the 2014 Status Report - Capital Projects and Operating Projects: "The removal of illegally dumped rubbish is managed by the Rapid Response Team. CRMs are responded to, waste is inspected and booked in for collection by the hard waste contractor each Wednesday. Council has available 10 collections each week to assist with managing waste collection. Our current process also includes letter box drops to nearby properties when illegal dumping waste is identified, to encourage residents to use hard waste collection facility instead. Further improvements include implementing 'crime scene tape and associated signage which is a KESAB initiative to assist with highlighting illegal dumping to the community and to encourage those responsible to remove their own waste and dispose of it in the appropriate manner."
	Illegal dumping				

Item No.	Location or Street	Issue	Suggested Solution (by resident)	Response (InfraPlan)	NOTES
40	Devonport Terrace	Illegal dumping of hard rubbish along railway	Signs to deter. Policing of this. Regular cleanup	See above	Not a traffic issue, but Question for Council: is clearing of illegal waste within (perhaps just adjacent council land) the responsibility of Council or DPTI? Recommendation: although Council provides a rapid response program to clearing illegally dumped waste, erect KESAB signs along the rail corridor (opposite side to Devonport Tce) to warn against illegal dumping. http://www.kesab.asn.au/product-sales/signs/illegal-dumping-signs/ Quoting the 2014 Status Report - Capital Projects and Operating Projects: "The removal of illegally dumped rubbish is managed by the Rapid Response Team. CRMs are responded to, waste is inspected and booked in for collection by the hard waste contractor each Wednesday. Council has available 10 collections each week to assist with managing waste collection. Our current process also includes letter box drops to nearby properties when illegal dumping waste is identified, to encourage residents to use hard waste collection facility instead. Further improvements include implementing 'crime scene tape and associated signage which is a KESAB initiative to assist with highlighting illegal dumping to the community and to encourage those responsible to remove their own waste and dispose of it in the appropriate manner."
41	Clifton street (between Churchill road and Braund road)	too many cars using it to "rat run" / through traffic	Putting a no right hand turn into and out of Clifton street or some sort of traffic calming option.		This section of Clifton Street is located outside of the Churchill Local Traffic Precinct, and is part of the Prospect South-West Local Traffic precinct. Although this issue does have context to the Churchill Local Area Traffic Precinct and will be considered in the recommendations contained within this report, recommendations to address this concern are outside the scope of this project and will need to be addressed in a LATM for the Prospect South-West Local Traffic Precinct. Also traffic controls at the intersections of local roads (e.g. Clifton Street) and arterial roads (i.e. Churchill Road) require approval and implementation by the Department of Planning, Transport and Infrastructure. Although traffic flow onto Churchill Road is somewhat influenced by the controls implemented by Council in the local road network, ultimately the management of traffic flow on Churchill Road is maintained by the Department for Planning, Transport and Infrastructure and the implementation of changes to State roads are beyond the responsibility of Council.
42	Braund Rd	'Rat run' traffic using Braund Rd instead of Churchill	Enable greater traffic flow on Churchill Rd between Regency Rd and Fitzroy Tce. Especially heading South. The two sets of lights at Torrens and Fitzroy create excessive congestion. Slow motor vehicle traffic on Braund Rd through use of intersection speed bumps to slow traffic and minimise occurrence of people ignoring the give way signs at intersections, without slowing bicycle traffic		Braund Road is located outside of the Churchill Local Traffic Precinct, and is part of the Prospect South-West Local Traffic precinct. Although this issue does have context to the Churchill Local Area Traffic Precinct and will be considered in the recommendations contained within this report, recommendations to address this concern are outside the scope of this project and will need to be addressed in a LATM for the Prospect South-West Local Traffic Precinct. Also although traffic flow onto Churchill Road is somewhat influenced by the controls implemented by Council in the local road network, ultimately the management of traffic flow on Churchill Road is maintained by the Department for Planning, Transport and Infrastructure and the implementation of changes to State roads are beyond the responsibility of Council.
Outside project scope					

Item No.	Location or Street	Issue	Suggested Solution (by resident)	Response (InfraPlan)	NOTES
43	Braund road	congestion from cars parked and vehicles travelling in opposite directions	braund road oneway vehicle traffic heading south. Retain two bike lanes to support Nth-Sth bike corridor into Nth Adel and CBD	braund road oneway vehicle traffic heading south. Retain two bike lanes to support Nth-Sth bike corridor into Nth Adel and CBD	Braund Road is located outside of the Churchill Local Traffic Precinct, and is part of the Prospect South-West Local Traffic Precinct. Although this issue does have context to the Churchill Local Area Traffic Precinct and will be considered in the recommendations contained within this report, recommendations to address this concern are outside the scope of this project and will need to be addressed in a LATM for the Prospect South-West Local Traffic Precinct. Also although traffic flow onto Churchill Road is somewhat influenced by the controls implemented by Council in the local road network, ultimately the management of traffic flow on Churchill Road is maintained by the Department for Planning, Transport and Infrastructure and the implementation of changes to State roads are beyond the responsibility of Council.
44	Braund road	narrow and irregular pavement. Decreases usability for kids bikes, the elderly and prams	widen foot path and reduce the traffic flow to one way to streamline traffic congestion	widen foot path and reduce the traffic flow to one way to streamline traffic congestion	Braund Road is located outside of the Churchill Local Traffic Precinct, and is part of the Prospect South-West Local Traffic Precinct. Although this issue does have context to the Churchill Local Area Traffic Precinct and will be considered in the recommendations contained within this report, recommendations to address this concern are outside the scope of this project and will need to be addressed in a LATM for the Prospect South-West Local Traffic Precinct. Also although traffic flow onto Churchill Road is somewhat influenced by the controls implemented by Council in the local road network, ultimately the management of traffic flow on Churchill Road is maintained by the Department for Planning, Transport and Infrastructure and the implementation of changes to State roads are beyond the responsibility of Council.
45	Braund road	poor visibility at intersections leading to a hazard for bike riders and pedestrians	widen foot path and delineate bike lanes along entire road	widen foot path and delineate bike lanes along entire road	Braund Road is located outside of the Churchill Local Traffic Precinct, and is part of the Prospect South-West Local Traffic Precinct. Although this issue does have context to the Churchill Local Area Traffic Precinct and will be considered in the recommendations contained within this report, recommendations to address this concern are outside the scope of this project and will need to be addressed in a LATM for the Prospect South-West Local Traffic Precinct. Also although traffic flow onto Churchill Road is somewhat influenced by the controls implemented by Council in the local road network, ultimately the management of traffic flow on Churchill Road is maintained by the Department for Planning, Transport and Infrastructure and the implementation of changes to State roads are beyond the responsibility of Council.
46	Castle Ave	Difficult to make a right turn onto Churchill from this street, Olive, Rose etc. Often have to wait for many minutes while holding up cars behind waiting to make a left turn..	Have an intersection with traffic lights to allow cars to enter traffic on Churchill heading north.	Have an intersection with traffic lights to allow cars to enter traffic on Churchill heading north.	Castle Ave is located outside of the Churchill Local Traffic Precinct, and is part of the Prospect South-West Local Traffic Precinct. Although this issue does have context to the Churchill Local Area Traffic Precinct and will be considered in the recommendations contained within this report, recommendations to address this concern are outside the scope of this project and will need to be addressed in a LATM for the Prospect South-West Local Traffic Precinct. Also traffic controls at the intersections of local roads (e.g. Castle Ave) and arterial roads (i.e. Churchill Road) require approval and implementation by the Department of Planning, Transport and Infrastructure. Although traffic flow onto Churchill Road is somewhat influenced by the controls implemented by Council in the local road network, ultimately the management of traffic flow on Churchill Road is maintained by the Department for Planning, Transport and Infrastructure and the implementation of changes to State roads are beyond the responsibility of Council.
47	Braund road	Now crossed by rat runners between Churchill and Prospect Roads at several places especially at Castle then Daphne - concerned about driver attention on other users eg expected influx of cyclists due to boulevard status, runners and pedestrians	maybe stop signs just to add a few seconds onto the time drivers have to pay attention to Braund Road traffic and check drivers intentions coming out of Castle and Daphne	maybe stop signs just to add a few seconds onto the time drivers have to pay attention to Braund Road traffic and check drivers intentions coming out of Castle and Daphne	Braund Road is located outside of the Churchill Local Traffic Precinct, and is part of the Prospect South-West Local Traffic Precinct. Although this issue does have context to the Churchill Local Area Traffic Precinct and will be considered in the recommendations contained within this report, recommendations to address this concern are outside the scope of this project and will need to be addressed in a LATM for the Prospect South-West Local Traffic Precinct. Also although traffic flow onto Churchill Road is somewhat influenced by the controls implemented by Council in the local road network, ultimately the management of traffic flow on Churchill Road is maintained by the Department for Planning, Transport and Infrastructure and the implementation of changes to State roads are beyond the responsibility of Council.

Community Consultation: Council Website

Churchill Local Area Traffic Management Consultation

12 April 2016

City of Prospect is developing a Local Area Traffic Management Plan for the Churchill Local Traffic Precinct, and is seeking community input into its development. The purpose of this input is to determine locations/issues for consideration and investigation. Your input into this process is greatly appreciated.

HAVE YOUR SAY: Churchill Traffic Precinct Local Area Traffic Management Plan

City of Prospect is developing a Local Area Traffic Management Plan for the Churchill Local Traffic Precinct, and is seeking community input into its development. The purpose of this input is to determine locations/issues for consideration and investigation. Your input into this process is greatly appreciated.

As part of Council's ongoing traffic management, City of Prospect have engaged local company InfraPlan to undertake investigations for the Churchill Local Area Traffic Management Plan.

Local area traffic management is generally associated with the installation of physical traffic measures and/or regulations to influence the existing behaviour of road users, in order to create safer and more amenable street environments, particularly in local residential areas. Council has identified several local traffic management precincts across our city, which will form the basis of traffic management reviews.

The Study Area for this investigation are the local streets to the west of Churchill Road, to the east of the railway line, south of Regency Road and north of Torrens Road. This includes Devonport Terrace, Gurr Terrace, Kingdom Place, Pym Street, Boucher Place, Winter Terrace, Totness Avenue, Belford Avenue, Elizabeth Ave, Allan Street, Clifton Street and Avenue Road.



City of Prospect's Local Traffic Management Policy (which is the guiding document for this Local Area Traffic Management Report) is available for review below.

[Traffic Management Policy](#) (2882 kb)

To determine if traffic management interventions are required for the Churchill Local Area Traffic Management Plan, investigations need to be undertaken. These investigations are based on established guidelines however require appropriate balance against local and social considerations. For this reason we want to hear from you!

How can you have your say?

To align with Council's Community Engagement Policy, consultation will include engagement with the community at several stages of the project. The following consultation elements will be employed:

An online survey

An online survey for this project has been made available to residents and business owners. The purpose of this survey is to determine locations/issues for consideration and investigation. The survey can be accessed at www.infraplan.com.au/churchillsurvey or via www.prospect.sa.gov.au/PublicConsultation. For those without access to a computer/internet, hard copies of the survey have also been made available at the front counter of City of Prospect's Civic Centre (128 Prospect Road, Prospect). The survey will close on Monday 16 May.

Neighbourhood forum

A forum will be held to provide the opportunity for residents/business owners to provide feedback directly to the project consultants. The Neighbourhood Forum will be held from **6pm-8pm on Wednesday 25 May, in the Reception Room at the Civic Centre (128 Prospect Road, Prospect)**. Entry is available from the rear of the Civic Centre. The forum is a platform to discuss issues in detail, and discuss possible options and solutions. Preliminary analysis of traffic volumes, turning movements, speed data, collision data, bicycle network, land use and street hierarchy will be available. This will assist in identifying specific roads and locations and possible hotspots and issue areas.

Consultation on Draft Report

Consultation on a draft report/concepts will also be required when investigations and recommendations have been drafted and considered by Council. An additional letterbox drop will inform residents and stakeholders of the recommended concepts and actions for the precinct as well as a feedback form. A link will be provided to the entire Draft Report and concept plans at www.prospect.sa.gov.au/PublicConsultation with an online feedback form. In addition, displays of the Draft Report will be provided at City of Prospect's Civic Centre (128 Prospect Road, Prospect). The Draft Report is expected to be released in late June 2016.

Thank you for time and consideration of this project. If you have any further questions regarding this project please contact James Edwards at InfraPlan on 8227 0372.

Promoting Consultation on Council Website Homepage

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Have Your Say!
We're developing a Local Area Traffic Management Plan for the Churchill Local Traffic Precinct and we want to hear from you about locations/issues for consideration and investigation.
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Veggie Verges Program Success!
The free veggie verges offer has now ended, with residents from all over City of Prospect taking the opportunity to green their streets and grow veggies in their verges.
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Community Consultation: Survey Template

The City of Prospect is developing a **Local Area Traffic Management Plan for the Churchill Local Traffic Precinct**, and is seeking community input into its development. The purpose of this survey is to determine locations/issues for consideration and investigation. Your input into this process is greatly appreciated.

1. On which street do you live?

Street

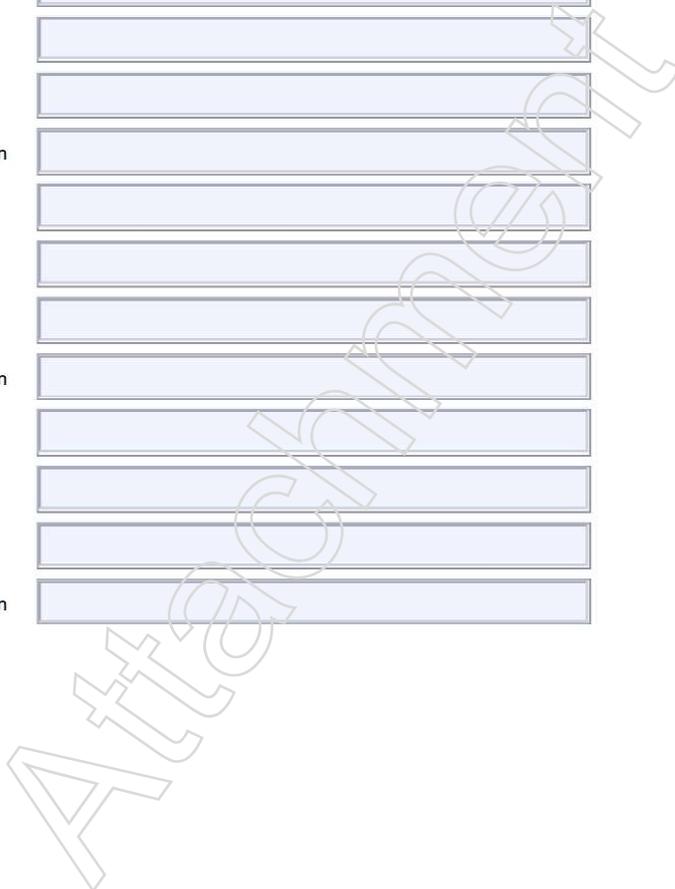
2. Please rate how important the following issues are for consideration in the *Churchill Local Traffic Precinct: Local Area Traffic Management Plan*. Responses to the following will provide general guidance for investigation.

	Not important	Somewhat important	Important	Very important	Extremely important
Through-traffic and 'rat-running' (vehicles from outside the precinct using local streets)	<input type="radio"/>				
Line-marking	<input type="radio"/>				
Pavement condition	<input type="radio"/>				
Safety at intersections	<input type="radio"/>				
Efficiency/capacity of intersections	<input type="radio"/>				
Safety at rail crossings	<input type="radio"/>				
Pedestrian access and footpaths	<input type="radio"/>				
Cycling access and infrastructure	<input type="radio"/>				
Speed	<input type="radio"/>				
Parking	<input type="radio"/>				
Driver behaviour	<input type="radio"/>				
Increased traffic generation	<input type="radio"/>				
Trucks and larger vehicles	<input type="radio"/>				

Other (please specify)

3. Please indicate a location, issue and suggested solutions in the following text boxes. Responses to the following question will provide specific locations for assessment/consideration. Up to five (5) locations/issues can be provided.

1. Location or Street	<input type="text"/>
1. Issue	<input type="text"/>
1. Suggested Solution	<input type="text"/>
-	<input type="text"/>
2. Location or Street	<input type="text"/>
2. Issue	<input type="text"/>
2. Suggested Solution	<input type="text"/>
-	<input type="text"/>
3. Location or Street	<input type="text"/>
3. Issue	<input type="text"/>
3. Suggested Solution	<input type="text"/>
-	<input type="text"/>
4. Location or Street	<input type="text"/>
4. Issue	<input type="text"/>
4. Suggested Solution	<input type="text"/>
-	<input type="text"/>
5. Location or Street	<input type="text"/>
5. Issue	<input type="text"/>
5. Suggested Solution	<input type="text"/>



Community Consultation: Letter dropped to residents/businesses



Dear Resident/Business Owner,

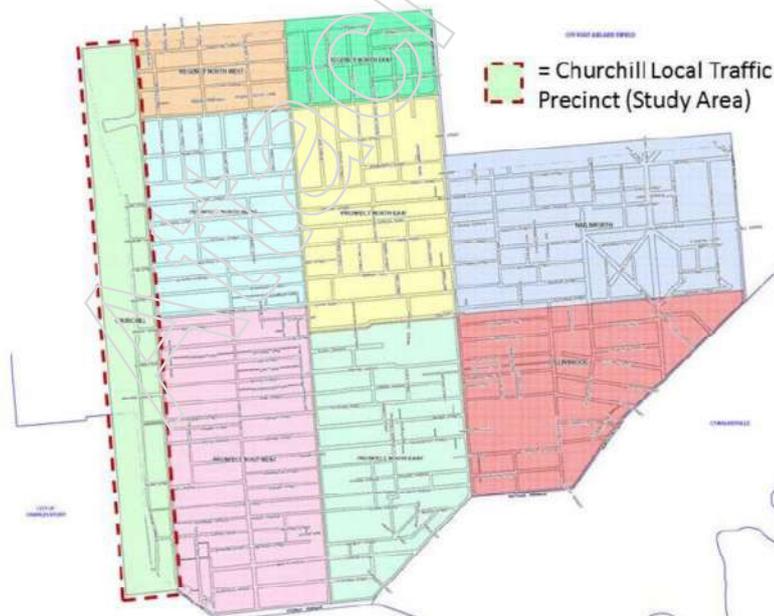
HAVE YOUR SAY: Churchill Traffic Precinct Local Area Traffic Management Plan

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Local area traffic management is generally associated with the installation of physical traffic measures and/or regulations to influence the existing behaviour of road users, in order to create safer and more amenable street environments, particularly in local residential areas. Council has identified several local traffic management precincts across our city, which will form the basis of traffic management reviews.

The Study Area for this investigation are the local streets to the west of Churchill Road, to the east of the railway line, south of Regency Road and north of Torrens Road. This includes Devonport Terrace, Gurr Terrace, Kingdom Place, Pym Street, Boucher Place, Winter Terrace, Totness Avenue, Belford Avenue, Elizabeth Ave, Allan Street, Clifton Street and Avenue Road.



City of Prospect's Local Traffic Management Policy (which is the guiding document for this Local Area Traffic Management Report) is available for review at the following address:

http://www.prospect.sa.gov.au/webdata/resources/files/Traffic_Management_Policy.pdf



To determine if traffic management interventions are required for the Churchill Local Area Traffic Management Plan, investigations need to be undertaken. These investigations are based on established guidelines however require appropriate balance against local and social considerations. For this reason we want to hear from you!

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Thank you for time and consideration of this project. If you have any further questions regarding this project please contact James Edwards at InfraPlan on 8227 0372.

Appendix C

DPTI Traffic Volumes and turning movements

Traffic volumes for arterial roads and intersections under the control of the State Government (DPTI) have also been provided. Churchill Road intersections with Regency Road, Pym/Beatrice Streets and Torrens Road were taken between the 12th May and 29th July 2015 and include 11-hour totals, AM and PM peak hour counts as well as AADT estimates. Intersections at Regency Road and Torrens Road are both signalised with full turning movements while the Pym/Beatrice Street intersection is un-signalised and street furniture prevents traffic from crossing Churchill Road. Turning movements between Churchill and Pym are permitted and shelter is provided for right turn movements

Beatrice Street is limited to left in/left out movements from Churchill Road.

Churchill Road carries the vast majority of traffic in the region with Pym Street carrying less than 15% of Churchill Road volumes but a similar proportion of Heavy Vehicle traffic. Churchill Road traffic islands at Pym Street have been constructed to allow heavy vehicle access to and from Pym Street but the narrowness of Pym Street means that the rear wheels of semi-trailers encroach significantly on the east bound lane when turning right into Pym Street from Churchill Road as shown in the following still image taken from video shot on 6th May 2016 from the northern side of Pym Street.



Figure 20 The rear wheels of a semi-trailer carrying a shipping container encroach on the west-bound lane of Pym Street as it turns right from Churchill Road

Commercial vehicles

Churchill Road south of Regency Road carries 7.0-7.5% CVs per daily traffic loads. Regency Road carries a higher percentage and many make turning movements at this intersection.

Pym Street also carries a large volume of Heavy Vehicles and these are forced to turn in and out of Pym Street to Churchill Road.

These following turning movement summaries obtained from DPTI have been reviewed, and appear to follow the normal patterns and movements expected from the origin/destination assumptions and

normal peak hour flows as recorded in the Traffic Count data (abnormalities may have an impact on the local street network).

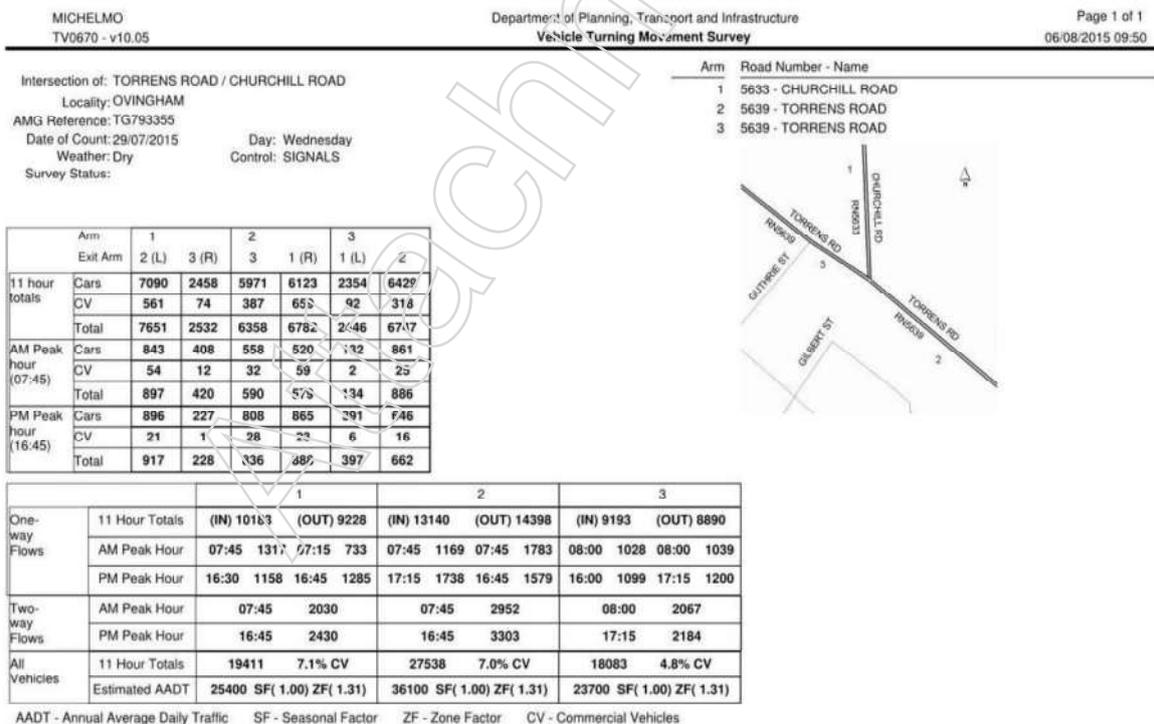
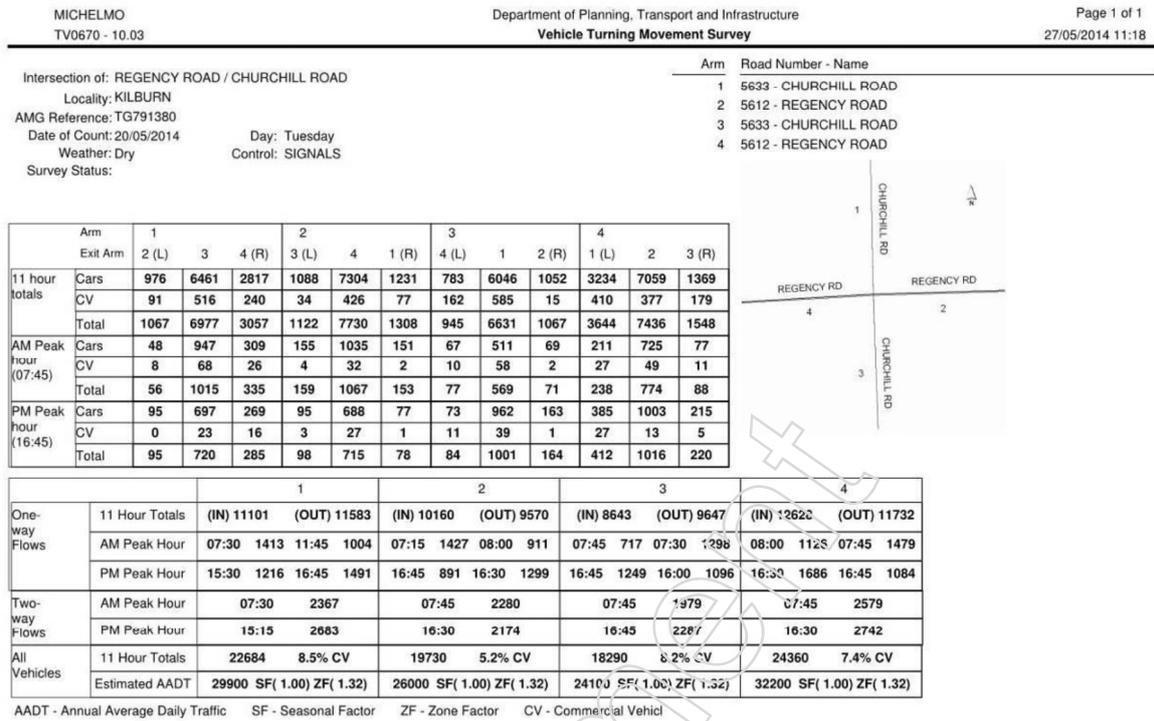


Figure 21 Average Annual Daily Traffic volumes on DPTI roads in the suburbs of Prospect and Ovingham.

Turning movements for the Pym Street intersection have been used to provide context and information for this report.

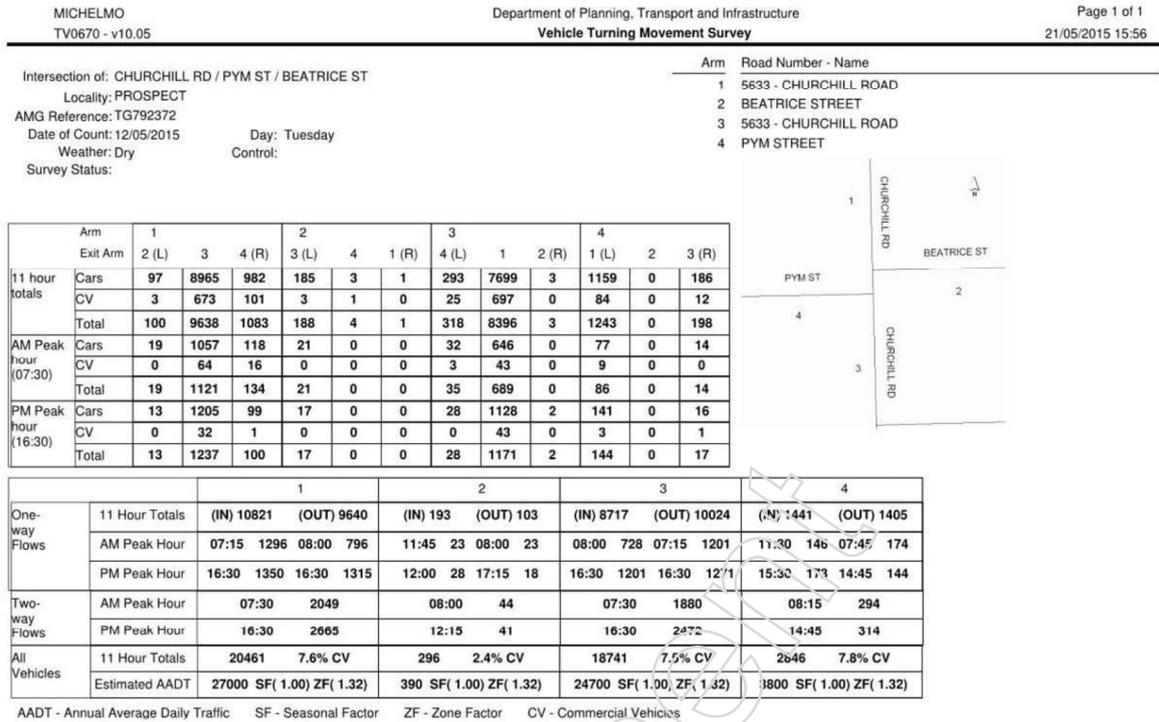


Figure 22 DPTI recorded traffic movements at the Churchill Road / Pym Street (and Beatrice Street) intersection

Appendix D

LATM measures and relative effectiveness

The following table has been sourced from the Austroads Guide to traffic Management Part 8: Local Area Traffic Management and has been used to inform the recommendations of this report.

Table 8 Description and use of LATM devices

MEASURE		Reduce speeds	Reduce traffic volume	Reduce crash risk	Increase pedestrian safety	Increase bicycle safety
Vertical deflection devices (Section 7.2)	Road humps	✓	✓	✓	-	-
	Road cushions	✓	✓	✓	-	✓
	Flat top road humps	✓	✓	✓	-	✓
	Wombat crossings	✓	✓	✓	✓	✓
	Raised pavements	✓	✓	✓	-	✓
Horizontal deflection devices (Section 7.3)	Lane narrowings/kerb extensions	✓	-	-	✓	-
	Slow points	✓	✓	-	-	-
	Centre blister islands	✓	✓	-	✓	-
	Driveway links	✓	✓	-	✓	✓
	Mid-block median treatments	✓	-	✓	✓	✓
	Roundabouts	✓	✓	✓	-	-
Diversion devices (Section 7.4)	Full road closure	-	✓	✓	✓	✓
	Half road closure	-	✓	✓	✓	✓
	Diagonal road closure	-	✓	✓	✓	✓
	Modified 'T' intersection	✓	✓	✓	✓	✓
	Left-in/left-out islands	-	✓	✓	✓	-
Signs, linemarking and other treatments (Section 7.5)	Speed limit signs	✓	-	✓	✓	✓
	Prohibited traffic movement signs	-	✓	✓	-	✓
	One-way (street) signs	-	✓	✓	✓	-
	Give Way signs	✓	✓	✓	✓	✓
	Stop signs	✓	✓	✓	✓	✓
	Marked pedestrian crossings	-	-	✓	✓	✓
	Shared zones	✓	✓	-	✓	✓
	School zones	✓	-	✓	✓	✓
	Threshold treatments	✓	✓	✓	-	✓
	Tactile surface treatments	✓	-	-	-	-
	Bicycle facilities	-	-	✓	-	✓
	Bus facilities	-	✓	-	-	-
Combination devices (Section 7.6)	Integrated road treatments	✓	✓	✓	✓	✓

Appendix E

Through Traffic: Supply and Demand

The transport needs of the City of Prospect can be understood in terms of supply and demand (most policies, whether they be aimed at influencing travel modes, travel behaviour or car parking requirements are understood in supply or demand)

Table 9 Through traffic supply and demand matrix

	Through-Travel	To/From Corridor Travel (travel originates or is destined for the precinct)
Demand	<ul style="list-style-type: none"> • Demand for through-travel is generated from factors outside of a precinct. Demand is often generated by taking the path of 'least-resistance' – in the local transport network this is usually linked to congestion on arterial roads. • Traffic volumes can be influenced through supply-based solutions; however, the demand would remain, but shifted to other areas on the network. 	<ul style="list-style-type: none"> • Demand increases in a precinct with increases/changes to land use. • If demand is not managed there can be implications on the function of the corridor and its associated land uses. • Demand can be managed in a number of ways, such as encouraging alternative transport (i.e. mode shifts) and parking policy (such as increasing/decreasing parking requirements)
Supply	<ul style="list-style-type: none"> • The capacity of the corridor (such as number of trafficable lanes) directly influences supply. Lane capacity is not only influenced by physical width, but can also be influenced by parking policy such as clearways. • Lane capacity does not only relate to private vehicle traffic and should be considered in multi-modal terms to include cycle lanes, pedestrians, and bus and public transport frequency. 	<ul style="list-style-type: none"> • Supply can be associated with how people move around when they are in a corridor/precinct • Alternative modes of transport, such as walking/cycling should be significant considerations • The capacity and need for appropriate policy and infrastructure provisions has implications of supply.

Appendix F

Census QuickStats

2011 Census QuickStats

All people - usual residents



Australia | South Australia | State Suburbs

Prospect (SA)

Code SSC40606 (SSC)

	People	13,008
	Male	6,522
	Female	6,486
	Median age	36
	Families	3,322
	Average children per family	1.8
	All private dwellings	5,594
	Average people per household	2.5
	Median weekly household income	\$1,349
	Median monthly mortgage repayments	\$1,755
	Median weekly rent	\$265
	Average motor vehicles per dwelling	1.6



2006 Census QuickStats

All people - usual residents

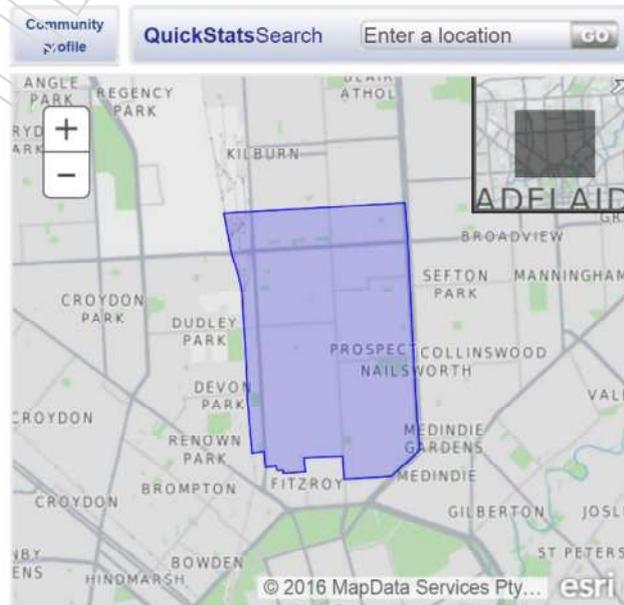


Australia | South Australia | State Suburbs

Prospect

Code SSC42376 (SSC)

	People	12,382
	Male	6,177
	Female	6,205
	Median age	36
	Australian citizenship	10,687
	People born overseas	2,957
	Overseas visitors (excluded from people counts)	66
	Families	3,124
	All private dwellings (including unoccupied)	5,423
	Average people per household	2.4
	Median weekly household income	\$1,060
	Median monthly mortgage repayment	\$1,300
	Median weekly rent	\$180



2011 Census QuickStats

All people - usual residents



Australia | South Australia | State Suburbs

Ovingham

Code SSC40533 (SSC)

	People	703
	Male	350
	Female	353
	Median age	35
<hr/>		
	Families	162
	Average children per family	1.4
<hr/>		
	All private dwellings	380
	Average people per household	2
	Median weekly household income	\$888
	Median monthly mortgage repayments	\$1,789
	Median weekly rent	\$225
	Average motor vehicles per dwelling	1.2



2006 Census QuickStats

All people - usual residents

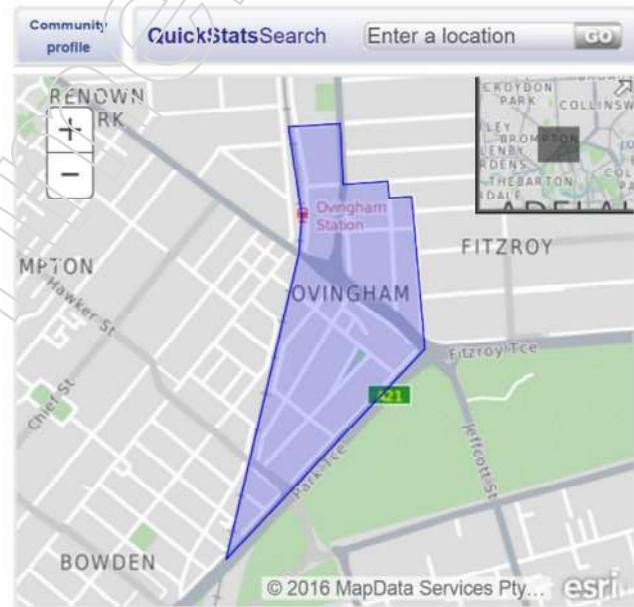


Australia | South Australia | State Suburbs

Ovingham

Code SSC42256 (SSC)

	People	654
	Male	315
	Female	339
	Median age	36
	Australian citizenship	544
	People born overseas	170
	Overseas visitors (excluded from people counts)	5
<hr/>		
	Families	160
<hr/>		
	All private dwellings (including unoccupied)	377
	Average people per household	1.9
	Median weekly household income	\$880
	Median monthly mortgage repayment	\$1,114
	Median weekly rent	\$135



AGENDA ITEM NO.: 19.11

TO: Council Meeting on 27 June 2017

DIRECTOR: Greg Georgopoulos, Director Infrastructure, Assets and Environment

REPORT AUTHOR: Alex Cortes, Manager Infrastructure, Assets and Environment

SUBJECT: Local Area Traffic Management Plan – North East / South East

1. EXECUTIVE SUMMARY

- 1.1 As part of Council's ongoing commitment to traffic management, City of Prospect engaged a traffic consultant to undertake the North East and South East Local Area Traffic Management Plan (LATM). **Attachment 1-72.**
- 1.2 The primary function of this LATM was to identify aspects of the local road network which may require improvement, either through minor modifications, maintenance, moderating vehicle speeds, improving safety or discouraging through traffic on local roads.
- 1.3 Key issues were identified for areas throughout this Precinct of City of Prospect. A series of recommendations were made by the LATM study prepared by Tonkin Consulting, summarised below:
- 1.3.1 General speeds and volumes: Council give further consideration to implementation of 40km/h speeds throughout the Prospect Council Area
- 1.3.2 Carter Street: further consideration be given to either a roundabout or raised intersection treatment of Thorngate Street.
- 1.3.3 Ballville Street: implementation of a yellow line marking parking restriction arrangement along the road to improve its navigability.
- 1.3.4 College Avenue/Main North Road Intersection: No further action required
- 1.3.5 Gloucester Street: Install speed humps on western end of Gloucester Street
- 1.3.6 Highbury Street (including Penn Place Intersection): No further action for Highbury Street (continue to work with Blackfriars Priory School), construct driveway entry to west of Penn Place.
- 1.3.7 Percy Street Intersection: Installation of contrasting pavements at the intersections
- 1.3.8 Te Anau Avenue: implementation of parking restrictions along Te Anau Avenue.

2. RECOMMENDATION

- (1) **The Council having considered Item 19.11 Local Area Traffic Management North East/South East dated 27 June 2017, endorse the plan and recommended actions (as presented in Attachments 1-72).**
- (2) **The Council consider a budget bid for the Local Area Traffic Management North East and South East Precincts as part of the 2018-2019 budget deliberation process.**

3. RELEVANCE TO CORE STRATEGIES / POLICY

- 3.1 **Strategic Plan to 2020 Theme 1 – People** “Know, empower, celebrate, educate and activate our community”

Strategy 1.1 Know our community

Extensive community consultation was undertaken, demonstrating a Council that can respond to the needs of the community (Outcome 1.1.2).

- 3.2 **Strategic Plan to 2020 Theme 2 – Place** “Loved heritage, leafy streets, fabulous places”

Strategy 2.3 An accessible City

The outcomes of the report contributes to ensuring key areas are accessible and linked (Outcome 2.3.1) and considers the service provided public transport (Outcome 2.3.3).

- 3.3 **Strategic Plan to 2020 Theme 4 – Services** “Leaders of the sector providing efficient, responsive, accessible services”

Strategy 4.1 Excellence in Infrastructure

Recommendations of the report included the adjustment and installation of traffic management devices, considered Council Assets.

4. COMMUNITY INVOLVEMENT

- 4.1 Multiple stages of community consultation were undertaken.

- 4.2 A call for public comment was conducted in 2015, in which:

4.2.1 Circulars were sent to 1851 properties in February 2015;

4.2.2 Two Residents Control Group meetings were on the 8th April and 20th May, 2015.

- 4.3 A second round of community consultation was conducted in December 2016, in which:

4.3.1 Circulars were sent to 1851 properties in December 2016.

5. DISCUSSION

- 5.1 In accordance with City of Prospect's Traffic Management Policy, Council recognises that the approach to traffic management must be holistic; treatments applied in isolation can affect traffic conditions in other streets. Isolated problems should be considered in 'the context of the broader street network'. Council, therefore, approaches 'traffic management on the basis of local area precincts'. The implementation of traffic engineering controls that are not considered minor are investigated for each precinct through a Local Area Traffic Management (LATM) study.
- 5.2 City of Prospect engaged Tonkin Consulting to undertake a LATM study in the Prospect NE and SE area. This area is bound by Prospect Road, Regency Road, Main North Road and Fitzroy Terrace. This LATM study identified existing controls and traffic management issues, ultimately recommending the implementation of a series of traffic engineering controls throughout the Council area, with the aim of improving traffic management for the NE/SE Precinct.

Methodology

- 5.3 In conducting the LATM study, Tonkin Consulting;
- Assisted in conducting initial community consultation, which included:
 - General mail out to all residents identifying traffic and road safety concerns
 - Two meetings with the Residents Control Group to discuss issues and potential solutions
 - Mail out of proposed treatment options for comment
 - Conducted analysis of traffic volumes, speeds and vehicle classifications using the network;
 - Conducted analysis of crash data in the area
 - Conducted independent site inspections and recorded observations of driver behaviour;
 - Developed and submitted a draft plan to the Residents Control Group and the wider community;
 - Amended the draft plan to take into account the recommendations based on the feedback received.
 - Involvement in a community workshop held in May 2017
 - The draft report was then submitted to City of Prospect.

Key Issues

General Speed and Volumes

- 5.4 According to the LATM study conducted, there was no identification of unduly high volumes or speeds.

- 5.5 The only road with daily traffic volumes in excess of 1,500 vehicles per day are Percy Street (1,800 vehicles per day). As a general guide, traffic volumes less than 1,500 vehicles per day are considered acceptable for residential streets, which is reflected in the “intervention criteria” as part of Council’s Traffic Management Policy.
- 5.6 Average speeds were found to be typically around 40km/h and 85th percentile speeds at approximately 45km/h which is acceptable for the prevailing speed limit based on Council’s “intervention criteria”. During the period of community consultation a number of residents did raise the idea of possibly changing the speed limit in all the streets from 50km/h to 40km/hr. This was in response to perceived high speeds across the study area as well as to maintain consistency with the area to the west of Prospect Road. Given the average speed was found to be approximately 40km/h, the community should not expect a further wholesale reduction in speeds if a lower limit was introduced. It should be noted that previous LATM’s conducted in other areas of Prospect (e.g. Nailsworth and Collinswood) have indicated the community generally does not have the appetite for the wholesale application of the lower limit.
- 5.7 It was suggested that, given the support ratio of the community consultation feedback (76%) during this LATM study, Council give further recommendation to the strategic application of 40km/h speed limits throughout the Prospect Council area.

Carter Street

- 5.8 There were various issues identified along Carter Street, including:
- High speeds;
 - Through traffic;
 - Increased traffic from Blackfriars School;
 - Increased traffic due to the OTR development on the Main North Road corner.
- 5.9 This led to the exploration of a number of options to address these issues, including:
- Full road closure
 - Diagonal road closure
 - Roundabout
 - Raised intersections
 - Single lane speed humps
- 5.10 Community consultation indicated there was a lack of support for road closure, though it was noted most respondents were those most heavily affected by these closures. There was support for some form of intersection treatment. There was also support for street wide treatment with single lane speed humps.
- 5.11 Tonkin Consulting did not believe that conditions warrant the installation of full or partial road closures. Given traffic data indicating that speeds and volumes are not excessive, whole of street treatment with road humps was not considered warranted. It was recommended further consideration be given to either a roundabout or raised intersection treatment of Thorngate Street.

Ballville Street

- 5.12 There have been 9 accidents along Ballville Street between 2007 and 2013, all of which were involving a collision with a parked vehicle.
- 5.13 Community consultation indicated that the potential construction of traffic management in Carter Street could lead to increased traffic in Ballville Street.
- 5.14 It is recommended to implement yellow line marking parking restriction arrangement along the road to improve its navigability.

College Avenue/Main North Road Intersection

- 5.15 Issues were raised regarding reduced sight lines for traffic exiting from College Avenue onto Main North Road, due to a bus stop shelter located close to the corner.
- 5.16 Removal of the bus shelter and removal of the bus stop were considered.
- 5.17 The bus shelter was removed by Adshel during 2016, no further action is required at this stage, noting that conditions along Main North Road are currently being reviewed as part of the Main North Road Master Plan)

Gloucester Street

- 5.18 Issues were raised regarding access to Prospect Road and Main North Road, particularly during peak times. The intersection at Prospect Road was flagged as dangerous due to the proximity to the service station entrance and conflicting traffic movements.
- 5.19 Concerns were raised regarding speeds and inconsistency in traffic management devices along Gloucester Street; there are currently speed humps only on the eastern end of the street.
- 5.20 In order to maintain consistency, the installation of single lane speed humps on the western side was explored.
- 5.21 Minimal community consultation feedback was received.
- 5.22 The recommendation was made to install speed humps on the western side of Gloucester Street.

Highbury Street (General Street Concerns)

- 5.23 Residents repeatedly raised concerns regarding congestion caused by traffic activities associated with Blackfriars High Priory School.
- 5.24 These activities included;
- Parking on street all day on both sides of the road (i.e. staff and older students)
 - Hoon driving
 - Large influx of cars at pick up times that double park illegally causing congestion

5.25 Options explored included:

- Changing the parking restrictions from during peak school times to all day parking restrictions.
- One way restriction
- The creation of alternative drop off and pick up zones
- Single lane speed humps

5.26 Community feedback indicated limited support for any traffic management along Highbury Street. Since the report, Council has worked with Blackfriars Priory School to install an Emu Crossing on Highbury Street.

5.27 No further action was recommended for Highbury Street, other than to continue to work with Blackfriars Priory School and the local community to manage ongoing traffic concerns as far as practical.

Penn Place Intersection

5.28 Residents raised concerns over the amount of car carriers using the road due to the car yards on Main North Road.

5.29 Tonkin explored the construction of a driveway entry to the west of Penn Place, in order to separate the car yards to the east of Penn Place from the residential street to the west.

Percy Street Intersection

5.30 There were 4 right turn crashes along Percy Street at the intersections with Arthur Street and Stuart Road. Residents commented that this could be due to misperceptions of speed due to the traffic control devices on Percy Street, as well as rat-running traffic as motorists try to avoid the Prospect Road/Regency Road intersection.

5.31 Options were explored for the treatment of these intersections:

- Driveway entries (treating the side roads with a driveway entry treatment, giving it the appearance of a private driveway)
- Contrasting pavement (stamped asphalt or brick pavers)

5.32 During consultation, community members were opposed to the proposal of private driveway entries, stating that it would add confusion to motorists on Percy Street (which already has traffic management devices)

5.33 Recommendation: Tonkin acknowledged the hazardous aspects of the intersections and recognised that there was support for contrasting pavements at the intersections.

Te Anau Avenue

5.34 Concerns were raised regarding the narrow street, in addition to poor sight lines at the intersections with Wilson Street and Bradford Street. Crashes were also reported at Bradford Street and Moora Avenue.

5.35 Options explored were:

- Raised intersections at Moora Avenue and Bradford Street
- Contrasting pavements
- Single lane speed humps along Te Anau Avenue
- Restriction of parking along Te Anau Avenue

5.36 Community consultation revealed mixed support for parking restrictions.

5.37 It is recommended that parking restrictions be implemented along Te Anau Avenue, due to the amount of crashes along the street. It was noted that this can be progressed through specific consultation in accordance with Council's Narrow Streets Policy.

Summary

5.38 A number of issues were explored and recommendations made for the implementation of traffic management strategies, throughout community consultation. Council has reviewed the recommendations and supports their implementation for the Prospect North East and South East Precinct.

ATTACHMENTS

Attachments 1-72: Prospect North East and South East Precincts Local Area Traffic Management Plan

Prospect NE and SE Precincts

Local Area Traffic Management Plan

City of Prospect

May 2017

Ref No. 20141130DR1

Attachment



a better approach

Document History and Status

Rev	Description	Author	Reviewed	Approved	Date
A	Draft Issued for Resident Group comment	TGE	PS	RB	19 June 2015
B	Draft Issued for Community Consultation	TGE	RB	RB	8 July 2015
C	Incorporated Council Comments	TGE/NF	RB	RB	11 December 2015
D	Updated following Community Consultation	TGE	RB	RB	9 May 2016
E	Updated as requested by Council	Updated by PS		PS	8 May 2017

Attachment

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Appendix B	Summary of Traffic Data
Appendix C	Crash Data
Appendix D	Asset Register
Appendix E	Concept Traffic Management Plan for Consultation
Appendix F	City of Prospect Traffic Management Policy
Appendix G	Community Consultation Comments

Attachment

1 Introduction

1.1 Background

Tonkin Consulting has been engaged by the City of Prospect to undertake a Local Area Traffic Management (LATM) study in the Prospect NE and SE area, bounded by Prospect Road, Regency Road, Main North Road and Fitzroy Terrace.

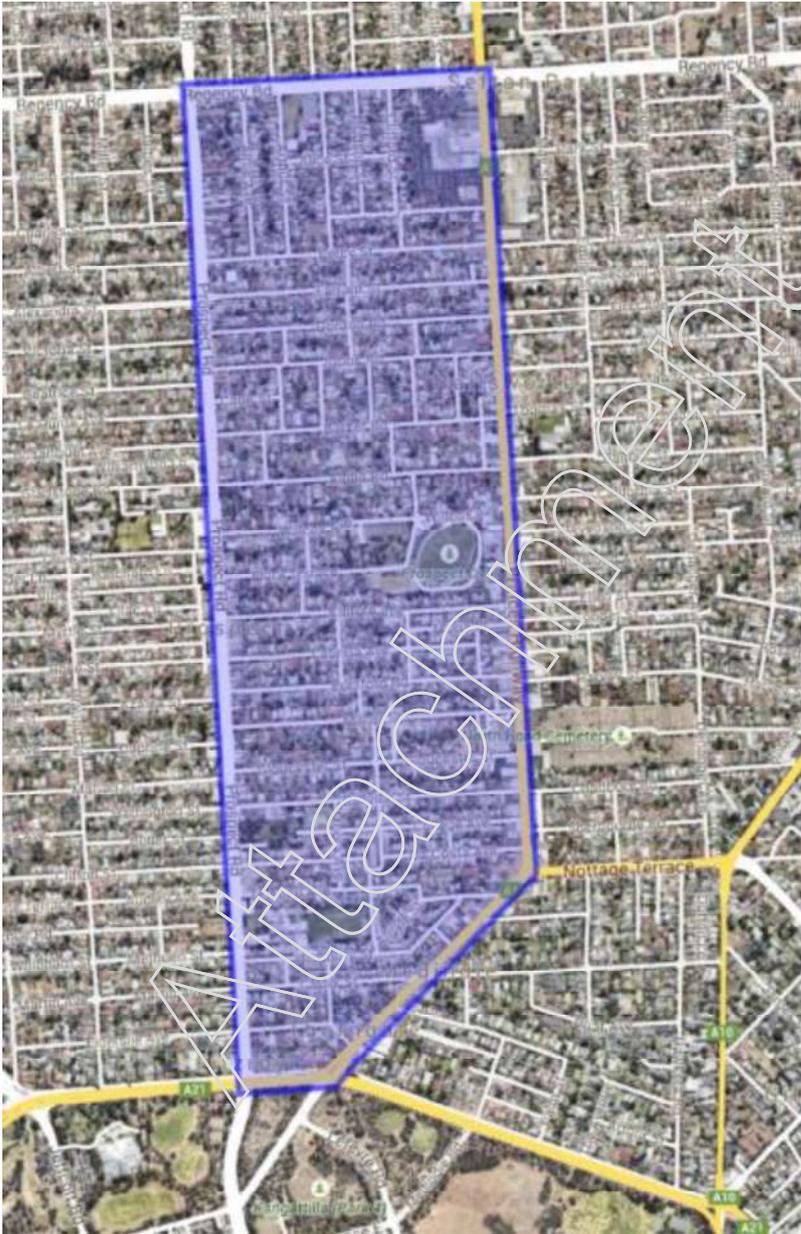


Figure 1.1 - Study Area

The area already includes some traffic control devices such as driveway links, single lane points and road humps. In some instances these treatments have been installed in isolation without a consistent management policy of traffic movement through the whole area.

1.2 Process

The preparation of this LATM Plan commenced in early 2015 and progressed through various stages of community consultation until May 2016 when the project stalled due to concerns over a muted substantial redevelopment of the Thorngate area.

- Community consultation included:
 - General mail out to all residents identifying traffic and road safety concerns
 - Two meetings with the Residents Control Group to discuss issues and potential solutions
 - Mail out of proposed treatment options for comment
- An analysis of traffic volumes, speeds and vehicle classifications using the network;
- An analysis of crash data in the area; and
- Independent site inspections/observations of driver behaviour.

Following the above process, the plan was submitted to both a Residents Control Group and the wider community. The draft plan was amended to take into account the recommendations based of the subsequent feedback received (May 2016).

Concerns over a development of the Thorngate area have since been resolved. During the ensuing period (May 2016-2017) there have been other developments including:

- Upgrade of the service station on the corner of Main North Road and Carter Street
- Additional traffic data collected on Carter Street (March 2017)
- Commencement of the Main North Road Master Planning Study (initiated by Council)
- Construction of alternative traffic control devices in Pulsford Street
- Design and proposed construction of an Emu crossing in Highbury Street (Blackfriars School).

This report updates the previous draft LATM investigations to include these recent developments.

The plan is intended to provide Council and the community with a clear direction for traffic management in the Prospect SE and NE LATM precincts.

1.3 Context

1.4 LATM Boundaries

Preparation of the LATM has largely focussed on traffic concerns within the “internal” local street network. The investigations have not concentrated on traffic issues along the surrounding arterial road network which is under the control and management of DPTI.

1.4.1 Thorngate

Council was advised in early-mid 2016 of a development consortium being interested in pursuing a large scale mixed use development in the suburb of Thorngate.

No application was ever lodged so the ‘proposal’ was always referred to as a ‘potential development proposal’.

In recent times Council has been made aware that the consortium is pursuing other development sites outside of City of Prospect so it appears unlikely to pursue a proposal in Thorngate.

This LATM has not considered the impact of any substantial development within the precinct.

1.4.2 Main North Road Master Plan

Council has commenced two inter-related projects that may influence future local traffic movements within the LATM precinct:

- Streetscape Master Plan
- Traffic and Movement Assessment

In March 2017 Council initiated a project to develop a Master Plan for the rejuvenation and streetscape of Main North Road between Fitzroy Terrace and Regency Road. The project aims to revitalise the public space along Main North Road, achieve walkable east-west connections over Main North Road (between the adjacent precincts), and enhance cycling and pedestrian networks.

Allied to this project, Council is also undertaking a Traffic Movement Assessment for Main North Road as an input to the Master Planning process. The objectives of this Assessment include:

- Clearly identify current traffic behaviour and traffic management issues
- Identification of future demands and requirements for Main North Road
- Prepare a Concept Plan of recommended treatments including a prioritised set of recommendations, by time (ie short, medium and long term priorities).

The Traffic Movement Assessment is not intended to develop a detailed Corridor Management Plan for Main North Road, as this would normally be a documented coordinated by DPTI. Rather the Transport and Movement Assessment will identify issues from a Council perspective that can be embodied within the Streetscape Master Plan, and make recommendations for treatment options that may need further consideration by DPTI.

2 Findings

2.1 Background

A number of steps have been undertaken to qualify and quantify factors affecting the road network within the study area, including public consultation, site reviews and analysis of available traffic and crash data.

2.1.1 Call for Public Comment

- Circulars were sent to 1,851 properties in February 2015.
- 73 written responses were received (3.9% response rate)
- Two Residents Control Group meetings were held on the 8th April and 20th May, 2015.

Feedback from the community circulars and community meetings has been summarised per street and issue identified. The full summary of feedback is included in Appendix A.

2.1.2 Review of Traffic Data

Traffic data was collected as part of this project in November 2014. Additional traffic data was collected in Carter Street during March 2017. This data has been summarised together with historic data for the precinct in Appendix B.

Council has a number of previously collected traffic counts that Tonkin manages on their Exponare servers. These traffic counts were also reviewed.

2.1.3 Collision Data

Crash data for the period 2007-2012 was reviewed, based on geo-coded collision records maintained by the Department Planning Transport and Infrastructure (DPTI). The data was useful in identifying common trends throughout the area and locations with higher numbers of collisions. Collision data has been presented in Appendix C.

2.1.4 Asset register

Condition data for roads within the study area was reviewed, based on the asset register maintained by Tonkin Consulting's spatial services. The data was useful in identifying poor condition roads, as well as highlighting basic geometry features. Asset information has been presented in Appendix D.

2.1.5 Site Investigations

Most roads in the area were reviewed and driven by vehicle. Some road widths have been checked to confirm that certain devices can be implemented; should the consultation process lead Council to that stage. The independent site inspections were undertaken in the context of a road safety audit to identify:

- Potential areas for speeding / rat-running through the area;
- Areas where parking demand is high and there is potential conflict between parked vehicles and travelling vehicles in particular streets;
- The provisions for vulnerable road users such as cyclists and pedestrians;
- Intersections with limited sight distance or other factors that might influence crashes; and
- Conflicts with land uses, for example abutting residential, school and industrial zones.

2.2 Summary of Key Issues

While there were many separate issues raised by the community (summarised in Appendix A), not all issues warrant specific intervention. In some cases, the reported concerns cannot be substantiated by actual traffic data, while in other cases the concerns and potential remedial treatments need to be balanced against the needs of other road users and possible adverse impacts, as well as the “value for money” of the treatment. The following comments summarise and respond to the major concerns raised by the community.

2.2.1 Speeds and Volumes

Numerous residents mentioned excessive speeds and traffic volumes throughout the precinct. Some of these comments were made in the general sense that excessive speeds were encountered “area wide”, while others were specific to certain streets. Roads mentioned included:

- Arthur Street
- Ballville Street
- Bradford Street
- Carter Street
- Da Costa Avenue
- Flora Terrace
- Gloucester Street
- Labrina Avenue
- Milner Street
- Prospect Terrace
- Richman Avenue
- Te Anau Avenue

From examining the traffic data obtained in November 2014, it was seen that 85th percentile¹ speeds range from 41km/h to 51km/h with average speeds of 35km/h – 40km/h.

Volumes on a majority of streets are less than 1,500 vehicles per day and are therefore considered Local Streets. The only exception to this is Percy Street with approximately 1,800 vehicles per day and is considered a Minor Collector Road.

2.2.2 Parking Issues

Respondents made reference to various locations where parking can create congestions/squeeze points, including:

- Airlie Avenue
- Arthur Street
- Ballville Street
- Carter Street
- Clifford Street
- Da Costa Avenue

¹85th Percentile speed is the speed at or below which 85% of all vehicles are observed to travel under free flowing conditions past a nominated point

- Flora Terrace
- Edgeworth Street
- Hudson Street
- Kintore Avenue
- Koonga Avenue
- Labrina Avenue
- Milner Street
- Percy Street
- Prospect Terrace
- Richman Avenue
- Stuart Road
- Wilson Street

2.2.3 Pulsford Road – Single lane angled slow points

Several residents expressed concern over the (previously installed) single lane angled slow points along Pulsford Road. Various issues were mentioned including condition, driver behaviour approaching slow points, rubbish collection and access difficulties for properties adjacent each slow point.

Separate to the LATM, Tonkin Consulting was also engaged to undertake an assessment of the existing devices and subsequently a design of upgrades of the devices. The design proposed the replacement of the angled slow points with single lane road humps, which have now been constructed. As a result of this, the comments surrounding these single lane angled slow points is considered closed.

2.2.4 Ballville Street

Residents raised concerns of ‘opportunistic non-locals’ (rat running) between Prospect Road and Main North Road as it is the southern most direct access between the two major roads.

The street also has a larger number of “Hit Parked Vehicle” accidents along the street. The accidents are more frequent in the western half, which community feedback suggests is due to the increase in traffic from Blackfriars School.

2.2.5 Carter Street

Residents raised concerns of high speed traffic between Prospect Road and Main North Road to avoid lights at Fitzroy Terrace. There is also an increase in traffic due to Blackfriars School during pick up and drop off times.

Subsequent concerns were also raised over the development of the “On The Run” service station on the corner with Main North Road. Additional traffic data was collected on Carter Street (March 2017) to consider the impact of the development.

2.2.6 College Avenue/Main North Road Intersection

Several residents expressed sight distance issues caused by the bus stop located to the south of the College Avenue & Main North Road Intersection. During peak hours this bus stop was also flagged as being unsafe due to the small footpath and large amount of students from Blackfriars.

2.2.7 Gloucester Street

A number of residents raised issues with access to both Prospect Road and Main North Road, especially during peak times. The intersection at Prospect Road was flagged as dangerous due to the proximity to the service station entrance and conflicting traffic movements.

There is also a concern of higher speeds at the western end of Gloucester Street, as the traffic control devices only exist at the eastern end.

2.2.8 Highbury Street – Blackfriars School

Highbury Street was raised repeatedly by residents living in the southern end of the study area as being highly congested by traffic activities associated with Blackfriars School.

These activities included:

- Parking on street all day (i.e. staff and older students);
- Hoon driving;
- Large influx of cars at pick up times that double park illegally causing congestion;
- Parking time restrictions are being ignored and not policed.

There have also been several residents express concern over the amount of car carriers using the road due to the car yards on Main North Road.

Subsequent to the consultation process, Council has designed a new Emu Pedestrian Crossing in Highbury Street adjacent the school, which is scheduled for construction in May 2017.

2.2.9 Percy Street Intersections

From review of the collision data, it was noticed that there were 4 right turn crashes along Percy Street at the intersections with Arthur Street and Stuart Road. Residents commented that this could be due to misperceptions of speed due to the traffic control devices on Percy Street, as well as rat-running traffic as motorists try to avoid the Prospect Road/Regency Road intersection.

2.2.10 Te Anau Avenue

Residents raised concerns over the generally tight street and poor sight lines at the Wilson Street and Bradford Street intersections.

Collision data indicated two right angle crashes at the Bradford Street intersection and one at the Moora Avenue intersections.

2.3 Second Round of Community Consultation

A second round of community consultation was undertaken in December 2016 to provide comment on the proposed treatment options. The consultation was undertaken by Council and included providing a mail out and link to the report.

Circulars were sent to 1,851 properties in December 2016 and 120 written responses were received (6.5% response rate).

Feedback from this community consultation has been summarised within the relevant street and issue identified. The full summary of feedback is included in Appendix G.

Generally, there was greater support for subtle traffic control measures through restriction of parking, contrasting pavement and speed humps rather than high impact traffic control devices such as road closures and driveway entries.

Additional concerns that were raised as part of this consultation include:

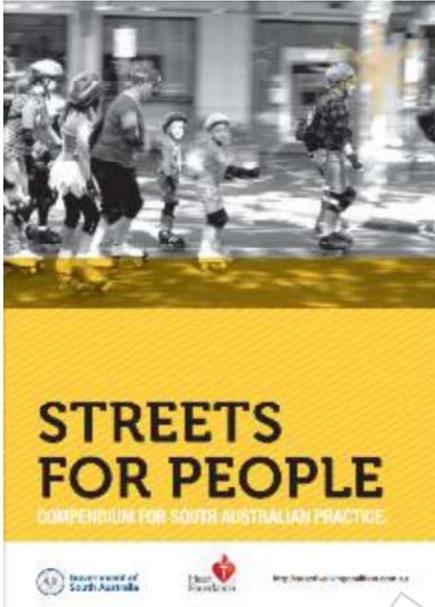
- Lack of consideration for cyclists and pedestrians in study area with installation of existing traffic control devices, and
- Concern over current developments in or adjacent to the study area, i.e. new On The Run on Main North Road and new cinema complex on Prospect Road.

Attachment

3 Discussions and Recommendations

3.1 Design Approach

The primary objective of LATM is to change driver behaviour, both directly by physical influence on vehicle operation, and indirectly by influencing the driver's perceptions of what is appropriate behaviour in that street. A key aim is to reduce traffic volumes and speeds in local streets to increase liveability and improve safety and access for pedestrians and cyclists.



The design of an appropriate street environment should deal with traffic management as an integrated part of the design and not be contingent on the need for specific or non-conforming traffic control devices. A design process using the guiding principles is set out in a range of documents including the Streets for People Compendium and the Austroads Guide to Traffic Management that will help deliver an integrated design for all users of a street.

In developing options to address the key issues identified in Section 2, consideration has been given to appropriate street designs and traffic control interventions based on a holistic and integrated approach, which achieves:

- a people-centred approach
- an appropriate speed environment
- best practice for considering movement and accessibility needs of all road users
- objectives set for the street within its wider context.

3.2 Speeds and Volumes

A review of actual traffic data collected in November 2014 does not reveal any street with unduly high volumes or speeds. Average speeds are typically around 40km/h and 85th percentile speeds at approximately 45km/h which is acceptable for the prevailing speed limit based on Council's "intervention criteria".

The only road with daily traffic volumes in excess of 1,500 vehicles per day are Percy Street (1,800 vehicles per day). As a general guide, traffic volumes less than 1,500 vehicles per day are considered acceptable for residential streets, which is reflected in the "intervention criteria" as part of Council's Traffic Management Policy (Appendix F).

Overall, speeds and volumes throughout the precinct are considered acceptable. Based on the available traffic data and Council's "intervention guidelines", there is little warrant to consider the wholesale application of further traffic control devices specifically aimed at reducing speeds or volumes. However, it is noted that these guidelines are to be "approached cautiously". Traffic management is not an exact science, and the use of quantitative criteria must be recognised as a guide only.

3.2.1 40km/h Speed Zone

A number of residents raised the idea possibly of changing the speed limit in all the streets in the study area from 50km/h to 40km/h. This was in response to perceived high speeds across the study area as well as to maintain consistency with the area to the west of Prospect Road.

40 km/h precinct speed limits were first introduced in Adelaide by the City of Unley circa 1991. Following the Unley trials, DPTI developed guidelines for the installation of 40 km/h precinct speed limits that require in part:

- The clear definition of the chosen precinct with clear boundaries (typically arterial roads)
- Existing average speeds in the chosen precinct to be less than 50 km/h;
- Agreement with SAPOL for an enforcement strategy; and
- Two third community support for the lower speed limit.

The 40 km/h guidelines were prepared at a time when the default metropolitan speed limit was 60 km/h. The aim of the lower speed limit was to reduce average speeds to around 40 km/h. It is important to note that average speeds around 40 km/h equate to 85th percentile speeds closer to 50 km/h.

Existing average speeds throughout the Prospect NE and SE precincts are already 35-42 km/h which are commensurate with the anticipated outcomes of a 40 km/h speed limit. That is, the community should not expect a further wholesale reduction in speeds if a lower limit was introduced.

Council has applied a 40 km/h speed limit in the area between Prospect Road and Churchill Road. This was undertaken circa 2000. Average speeds in this precinct are commensurate with current speeds throughout the Prospect NE and SE precincts.

It is interesting to note that following the introduction of the default 50 km/h urban speed limit, there has been less community or industry impetus for 40 km/h speed limits. Some Councils (e.g. Onkaparinga) have actually removed earlier 40 km/h precinct limits in favour of a uniform 50 km/h across their Council. Previous LATM's conducted in other areas of Prospect (e.g. Nailsworth and Collinswood) have indicated the community generally does not have the appetite for the wholesale application of the lower limit. Note that the Ministerial guidelines² require at least two thirds support for a 40 km/h speed limit.

Notwithstanding, there may be growing community interest in the use of lower speed limits, with an emphasis on road safety and encouragement of walking and cycling as alternative transport modes. We understand that one other metropolitan Council has undertaken widespread community consultation on this matter however no formal resolution has been announced.

The application of a 40 km/h speed limit within the Prospect NE and SE precincts remains a viable treatment option, although the community should not expect a wholesale reduction in existing speeds. However, this treatment is subject to Ministerial approval and having two third community support. In the interest of consistency, Council may want to reconsider whether 40 km/h precinct speed limits should be applied throughout the Prospect Council, similar to the whole of Unley.

3.2.2 Community Feedback

Generally, there was support for a reduction in the speed limit to 40km/h with 13 responses in support of a reduction and 4 responses opposed. As mentioned above, Council may want to consider whether 40km/h precinct speed limits should be applied throughout Prospect Council given the support ratio of the community consultation feedback (76%).

Recommendation: Council gives further consideration to the strategic application of 40 km/h speed limits throughout the Prospect Council area.

² Traffic Control Standard 40 km/h Precinct Speed Limit, Transport SA, August 1998, <http://www.dpti.sa.gov.au/standards/tass> accessed 10 December 2015

3.3 Parking Issues

While it was acknowledged that a number of residents raised the problem of squeeze points on narrow streets due to parked cars, Council currently has a system as part of their traffic management policy to deal with narrow streets.

If there was a significantly high number of crashes due to parked cars and the street was observed to be considerable busy during the site visit, then the issue has been discussed in following sections. Specific locations are discussed below for Ballville Street and Te Anau Avenue.

3.4 Ballville Street

3.4.1 Restrict parking

There have been 9 accidents along Ballville Street between 2007 and 2013, all of which were involving a collision with a parked vehicle. Two of these accidents included injury to persons, with the remainder being property damage. It should be noted that the parking issues may be caused by staff and student parking from Prescott College.

The figures below show the possible restrictions of parking along Ballville Street. The restrictions are staggered along the road so that a clear traffic line is not created, and will keep speeds down. An alternative solution would be to only restrict parking at the western end of Ballville Street, as a higher number of crashes have occurred (6) at this end.



Figure 3.1 - Parking restriction at western end of Ballville St



Figure 3.2 - Parking restriction at eastern end of Ballville St

3.4.2 Community Feedback

Due the potential for traffic management to be constructed in Carter Street, discussed in Section 3.5, there was a concern within the community feedback that traffic may increase in Ballville Street as motorists attempt to avoid Carter Street.

A total of 6 respondents were in favour of additional traffic control in Ballville Street, with one opposed. 2 respondents were in favour of restricted parking, while 4 were in favour of another form of traffic management (speed humps, slow points etc).

Recommendation: Council implement the parking restrictions as outlined above. This option can be progressed through specific consultation in accordance with Council's Narrow Streets Policy.

3.5 Carter Street

3.5.1 Overview

Various issues were identified along Carter Street including;

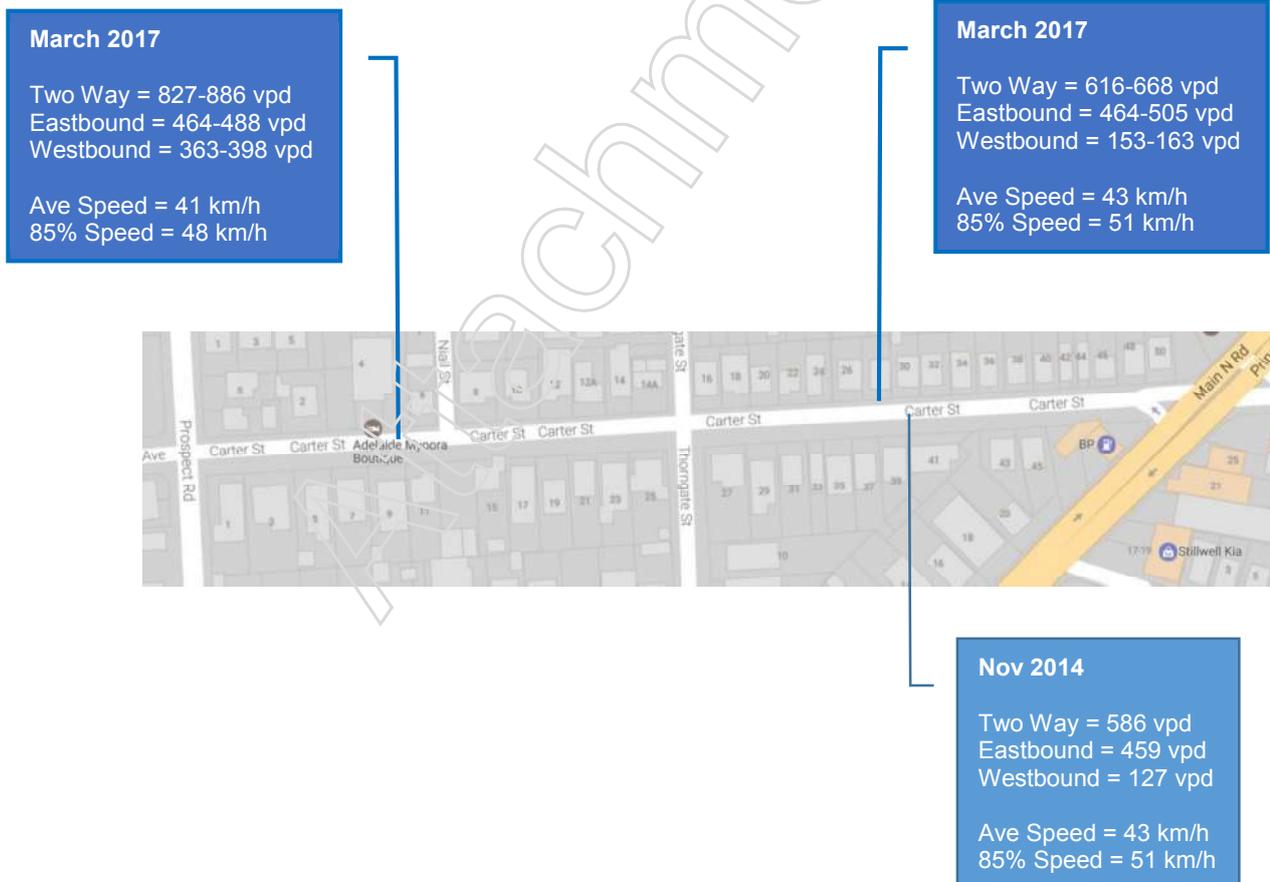
- High speeds
- Through traffic
- Increased traffic from Blackfriars School
- Increased traffic due to OTR development on Main North Road corner.

3.5.2 Traffic Data

The following traffic data is available for Carter Street:

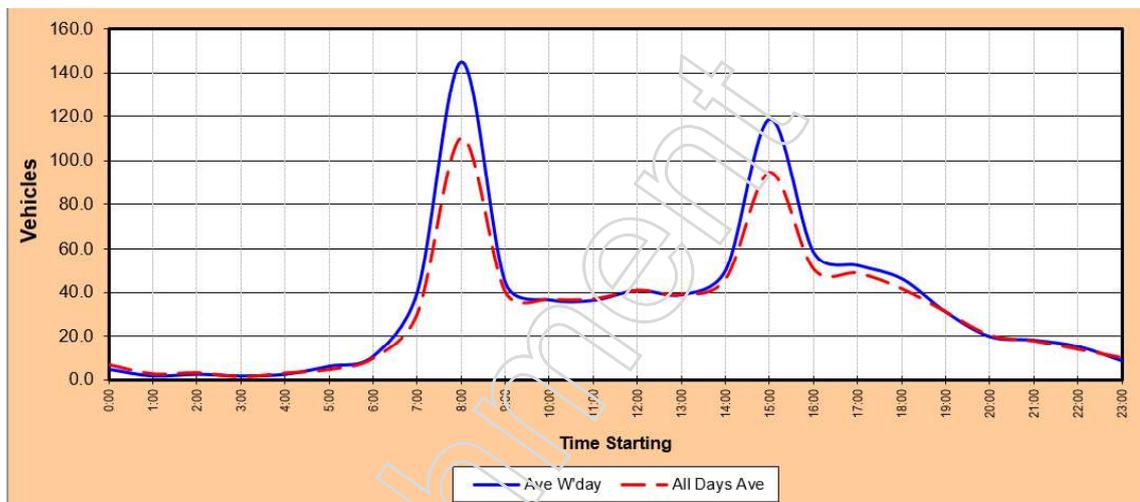
- #30 one week count November 2014
- #4 two weeks count March 2017
- #28 two weeks count March 2017

Note the more recent counts were undertaken after the completion of the OTR development.



The following observations can be made from this data:

- There may have been an increase in traffic volumes between November 2014 and March 2017
- There is a distinct eastbound dominance with traffic flows, and there is a disparity between the directional of flows at either end of the street.
- Eastbound flows between Prospect Road and Main North Road are reasonably consistent (around 460-500 vpd). However westbound flows vary between 150-160 vpd near Main North Road and 360-400vpd near Prospect Road.
- This difference may be related to school traffic circulating via Thorngate Street or Niall Street. The following graph shows the peak flows on Carter Street (between Prospect Road and Niall Street) occurring around 8:00-9:00am and 3:00-4:00pm typical of school traffic.



- Total traffic volumes are still well under Council's nominated threshold for local streets of 1,500 vpd. Speeds are also acceptable and within Council's thresholds.

The following sections discuss some of the options examined.

3.5.3 Full Road Closure

Residents expressed concerns over the amount of through traffic between Prospect Road and Main North Road to avoid traffic lights at the intersections with Fitzroy Terrace. However, the strength of this movement is not fully understood as drivers are not able to turn right to/from Carter Street from Main North Road.

One option is to place a full road closure at the intersection of Thorngate Street. This is not anticipated to affect residents along the street negatively as there are other access options, shown in Figure 3.3 below. However, it would have a significant effect on traffic movements associated with the nearby Blackfriars schools.

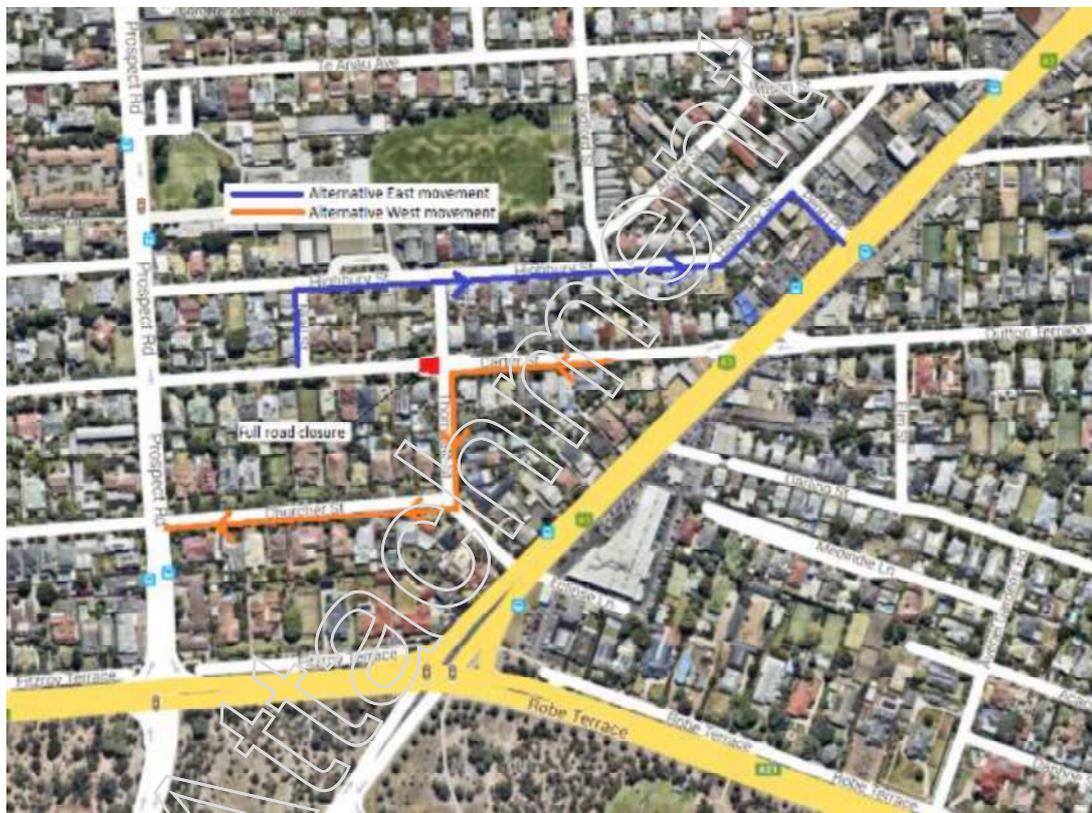


Figure 3.3 - Road closure example showing maintained traffic movements

3.5.4 Diagonal Road Closure

An alternative to a full road closure, would be a diagonal road closure to maintain some east-west traffic movements by residents while discouraging through traffic.

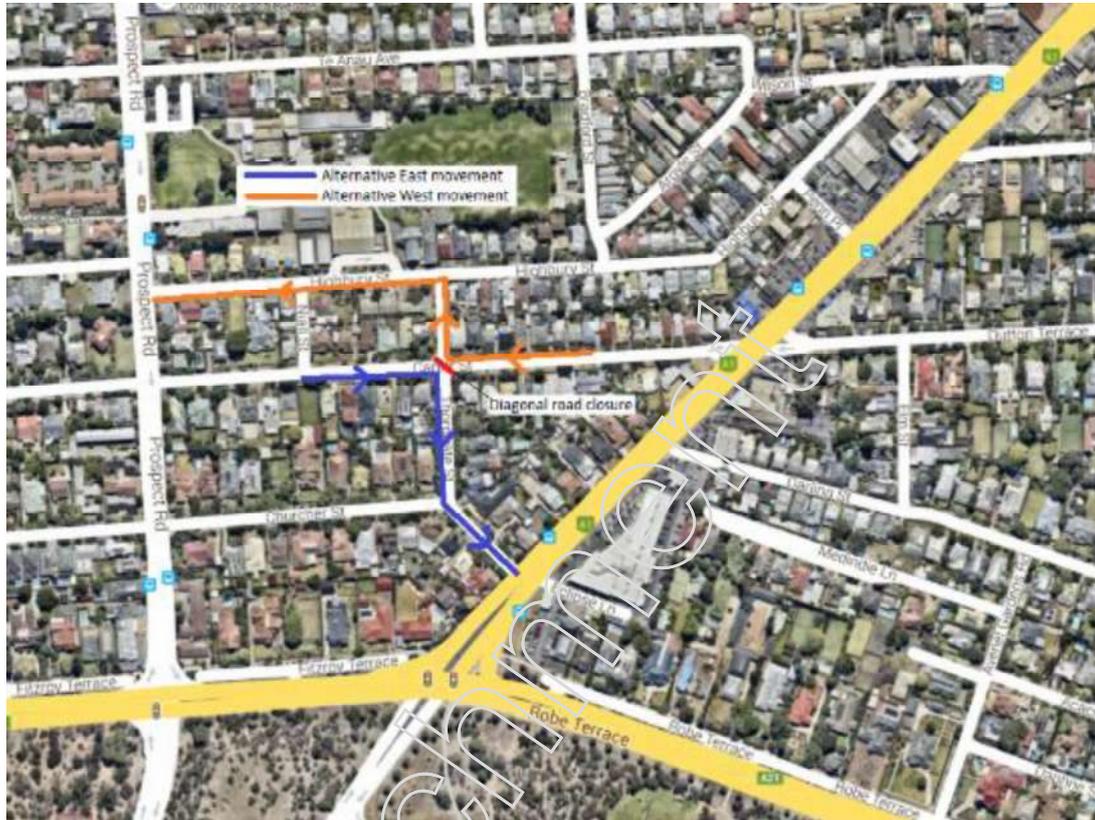


Figure 3.4 - Diagonal road closure showing maintained traffic movements

3.5.5 Roundabout

Residents also expressed concerns in regard to speeding and “hoon” driving along Carter Street. It was suggested that a roundabout be considered at the intersection with Thorngate Street. This would slow traffic and increase safety at the intersection by changing movement priority. A roundabout would have little effect on reducing traffic along Carter Street.

3.5.6 Raised intersections

A further option is to construct a raised intersection at the intersection with Thorngate Street. This would physically slow traffic down, as well as raise alertness and safety at the intersections. A raised intersection would have little effect on reducing traffic along Carter Street.



Figure 3.5 - Example of a raised intersection

3.5.7 Single Lane Speed Humps

An alternative option is to treat the whole of Carter Street with a consistent traffic management device. This would address the high speeds concern and discourage through traffic.

Single lane speed humps are a recommended option as consistency will be maintained within Council area and with recent construction work.

3.5.8 Community feedback

Generally, there was a lack of support (39 opposed) for any type of road closure along Carter Street, as it would have a large impact on neighbouring streets (namely Churcher Street and Thorngate Street) by inconveniencing residents and moving “rat-runners” from Carter Street to these neighbouring streets. It is noted that most respondents were from Churcher and Thorngate Streets.

Road closures would also have a significant impact on accessibility and traffic movements around the Blackfriars School.

However, there was support for some form of intersection treatment at Carter Street and Thorngate Street, with 14 in support of a roundabout, and 4 in support of a raised intersection.

There was also support for a street wide treatment of single lane speed humps, with 18 in support and 2 opposed.

Recommendation: We do not believe that conditions warrant the installation of full or partial road closures.

On this basis that the traffic data confirms that speeds and volumes are not excessive for a local street, we do not believe that whole of street treatment with road humps are warranted.

We recommend that further consideration be given to either a roundabout or raised intersection treatment of Thorngate Street.

3.6 College Avenue/Main North Road Intersection

Several residents expressed concern over the reduced sight distance due to the bus stop shelter at College St / Main North Road intersection, as can be seen in Figure 3.6 below. A number of residents have also raised concerns that a large amount of students using the bus stop increases this sight restriction.

However, it should be noted that bus stops are a DPTI controlled asset and the final decision of their relocation or removal resides with them.



Figure 3.6 - View looking south from College Avenue / Main North Road Intersection

3.6.1 Removal of bus shelter

Due to the sight distance restrictions of the bus stop a possible option is to remove the bus shelter structure to remove the sight restriction.

3.6.2 Relocation of bus stop

Another option is to relocate the bus stop to the north side of College Avenue. As well as removing the bus shelter obstruction, this option will stop the obstruction caused by passengers waiting for the bus.

3.6.3 Removal of bus stop

An alternative is to remove the College Avenue bus stop entirely. Due to the proximity of the bus stop at Gloucester Street, the implications of removing the bus stop would be minimal. The Gloucester Street bus stop is approximately 170 metres north of the College Avenue stop.

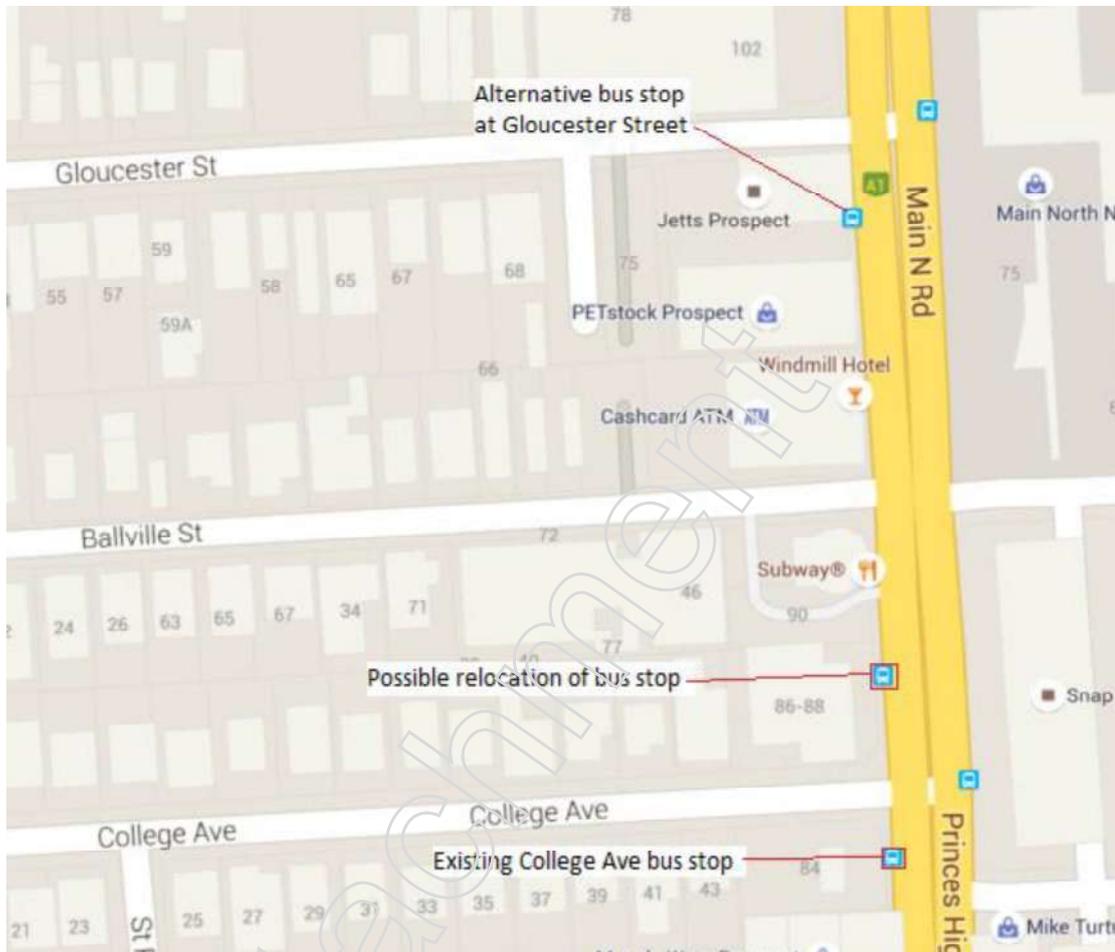


Figure 3.7 - College Avenue bus stop options

3.6.4 Community Feedback

The bus shelter at College Avenue is going to be removed by Adshel during 2016. Removal of the shelter will address the site line issues.

Recommendation: No further action at this stage (noting that conditions along Main North Road are currently being reviewed as part of the Main North Road Master Plan).

3.7 Gloucester Street

A number of residents raised issues with access to both Prospect Road and Main North Road, especially during peak times. The intersection at Prospect Road was flagged as dangerous due to the proximity to the service station entrance and conflicting traffic movements.

3.7.1 Single lane speed humps

A number of residents have expressed concerns involving speeds and inconsistency in traffic management devices along Gloucester Street. The eastern end of Gloucester Street contains single lane speed humps at regular spacing of approximately 100 metres.

The 85th percentile speeds at the eastern end are 42km/h compared to 50km/h at the western end. The traffic also increased from approximately 1,050 vehicles per day to 1,200 vehicles per day.

An option is to maintain consistency along the street by installing single lane slow points along the western half of the street. This is not expected to have any negative implications to the surrounding network. This is also consistent with surrounding streets; namely Pulsford Road which has recently had single lane slow points constructed.

3.7.2 Community Feedback

Generally, feedback on the proposed Gloucester Street treatment of single lane speed humps was minimal, with only 3 responses received. 2 responses were opposed to extending the single lane speed hump treatment into the western half of Gloucester Street on the basis of aesthetics.

Recommendation: While it is noted that a majority of responses were opposed to the proposal of single lane speed humps, it should be recognised that only 3 responses were received in the second round of consultation while 6 responses were originally received that raised high speeds and rat-running as an issue.

As a result, it is recommended that single lane speed humps be installed in the western end of Gloucester Street to maintain consistency along the street as well as the wider Council area.

3.8 Highbury Street – Blackfriars School

3.8.1 Overview

Highbury Street was raised repeatedly by residents living in the southern end of the study area as being highly congested by traffic activities associated with Blackfriars Primary School.

These activities included;

- Parking on street all day on both sides of the road (i.e. staff and older students)
- Hoon driving
- Large influx of cars at pick up times that double park illegally causing congestion

It should be noted that the options identified below are not exclusive and can be used in conjunction. If two or more of these options are recommended and accepted by both the community and Council, then the option can be implemented in stages. This will reduce unnecessary capital expenditure if not, all the recommended options are needed.

3.8.2 Restrict parking

Currently, parking is restricted during peak school times (7am – 9am & 3pm – 4pm). There is also a two hour parking limit outside of these times. A number of community responses have suggested that this is not regularly adhered to and there are often cars parked along the street during peak times.

One option to approach the “all-day” parking issue is to restrict parking at all times. This would be through the introduction of “No Standing” signs. This would typically reduce the amount of cars parked illegally during peak times; but would also require policing by Council staff, especially at the introduction of the new traffic controls.

3.8.3 One Way Restriction

Due to the nature of the network it is possible to make the section of Highbury Street one-way, between Niall Street and Thorngate Street, with minimal impacts to the surrounding streets. This will reduce congestion along this section of road and improve traffic flow during peak school times.



Figure 3.8 - School drop off zone with one-way section

3.8.4 Pick Up / Drop off

It is also recommended that further investigations/design be undertaken, between Council and Blackfriars, into alternative drop off and pick up zones around the school road network. Some locations suggested are;

- Te Anau Avenue
- Prospect Road (East and West side)
- Prospect Terrace

3.8.5 Penn Place Intersection – Driveway Entry

There have also been several residents express concern over the amount of car carriers using the road due to the car yards on Main North Road. The traffic count data shows a heavy vehicle percentage of 6% which is higher than normal for a street of this nature, which would typically expected to be 2 – 3%.

An option to address this would be to construct a driveway entry to the west of Penn Place. This would separate the car yards to the east of Penn Place to the residential street to the west.

3.8.6 Single lane speed humps

An alternative option is to treat the whole of Highbury Street with a consistent traffic management device. This would address the “hoon” driving concern and would reduce the amount of heavy vehicles using the road.

Single lane speed humps are a recommended option to help maintain consistency within Council area and accompany recent construction work.

3.8.7 Community Feedback

Generally, there was limited support for any traffic management along Highbury Street, with 8 opposed and 2 in support. It was acknowledged that there are traffic restrictions during pick-up and drop-off times around Blackfriars but it was also noted that this occurred during a small percentage of the day and did not align with the peak time of people returning from work (5:30pm – 7:00pm).

Council has had further discussions with Blackfriars regarding the functionality of the pickup drop off zone on Highbury Street located between Thorngate and Niall Street. The school has changed the time limit of this zone to ensure turnover and has been more vigilant with teachers monitoring the area to ensure adequate turnover occurs.

Council has also met with Blackfriars regarding drop off zones and has advised the school of alternative drop off locations.

Council has been involved in ongoing discussions with Black Friars Priory School regarding implementation of a School Crossing on Highbury Street. Through these discussions Council has installed an Emu Crossing on Highbury street to facilitate safe crossing. The crossing has been located between Thorngate street and Niall Street.

We understand that since the level of anecdotal complaints has reduced since the new crossing was installed.

Recommendation: No further action at this stage. Continue to work with the School and local community to manage ongoing traffic concerns as far as practical.

3.9 Percy Street Intersections

From the review of the collision data, it was noticed that there were 4 right turn crashes along Percy Street at the intersections with Arthur Street and Stuart Road. Residents commented that this could be due to misperceptions of speed due to the traffic control devices on Percy Street, as well as rat-running traffic as motorists try to avoid the Prospect Road/Regency Road intersection.

While there have not been any crashes reported at the intersection with Airlie Avenue, it would be recommended to treat this intersection in the same way as Arthur Street and Stuart Road. This will maintain consistency along Percy Avenue and address the concern over through traffic along Airlie Avenue.



Figure 3.9 - Percy street intersections

3.9.1 Driveway entries

One option to address the crashes at the intersections, as well as deter through traffic, is to treat the side roads with a driveway entry treatment. A driveway entry treatment (refer figure 3.10) gives the appearance of a T-intersection with a 'private driveway' located opposite the terminating leg of the new intersection. This will increase the safety of traffic entering Percy Street and reduce accidents. The device will also most likely discourage through traffic along the street.

This option is benefited since it works in conjunction with the existing traffic control devices along Percy Street, and does not require their removal.

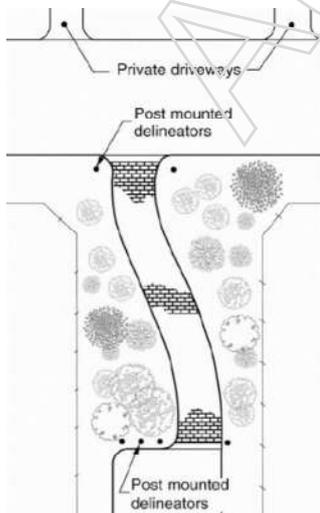


Figure 3.10 - Example of a driveway entry

3.9.2 Contrasting pavement

An alternative is to treat the intersection with contrasting pavement. This could be stamped coloured asphalt or a differing surface (brick pavers). This would raise alertness at the intersection and would most likely increase safety.

While this style of treatment does not typically have an effect on speeding or through traffic, it is much cheaper than the previous alternatives and simpler in construction (no drainage implications etc).



Figure 3.11 - Example of a contrasting pavement intersection

3.9.3 Community Feedback

Generally, the community was opposed to the proposal of driveway entries at the intersection of Stuart Road, Arthur Street and Airlie Avenue, stating that this will add confusion to motorists on Percy Street that already has traffic management devices.

Recommendation: The hazardous aspects of these intersections were acknowledged and there was support for contrasting pavements at the intersections to raise awareness of drivers approaching Percy Street.

3.10 Te Anau Avenue

Residents raised concerns over the generally narrow street and poor sight lines at the Wilson Street and Bradford Street intersections.

Collision data indicated 2 right angle crashes at the Bradford Street intersection and 1 at the Moora Avenue intersections.



Figure 3.12 - Te Anau intersections

3.10.1 Raised intersections

An option is to construct raised intersections at the intersections with Moora Avenue and Bradford Street. This would physically slow traffic down in both Te Anau Avenue and each side street, as well as raise alertness and safety at the intersections.

3.10.2 Contrasting pavements

An alternative is to treat the intersection with a contrasting pavement. This could be stamped, coloured asphalt or a differing surface (brick pavers). This would raise alertness at the intersection and would most likely increase safety.

While this style of treatment does not typically have an effect on speeding or through traffic, it is much cheaper than the previous alternatives and simpler in construction (no drainage implications etc).

3.10.3 Single Lane Speed Humps

An alternative option is to treat the whole of Te Anau Avenue with a consistent traffic management device. This would address the high speeds concern and discourage through traffic.

Single lane speed humps are a recommended option to help maintain consistency within Council area and accompany recent construction work.

3.10.4 Restrict parking

There have been a number of parked vehicle collisions along Te Anau Avenue between 2007 and 2013. There was a high number of resident complaints about parked vehicles. One of these accidents included injury to persons, with the remainder being property damage.

The following figure below shows the possible restrictions of parking along Te Anau Avenue. The restrictions are staggered along the road so that it does not create a clear traffic lane, and will keep speeds down.



Figure 3.13 – Possible parking restrictions on Te Anau Avenue

3.10.5 Community Feedback

Generally, there was mixed support the restriction of parking along Te Anau Avenue. While it was acknowledged that the road is tight and heavily restricted due to parked cars on both sides, there was a concern that residents would lose visitor parks.

Recommendation: Given the amount of crashes along the street and the issues raised in the initial consultation period it is recommended that parking restrictions be put in place along Te Anau Avenue. This option can be progressed through specific consultation in accordance with Council's Narrow Streets Policy.

4 Summary and Recommendations

1. Council gives further consideration to the strategic application of 40 km/h speed limits throughout the Prospect Council area.
2. Council implement parking restrictions in Ballville Street and Te Anau Avenue in accordance with Council's Narrow Streets Policy.
3. Single lane speed humps be installed in the western end of Gloucester Street to maintain consistency along the street as well as the wider Council area.
4. Contrasting road pavements be used at key intersections along Percy Street to raise awareness of drivers approaching Percy Street.
5. Continue to work with the Blackfriars School and local community to manage ongoing traffic concerns as far as practical in Highbury Street.

Attachment

Appendix A

Summary of Community Feedback

Attachment

Number of Comments Received	Airline Avenue	Number of Comments Received	Solution
1	Poor condition of footpath (eastern end)	1	Reduce speed limit to 40km/h
1	Rat run / high traffic volumes		
1	Parking on both sides of a narrow road		
Number of Comments Received	Alpha Road	Number of Comments Received	Solution
2	Rat run / high traffic volumes (as other side roads have access blocked from Main North Road)	1	Open access to other side roads to share traffic load
1	Poorly located traffic devices - confusion on who goes first	1	Relocate devices away from intersections
1	Difficult access to driveway #13 due to traffic device (and noise of device)	1	Improved design of devices (less noise) and better access to driveways
1	Parking in front of #43 adjacent chicane		
Number of Comments Received	Argyle St	Number of Comments Received	Solution
1	owners tenants park on road - shortage of spaces for visitors - disregard of permit spots		Permit spaces only
Number of Comments Received	Arthur St	Number of Comments Received	Solution
3	Parking on both sides of a narrow road	2	Make road one-way
1	High speeds / acceleration	1	40 km / h
Number of Comments Received	Ballville St	Number of Comments Received	Solution
2	Traffic cut through to Blackfriars School	1	40km/h speed restriction
1	High speeds	2	Restrict parking on one side of road
2	Parking on both sides of a narrow road		
1	Traffic cut through between Prospect Road and Main North		
Number of Comments Received	Bradford St	Number of Comments Received	Solution
2	High speeds		
1	Parking issues (Blackfriars)		
Number of Comments Received	Carter St	Number of Comments Received	Solution
2	Rat running to avoid delays at Fitzroy / Main North Road at speeds	1	Install roundabout at Thorgate and Carter, or road humps
1	Cars parked opposite driveways	1	Mark parking restrictions
1	Signage obscured by vegetation	1	Monitoring and maintenance
3	Parking by students of Blackfriars	1	BlackFriars to provide more on site parking
1	Car yards use the road to park their vehicles		
1	Parking restrictions in surrounding streets has increased the parking in Carter St		
Number of Comments Received	Clifford St	Number of Comments Received	Solution
1	Parking on both sides of a narrow road	1	Restrict parking on one side of road
1	Parking too close to intersections		

Da Costa Ave		Number of Comments Received	Solution
1	Traffic cut through to Blackfriars School	1	Traffic device
3	High speeds	1	40km/h speed restriction
1	High number of trucks using road	1	Restrict truck usage of the road
1	Increasing traffic due to development in the area	1	Stop developments
1	Parking on road	1	Parking restrictions
Flora Tce		Number of Comments Received	Solution
2	Parking congestion between Prospect Road and New/Union Street due to restaurants	1	Residential parking permits
1	Concern over plans for reconstruction	1	Parking limits of 1.5-2 hrs
1	High speeds	1	40km/h
1	High volumes of rat running between Main North Road and Prospect Road	1	Restrict movement on/off Prospect Road
1	"No parking except permit holder" restrictions should only be applied during football matches, not all weekend		
Edgeworth St		Number of Comments Received	Solution
1	Parking on both sides of a narrow road	1	Restrict parking on one side of road
1	Parking too close to intersections		
Glouster St		Number of Comments Received	Solution
2	Difficult to access Prospect Rd at peak times	1	Add a turn lane
2	Difficult to access Main North Rd at peak times	1	Manage turning traffic into BP more safely (ban right turn in & out)
2	No turn right lane off Prospect Road into Glouster Street	1	Install raised median on Prospect Rd
2	Risk of head on between right turning cars on Prospect Road	1	Need humps uniform installed along road
3	Rat-running to avoid main roads and access to Blackfriars school		
3	Speeding in western end (no humps)		
Highbury St		Number of Comments Received	Solution
5	Large amount of cars due to school (including students) - congestion	4	Parking on one side of road and/or spaces for students only
1	Rat running trucks and vans	1	No entry to Highbury from Penn Place
1	Hoon driving damaging pavement bars	1	Chicane or speed humps at bend
1	25km/h School signage not sufficient	1	Reduce speed limit
1	Driveway on bend - dangerous	1	Yellow lines next to driveways
2	Car carriers use road	2	More off street parking within Blackfriars
6	Street gets blocked due to school traffic double parking	1	2 Hour limits
3	Blackfriars Kiss and Drop issues		
1	Parking around Wilson Street (not adequate off street parks for tenants)		
2	Resident driveway access limited due to parked cars		
1	Students park both sides and ignore 2 Hour zone		
1	Students move cars when inspectors are about	1	Clearer Linemarking
Hudson St		Number of Comments Received	Solution
1	Commercial vehicle access and large trees (deliveries to North Park Shops) - hit trees	1	Improved signage
1	Parking on both sides of a narrow road	1	Restrict parking on one side of road
1	Parking too close to intersections		

Number of Comments Received	Kintore Avenue	Number of Comments Received	Solution
1	Parking congestion near Main North Road (parked trucks)	1	Prohibit parking for 50m both sides of Kintore
1	Parking congestion near Prospect Road (parking over driveways)	1	Mark no stopping areas and parking spaces and enforce
Number of Comments Received	Koonga Ave	Number of Comments Received	Solution
1	Yellow no parking lines are often covered by dirt and are unclear	1	Consider painting speeds on road
1	Cars parked opposite driveways restrict access	1	Restrict Parking to one side of road
1	Speed signage is obscured by trees		
1	Narrow road makes navigation difficult		
Number of Comments Received	Labrina Avenue	Number of Comments Received	Solution
2	Parking and narrow street (reference to Scout Hall, Meals on Wheels and Labrina Village)	2	No parking on one side of road
2	High speeds	1	Signage of speed limit
Number of Comments Received	McCrea Street	Number of Comments Received	Solution
1	Uneven and pot holed - poor condition for cyclists		
Number of Comments Received	Milner Street	Number of Comments Received	Solution
2	High traffic volumes	1	Make the western end of Milner a one way road
2	Speeds / current humps are ineffective		
1	Parking on both sides restrict traffic flow (eastern end)	1	Parking on one side only
1	High volume of cars parking to attend the Greek Church creates blockage		
1	Using the street as a Park and Ride (i.e. parking and then using public transport)		
Number of Comments Received	Moora Ave	Number of Comments Received	Solution
1	"No Parking" signage is inadequate and inconsistent		
1	Narrow road makes navigation difficult		
Number of Comments Received	Penn Place	Number of Comments Received	Solution
1	Semi trailers parked near Highbury Street (from car yards on Main North Road)		
1	Damage to pavement bars into Highbury Street due to large trucks		
Number of Comments Received	Percy Street	Number of Comments Received	Solution
1	Happy with existing conditions	1	Roadworks to fix
2	Humps need maintenance on approach edges (sunken)	1	Restrict parking on one side of road
1	Parking on both sides of a narrow road		
1	Parking too close to intersections	1	Implement no parking zones
1	The existing traffic control devices combined with parking exacerbate the congestion		

Number of Comments Received	Prospect Tce	Number of Comments Received	Solution
2	Parking on both sides of narrow road (Milner to Gloucester)	2	Restrict parking on one side of road
2	High Speeds	1	Enforce timed parking
1	High number of cars parked illegally for Blackfriars pick up	2	Restrict truck usage of the road
1	High number of trucks using road	1	Install chicanes along Prospect Tce and Da Costa Ave
Number of Comments Received	Prospect Tce	Number of Comments Received	Solution
1	Hedges adjacent slow points limit sight distance	1	
1	Lack of parking, especially with new developments on Prospect Road	1	
Number of Comments Received	Pulsford Road	Number of Comments Received	Solution
2	High speeds	1	40 km/h speed limit
2	Parking (narrow street)	1	Restrict Parking on one side
1	High amounts of traffic (due to Blackfriars)	1	Speed hump
Number of Comments Received	Richman Avenue	Number of Comments Received	Solution
2	Parking on both sides of a narrow road	1	Restrict parking on one side of road
1	Parking too close to intersections	1	Make road one-way
Number of Comments Received	Stuart Road	Number of Comments Received	Solution
1	Narrow road makes navigation difficult	1	
Number of Comments Received	St Peters Pl	Number of Comments Received	Solution
5	Parking on both sides of narrow road	2	Restrict parking on one side of road
1	Corner with Wilson is blind and dangerous	1	Signage / Mirrors
1	High volume of traffic for a local street	1	Install slow points, although not speed humps
1	Damage to parked vehicles	1	One-way east of Blackfriars
1	Road Rage is a problem	2	40km/h
2	Speed is too high for the narrow congested street	1	Clearer linemarking is needed
1	Parked cars are too close to driveways	1	
Number of Comments Received	Te Anau Ave	Number of Comments Received	Solution
1	Parking congestion due to Blackfriars School	1	
1	Increase in traffic rat running to avoid Main North/Robe and Prospect/Fitzroy (along with Carter and Churcher) Ref 1	1	
Number of Comments Received	Thorngate St	Number of Comments Received	Solution
1	Use of road by Car Carriers	1	Toyota dealership to use Main North Road
1	Hedge on the chicane is too high	1	Trim hedge
Number of Comments Received	Wilcox Ave	Number of Comments Received	Solution

Number of Comments Received	Wilson St	Number of Comments Received	Solution
2	Cars park illegally on dog leg forcing traveling cars to cross a solid white line on blind corner	1	No parking linemarking
1	Hoon driving	1	Traffic device (one way, islands)
1	Corner with Te Anau is blind and dangerous	1	Signage / Mirrors
Number of Comments Received	General Comments	Number of Comments Received	Solution
1	Too dangerous to ride bike along Prospect Road	1	Enforcement of bike lanes and parking
1	Consider efficient width of bike lanes	1	Free Council bikes with tracers
5	Narrow streets (several throughout Council) and parking	3	Parking restrictions on one side of the road
3	Inconsistent use of 40 speed limit throughout Prospect	1	40 throughout Prospect
1	Speeds through Foodland Car Park (cut through between Kintore and Labrina)	1	Install speed humps in car park
1	Prospect North Primary School - congestion in Alice, Arthur and Stuart	1	Improved traffic management around school (NB - this has been improved through consultation with school)
1	Cars being parked in driveways but over footpaths (reference to Airlie Ave)	1	Enforcement
2	No issues		
1	Main North Road - Dangerous U-turns (no specific location)	1	Ban U turns
1	Blackfriars traffic congestion / speeds in various streets	1	One way traffic flow
1	Bike lanes (on main roads) should be full time		
1	Various concerns including lack of action	1	More restrictive devices, block some streets, one way streets, enforcement
1	Already existing traffic management devices are dangerous, especially for trucks and trailers	1	Remove speed humps and diversions
2	Rat running between Main North and Prospect Roads on a number of local roads	1	Install Roundabouts to improve safety
1	Prospect Road - busy and hard to turn right		
1	Poor surface conditions		

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Ref 1 - Removal of parking restrictions in Carter and retention of restrictions in Churcher has increased traffic in Throngate

Ensure consultation with any changes to parking in Churcher St due to potential impacts in other streets

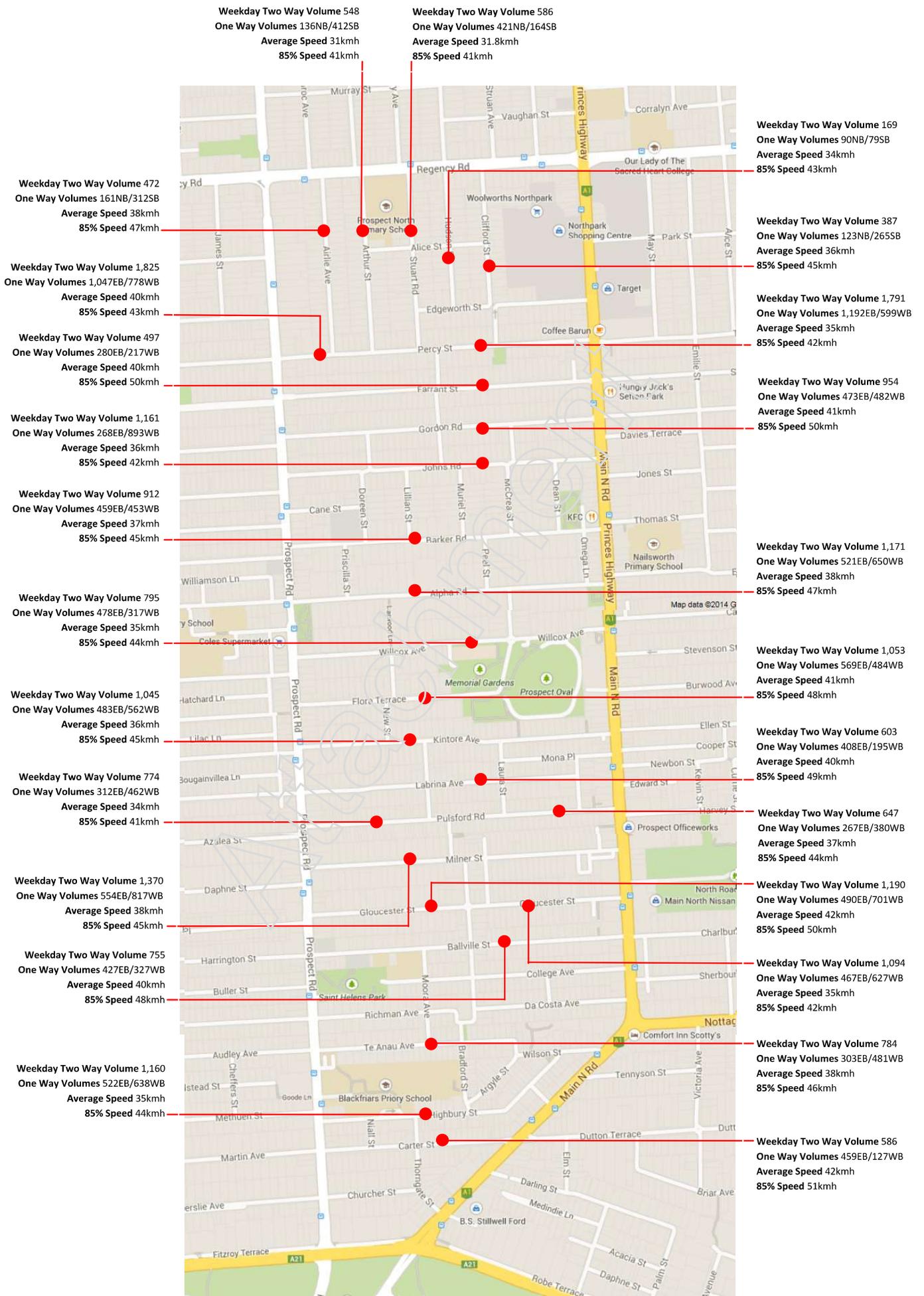
Number of Comments Received		Number of Comments Received	Solution
1	Telstra box in Regency limits sight distance		
	Regency Road / Stuart Road		
1	Blind corner (high fence and parked cars)		
	Milner St/Prospect Tce		
1	U turns by drivers in Prospect Road	1	No U Turn sign
	Prospect Rd/Willcox Ave		
1	Vehicles not stopping and take corner at speed	1	Install Stop or Give Way in Churcher
	Churcher St/Thorngate St		
1	Confusing right turn lane marking in Prospect Rd, turning onto wrong side of Barker	1	Improved marking or more islands to control turns
	Prospect Rd/Barker Road		
1	Dangerous turn out of Da Costa - limited sight distance	2	Close Da Costa
1	Intersection is close to Nottage Tce intersection and is unsafe		
	Main North Rd/Da Costa Ave		
4	Turning from College - view restricted by bus stop and Crowies development	2	Relocate bus stop to opposite side of College Ave int.
	Main North Rd/College Ave		
1	Frustration over right turn into Prospect Rd - confusion that can't turn with care at some times	1	Resolve inconsistency in use of red arrow vs turn right with care sign
1	Turn left from Prospect into Robe/Fitzroy is dangerous for pedestrians (speed of left turners)		
	Fitzroy Terrace/Prospect Rd		
1	Poor delineation of kerb ramps - easy to cut corner and mount footpaths	1	Delineation
	Moora Ave/Richman Ave		
1	No stop sign at intersection	1	Place stop sign at intersection
	Pulsford Rd/Watkins Rd		
1	Cars are parked on Prospect Tce too close to intersection	1	No standing zone on Prospect Tce
	Da Costa Ave/Prospect Tce		
1	High speeds and volumes	1	Install roundabouts
	Pulsford Rd/Labrina Ave		
1	Difficult to turn right onto Regency Road, creating congestion		
	Regency Rd/Grassmere Road		

Appendix B

Summary of Traffic Data

Attachment

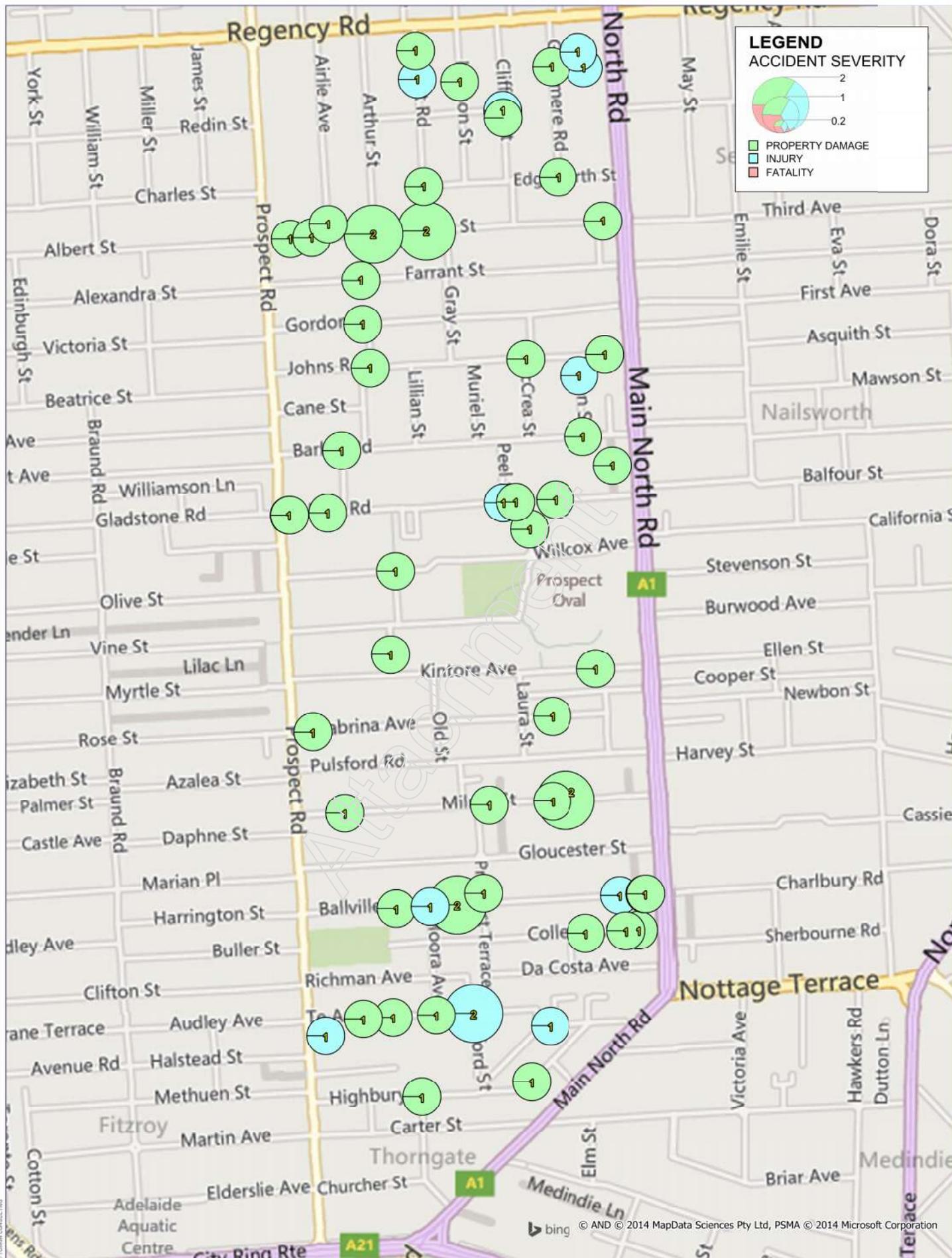
Prospect NE and SE LATM

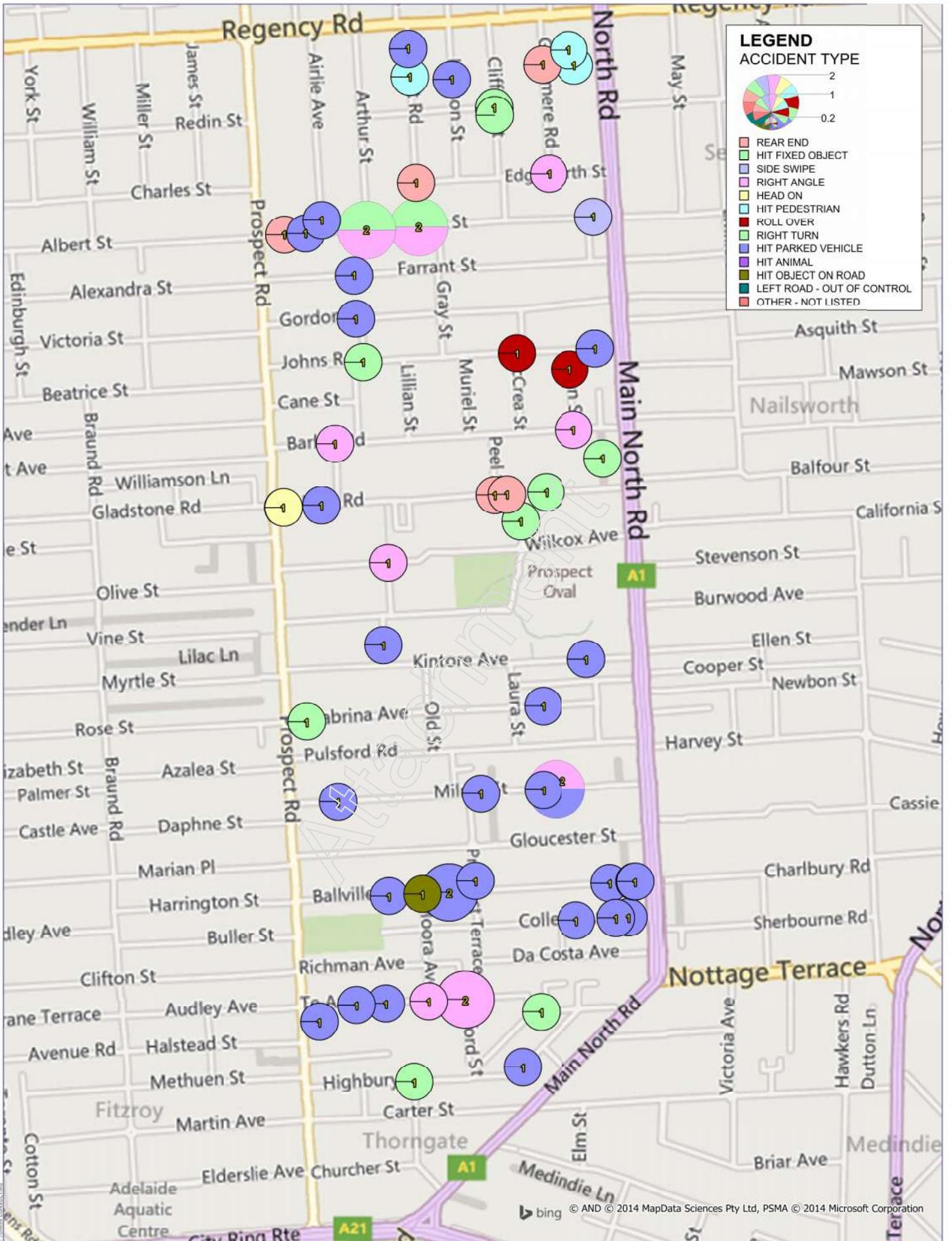


Appendix C

Crash Data

Attachment





Appendix D

Asset Register

Attachment

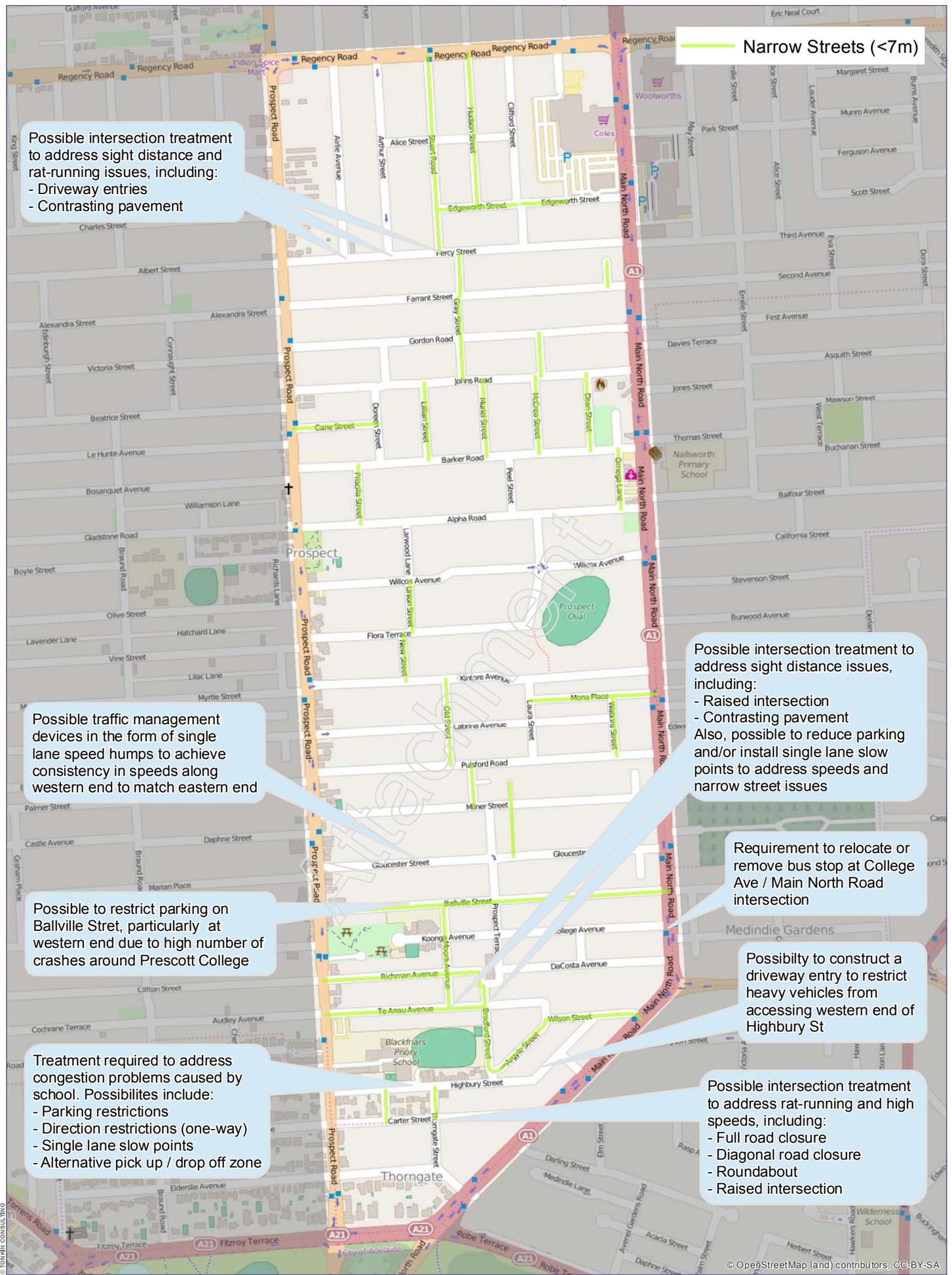
Road Name	From	To	Surface Type	Length	Width	Overall Condition	Remaining Life
Airlie Avenue	Percy Street	Regency Road	Spray Seal Local Road (35 Year) Surface	448	7.9	42.5	7
Alice Street	Arthur Street	Stuart Road	Spray Seal Local Road (35 Year) Surface	112.5	8.5	44	6
Alice Street	Stuart Road	Hudson Street	Spray Seal Local Road (35 Year) Surface	86.7	8.5	38	9
Alice Street	Hudson Street	Clifford Street	Spray Seal Local Road (35 Year) Surface	85.1	8.5	27	15
Alpha Road	Prospect Road	Main North Road	Fine Gap Graded <5% Hotmix Local Road Surface	797.4	8.2	39	6
Argyle Street	Bradford Street	Wilson Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	178.1	3.6	32	11
Arthur Street	Percy Street	Regency Road	Spray Seal Local Road (35 Year) Surface	449.5	7.3	32.25	12
Ballville Street	Prospect Road	Moora Avenue	Fine Gap Graded >5% Hotmix Local Road Surface	280.7	6.8	14.5	18
Ballville Street	Moora Avenue	Prospect Terrace	Fine Gap Graded >5% Hotmix Local Road Surface	118.9	6.8	14.5	18
Ballville Street	Prospect Terrace	Main North Road	Fine Gap Graded >5% Hotmix Local Road Surface	392.5	7.7	14.5	18
Barker Road	Prospect Road	Main North Road	Dense Graded Hotmix Local Road (Standard Pavement) Surface	795	8.2	39.5	4
Bradford Street	40S Te Anau Avenue	Te Anau Avenue	Dense Graded Hotmix Local Road (Standard Pavement) Surface	40.7	7.3	30.5	12
Bradford Street	Highbury Street	40S Te Anau Avenue	Dense Graded Hotmix Local Road (Standard Pavement) Surface	133.4	6.1	31.5	11
Bradford Street	Te Anau Avenue	Richman Avenue	Fine Gap Graded <5% Hotmix Local Road Surface	41.8	7.4	14.5	22
Cane Street	Prospect Road	Doreen Street	Spray Seal Local Road (35 Year) Surface	190.6	6.2	33.25	12
Carter Street	Prospect Road	Main North Road	Dense Graded Hotmix Local Road (Standard Pavement) Surface	485.2	10.8	42.5	3
Chevalier Street	Willcox Avenue	Alpha Road	Dense Graded Hotmix Local Road (Standard Pavement) Surface	113.9	7.3	0	29
Church Lane	Milner Street	North end	Interlocking Concrete Block Paved Surface	55.9	3.1	25	19
Church Lane	Gloucester Street	Milner Street	Dense Graded Hotmix Laneway/Path Surface	109.5	3	66.5	-13
Churcher Street	Prospect Road	Thorngate Street	Slurry Seal / Cold Overlay Local Road (25 Year) Surface	230.5	8	46	4
Clifford Street	Percy Street	Edgeworth Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	92.3	6.8	26	12
Clifford Street	Edgeworth Street	Regency Road	Spray Seal Local Road (35 Year) Surface	351.9	7	43.5	6
College Avenue	Prospect Terrace	Main North Road	Dense Graded Hotmix Local Road (Standard Pavement) Surface	393.2	7.5	39.5	4
Da Costa Avenue	Prospect Terrace	Main North Road	Dense Graded Hotmix Local Road (Standard Pavement) Surface	393.8	8	39	5
Darmody Street	Milner Street	Pulsford Road	Dense Graded Hotmix Local Road Poor Surface	91.1	6.9	60	-6
Day Lane	Farrant Street	End (North)	Interlocking Concrete Block Paved Surface	52.4	3.7	24	20
Dean Street	Barker Road	Johns Road	Dense Graded Hotmix Local Road (Standard Pavement) Surface	174.8	6.5	48.5	0
Doreen Street	Barker Street	Johns Road	Spray Seal Local Road (35 Year) Surface	175.8	7.3	26	16
Edgeworth Street	Clifford Street	Grassmere Road	Dense Graded Hotmix Local Road (Standard Pavement) Surface	106.4	6.3	48.5	0
Edgeworth Street	Grassmere Road	Main North Road	Dense Graded Hotmix Local Road (Standard Pavement) Surface	131.1	9.1	39.5	4
Edgeworth Street	Stuart Road	Clifford Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	181.8	7	43.5	2
Farrant Street	Gray Street	Main North Road	Spray Seal Local Road (35 Year) Surface	390.9	9.7	33.5	12
Farrant Street	Prospect Road	Gray Street	Spray Seal Local Road (35 Year) Surface	395.8	9.8	22.5	18
Fitzroy Tce Serv Rd	84E Prospect Road	30W Main North Road	Slurry Seal / Cold Overlay Local Road (20 Year) Poor Surface	114.7	5.2	60.5	-5
Fitzroy Tce Serv Rd	31E Prospect Road	84E Prospect Road	Slurry Seal / Cold Overlay Local Road (15 Year) Surface	55.3	5.2	67	-7
Flora Terrace	Prospect Road	Menzies Crescent	Slurry Seal / Cold Overlay Political Road (20 Year) Surface	418.1	10.8	65	-7
Gloucester Street	Prospect Road	Prospect Terrace	Spray Seal Local Road (35 Year) Surface	394	10.1	44.5	5
Gloucester Street	Prospect Terrace	115W Main North Road	Spray Seal Local Road (35 Year) Surface	292.1	10.6	29.5	14
Gloucester Street	115W Main North Road	Main North Road	Slurry Seal / Cold Overlay Local Road (20 Year) Poor Surface	97.9	10.6	68.5	-8
Gordon Road	Grey Street	Main North Road	Spray Seal Local Road (35 Year) Surface	393.5	12.8	40.5	8
Gordon Road	66E Newington Road	Grey Street	Spray Seal Local Road (35 Year) Surface	111.6	12.8	30	14
Gordon Road	Prospect Road	66E Newington Road	Spray Seal Local Road (35 Year) Surface	281.3	12.7	45.5	5
Grassmere Road	149S Regency Road	Regency Road	Dense Graded Hotmix Local Road (Standard Pavement) Surface	153	7.9	27	11
Grassmere Road	Edgeworth Street	39N Edgeworth Street	Interlocking Concrete Block Paved Surface	36.1	7.9	35	12
Gray Street	Johns Road	Gordon Road	Spray Seal Local Road (35 Year) Surface	96.1	6.3	24.75	17
Gray Street	Gordon Street	Farrant Street	Spray Seal Local Road (35 Year) Surface	99.9	5.9	27.5	15
Gray Street	Farrant Street	Percy Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	100.7	6.7	41	4
Highbury Street	Prospect Road	Bradford Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	373.7	8.5	37.5	9
Highbury Street	Bend	Penn Place	Spray Seal Local Road (35 Year) Surface	94.8	8.2	39.5	8
Highbury Street	Penn Place	Wilson Street	Spray Seal Local Road (35 Year) Surface	112.4	9.1	20.5	21
Highbury Street	Bradford Street	Bend	Spray Seal Local Road (35 Year) Surface	92.8	8.6	37.5	9
Hudson Street	Edgeworth Street	Regency Road	Spray Seal Local Road (35 Year) Surface	349.7	6.6	37	10
Johns Road	Doreen Street	Newington Road	Interlocking Concrete Block Paved Surface	16.9	12.4	35	12
Johns Road	Newington Road	McCrea Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	347.9	12.4	33.5	11
Johns Road	McCrea Street	Newark Street	Interlocking Concrete Block Paved Surface	11.5	12.4	24	20
Johns Road	Newark Street	Main North Road	Dense Graded Hotmix Local Road (Standard Pavement) Surface	213.5	12.4	39.5	4
Johns Road	Prospect Road	Doreen Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	192.2	12.4	49	-1
Kingston Lane	Gloucester Street	South end	Dense Graded Hotmix Laneway/Path Surface	59.45	10	44.5	7
Kintore Avenue	60E Prospect Road	Chicane	Fine Gap Graded <5% Hotmix Local Road Surface	388.2	8.8	15	21
Kintore Avenue	Prospect Road	60E Prospect Road	Concrete (Special Project) Surface	12	11	0	47
Kintore Avenue	Prospect Road	60E Prospect Road	Dense Graded Hotmix Local Road (Standard Pavement) Surface	40	16	54	-3
Kintore Avenue	Chicane	Main North Road	Spray Seal Local Road (35 Year) Surface	362.9	7.5	40	10
Koonga Avenue	End (West)	Moora Avenue	Slurry Seal / Cold Overlay Local Road (20 Year) Average Surface	113.7	7.3	49	-1
Koonga Avenue	Moora Avenue	Prospect Terrace	Fine Gap Graded <5% Hotmix Local Road Surface	113.2	6.2	14	22
Labrina Avenue	Laura Street	Watkins Street	Spray Seal Local Road (30 Year) Surface	186.1	7.5	52	0
Labrina Avenue	Prospect Road	45E Prospect Road	Dense Graded Hotmix Local Road (Standard Pavement) Surface	34.3	9.5	30.5	9
Labrina Avenue	45E Prospect Road	Old Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	280.7	7.5	24.5	16
Labrina Avenue	Old Street	Laura Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	185.6	7.5	38	5
Larwood Lane	Willcox Avenue	Alpha Road	Dense Graded Hotmix Laneway/Path Surface	127.5	1.8	51.5	-1
Laura Street	Pulsford Road	Kintore Avenue	Spray Seal Local Road (35 Year) Surface	182.8	7.3	17.25	23
Lewis Lane	Barker Road	End (North)	Spray Seal Local Road (35 Year) Surface	75.8	3.6	29	14
Lillian Street	Barker Street	Johns Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	175.2	6.7	51.5	-2
McCrea Street	Barker Road	Johns Street	Spray Seal Local Road (24 Year) Surface	174.2	6.4	66.75	-6
Mellor Lane	Milner Street	End (North)	Dense Graded Hotmix Laneway/Path Surface	52.2	3.2	44.5	7
Menzies Crescent	Bend	Willcox Avenue	Dense Graded Hotmix Local Road (Standard Pavement) Surface	131.3	8	15.5	21
Menzies Crescent	Flora Terrace	Bend	Dense Graded Hotmix Local Road (Standard Pavement) Surface	95.4	11	38.5	5
Milner Street	Prospect Road	Main North Road	Dense Graded Hotmix Local Road (Standard Pavement) Surface	798.7	8.2	42.5	3
Mona Place	Laura Street	Main North Road	Spray Seal Local Road (35 Year) Surface	284.4	4.7	40.5	8
Moora Avenue	Te Anau Avenue	Ballville Street	Fine Gap Graded <5% Hotmix Local Road Surface	239.9	6.1	14.5	22
Muriel Street	Barker Street	Johns Road	Dense Graded Hotmix Local Road (Poor Pavement) Surface	174.4	6.4	0	23
New Street	Kintore Avenue	Flora Terrace	Dense Graded Hotmix Local Road (Standard Pavement) Surface	102	6.5	30.5	11
Newark Street	Johns Road	Gordon Road	Spray Seal Local Road (35 Year) Surface	92	6	0	33
Newington Road	Johns Road	Gordon Road	Dense Graded Hotmix Local Road (Standard Pavement) Surface	91.6	7.3	41.5	3
Niall Street	Carter Street	Highbury Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	66.4	5.4	45	3
Old Street	Pulsford Road	Kintore Avenue	Dense Graded Hotmix Local Road (Standard Pavement) Surface	195.2	6.3	41	4
Omega Lane	Alpha Road	68N Alpha Road	Fine Gap Graded <5% Hotmix Local Road Surface	62.4	4.6	14	22
Omega Lane	68N Alpha Road	Barker Road	Fine Gap Graded <5% Hotmix Local Road Surface	69	3.6	14	22
Path V	Menzies Crescent	Kintore Avenue	Dense Graded Hotmix Laneway/Path Surface	108.8	3.44	57	-5

Road Name	From	To	Surface Type	Length	Width	Overall Condition	Remaining Life
Peel Street	Alpha Road	Barker Road	Spray Seal Local Road (35 Year) Surface	132.3	7.5	24.25	17
Penn Place	Main North Road	Highbury Street	Spray Seal Local Road (35 Year) Surface	63.8	12.1	30	14
Percy Street	Prospect Road	Main North Road	Fine Gap Graded >5% Hotmix Local Road Surface	795	9.8	28.5	10
Priscilla Street	Alpha Road	Barker Road	Spray Seal Local Road (35 Year) Surface	132.7	6.7	31.5	13
Prospect Oval Access Road	Cricketer Club	East Side of Oval	Dense Graded Hotmix Local Road (Standard Pavement) Surface	111	3	38	5
Prospect Terrace	Bend	Koonga Avenue	Spray Seal Local Road (35 Year) Surface	112.8	7.7	18.5	20
Prospect Terrace	Koonga Avenue	Gloucester Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	173.7	7.6	37	6
Prospect Terrace	Gloucester Street	Milner Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	108.4	7.6	50	-1
Prospect Terrace	Gloucester Street	Gloucester Street	Dense Graded Hotmix Local Road Poor Surface	18	18	59	-6
Prospect Terrace	Bradford Street	Bend	Fine Gap Graded >5% Hotmix Local Road Surface	41.7	10.5	20.5	15
Pulsford Road	Prospect Road	Main North Road	Dense Graded Hotmix Local Road (Poor Pavement) Surface	799.2	10	43.5	1
Richman Avenue	Prospect Road	Moora Avenue	Dense Graded Hotmix Local Road (Standard Pavement) Surface	278.3	6.8	26	12
Richman Avenue	Bend	Bradford Street	Fine Gap Graded <5% Hotmix Local Road Surface	29.1	5.7	15	21
Richman Avenue	Moora Avenue	Bend	Fine Gap Graded <5% Hotmix Local Road Surface	70.5	6.1	14.5	22
St Peters Place	Da Costa Avenue	College Avenue	Spray Seal Local Road (35 Year) Surface	73.6	7	44	6
Stuart Road	Percy Street	Regency Road	Spray Seal Local Road (35 Year) Surface	450.4	6.7	44	6
Te Anau Avenue	60E Prospect Road	Bradford Street	Fine Gap Graded <5% Hotmix Local Road Surface	315.5	6.2	25.5	15
Te Anau Avenue	Prospect Road	60E Prospect Road	Fine Gap Graded >5% Hotmix Local Road Surface	50	7.7	14	18
Thorngate Street	Main North Road	Carter Street	Spray Seal Local Road (35 Year) Surface	188.3	9.1	36.25	10
Thorngate Street	Carter Street	Highbury Street	Spray Seal Local Road (35 Year) Surface	67	6.2	39.5	8
Union Street	Flora Terrace	Willcox Avenue	Dense Graded Hotmix Local Road (Standard Pavement) Surface	112	6.2	30.5	9
Watkins Street	Pulsford Road	36N Pulsford Road	Dense Graded Hotmix Local Road (Poor Pavement) Surface	28	5.6	0	23
Watkins Street	36N Pulsford Road	Mona Place	Dense Graded Hotmix Local Road (Poor Pavement) Surface	105.2	6.3	0	23
Willcox Avenue	2nd Bend	Main North Road	Slurry Seal / Cold Overlay Local Road (20 Year) Average Surface	46.1	9.6	60	-5
Willcox Avenue	1st Bend	2nd Bend	Slurry Seal / Cold Overlay Local Road (20 Year) Average Surface	57.6	11	49.5	-1
Willcox Avenue	Chevalier Street	1st Bend	Slurry Seal / Cold Overlay Local Road (30 Year) Surface	134.1	10	39	5
Willcox Avenue	Chicane	Chevalier Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	231.3	8	51	-2
Willcox Avenue	Prospect Road	Chicane	Dense Graded Hotmix Local Road (Standard Pavement) Surface	314.3	7	53.5	-3
Willcox Avenue	Chevalier Street	Chevalier Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	20	20	40.5	4
Wilson Street	Highbury Street	Main North Road	Spray Seal Local Road (35 Year) Surface	98.4	7.9	37	10
Wilson Street	66E Argyle Street	Highbury Street	Spray Seal Local Road (35 Year) Surface	44.5	8.5	38.5	9
Wilson Street	32E Argyle Street	66E Argyle Street	Spray Seal Local Road (30 Year) Surface	33.7	6	61	-4
Wilson Street	Argyle Street	32E Argyle Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	38.4	6	47.5	3
Wilson Street	Bradford Street	Argyle Street	Dense Graded Hotmix Local Road (Standard Pavement) Surface	173.7	7	33.5	10

Appendix E

Concept Traffic Management Plan for Consultation

Attachment



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City of Prospect

Prospect NE and SE LATM



Job Number: 20141130
 Filename: 20141130GE001A_Prospect_LATM
 Revision: REV A
 Date: Tuesday, 21 July 2015 at 11:00 AM
 Drawn: TMOON

Data Acknowledgement:
 Roads data from Data SA
 Basemap: OpenStreetMap

Appendix F

City of Prospect Traffic Management Policy

Attachment



Traffic Management Policy

Attachment

Adopted by Council

16 December 2008

Attachment

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Attachment

1 Purpose

- 1.2 The Traffic Management Policy (the “Policy”) establishes a framework for the management of traffic on local roads throughout City of Prospect.
- 1.3 Managing the competing demands on our roads remains one of the most sensitive issues facing Council. Traffic management affects the whole community and must balance the needs of a broad range of road users with an appropriate level of amenity for the adjacent land uses.

2 Scope

- 2.1 The Policy identifies a range of factors by which Council and the community can assess the need for future traffic management intervention. This will include:
- 2.1.1 An agreed road hierarchy for Council’s road network.
- 2.1.2 Recognition of the functional use of the road network with regard to providing for social access, freight access, pedestrian and cycling movements.
- 2.1.3 An agreed set of criteria by which speeds and volumes (in particular) can be assessed relative to the road hierarchy.
- 2.1.4 An agreed process by which future traffic investigations will be undertaken.

3 Definitions

- 3.1 Nil.

4 Legislative and Corporate Requirements

- 4.1 The Policy is to be read and implemented in conjunction with Council’s other relevant policies, strategies and documents, including:
- 4.1.1 City of Prospect Strategic Plan (2008-2011) recognises the influence of the road network upon many facets of the community’s activities. The Strategic Plan includes:
- (1) Improved frequency and quality of public transport across our City.
 - (2) Facilitate access to appropriate business infrastructure (eg. power, roads, broadband, car parking, signage, undergrounding of powerlines, etc).
 - (3) Encourage the community to better manage their impact on the environment.

- (4) Preserve character dwellings and surrounding amenity.
- (5) Increase the number and quality of leafy streets within the City.
- (6) Implement best practice asset management planning, including an increased focus on sustainable maintenance and renewal of assets.
- (7) Plan developed and implemented for sustainable Asset Management in major asset classes.
- (8) Local Area Traffic Management Plans developed.

4.1.2 Other related policies that should be considered include:

- (1) Streets and Footpaths
- (2) Community Engagement
- (3) Code of Technical Requirements for the Legal Use of Traffic Control Devices in SA
- (4) Australian Standards
- (5) Austroads Guide to Traffic Engineering Practice
- (6) City of Prospect Local Bicycle Network Review

5 Policy Statements

5.1 Management of the local road network must balance the needs of all road users

- 5.1.1 Traffic management affects a broad range of road users often with conflicting requirements. For example, a road that provides freight access (to support business and industry) may be less than conducive for cycling and walking. Similarly, the use of traffic control devices on roads that facilitate bus routes can be limited because of the requirements of the State Passenger Transport authorities.
- 5.1.2 Fundamental to this policy is the need for a clear understanding of the users and uses of a particular road or road network. Council recognises that in seeking a “balance” between the various road uses, that compromise will sometimes be required between maximising safety, accessibility and amenity.
- 5.1.3 As most of the streets within City of Prospect are local streets, Council will have a primary focus on access requirements for local residents. Consequently, Council will seek to avoid the local street network being used by extraneous through traffic (ie “rat-running”).

5.2 Council will approach traffic management on the basis of local area precincts (as shown in “Local Traffic Precincts” Plan Appendix 1)

- 5.2.1 Local area traffic management is generally associated with the installation of physical traffic measures and/or regulations to influence the existing behaviour of road users, in order to create safer and more amenable street environments, particularly in local residential areas.
- 5.2.2 Council recognises that treatments applied in isolation can affect traffic conditions in other streets. Accordingly, Council will consider isolated problems in the context of the broader street network. Council has adopted several local traffic management precincts (refer “Local Traffic Precincts” Plan) which will form the basis of traffic management reviews.

5.3 Council will approach traffic management on the basis of a strategic road hierarchy and functional road use

5.3.1 Strategic Road Hierarchy

- (1) The overall road network throughout our City has been categorised on the following basis (as shown in “Road Hierarchy Plan” **Appendix 2**).
- (a) Arterial Roads
- Movement of vehicles / goods / people between regions
 - Typically under control of the State Government
 - Minimum of 1 lane in either direction – typically more
 - The following are Arterial Roads: Prospect Road, Regency Road, Churchill Road, Main North Road, North East Road and Nottage Terrace
- (b) Major Collector Roads (Galway Avenue)
- Major distributor of traffic within / through our City
 - Typically 1 lane in either direction
 - May have bus route and/or cycle routes
- (c) Minor Collector Road (Braund Road and D’Erlanger Avenue)
- Connection between local streets and distributor or arterial roads
 - Wide enough for 2 directions of traffic
 - May have bus route and/or cycle routes

- (d) Local Street (All other roads other than those listed above)
- End of trip functionality servicing adjacent properties
 - Wide enough for at least one direction of traffic (may have to pass between parked cars)
 - Through traffic should not be encouraged onto these routes
- (2) Council recognises that the road network throughout our City is very “permeable” with multiple points of access and egress onto the arterial roads. In the absence of defined east-west collector routes (to supplement the arterial road network), it is inevitable that some external through traffic will be experienced on these roads.
- (3) There are two fundamental approaches to this particular issue:
- (a) Nominate certain east-west collector routes to supplement the arterial network, and in turn, accept higher traffic volumes on those roads, or
 - (b) Accept that the east-west local streets are all equal and share the external through traffic demands.
- (4) Retrospectively “overlying” a modern road hierarchy onto our older road network is typically very difficult. Traffic restrictions and/or road closures would be required in a number of streets to establish the new collector routes. Traffic volumes in these particular routes would increase and exceed normal thresholds for residential environments. The amenity of the collector routes would be reduced to the benefit of the wider area. This position is not supported, and Council will therefore not identify and develop any east-west collector routes.
- (5) The majority of Council roads have been identified as “local streets”. In accepting some level of external through traffic will use the local road network, it is important that this demand is, as far as reasonably practical, shared across the network.
- (6) Functional Road Use
- (a) While the nominated road hierarchy (“Road Hierarchy Plan” **Appendix 2**) describes the roads’ position in the overall hierarchy and thresholds for traffic volumes and speeds, it is also important to consider the functional use of a road relative to social access, freight movements, cyclist and pedestrians.
 - (b) Social Access Routes
- These roads provide for community development and equitable access to community facilities including schools, shops, reserves, and aged care facilities.

(c) Freight Routes

These routes facilitate industry development by linking key industries to major transport routes. Minor freight routes provide access to shopping centres etc.

(d) Passenger Transport Routes

Routes that support the use of passenger transport including strategic bus routes as well as routes which provide access to associated facilities.

(e) Bicycle Routes

Key routes for cycling are typically identified through a Strategic Bike Plan or Bike Direct network. City of Prospect Local Bicycle Network Review documents local cycle corridors throughout the City.

Plans showing the functional road uses include "Pedestrians & Cyclists 2000-2005 Plan" **Appendix 3**, "Bus & Bicycle Routes Plan" **Appendix 4** and "Land Use Map" **Appendix 5**

5.4 Council will base the need for traffic management interventions on the following guidelines

5.4.1 The use of "intervention guidelines" must be approached cautiously. Traffic management is not an exact science, and the use of quantitative criteria must be recognised as a guide only. Political and social influences must also be considered along with numerous other qualitative assessments. The following table provides guidelines to assist Council in determining the significance of a reported "problem".

	Typical Daily Traffic Volumes	Typical Speeds	
		Average	85 th Percentile
Arterial Road	Over 6000	60 km/h	60-65 km/h
Major Collector Road	6000-8000	50 km/h	55-60km/h
Minor Collector Road	< 2500	45 km/h	55 km/h
Local Street	< 1500	40 km/h	45-50 km/h

The 85th percentile speed is the speed at which 85% of traffic travels at or below. It also reflects the speed that the fastest 15% of traffic exceeds. The 85th percentile speed is a common measure of traffic compliance with the applicable speed limit.

5.4.2 Consideration can also be given to a range of other issues including:

- (1) Percentage of commercial vehicles
- (2) Percentage of vehicles with speeds in excess of the speed limit
- (3) Proportion of through traffic (rat running), identified through origin-destination surveys

- (4) Peak hour traffic concentrations
- (5) Use of the road by pedestrians (particularly the aged and children)
- (6) Use of the road by cyclists
- (7) Frequency of parking on the road
- (8) Collision data
- (9) Length / Width of Street
- (10) Set back of properties
- (11) Number of Residential properties within a local street
- (12) Potential substantial detriment to neighbouring streets should Council intervene on a particular street
- (13) Petitions from residents

5.5 The selection of traffic control treatments must also be proportional to the significance of the problem being addressed

- 5.5.1 There are a range of traffic management treatments available with varying benefits and disadvantages. Some treatments are very restrictive and are applied to full road sections (e.g. road humps / plateau), and in turn can offer significant reductions in vehicle speeds. Other treatments are site specific (e.g. roundabouts) which only influence traffic behaviour within the vicinity of the treatment.
- 5.5.2 In developing treatment options, Council must be mindful of the legislative controls (Ministers Notice and Code of Technical Requirements), appropriate Australian Standards and Guidelines, and the impacts associated with each treatment option.
- 5.5.3 Council will review traffic movements (on/around 12 months) following the implementation of control treatments to determine the impact of traffic movements and the potential need for further refinement of treatments. This review will include a request for community feedback regarding treatments installed.

6 Application of Policy

- 6.1 The Policy outlines the way Council will undertake Traffic Management in relation to the local road network within our City.

7 Approach to Traffic Management

7.1 General Approach

7.1.1 The following outline broadly describes the approach to investigating traffic issues.

- (1) Determine whether the roads are under the control of Council or Department for Transport Energy & Infrastructure (DTEI) and refer to DTEI if appropriate.
- (2) Research relevant data (typically speed, volume, collisions, previous reports)
- (3) Preliminary site inspection and assessment of concern:
 - (a) Is the reported problem valid in comparison to the intervention guidelines?
 - (b) Can the problem be resolved with localised treatment with minimal impact to the surrounding network?

7.1.2 Decide whether to treat the location with minor traffic engineering controls, or to undertake further detailed inspection and analysis of the concerns. This will usually be in the form of a broader Local Area Traffic Management ("LATM") Plan within the defined precinct.

7.2 LATM Process

7.2.1 The following process outlines Council's commitment to the fundamental stages of undertaking Local Area Traffic Management plans.

- (1) Identify the LATM precinct boundaries to form part of the review. This can be based on the precincts provided in the "Local Traffic Precincts Plan **Appendix 1** or more discreet areas relative to the problem under review.
- (2) Determine the most appropriate consultation strategy (refer below and Council's Community Engagement Policy).
- (3) Clearly identify the problems under review through a range of processes including:
 - (a) Site reviews / road safety audits
 - (b) Community input (reference community consultation strategies)
 - (c) Traffic and speed data collection
 - (d) Collision data

- (e) Stakeholder consultation (Department of Transport Energy and Infrastructure, Cycling Groups, Public Transport, adjoining Councils, significant land uses / businesses)
- (f) Elected Member input, particularly from Ward Councillors.
- (4) Develop draft concept options
 - (a) Define objectives of any scheme
 - (b) Identify alternative treatments and consider impacts of each option
 - (c) Consider whether the treatments and impacts are proportional to the extent of the problem, and relative to the road hierarchy and functional use (refer below)
 - (d) Consult with the community and those immediately affected by any proposals
- (5) Refine plan and costing
 - (a) Finalise the traffic management recommendations with consideration given to estimated costs, budgets and programming.

7.3 Consultation Options

- 7.3.1 Preparation of local area traffic management plans must be undertaken through consultation with the community and stakeholders.
- 7.3.2 Council's Community Engagement Policy acknowledges the preparation of local traffic management plans as a 'Level 2' issue, and as such consultation would typically include a range of the following elements:
 - (1) Council's web site / Media release
 - (2) Minimum period of 21-28 days for responses
 - (3) Copies of plans to be accessible
 - (4) Focus groups
 - (5) Surveys
 - (6) Fact sheets
 - (7) Displays
 - (8) Letter box drops
 - (9) Neighbourhood forums
 - (10) Report to Council summarising submissions for decision

- 7.3.3 The Policy also acknowledges that consultation strategies require a certain degree of flexibility to suit the particular situation.
- 7.3.4 A typical approach to LATM consultation would normally include:
- (1) Initial contact with residents and stakeholders “announcing” a particular project and seeking input to identify concerns and opportunities (e.g letterbox drop)
 - (2) Identification of any specific stakeholders that should be approached during the consultation period
 - (3) Confirmation of the problems identified
 - (4) Contact with residents and stakeholders (e.g. letterbox drop) to articulate the draft outcomes and recommended treatments and provide opportunity for comment (options include the availability of Web based survey response forms and community forums / displays)
- 7.3.5 A supplementary approach that can be considered is the formation of an informal Residents’ Group (if one does not already exist) to assist the development of the local area traffic management plan. The role of the Residents’ Group is to assist in confirming the significance of identified traffic issues, and likely community acceptance of proposed treatments.
- 7.3.6 More active processes of consultation can also be considered where the community is invited to participate in a workshop (or series of workshops) where problems and solutions are collectively identified and discussed.
- 7.3.7 The appropriate consultation approach should be determined in the initial stages of the local area traffic management plan process depending on the potential issues to be resolved.
- 7.3.8 Ward Councillors will be involved throughout the consultation process.

8 Review

- 8.1 The Policy will be reviewed in line with Council’s Policy Framework or earlier in the event of major changes to legislation or related policies/procedures or if deemed necessary by the Chief Executive Officer or Relevant Director.

9 Access to the Policy

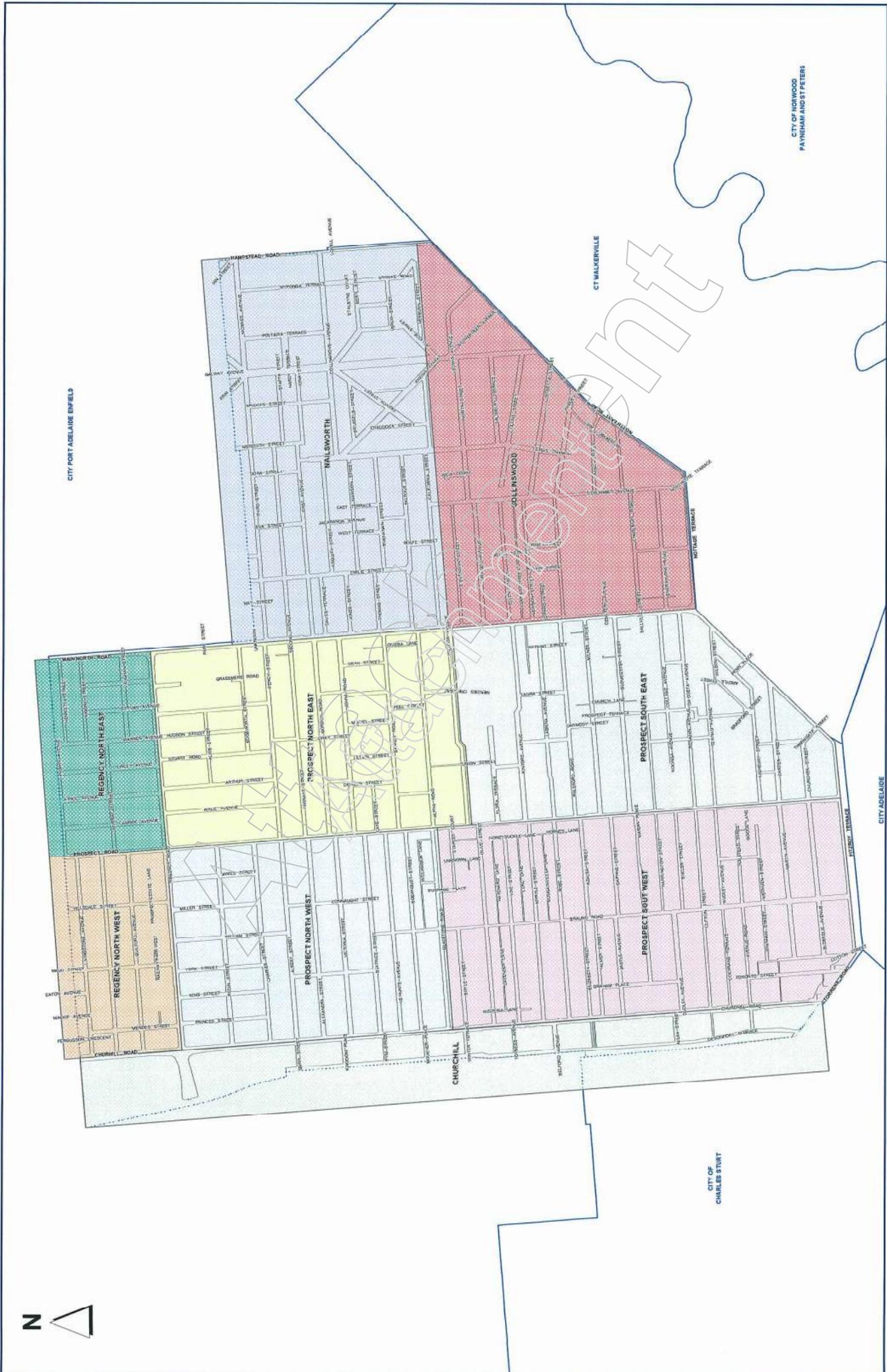
- 9.1 The Policy is available for public inspection on Council’s website www.prospect.sa.gov.au and from Customer Service at the Civic Centre, 128 Prospect Road, Prospect SA 5082.
- 9.2 The Policy is available for staff inspection on Council’s intranet site.

10 Further Information

10.1 For further information about the Traffic Management Policy please contact:

**Director Corporate Services
City of Prospect
128 Prospect Road
Prospect SA 5082**

Attachment



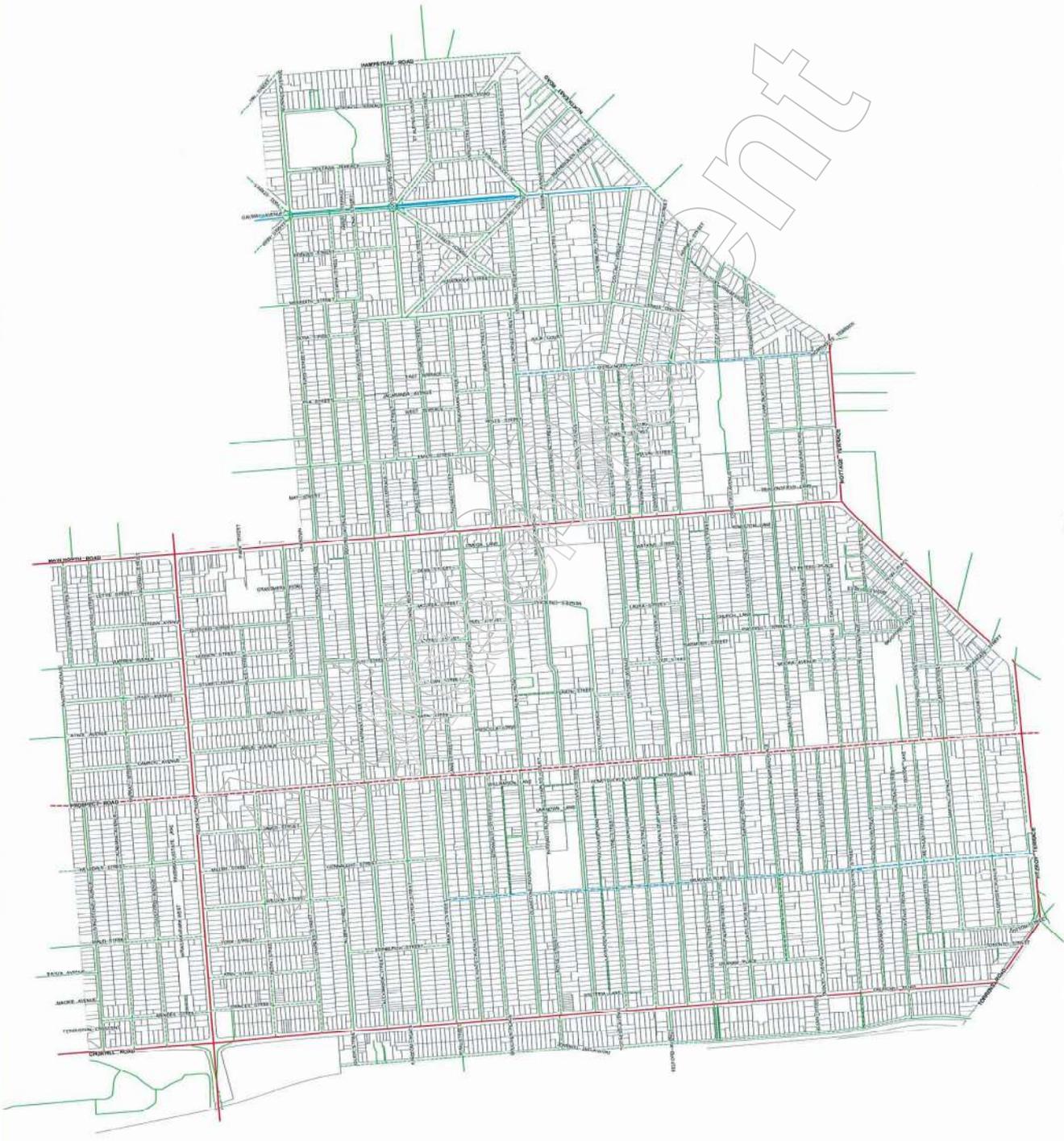
City of Prospect
 PROSPECT TRAFFIC REVIEW
 LOCAL TRAFFIC PRECINCTS



MAP DETAILS
 Project: Prospect Precincts (2014)
 Client: City of Prospect
 Date: 2015-03-09
 Drawn: Tomkin Engineering
 Checked: Tomkin Engineering
 Date: 21/03/2015

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 E adelaid@tonkin.com.au
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LEGEND

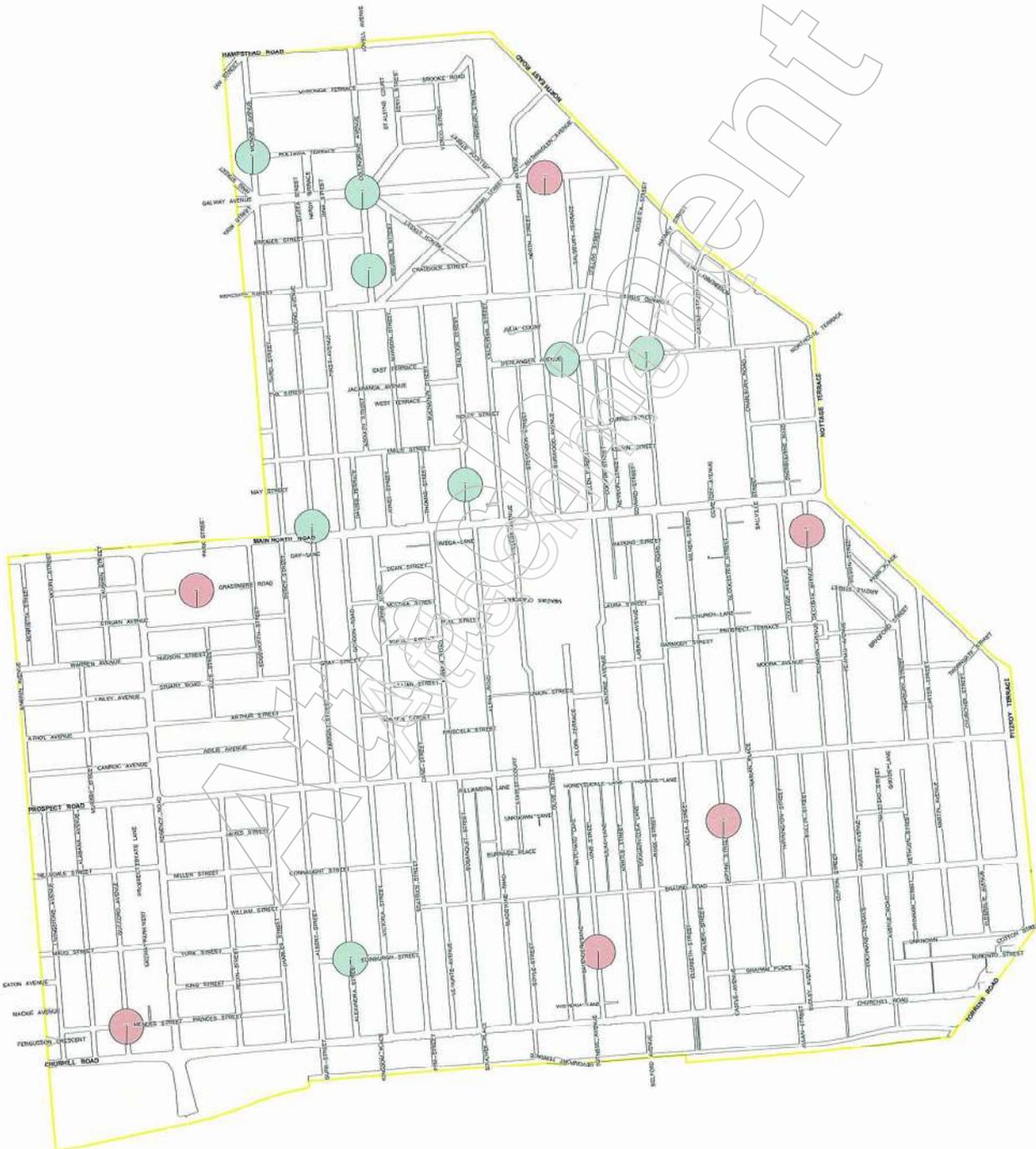
- Primary Arterial
- Secondary Arterial
- Major Collector
- Local Street >500 Vehicles per day
- Local Street <500 Vehicles per day
- CCDB (Cadastral)



MAP DETAILS
 Projection: UTM, Zone 54
 Contour Interval: 200
 Job Number: 2008-0209
 Client: City of Prospect
 Drawn: Tom Clarke
 Date: 21/12/2008

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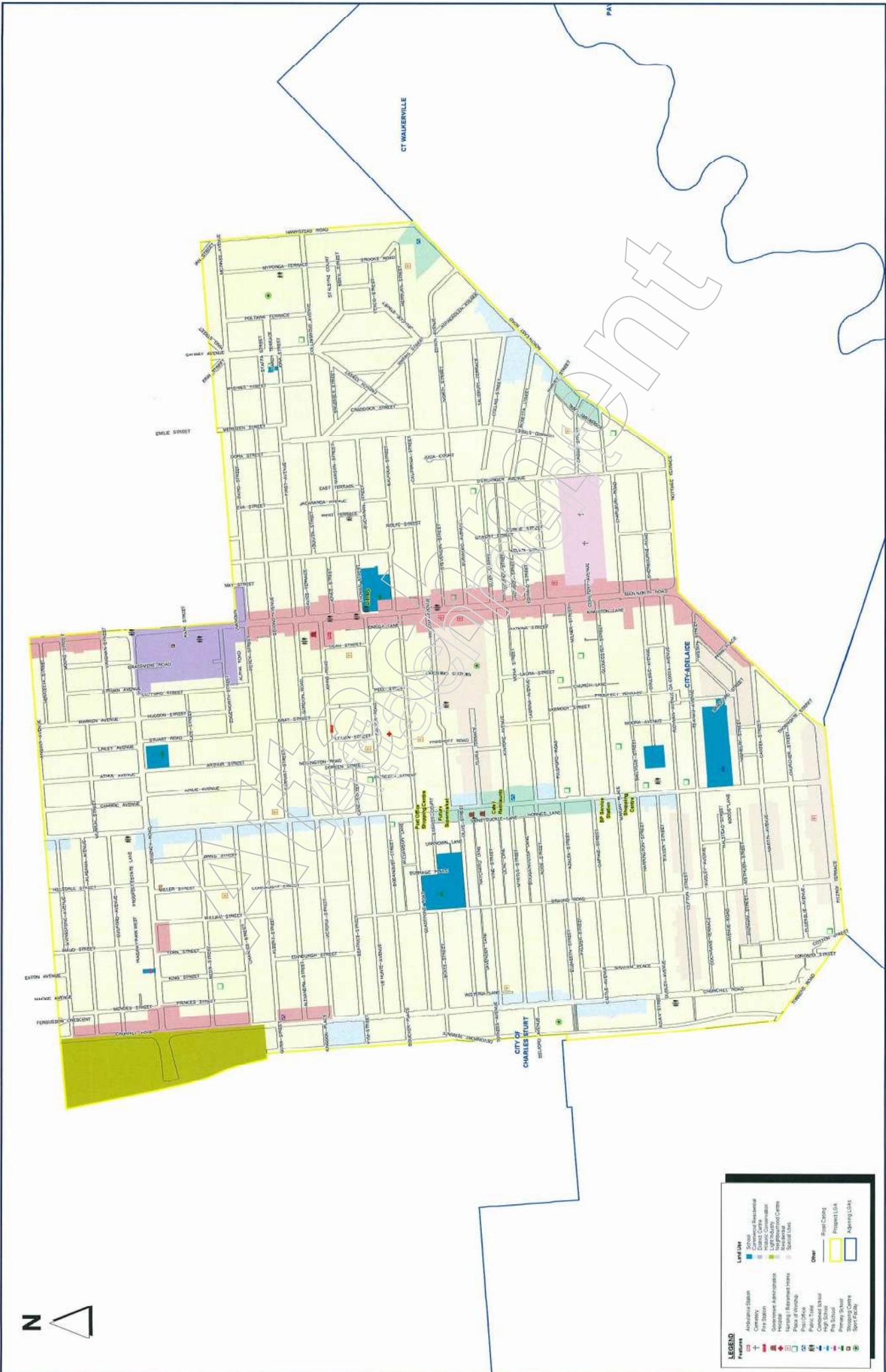


Legend
 Accident Types
 15+
 10-14
 5-9
 1-4
 Road/Cul-de-sac
 Present LCA

MAP DETAILS
 Projection: MGA Zone 54
 Date: 2006/03/06
 Job Number: 2006/0306
 File Name: Prospect Traffic Review
 Date: 21/03/2006

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City of Prospect
 PROSPECT TRAFFIC REVIEW
 LAND USE MAP



IMAGES
 Projection: MGA Zone 54
 Job Number: 2008 0399
 Client: City of Prospect
 Date: 27/06/2008

LEGEND

Features	Land Use
<ul style="list-style-type: none"> International Station Community Five Station Governance Administration Neighbourhood Centre Place of Worship Public Use Composed School High School Primary School Shopping Centre Sport Facility 	<ul style="list-style-type: none"> School Commercial Residential Community Historic Conservation Neighbourhood Centre Social Use Road Corridor Project LGA Adjoining LGAs

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Appendix G

Community Consultation Comments

Attachment

STAGE 2 CONSULTATION SUMMARY

Number of Comments Received		Airlie Avenue
4	Does not support Driveway entry	
1	Support contrasting pavement intersection	
1	Request for stop sign at intersection	
1	Ensure solution caters for cyclists	
1	Restrict to left turn only onto Percy	
2	Restrict parking around intersection	

Number of Comments Received		Arthur St
4	Does not support Driveway entry	
1	Support contrasting pavement intersection	
1	Request for stop sign at intersection	
1	Ensure solution caters for cyclists	
1	Support Driveway entry	
1	Restrict to left turn only from Percy	
2	Restrict parking around intersection	

Number of Comments Received		Ballville St
2	Concern that traffic devices in Carter will increase traffic in Ballville	
2	Support for parking restrictions along one side of Ballville	
4	Request for additional traffic control in Ballville to discourage rat runners from Carter	
2	Churches at one end of Ballville cause further parking issues	
1	Traffic issues as cars try to turn right onto Prospect Road, and then cars try to turn in to Ballville from Prospect Road	
1	Support for a roundabout at intersection of Prospect Tce and Ballville	
1	Opposed to parking restrictions in Ballville	

Number of Comments Received		Burwood Ave
1	Support for driveway entry at Main North Road end	

Number of Comments Received		Carter St
39	Does not support closure of the intersection (either diagonal or full)	
18	Chicanes or speed humps would be preferred	
1	Request to remove right turn lane from Prospect Road	
14	Support a roundabout at Carter/Thorngate	
1	Add speed bumps/chicanes to Thorngate & Churcher	
1	Make sure solution has accounted for cyclists (no roundabouts, road closure to allow cyclists to pass)	
1	If one-way is selected for Highbury, then no road closure treatment at Carter	
2	Does not support speed humps in Carter	
2	Parking should be restricted to discourage traffic	
1	Traffic should be restricted from the OTR service station being developed	
4	Support for a raised intersection at Carter/Thorngate	
1	Oppose all solutions	
1	Block Main north road with sound barriers	

Number of Comments Received		Churcher Street
1	Does not support one-way roads	
1	Does not support use of speed bumps/chicanes	

Number of Comments Received		Edgeworth St
1	Re-design corner of Edgewroth and Clifford to cater for cyclists	

Number of Comments Received		Glouster St
1	Request for left turn only onto Prospect Road	
1	Ensure single lane slow points allow cyclist bypass	
1	Support installation of speed humps in western half	
1	Review intersection with Prospect Road	
2	Does not support speed humps in Glouster due to aesthetics	

Number of Comments Received		
		Highbury St
1	Does not support driveway entry	
1	Ensure solution caters for cyclists	
4	Does not support converting Highbury to one-way	
1	Support Highbury being converted to one-way	
1	Concern about single lane speed humps decreasing parking	
1	Support traffic management device to stop trucks and hooning	
1	Support for restriction of parking	
1	Support to move pick-up/drop off	
3	Does not support single lane speed humps	
2	Support for rearrangement of pick-up/drop off	
		Johns Road
1	Add give way signs to chicanes on Johns Road	
		Kintore Avenue
1	Parking restrictions have caused parking restrictions for residents	
2	Parking restrictions have created near misses	
		Lettie Street
1	Does not support partially blocking off Lettie	
1	Request for no right turn from Regency onto Lettie (4-6)	
		Milner Street
1	Does not support converting Milner to one-way	
1	Block off Milner between the Prospect Tce intersections	
1	Speed humps need to be re-constructed	
		Penn Place
1	No driveway entry	
1	Ensure solution caters for cyclists	
		Percy Street
1	Single lane speed humps cause access issues for residents	
		Prospect Tce
1	No traffic management has been addressed in Prospect Tce, despite high speeds	
		Stuart Road
1	Traffic conditions on Stuart are bad during drop-off and pick-up, traffic backs up to Regency	
2	Restrict left turn from Regency between 8am-9am and 3pm-4pm	
1	Stuart Road should be changed to "No Parking Zones"	
11	Does not support a driveway entry	
4	Support the contrasting pavement at the intersection	
4	Restrict parking around intersection	
1	Stop sign at intersection	
1	Ensure solution caters for cyclists	
1	Restrict parking on one side of Stuart	
1	Left turn only from Percy	
		Te Anau Ave
1	Prefer raised intersection	
1	Ensure solution caters for cyclists	
2	Does not support the installation of speed humps	
2	Support restriction of parking	
		Thorngate St
1	Issues with Churcher/Main North Y-intersection?	
1	Support roundabout at intersection with Carter	

Number of Comments Received		Vaughan Avenue
1		Does not support partially blocking off Vaughan

Number of Comments Received		Wilson St
1		Stobie poles are an issue, needs to be reviewed
2		Install warning signs /speed humps at double bend
1		Does not support speed humps

Number of Comments Received		General Comments
13		Support adoption of 40km/h across subject area
1		Concern about available parking during to developments (Cinema, apartments & restuarants)
1		Dissapprove of entire report - waste of money
1		Report does not consider pedestrians or cyclists
4		Does not support 40km/h across subect area
1		Supports use of single lane speed humps and driveway entries
1		Support use of staggered "no parking" areas
1		Parking issues behind properties on Main North Road, access from Regency
2		All traffic management devices should cater for cyclists
1		Traffic signal cycle at Regency/Main North to be reviewed

225

TOTAL RESPONSES

Attachment

AGENDA ITEM NO.: 19.12

TO: Council Meeting on 27 June 2017

DIRECTOR: Greg Georgopoulos, Director Infrastructure, Assets & Environment

REPORT AUTHOR: Alex Cortes, Manager Infrastructure, Assets and Environment

SUBJECT: Pedestrian Crossing - Menzies Crescent

1. EXECUTIVE SUMMARY

- 1.1 The purpose of this report is to provide concepts for consideration to improve pedestrian connectivity along the section of Menzies Crescent Prospect, adjacent Memorial Gardens due to the increased pedestrian activity resulting from the success of the play space upgrade.
- 1.2 Through stakeholder consultation with North Adelaide Football Club and Prospect Tennis Club, concern was raised that there has been a large increase in pedestrian movement over the last 12 months, and pedestrian safety is compromised in the area due to no formal crossing points.
- 1.3 There is also a projected increase in east west pedestrian movement across the site, as a result of the outcomes from the Main North Road Master Plan. In particular the upgrade of the Clayton Church Homes (CCH) site.
- 1.4 The CCH site has been identified as an important link from Main North Road and Prospect Oval and formalises east-west connections across City of Prospect. The design intent for the CCH upgrade is to establish and increase future use of the pedestrian thoroughfare for the wider community.
- 1.5 The connection between Menzies Crescent and the CCH site currently requires upgrading to better facilitate pedestrian movements, in terms of landscaping and lighting.
- 1.6 Pedestrian, speed and traffic issues have been reviewed along Menzies Crescent in the vicinity of the Prospect Oval and Memorial Gardens. Existing speeds are relatively low with 95% traffic traveling at or below 30 km/h.
- 1.7 There was an initial stakeholder and Council desire to see a zebra crossing implemented at the bend or near the historic gates on Menzies Crescent.
- 1.8 Pedestrian surveys conducted over six days revealed a diversity of pedestrian desire lines, mostly either side of the bend on Menzies Crescent.
- 1.9 Through analysis by a traffic engineering consultant, the installation of a single pedestrian (zebra) crossing at the bend is not considered appropriate for the location, and would not suit the major pedestrian movements.

- 1.10 There was also desire from Council and the community for a reduction in the speed limit in this area to 25km/h. Council's traffic engineering consultant advised that such a speed element was not suitable for the area as it did not meet DPTI's design requirements. Installation of a 30 km/h speed limit is also unlikely to meet DPTI requirements, while the installation of a 40 km/h speed limit would need to be approached on a precinct-wide basis, and would not result in any change in current vehicle speeds.
- 1.11 The consultant recommended consideration of establishment of a shared street environment utilising landscaping and public art treatments to create a pedestrian focused zone, as opposed to the formal traffic treatments initially considered. As part of treating this region holistically the connection with the CCH site should also be intergrated into this concept plan.

2. RECOMMENDATION

- (1) **The Council having considered Item 19.12 Pedestrian Crossing - Menzies Crescent dated 27 June 2017, endorse preparation of detailed design plans by Council's Landscape and Urban Design Team for the development of a 'shared street' environment along Menzies Crescent, between Willcox Avenue and Flora Terrace and for the upgrade of the linkage between Clayton Church Homes and Menzies Crescent to improve pedestrian and vehicle conditions of connectivity.**
- (2) **The Council consider a budget bid for the Menzies Crescent Pedestrian Crossing upgrade as part of the 2018 - 2019 budget deliberation process.**

3. RELEVANCE TO CORE STRATEGIES / POLICY

- 3.1 **Strategic Plan to 2020 Theme 2 – Place** "Loved heritage, leafy streets, fabulous places"

Strategy 2.3 An accessible City

The outcomes of the report contribute to ensuring key areas are accessible and linked (Outcome 2.3.1) and considers the service provided public transport (Outcome 2.3.3).

4. COMMUNITY INVOLVEMENT

- 4.1 Council previously consulted with North Adelaide Football Club and Prospect Tennis Club regarding their concerns around pedestrian movements in the precinct. Both clubs wanted to see a formalised crossing along Menzies Crescent to improve pedestrian safety in the area.

5. DISCUSSION

- 5.1 Council has previously sought investigations into traffic management options for Menzies Crescent, with particular regard to the installation of either a lower speed limit and/ or Zebra Pedestrian Crossing.

- 5.2 It is also understood that recommendations for this precinct were made as part of the Prospect Oval and Memorial Gardens Master Plan, however there was a distinct lack of community support for the proposals as part of that Master Plan. As such the design intent discussed in this report sits outside of that Master Plan.
- 5.3 Menzies Crescent is a local street that connects Willcox Avenue to Flora Terrace, behind the Prospect Oval. Key features of the road include:
- 5.3.1 Two existing road humps on the section of road between Willcox Avenue and the bend.
- 5.3.2 Adjacent land uses include the oval and associated clubrooms, North Adelaide Croquet Club, and Soldiers Memorial Gardens and Playground.
- 5.3.3 The Clayton Homes Residential Care facility exists on the eastern side of the oval, fronting Main North Road. There is a footpath around the oval connecting the Clayton facility with Menzies Crescent and Flora Terrace.
- 5.3.4 Angle parking is available on the southern side of Menzies Crescent between Flora Terrace and the bend.



Figure 1 – Menzies Crescent zone, and CCH connection path

- 5.3.5 The CCH site is an integral part of the Draft Main North Road Master Plan and relates to providing better opportunities at key sites and promoting improved public and private realms. The connection to CCH and Main North Road and Menzies Crescent (refer to Figure 1) also promotes the Draft Green Neighbourhoods Strategy by strengthening walkable east-west corridors throughout the city. Furthermore, the 2010 Prospect Oval and Memorial Gardens Master Plan recommends promoting access opportunities for active activities and promoting general wellbeing of the community.
- 5.3.6 The strategic importance of this relates to the overall integral link between Burwood Avenue, Flora Terrace (Village Heart) and Vine Street to Churchill Road.

Traffic and Pedestrian Data

- 5.4 Traffic data collected by Council in August 2016 reveals the following data:
- 5.4.1 Average traffic volumes around 870 vehicles per day (peak of 1200 vpd on a Saturday)
 - 5.4.2 Northbound volumes are slightly more than southbound flows (460 and 410 vpd respectively)
 - 5.4.3 Speeds are quite low (due to the existing road humps)
 - 5.4.4 Average speeds 23 km/h
 - 5.4.5 85th percentile speeds 27 km/h
 - 5.4.6 95th percentile speeds 30 km/h
- 5.5 Following Council's last request, detailed pedestrian surveys were undertaken for 30 - 40m either side of the bend to understand the demand for pedestrians crossing Menzies Crescent.
- 5.6 The surveys were conducted on 2 x Saturdays, 2 x Sundays and 2 x weekdays. (25th, 26th, 28th and 30th March, 1st and 2nd April 2017).
- 5.7 Three zones were established (refer to Figure 2):
- 5.7.1 Bend to the hump (heading north)
 - 5.7.2 Around bend (about 30m)
 - 5.7.3 Bend to the gate (heading west)

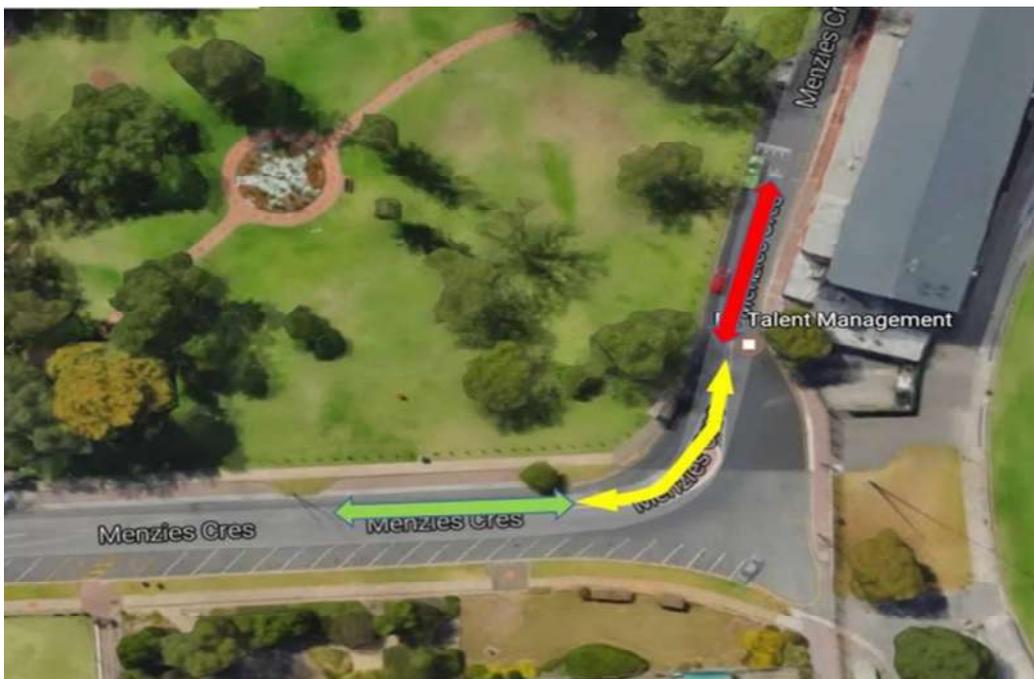


Figure 2 – Pedestrian count zones

- 5.8 A summary of the pedestrian counts is as follows:
- 5.8.1 The bend actually has the lowest number of pedestrian crossing movements for the six day (415)
 - 5.8.2 The section west of the bend had 662 crossing movements for the six days
 - 5.8.3 The section north of the bend had 455 crossing movements for the six days
- 5.9 There is a diversity of pedestrian desire lines and one single crossing will not support all movements.
- 5.9.1 Highest daily count north of the bend = 254
 - 5.9.2 Highest daily count around the bend = 90
 - 5.9.3 Highest daily count west of the bend = 244

Treatment Options

- 5.10 Consideration has been given to the installation of a Zebra pedestrian crossing and/ or lower speed limit.
- 5.11 Council's Traffic Consultants have reviewed the site and advised that a zebra crossing would be difficult to establish on the bend due to the large pavement area on the oval side, and angle parking. This is also the location that has the fewest pedestrian movements. The consultants have advised against the use of a zebra crossing in this location.
- 5.12 With regard to the application of a lower speed limit, Council does not have authority for the installation of speed limits which must be approved by DPTI. Three alternative speeds limits have been considered (25, 30 or 40 km/h):
- 5.12.1 25km/h speed limits are reserved for school zones and road works and are not appropriate for general speed limits
 - 5.12.2 DPTI has only recently been developing guidelines for localised 30km/h speed limits (refer comments below)
 - 5.12.3 40km/h is an available limit for residential streets (although it should be noted that existing speeds are already less than 40 km/h)
- 5.13 With regard to 30 km/h speed limits, DPTI provided the following advice:
- 5.13.1 30 km/h speed limits are typically used in high pedestrian precincts where pedestrian volumes are very high and retail, dining, entertainment, recreation or tourism facilities generate frequent pedestrian movements across the road at numerous locations along the road. They are best suited to locations where the road has been specifically designed to create a speed environment of 30 km/h and alternative routes are available to drivers to discourage through traffic.

- 5.13.2 Traffic calming devices may be used to create a low speed environment, and pedestrian facilities such as kerb extensions, pedestrian refuges or crossings may be used to improve safety for pedestrians. These may be considered as alternatives to the installation of a speed limit. If vehicle speeds are already low, there may be little additional benefit to installation of a speed limit sign and in some instances a speed limit sign may encourage drivers to increase their already low speed to match the signed value.
- 5.14 The use of a 30 km/h speed limit could, in principle, be considered. However, from initial discussions with DPTI, Council's Traffic Consultants do not believe that Menzies Crescent would fully meet the intent of the guidelines. Further consideration could be given to this lower limit, although the application of a 30 km/h speed limit would not result in any change in actual driver behaviour (noting that 95% of traffic is already travelling at or below 30 km/h).
- 5.15 A 40 km/h speed limit could be considered, although DPTI guidelines typically require these limits to be applied on a precinct wide basis, rather than one street in isolation. As already noted, actual speeds along this section of Menzies are very low and a 40 km/h speed limit would not have any effect on current speeds.
- 5.16 An approach would be to establish a pedestrian precinct/zone where people can cross safely at multiple locations, rather than one formal crossing. This form of treatment is in keeping with "shared street" principles, and relies on creating a distinct road environment that promotes pedestrian priority and encourages lower vehicle speed.
- 5.17 This approach would not result in a formal speed limit or formal pedestrian crossing. Rather the existing street environment would be further enhanced through the use of alternative measures including (as examples):
- 5.17.1 Contrasting pavements including murals/ artwork
 - 5.17.2 Additional landscape elements
 - 5.17.3 Additional kerb extensions to provide focal places to cross the road
 - 5.17.4 Raised road surfaces (long plateau)
- 5.18 The Infrastructure Assets and Environment Department would look at undertaking the designs for this approach internally through its Landscape and Urban Design Team during the 2017/18.
- 5.19 Consultation with all key stakeholders would be undertaken as part of this design approach.
- 5.20 Budget bids would then be submitted for the 2018-2019 financial year to undertake construction.
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ATTACHMENTS

Nil